

# **Future Opportunities for Bourne's Integrated Solid Waste Management Facility**

**Presented to the Town of Bourne  
Board of Selectmen  
Board of Health  
Landfill Business Model Working Group  
Finance Committee  
Energy Advisory Committee**

**Daniel T. Barrett, General Manager, ISWM Department  
George Aronson, Principal, CRMC  
Ken Ryan, P.E., SITEC Environmental, Inc.**

**August 12, 2019**

# Purpose of the joint meeting

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- Like in 2010, we are at a decision point regarding the future of the ISWM business model and site development
- A joint meeting was invaluable to ISWM staff and provided clear direction that led to a successful business model
- Seeking guidance from leadership regarding options for future growth
- The timeline is tight in order to continue seamless landfill operations
- What do we need guidance on?
  - » Landfill expansion; horizontal and vertical
  - » Land acquisition to mitigate habitat impacts on 12-acre parcel

# Agenda

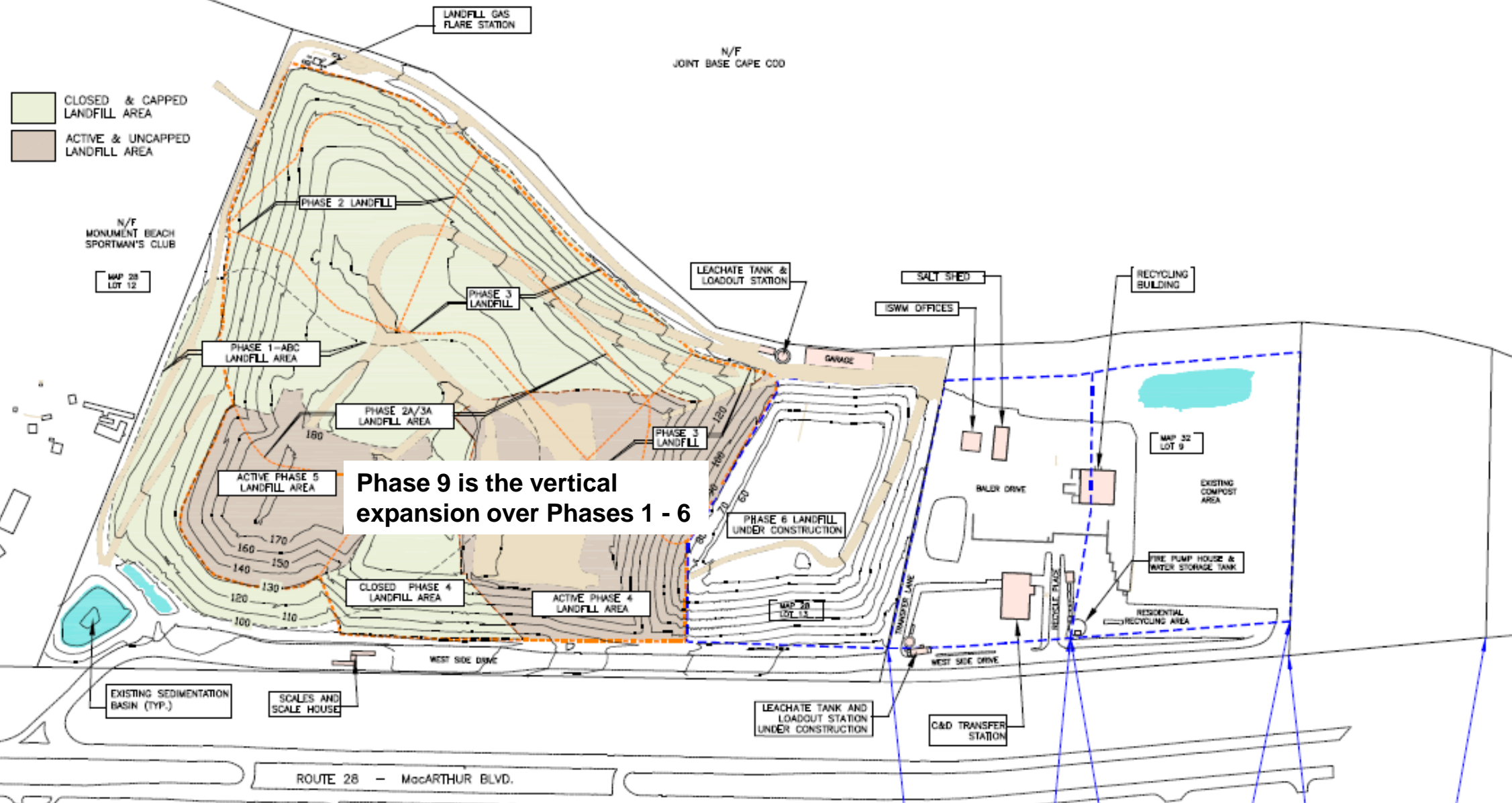
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- Overview of opportunities at ISWM
  - » George Aronson, Principal of CRMC
    - Provided ISWM objective third-party review since 2002
    - Presented at joint meetings in 2010 and was instrumental in the previous RFP process and negotiations on the Site Lease and Development Agreement
    - Owner/Operator of multiple solid waste facilities
  - » Ken Ryan, P.E., SITEC Environmental, Inc.
    - Experienced engineer working on landfills in MA, including CMW in Carver
- Summary and Staff Recommendations
  - » Dan Barrett, ISWM Department, General Manager
- Schedule another meeting if needed

# ISWM Site Today

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- Landfill permitted for disposal of 219,000 tons per year
- Room to expand the landfill both horizontally and vertically
- C&D transfer station
- SSR transfer station
- Residential recycling center
- Yard waste and brush processing area
- Landfill gas available for beneficial use
- Infrastructure and space available for more development



**Phase 9 is the vertical expansion over Phases 1 - 6**

**Phases 1 - 6**



FUTURE PHASE 7 LANDFILL AREA      FUTURE PHASE 8 LANDFILL AREA      POTENTIAL HANDLING AREA (11.7 ACRES)



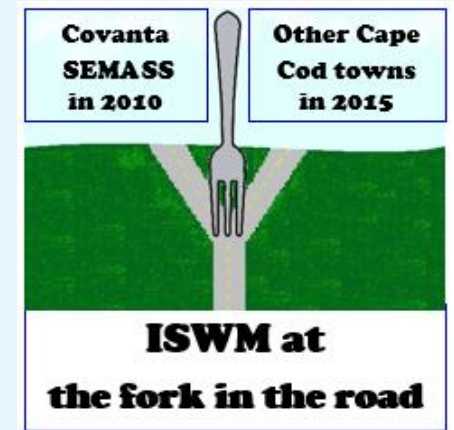


Bourne Landfill December 2018



# Existing Business Model

- Accept Covanta ash supplemented by MSW and other solid wastes
  - » Developed strategy in 2010
  - » Signed agreements in 2012 (contract expires end of 2021)
  - » Arranged stable revenue for 2012 through 2021
  - » Permitted/built landfill airspace through 2024
  - » Secured MSW disposal for Bourne's MSW at SEMASS for 20 years from projected landfill closure (2022 - 2027)



# ISWM Benefits To Taxpayers

- ~ \$4.0 million per year in cash and services
  - » Free curbside collection of trash and recycling
  - » Subsidized residential recycling center (\$30 vs. \$250)
  - » Free disposal, recycling and composting (avoided costs)
  - » Host Community Fee
- ~ \$2.5 million per year in contributions to ISWM Retained Earnings
  - » Debt reduction
  - » Closure and Post-closure funds
  - » Working Capital



# ISWM Benefits To Cape Cod

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- 2007 responded to fire at SEMASS by taking MSW from the entire Cape with no financial or operation impacts to municipalities
- Ash disposal for SEMASS which helps municipalities that send MSW to SEMASS
- C&D transfer operations
- SSR transfer operations
- Short-term MSW capacity during summer months
- ISWM helps to keep pricing competitive

# Long Term Objective

Continue ISWM Core Operations and Benefits As Long As Possible

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## Guidelines

- Use existing site and assets as **fully and efficiently** as possible
- Keep limits on capacity and operations
- Keep installing and maintaining **state-of-the-art design and environmental protection systems**
- **Avoid and control impacts** at levels comparable to existing operations
- Keep providing **services and value to the Town** at current levels
- **Pay off all debt** within the operating life of the landfill
- **Fully fund** all closure and post-closure accounts
- Maintain site **environmental approvals and permit conditions**
- Be responsive to **changing market conditions and opportunities**
- Come back for **guidance from leadership** on any new options

# Landfill Expansion

## Build-out Scenarios (bookends)

- Maximum Build-out: Full horizontal and vertical designs over the entire site
- Minimum Build-out: End after Phase 6 (full design)



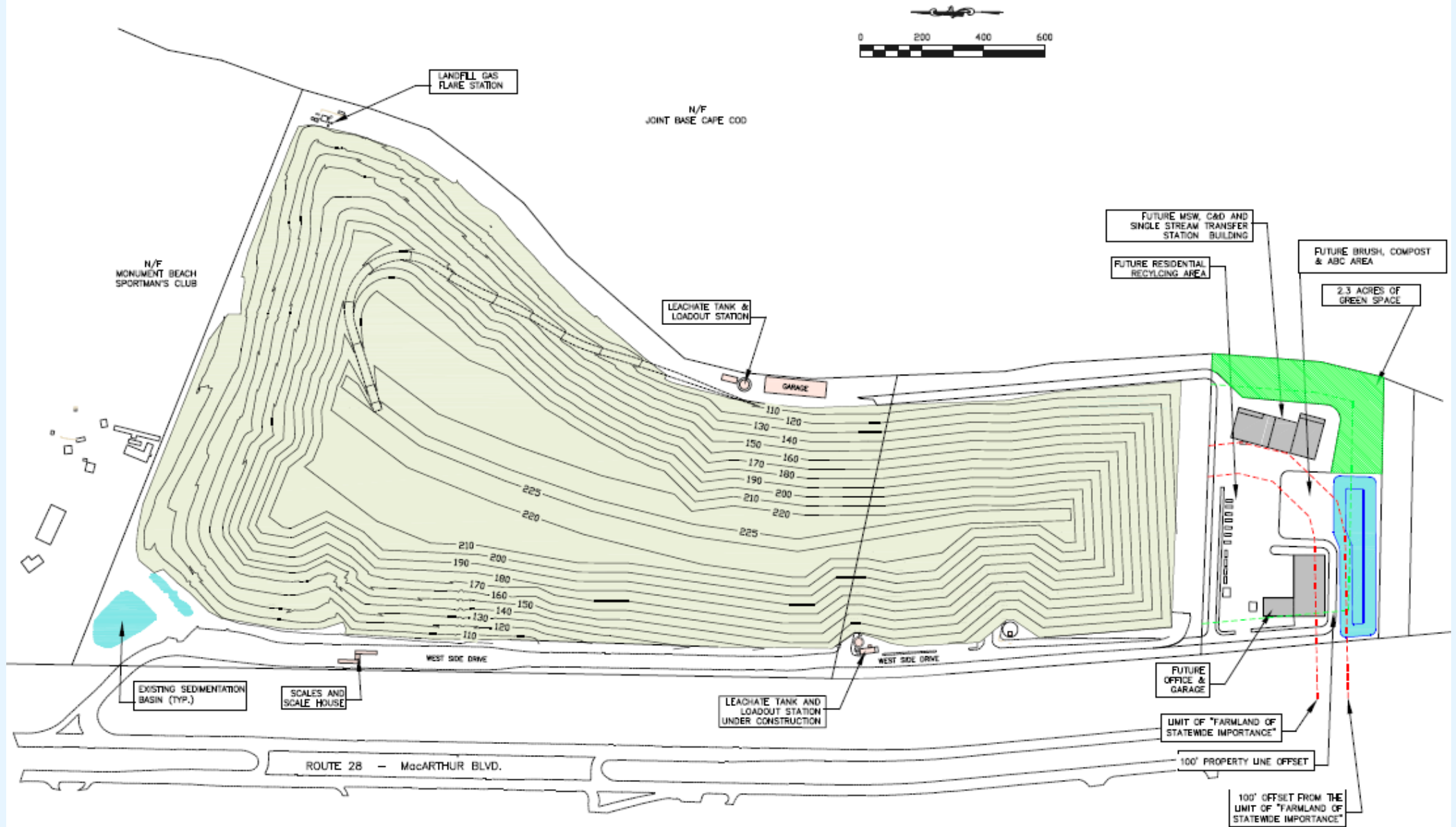
## Oversight and Approvals

- Direction and decisions from Town Boards on compliance with guidelines
- Permit approvals from MEPA, Cape Cod Commission, MA DEP and Bourne Board of Health



# Maximum Build-out

- Landfill extended into the mid 2040s
- Vertical and horizontal expansions
  - » Phase 9 and expanded Phase 7 and Phase 8 designs
- Infrastructure moves to 12-acre parcel (acquire mitigation land)
  - » Administrative offices
  - » Garage
  - » Residential Recycling Center
  - » C&D Transfer Station and SSR Transfer Station





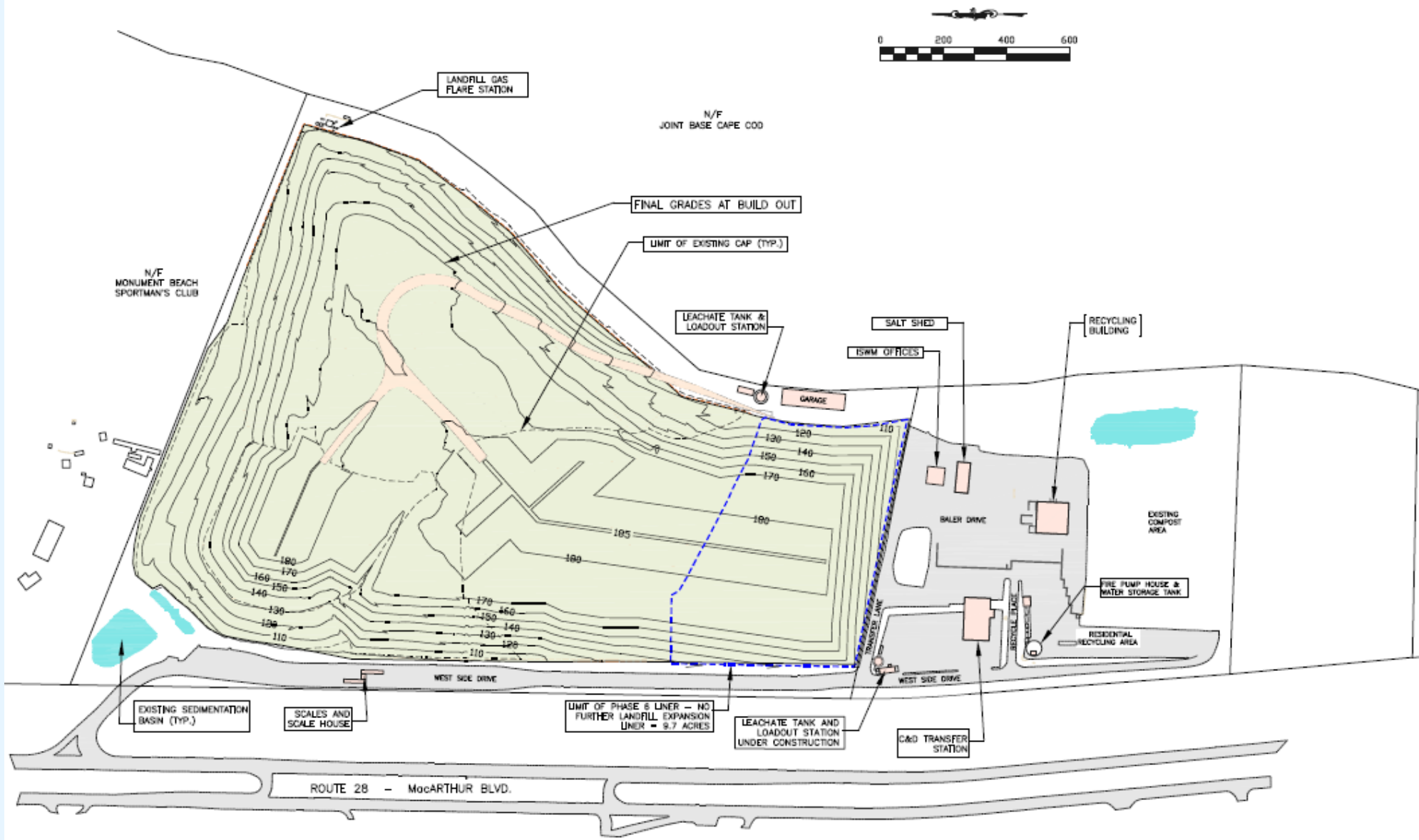
Phase 6 liner construction 2019



# Minimum Build-out

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- Extends landfill life into 2028
- Full build-out of Phase 6 would be the last landfill phase
  - » Adds approximately 700,000 cubic yards of airspace to current Phase 6
  - » Precludes southward expansion horizontally
- Existing liner construction could be modified now
- ISWM would focus on transfer operations after 2028
- Bourne's MSW would go to SEMASS via favorable agreement for 20 years



# Maximum Build-out Views







Bucket Truck Location

Dunkin'

Massachusetts State Police D-7

View From Bourne Bridge

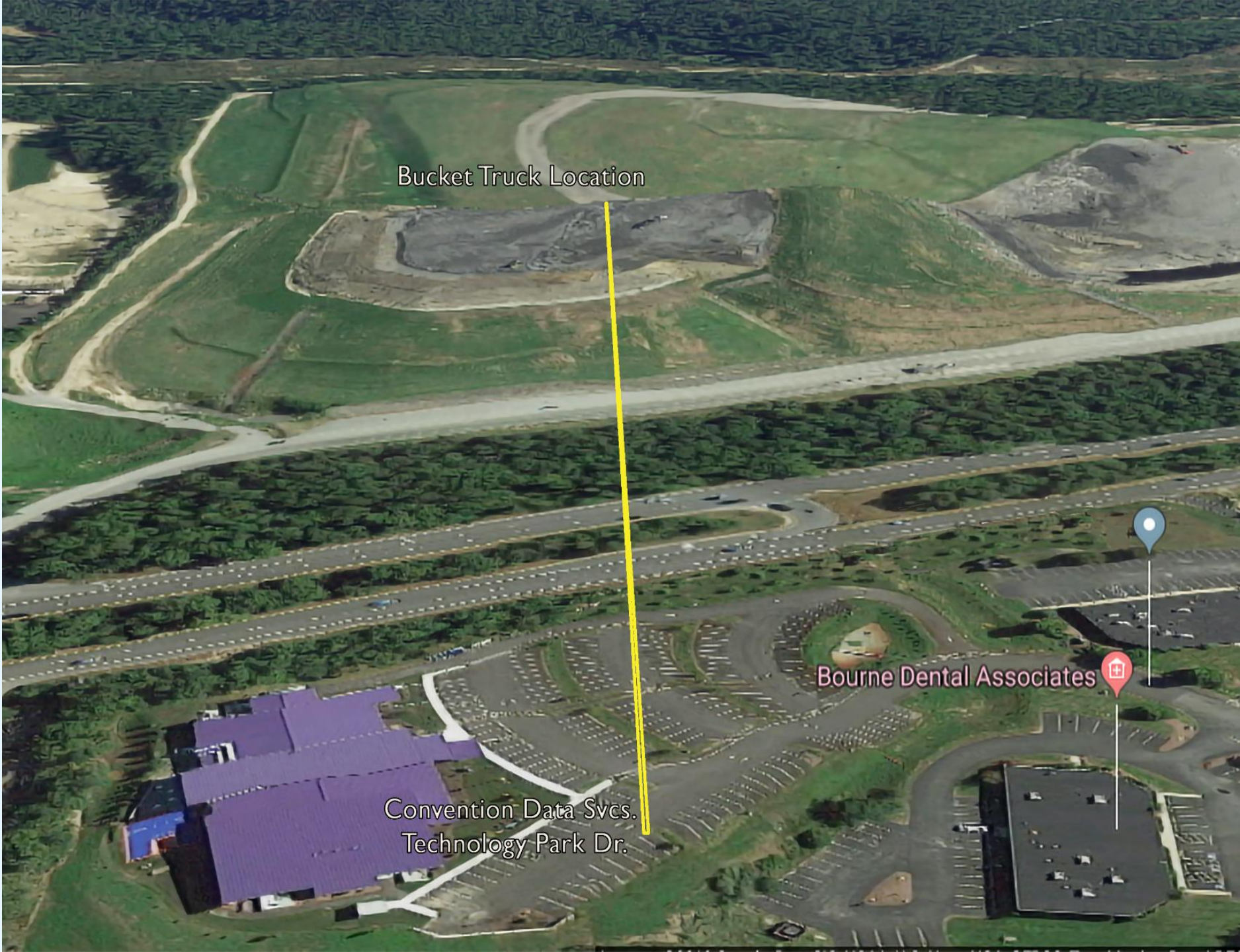












Bucket Truck Location

Convention Data Svcs.  
Technology Park Dr.

Bourne Dental Associates













Bucket Truck Location

McDonald's

Spirits 'n More

Viewing Location  
in Front of Condominiums













Bucket Truck Location

Bourne Middle School

James F Peebles Elementary

Bourne Community Television

Viewing Location From New School











# Development Schedule

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- August to October 2019
  - » Seek guidance and direction from Town leadership
  - » ISWM and SITEC prepare applications
  - » Submit permit application to MEPA
  - » Concurrently work on Site Suitability Reports
  - » Acquire mitigation land necessary to develop 12-acre parcel
- December 2019
  - » Submit follow-up information to MEPA if needed

# Development Schedule

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- February 2020
  - » Submit permit application to CCC
- May 2020
  - » Submit Site Suitability Reports to DEP; 25-acre, 12-acre
- August 2020
  - » Submit Site Assignment Modification(s) to Bourne Board of Health
- October 2020
  - » File Modified Site Assignment at the Registry of Deeds
- January 2021
  - » Pursue ATC for the next phase of the landfill

# Staff Recommendations

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- Pursue final MEPA, CCC, MA DEP and Bourne Board of Health permitting pathways for Maximum Build-out plan
- Acquire mitigation land for the 12-acre parcel (town meeting)
- Garner support from Cape towns; elected officials, Town Administrators/Managers, DPW Superintendents
- Review options to extend Covanta disposal agreement to 2024
- Seek to extend agreement to send Bourne's MSW to SEMASS

# Board of Selectmen Guidance

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- Vertical and horizontal landfill expansions
- Land acquisition for habitat mitigation of the 12-acre parcel
- Letter of support to be submitted to the CCC next year
- Communicate and garner support from Cape towns
- Schedule follow-up meetings if needed