Thursday, September 5, 2019, 12:00 P.M. to 1:30 P.M.
Old Colony Planning Council, 70 School Street, Brockton, MA 02301

AGENDA

1. Call to Order and Introductions

2. Public Comments

3. Minutes of June 6, 2019 Meeting

4. Communications

5. Reports
   A. Brockton Area Regional Transit Authority (BAT)
   B. Greater Attleboro-Taunton Regional Transit Authority (GATRA)
   C. South Coast Rail (SCR) Project

6. Old Business
   A. FFY 2019-2023 Transportation Improvement Program (TIP) Implementation

7. New Business
   A. Congestion in the Commonwealth Report
   C. Old Colony Congestion Management Process (CMP)
      • Commuter Parking Facility Utilization and Commuter Origins

8. Other Business
   A. Community Local Technical Assistance Studies
   B. Staff Reviews on ENFs, EIRs and NPCs
   C. Regional Concerns and Local Community Transportation Issues

9. Adjournment

The Old Colony MPO fully complies with Title VI of the Civil Rights Act of 1964 and related statutes and regulations in all programs and activities. The Old Colony MPO operates without regard to race, color, or national origin (including limited English proficiency), age, sex, disability, ancestry, ethnicity, gender, gender identity or expression, sexual orientation, religion, creed, veteran’s status, or background. Any person who believes that they or any specific class of persons to be subject to discrimination prohibited by Title VI may by themselves or by a representative file a written complaint with the Old Colony MPO. Complaints are to be filed no later than 180 days from the date of the alleged discrimination. This meeting is accessible to people with disabilities and those with limited English proficiency. Accessibility
accommodations and language services will be provided free of charge, upon request, as available. Please contact Pat Ciaramella at 508-583-1833 Extension 202 for more information.

- If this information is needed in another language, please contact Pat Ciaramella at 508-583-1833 Extension 202.
- Se esta informação é necessária em outro idioma, entre em contato com Pat Ciaramella em 508-583-1833 Ramal 202.
- Si se necesita esta información en otro idioma, por favor póngase en contacto con Pat Ciaramella al 508-583-1833 extensión 202.
- Si yo bezwen enfòmasyon sa a nan lòt lang, tanpri kontakte Pat Ciaramella nan 508-583-1833 Ekstansyon 202.

The public discussion of the Transportation Improvement Program (TIP) at Old Colony JTC, Old Colony MPO, and transportation meetings satisfies the Program of Projects (POP) public hearing requirements of the Federal Transit Administration (FTA).
Summary

Public comments.
September 5, 2019 Old Colony JTC Meeting
Agenda Item 3
Minutes of June 6, 2019 Meeting

Summary

Old Colony JTC to consider approval of June 6, 2019 Old Colony JTC Meeting Minutes.

Attachment(s)
Minutes of June 6, 2019 Old Colony JTC Meeting
1. Call to Order and Introductions

Chairperson Noreen O’Toole called the meeting to order at 12:00 P.M. and then read the Meeting Accessibility Statement and the Title VI Notice of Protection Statement. Those present then introduced themselves. Chairperson O’Toole then asked for a moment of silence in remembrance of D-Day.

2. Public Comments


3. Minutes of the May 2, 2019 Meeting

Chairperson O’Toole asked if the members had reviewed the minutes of the May 2, 2019 Meeting. The members then voted to endorse the minutes of the May 2, 2019 Old Colony JTC Meeting.

4. Communications

Shawn Bailey reviewed the contents of the communications staff report. Included were letters of correspondence, as well as notices of workshops and conferences. They are as follows:

- Letter to Richard Lafond Regarding MassDOT Highway Project 609440 in Abington
OLD COLONY JOINT TRANSPORTATION COMMITTEE (JTC)

- Letter to Mayor Bill Carpenter Regarding MassDOT Highway Division Project 609410 in Brockton
- Letter to Charles Kilmer Regarding a roadway safety audit request in Stoughton
- FEMA Announcement Regarding New Pre-Disaster Hazard Mitigation Program Comment Period and Webinar Series Schedule
- MassDOT Capital Investment Plan (CIP) Public Meeting Schedule
- Commuter Rail Communities Coalition Meeting Announcement
- Announcement for the Northeast Connected & Automated Vehicle (NECAV) Summit
- GATRA Consumer Advisory Committee Meeting Announcement
- 2019 NEPTA Biennial Conference and Transportation Expo Event Announcement
- MassDOT Announcement Regarding the Proposed Workforce Transportation Program
- Meeting Agenda for June Old Colony Metropolitan Planning Organization (MPO) Meeting

5. Reports

A. Brockton Area Regional Transit Authority (BAT)

Glenn Geiler reported on the following BAT activities:
- BAT is wrapping up its 2019 Fiscal Year
- A 30 foot bus for the Bridgewater State University service was delivered yesterday
- Phase 2 of the fare increase goes into effect on July 1, 2019. This is an increase in fare for the Charlie Card and Pass Program
- BAT’s DBE Goal is 2.3% for 2018-2020

B. Greater Attleboro-Taunton Regional Transit Authority (GATRA)

Paul Chenard stated that there is no update at this time.

C. South Coast Rail Project

Paul Chenard reported on the following South Coast Rail activities:
- Phase 1 is fully funded by the MassDOT CIP. Early action construction will consist of drainage culverts being repaired or replaced

6. Old Business

A. FFY 2019-2023 Transportation Improvement Program (TIP) Implementation

Charles Kilmer discussed the project changes in the FFY 2019-2023 TIP. Tim Kochan then provided an update on the following projects:

FFY 2019 Projects:
- EAST BRIDGEWATER – RESURFACING AND SIDEWALK CONSTRUCTION ON BEDFORD STREET (ROUTE 18), FROM WHITMAN STREET (ROUTE 106) TO CENTRAL STREET (607941)
7. New Business

A. Recycling and Solid Waste

John Hite, Zero Waste Policy Analyst, Conservation Law Foundation (CLF)

John Hite provided a presentation on Recycling and Solid Waste. A good recycling system provided:
- Easy and comprehensive recycling for goods and products entering our homes and businesses
- Clarity between municipalities, haulers and Material Recycling Facilities re: what is recyclable
- Clean and sorted material that can be used to its highest and best use – not downcycled
- A reliable funding structure

How we get there:
- Widespread collection programs for recycling and composting
- Legally mandated recycling goals
- Financial incentives to encourage recycling, such as bottle deposits
- Funding for infrastructure and programs, both through government funding and producer responsibility

Producer Responsibility (EPR) extends the involvement of a producer to the post-consumer stage of a product’s life-cycle, making the producer responsible for the actual management or funding of end-of-life care.

Producer Responsibility for Packaging and Printed Paper:
- Covers materials in recycling bin
- Includes funding for resident education
- Excludes bottle bill containers

Benefits of Producer Responsibility for Packaging:
- Shifts costs from municipalities to producers and consumers
- Sets recycling targets
- Incentivizes efficiency throughout recycling system
- Encourages standardized list of accepted materials across the Commonwealth
- Fee schedule drives eco-design in products
- Provides cleaner, reliable recycle content

What it means for municipalities:
- Trash and trash reduction are still municipal responsibility
OLD COLONY JOINT TRANSPORTATION COMMITTEE (JTC)

- Report recycling data to Sustainable Packaging Board (SPB)
- Communicate with hauler and SPB re: education
- Receive reimbursement from SPB for recycling costs

Don Howard stated that we should go back to using glass bottles. Much easier to recycle.

B. Report of Nominating Committee and Election of Old Colony JTC Officers (2019-2020)

Dan Salvucci stated that the Nominating Committee has elected Noreen O’Toole as Chairperson, and Dan Salvucci as Vice Chairperson. Chairperson O’Toole asked if there is a motion to approve this election. A motion was made and was seconded.

The Old Colony JTC voted unanimously to elect Noreen O’Toole as Chairperson, and Dan Salvucci as Vice Chairperson for the Old Colony JTC.

C. Draft Old Colony Joint Transportation Committee (JTC) By-Laws

Charles Kilmer stated that the process of updating the Old Colony JTC By-laws is underway, and that a draft version of the Old Colony JTC By-laws, dated May 1, 2019, was provided to the Old Colony JTC on May 2, 2019 for review and comment. Charles Kilmer report that no revisions were requested and that there have been no changes made to the May 1, 2019 version.

Chairperson O’Toole asked if there is a motion to approve the Draft Old Colony JTC By-laws. A motion was made and was seconded.

The Old Colony JTC voted unanimously to approve the Draft Old Colony JTC By-laws.

D. 2020-2040 Old Colony Long Range Transportation Plan (LRTP)

- Update and Preferred Set of Project

Bill McNulty provided an update and discussed the preferred set of projects. Regional discretionary funding is allocated to MPOs on a federal fiscal year basis. The LRTP will allocate regional discretionary funding into the following categories:
  - Reconstruction, resurfacing, and rehabilitation, of federal-Aid eligible roadways
  - Intersection Safety and Improvements
  - Traffic Flow and Mobility Improvements
  - Infrastructure (Signage, Guardrails, etc.) Improvements
  - Transportation Alternatives Program (Bicycle and Pedestrian)

The Old Colony Planning Council is also working with the Brockton Area Transit Authority to determine fleet replacement needs for a system wide state of good repair through 2040. Vehicle procurement needs through 2024 have been identified and programmed. South Coast Rail expansion is also included in the LRTP. Funding has been identified for Phase 1, while cost estimate and funding sources still need to be identified for Phase 2.
The Draft Old Colony LRTP is anticipated to be released the week of June 17, 2019.

8. Other Business and Public Comment

A. Community Local Technical Assistance Studies

Bill McNulty reported on the following Community Local Technical Assistance Studies:

- **Avon**
  - Road Safety Audit for Central Street Corridor - Data analysis in progress. Road Safety Audit to be scheduled

- **Brockton**
  - Road Safety Audit for North Main Street at Oak Street and Howard Street - Final Report in development
  - Road Safety Audit for Montello Street (Route 28) at East Nilsson Street - Data collection and analysis in progress and Road Safety Audit to be scheduled
  - Centre Street (Route 123) at Plymouth Street Data Collection - Data collection in progress

- **Hanover**
  - Traffic Study for Winter Street - Analysis and report development underway

- **Hanson**
  - Route 58 Road Safety Audit - Data collection to be scheduled

- **Pembroke**
  - Pembroke Center Traffic Study - Data collected; Analysis and report preparation underway
  - Curve Street Traffic Study - Data collection scheduled Summer 2019

- **Stoughton**
  - Road Safety Audit for Park Street (Route 27) at Turnpike Street and Turnpike Street at Campanelli Parkway - Data collection to be scheduled
  - Heavy Commercial Vehicle Exclusion Study for State Street and Peters Drive - Report in development

- **West Bridgewater**
  - North Main Street (Route 28) at Matfield Street Road Safety Audit - Data collection and analysis in progress. Road Safety Audit to be scheduled

B. Staff Reviews on ENFs, EIRs, and NPCs

Charles Kilmer summarized the Environmental Notification Forms (ENFs), Environmental Impact Reports (EIRs), Notices of Project Changes (NPCs), and Certificates for projects within the OCPC region.
that are undergoing Massachusetts Environmental Policy Act (MEPA) Office review.

Projects Currently Under Review as of May 22, 2019

**EEA #16032 - Hanover Crossing (Hanover) (ENF)**
The proposed project entails the removal of the majority of the existing enclosed mall and the construction of a new mixed-use lifestyle center consisting of approximately 506,035 s.f. of retail, and approximately 92,500 s.f. grocery store, and a 297 unit apartment complex with total parking of 3,700 spaces.

**EEA #16023 - Sylvia Place Pond Dam Breach (Kingston) (ENF)**
The project consists of breaching the existing dam and abandoning the existing fish ladder. The restoration approach stemmed from the need to rehabilitate the deteriorating fish ladder and eroding earth embankment dam in accordance with the DCR ODS.

**MEPA Certificates**

**EEA #11924 - The Oasis at Plymouth (Plymouth) (NPC)**
In September 2014, the Secretary’s certificate accounted for a notice of Project change (NPC) to include a 396,000 s.f. (gross building area) of destination retail for a factory outlet mall. The certificate also includes the construction of an on-site multi-story parking garage and infrastructure supporting approximately 1,995 parking spaces.

C. Regional Concerns and Local Community Transportation Issues

Pat Ciaramella stated that there had been many accidents at the intersection of Route 106 and Washington Street in East Bridgewater. The intersection has been reconfigured and it seems to be working good so far. Pat Ciaramella also thanked MassDOT for the start of work on Route 14 and Route 18 in Whitman.

9. Adjournment

The meeting adjourned at 1:11 PM.
Respectfully submitted,

Kyle Mowatt
Kyle Mowatt, Transportation Planner

List of Documents for June 6, 2019 Old Colony JTC Meeting

1. Minutes of the May 2, 2019 Old Colony JTC Meeting
2. Staff Report for June 6, 2019, Old Colony JTC Meeting Agenda Items
3. Presentation - A Waste System that Works
4. MassDOT Look! Share the Road Safety Brochure
September 5, 2019 Old Colony JTC Meeting
Agenda Item 4
Communications

Summary

The communications staff report typically includes letters of correspondence, notices of courses, meetings, and workshops. Please refer to the attachments and the items listed below for more information.

Attachment(s)
1) MassDOT Announcement Regarding Public Information Meeting for South Coast Rail Project
2) Baystate Roads Course Listing – Achieving Accessibility in Your Community
Join MassDOT/MBTA and the City of New Bedford at a Public Information Meeting on the South Coast Rail Project

Tuesday, September 17, 2019, at 6:00 PM
Keith Middle School Auditorium
225 Hathaway Blvd., New Bedford, MA

You are invited to join the Massachusetts Department of Transportation (MassDOT), the Massachusetts Bay Transit Authority (MBTA), and the City of New Bedford for a Public Information Meeting on the South Coast Rail Project. The South Coast Rail project team will present a project update, benefits, and the new location for North New Bedford Station. The City will discuss its planning program around the station areas.

For more information about South Coast Rail, visit the website:

www.mass.gov/SouthCoastRail

Please contact the project team with any questions at SouthCoastRail@dot.state.ma.us

This location is accessible to people with disabilities. MassDOT provides reasonable accommodations and/or language assistance free of charge upon request (including but not limited to interpreters in American Sign Language and languages other than English, open or closed captioning for videos, assistive listening devices and alternate material formats, such as audio tapes, Braille and large print) as available. For accommodation or language assistance, please contact Emily Christin by email (echristin@eginaville.com) or phone (617) 357-5772 x16. Requests should be made as soon as possible prior to the meeting. For more difficult to arrange services including sign language, CART or language translation or interpretation, requests should be made by September 6.
Achieving Accessibility In Your Community

Course Description
Planning by communities to develop effective Americans with Disabilities Act (ADA) transition plans requires team effort, strategic approaches in thinking and resource use, and a will for sustained implementation. This workshop will demystify the challenge of building a program of access for people with disabilities, and provide critical resources to support municipal compliance activities through a federal and state focus on the public right-of-way.

The following topic areas will be covered during the workshop:
The structure of state and federal disability access oversight
Current issues and trends in the enforcement of ADA and related state law
Key disability nondiscrimination principles that apply to cities and towns
The public participation mandate
The outline of transition plans and procedural requirements
Effective self evaluation and data collection strategies
Methods for prioritizing remediation and altering existing facilities
Budgeting for transition planning
Technical and policy considerations across curb ramps, sidewalks, accessible pedestrian signals, determination of maximum extent feasible, and more
Adoptable resources and funding opportunities

Credit Hours

1.0
Road Scholar Credits

0.6
Continuing Education Credits (CEUs)

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September 5, 2019 Old Colony JTC Meeting
Agenda Item 5A
Brockton Area Transit Authority (BAT)

Summary

Brockton Area Transit to provide report.

Attachment(s)
None
September 5, 2019 Old Colony JTC Meeting
Agenda Item 5B
Greater Attleboro-Taunton Regional Transit Authority (GATRA)

Summary

Greater Attleboro-Taunton Regional Transit Authority to provide report.

Attachment(s)
None
September 5, 2019 Old Colony JTC Meeting
Agenda Item 5C
South Coast Rail Project (SCR)

Summary

The South Coast Rail project will restore commuter rail service between Boston and the Massachusetts South Coast. Since service to this region ended in 1959, Taunton, Fall River and New Bedford are the only major cities within 50 miles of Boston lacking transit access to the City and other communities.

The MassDOT, the MBTA and the Program Management/Construction Management (PM/CM) team are continuing the development of environmental permitting and design for South Coast Rail. In September 2016, the team hosted six public meetings on the current design status of the Stoughton Electric route and presented a possible new Middleborough Option.

During March 2017, MassDOT filed a SCR Notice of Project Change (NPC) to adopt a phased approach to provide early service, years before revenue service is currently considered to be possible. Phase 1 will provide service from New Bedford, Fall River and Taunton to Boston by building the Southern Triangle, and using the Middleborough Secondary line and the existing Middleborough/ Lakeville Commuter Rail line. For Phase 2, MassDOT will continue to advance the full Stoughton Electric Alternative design.

In late May 2017, Secretary Matthew Beaton of the Executive Office of Energy and Environmental Affairs (EOEEA) issued a Certificate on the Notice of Project Change. The Certificate on the NPC required the preparation of a Draft Supplemental Environmental Impact Report (DSEIR). It has been announced the project has received required final federal permits from the Army Corp of Engineers and the finance plan is complete. Additionally, other permitting milestones met this year include Chapter 91 licenses, MassDEP 401 Permit and Mass Coastal Zone Management Consistency Review. South Coast Rail will be fully funded in the Commonwealth’s Capital Investment Plan (CIP) and is expected to start service late in 2023 according to reviews done by three independent reviewers. Early action construction continues with the repair or replacement on drainage culverts, work on bridges, and tracks along the rail line with the aim of being completed before winter. There is a new project/construction management team being headed by Ms. Jennifer Tabakin of the MBTA and AECOM. Engineering firms VHB/HNTB are in the process of completing plans and spec for 2020 construction advertisement. Last month project manager Jean Fox made a presentation to the Council on South Coast Rail project status.

Attachment(s)
South Coast Rail - Phase 1 Update
South Coast Rail - Phase 1 Update
Old Colony Planning Council

August 28, 2019
SCR Phase 1 is Underway!
Overview

South Coast Rail has reached two critical milestones

• Phase 1 Construction and 30% design/permitting of the Full Build are fully funded in FY20-FY24 Capital Investment Plan

• Federal and state permitting is largely complete

Key early actions are on track

• Special Track work, culverts and 4-bridges

• Acquisition of land for stations and layovers is well underway

• Project management is transitioning from MassDOT to MBTA
Status/Program Management

• Phase 1 program management/oversight in transition
  – Jennifer Tabakin is the MBTA Program Manager
  – AECOM leads the new PM/CM team
  – Program is returning to the MBTA with the hiring of MBTA Program Manager and award of AECOM contract
  – VHB/HNTB final design team completing plans and specs for early calendar 2020 construction advertisement

• Highway Division and Rail Group will continue to manage early action projects

• Highway Division will program and coordinate Route 24/Route 140 (Taunton Interchange Improvements) in conjunction with the work required to replace Route 24 Bridge over MassDOT tracks
Economic Impact: Current Contract Values

- Early Action Projects
  - Special Trackwork - $9.9M
  - Culverts - $18.4M
  - 4 Bridges - $26.1M
  - Total - $54.4M
- Phase 1 Construction:
  $600 M in projects to be put out to bid in FY 2020
Permitting Milestones – Ready for Construction

Phase 1 federal and state permits completed:

- Chapter 91 License - issued January 31, 2019
- MassDEP 401 Permit completed - issued March 22, 2019
- Mass. Coastal Zone Management Consistency Review - issued March 26, 2019
- ACOE Section 404 permit - issued April 2, 2019

Pending permits:

- Notice of Intent for North New Bedford Station filed in June 2019
- Notice of Intent for Off-site Traffic Mitigation filing(s) – To be determined
Early Action Projects Underway

• Special track work
  – Reviewing shop drawings for approval; first delivery scheduled for October 2019

• Early Action Culverts
  – Fifteen culverts have been replaced
  – Project scheduled to finish this winter
  – Weekly advance notice to communities

• Early Action 4 Bridges
  – Started construction of Cotley Bridges; scheduled to complete in summer 2020 ahead of main line construction
Other Program Activities

• Development of Finance Plan and Phase 1 O&M Cost
• Advancing a portion of Northern Corridor 30% Design
• Development of MBTA Commuter Rail Station Design Standards
• Ongoing meetings with communities
• Developing scopes for Force Account Agreements with:
  – Utility Companies
  – Mass Coastal Railroad
  – Keolis Commuter Services
  – Amtrak
• Discussing Technical Assistance with Phase 1 communities
• Off-site Mitigation design is underway (permit applications have been filed with MassDOT)
OCPC Communities and Construction

• Construction access is via grade crossing locations and future station site driveways that generate limited traffic impacts to the communities
• Several hundred construction labor jobs within the region over 4 years
OCPC Communities: New Connections

• Probable additional trains during peak travel times, 3-Fall River, 3-New Bedford, for a total of 6, 1 more than present schedule, a benefit for the Middleborough-Lakeville communities served by OCPC
• The completed system will support a reverse commute for OCPC residents who wish to travel to New Bedford or Fall River
• Access to more educational options in the region
• Economic development potential for all communities
# Phase 1 Schedule

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- **Start of Revenue Service**: Sept. 2023

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Old Colony Planning Council  
August 28, 2019
This schedule graphic needs to be updated. Start of revenue service is 11/2023 and construction start should be Q3.

Caputo, Kenneth, 8/22/2019
How to Follow SCR

• Visit the project website: www.mass.gov/south-coast-rail
• Sign up for project updates and construction advisories
• Send us comments at SouthCoastRail@dot.state.ma.us
Summary

The Transportation Improvement Program is a five-year program of capital improvements and operating assistance for the transportation system. Projects programmed in Year 1 must be ready for implementation within that year. Therefore, design, engineering, proper permits, approvals and so on must be complete or near completion.

FFY 2019 PROJECTS:

- ABINGTON/ BROCKTON - NORTH QUINCY STREET, CHESTNUT STREET, AND BOUNDARY AVENUE ROUNDABOUT AND GEOMETRIC IMPROVEMENTS (608143)
  - Project advertised for construction bids on 08/31/2019.
  - Design Public Hearing held 01/30/2018.
  - Cost Estimate is $2,121,017.

- EAST BRIDGEWATER - RESURFACING AND SIDEWALK CONSTRUCTION ON BEDFORD STREET (ROUTE 18), FROM WHITMAN STREET (ROUTE 106) TO CENTRAL STREET (607941)
  - Project advertised for construction bids on 08/24/2019.
  - Design Public Hearing held April 4, 2018.
  - Cost Estimate is $9,023,732.

FFY 2020 PROJECTS:

- AVON - INTERSECTION IMPROVEMENTS AT HARRISON BOULEVARD AND POND STREET (608086)
  - MassDOT comments on the 75% Package have been returned to the Design Engineer (as of 08/23/2019).
  - Design Public Hearing held February 25, 2019.
  - Cost Estimate is $3,888,000.

- BROCKTON - CORRIDOR IMPROVEMENTS ON ROUTE 123 (BELMONT STREET), FROM ANGUS BEATON DRIVE TO WEST STREET (608088)
  - MassDOT comments on the 75% Package have been returned to the Design Engineer (as of 04/12/2019).
  - Design Public Hearing held April 25, 2018.
  - Cost Estimate is $6,219,537.

- BROCKTON - INTERSECTION IMPROVEMENTS @ CRESCENT STREET (ROUTE 27)/ QUINCY STREET/ MASSASOIT BOULEVARD (606143)
  - 25% Package has been received by MassDOT (as of 05/04/2015).
  - Cost Estimate is $3,966,289.
**FFY 2021 PROJECTS:**

- **EASTON - ROUTE 123 (DEPOT STREET) RECONSTRUCTION FROM NEWELL CIRCLE TO ROUTE 138 (607217)**
  - MassDOT comments on the 75% Package have been returned to the Design Engineer (as of 06/21/2019).
  - Design Public Hearing Held 06/12/2018.
  - Cost Estimate is $7,890,479.

- **KINGSTON - BRIDGE REPLACEMENT, K-01-014, SMITHS LANE OVER ROUTE 3 (PILGRIM HIGHWAY) (608615)**
  - Project is in the preliminary design phase.
  - Cost Estimate is $12,788,000.

- **STOUGHTON - IMPROVEMENTS AT RICHARD WILKINS ELEMENTARY SCHOOL (SRTS) (608829)**
  - 75% Package have been received by MassDOT (as of 06/26/2019).
  - Cost Estimate is $2,226,600.

**FFY 2022 PROJECTS:**

- **BRIDGEWATER - BROCKTON - PAVEMENT PRESERVATION AND RELATED WORK ON ROUTE 24 (608820)**
  - 75% Package have been received by MassDOT (as of 08/26/2019).
  - Cost Estimate is $9,674,112.

- **STOUGHTON - CORRIDOR IMPROVEMENTS ON ROUTE 138 (607403)**
  - MassDOT comments on the 25% Package have been returned to the Design Engineer (as of 04/01/2018).
  - Cost Estimate is $5,040,000.

- **STOUGHTON - INTERSECTION IMPROVEMENTS AND RELATED WORK AT CENTRAL STREET, CANTON STREET AND TOSCA DRIVE (608279)**
  - MassDOT comments on the 25% Package have been returned to the Design Engineer (as of 11/08/2018).
  - Cost Estimate is $3,360,000.

**FFY 2023 PROJECTS:**

- **AVON - STOUGHTON - PAVEMENT PRESERVATION AND RELATED WORK ON ROUTE 24 (608496)**
  - Project is in the preliminary design phase.
  - Cost Estimate is $7,227,264.

- **BROCKTON - ROUTE 123 (CENTRE STREET) AT PLYMOUTH STREET SIGNALIZATION AND GEOMETRIC IMPROVEMENTS (609052)**
  - Project is in the preliminary design phase.
  - Cost Estimate is $1,740,000.
PEMBROKE - REHABILITATION OF ROUTE 36 (CENTER STREET) FROM ROUTE 27 TO ROUTE 14 (600380)

- MassDOT comments on the 100% Package have been returned to the Design Engineer (as of 07/25/2019).
- Cost Estimate is $8,039,445.
Summary

In the summer of 2018, Governor Baker signed HB4833, which included language that directed MassDOT to conduct a study of vehicular congestion on Massachusetts roadways. Specifically, the mandate calls for MassDOT to “design and execute a study that provides a detailed analysis of practical pathways by which the Commonwealth could reduce motor vehicle congestion and make appropriate recommendations for further study or pilot programs, if warranted.” This report was released on August 8, 2019, and it describes the occurrence, severity, and causes of vehicular congestion in Massachusetts.

The analysis takes a layered and mixed-methods approach to identify and investigate where, when, and why congestion occurs in Massachusetts. This report relies on several different sources of information to be as thorough as possible and to reflect all of the different ways to understand and describe congestion and its sources.

The report is available for download at:
Summary

The Old Colony Planning Council is actively involved in traffic data collection. This data is used by planners and engineers to study existing road and highway conditions in order to forecast future increases in traffic and identify areas in need of improvement. In addition to monitoring key corridors and intersections within the region, OCPC responds to requests for traffic counts from the state, city and town officials. From these data collection activities, OCPC produces the Annual Traffic Volume Report, containing data for a period of 30 years. This year’s report being from 1988-2018.

The information included in the volumes report is as follows: Average Daily Traffic (ADT), AM/PM Peak Hour Volume, Speed, and Heavy Vehicle %.

Also included in the Volumes Report is the Traffic Growth Rate for State Numbered Routes. This covers a time span of 4-5 years and shows the Total Growth Percentage at a specific counting location.

The Old Colony Traffic Volumes Report was released in April, 2019, and is now available on the Old Colony Planning Council website.

Attachment(s)

State Numbered Route Traffic Growth Rate
## State Numbered Route Traffic Growth Rate

<table>
<thead>
<tr>
<th>ROUTE</th>
<th>COMMUNITY</th>
<th>STREET</th>
<th>LOCATION</th>
<th>HISTORIC YEAR</th>
<th>AADT</th>
<th>LATEST YEAR</th>
<th>AADT</th>
<th>TOTAL % GROWTH</th>
<th>ANNUAL % GROWTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Duisbury</td>
<td>PILGRIM HWY (RT 3)</td>
<td>N OF TREMONT ST (RT 3A)</td>
<td>2014</td>
<td>56,238</td>
<td>2018</td>
<td>62,403</td>
<td>11.0%</td>
<td>2.6%</td>
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<tr>
<td>3</td>
<td>Hingham</td>
<td>PILGRIM HWY (RT 3)</td>
<td>S OF DERBY ST</td>
<td>2014</td>
<td>92,478</td>
<td>2018</td>
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<td>0.7%</td>
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<tr>
<td>3</td>
<td>Kingston</td>
<td>PILGRIM HWY (RT 3)</td>
<td>AT PLYMOUTH T/L</td>
<td>2014</td>
<td>72,390</td>
<td>2018</td>
<td>76,369</td>
<td>5.5%</td>
<td>1.3%</td>
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<tr>
<td>3</td>
<td>Norwell</td>
<td>PILGRIM HWY (RT 3)</td>
<td>N OF SMITHS LN</td>
<td>2014</td>
<td>63,341</td>
<td>2018</td>
<td>70,306</td>
<td>11.0%</td>
<td>2.4%</td>
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<tr>
<td>3</td>
<td>Pembroke</td>
<td>PILGRIM HWY (RT 3)</td>
<td>S OF RIVER ST</td>
<td>2014</td>
<td>70,137</td>
<td>2018</td>
<td>74,315</td>
<td>6.0%</td>
<td>1.5%</td>
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<tr>
<td>3</td>
<td>Plymouth</td>
<td>PILGRIM HWY (RT 3)</td>
<td>AT MARSHFIELD T/L</td>
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<td>54,225</td>
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<td>3</td>
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<td>AT BOURNE T/L</td>
<td>2014</td>
<td>36,618</td>
<td>2018</td>
<td>38,361</td>
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<td>1.2%</td>
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<td>3</td>
<td>Plymouth</td>
<td>PILGRIM HWY (RT 3)</td>
<td>N OF CLARK RD</td>
<td>2014</td>
<td>55,963</td>
<td>2018</td>
<td>62,099</td>
<td>11.0%</td>
<td>2.6%</td>
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<tr>
<td>3</td>
<td>Plymouth</td>
<td>PILGRIM HWY (RT 3)</td>
<td>S OF LONG POND RD</td>
<td>2014</td>
<td>56,087</td>
<td>2018</td>
<td>62,235</td>
<td>11.0%</td>
<td>2.6%</td>
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<tr>
<td>3</td>
<td>Plymouth</td>
<td>PILGRIM HWY (RT 3)</td>
<td>S OF SAMSOE ST (RT 4A)</td>
<td>2014</td>
<td>58,508</td>
<td>2018</td>
<td>61,327</td>
<td>9.0%</td>
<td>8.6%</td>
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<tr>
<td>3</td>
<td>Weymouth</td>
<td>PILGRIM HWY (RT 3)</td>
<td>N OF MAIN ST (RT 18)</td>
<td>2014</td>
<td>132,623</td>
<td>2018</td>
<td>133,238</td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2014</td>
<td>68,057</td>
<td>2018</td>
<td>74,161</td>
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</tbody>
</table>

| 3A    | Kingston  | SUMMER ST (RT 3A) | S OF BREWSTER RD | 2014 | 12,505 | 2018 | 13,858 | 10.8% | 2.6% |
| 3A    | Kingston  | TREMONT ST (RT 3A) | W OF WOODRIDGE RD | 2013 | 11,200 | 2018 | 12,826 | 14.5% | 2.7% |
| 3A    | Plymouth  | COURT ST (RT 3A) | AT KINGSTON T/L | 2014 | 11,163 | 2018 | 12,711 | 13.9% | 3.3% |
| 3A    | Plymouth  | COURT ST (RT 3A) | S OF SAMSOE ST (RT 4A) | 2014 | 12,212 | 2018 | 12,442 | 1.9% | 0.5% |
|       |           |        |          | 2014 | 11,770 | 2018 | 12,959 | 10.1% | 2.29% |
| 14    | Brockton  | W CROOK ST (RT 14) | AT WHITMAN T/L | 2006 | 9,700 | 2018 | 11,045 | 13.9% | 1.1% |
| 14    | Hanson    | MAQUAN ST (RT 14) | AT PEMBROKE T/L | 2014 | 5,317 | 2018 | 3,801 | -28.5% | -8.0% |
| 14    | Pembroke  | BARKER ST (RT 14) | W OF WASHINGTON ST (RT 14/53) | 2005 | 14,233 | 2018 | 15,655 | 10.0% | 0.7% |
| 14    | Pembroke  | CONGRESS ST (RT 14) | AT DUXBURY T/L | 2004 | 2,200 | 2018 | 2,505 | 13.9% | 0.9% |
|       |           |        |          | 2007 | 7,863 | 2018 | 8,252 | 4.9% | 0.45% |

| 18    | Abington  | BEDFORD ST (RT 18) | N OF BROCKTON AVE (RT 123) | 2014 | 22,871 | 2018 | 24,732 | 8.1% | 2.0% |
| 18/28 | Bridgewater | BEDFORD ST (RT 18/28) | N OF COTTAGE ST | 2014 | 18,832 | 2018 | 19,580 | -27.9% | -7.8% |
| 18    | E Bridgewater | BEDFORD ST (RT 18) | AT BROOKWAY T/L | 2014 | 15,059 | 2018 | 14,394 | -4.4% | -1.1% |
| 18    | E Bridgewater | BEDFORD ST (RT 18) | AT WHITMAN T/L | 2014 | 20,320 | 2018 | 17,041 | -16.1% | -4.3% |
| 18/106| E Bridgewater | BEDFORD ST (RT 18/106) | N OF WEST ST (RT 106) | 2014 | 19,551 | 2018 | 22,785 | 16.5% | 3.9% |
| 18    | Whitman  | BEDFORD ST (RT 18) | AT ABINGTON T/L | 2014 | 19,498 | 2018 | 16,935 | -8.6% | 2.8% |
|       |           |        |          | 2014 | 18,855 | 2018 | 18,244 | -3.2% | -0.82% |

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Old Colony Traffic Volumes Report, April 2019  
Old Colony Planning Council  
Section IV-1
<table>
<thead>
<tr>
<th>ROUTE</th>
<th>COMMUNITY</th>
<th>STREET</th>
<th>LOCATION</th>
<th>HISTORIC YEAR</th>
<th>AADT</th>
<th>LATEST YEAR</th>
<th>AADT</th>
<th>TOTAL % GROWTH</th>
<th>ANNUAL % GROWTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>AVON</td>
<td>AMVETS MEM HWY (RT 24)</td>
<td>S OF NEW POND ST</td>
<td>2014</td>
<td>103,430</td>
<td>2018</td>
<td>122,864</td>
<td>18.9%</td>
<td>4.4%</td>
</tr>
<tr>
<td>24</td>
<td>BROOKTON</td>
<td>AMVETS MEM HWY (RT 24)</td>
<td>AT W BRIDGEWATER T/L</td>
<td>2014</td>
<td>94,438</td>
<td>2018</td>
<td>103,885</td>
<td>10.0%</td>
<td>2.4%</td>
</tr>
<tr>
<td>24</td>
<td>BROOKTON</td>
<td>AMVETS MEM HWY (RT 24)</td>
<td>N OF BELMONT ST (RT 123)</td>
<td>2014</td>
<td>102,774</td>
<td>2018</td>
<td>112,606</td>
<td>9.6%</td>
<td>2.3%</td>
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<tr>
<td>24</td>
<td>STOUGHTON</td>
<td>AMVETS MEM HWY (RT 24)</td>
<td>S OF UNELOF AVE (RT 139)</td>
<td>2014</td>
<td>115,754</td>
<td>2018</td>
<td>129,296</td>
<td>11.7%</td>
<td>2.8%</td>
</tr>
<tr>
<td>24</td>
<td>W BRIDGEWATER</td>
<td>AMVETS MEM HWY (RT 24)</td>
<td>AT BRIDGEWATER T/L</td>
<td>2014</td>
<td>92,792</td>
<td>2018</td>
<td>102,400</td>
<td>10.4%</td>
<td>2.5%</td>
</tr>
</tbody>
</table>

| 2014 | 101,850 | 2018 | 112,239 | 12.2% | 2.9% |

| 27    | BROOKTON  | PLEASANT ST (RT 27) | W OF N ASH ST | 2014 | 23,406 | 2018 | 26,775 | 14.4% | 3.4% |
| 27    | BROOKTON  | REYNOLDS MEM HWY (RT 27) | W OF AMVETS MEM HWY (RT 24) | 2014 | 24,939 | 2018 | 26,644 | 8.0%  | 2.0% |
| 27    | E BRIDGEWATER | FRANKLIN ST (RT 27) | AT WHITMAN T/L | 2014 | 4,872 | 2018 | 4,746 | -2.6% | -0.7% |
| 27    | HANSON    | MAIN ST (RT 27) | W OF PHILLIPS ST | 2014 | 12,478 | 2018 | 12,176 | -2.4% | -0.6% |
| 27    | PEMBROKE  | SCHOOL ST (RT 27) | AT KINGSTON T/L | 2014 | 6,306 | 2018 | 6,028 | -4.7% | -1.2% |
| 27    | STOUGHTON | PARK ST (RT 27) | S OF STOUGHTON SQ (RTS 27/138) | 2014 | 15,683 | 2018 | 16,466 | 5.0%  | 1.2% |
| 27    | STOUGHTON | SHARON ST (RT 27) | AT SHARON T/L | 2014 | 18,265 | 2018 | 18,616 | 1.9%  | 0.5% |
| 27    | WHITMAN   | FRANKLIN ST (RT 27) | S OF WINTER ST | 2014 | 7,528 | 2018 | 5,796 | -23.0% | -6.3% |
| 27    | WHITMAN   | TEMPLE ST (RT 27) | AT BROOKTON C/L | 2014 | 7,466 | 2018 | 7,382 | -1.1% | 0.4% |
| 27    | WHITMAN   | TEMPLE ST (RT 27) | E OF BEDFORD ST (RT 18) | 2014 | 12,254 | 2018 | 13,023 | 15.7% | 3.7% |

| 2014 | 13,220 | 2018 | 13,813 | 4.5%  | 1.0% |

| 28    | AVON      | N MAIN ST (RT 28) | AT RANDOLPH T/L | 2014 | 18,154 | 2018 | 19,639 | 8.2%  | 2.0% |
| 28    | AVON      | E MAIN ST (RT 28) | S OF E SPRING ST | 2014 | 19,183 | 2018 | 18,115 | -5.0% | -1.3% |
| 28    | BRIDGEWATER | MAIN ST (RT 28) | AT W BRIDGEWATER T/L | 2014 | 12,808 | 2018 | 15,743 | 22.8% | 5.3% |
| 28    | BROOKTON  | MONTELLO ST (RT 28) | N OF CENTRE ST (RT 123) | 2014 | 13,151 | 2018 | 13,487 | 2.5%  | 1.4% |
| 28    | BROOKTON  | MONTELLO ST (RT 28) | S OF CENTRE ST (RT 123) | 2014 | 13,454 | 2018 | 10,622 | -25.5% | -7.1% |
| 28    | W BRIDGEWATER | MAIN ST (RT 28) | N OF COPeland ST | 2014 | 11,271 | 2018 | 9,350 | -17.9% | -4.8% |

| 2014 | 14,670 | 2018 | 14,461 | -1.4% | -0.36% |

| 37    | BROOKTON  | HOWARD ST (RT 37) | AT HOLBROOK T/L | 2014 | 6,664 | 2018 | 6,600 | -1.0% | -0.2% |

| 2014 | 6,664 | 2018 | 6,600 | -1.0% | -0.24% |

| 44    | LAKEVILLE | HARDING ST (RT 44) | AT TAUNTON C/L | 2015 | 26,861 | 2018 | 27,694 | 3.2%  | 1.3% |
| 44    | RAYNAM   | ROUTE 44 | AT TAUNTON C/L | 2016 | 20,205 | 2018 | 21,114 | 5.0%  | 1.2% |

| 2015 | 23,533 | 2018 | 24,554 | 4.3%  | 1.22% |

Old Colony Traffic Volumes Report, April 2019  
Old Colony Planning Council  
Section IV-2
## State Numbered Route Traffic Growth Rate

<table>
<thead>
<tr>
<th>ROUTE</th>
<th>COMMUNITY</th>
<th>STREET</th>
<th>LOCATION</th>
<th>HISTORIC YEAR</th>
<th>AADT</th>
<th>LATEST YEAR</th>
<th>AADT</th>
<th>TOTAL % GROWTH</th>
<th>ANNUAL % GROWTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>53</td>
<td>KINGSTON</td>
<td>SUMMER ST (RT 53)</td>
<td>AT DUXBURY T/L</td>
<td>2016</td>
<td>9,862</td>
<td>2018</td>
<td>10,060</td>
<td>2.0%</td>
<td>1.0%</td>
</tr>
<tr>
<td>53/119</td>
<td>PENROE</td>
<td>COLUMBIA RD (RT 53/119)</td>
<td>AT HANOVER T/L</td>
<td>2014</td>
<td>24,241</td>
<td>2018</td>
<td>23,518</td>
<td>-3.0%</td>
<td>-0.8%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2015</td>
<td>17,052</td>
<td>2018</td>
<td>16,789</td>
<td>-1.5%</td>
<td>-0.52%</td>
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<tr>
<td>58</td>
<td>ABINGTO</td>
<td>ADAMS ST (RT 58)</td>
<td>AT WEYMOUTH T/L</td>
<td>2009</td>
<td>10,093</td>
<td>2018</td>
<td>10,437</td>
<td>3.4%</td>
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<tr>
<td>58</td>
<td>ABINGTON</td>
<td>PLYMOUTH ST (RT 58)</td>
<td>AT WHITMAN T/L</td>
<td>2009</td>
<td>14,067</td>
<td>2018</td>
<td>12,443</td>
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<tr>
<td>58</td>
<td>HALIFAX</td>
<td>MONPONSETT ST (RT 58)</td>
<td>AT PLYMOUTH T/L</td>
<td>2009</td>
<td>5,581</td>
<td>2018</td>
<td>6,035</td>
<td>8.1%</td>
<td>0.9%</td>
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<tr>
<td>58</td>
<td>HANSON</td>
<td>MONPONSETT ST (RT 58)</td>
<td>AT HALIFAX T/L</td>
<td>2009</td>
<td>9,004</td>
<td>2018</td>
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<tr>
<td>58</td>
<td>PLYMOUTH</td>
<td>MAIN ST (RT 58)</td>
<td>AT CARVER T/L</td>
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<td>8,324</td>
<td>2018</td>
<td>8,563</td>
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<tr>
<td>58</td>
<td>WHITMAN</td>
<td>PLYMOUTH ST (RT 58)</td>
<td>AT HANSON T/L</td>
<td>2008</td>
<td>8,029</td>
<td>2018</td>
<td>8,748</td>
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<tr>
<td></td>
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<td></td>
<td></td>
<td>2010</td>
<td>9,173</td>
<td>2018</td>
<td>9,664</td>
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<tr>
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<td>KINGS10</td>
<td>BROOK ST (RT 80)</td>
<td>W OF MAIN ST (RT 8A)</td>
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<td>ELM ST (RT 80)</td>
<td>BROOK ST (RT 80)</td>
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<td>2013</td>
<td>4,611</td>
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<td>5,122</td>
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<tr>
<td>104</td>
<td>BRIDGEWATER</td>
<td>PLEASANT ST (RT 104)</td>
<td>E OF ELM ST</td>
<td>2015</td>
<td>23,537</td>
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<tr>
<td>104</td>
<td>BRIDGEWATER</td>
<td>PLYMOUTH ST (RT 104)</td>
<td>W OF SPRENG ST</td>
<td>2015</td>
<td>10,988</td>
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<td>13,235</td>
<td>20.4%</td>
<td>4.8%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2015</td>
<td>17,261</td>
<td>2018</td>
<td>19,361</td>
<td>12.2%</td>
<td>3.34%</td>
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<tr>
<td>105</td>
<td>HAIFAX</td>
<td>THOMPSON ST (RT 105)</td>
<td>AT MIDDLEBRO T/L</td>
<td>2015</td>
<td>3,815</td>
<td>2018</td>
<td>4,133</td>
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</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td>2015</td>
<td>3,815</td>
<td>2018</td>
<td>4,133</td>
<td>8.3%</td>
<td>2.7%</td>
</tr>
<tr>
<td>106</td>
<td>E BRIDGEWATER</td>
<td>WEST ST (RT 106)</td>
<td>W OF BEDFORD ST (RT 18)</td>
<td>2014</td>
<td>10,356</td>
<td>2018</td>
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<td>-8.7%</td>
<td>-2.3%</td>
</tr>
<tr>
<td>106</td>
<td>E ASKON</td>
<td>EASTMAN ST (RT 106)</td>
<td>AT MANSFIELD T/L</td>
<td>2014</td>
<td>14,935</td>
<td>2018</td>
<td>11,035</td>
<td>-26.1%</td>
<td>-7.3%</td>
</tr>
<tr>
<td>106</td>
<td>E ASKON</td>
<td>FOUNDRY ST (RT 106)</td>
<td>AT ELEVEN T/L</td>
<td>2014</td>
<td>16,793</td>
<td>2018</td>
<td>12,074</td>
<td>31.9%</td>
<td>7.3%</td>
</tr>
<tr>
<td>106</td>
<td>E ASKON</td>
<td>FOUNDRY ST (RT 106)</td>
<td>AT TURNPIKE ST (RT 138)</td>
<td>2014</td>
<td>10,528</td>
<td>2018</td>
<td>10,069</td>
<td>-4.4%</td>
<td>-1.1%</td>
</tr>
<tr>
<td>106</td>
<td>W BRIDGEWATER</td>
<td>W CENTER ST (RT 106)</td>
<td>W OF ELM STREET</td>
<td>2014</td>
<td>25,622</td>
<td>2018</td>
<td>25,699</td>
<td>0.3%</td>
<td>0.1%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2014</td>
<td>15,636</td>
<td>2018</td>
<td>15,666</td>
<td>0.2%</td>
<td>0.05%</td>
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</table>
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<table>
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</tr>
</thead>
<tbody>
<tr>
<td>123</td>
<td>ABING'ON</td>
<td>BROCKTON AVE (RT 123)</td>
<td>AT BROCKTON C/L</td>
<td>2014</td>
<td>13,055</td>
<td>2018</td>
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<td>-1.0%</td>
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<td>BROCKTON AVE (RT 123)</td>
<td>E OF BEDFORD ST (RT 18)</td>
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<td>12,932</td>
<td>2018</td>
<td>13,039</td>
<td>0.8%</td>
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<tr>
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<td>CENTRE AVE (RT 123)</td>
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<td>13,176</td>
<td>2018</td>
<td>12,94</td>
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<tr>
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<td>BELMONT ST (RT 123)</td>
<td>5 OF TORREY ST</td>
<td>2014</td>
<td>14,513</td>
<td>2018</td>
<td>8,813</td>
<td>-40.9%</td>
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<td>EASTON</td>
<td>DEPOT ST (RT 123)</td>
<td>N OF CROSS ST</td>
<td>2014</td>
<td>18,427</td>
<td>2018</td>
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<td>1.8%</td>
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<td>WICKSON AVE (RT 123)</td>
<td>5 OF W PLM ST</td>
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<td>14,590</td>
<td>2018</td>
<td>9,553</td>
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<td>-9.5%</td>
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<td>123</td>
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<td>FOUNDERY ST (RT 123)</td>
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<td>2014</td>
<td>11,414</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>2014</td>
<td>13,722</td>
<td>2018</td>
<td>12,498</td>
<td>-8.9%</td>
<td>-2.31%</td>
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<td>N OF CENTRAL ST</td>
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<td>19,923</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2014</td>
<td>19,923</td>
<td>2018</td>
<td>25,468</td>
<td>29.2%</td>
<td>6.6%</td>
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<tr>
<td>139</td>
<td>ABING'ON</td>
<td>NORTH AVE (RT 139)</td>
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<td>ABING'ON</td>
<td>RANDOLPH ST (RT 139)</td>
<td>AT WYMOUTH T/L</td>
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<td>15,400</td>
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<td>-2.2%</td>
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<td>PLEASANT ST (RT 139)</td>
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<td>5,668</td>
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<td></td>
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<td>2014</td>
<td>12,177</td>
<td>2018</td>
<td>12,036</td>
<td>-1.2%</td>
<td>-0.29%</td>
</tr>
</tbody>
</table>

**Regional (Based on Average)**

|       |       |       |       | 2013 | 26,466 | 2018 | 28,643 | 8.2% | 1.71% |

*All volumes have been adjusted using MassDOT Seasonal Adjustment Factors*
September 5, 2019 Old Colony JTC Meeting  
Agenda Item 7C  
Old Colony Congestion Management Process (CMP)  
• Commuter Parking Facility Utilization and Commuter Origins

Summary

Within the Old Colony Congestion Management Process (CMP), utilization counts at MBTA Commuter Rail stations, the BAT Facility, and Park & Ride lots are conducted on a biannual basis (April and October). We deliver the data results to the MBTA, MassDOT, and BAT after each data collection, which occur in April and October of each year. Locations that are greater than or equal to 85% utilized are considered to be congested. The parking inventory for each location was updated in 2019, with numbers from the MBTA’s and MassDOT’s websites. These changes can be observed on some of the location’s slide in the PowerPoint Presentation (not every location changed).

The Commuter Origins Study is a quadrennial project and is a part of the Old Colony CMP. For this data collection, we received assistance from the MBTA. Since all Commuter Rail Locations now have an app on which commuters pay for their parking, the MBTA collects license plates on a daily basis. The MBTA provided the Old Colony Planning Council (OCPC) with the license plates from the 15 Commuter Rail parking lots that OCPC visits for the utilization counts (OCPC collected license plates at the BAT Facility).

The Pembroke Park & Ride Facility was sold between the October 2018 and April 2019 data collections and will no longer be collected. MassDOT has stated that they will be creating a new Park & Ride location in Pembroke in the future that will have an increased amount of parking over the previous Pembroke location. The Kingston Park & Ride lot is still in the same plaza, but it has taken over a section of the plaza’s parking lot due to the construction of a Starbucks. The Kingston Park & Ride will cease to exist at some point in the future; this is likely to occur when a suitable location has been found in Pembroke.

Over 6,000 license plates were collected during this past April’s data collection at all 22 locations. Similar to the 2015 Commuter Origins Study, there were no commuters parked the Plymouth Commuter Rail station. Four Commuter Rail stations and four Park & Ride lots achieved at least an 85% utilization. Eleven of the Commuter Rail stations and four of the Park & Ride lots increased in utilization between 2015 and 2019. In total, 88.7% of the license plates that were collected from Commuter Rail and Park & Ride lots were matched, which is a 7.8% increase in matched plates from the 2015 Commuter Origins Study.

Attachment(s)

Commuter Parking Facility Utilization and Commuter Origins PowerPoint Presentation
Commuter Parking Facility Utilization and Commuter Origins Study

Shawn Bailey
Transportation Planner
Old Colony Planning Council
Table of Contents

1. Introduction
2. Study Purpose
3. Old Colony Congestion Management Process (CMP)
4. Methodology
5. CMP Locations
6. Commuter Rail Lots
7. Park & Ride Lots
8. Conclusions and Results
Introduction

- Transit facilities include MBTA Commuter Rail, BAT Facility and MassDOT Park & Ride lots
- Data collection conducted on a biannual basis
- CMP is important for TIP
- Congested facilities have ≥ 85% utilization rate
Study Purpose

• Quadrennial project aimed at determining commuter origins

• How this is achieved:
  • Analyze utilization rates
  • Interpret trip movements of commuters
  • Determine trends of each lot
Old Colony CMP

• Purpose of Old Colony CMP:
  • Determine causes of congestion
  • Develop alternative strategies to mitigate congestion
  • Evaluate different mitigation strategies
  • Propose strategies that address causes of congestion
Old Colony CMP

- The Old Colony CMP follows the “8-step” process (FHWA and FTA)
  - Step 1: Develop Congestion Management Objectives
  - Step 2: Define Area of Application
  - Step 3: System Definition
  - Step 4: Develop and Use Performance Measures
  - Step 5: Develop a Performance Monitoring Plan
  - Step 6: Identify and Evaluate Strategies
  - Step 7: Implementation and Management
  - Step 8: Monitor Strategy Effectiveness
Methodology

- Two data collections per year (April and October) on mid-week days during non-peak hours
- Pembroke Park & Ride lot removed in 2018
- Zero cars at Plymouth MBTA Station
- Brockton (BAT Facility) and South Weymouth MBTA lots increased in capacity (surface lot)
- Over 6,000 license plates collected (88.7% license plates matched)
- Inventory from MBTA and MassDOT websites
- Received MBTA license plates from MBTA
CMP Locations – MBTA

- Providence/Stoughton Line
  - Canton Junction
  - Canton Center
  - Stoughton

- Middleborough/Lakeville Line
  - Holbrook/Randolph
  - Montello
  - Brockton (BAT facility)
  - Campello
  - Bridgewater
  - Middleborough/Lakeville

- Kingston/Plymouth Line
  - South Weymouth
  - Abington
  - Whitman
  - Hanson
  - Halifax
  - Kingston
  - Plymouth
MBTA Commuter Rail Utilization

- 6,079 License Plates Recorded
  - 4,871 License Plates Recorded at MBTA Commuter Rail Stations and BAT Facility
    - 4,338 License Plates Matched (89.1% Matched)
Abington Commuter Rail Station

Matched Vehicles by Municipality
- Fewer than 5
- 6 - 30
- 11 - 25
- 26 - 50
- More than 50

MBTA Commuter Rail Stations
MBTA Commuter Rail Line
OCPC Region

Abington
- Total Plates: 375
- Plates Matched: 332
- % Matched: 88.5%

Trend Data

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<td>Plates Matched</td>
<td>320</td>
<td>325</td>
<td>375</td>
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<td>% Matched</td>
<td>56.8%</td>
<td>80.2%</td>
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Top 5 Towns

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<td>54</td>
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<td>35</td>
<td>53</td>
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<td>Whitman</td>
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<td>Hanson</td>
<td>12</td>
<td>11</td>
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(Municipalities in OCPC region are bolded)

(Municipalities in OCPC region are bolded)
Bridgewater Commuter Rail

Trend Data

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<td>314</td>
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<td>504</td>
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<td>499</td>
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Top 5 Towns

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<td>Raynham</td>
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<td>East Bridgewater</td>
<td>13</td>
<td>East Bridgewater</td>
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<td>East</td>
<td>9</td>
<td>Middleboro</td>
<td>11</td>
<td>Taunton</td>
<td>11</td>
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<td>Taunton</td>
<td>9</td>
<td>Middleboro</td>
<td>7</td>
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</table>

(Municipalities in OCPC region are bolded)
Brockton (BAT Facility) Commuter Rail Station

Matched Vehicles by Municipality
- Fewer than 5
- 6 - 10
- 11 - 25
- 26 - 50
- More than 50

- MBTA Commuter Rail Stations
- MBTA Commuter Rail Line
- OCPC Region

Total Plates 174
Plates Matched 157
% Matched 90.2%

Brockton (BAT Facility) Commuter Rail

Trend Data

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<td>Parked</td>
<td>203</td>
<td>155</td>
<td>174</td>
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<tr>
<td>Yours</td>
<td>267</td>
<td>267</td>
<td>323</td>
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<tr>
<td>% Matched</td>
<td>76.0%</td>
<td>58.1%</td>
<td>53.9%</td>
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Top 5 Towns

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<th>Town</th>
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<th>Town</th>
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<td>Bridgewater</td>
<td>5</td>
<td>Bridgewater</td>
<td>3</td>
<td>Taunton</td>
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(Municipalities in OCPC region are bolded)

Data Sources:
- Massachusetts Department of Transportation
- Office of Geographic Information (MashGIS)
- Old Colony Planning Council (OCPC)

Data Collected: April 02, 2019
Campello Commuter Rail

Trend Data

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<td>Spaces</td>
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<td>535</td>
<td>552</td>
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<td>Utilization</td>
<td>22.4%</td>
<td>34.2%</td>
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Top 5 Towns

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<td>5</td>
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(Municipalities in OCPC region are bolded)
Canton Center Commuter Rail

Trend Data

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<td>Utilization</td>
<td>64.2%</td>
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Top 5 Towns

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<thead>
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<td>Canton</td>
<td>40</td>
<td>62</td>
<td>71</td>
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<td>Stoughton</td>
<td>29</td>
<td>45</td>
<td>33</td>
</tr>
<tr>
<td>Sharon</td>
<td>15</td>
<td>24</td>
<td>22</td>
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<td>Easton</td>
<td>9</td>
<td>10</td>
<td>17</td>
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<td>Franklin</td>
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(Municipalities in OCPC region are bolded)
Canton Junction Commuter Rail Station

Canton Junction Commuter Rail

Total Plates 542
Plates Matched 476
% Matched 87.8%

Trend Data

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<td>75</td>
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<td>54</td>
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<tr>
<td>Stoughton</td>
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<td>78</td>
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<tr>
<td>Easton</td>
<td>40</td>
<td>66</td>
<td>56</td>
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<tr>
<td>Sharon</td>
<td>24</td>
<td>50</td>
<td>51</td>
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<tr>
<td>Poquoset</td>
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<td>83</td>
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(Municipalities in OCPC region are bolded)
Halifax Commuter Rail

Trend Data

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<tr>
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<td>153</td>
<td>255</td>
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<tr>
<td>Spaces</td>
<td>402</td>
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<td>412</td>
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<td>Utilization</td>
<td>43.5%</td>
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Top 5 Towns

(Municipalities in OCPC region are bolded)
Hanson Commuter Rail

**Trend Data**

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<tbody>
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<td>Parked</td>
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<tr>
<td>Spaces</td>
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<td>482</td>
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<td>Utilization</td>
<td>43.6%</td>
<td>63.5%</td>
<td>60.5%</td>
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**Top 5 Towns**

- Pembroke: 58, 82, 83
- Hanson: 49, 40, 57
- Halifax: 42, 40, 37
- East Bridgewater: 17, 13, 22
- Duxbury: 11, 13, 20

(Municipalities in OCPC region are bolded)
Holbrook/ Randolph Commuter Rail

Trend Data

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</tr>
</thead>
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<td>271</td>
<td>309</td>
</tr>
<tr>
<td>Spaces</td>
<td>369</td>
<td>369</td>
<td>362</td>
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<td>Utilization</td>
<td>49.6%</td>
<td>73.4%</td>
<td>85.4%</td>
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Top 5 Towns

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(Municipalities in OCPC region are bolded)
Kingston Commuter Rail

Trend Data

<table>
<thead>
<tr>
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<tr>
<td>Parked</td>
<td>321</td>
<td>431</td>
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<tr>
<td>Spaces</td>
<td>1,039</td>
<td>1,039</td>
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<tr>
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<td>41.5%</td>
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Top 5 Towns

(Municipalities in OCPC region are bolded)

<table>
<thead>
<tr>
<th>Town</th>
<th>2011</th>
<th>2015</th>
<th>2019</th>
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<tbody>
<tr>
<td>Plymouth</td>
<td>179</td>
<td>177</td>
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</tr>
<tr>
<td>Kingston</td>
<td>29</td>
<td>38</td>
<td>48</td>
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<tr>
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<td>28</td>
<td>26</td>
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<td>15</td>
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<tr>
<td>Carver</td>
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Middleborough/Lakeville Commuter Rail Station

Trend Data

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<td>53.1%</td>
<td>69.4%</td>
<td>83.1%</td>
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Top 5 Towns

<table>
<thead>
<tr>
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<th>Town</th>
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<td>46</td>
<td>Lakeville</td>
<td>52</td>
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<td>88</td>
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<td>45</td>
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<td>40</td>
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<td>41</td>
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<tr>
<td>Taunton</td>
<td>21</td>
<td>Taunton</td>
<td>34</td>
<td>Dartmouth</td>
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Montello Commuter Rail

Trend Data

<table>
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<tr>
<td>Plates</td>
<td>139</td>
<td>158</td>
<td>203</td>
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</table>

<table>
<thead>
<tr>
<th>Spaces</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilization</td>
<td>347</td>
<td>347</td>
<td>351</td>
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40.1% 45.5% 57.8%

Top 5 Towns

(Municipalities in OCPC region are bolded)
South Weymouth Commuter Rail

Trend Data

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<td>543</td>
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<tr>
<td>Utilization</td>
<td>51.9%</td>
<td>60.2%</td>
<td>73.4%</td>
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Top 5 Towns

<table>
<thead>
<tr>
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<th>2015</th>
<th>2019</th>
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<tbody>
<tr>
<td>Weymouth</td>
<td>36</td>
<td>39</td>
<td>312</td>
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<tr>
<td>Abington</td>
<td>78</td>
<td>56</td>
<td>71</td>
</tr>
<tr>
<td>Rockland</td>
<td>45</td>
<td>46</td>
<td>46</td>
</tr>
<tr>
<td>Hanover</td>
<td>18</td>
<td>18</td>
<td>34</td>
</tr>
<tr>
<td>Whitman</td>
<td>11</td>
<td>7</td>
<td>15</td>
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</tbody>
</table>

(Municipalities in OCPC region are bolded)
Stoughton Commuter Rail Station

Matched Vehicles by Municipality
- Fewer than 5
- 6 - 10
- 11 - 25
- 26 - 50
- More than 50

MBTA Commuter Rail Stations
- MBTA Commuter Rail Line
- OCPC Region

Old Colony Planning Council
2 School Street, Brockton, MA 02301
Data Source:
Massachusetts Department of Transportation
Office of Geographic Information (MassGIS)
Old Colony Planning Council (OCPC)
Data Collected: April 09, 2019

Total Plates 326
Plates Matched 286
% Matched 87.7%

Trend Data

<table>
<thead>
<tr>
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<th>2015</th>
<th>2019</th>
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<td>333</td>
<td>356</td>
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<td>Utilization</td>
<td>65.5%</td>
<td>100.0%</td>
<td>90.3%</td>
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Top 5 Towns

<table>
<thead>
<tr>
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<th>2015</th>
<th>Town</th>
<th>2019</th>
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<tbody>
<tr>
<td>Easton</td>
<td>45</td>
<td>Stoughton</td>
<td>68</td>
<td>Stoughton</td>
<td>93</td>
</tr>
<tr>
<td>Stoughton</td>
<td>40</td>
<td>Easton</td>
<td>74</td>
<td>Easton</td>
<td>73</td>
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<tr>
<td>Brockton</td>
<td>37</td>
<td>Brockton</td>
<td>40</td>
<td>Brockton</td>
<td>27</td>
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<tr>
<td>Avon</td>
<td>4</td>
<td>Canton</td>
<td>18</td>
<td>Boston</td>
<td>8</td>
</tr>
<tr>
<td>Bridgewater</td>
<td>4</td>
<td>Raynham</td>
<td>5</td>
<td>Taunton</td>
<td>7</td>
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(Municipalities in OCPC region are bolded)
Whitman Commuter Rail

Trend Data

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<tr>
<th></th>
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<td>179</td>
<td>111</td>
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<tr>
<td>Spaces</td>
<td>208</td>
<td>208</td>
<td>199</td>
</tr>
<tr>
<td>Utilization</td>
<td>59.6%</td>
<td>86.1%</td>
<td>55.8%</td>
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Top 5 Towns

<table>
<thead>
<tr>
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<th>2011</th>
<th>Town</th>
<th>2015</th>
<th>Town</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whitman</td>
<td>42</td>
<td>Whitman</td>
<td>50</td>
<td>Whitman</td>
<td>36</td>
</tr>
<tr>
<td>East Bridgewater</td>
<td>24</td>
<td>East Bridgewater</td>
<td>29</td>
<td>East Bridgewater</td>
<td>28</td>
</tr>
<tr>
<td>Hanson</td>
<td>14</td>
<td>Hanson</td>
<td>25</td>
<td>Hanson</td>
<td>13</td>
</tr>
<tr>
<td>Hanover</td>
<td>7</td>
<td>Pembroke</td>
<td>9</td>
<td>Bridgewater</td>
<td>7</td>
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<tr>
<td>Pembroke</td>
<td>6</td>
<td>Bridgewater</td>
<td>8</td>
<td>Pembroke</td>
<td>5</td>
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(Municipalities in OCPC region are bolded)
CMP Locations – MassDOT

- **Route 24 Corridor**
  - West Bridgewater – Route 24, Exit 16 (Route 106)
  - Bridgewater – Route 24, Exit 15 (Route 104)

- **Route 3 Corridor**
  - Rockland – Route 3, Exit 14 (Route 228)
  - Kingston – Route 3, Exit 10 (Route 3A & 53)
  - Plymouth – Route 3, Exit 5 (Long Pond Road)
  - Bourne – Route 3, Exit 1B (Route 6)
MassDOT Park & Ride Utilization

- 6,079 License Plates Recorded
  - 1,208 License Plates Recorded at Park & Ride Lots
    - 1,052 License Plates Matched (87.1% Matched)
Bridgewater Park & Ride

Trend Data

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2015</th>
<th>2019</th>
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</thead>
<tbody>
<tr>
<td>Parked</td>
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<tr>
<td>Spaces</td>
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<td>60</td>
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<tr>
<td>Utilization</td>
<td>71.7%</td>
<td>60.0%</td>
<td>51.7%</td>
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Top 5 Towns

<table>
<thead>
<tr>
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<th>2011</th>
<th>2015</th>
<th>2019</th>
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</thead>
<tbody>
<tr>
<td>Bridgewater</td>
<td>3</td>
<td></td>
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</tr>
<tr>
<td>New Bedford</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall River</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stoughton</td>
<td></td>
<td></td>
<td>2</td>
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<tr>
<td>Wareham</td>
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(Municipalities in OCPC region are bolded)
Kingston Park & Ride

Trend Data

<table>
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<tr>
<th></th>
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<th>2015</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parked</td>
<td>37</td>
<td>47</td>
<td>69</td>
</tr>
<tr>
<td>Spaces</td>
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<td>80</td>
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<tr>
<td>Utilization</td>
<td>46.3%</td>
<td>58.8%</td>
<td>95.8%</td>
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Top 5 Towns

<table>
<thead>
<tr>
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<th>2011</th>
<th>2015</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duxbury</td>
<td>11</td>
<td>13</td>
<td>27</td>
</tr>
<tr>
<td>Kingston</td>
<td>8</td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td>Plymouth</td>
<td>7</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>Pembroke</td>
<td>3</td>
<td>2</td>
<td>2</td>
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<tr>
<td>Kingston</td>
<td>1</td>
<td>2</td>
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(Municipalities in OCPC region are bolded)
Plymouth Park & Ride

Trend Data

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<tr>
<td>2015</td>
<td>191</td>
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<tr>
<td>2019</td>
<td>173</td>
<td>86.5%</td>
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Top 5 Towns

1. Plymouth 142
2. Carver 6
3. Kingston 5
4. Barnstable 3
5. Boston 2

(Municipalities in OCPC region are bolded)
Rockland Park & Ride

Trend Data

<table>
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<tr>
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<tr>
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<td>385</td>
<td>409</td>
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<tr>
<td>Spaces</td>
<td>440</td>
<td>440</td>
<td>440</td>
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<tr>
<td>Utilization</td>
<td>74.5%</td>
<td>87.5%</td>
<td>93.0%</td>
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Top 5 Towns

(Municipalities in OCPC region are bolded)
West Bridgewater Park & Ride

Trend Data

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<tr>
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<td>169</td>
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<td>Spaces</td>
<td>185</td>
<td>185</td>
<td>185</td>
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<td>Utilization</td>
<td>91.4%</td>
<td>91.4%</td>
<td>92.4%</td>
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Top 5 Towns

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<tr>
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<th>2011</th>
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<th>2019</th>
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<td>Bridgewater</td>
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<tr>
<td>Raynham</td>
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<tr>
<td>East Bridgewater</td>
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<td>13</td>
</tr>
<tr>
<td>Taunton</td>
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<tr>
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(Municipalities in OCPC region are bolded)
<table>
<thead>
<tr>
<th>Location</th>
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<th>April Vehicles</th>
<th>April Total</th>
<th>Utilization</th>
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<tbody>
<tr>
<td><strong>Providence/Stoughton Line</strong></td>
<td></td>
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<td></td>
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<tr>
<td>Canton Junction</td>
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<td>542</td>
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</tr>
<tr>
<td>Stoughton</td>
<td>361</td>
<td>326</td>
<td>90.3%</td>
<td></td>
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<tr>
<td><strong>Middleborough/Lakeville Line</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Hallbrook/Randolph</td>
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<td>Montello</td>
<td>351</td>
<td>203</td>
<td>57.8%</td>
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</tr>
<tr>
<td>Brockton (BAT Facility)</td>
<td>323</td>
<td>174</td>
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<td>Campello</td>
<td>552</td>
<td>281</td>
<td>50.9%</td>
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<tr>
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<td>296</td>
<td>59.3%</td>
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<tr>
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<td>769</td>
<td>639</td>
<td>83.1%</td>
<td></td>
</tr>
<tr>
<td><strong>Kingston/Plymouth Line</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Weymouth</td>
<td>636</td>
<td>467</td>
<td>73.4%</td>
<td></td>
</tr>
<tr>
<td>Abington</td>
<td>404</td>
<td>375</td>
<td>92.8%</td>
<td></td>
</tr>
<tr>
<td>Whitman</td>
<td>199</td>
<td>111</td>
<td>55.8%</td>
<td></td>
</tr>
<tr>
<td>Hanson</td>
<td>428</td>
<td>259</td>
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<td></td>
</tr>
<tr>
<td>Halifax</td>
<td>412</td>
<td>255</td>
<td>61.9%</td>
<td></td>
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<td>441</td>
<td>42.8%</td>
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<tr>
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<td>92</td>
<td>0</td>
<td>0.0%</td>
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<tr>
<td><strong>Total Providence/Stoughton Line</strong></td>
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<tr>
<td><strong>Total Middleborough/Lakeville Line</strong></td>
<td>2,856</td>
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<td>66.6%</td>
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<tr>
<td><strong>Total Kingston/Plymouth Line</strong></td>
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<tr>
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<td>3,201</td>
<td>1,308</td>
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<tr>
<td><strong>Total All Stations</strong></td>
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<td>4,871</td>
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# Park & Ride Results

<table>
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<tr>
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<th>April Vehicles</th>
<th>April Total</th>
<th>Utilization</th>
</tr>
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<tbody>
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<td><strong>Route 24 Corridor</strong></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>West Bridgewater - Route 24 @ Route 106</td>
<td>185</td>
<td>171</td>
<td></td>
<td>92.4%</td>
</tr>
<tr>
<td>Bridgewater - Route 24 @ Route 104</td>
<td>60</td>
<td>31</td>
<td></td>
<td>51.7%</td>
</tr>
<tr>
<td><strong>Route 3 Corridor</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rockland - Route 3 @ Route 22B</td>
<td>440</td>
<td>409</td>
<td></td>
<td>93.0%</td>
</tr>
<tr>
<td>Kingston - Route 3 @ Route 3A &amp; 53</td>
<td>72</td>
<td>69</td>
<td></td>
<td>95.8%</td>
</tr>
<tr>
<td>Plymouth - Route 3 @ Long Pond Road</td>
<td>200</td>
<td>173</td>
<td></td>
<td>86.5%</td>
</tr>
<tr>
<td>Bourne - Route 3 @ Route 6 (Sagamore)</td>
<td>377</td>
<td>355</td>
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<td>94.2%</td>
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<tr>
<td><strong>Total Route 24 Corridor</strong></td>
<td>245</td>
<td>202</td>
<td></td>
<td>82.4%</td>
</tr>
<tr>
<td><strong>Total Route 3 Corridor</strong></td>
<td>1089</td>
<td>1006</td>
<td></td>
<td>92.4%</td>
</tr>
<tr>
<td><strong>Total All Lots</strong></td>
<td>1334</td>
<td>1208</td>
<td></td>
<td>90.6%</td>
</tr>
</tbody>
</table>
Conclusions

• Increase in utilization in all but five MBTA and two MassDOT lots.
  • Bridgewater, Brockton (BAT Facility), Canton Junction, Hanson and Whitman Commuter Rail stations
  • Bridgewater and Plymouth Park & Ride lots (Plymouth Park & Ride lot was still congested)

• Single-occupancy vehicle remains primary choice of transportation in OCPC region.
  • Grew by 5,989 people from 2013 to 2017 (U.S. Census)

• Trends may shift in the future due to South Coast Rail and potential future mode shifts.
Thank you!

• Questions?
Summary

The development of the FFY 2020-2024 Transportation Improvement Program (TIP) is underway.

The TIP serves as a prioritized listing of highway, bridge, and transit projects for implementation during the next five (5) federal fiscal years that reflect the needs of the regional transportation system. In addition, the TIP is fiscally constrained based on expected federal funding, and it contains projects that are consistent with the Long Range Transportation Plan (LRTP).

On April 16, 2019, the Old Colony MPO reviewed and subsequently released the Draft FFY 2020-2024 Old Colony TIP to a 21-day public review and comment period. Following the completion of the 21-day public review and comment period, the Old Colony MPO will review the public comments and consider endorsement of the Draft FFY 2020-2024 Old Colony TIP.

Attachment(s)

Table 1 - Draft FFY 2020-2024 Old Colony TIP Projects with Year of Expenditure (YOE)/ Inflation
Table 2 - Draft FFY 2020-2024 Old Colony TIP Projects with Year of Expenditure (YOE)/ Inflation - Statewide Funded Projects
Table 3 - Draft Other Regional Priorities (ORP) with Year of Expenditure (YOE)/ Inflation - Projects with MassDOT PRC Approval
Table 4 - Draft Other Regional Priorities (ORP) with Year of Expenditure (YOE)/ Inflation - Projects without MassDOT PRC Approval
Draft FFY 2020-2024 Old Colony TIP
Summary

Through Task 3200 (Local Highway Technical Assistance) of the Old Colony Metropolitan Planning Organization (MPO) FFY 2019 Unified Planning Work Program, Old Colony Planning Council provides local traffic planning and technical analysis services to its member communities.

The Final Report for a Road Safety Audit of North Main Street (Route 28) at Matfield Street in the Town of West Bridgewater has been completed. The Final Report has been distributed to the Town of West Bridgewater, the Road Safety Audit team, and the Massachusetts Department of Transportation.

The Final Report for a Road Safety Audit of North Main Street at Oak Street and Howard Street in the City of Brockton has been completed. The Final Report has been distributed to the City of Brockton, the Road Safety Audit team, and the Massachusetts Department of Transportation.

Traffic data (traffic counts and intersection turning movement counts) was collected on Centre Street (Route 123) and Plymouth Street in Brockton. The data has been distributed to the City of Brockton.

Old Colony Planning Council recently completed analysis for three traffic signals in Pembroke Center, and used TrafficWare Synchro software to determine coordinated phasing for best operation. The data and analysis has been distributed to the Town of Pembroke.

The Town of Abington requested a traffic study of Summer Street. The traffic study has been completed and distributed to the Town.

The Town of Abington has requested a traffic study of Block Street. Data collection is scheduled for September 2019.

The Town of Duxbury has requested traffic counts with speed analysis to be completed for several roadways in Town. The data collation has been completed and analysis is underway.

The Town of Stoughton has requested traffic counts with speed analysis on Kelsey Drive, Tosca Drive, and Queen Anne Way. These traffic counts will be performed this fall.

Project Status Updates

Abington
  • Block Street Traffic Study
    Data collection scheduled for September 2019.
Avon
- Road Safety Audit for Central Street Corridor
  *Road Safety Audit Completed; Report in Development*

Brockton
- Road Safety Audit for Montello Street (Route 28) at East Nilsson Street
  *Road Safety Audit Completed; Report in Development*

Duxbury
- Traffic Counts and Speed Analysis on various roadways
  *Data collection completed; Analysis underway*

Hanson
- Route 58 Traffic Study
  *Data analysis underway*

Pembroke
- Curve Street Traffic Study
  *Data analysis underway*

Stoughton
- Heavy Commercial Vehicle Exclusion Study for Station Street and Peters Drive
  *Report in development*
- Road Safety Audit for Park Street (Route 27) at Turnpike Street and Turnpike Street at Campanelli Parkway
  *Data collection scheduled for September 2019*
- Traffic Counts with Speed Analysis for Kelsey Drive, Tosca Drive, and Queen Anne Way
  *Data collection to be scheduled*

For information about local technical assistance studies prepared by OCPC, please direct inquiries to Bill McNulty (wmcnulty@ocpcrpa.org) at 508.583.1833 extension 207.
Summary

The reviews on Environmental Notification Forms (ENFs), Environmental Impact Reports (EIRs), and Notices of Project Change (NPCs) staff report includes projects that are subject to Massachusetts Environmental Policy Act (MEPA) review under M.G.L. c. 30, sections 61-62H. The staff report provides information about proposed projects, proponent and MEPA points of contact, and comment period deadlines in order to provide the public with an opportunity to review and comment on any and all proposed projects. Information on the MEPA review process; project filing procedures; the staff directory; and information on current and past projects can be accessed at http://www.mass.gov/eea/agencies/mepa/.

Submitting Comments to MEPA

The Secretary of Energy and Environmental Affairs (EEA) accepts written comments on projects currently under MEPA review. Comments may be submitted electronically, by mail, via fax, or by hand delivery. Comments submitted to MEPA are public records and should be sent to the following address:

Secretary Kathleen Theoharides
EEA, Attn: MEPA Office
[Analyst Name], EEA No.______
100 Cambridge Street, Suite 900
Boston, MA 02114

Environmental Notification Forms (ENFs)

Any agency or person may comment on the project, its alternatives, its potential environmental impacts, mitigation measures, and whether to require an EIR and, if so, what to require in the scope. Comments must be filed within 20 days following publication of the ENF in the Environmental Monitor (or 30 days if the proponent has filed an Expanded ENF requesting a Single EIR or Special Review Procedure), unless the public comment period is extended.

Environmental Impact Reports (EIRs)

Any agency or person may comment on the project, its alternatives, its potential environmental impacts, mitigation measures, and the adequacy of the EIR, provided that the subject matter of the comment is within the scope. Comments must be filed within 30 days of the publication of the availability of the EIR in the Environmental Monitor, unless the public comment period is extended.
Notices of Project Change (NPCs)
Any agency or person may submit written comments concerning the need for and nature of any further MEPA review within 20 days of the publication notice of the NPC, unless the public comment period is extended.

Projects Currently Under Review as of August 21, 2019

EEA # - 16082 Hanson Cranberry Bog Restoration Project (Hanson) (ENF)
Indian Head Bog is located in Hanson. The Natural Resources Conservation Service (NRCS) placed a conservation easement on this property that is 103.4 acres, 58.8 acres of which was an active cranberry bog at the time NRCS acquired the conservation easement. The Town of Hanson subsequently purchased the property from the bog owner and operator with the intent that it would provide public access and education opportunities in addition to the ecological services associated with wetlands. This property is now part of over 300 acres of contiguous protected land in the headwaters of the North River watershed. The cranberry bog portion of the easement includes a typical cranberry bog complex of wetland soils and sand.

The purpose of this project is to improve water quality and restore aquatic and riparian habitat within the Hanson Bogs. The NRCS has designed this project to focus on removing flow control structures, plugging perimeter and lateral ditches to re-wet the bogs, constructing microtopography through much of the bog surfaces, and placing large wood within the stream channel for added habitat complexity. This project is similar to other dam removal and cranberry bog restoration projects that have been implemented in the region in the last 10 years including the Coonamessett River in Falmouth and Eel River and Tidmarsh Farms in Plymouth.

Specific goals for the restoration of the Hanson Cranberry Bogs include:

- Restore cranberry bogs and their surrounding lands to historic conditions, while maximizing wildlife habitat. This includes restoring stream connectivity and unimpeded flow to the greatest extent practicable. NRCS presumes that the bogs were historically palustrine forested wetland and that the adjacent non-hydric areas were forested upland.
- Improve the water quality of water discharging to Indian Head Pond from the site. Such improvements directly benefit aquatic and wetland-dependent wildlife.
- Enhance the area for wildlife, including New England bluet, as well as species associated with Atlantic white cedar and red maple swamp communities.
- Remove the invasive species Phragmites from the small pond between the two sets of bogs and prevent it from spreading to other portions of the site.

The proposed work will help the cranberry bogs retain the proper hydrology to establish a predominantly native, hydrophytic, woody plant community. Passive recreation will continue, but no facilities will be constructed through this project. No permanent infrastructure, such as paved parking, buildings, or restrooms, will be required for the completion of this project.

Comments Due 9/20/2019
For Copies: Rebecca Nehiley (781) 294-4119
MEPA Analyst: Erin Flaherty (617) 626-1029
EEA # 11519 - The Pinehills (Plymouth) (NPC)

Pinehills LLC proposes the following changes to the Project. As specified in Permit Number 9P3-4-21-239.03 effective June 16, 1999 and renewed February 21, 2019, Pinehills Water Company ("Pinehills") has the following authorized water withdrawal for the three public supply wells serving the community:

<table>
<thead>
<tr>
<th>Total Daily</th>
<th>Daily Average</th>
<th>Total Annual</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.40 MGD (972.22 gpm)</td>
<td>0.46 MGD (319.44 gpm)</td>
<td>167.90 MGY</td>
</tr>
</tbody>
</table>

As specified in the Source Final Report for Large-Yield Water Supply Well Volume 1 and 2 provided as part of the original permit application in November 1998, the pump test calculated a safe yield of the water supply at 2.68 mgd (1,860 gpm). Nearly 20 years following the original permitted withdrawal approval, based on the Project's current and future buildout, Pinehills requests the following increase to its permitted withdrawal volume:

<table>
<thead>
<tr>
<th>Total Daily</th>
<th>Daily Average</th>
<th>Total Annual</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.63 MGD (1,128.47 gpm)</td>
<td>0.65 MGD (451.39 gpm)</td>
<td>237.35 MGY</td>
</tr>
</tbody>
</table>

The new withdrawal volume request is within the calculated safe yield of the well of 2.68 MGD (1,861 gpm). The additional withdrawal volume is necessary to complete the previously reviewed and approved Project components of the mixed-use development.

Two permits will need to be obtained from the MassDEP to approve the increased withdrawal volume. A new Water Management Act (WMA) permit will be needed to authorize the additional withdrawal, and a New Source Approval (NSA) permit will also be needed for the increased withdrawal, and to approve an updated Zone II wellhead protection area delineation. In support of these permit applications, a new pumping test of the existing supply wells will be conducted to confirm that they are capable of supplying the proposed increased water volume.

The proposed change in the Project will have no adverse impact on water supply and wastewater. With respect to wastewater, the additional requested volume that would be discharged to the treatment plant, which on average will be approximately 133,192 gpd, is within the current Wastewater Treatment Plant's treatment capacity and Groundwater Discharge Permit (GWDP) limits.

Mitigation for the requested additional withdrawal volume was anticipated and included within the recently renewed (February 21, 2019), current WMA permits. The Pinehills LLC has four WMA permits that govern withdrawals from the public supply wells, irrigation wells for two golf courses, and irrigation for common areas across the community. The mitigation credits granted by DEP were based on the needs of all four permits and the proposed increase in the drinking water withdrawal. The table below documents the requested increased withdrawal volume, the volume required to be mitigated, the WMA mitigation credits required for that volume, and the available approved mitigation credits (in excess of those needed for the current withdrawal) within the current WMA permit.
<table>
<thead>
<tr>
<th>Increased Annual</th>
<th>Increased Daily</th>
<th>Consumptive Use¹</th>
<th>Mitigation Credits Needed²</th>
<th>Available Credits³</th>
</tr>
</thead>
<tbody>
<tr>
<td>69.45 MGY</td>
<td>0.19 MGD</td>
<td>.029 MGD</td>
<td>2.9</td>
<td>5.33</td>
</tr>
</tbody>
</table>

1. MassDEP credited Pinehills with 85% reduction in required mitigation due to direct groundwater recharge of treated wastewater from water withdrawn by the drinking water wells.
2. Each WMA credit equals .01 MGD of volume.
3. Appendix C of the Pinehills current WMA permit documents 43.33 approved credits and 38 required credits for existing withdrawals, leaving 5.33 remaining credits to mitigate for additional withdrawal volume. Only 2.9 of those credits are needed for the additional volume requested as part of this NPC 9.

The mitigation credits are based on a combination of actions taken by the Proponent, including:
- Preservation of open space in the Eel River Watershed on the northern boundary of the Pinehills;
- Implementation of stormwater management and low impact development practices to minimize the extent of impervious cover and treat runoff before it infiltrates into the ground;
- Restrictions on the future use of private wells within the community; and
- Participation in the Audubon Cooperative Sanctuary Program by the OS Golf Course within the Pinehills.

Comments Due 08/27/2019
For Copies: Erin Fredette (617) 556-0020
MEPA Analyst: Erin Flaherty (617) 626-1128

**EEA # 16077 - Harju Solar Array (Plympton) (ENF)**

The Property is identified as two adjacent parcels, both of which are owned by Harju Bros Cranberries, Inc. The Property is generally bounded by Lake Street to the north, the Plympton/Kingston Town line to the east, and wooded uplands and wetlands to the south and west. For context, the surrounding land in this area can be characterized as rural residential in nature. The Harju cranberry bogs were constructed in the 1930s and 1940s and the agricultural reservoir was constructed between 1958 and 1964 to support the cranberry operation. The reservoir, created solely for the cranberry operation, is largely in the same layout and orientation as it was when constructed over 55 years ago and it has been used consistently as a water supply and tail water recovery for the bogs.

The Project includes a ±12 acre conventional ground mounted solar facility located in wooded uplands, as well as a ±9 acre floating solar facility on the agricultural reservoir located adjacent to existing cranberry bogs. The Proponent also proposes to install an aerator in the agricultural reservoir to introduce oxygen into the water, enabling circulation. Improved aeration and circulation of the pond is anticipated to result in a reduction of the floating plant duckweed, which often blocks sunlight over the surface of the pond for portions of the summer. This aeration is expected to result in a net improvement to resource areas by reducing aggressive plant species and nutrient accumulation.
The property is situated on the east side of Washington Street (Route 53) to the north of the Route 3 NB Entrance/Exit, in Hanover. The property is currently occupied by a Friendly's Restaurant, a previously occupied Midas Auto Service Center and associated parking. Along the property's frontage on Washington Street, four lanes of traffic are provided for northbound and southbound traffic. A left turn only lane is also provided in the southbound direction, preceding an existing traffic signal at the intersection of Washington Street and the Route 3 Northbound off-ramp, south of the site.

The proposed development includes the razing of the existing buildings on-site and the construction of a new 4,384 square foot convenience store building and self-service gas station with six gasoline pumps (twelve fueling positions), associated driveways, parking areas, landscaping, and utilities. A total of 27 parking spaces will be provided. Vehicle trips per day are projected to be 2,766. Access to the development is proposed to be provided by two full access driveways located on Washington Street.

The proposed project is not shown to have a significant impact on the transportation operations of the adjacent roadways and study area intersections. An assessment of the proposed project as it relates to transportation is documented in a traffic impact study prepared by McMahon Associates. The project and the associated site access have been designed to be consistent with municipal, regional, state, and federal plans and policies related to traffic, transit, pedestrian and bicycle transportation facilities and services. Sidewalks are provided along each side of Washington Street adjacent to the project site.

The proposed project also includes the installation of a new stormwater management system designed in accordance with the Massachusetts Department of Environmental Protection (MassDEP) Standards. The proposed stormwater management system consists of deep-sump hooded catch basins that collect stormwater runoff from the site’s impervious surfaces and discharge flows into a proprietary continuous deflective separation (CDS) oil water separator.
The proposed project entails the removal of the majority of the existing enclosed mall and the construction of a new mixed-use lifestyle center consisting of approximately 506,035 s.f. of retail, an approximately 92,500 s.f. grocery store, and a 297 unit apartment complex with total parking of 3,700 spaces. The project is expected to generate an additional 3,032 vehicle trips per day. The development will utilize the existing driveways. New infrastructure including water, sewer, and stormwater will be constructed to service the new development. An existing wastewater treatment plant will be relocated and upgraded to service the project.

The Project will use of all feasible means to avoid potential environmental impacts. Those means include: constructing only the minimum parking necessary, construction of an extensive stormwater system to avoid impacts to adjacent resource areas; implementing traffic related mitigation including TDM measures and new signal timing to avoid "Transportation" impacts; creating pedestrian friendly environment; replacement of existing aging water infrastructure and fixtures with a modern water system; the implementation of a GHG reduction program to ensure compliance with the GHG policy, replacement of an aging wastewater treatment facility with a new state of the art facility that will be located further from Third Herring Brook and cooperating in the removal of Peterson Pond dam located on the property.

The project will be constructed in phases. Phase 1 will involve the construction of the new wastewater treatment facility that will replace the existing 1970s era system. The relocation will allow the remainder of the site to be developed. Phase 2 will entail the remaining project including the residential and commercial components of the project will be built at the same time.

_Determination that pursuant to the Massachusetts Environmental Policy Act (M.G. L. c. 30, ss. 61-62I) and Sections 11.06 of the MEPA Regulations (301 CMR 11.00), the project requires an Environmental Impact Report (EIR)._
subject to potential overtopping in the event of runoff generated by a 2-year, 24-hour, or less, storm event.

*Determination that pursuant to the Massachusetts Environmental Policy Act (M.G. L. c. 30, ss. 61-62I) and Sections 11.03 and 11.11 of the MEPA Regulations (301 CMR 11.00), the project requires an Environmental Impact Report (EIR).*

**EEA # 16067 - Upland Road Solar Facility (Plympton) (ENF)**
The proponent is seeking to construct a 5 Mega Watt ground mounted solar array at 61 Upland Road in Plympton. The site is a 202 acre parcel (206 acres including the existing access road), of which 132 acres is disturbed, mostly by active cranberry bogs and ancillary areas (sand mine and roadways), the remaining 70 acres is forested upland and wetland. Work within the forested area includes tree removal and grubbing, grading of site will include a larger area, with most of the site flat and no grading required.

The proposed project will impact approximately 20.0 acres of this 202 acre site, of this 20.0 acres 5.3 will be to areas currently undisturbed (forested upland) and 17.1 acres will be within a portion of the active sand pit and within a cranberry bog that was being constructed but never completed. An additional 2.4 acres of tree clearing will occur outside of the solar array for a shadow buffer, for a total of 22.4 acres. This project is also within MassWildlife Natural Heritage & Endangered Species Program (NHESP) priority habitat for rare species (PH 718) and the proponent has been actively discussing this project with MA NHESP (File No. 17-36769) and a Take of rare species habitat (for the eastern box turtle) was determined by NHESP. Wetland impacts are limited to Isolated Vegetated Wetlands and will be 100 SF.

*Determination that pursuant to the Massachusetts Environmental Policy Act (M.G. L. c. 30, ss. 61-62I) and Sections 11.06 of the MEPA Regulations (301 CMR 11.00), the project does not require an Environmental Impact Report (EIR).*

**Attachment(s)**
MEPA Certificate - EEA # 16032 - Hanover Crossing (Hanover) (ENF)
MEPA Certificate - EEA # 16023 - Sylvia Place Pond Dam Breach (Kingston) (ENF)
MEPA Certificate - EEA # 16067 - Upland Road Solar Facility (Plympton) (ENF)
The Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

Charles D. Baker
GOVERNOR
Karyn E. Polito
LIEUTENANT GOVERNOR
Kathleen A. Theoharides
SECRETARY

Tel: (617) 626-1000
Fax: (617) 626-1081
http://www.mass.gov/eea

June 28, 2019

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS
ON THE
EXPANDED ENVIRONMENTAL NOTIFICATION FORM

PROJECT NAME: Hanover Crossing
PROJECT MUNICIPALITY: Hanover and Norwell
PROJECT WATERSHED: South Coastal
EEA NUMBER: 16032
PROJECT PROPONENT: PREP
DATE NOTICED IN MONITOR: May 22, 2019

Pursuant to the Massachusetts Environmental Policy Act (MEPA; M.G. L. c. 30, ss. 61-62I) and Section 11.06 of the MEPA regulations (301 CMR 11.00), I hereby determine that this project requires a mandatory Environmental Impact Report (EIR). The Proponent submitted an Expanded Environmental Notification Form (EENF) to support the request that I grant a Phase 1 Waiver pursuant to Section 11.11 of the MEPA regulations and requested that I allow a Single EIR to be prepared in lieu of a Draft and Final EIR pursuant to 301 CMR 11.06(8). In a separate Draft Record of Decision (DROD), also issued today, I propose to grant a Phase 1 Waiver that will allow the construction of a new wastewater treatment plant (WWTP), as described in the EENF, to proceed to permitting prior to completion of the EIR for the remainder of the project.

The Proponent should file a Single EIR (SEIR) in accordance with the Scope outlined below.

Project Description

As described in the EENF, the project consists of redevelopment of the Hanover Mall located off Washington Street (Route 53) in Hanover and Norwell. The project will demolish the majority of the enclosed mall and construct a mix of uses consisting of approximately 506,035 square feet (sf) of retail; an approximately 92,500 sf grocery store (Market Basket); 297 multi-family residential units in four four-story buildings (325,000 sf); internal roadways; stormwater management systems; water and sewer
infrastructure; and 3,700 parking spaces. The EENF indicates that pedestrian walkways are proposed to connect the proposed uses and the neighborhood, including the South Shore YMCA. Existing driveways will provide access to the site. The project will be served by new infrastructure including water, sewer and stormwater. An existing WWTP will be demolished and a new WWTP with increased capacity will be constructed.

The project will be constructed in phases. Phase 1 consists of construction of the WWTP which will support development of the remainder of the site. Phase 2 consists of construction of the remaining project components.

Project Site

The 112.0-acre project site is comprised of a 106.4-acre parcel located on Washington Street (Route 53) in Hanover and Norwell and an unconnected 5.6-acre parcel ("secondary parcel") located south of the larger parcel in Hanover. Route 53 is under the jurisdiction of the Massachusetts Department of Transportation (MassDOT). The project site contains the Hanover Mall which is an aging enclosed mall constructed in the late 1960s and early 1970s with outparcel developments containing approximately 833,781sf of commercial space, paved roadways and approximately 3,509 parking spaces. Third Herring Brook runs through the site and generally defines the boundary between Hanover and Norwell. The site has experienced a decline in use in recent years because of internet retail, more modern competition in nearby communities and the loss of tenants. The project site is bounded by Route 3 to the north and northeast; Third Herring Brook and Peterson Pond and its dam to the east; Mill Street to the south; and Washington Street to the west. Access to the site is via four driveways on Washington Street and two on Mill Street. The site is located within a Planned Shopping Center Zoning District. The site is generally surrounded by commercial uses.

The project site contains wetland resource areas associated with Third Herring Brook including Bordering Vegetated Wetlands (BVW), Isolated Vegetated Wetlands (IVW), Bank, Riverfront Area (RFA) and Bordering Land Subject to Flooding (BLSF).

Prior MEPA Review

The MEPA Office reviewed an EENF submitted in December 2018 for the Peterson Pond Dam Removal project (EEA#15959) which was proposed on the project site and consists of the removal of the Peterson Pond Dam which is located along Third Herring Brook, a tributary to the North River. The dam removal project is being undertaken in partnership with the Division of Ecological Restoration (DER), the National Oceanic and Atmospheric Administration (NOAA), and the North and South River Watershed Association (NSRWA).

The project consists of the demolition and removal of portions of the embankment and primary spillway, and excavation of a channel within the former impoundment. The project will address safety and liability issues associated with the deterioration of the dam and restore natural processes to support heathy riverine conditions including sediment transport and habitat connectivity. The restoration of riverine habitat and associated wetlands of Third Herring Brook will improve the resiliency of the river to the effects of climate change and its ability to mitigate storm and flood risks. The dam removal project underwent MEPA review concluding with the issuance of a Final Record of Decision (FROD)
granting a waiver from the requirement to prepare an EIR. The dam removal project is in the permitting process.

Environmental Impacts and Mitigation

Potential cumulative environmental impacts of the project include: alteration of 0.5 acres of land (increasing site total to 108 acres); creation of 0.8 acres of impervious area (increasing site total to 59.8 acres); permanent alteration of approximately 182 sf of BVW, 1,600 sf of IVW, 9,500 sf of BLSF, 5,000 sf of RFA and 120,000 sf of Buffer Zone to BVW; generation of 3,032 new average daily trips (adt) (increasing site total to 28,456 adt); creation of 191 new parking spaces (increasing site total to 3,700 spaces); use of 49,500 gallons per day (gpd) of water (increasing site total to 143,000 gpd); generation of 45,000 gpd of wastewater (increasing site total to 130,000); and construction of 3,500 linear feet of water main. Measures to avoid, minimize, and mitigate impacts include: traffic signal timing improvements; sidewalks and pedestrian crossings; a new bus stop; replication of BVW and IVW; restoration of disturbed wetland resource areas; installation and maintenance of a stormwater management system; and construction period best management practices (BMPs).

Jurisdiction and Permitting

The project is undergoing MEPA review and is subject to a mandatory EIR pursuant to 301 CMR 11.03(6)(a)(6) of the MEPA regulations because it requires a State Agency Action and will generate 3,000 or more new adt on roadways providing access to a single location. The project also exceeds the ENF threshold pursuant to 301 CMR 11.03(6)(b)(14) for generation of 1,000 or more new adt on roadways providing access to a single location and construction of 300 or more new parking spaces at a single location. The project may exceed the ENF threshold pursuant to 301 CMR 11.03(5)(b)(4)(c)(i) for new discharge or expansion in discharge to groundwater of 10,000 or more gpd of sewage within a Zone II Wellhead Protection Area of a public drinking water supply. The project will require a Vehicular Access Permit and Traffic Signal Permit from MassDOT and a Groundwater Discharge Permit (GWDP) from MassDEP. It is subject to the MEPA Greenhouse Gas (GHG) Emissions Policy and Protocol.

The project will require an Order of Conditions from the Hanover and Norwell Conservation Commissions (and, on appeal only, a Superseding Order of Conditions from MassDEP) and a National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP) from the U.S. Environmental Protection Agency (US EPA).

The towns of Hanover and Norwell are seeking funding from MassWorks to support infrastructure improvements associated with the development including construction of a water main loop through the site. Because the Financial Assistance will benefit the project and includes work within the project site, MEPA jurisdiction is broad in scope and extends to all aspects of the project that are likely, directly or indirectly, to cause Damage to the Environment, as defined in the MEPA regulations.

Request for Phase 1 Waiver

The Proponent submitted an EENF in support of its request for a Phase 1 Waiver, which would allow Phase 1 of the project to proceed prior to completion of the EIR for the entire project. Consistent with this request, the EENF was subject to an extended 30-day public comment period.
The MEPA regulations at 301 CMR 11.11(1) state that I may waive any provision or requirement in 301 CMR 11.00 not specifically required by MEPA and may impose appropriate and relevant conditions or restrictions, provided that I find that strict compliance with the provision or requirement would:

(a) result in an undue hardship for the Proponent, unless based on delay in compliance by the Proponent; and
(b) not serve to avoid or minimize Damage to the Environment.

The MEPA regulations at 301 CMR 11.11(4) state that, in the case of a partial waiver of a mandatory EIR review threshold that will allow the Proponent to proceed with Phase 1 of the project prior to preparing an EIR, I shall base the finding required in accordance with 301 CMR 11.11(1)(b) on a determination that:

(a) the potential environmental impacts of Phase 1, taken alone, are insignificant;
(b) ample and unconstrained infrastructure facilities and services exist to support Phase 1;
(c) the project is severable, such that Phase 1 does not require the implementation of any other future phase of the project or restrict the means by which potential environmental impacts from any other phase of the project may be avoided, minimized or mitigated; and (d) the agency action(s) on Phase 1 will contain terms such as a condition or restriction, so as to ensure due compliance with MEPA and 301 CMR 11.00 prior to commencement of any other phase of the project.

Single EIR Request

The MEPA regulations at Section 11.06(8) indicate that a Single EIR may be allowed, provided that the EENF: a) describes and analyzes all aspects of the project and all feasible alternatives, regardless of any jurisdictional or other limitation that may apply to the Scope; b) provides a detailed baseline in relation to which potential environmental impacts and mitigation measures can be assessed; and, c) demonstrates that the planning and design of the Project use all feasible means to avoid potential environmental impacts.

Review of the EENF

The EENF includes a detailed project description that facilitated review of the project and development of a scope for the SEIR. The EENF includes an alternatives analysis, existing and proposed conditions plans, estimates of project-related impacts, and traffic and GHG analyses. It identifies measures to avoid, minimize and mitigate environmental impacts.

Alternatives Analysis

The Town of Hanover’s Hanover 300 plan outlines a 10-year plan which encourages growth in certain sectors to relieve the tax burden on local homeowners, encourages development of multi-family units and other alternatives to single-family housing, and identifies the need for a “downtown” that allows residents to socialize, in addition to fulfilling retail and service needs.
The EENF includes an alternatives analysis that compares and contrasts environmental impacts associated with the following alternatives: No Build; Alternative Build Plan 1 (100 percent commercial); Alternative Build Plan 2 (commercial plus maximum residential); and the Preferred Alternative. The EENF includes a tabular comparison of the impacts and conceptual plans associated with each build alternative. The No Build Alternative would leave the site in its current deteriorating state. This alternative was dismissed because it would not meet project goals; would continue to decline and lose value; is inconsistent with the Town of Hanover’s plan for development within the Planned Shopping Center and Village Planned Unit Development District; and would not include improvements to stormwater management and wastewater. The Preferred Alternative was selected because it would develop the site consistent with market needs, increase the tax base and employment for the Town of Hanover, be consistent with local zoning, and conform to the Town’s bylaws and master plan.

The EENF analyzes two maximum build alternatives. It asserts that the only practical alternative to the Preferred Alternative is to construct a similar commercial project that consists of either all commercial or a larger mix of residential and less commercial. These alternatives were dismissed because they would not meet market demand for mixed-use live/work/play developments as evidenced by the success regionally and nationally of this development model; resulted in greater impacts related to traffic, impervious area creation, and GHG emissions (Build Plan 1), or greater impacts related to GHG emissions, sewage and water (Build Plan 2) than the Preferred Alternative; and were not consistent with the goals of the Town of Hanover’s master plan.

Transportation

The project will require Vehicular Access Permit and a Traffic Signal Permit from MassDOT for access to Washington Street (Route 53), which is under the jurisdiction of MassDOT. The Traffic Impact Assessment (TIA) generally conforms to the MassDOT/EEA Transportation Impact Assessment Guidelines. Access to the site is proposed via existing curb cuts along Washington Street and Mill Street. The TIA includes 15 study area intersections primarily along Route 53, Mill Street, and site driveways. Access will continue to be provided via existing site driveways off Route 53 and Mill Street. Measured intersection site distances (ISD) at the West Project Driveway/Mill Street did not provide sufficient sight lines to exceed the desirable ISD.

Based on data from MassDOT (continuous period from 2012 through 2016), the Mill Street/Mill Pond Drive/Hanover Mall Drive intersection exceeds the MassDOT statewide and District 5 average crash rates for an unsignalized intersection. Consequently, the Town of Hanover completed safety-related improvements at this intersection including implementation of all-way STOP-signal control. None of the study area intersections are listed as 2013-2015 Highway Safety Improvement Program (HSIP)-eligible crash clusters. The Proponent will participate with the Town of Hanover to facilitate completion of an “after” study of this intersection to determine the effectiveness of recently completed safety improvements. The “after” study will be performed in conjunction with the annual Traffic Monitoring and Reporting Program for the project.

Based on the Institute of Transportation Engineers (ITE) Trip Generation Manual’s Land Use Codes (LUC) 221 (Multifamily Housing (Mid-Rise), 820 (Shopping Center) and 850 (Supermarket), and after adjustment for internal trips and pass-by trips, the project is expected to generate a total of approximately 18,942 adt on an average weekday and 29,116 vehicle trips on a Saturday, including 587, 1,697 and 2,221 vehicle trips during the weekday morning and evening, and Saturday midday peak
hours, respectively. The project did not apply mode share splits. The project is expected to generate 3,032 net new vehicle trips on an average weekday and 8,022 net new vehicle trips on a Saturday, including 27, 389, and 337 net new vehicle trips expected during the weekday morning and evening, and Saturday midday peak-hours, respectively.

Traffic operations and vehicle queue analyses were performed at the study area intersections for the 2019 Existing, 2026 No-Build, 2026 Build and 2026 Mitigated Build conditions based on the projected net new trip generation. Future traffic conditions were based on the annual average traffic growth rate, and planned developments and roadway improvements in the study area. The TIA indicates that project-related traffic is not predicted to result in a significant increase in motorist delays or vehicle queues compared to No-Build conditions. Operating conditions for most intersection movements will maintain a level of service (LOS) D or better.

The Proponent will mitigate project-related impacts by redesigning and implementing an traffic signal timing and phasing plan at the Route 53/Route 123, Route 53/Route 3 Northbound (NB) Ramps/Sunoco Driveway, Route 53/Route 3 Southbound (SB) Ramps/Hanover Mall Drive, and Route 53/Old Washington Street/Pond Street intersections. This mitigation is expected to restore operations to conditions similar to the No-Build at each intersection and for intersection approaches under State jurisdiction. The Proponent will also implement a traffic signal timing, phasing and coordination plan for the Route 53/Route 3 SB Ramps/Hanover Mall Drive, Route 53/Hanover Mall Center Driveway, and Route 53/Mill Street/Frank’s Lane intersections including upgrade/replacement of traffic signal equipment/appurtenances and repair/replacement of emergency vehicle pre-emption systems.

Mitigation is proposed at the Main Street/South Street and Main Street/Prospect Street intersections, which are under local jurisdiction. Movements exiting from South Street and Prospect Street operate over capacity during the weekday peak hours independent of the project. The Proponent performed a Traffic Signal Warrant Analysis (TSWA) to assess potential improvement strategies at these intersections; the analysis indicated that the installation of a traffic control signal is warranted at both intersections under 2019 Existing conditions. The Proponent will prepare a Functional Design Report (FDR) to assess alternative improvement strategies at both intersections and will include conceptual design plans for each alternative to assist the Town of Norwell in advancing improvements. The Proponent will also prepare a FDR to assess alternative improvement strategies at the Mill Street/South Street intersection and will include conceptual design plans for each alternative to assist the Town of Norwell in advancing geometric improvements at this intersection. The EENF indicates that the FDR and conceptual design plans will be provided to the Town of Norwell prior to the issuance of a Certificate of Occupancy for the residential component of the project. The FDR should be included in the Single EIR.

The project will provide 3,700 total parking spaces. On-site parking will be provided for a total of 3,254 vehicles to support the commercial uses (parking ratio of approximately 5.44 spaces per 1,000 sf), and 446 parking spaces will be provided to support the multifamily residential community (parking ratio of 1.50 spaces per residential unit). The EENF indicates that the Town of Hanover Zoning Bylaw requires that one parking space per 300 sf of gross floor area (gfa) be provided for commercial uses (1,996 parking spaces). In addition, it requires that one parking space per dwelling unit and sufficient off-street parking for visitors and employees be provided for the residential component (297 spaces). Proposed parking surpasses the amount of required through local zoning. The EENF did not evaluate reduced parking, land banking of parking or other strategies to reduce the parking supply.
The TIA describes pedestrian and bicycle facilities and transit services in the study area. It indicates that pedestrian accommodations will be incorporated within the project site to link buildings and parking to on-site amenities and will include a sidewalk connection between the residential component and Mill Street. The EENF does not provide plans that depict illustrate pedestrian and bicycle circulation and connectivity between uses on-site nor does it depict the proposed connection to Mill Street from residential uses.

The Greater Attleboro-Taunton Regional Transit Authority (GATRA) serves the Town of Hanover; however, it does not provide services within the study area. The TIA indicates that the Proponent will consult with the Town of Hanover and GATRA to evaluate the possibility of establishing fixed-route bus service within the Town and serving the project site. The Proponent commits to reserving space on-site for a bus stop.

The Proponent will implement a Transportation Demand Management (TDM) program to reduce single-occupancy vehicle (SOV) trips which will include, at a minimum, the following measures:

- Coordination with MassRIDES to facilitate and encourage healthy transportation options for residents and employees, and designation as a MassRIDES employer partner;
- Coordination with GATRA to provide fixed-route bus service within the Town of Hanover, expand service to the project site, and provide a bus stop on-site;
- Posting of information regarding public transportation services, maps, schedules and fare information in a central location and/or otherwise made available to residents and employees;
- Provision of a “welcome packet” to new residents and employees detailing available public transportation services, bicycle and walking alternatives, and commuter options;
- Provision of bicycle parking including exterior bicycle parking located proximate to building entrances weather protected bicycle parking located in secure areas; and
- Registration of employees and residents for the MassRIDES “Emergency Ride Home” program.

The Proponent has committed to conducting an annual traffic monitoring program (TMP) commencing six months after the issuance of the first Certificate of Occupancy for the project site and continuing for a period of five years following full occupancy of the project. It will include:

- Simultaneous automatic traffic recorder (ATR) counts at site driveways for a continuous 24-hour period on a typical weekday and Saturday;
- Weekday AM and PM, and Saturday midday turning movement counts (TMCs) and capacity analyses at site driveways; and
- Evaluation of motor vehicle crash data at the site driveway intersections with Route 53 and Mill Street.

Wetlands and Stormwater

The project will permanently alter BVW, IVW, RFA, and BLSF. The Hanover and Norwell Conservation Commissions will review the project to determine its consistency with the Wetlands Protection Act (WPA), the Wetlands Regulations (310 CMR 10.00), and associated performance standards, including the Stormwater Management Standards (SMS).
A portion of the project will be located within RFA (5,000 sf), BLSF (9,500 sf), and buffer zone (120,000 sf). The EENF does not identify changes in the floodplain associated with the removal of the Peterson Pond Dam. The EENF indicates that work within RFA and BLSF will comply with the performance standards for those resource areas pursuant to 310 CMR 10.00. The project will impact 182 sf of BVW and 1,600 sf of IVW. The EENF includes a preliminary plan of the 2,000-sf wetlands replication area adjacent to an existing BVW system, a 9,500-sf area to provide compensatory flood storage and RFA enhancement and an additional 5,000-sf area of RFA enhancement. Work within the buffer zone will be minimized primarily by working in previously disturbed areas and using retaining walls to limit grading. Work within RFA will be limited primarily to previously degraded and disturbed areas. Disturbed or degraded areas will be restored.

The project site includes extensive areas of impervious area and the project will result in a net increase of 0.8 acres of new impervious area. The EENF describes the project’s consistency with the SMS and indicates that BMPs will include: deep sump catch basins; oil grit separators; proprietary water quality devices; subsurface and surface infiltration/detention basins; and a long term pollution prevention operations and maintenance program for the entire site. The EENF indicates that Low Impact Development (LID) measures, including bioretention areas and rain gardens, will be implemented where feasible. The EENF indicates that the system will reduce the peak rate of runoff for all design storms including the 100-year storm, will remove a minimum of 80 percent of total suspended solids (TSS); it will capture and treat the first inch of runoff as required for Land Uses with Higher Potential Pollutant Loads (LUHPLs); and it recharge more than required in the SMS.

Comments on the EENF applaud the Proponent’s support for removal of the Peterson Pond Dam and highlight that prior dam removals and restoration projects have resulted in the Third Herring Brook being classified as a Coldwater Fishery Resource by the Department of Fish and Game. As such, it is a critical resource per the SMS. Commenters urge the Proponent to reduce impervious area and incorporate LID techniques into the project design to maximize the benefit of the dam removal project and avoid and minimize potential impacts of the development on the Brook.

Water and Wastewater

Water demand is projected to increase by 49,500 gpd for a total of 143,000 gpd. The project include construction of a public water main (3,500 lf) through the site to replace aging private lines.

The Town of Hanover does not provide wastewater service to residential or commercial properties. The daily design flow is project at 128,529 gpd. The EENF projects flows associated with each use (369,845 sf of retail; fast food restaurants (692 seats); sit-down restaurants (835 seats); 92,900-sf supermarket; theatre/entertainment; and residential). Actual flows are anticipated to be approximately 60 percent of the design daily flow (77,000 – 80,000 gpd). The EENF indicates that a Financial Assurance Mechanism (FAM) will be required for the replacement and repair of the WWTP because it will serve residential uses.

The EENF summarizes wastewater treatment operations at the project site, which commenced in the early 1970s, and describes upgrades and expansion of the system. Capacity of the original wastewater disposal system was 56,000 gpd. The first GWDP was issued in 1984 and permitted 56,000 gpd (Permit #SE 184-0). The flow was increased to 68,000 gpd in 1994. A GWDP application was submitted to construct a new WWTP with a design flow of 85,000 gpd and MassDEP issued a GWDP
(#184-4) in 2013; however, the WWTP was not constructed. The additional flow was proposed for disposal in an area outside the Zone II based on the Zone II boundary information that was available at that time.

Hydrogeological analyses were conducted on the 5.6-acre secondary parcel and the Proponent submitted a GWDP modification application to MassDEP in 2018 to increase the design flow to 130,000 gpd. The WWTP will be designed based on MassDEP "Guidelines for the Design, Operation, and Maintenance of Small Wastewater Treatment Facilities with Land Disposal" (July 2018) and New England Interstate Water Pollution Control Commission’s TR-16, “Guides for the Design of Wastewater Treatment Works”.

The new WWTP will be locate south of the mall site on the secondary parcel where the existing disposal fields (18,700 sf) are located. A new disposal field (15,500 sf) will be constructed to support increased flow. The disposal area will consist of a total of 34,200 sf of open sand filter beds. The secondary parcel is located approximately one-half mile south of the Hanover Mall and is connected via a sewage pipeline that travels within a subsurface easement through the South Shore YMCA property. Although the existing beds are located within the Zone II, they are exempt from Zone II regulations because they were constructed prior to establishment of the Zone II. The Zone II delineation referenced in previous submittals was established in the mid-2000s and was based on municipal records from both towns. The proposed disposal area is located outside of the delineated Zone II line; however, MassDEP noted that the Zone II line identified on project plans differs slightly from GIS mapping. MassDEP has requested additional soil data to accurately delineate the Zone II.

The EENF describes the wastewater collection and pretreatment systems including gravity sanitary sewers. External, subsurface grease interceptor tanks will be installed at restaurants and other tenant spaces that are expected to generate above normal quantities of fats, oils and grease (FOGS) to provide pretreatment of kitchen and kitchen-type wastewater prior to entering the wastewater collection system. The headworks will consist of a cluster of pretreatment tanks installed at a central location downstream of all building connections and prior to flowing through the YMCA easement to the proposed WWTP at the secondary parcel for final treatment and discharge.

Proposed facilities will provide advanced wastewater treatment and will include preliminary treatment/FOG removal, flow equalization, screening, membrane bioreactor process for nitrification and denitrification, flow measurement, disinfection and treated effluent dispersion onto open sand filter beds. Dedicated preliminary treatment/FOG removal tanks will be located within the commercial and residential areas of the complex near the source of the wastewater. Excess biosolids removed from the biological process will be stored in an aerated sludge holding tank prior to the removal off-site by a properly licensed hauler for further treatment and disposal. Wastewater infrastructure will be constructed in a single phase of approximately 15 months with various sub-phases to allow for the continuity of flow, treatment and disposal during construction.

Greenhouse Gas Emissions

The EENF includes a GHG analysis based on the MEPA GHG Policy and Protocol (GHG Policy). The Policy requires projects to quantify carbon dioxide (CO₂) emissions and identify measures to avoid, minimize or mitigate such emissions. The analysis quantified the direct and indirect CO₂ emissions associated with the project’s energy use (stationary sources) and transportation-related
emissions (mobile sources). The EENF outlines and commits to mitigation measures to reduce GHG emissions.

Direct stationary source CO₂ emissions included those emissions from the facility itself, such as boilers, heaters, and internal combustion engines. Indirect stationary source CO₂ emissions were derived from the consumption of electricity, heat or other cooling from off-site sources, such as electrical utility or district heating and cooling systems. Indirect mobile CO₂ emissions included those emissions associated with vehicle use by employees, vendors, customers and others.

**Stationary Source Emissions**

The stationary source GHG analysis evaluated CO₂ emissions for two alternatives as required by the Policy, a Base Case and the Preferred Alternative and two additional alternatives: Alternative 1 (100 percent commercial) and Alternative 2 (Commercial Plus Maximum Residential). The Base Case was designed to meet the minimum energy requirements of the 9th Edition of the Massachusetts Building Code, which references the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) 90.1-2013 and the International Energy Conservation Code (IECC) 2015. The Town of Hanover adopted the Stretch Energy Code (SC) subsequent to its designation as a Green Community under the provisions of the Green Communities Act of 2008. Therefore, the project will be required to meet the applicable version of the SC in effect at the time of construction. The SC requires a 10 percent reduction in energy use compared to the base Building Code requirements. The Preferred Alternative incorporates additional energy-efficiency and GHG mitigation measures.

The GHG analysis used eQuest v.3.65 modeling software to quantify emissions from the project’s stationary sources. The 348,478 sf commercial development consists of four uses in 13 single-story structures, and includes a 92,500-sf supermarket, 216,670 sf of retail and entertainment space, and 39,308 sf of restaurant space. The 325,024 sf residential development includes four four-story buildings that will have 297 apartment units. Because the supermarket is over 40,000 sf, the analysis addressed compliance of the Preferred Alternative with the Stretch Code (building energy use at least 10 percent below ASHRAE 90.1-2013 Appendix G). The analysis follows the prescriptive Stretch Code (IECC 2015 Code with section C406.1 code-options 1 and 2) for all other commercial buildings. The analysis for the residential development corresponds to the IECC 2015 Residential Code with Massachusetts amendments plus the requirements of Energy STAR Certified Homes v3.1.

The Proponent will construct core and shell space for the commercial buildings in which the tenant will fit-out mechanical systems and lighting and will provide fully finished buildings for the residential tenants. The Proponent will assist building tenants to select energy efficiency measures and the EENF includes a draft Tenant Manual. The EENF indicates that the Proponent is pursuing both the design support and customer incentives offered by utility companies.

The project’s overall stationary source CO₂ emissions were estimated at 3,160.2 tons per year (tpy) in the Base Case. The mitigation measures included in the Preferred Alternative, will reduce GHG emissions to 2,700.8 tpy, a reduction of 459.4 tpy (14.5 percent). Total project-related emissions (stationary and mobile source) will be reduced by 505.5 tpy for an approximate 9.2 percent reduction. The EENF also estimated GHG emissions for Alternative 1 and Alternative 2.
The EENF includes a summary of modeling inputs (e.g., R-values, U-values, efficiencies, lighting power density, etc.) for energy efficiency measures modeled for both the Base Case and Preferred Alternative based upon the conceptual design for each proposed building. The EENF identifies those measures that will be incorporated into the site design and modeled in the GHG analysis, measures that were dismissed as infeasible or inappropriate (peak shaving or load shifting, green roofs, Passivehouse design, Solar Hot Water (SHW) systems), and measures that will be studied further during the advanced design stages.

The EENF indicates the following energy efficiency measures were included for the commercial and residential developments:

- High efficiency building envelopes (wall and window elements);
- High efficiency heating and cooling systems;
- High efficiency domestic hot water systems;
- Sealing, insulating, and testing HVAC supply ducts;
- Light-colored roofs;
- Reduced interior and exterior lighting power densities (LPD) better than Code;
- Energy management systems;
- High efficiency refrigeration for restaurants and supermarket;
- Low-flow plumbing fixtures;
- Dedicated recycling areas;
- Environmentally friendly building materials;
- Use of Energy Star appliances; and
- Solar photovoltaic (PV) ready roof space on building roofs for third-party systems.

The EENF analyzes GHG emissions and cost feasibility for Passivehouse design based on the Passive House Institute U.S. (PHIUS) building design and certification program for the residential buildings. The analysis indicates that the Passivehouse design would reduce total building energy demand by 33 percent, annual energy costs by $78 per apartment, and GHG emissions by 25 percent; however, the Proponent asserts that Passivehouse design is financially infeasible. Comments from DOER identify inconsistencies in the financial analysis, and estimate that Passivehouse will be more affordable to own and operate based on availability of Alternative Energy Credits (AECs) and MassSave incentives (reducing GHG emissions by approximately 41 percent). Based on DOER’s analysis, I urge the Proponent to adopt a Passivehouse design for all residential buildings.

The EENF provides a feasibility analyses for SHW for the largest residential building. The analysis concludes that commercial SHW systems for the residential building are not financially feasible due to the low annual capacity factor in eastern Massachusetts (infrequency of strong sunshine) and the high system cost (even accounting for subsidies such as federal tax credits, Massachusetts Clean Energy Center (MCEC) subsidies, and AECs).

The EENF evaluates the feasibility of using rooftop solar photovoltaic (PV) systems and cold climate air source heat pumps (ASHPs). The Proponent commits to have “solar-ready” space available for a possible third-party photo-voltaic (PV) installation on the roofs of the project buildings. The Proponent is not proposing any solar PV readiness above the minimum required by Code (generally 50 percent) for residential and commercial buildings, and is not meeting Code required minimum solar
readiness for the supermarket (proposed at 30 percent). Rooftop solar PV systems (217,000-sf of usable roof area (URA) accommodating approximately 2.1 megawatts (MW)) would have the potential to generate 2,501 MW-hours per year (MWh/yr), which would reduce GHG emissions by 853 tpy (28 percent reduction).

The Proponent modeled a scenario which used cold climate ASHPs (ccASHP) for all buildings except for the supermarket and concluded that it would reduce GHG emissions by 73 tpy for the commercial buildings and by 23 tpy for the residential buildings. The EENF estimates that including value of AECs, ccASHPs would have a lower operating cost than the Preferred Alternative. The EENF indicates the Proponent will continue to consider incorporation of ASHPs as project design advances.

Upon completion of the project, the Proponent will submit a self-certification to the MEPA Office identifying the GHG reduction measures incorporated into the buildings and details of the owner’s implementation of operational measures. This self-certification will be signed by an appropriate professional (e.g. civil engineer, traffic engineer, architect, general contractor) indicating that all of the GHG mitigation measures, or equivalent measures that are designed to collectively achieve the proposed stationary source GHG emission reduction committed to in the EENF and Draft and Final EIRs, have been incorporated into the project.

Mobile Source Emissions

Mobile-source CO₂ emissions were modeled using the EPA’s MOVES2014 model and data from the traffic study. Under Future Build conditions, project-related emissions would be 2,305.6 tpy of CO₂. The implementation of TDM measures would reduce mobile emissions by 46.1 tpy (two percent) to 2,259.5 tpy.

Conclusion

Based on review of the EENF, consultation with public agencies and consideration of public comments, I have determined that the Proponent may file a SEIR consistent with the Scope included below. The EENF provides a detailed project description, an alternatives analysis, identifies potential environmental impacts and identifies mitigation measures. Additional analysis of mitigation to reduce environmental impacts and commitment to feasible measures are necessary; however, I am confident that the Proponent can address these issues in a SEIR. I reserve the right to require a FEIR if the SEIR is not adequately responsive to the Scope.

The SEIR should be developed in accordance with the Scope below. It should evaluate alternatives that reduce impervious area and parking; that better integrate land uses on the site and encourage walking and biking to and through the site; and that increase open space, integrate LID techniques into the drainage system and maximize benefits of the Peterson Pond Dam removal project. The SEIR should prioritize energy efficiency and renewable energy measures based on their potential to significantly reduce GHG emissions over the project lifespan. Feasible, cross-cutting measures can increase energy efficiency while reducing energy costs for businesses and residents; improve resiliency of the structures to the effects of climate change; and improve the comfort of residential units by reducing noise and improving air quality, which is particularly important for housing proposed in proximity to a large commercial development and associated traffic generation.
SCOPE

General

The SEIR should follow Section 11.07 of the MEPA regulations for outline and content, as modified by this Scope.

Project Description and Permitting

The SEIR should describe the project and identify any changes to the project since the filing of the EENF. It should include updated site plans, if applicable, for existing and post-development conditions at a legible scale. Conceptual plans should be provided at a legible scale and clearly identify: all major project components (existing and proposed buildings, access roads, etc.); public areas; wetland resource areas; impervious areas; ownership of parcels including easements; pedestrian and bicycle accommodations; and stormwater and utility infrastructure. Conceptual plans should be provided for on-site work as well as any proposed off-site work for transportation or utility improvements.

The SEIR should provide a brief description and analysis of applicable statutory and regulatory standards and requirements, and describe how the project will meet those standards. It should include a list of required State Permits, Financial Assistance, or other State or local approvals and provide an update on the status of each. The SEIR should identify the infrastructure improvements for which the towns of Hanover and Norwell will request MassWorks funding.

Alternatives Analysis

The SEIR should include additional analysis of mixed-use alternatives to reduce environmental impacts, in particular for the residential development. The SEIR should analyze measures to reduce impervious area by integrating uses, reducing footprints of building/infrastructure by clustering buildings, and reducing the amount of parking and associated impacts through structured parking, locating parking beneath buildings and land banking parking. The amount of impervious area will have a significant impact on the ability to improve the site’s resiliency and ability to adapt to the effects of climate change, including more severe and frequent storms and flooding. The SEIR should evaluate increasing the buffer between proposed residences and wetland resource areas, and provide additional green space. In particular, the Proponent should address the opportunity to provide additional open space and flood protection through decreasing impervious area, increasing the vegetated buffer between the development and Third Herring Brook and incorporating other LID techniques to further improve habitat and water quality while providing a community amenity.

Transportation

The SEIR should provide a comprehensive response to comments from MassDOT. The SEIR should provide an update on the local permitting processes regarding transportation. The Proponent should consult with MassDOT prior to submission of the SEIR. MassDOT strongly encourages the Proponent to consult with it prior to discussions in local meetings or hearings.

The SEIR should document that site-generated trips were determined in accordance with MassDOT guidance and, if necessary, update the trip generation and capacity analyses accordingly. The
SEIR should provide documentation to support the trip distribution. The Proponent should work consult with MassDOT and Town of Hanover to improve sight distances at the West Site Driveway/Mill Street intersection.

The SEIR should identify how intersections incorporated into the signal timing and phasing program were evaluated for inclusion, provide justification for excluding intersections and identify measures to reduce the anticipated 95 percent queue length. The SEIR should provide the Synchro analyses of proposed improvements involving traffic signal optimization to demonstrate the merits of such improvements. The SEIR should include a commitment to update countdown pedestrian signal heads and other signal equipment upgrades as needed at all intersections proposed for traffic signal timing improvements.

MassDOT indicates that alternative analysis of mitigation may be warranted at the Main Street/South Street, Main Street/Prospect Street, and Mill Street/South Street intersections. Alternative improvement strategies and conceptual design plans should be included in the SEIR and identified in draft Section 61 Findings. MassDOT indicates that these improvements must be implemented prior to occupancy of the residential component to minimize disruptions should other components of the project open first.

The SEIR should describe consistency with the Complete Streets design to demonstrate there is adequate pedestrian and bicycle access to the site and accommodations within the site. The SEIR should confirm that construction proposed along the east side of Route 53 will not preclude installation of sidewalks at a later date. The SEIR must identify a more integrated design and robust multimodal improvements. The SEIR should confirm its commitment to providing a sidewalk connection between the residential component and Mill Street. Any proposed mitigation within the State highway layout and all internal site circulation must be consistent with a Complete Streets design approach that safely accommodates all roadway users, including bicyclists, pedestrians, and transit riders. Where these criteria cannot be met, the Proponent should provide justification for and work closely with MassDOT to obtain a design waiver.

The Proponent should consult with GATRA regarding transit service prior to filing the SEIR to identify what would be necessary to provide fixed route transit to the site (e.g., financial contribution and/or infrastructure). The SEIR should provide an update on consultations with GATRA.

The SEIR should consider additional TDM measures that may be feasible for implementation including the following:

- Designation of a Transportation Coordinator responsible for disseminating relevant TDM information to residents, employees, and commercial building tenants;
- Provision of preferential parking for carpools/vanpools and low-emission vehicles;
- Designation of parking spaces for car sharing services such as Zipcar;
- Installation of charging stations for electric vehicles (EV);
- Identification of incentives to encourage carpools/vanpools; and
- Evaluation of promotional programs to encourage non-SOV travel.

The Proponent should incorporate EV charging stations and "EV-ready" spaces, at a minimum of 5% each of total parking spaces. The SEIR should identify the number and type of preferential parking
spaces, charging stations and EV-ready spaces. More information on EV infrastructure is available through the MassEVolves program at www.massevolves.org. The SEIR should describe the above and other commitments towards a strengthened TDM program. The Proponent should coordinate with MassDOT to help implement the program.

The proposed number of parking spaces (3,700 spaces) is excessive for the project site in comparison to local zoning requirements. The EENF did not identify parking supply based on the ITE Parking Generation Manual (4th edition). The SEIR should describe the amount and location of existing and proposed surface parking, explain the methodology used to determine the total amount of parking and parking usage by different uses, identify the projected parking demand based upon time of day and estimated parking duration. The SEIR should include an analysis based on the ITE Manual. The SEIR should investigate reducing parking or land banking of parking spaces until and unless needed, based on monitoring conducted at a future date. It should consider anticipated parking policies regarding pricing and preferential parking. The SEIR should evaluate construction of parking spaces underneath buildings and within a structured garage. Reductions in impervious area and parking provide significant benefits associated with climate resiliency, traffic generation and air quality. The SEIR should demonstrate that the project will limit parking to the extent feasible.

The SEIR should commit to providing traffic counts and capacity analyses at all mitigated intersections. An employee travel survey and a Transportation Coordinator should be incorporated into the TDM program. The goals of the monitoring program will be to evaluate the assumptions made in the SEIR and the adequacy of the mitigation measures, and to determine the effectiveness of the TDM program. The Proponent has committed to identify and undertake additional mitigation in conjunction with the appropriate parties and subject to receipt of all rights, permits and approvals if the following conditions are met:

- Measured traffic volumes exceed observed traffic volumes presented in the EENF by more than 10 percent on a regular and sustained basis during the monitoring period;
- Material increase in the number of motor vehicle crashes occurring at or in the immediate vicinity of the site driveways that are attributable to the project; or
- Overall directional distribution of project-related traffic as measured at the project site driveways varies by more than 10 percent from the distribution presented in the EENF.

Additional mitigation could include traffic signal timing modifications; sign and pavement marking improvements; wayfinding sign program to encourage regional traffic to use Route 53; on-site operation and management strategies to reduce overall and peak traffic volumes and parking demands; and financial incentives for employees to carpool or use alternative modes of transportation to SOVs. Identified corrective measures will be documented in the TMP report with responsible parties, required approvals, and timeline for implementation. The SEIR should identify the Proponent as the party responsible for implementation of improvements unless infeasible.

Wetlands and Stormwater

The SEIR should demonstrate that the project can be designed and constructed consistent with applicable WPA performance standards. The SEIR should include an updated description of all permanent and temporary wetland impacts including grading, clearing and construction-related disturbances and provide alternatives analyses consistent with regulatory requirements to demonstrate
how wetland impacts can be avoided, minimized and mitigated. The SEIR should describe how much of the project will occur in developed and undeveloped RFA. It should include detailed plans at a reasonable scale that clearly delineate all applicable resource area and buffer zone boundaries including floodplain elevations (based on Federal Emergency Management Act (FEMA) Flood Insurance Rate Maps (FIRMs) if identified). Project plans should depict all project elements in relation to wetland resource areas and any associated buffer zones within the site. The SEIR should describe the nature of all impacts that cannot be avoided and whether they are temporary or permanent in nature. The SEIR should describe measures to mitigate unavoidable wetland impacts, include replication and restoration plans designed to meet the performance standards pursuant to 310 CMR 10.00, and compensatory storage on an incremental basis.

Portions of the project site are located within the 100-year floodplain (Zone A which does not include a base flood elevation). As the coordinating agency for the National Flood Insurance Program (NFIP), the Massachusetts Department of Conservation and Recreation’s (DCR) Flood Hazard Mitigation Program (FHMP) submitted comments regarding the project’s consistency with applicable federal, state and local standards and requirements related to floodplain development including, but not limited to, the State Building Code and Wetlands Regulations. DCR comments indicate concern regarding construction within floodplain and note that removal of Peterson Pond Dam may alter the 100-year floodplain. I expect the SEIR will be responsive to the comments provided by DCR regarding compliance with regulatory standards and requirements and will include hydrologic and hydraulic analyses necessary to identify and mitigate potential impacts. As noted by DCR, the Proponent will be required to develop a base flood elevation and demonstrate it can meet requirements of the Wetlands Regulations and the local floodplain regulations of Hanover and Norwell. The SEIR should include a technical analysis of changed flooding conditions associated with the dam removal and address the need for and/or process for revision of FIRMs.

The SEIR should include an updated description of the proposed stormwater management system and provide documentation, including plans and calculations, in support of the proposed design and its consistency with the SMS. It should include additional review of LID techniques (e.g., pervious pavement, raingardens/bioretention areas, bioswales, tree box filters, and green roofs, and reuse of roof runoff for irrigation) and incorporate these measures into the project design to the extent feasible. The Proponent should analyze additional measures to reduce impervious area, including narrower roadways, locating parking underneath buildings, structured parking, shared parking and banking of parking until warranted by demand. The SEIR should identify mitigation in accordance with the Stormwater Standards described in MassDEP’s Stormwater Handbook. The SEIR should describe consistency of the underground stormwater infiltration structures with the MassDEP Underground Injection Control (UIC) program. The SEIR should confirm registration of these structures with the MassDEP UIC program through the submittal of a BRP WS-06 UIC Registration application.

The Third Herring Brook is listed as impaired for fecal coliform. The SEIR should describe measures to avoid and minimize the impacts to water quality associated with domestic animal waste adjacent to residential buildings including installation and maintenance of animal waste collection kiosks with bags and disposal receptacles.
Wastewater

The Proponent is actively consulting with MassDEP as part of permitting for the proposed increase in discharge associated with the project (from 68,000 gpd to 130,000 gpd). An approved Zone II in 1995 for the Hanover/Norwell wellfield included the location of the discharge, which was outside the six-month ground water travel time to the nearest water source. Revised regulations (314 CMR 5.00) in 2009 required enhanced treatment for new or increased flows discharging to a Zone II, with the exception of discharges outside of the six-month travel time that did not increase the discharge volume.

Comments from MassDEP indicate that the proposed disposal area for the 130,000 gpd expansion includes the area proposed and permitted in 2013. As part of the Proponent’s Hydrogeologic Evaluation Report, the location of the proposed discharge is currently under review by MassDEP to confirm the Zone II boundary. A condition included in the Phase 1 DROD is that the Proponent provide an update in the SEIR on its consultation with MassDEP, that the SEIR include confirmation of the location of the Zone II boundary, and if MassDEP determines that any of the expanded disposal area is within the Zone II, that the WWTP be redesigned to comply with 314 CMR 5.00 and 301 CMR 11.03(5)(b)(4)(c). In addition, the DROD includes a condition that the Proponent consult with the Town of Norwell regarding comments provided on the EENF.

Water

The SEIR should describe the availability of water using existing source water pumping capacity and as allowed by the Water Management Act (WMA); provide plans that illustrate location of infrastructure, and address consistency with regulatory standards. The SEIR should address comments from the Norwell Water Department regarding impacts to public water supply located downgradient of the proposed discharge.

MassDEP comments indicate that the Hanover Water Department has withdrawn water in exceedance of its authorized water withdrawal volume (1,380,000 gpd) in recent years. DCR’s 2010 Water Needs Forecasts (WNF) for Hanover identified that a temporary allocation volume was appropriate because of its high Unaccounted-for-Water (UAW) values. MassDEP and Hanover agreed to an Administrative Consent Order with Penalty (ACOP) on June 25, 2018 that required the Town to take steps to comply with its total authorized withdrawal volume and to reduce the UAW to 15 percent or less. The Hanover Water Department submitted a Corrective Action Plan in September 2018. MassDEP will continue to monitor compliance with the ACOP, particularly efforts to address UAW volumes so that an accurate WNF can be developed. The SEIR should identify how project demand can be minimized and identify mitigation to offset demand, such as contributing to efforts to reduce UAW either through funding or construction projects.

Climate Change

Executive Order 569: Establishing an Integrated Climate Change Strategy for the Commonwealth (EO 569) was issued on September 16, 2016. EO 569 recognizes the serious threat presented by climate change and directs agencies within the administration to develop and implement an integrated strategy that leverages state resources to combat climate change and prepare for its impacts. The Order seeks to ensure that Massachusetts will meet GHG emissions reduction limits established under the Global Warming Solution Act of 2008 (GWSA) and will work to prepare state government
and cities and towns for the impacts of climate change. The SEIR should address the potential effects of climate change on the project site.

The GHG Policy and requirements to analyze the effects of climate change through EIR review is an important part of this statewide strategy. These analyses advance understanding of a project’s contribution and vulnerability to climate change. I strongly encourage the Proponent to consider complementary approaches, such as Passivehouse design, incorporation of renewables and inclusion of LID measures in site design, which can improve the project’s resiliency, reduce GHG emissions and conserve and sustainably employ the natural resources of the Commonwealth.

**Adaptation and Resiliency**

The SEIR should provide an analysis and discussion of vulnerabilities of the site to the potential effects associated with climate change including increased frequency and intensity of precipitation events, flooding and extreme heat events. To assist in this evaluation, the Proponent should review the 2018 Massachusetts State Hazard and Mitigation and Climate Adaptation Plan at [www.resilientma.com](http://www.resilientma.com) and review data available through the Climate Change Clearinghouse for the Commonwealth.

The SEIR should identify measures to improve the project’s resiliency and adaptation to potential effects of climate change. Reductions in impervious area on-site and avoidance of development within the floodplain are the most effective ways to reduce the vulnerability of the site to the effects of climate change. The SEIR should incorporate ecosystem-based adaptation measures and infrastructure design to minimize and mitigate impacts. Building elevations and stormwater management infrastructure should be designed in a manner to promote climate change resiliency and adaptation. The Proponent should also consider impacts on the proposed structures, building entry and exit points, vehicular access, public and private on-site utilities, and first floor uses. The analysis provided in the SEIR should demonstrate that the drainage system is designed to avoid exacerbating flooding of the site and adjacent properties.

The SEIR should provide information on project phasing and development of active and passive recreation areas and open space features that will be designed to flood. It should include figures that depict existing and proposed elevation contours and a supporting narrative that addresses how the open space will function to absorb and buffer flood waters. The SEIR should also identify site elements that have been incorporated into project design to reduce the impact of extreme heat waves and limit the potential impact of more frequent and intense storm precipitation. The Proponent should consider how on-site renewable energy, a central energy plant, or co- or tri-generation systems may provide added resiliency during periods of power loss during storms.

**Greenhouse Gas Emissions**

The SEIR should include a revised GHG analysis that demonstrates the Proponent is avoiding, minimizing and mitigating GHG emissions to the maximum extent feasible. The EENF includes analysis of several measures that are feasible to implement and can significantly reduce GHG emissions. I commend the Proponent for incorporating building envelopes that meet or exceed the prescriptive standards for the building envelope. Comments from the Massachusetts Department of Energy Resources (DOER) indicate that the project could reduce GHG emissions from the residential buildings from 9 percent to 73 percent based on efficient electrification, Passivehouse, and rooftop PV; from the
supermarket from 11 percent to 32 percent with efficient electrification and rooftop PV; and the commercial space from 13 percent to 81 percent with efficient electrification and rooftop PV. Efficient electrification would include use of heat pumps and/or variable refrigerant flow (VRF) systems.

In addition to mitigating GHG emissions, the measures recommended by DOER may reduce costs by eliminating the need for gas service to the site, reducing the size of HVAC systems, and lowering utility costs. The project could be eligible for significant financial incentives from the MassSave program and through Alternative Energy Credits (AEC) for all-electric and Passivehouse options. The Commonwealth’s SMART program provides the opportunity for the Proponent or developer of the project to benefit directly by selling energy generated from rooftop solar PV to the utility.

The SEIR should include the analyses of GHG mitigation measures requested by DOER including heat pump water heating for all buildings, address clarifications identified in the DOER letter and provide information regarding building envelopes in the format requested by DOER. It should provide draft Tenant Guidelines that will support GHG reduction levels identified in the analysis and confirm that the modeling of elements specifically delegated to the tenant and/or residential fit-out process is consistent with those that will be mandated as minimum requirements in the Guidelines. The Proponent should reconsider Passivehouse for residential buildings based on the information provided in the DOER letter. Feasible measures identified in the EENF should be incorporated into the project design including:

- Incorporation of heat pump alternative;
- Submission of detailed roof plans which map out 80 percent of the roof space set aside for solar PV; and
- Address incentives and opportunity for solar, particularly on roof of grocery store.

Construction Period

The Proponent must comply with MassDEP’s Solid Waste and Air Quality Control regulations, pursuant to M.G.L. Chapter 40, Section 54, during construction and demolition (C&D). All C&D activities should be undertaken in compliance with the conditions of all State and local permits. The SEIR should discuss the solid waste and air quality regulatory requirements identified in MassDEP’s comment letter and identify the specific and aggressive construction recycling and source reduction goals the Proponent will adopt. The SEIR should describe the project’s removal of asbestos containing materials pursuant to 310 CMR 7.15.

The SEIR should describe the schedule for construction of project elements and identify construction staging areas. It should identify construction-period impacts (including but not limited to erosion and sedimentation, air quality, solid waste disposal, and transportation/traffic) and outline feasible measures that can be implemented to eliminate or minimize these impacts in a draft Construction Management Plan (CMP). A construction period Stormwater Pollution Prevention Plan (SWPPP) should be developed consistent with the NPDES CGP for the project to reduce erosion and sedimentation impacts.

I encourage the Proponent to mitigate the construction period impacts of diesel emissions to the maximum extent feasible. The Proponent should confirm that it will use construction equipment with
engines manufactured to Tier 4 federal emission standards or best available control technology (BACT). The SEIR should confirm that the project will require construction contractors to use Ultra Low Sulfur Diesel (ULSD) fuel in off-road equipment and indicate whether it will incorporate additional measures to minimize construction-period emissions. The SEIR should address how the project will support compliance with the Massachusetts Idling regulation at 310 CMR 7.11. The Proponent is reminded that any contaminated material encountered during construction must be managed in accordance with the Massachusetts Contingency Plan (MCP; 310 CMR 40.0000) and with prior notification to MassDEP. The SEIR should describe how the project will comply with the MCP during construction. The SEIR should identify preparation of a Spills Contingency Plan.

**Mitigation/Draft Section 61 Findings**

The SEIR should include a separate chapter summarizing proposed mitigation measures. This chapter should also include draft Section 61 Findings for each State Agency that will issue permits for the project. The SEIR should contain clear commitments to implement mitigation measures, estimate the individual costs of each proposed measure, identify the parties responsible for implementation, and contain a schedule for implementation.

**Responses to Comments**

The SEIR should contain a copy of this Certificate and a copy of each comment letter received. In order to ensure that the issues raised by commenters are addressed, the SEIR should include direct responses to comments to the extent that they are within MEPA jurisdiction. This directive is not intended to, and shall not be construed to enlarge the scope of the SEIR beyond what has been expressly identified in this certificate.

**Circulation**

The Proponent should circulate the SEIR to those parties who commented on the EENF, to any State Agencies from which the Proponent will seek permits or approvals, and to any parties specified in section 11.16 of the MEPA regulations. Per 301 CMR 11.16(5), the Proponent may circulate copies of the SEIR to commenters in CD-ROM format or by directing commenters to a project website address. However, the Proponent must make a reasonable number of hard copies available to accommodate those without convenient access to a computer and distribute these upon request on a first-come, first-served basis. The Proponent should send correspondence accompanying the CD-ROM or website address indicating that hard copies are available upon request, noting relevant comment deadlines, and appropriate addresses for submission of comments. The SEIR submitted to the MEPA office should include a digital copy of the complete document. A copy of the SEIR should be made available for review at the Hanover and Norwell Public Libraries.

June 28, 2019  
Date

Kathleen A. Theocharides

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Comments received:

06/05/2019  Greater Attleboro Taunton Regional Transit Authority (GATRA)
06/14/2019  State Representative David F. DeCoste and State Senator Michael Brady
06/17/2019  South Shore Chamber of Commerce
06/21/2019  Massachusetts Department of Transportation (MassDOT)
06/21/2019  Town of Norwell Water Department
06/21/2019  Hanover Chamber of Commerce
06/21/2019  North and South Rivers Watershed Association (NSRWA)
06/21/2019  Southeastern Massachusetts Chapter of Trout Unlimited
06/25/2019  Massachusetts Department of Energy Resources (DOER)
06/25/2019  Massachusetts Department of Environmental Protection (MassDEP) – Southeast Regional Office (SERO)
06/27/2019  Massachusetts Department of Conservation and Recreation (DCR)

KAT/PPP/ppp
June 14, 2019

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS ON THE EXPANDED ENVIRONMENTAL NOTIFICATION FORM

PROJECT NAME : Sylvia Place Pond Dam Breach
PROJECT MUNICIPALITY : Kingston
PROJECT WATERSHED : South Coastal
EEA NUMBER : 16023
PROJECT PROPOINENT : Wildlands Trust of Southeastern Massachusetts
DATE NOTICED IN MONITOR : May 8, 2019

Pursuant to the Massachusetts Environmental Policy Act (G. L. c. 30, ss. 61-62I) and Sections 11.03 and 11.11 of the MEPA regulations (301 CMR 11.00), I have reviewed the Expanded Environmental Notification Form (EENF) and hereby determine that this project requires an Environmental Impact Report (EIR). The Proponent should submit a Draft EIR (DEIR) in accordance with the limited Scope below.

Project Description

As described in the Expanded Environmental Notification Form (EENF), the project consists of breaching the Sylvia Place Pond Dam, filling of the fish ladder and spillway, and construction of an open channel to connect flows to a perennial stream that discharges to Bryant Mill Pond. Sylvia Place Pond Dam is designated as a significant hazard dam in poor condition by the Department of Conservation and Recreation (DCR)’s Office of Dam Safety (ODS). The Wildlands Trust is currently under a Certificate of Non-Compliance and Dam Safety Order with DCR ODS dated February 22, 2008. The Order requires the Wildlands Trust to repair the dam to
achieve compliance with standards or breach the dam to restore natural stream flow. The primary goal of the project is to reduce 100-year impoundment capacity of the dam to below 15-acre feet in order to remove it from the jurisdiction of DCR/ODS. Specifically, the project will include:

- Tree and root removal to facilitate construction access to the dam.
- Draw down of Sylvia Place Pond by approximately 8 feet.
- Construction of temporary cofferdams upstream and downstream of the dam to allow construction activities to occur in the dry.
- Installation of a bypass pumping system to maintain stream flow during construction.
- Excavation of an approximately 23-ft wide, 190 ft-long channel adjacent to the fish ladder and spillway. It will be 5-ft wide with 3:1 (v:h) side slopes.
- Grading and stabilizing the new channel with a riprap base under natural streambed material.
- Filling in the spillway and abandoned fish ladder with excavated material.

The stream channel will lower the outlet which will reduce the 100-year flood impoundment capacity of the dam from 47 acre-feet to 14 acre-ft. The normal elevation of the pond will be reduced from 75 ft to 66 ft. Breaching the dam will protect downstream resources and infrastructure by removing the risk of dam failure which may cause loss of life and damage to homes and roadways. In addition, the project is designed to provide ecological benefits including fish migration and population growth, an increase in dissolved oxygen, and a decrease in water temperature.

Project Site

The 4.47-acre Pond and Sylvia Place Pond Dam is located within the 26-acre Stewart/Pearson Preserve owned by the Wildlands Trust of Southeastern Massachusetts. The Dam consists of an approximately 275-ft long earthen embankment with an average 8-ft crest. The crest consists of a footpath between vegetated shoulders with excessive grades along the upstream and downstream embankment slopes, an erosion scarp 100-ft east of the left abutment on the downstream face; no grass cover or riprap for slope stabilization and uncontrolled seepage from the downstream embankment toe. The dam has an estimated maximum storage capacity of 47-acre-ft with a normal pool storage capacity of 28-acre-ft. Originally believed to be constructed to generate mill power, the pond is used primarily for recreational uses. Land uses around the pond include forested open space, low density residential and transportation corridors.

The Pond receives flows from the Furnace Brook and Russel Pond through an open channel culvert. The dam discharges water to a spillway and fish ladder which flows to Bryant Mill Pond via a perennial stream. Flow from Bryant Mill Pond continues under Sylvia Place Road and Elm Street to Soules Pond which discharges to Furnace Brook and eventually to the Jones River.

Sylvia Place Pond provides spawning habitat for alewife (*Alosa psuedoharengus*) and habitat for American eel (*Anguilla rostrata*) and blueback herring (*Alosa aestivalis*). Portions of Furnace Brook, including the project area, are mapped as Coldwater Fisheries Resources by
the Division of Fisheries and Wildlife (DFW). According to the DFW Natural Heritage and Endangered Species Program’s (NHESP) 14th edition of the Massachusetts Natural Heritage Atlas, the project area includes mapped Estimated or Priority Habitat. It is mapped for the Eastern Box Turtle (*Terrapene carolina*), a species of Special Concern.

**Environmental Impacts and Mitigation**

Environmental impacts associated with the project include the conversion of 56,079 square feet (sf) of Land Under Water (LUW) to Bordering Vegetated Wetlands (BVW). An additional 5,475 sf of impacts to LUW are associated with filling of the spillway and fish ladder and constructing the open channel; 1,893 sf of impacts to LUW is associated with construction period dewatering. In addition, the project will impact 446 linear feet (lf) of Bank; 6,939 sf of BVW; 72,068 sf of Riverfront Area and Bordering Land Subject to Flooding (BLSF). The project involves dredging approximately 998 cubic yards (cy) of sediment.

Measures to avoid minimize and mitigate Damage to the Environment include the use of sedimentation and erosion control measures and restoration of impacted resource areas.

**Jurisdiction and Permitting**

The project is undergoing MEPA review and is subject to a mandatory EIR pursuant to 11.03(3)(a)(4) of the MEPA regulations because it requires Agency Actions and will result in the structural alteration of an existing dam that will cause a decrease in impoundment capacity. The project also exceeds ENF thresholds at 11.03(3)(b)(1)(d) because it will result in the alteration of 5,000 or more sf of BVW. The project requires a Chapter 253 permit from DCR/ODS. It requires a 401 Water Quality Certificate and Chapter 91 (c. 91) authorization from the Massachusetts Department of Environmental Protection (MassDEP). It is subject to the MEPA Greenhouse Gas (GHG) Emissions Policy and Protocol (GHG Policy).

The project will require an Order of Conditions (OOC) from the Kingston Conservation Commission (or in the case of an appeal, a Superseding Order of Conditions from MassDEP) and submittal of a Pre-Construction Notification to the U.S. Army Corps of Engineers (ACOE) seeking authorization under the General Permits for Massachusetts in accordance with Section 404 of the federal Clean Water Act.

Because the project will receive Financial Assistance, MEPA jurisdiction is broad in scope and extends to all aspects of the project that may cause Damage to the Environment, as defined in the MEPA regulations.

**Waiver Request**

In accordance with Section 11.05(7) of the MEPA regulations, the Proponent submitted an EENF with a request that I provide a Waiver of the Mandatory EIR requirement. The EENF was subject to an extended public comment period pursuant to Section 11.06(1) of the MEPA regulations. The EENF included a discussion of project consistency with the waiver criteria outlined at 310 CMR 11.11.
Review of the EENF

The EENF includes a detailed project description, identifies potential environmental impacts, and addresses the project’s consistency with the Waiver criteria. The EENF contains photographs of existing site conditions and the proposed areas of work. It contains a set of design plans that identify wetland resource areas, existing and proposed conditions, erosion and sedimentation control measures, as well as access, flow diversion and staging information. It also includes the results of a hydraulic/hydrological modeling and sediment analysis. Comments from State Agencies are generally supportive of the projects goals to reduce the risk of dam failure and improve ecological conditions.

Alternatives Analysis

The alternatives analysis considered three alternatives including a No-Action Alternative, Dam Repair Alternative and Preferred Alternative which were evaluated based on the results of hydraulic/hydrologic (H&H) modeling and fish passage requirements. The No-Action Alternative was dismissed because the deteriorating condition of the dam could potentially lead to an uncontrolled breach. The Dam Repair Alternative consists of tree, root and brush removal along the crest of the dam; flattening of the slope on the downstream face of the dam; establishing vegetation (grass) along the crest and downstream faces of the dam; placement of armor stone along the upstream and downstream face of the dam; and repair of the existing spillway/fish ladder. The hydraulic conditions under this scenario would be similar to existing conditions. During a flood event, when flows exceed spillway and fish ladder capacity, modeling demonstrated that excess flows can pass across the dam at the left abutment without significant threat to the integrity of the dam. The path of excess flow would require armoring. This option was dismissed because the dam and fish ladder would continue to require maintenance and inspection and this alternative would not create a more natural stream.

The alternatives analysis considered three channel configuration alternatives and three construction access alternatives. All alternatives have a 5-foot wide bottom channel and 3:1 side slopes. The channel configuration alternatives were designed to reduce storage capacity while supporting passage of river herring, blueback herring and alewife. Alternative 1A has a 5% (1:20) longitudinal slope. Alternative 1B has a 3% (1:33) longitudinal slope. It includes three step pools, equally spaced along the channel, created by in-channel weirs formed with boulders. Alternative 1C (Preferred Alternative) also has a 3% (1:33) longitudinal slope and does not include step pools. The Preferred Alternative was selected because it is the only alternative that could reduce storage capacity below 15-acre feet during a 2-year and a 100-year storm.

Because existing access to the site is limited to narrow footpaths, the project includes construction of a temporary access road. The alternatives analysis considers three access road locations. Access Alternative A consists of constructing an approximately 500 ft long, 10-ft wide access road from Sylvia Place Road to the dam crest. The proposed alignment would require grading and tree removal. Access Alternative B consists of constructing an approximately 560-ft long, 10-ft wide access road from the intersection of Sylvia Place Road and Elm Street to the existing dam toe. This proposed route is relatively flat, however it would result in impacts to wetland resources. Access Alternative C consists of constructing an approximately 485 ft long, 10-ft wide access road from Elm Street to the dam crest through private property.
Access Alternative C would require excessive tree clearing and grading and was therefore dismissed. At the site visit held on May 22, 2019, the Proponent discussed the possibility of revising Access Alternative B to avoid wetlands impacts by obtaining an access easement across the property at 269 Elm Street. If an easement can be obtained, this would be the Preferred Alternative because it would minimize clearing, grading and wetlands impacts.

A full dam removal alternative was not analyzed in the ENF but was discussed at the site visit held on May 22, 2019. A complete breach of the dam was dismissed because downstream culverts are undersized and do not have the capacity to withstand the additional flow associated with a complete breach. The Preferred Alternative involves maintaining a portion of the dam length in order to continue to provide flood storage within Sylvia Place Pond. Lowering the pond outlet elevation and stabilizing the remaining embankment removes the Sylvia Place Pond Dam from DCR ODS jurisdiction and eliminates the threat of overtopping or an uncontrolled breach.

**Wetlands, Waterways and Water Quality**

As noted above, the project will result in permanent and temporary impacts to LUW, Bank, BVW and Riverfront Area. The Kingston Conservation Commission will review the project to determine its consistency with the Wetlands Protection Act (WPA), the Wetlands Regulations (310 CMR 10.00), and associated performance standards. A Request for Determination of Applicability (RDA) can be filed with MassDEP to determine if the dam and/or channel are within c. 91 jurisdiction. If the dam and/or channel are jurisdictional, MassDEP’s Waterways Program has determined that the project would be classified as a water-dependent use pursuant to Waterways Regulations at 310 CMR 9.12. MassDEP will review the project to determine its consistency with the 401 WQC regulations (314 CMR 9.00) and Waterways Regulations (310 CMR 9.00). Construction of the channel will require approximately 998 cy of dredging. It is expected that the dredge material will be used on site to fill the spillway and fish ladder. The Proponent may be required to provide additional information during the permitting process if any of the material will be disposed off site.

**Rare Species and Fisheries Resources**

In a letter dated January 18, 2018, NHESP determined that the project qualifies for a MESA Habitat Management Exemption pursuant to 321 CMR 10.14 provided the Proponent undertakes conditions outlined in the approval letter. The Proponent will be incorporating protective measures during deconstruction and drawdown of the impoundment including the implementation of an onsite protection plan during dam removal and avoiding the drawdown of the impoundment between October 15 and April 15.

Comments from DFW’s Fisheries section are supportive of the project and emphasize the benefits to brook trout in Furnace Brook. Comments from the Division of Marine Fisheries (DMF) are generally supportive of the project. As described in the EENF, the elevation of Sylvia Place Pond is expected to decrease by approximately 9 feet (from elevation 75 ft to elevation 66 ft). This decrease in elevation will increase the slope of the channel connecting Russel Pond to Sylvia Place Pond to 18% which is greater than the 5% target for river herring and may impact fish migration. DMF is currently working with the Proponent on fish passage
design features at this channel and will continue to work the Proponent during the permitting process towards the development of channel improvements to facilitate diadromous fish passage. The project should adhere to TOY restrictions to maintain passage for alewives and eels during both their spring immigration (March 15- June 30) into Sylvia Pond as well as their fall emigration (September 1- November 15) out of the system.

**Climate Change Adaptation and Resiliency**

The effects of climate change, including increased frequency and intensity of precipitation events, underscores the importance of proactively managing dam infrastructure. Failure of the dam at maximum pool will overtop Bryant Mill Pond Dam and would likely cause significant interruption of Sylvia Place Road, Elm Street (Route 80), and damage to adjacent homes. These effects may also exacerbate any downstream impacts over time.

The EENF included the results of the H&H analysis which was used to design the project and to gauge its potential downstream impacts. It was conducted with the Personal Computer Storm Water Management Model (PCSWMM) system, which is based on the EPA’s Stormwater Management Model.\(^1\) For smaller storm events, Bryant Mill Pond has the capacity to absorb the increased discharge from Sylvia Place Pond. Under existing conditions, the downstream culverts at Sylvia Place Road and Elm Street cannot adequately pass the 100-year and 24-hour storm event; flow overtops Sylvia Place Road by 0.48 ft and Elm Street by 0.36 ft at. Under proposed conditions, overtopping will increase to 0.71 ft at Sylvia Place Road and 0.39 ft at Elm Street.

The EENF does not include a discussion of measures to reduce or mitigate these impacts nor did it address how the effects of climate change may impact the project or downstream areas, including public infrastructure. I acknowledge that the controlled breaching of the dam will certainly reduce the potential risks to public safety and the environment associated with dam failure. I also note that the proposed alternative may be refined to reduce or mitigate downstream impacts.

**Greenhouse Gas Emissions (GHG)**

This project is subject to review under the May 2010 MEPA Greenhouse Gas Emission (GHG) Policy and Protocol (Policy) because it exceeds thresholds for a mandatory EIR. The GHG Policy specifically includes a de minimis exemption for projects that are expected to produce minimal GHG emissions. As an ecological restoration project involving dam removal and restoration of natural stream processes, GHG emissions will be limited to the construction period of the project. As such, this project falls under the GHG Policy’s de minimis exemption; therefore, the Proponent was not required to submit a GHG analysis in conjunction with the EENF.

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\(^1\) Precipitation data for the 2-, 10-, 25-, 50- and 100-year 24 hour rainfall events were obtained from the “Extreme Precipitation in New York and New England” website Version 1.12 for Plymouth County: [http://precip.eas.cornell.edu](http://precip.eas.cornell.edu).
Conclusion

Based on review of the EENF, I am declining to grant a Waiver of the requirement to prepare an EIR. However, the Scope of the Draft EIR is limited to additional information regarding alternatives and demonstrating that impacts to wetland resource areas and downstream properties will be minimized and mitigated, particularly in light of more intense and frequent precipitation events associated with climate change. If the DEIR adequately responds to the Scope, the MEPA regulations provide flexibility through a “rollover provision”. Upon review of the DEIR, I may determine that no substantive issues and a) the DEIR can be reviewed as a Final EIR (FEIR) (301 CMR 11.08(8)(b)(1)), or b) the Proponent may file a Response to Comments on the DEIR as an FEIR (301 CMR 11.08(8)(b)(2)).

SCOPE

General

The DEIR should follow Section 11.07 of the MEPA regulations for outline and content, as modified by this Scope.

Project Description and Permitting

The DEIR should include an updated project description and updated site plans for existing and proposed conditions. It should describe any changes to the project since the filing of the EENF. The DEIR should include a list of required Agency Actions and local or federal permitting requirements, and provide an update on the status of each of these pending actions.

Alternatives Analysis

To provide context and support the selection of a Preferred Alternative, the DEIR should include an expanded alternatives analysis that quantifies environmental impacts associated with the No-Action Alternative, the Dam Repair Alternative, and Preferred Alternative, including construction access impacts in both a narrative and tabular format. In addition, the DEIR should include analysis of a Dam Breach that would not increase downstream flooding. The DEIR should identify each alternative’s impacts on land alteration, impervious area, wetland resource areas, roadway overtopping, downstream flooding, and change in pond elevation. The Preferred Alternative should include measures to mitigate downstream flooding impacts.

Wetlands and Waterways

The DEIR should include a narrative that addresses the projects consistency with the Wetland Protection Act (WPA), its implementing regulations (310 CMR 10.00) and associated performance standards for a limited ecological restoration project. The DEIR should describe and provide plans that identify wetland replication and compensatory flood storage areas for any impacts that cannot be avoided.
The DEIR should provide an update on proposed fish passage design features proposed to mitigate the project’s effect on the channel connecting Russel Pond and Sylvia Place Pond.

Climate Change Adaptation and Resiliency

The DEIR should discuss potential effects of climate change on the project and downstream areas. It should evaluate potential changes in precipitation based on climate change scenarios including increased frequency and intensity of precipitation events. The DEIR should expand modeling to analyze flows and flooding under climate change scenarios. It should address downstream impacts associated with changes in flow rates, velocity and water depth, and changes in flood attenuation capacity. The DEIR should include graphics and supporting figures to depict existing and proposed conditions under climate change scenarios. The DEIR should identify land ownership for any affected areas, including the Sylvia Pond Road and Elm Street culverts. The DEIR should identify changes to the project or measures that could further avoid, minimize, and/or mitigate adverse impacts.

The Proponent should review the 2018 Massachusetts State Hazard Mitigation and Climate Adaptation Plan² and data available through the Climate Change Clearinghouse for the Commonwealth.³ The Town of Kingston is participating in the Municipal Vulnerability Planning (MVP) Program grant process. The MVP program is a community-driven process to define natural and climate-related hazards, identify existing and future vulnerabilities and strengths of infrastructure, environmental resources and vulnerable populations, and develop, prioritize and implement specific actions. The Proponent should consult with Town regarding impacts to municipal infrastructure and consistency of project design with Town resiliency goals.

Mitigation and Draft Section 61 Findings

The DEIR should include a section that summarizes proposed mitigation measures and provides draft Section 61 Findings for each Agency Action including any TOY restrictions, fish passage mitigation measures or downstream flooding mitigation measures. The DEIR should contain clear commitments to implement these mitigation measures (including monitoring), estimate the individual costs of each proposed measure, identify the parties responsible for implementation, and contain a schedule for implementation.

Response to Comments

The DEIR should contain a copy of this Certificate and a copy of each comment letter received. In order to ensure that the issues raised by commenters are addressed, the DEIR should include direct responses to comments to the extent that they are within MEPA jurisdiction. This directive is not intended, and shall not be construed, to enlarge the scope of the DEIR beyond what has been expressly identified in this certificate.

² Available at: http://www.resilientma.org/
Circulation

In accordance with Section 11.16 of the MEPA Regulations and as modified by this Certificate, the Proponent should circulate a hard copy of the DEIR to those parties who commented on the EENF and to each State and Town Agency from which the Proponent will seek permits. The Proponent must circulate a copy of the DEIR to all other parties that submitted individual written comments. An electronic copy of the DEIR should also be provided to the MEPA Office. A copy of the DEIR should be made available for review at the Kingston Public Library.

June 14, 2019
Date

[Signature]
Kathleen A. Theoharides

Comments received:

05/17/2019 Division of Fisheries and Wildlife (DFW)
05/21/2019 Natural Heritage and Endangered Species Program (NHESP)
06/05/2019 Massachusetts Department of Environmental Protection (MassDEP)
06/07/2019 Department of Conservation and Recreation (DCR)

KAT/EFF/eff
August 9, 2019

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTALAffAIRS ON THE ENVIRONMENTAL NOTIFICATION FORM

PROJECT NAME : Upland Road Solar Facility
PROJECT MUNICIPALITY : Plympton
PROJECT WATERSHED : South Coastal
EEA NUMBER : 16067
PROJECT PROPONENT : Borrego Solar Systems, Inc.
DATE NOTICED IN MONITOR : July 10, 2019

Pursuant to the Massachusetts Environmental Policy Act (MEPA; M.G. L. c. 30, ss. 61-62) and Section 11.06 of the MEPA regulations (301 CMR 11.00), I hereby determine that this project does not require an Environmental Impact Report (EIR).

Project Description

As described in the Environmental Notification Form (ENF), the project entails the construction of an approximately 5 megawatt (MW) solar photovoltaic (PV) facility. The solar array and system components will occupy approximately 20 acres of a former sand pit and abandoned cranberry bog. The bog was partially-constructed and, as a result, the majority of the solar PV site has been altered and cleared of vegetation. The solar array will be enclosed by a seven-foot (ft) high chain-link fence. Approximately 5.3 acres within the fenced area will be cleared and grubbed. The entire area will be revegetated with grass. An additional 2.4 acres located outside of the fence area will be selectively cleared, although stumps will be left in place to reduce erosion. System components will include an energy storage unit, solar panels, racking systems, wiring and connections, power inverters, transformers, and service and metering equipment. The solar panels will be arranged in rows extending in an east-west direction and will
be supported by steel pilings at a south-facing angle. Site access will be provided via existing gravel roads from Upland Road and Brook Street.

The project includes habit creation and enhancement on a 16.44-acre portion of the site, including an active cranberry bog. The cranberry bog will be abandoned and converted to turtle nesting and forage habitat to mitigate impacts to rare species.

**Project Site**

The 22.4-acre project site is located on a 206-acre parcel used for cranberry farming since 1995. Approximately 132 acres of the parcel have been altered by creation of cranberry bogs, sand/gravel mining areas, and unpaved roadways. The project site is generally bounded by active cranberry bogs to the west, forested upland and wetland areas to the north, east, and south. A single-family residence directly abuts the site to the east. The majority of the project site has been altered and is comprised of a sand pit and abandoned cranberry bog (17.1 acres) and undeveloped upland forested area (5.3 acres).

A 16.44-acre portion of the 206-acre parcel, which is comprised of an active cranberry bog and scrub-shrub vegetation, will be converted to turtle habitat.

Wetland resource areas within the vicinity of the project site are limited to Isolated Vegetated Wetlands (IVW). The project site is located in Priority Habitat as mapped by the Division of Fisheries and Wildlife’s (DFW) Natural Heritage and Endangered Species Program (NHESP).

**Environmental Impacts and Mitigation**

Potential environmental impacts of the project include: direct alteration of 38.84 acres of land, alteration of 22.4 acres of designated Priority Habitat for rare species, creation of 1,089 sf of impervious area, and alteration of 100 sf of IVW. Measures to avoid, minimize, and mitigate environmental impacts include: locating the project primarily in previously disturbed areas; limiting clearing beyond the fence line to the minimum required to reduce shading; re-vegetation of disturbed areas; habitat restoration and enhancement (16.44 acres); and placement of a Conservation Restriction (CR) on the site to permanently protect approximately 60 acres of habitat.

**Jurisdiction and Permitting**

This project is subject to MEPA and preparation of an ENF pursuant to Sections 11.03(1)(b)(1) and 11.03(2)(b)(2) of the MEPA regulations because it requires an Agency Action and will alter 25 acres or more of land and disturb greater than two acres of designated Priority Habitat that results in a Take of rare species. The project requires a Conservation and Management Permit (CMP) from the NHESP.

The Plympton Conservation Commission issued an Order of Conditions (OOC) (File No. 266-0196) on April 2, 2019 for the solar facility that was not appealed. The project may require
an Amended OOC or submittal of another Notice of Intent (NOI) application for the habitat creation and enhancement activities. The project requires Site Plan Review Approval from the Planning Board. It will require a National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP) from the U.S. Environmental Protection Agency (EPA).

The project is not receiving Financial Assistance from the Commonwealth. Therefore, MEPA jurisdiction is limited to those aspects of the project that are within the subject matter of any required or potentially required Agency Actions and that may cause Damage to the Environment.

Review of the ENF

The ENF provided a description of existing and proposed conditions, a discussion of project alternatives, preliminary project plans, and identified measures to avoid, minimize, and mitigate project impacts. The Proponent provided an expanded alternatives analysis and supplemental information regarding land alteration, habitat creation and enhancement areas, and stormwater management to facilitate MEPA review. For purposes of clarity, the supplemental material provided by the Proponent is referred to herein as the ENF unless otherwise referenced.

Comments from State Agencies do not identify significant impacts that were not reviewed in the ENF, note deficiencies in the alternatives analysis, or identify additional alternatives for review.

Alternatives Analysis

The ENF evaluated the following alternatives: No Action; By-Right Residential Development; and the Preferred Alternative (as described herein). As described in the ENF, the No Action Alternative was dismissed as it would not meet the project goal of providing revenue stream to support the property owner’s agricultural operations. The By-Right Residential Development Alternative would create 11 buildable lots for single-family homes. The ENF indicated that the By-Right Residential Development Alternative was dismissed as it would require decommissioning cranberry bogs and would result in increased habitat fragmentation through development of driveways and access roads, stormwater management structures, and lawn areas. The ENF identified measures that were incorporated into the Preferred Alternative to reduce environmental impacts, including a 0.4-acre reduction in the project footprint, locating the project in previously disturbed and cleared areas, and using existing access roads to the maximum extent practicable.

Land Alteration/Wetlands

The project will alter 38.84 total acres of land consisting of 22.4 acres for construction of the project and 16.44 acres for habitat creation and enhancement. The majority of this alteration will occur within previously cleared and disturbed areas. The Plympton Conservation

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1 Emails sent from Veronica Price (GZA GeoEnvironmental Inc.) on 7/8/19, Robin Casioppo (GZA GeoEnvironmental Inc.) on 7/22/19, Brandon Smith (Borrego Solar Systems, Inc.) on 7/22/19 and 8/6/19, and Zak Farkes (Borrego Solar Systems, Inc.) on 8/5/19 to Page Czepiga (MEPA Office).
Commission reviewed the project and determined that it is consistent with the Wetlands Protection Act (WPA), the Wetlands Regulations (310 CMR 10.00), and MassDEP’s Stormwater Management Standards (SMS).

Habitat creation and enhancement activities will require an Amended OOC or submittal of another NOI to address work in the 100-ft buffer zone and 11,300 sf of work within an active cranberry bog. I refer the Proponent to comments from MassDEP that encourage the Proponent to review their guidance document on permitting solar PV facilities at cranberry growing facilities. The project will create 1,089 sf of impervious area associated with construction of three equipment pads. According to the ENF, the project was designed to comply with the SMS. Stormwater best management practices (BMPs) will be implemented during the construction period to reduce potential erosion and sedimentation impacts.

Rare Species

The project is located within mapped habitat of the Eastern Box Turtle (Terrapene carolina), which is state-listed as a species of Special Concern. This species and its habitat are protected pursuant to the Massachusetts Endangered Species Act (MESA; MGL c.131A) and its implementing regulations (321 CMR 10.00). Comments from NHESP indicate that the project will result in a Take and, therefore, will require a CMP pursuant to 321 CMR 10.23. Projects resulting in a Take of state-listed species may be permitted only if they meet the performance standards for a CMP. The ENF indicated that the Proponent is consulting with NHESP regarding the following measures to meet the performance standards and to avoid, minimize, and mitigate impacts to this species:

- Permanent protection of approximately 60 acres of habitat for state-listed species with permanent monumentation and signage delineating the boundaries;
- Habitat creation and enhancement for state-listed species on 16.44 acres of the property pursuant to a habitat management plan;
- Providing funding to ensure long-term management of the created habitat;
- Development and implementation of a plan to protect state-listed species during and after construction; and
- Maintaining the bottom of the perimeter fence at six-inches above the ground to allow turtles to pass underneath.

NHESP anticipates that the project will meet the performance standards for issuance of a CMP. NHESP comments indicate that details of the CMP will be addressed during permitting and do not identify any rare species issues that would warrant an EIR.

Construction Period

Construction of the solar facility will occur over a five-month period, commencing in summer 2020. Habitat creation and enhancement activities will be complete by fall 2020. The

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Proponent should implement measures to prevent and minimize nuisance conditions (e.g., dust, noise) that may occur during construction of the project. The Proponent should implement anti-idling and other measures to reduce emissions from construction equipment in accordance with the Air Quality regulations (310 CMR 7.11) which limit vehicle idling to five minutes. I encourage the Proponent to require that its contractors use construction equipment with engines manufactured to Tier 4 federal emission standards, or select contractors that have installed retrofit emissions control devices or vehicles that use alternative fuels to reduce emission of volatile organic compounds (VOCs), carbon monoxide (CO), and particulate matter (PM) from diesel-powered equipment. Off-road vehicles are required to use ultra-low sulfur diesel fuel (ULSD). All construction activities should be undertaken in compliance with the conditions of all State and local permits.

Conclusion

The ENF has adequately described and analyzed the project and its alternatives and assessed its potential environmental impacts and mitigation measures. Based on review of the ENF and comments received, and in consultation with State Agencies, I have determined that an EIR is not required.

August 9, 2019
Date
Kathleen A. Theoharides

Comments received:

07/17/2019 Natural Heritage and Endangered Species Program (NHESP)
07/30/2019 Department of Environmental Protection (MassDEP)

KAT/PRC/prc
September 5, 2019 Old Colony JTC Meeting
Agenda Item 8C
Regional Concerns and Local Community Transportation Issues

Summary

Regional Concerns and Local Community Transportation Issues Discussion.

Attachment(s)
None