



Cape Cod's Solid Waste Program

Prepared by Greg Smith
Planner/Solid Waste Specialist
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Cape Cod Commission
P.O. Box 226, 3225 Main Street
Barnstable, MA 02630
(508) 362-3828
www.capecodcommission.org

Cape Cod's Solid Waste and Recycling Infrastructure

The fifteen towns on Cape Cod collect, transport and dispose of both solid waste and recyclables in a variety of ways. Since the recent closure of all municipal solid waste landfills and the implementation of the Department of Environmental Protection's waste bans, Cape towns have had to alter traditional methods of solid waste disposal and recycling. Municipal transfer stations, initially playing an ancillary role to the practice of landfilling solid wastes, have become a daily mecca of activity for both curbside and non-curbside communities. Likewise, local transfer stations are increasingly busy due to both the state's ever-increasing recycling mandates and recycling goals, and the physical demands of a growing year-round population.

To address local growth issues and state recycling requirements, Cape towns have devised programs and entered into agreement with several private firms to assist in the proper collection and disposal of both solid waste and recyclables. These programs include contracted solid waste and recycling collection, hauling and disposal, as well as alternative forms of collection including curbside collection and the possibility of Pay-As-You-Throw solid waste disposal programs.



Solid Waste and Recyclables are generated and collected similarly in each Cape town:

1. Disposal- curbside collection (either private or municipal), or transfer station drop-off facility
2. Collection- handled at the local town, or one of the two railhead regional transfer stations
3. Transport- town truck and driver, or the service is contracted out to a private hauler (JL, Childs, etc.)

Waste Bans

The Department of Environmental Protection (DEP) has banned certain items from being disposed of as solid waste. Instead, these items (listed below) must be removed from the solid waste stream and recycled. Those items (and the dates they were banned from being disposed of as solid wastes) include:

• Lead acid batteries	12/31/90	• Aluminum	12/31/92
• Leaves	12/31/91	• Metal/glass containers	12/31/92
• Tires	12/31/91	• Single plastic containers	12/31/94
• White goods	12/31/91	• Recyclable paper	12/31/94
• Other yard waste	12/31/92	• Cathode ray tubes (CRTs)	4/1/00

Source: DEP Bureau of Waste Prevention, 10/19/99.

Cape Cod Municipal Solid Waste (MSW) Disposal

- All Cape Cod Municipal Solid Waste (MSW) is sent to the **SEMASS incinerator** in Rochester, MA
- SEMASS (owned by American Re-Fuel) is currently permitted by the DEP to operate a waste-to-energy (WTE) facility that incinerates 1.05 million tons of MSW annually, and is under contract with 55 Massachusetts cities and towns for MSW disposal.
- Long-term contracts between SEMASS and Cape towns will expire in 2008. At that time, the town can opt to extend the contract until 2015 (with no fiscal penalties to the towns).
- MSW is collected at the local and regional transfer stations for delivery to SEMASS. Commercial solid waste from businesses is collected by private haulers and either driven directly to SEMASS, or tipped for a fee at selected municipal transfer stations, or brought to one of the two railhead MSW transfer stations for rail delivery to the SEMASS incinerator.

Municipal Solid Waste
In 1999, Cape towns sent 177,605 tons of MSW to SEMASS

Annual Maximum Tonnage's (AMT's)

Each town with a SEMASS contract has an annual maximum tonnage (AMT) waste disposal agreement that the community may not exceed without paying a fiscal penalty to SEMASS (the AMT's for each town are listed below). To contend with growth, each contract allows a town to apply for a growth factor once a

Cape Cod's Recycling and Solid Waste Infrastructure



year, based upon documented increases in population (assessor's information). The growth factor adjusts the AMT to reflect a town's population increases, helping the town avoid fiscal penalties for MSW overage deliveries.

*The fiscal penalties are typically the "spot market" rate charged by SEMASS (these spot market rates vary slightly, but on average are twice what Cape towns pay SEMASS under each town's municipal contract).

Historical tons of Municipal Solid Waste generated per town					
Town	1990	1995	1998	1999	2000
Barnstable	-	46,167	46,048	46,160	47,178
Bourne	-	-	5,243	5,584	5786
Brewster	5,346	5,937	5,704	6,580	6464
Chatham	6,351	7,170	6,709	7,150	7230
Dennis	7879	10,641	12,500	15,059	10920
Eastham	-	3,296	3,989	3,963	3610
Falmouth	19,939	20,963	23,333	18,446	13773
Harwich	7,592	6,710	7,904	8,670	8104
Mashpee	6,316	6,245	7,771	7,536	6114
Orleans	2,406	5,433	5,827	6,013	5730
Provincetown	-	4,482	5,049	5,007	4632
Sandwich	10,244	10,155	11,856	10,818	9897
Truro	-	1,727	2,208	2,366	1957
Wellfleet	607	2,736	3,133	3,261	3421
Yarmouth	-	24,444	27,730	29,991	29996
Total:	66,680	156,106	175,003	176,605	164,812

Total tons of contracted MSW to be sent to SEMASS (Year 2000)

Barnstable	43,205	Provincetown	4,800	Wellfleet	2,600
Bourne	5,000	Sandwich	9,940	Yarmouth	27,220
Brewster	6,149	Eastham	4,000	Chatham	6,392
Mashpee	6,500	Harwich	19,834	Dennis	12,140
Orleans	5,497	Truro	2,002		

Total tons of MSW contractually sent to SEMASS not in excess of AMT: 171,523 tons

*Should a town exceed the AMT by 10 percent for a total overage of 110 percent, the town must pay spot-market rates (these rates typically reflect what commercial haulers are charged by SEMASS) for any tons sent to the incinerator above the AMT (i.e.- Eastham's AMT is 4,000 tons/annually. Should the town send more than 4,400 tons per year to SEMASS, the town must pay spot-market rates (an average of \$85.00/ton) for each ton of MSW which exceeds 4,400 tons.

Regional Transfer Stations

Otis MMR Regional Transfer Station provides railhead transport of MSW from the following towns to SEMASS in Rochester:

- Bourne
- Sandwich
- Falmouth
- Mashpee
- Otis MMR

*Commercial haulers (BFI, WM) who tip MSW at Otis are billed directly by SEMASS and not by the Otis facility- as such, commercial waste tipped at the facility does not count towards the facility's Annual Minimum Tonnage (AMT) limitations. However, because of this, the member towns do not receive a percentage of the tip fee as is the case at the Yarmouth railhead facility. Commercial haulers pay spot market tip rates at Otis, and are also assessed a \$15 per ton fee by the Bay Colony Rail Company as a rail transport fee.

Many towns will continue to drive their solid waste to SEMASS because it is currently a less expensive alternative than using rail.

Yarmouth Regional MSW Transfer Station provides railhead transport of MSW for the towns of Barnstable, Orleans and Yarmouth to SEMASS in Rochester.



Facility provides services to the towns of Yarmouth, Barnstable, and Orleans

*Commercial haulers that tip at the Yarmouth facility are not billed directly by SEMASS (unlike those haulers that tip waste at Otis). Thus, the commercial tons of solid waste tipped here count towards the municipality's AMT. Commercial waste tipped in Yarmouth and not billed to the haulers directly by SEMASS is a burden on the facility, for if the facility accepts more waste than the AMT allows, Barnstable and Yarmouth (the owners of the facility) must pay a fine to SEMASS for every ton in excess of the AMT. Currently, the tip fee is \$65.00 per ton (which includes the \$15.00/ton rail assessment and is less than the spot market rate charged at the SEMASS facility for commercial waste). The following towns utilize rail transport for MSW delivery to SEMASS:

- Barnstable
- Bourne
- Falmouth
- Mashpee
- Orleans
- Otis
- Sandwich
- Yarmouth

Yarmouth Regional MSW Transfer Station	
Total Calendar year MSW tonnage sent to SEMASS	79,853 tons
Number of rail cars sent from Yarmouth to SEMASS	1,729 rail cars (approximately 46 tons per rail car)*
<i>Source: Robert Angell, Yarmouth Superintendent of Transfer Station, December 2000.</i>	

*A small percentage of MSW was driven from Barnstable to SEMASS as a result of damaged equipment at the WTE facility that did not allow for MSW to be offloaded from rail cars onto the tip floor.

**Minimal amounts of Cape MSW are sent to the municipal landfill in Fall River. Yarmouth sent MSW to Fall River when it exceeded its AMT with SEMASS. Due to the fiscal penalties associated with exceeding the contracted AMT, Yarmouth has opted to drive the MSW to Fall River, as it was a less expensive alternative than to continue railing the MSW to SEMASS.

The following towns use highway transport for MSW delivery to SEMASS:

- Brewster
- Chatham
- Dennis
- Eastham
- Harwich
- Provincetown
- Truro
- Wellfleet

The following towns opt to drive their own tractor/trailers to SEMASS:

- Brewster
- Harwich
- Truro
- Wellfleet

Cape towns that contract their MSW delivery to SEMASS with a private, on-road commercial hauler:

- Chatham
- Dennis
- Eastham
- Provincetown

*Some towns opt to drive their MSW to the incinerator in Rochester rather than sending it via rail from either Barnstable (the larger facility) or the Otis MMR transfer station. This is because these railheads transfer stations charge a higher tip fee for MSW disposal than is charged at the SEMASS facility in Rochester. Thus, while it is more inconvenient, time consuming, and detrimental for the environment to drive the MSW directly to SEMASS, towns will do so because, in the long run, it is less expensive than using the railhead.

Bourne Integrated Solid Waste Management Facility (ISWMF)

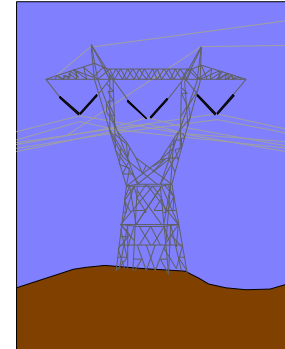
Bourne's ISWMF is a municipally owned and operated non-MSW (Construction Demolition and Difficult To Manage) waste facility that provides local recycling, composting and regional non-MSW disposal services. The 78-acre parcel contains a previously capped unlined landfill (approximately 26 acres), and an active 7.3-acre lined landfill designated as Phase 2 (Stage 1 and 2). The facility is permitted to operate and handle up to 500 tons of non-MSW waste per day (2,800 tons per week), up to 146,000 tons annually. Limited C&D processing per the DEP permit (Condition 9) currently occurs on site (this processing includes the limited removal of cardboard, ABC's, and scrap steel). The processing of C&D would extend the life of the landfill by allowing the facility to remove those materials from the waste stream that may be recycled or re-used. The Phase 2, Stage 2 lined landfill has a total volume of 296,000 cubic yards of disposal capacity, and is projected to be 162 feet above sea level when capped.

Additional phases are currently in the planning stages for the ISWMF. Phases 3 and 6 are lined landfills that would be constructed on the remaining areas of the 78-acre site assigned parcel. Phase 3 must be operated in conjunction with a C&D waste processing facility. Phases 4 and 5 would be located in the unlined Phase 1 areas and would only be available if the Phase 1 area were reclaimed. These Phases would require an ATC and ATO permit from the DEP.

The Town of Bourne has recently applied for a grant to assist in the design and construction of a recycling transfer station and C&D processing center. The intent is to have a state-of-the-art facility on site to handle both local and regional recyclable products, where recyclable materials can be baled and C&D processed to free up additional air space within the landfill.

Renewable Energy Trust Fund

Legislation drafted in 1998 established a fund to assist those cities and towns that were contracted members with a waste to energy facility (such as SEMASS). A small surcharge on electric utility bills funds the Trust (which will reach approximately \$55 million by 2003) and is managed by the Massachusetts Technology Park Collaborative (MTPC). Funds will be disbursed to cities and towns under contract for waste disposal with WTE facilities, and will be used to assist those towns in recouping their costs of meeting clean air emission upgrades as required by Clean Air Act amendments. Funds will be disbursed directly to the towns beginning March 2001 and will occur annually in January 2002 and January 2003. Upon receipt of these grant funds, the towns may send the monies directly to SEMASS to reduce a percentage of the town's share of the surcharge for the capital upgrades. Doing so will reduce the debt service that SEMASS has to carry, and the long-term costs of the debt that SEMASS must pass on to contracted towns for these upgrades.



Renewable Energy Trust Fund

Monies from the Trust will be made available to Cape towns between March 2001 and January 2003 to reduce the surcharge assessed by SEMASS on each ton of MSW sent to the Rochester

The disbursement of the Trust funds will decrease the surcharge that each contracted town is paying to SEMASS. The surcharge decrease could be between 40 and 45 percent (approximately \$7.00 per ton) upon completion of the grant disbursements in January 2003 (see below):

*Currently, the surcharge is \$15.72/ton for towns that did not sign the \$15.00/ton contract with SEMASS. Signing the \$15.00 contract with SEMASS sets the surcharge for the life of the contract; however, the surcharge costs could increase in the future for those towns that have not signed the contract with SEMASS.

Future Municipal Solid Waste Options

Municipal Curbside Collection

Bourne, Falmouth and Provincetown have contracted municipal solid waste and recycling curbside collections that are part of a quarterly assessment sent out in the tax bill to all town residents. Town residents also have the option of using their local transfer station for both MSW disposal and the drop-off for recycled goods. The Town of Sandwich is studying the option of either constructing a new transfer station or implementing a curbside MSW and recycling collection program. The Town of Dennis is considering a proposal by Cassella Waste, Inc. to provide the town with free curbside MSW and recycling services for twenty years in exchange for the rights to open and manage a DTM waste landfill and transfer station in town. Currently, the town has assigned a six member committee to develop re-use ideas for the capped municipal landfill (recommendations are due to the Board of Selectmen by April, 2001). The remaining twelve towns on the Cape do not have a municipal curbside collection system, unless the individual homeowner has contracted with a private hauler to provide that service.

Benefits of a Municipal Curbside Collection Program

Town-wide, municipally contracted curbside MSW and recycling collection services provide high levels of recycling services to residents. Municipally contracted services are often less expensive to residents than having individual homeowners contract for such services. Curbside collection programs are often an easier way for towns to participate in recycling programs, thus increasing recycling percentages. Also, a contracted curbside collection service can reduce the burden on (or negate the requirement for) a local transfer station to handle recycled materials. The existence of a curbside collection service also makes it more beneficial for a town to apply for the state's Municipal Incentive Grant Program (MRIP), which provides financial benefits to a town based upon the amount of recycling that a town completes annually.

Pay-As-You-Throw (PAYT)

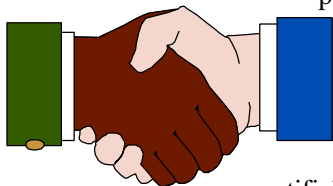
PAYT programs can assist municipalities in providing lower cost MSW collection and disposal programs. This is done by passing on more of the direct and indirect costs of waste disposal to the consumer based upon the amount of MSW disposed of per household. Under a PAYT program, households are only billed based upon the amount of waste they dispose of- the less waste generated, the lower the cost for MSW disposal. Likewise, PAYT programs assist municipalities in increasing recycling percentages, as more attention is paid to what might be recycled in an effort to reduce waste disposal costs. It should be noted that the fixed disposal costs for MSW are higher than the fixed costs for recycling. Thus, the more recycling that a town does, the lower the total costs are for solid waste disposal.

PAYT programs pass on more of the direct and indirect costs of waste disposal to the consumer based upon the amount of MSW disposed of per household.

Currently, the Towns of Barnstable, Bourne, Eastham and Sandwich are contemplating the implementation of a PAYT program by the year 2001. The Towns of Mashpee and Truro are also debating the benefits and drawbacks of a PAYT program.

Benefit of a public/private partnership with PAYT

SEMASS should become an important partner for any town considering a PAYT program. It is important to understand that Cape Cod has a commodity to "sell"; in this instance, the commodity is inexpensive MSW that costs little (by comparison) to dispose of. Because of this, SEMASS loses money incinerating Cape Cod waste, because most other towns are paying 1.5 to 2 times the amount of money to SEMASS for waste disposal. As such, SEMASS is a willing partner in any realistic endeavor to reduce the amount of "cheap" MSW going to its facility in Rochester. This partnership could be structured to contractually guarantee SEMASS a reduced municipal AMT (this reduction could be as much as 15 to 20 percent, depending on the town and the success of the PAYT program). Any



reduced tons of MSW sent to the incinerator benefits SEMASS by allowing them to sell that "free space" on the spot market for significantly higher dollars.

Understanding that the real reductions in MSW tons would not be quantifiable for at least one year after implementation, SEMASS might provide towns with some form of reciprocal payment based upon the actual reduction in MSW delivered during the first year. After the first year, based upon the percentage reduction realized, the AMT contract might be reduced and payment received from SEMASS, which would benefit the town. Prior to program implementation, SEMASS might arrange for some form of assistance to towns, either in the form of cash, technical assistance or product purchase (SEMASS could purchase the first round of bags needed for the program).

Future Municipal Solid Waste Issues

SEMASS Contracts

In 2018, all Cape towns with current SEMASS contracts for MSW disposal will either have to re-negotiate contracts with SEMASS for waste disposal, or seek a new long-term waste disposal option. Should no other feasible options for waste disposal exist for Cape towns, it is likely that any new contracts will result in significantly higher tip fees (and possibly future surcharges) that will more closely mirror the costs presently paid by off-Cape (South Shore) communities. These new fees will likely double those waste disposal fees paid presently by Cape towns. This prospect should spur Cape towns to begin an assessment of alternative forms of waste disposal, both on and off-Cape.

Difficult to Manage (DTM) Wastes

Difficult To Manage wastes are classified as wastes that, due to their size and composition, historically were disposed of in unlined landfills. Those wastes include (but are not limited to) mattresses and box springs, construction demolition, street sweepings, dead animals, boats, marine wastes, tires, batteries, used motor oil, carpeting, upholstered furniture and cathode ray tube electronic (CRT) equipment. These wastes cannot be disposed of in a permitted incinerator due to their size and bulkiness per SEMASS and DEP guidelines, or are “banned” from incinerators and landfills by DEP Solid Waste Management Regulations (310 CMR 19.000) and must be disposed of in an environmentally responsible manner.

Currently, the Town of Bourne’s ISWMF accepts many of the DTM wastes that are banned by SEMASS for incineration (mattress and box springs, construction demolition, street sweepings, boats, upholstered furniture and carpeting- no CRT’s). However, there are at present no other viable options for the responsible disposal of these DTM wastes on Cape Cod.

Future Municipal Solid Waste Alternatives

There are few MSW disposal alternatives for Cape Cod. Presently, MSW is sent to either SEMASS or the municipal landfill in Fall River, while some South Shore towns send it to out-of-state landfills. Future options for solid waste disposal include:

Municipal Composting

Nantucket currently operates a large-scale composting operation on the Island that has considerably decreased the tons of MSW disposal on the island. Upon completion of the composting process, the town is provided with a good source of compost that meets DEP guidelines and is useful for land cover. This technology could be enlarged to provide for solid waste disposal for the entire Cape. It may be feasible to establish one or more Waste Management Districts (WMD) to develop the infrastructure necessary to make this method of waste disposal financially feasible for Cape towns.

Landfilling

The 2000 Solid Waste Master Plan addresses the need to reduce the state’s reliance on exporting solid waste out of state due to limited in-state capacity. The DEP has relaxed permitting requirements for landfills in Massachusetts to both increase the overall processing capacity for solid waste within the Commonwealth, as well as to limit or negate the amount of solid waste that is exported to other states. This should not be considered a long-term option for Cape towns, as the siting, design and permitting of a new landfill (or the expansion of existing landfills) within Massachusetts will likely be expensive and take several years.

Incineration

Due to the state’s moratorium on the construction of new WTE facilities, as well as tougher restrictions on air emissions from incinerators and the difficulties of siting designing and permitting an ash landfill, it is likely that no new Waste to Energy facilities will be built in the Commonwealth in the foreseeable future.

DTM Wastes

More needs to be done to find alternative methods of disposal for DTM's, including investigating the viability of recycling markets for this component of the waste stream (particularly CRT's and mattresses). Mattresses comprise a high percentage of the DTM waste stream and, due to their size and bulkiness, take up a high volume of space in the Bourne landfill. Mattresses can be broken down and recycled; however, the work is both unsanitary and labor intensive.

To contend with the issue of mattress recycling, certain cities in California use prison labor to break down the mattresses and box springs. When cut open, the springs are removed and sold as scrap steel. The stuffing is gathered, dried, bulked and recycled. The wood is separated out and ground in a tub grinder, and the remaining materials (cloth and plastics) are either incinerated or landfilled. This process reduces the volume of material going into local landfills, increases the recycling rates of each town and is more environmentally responsible. Unfortunately, obtaining local prison labor to perform these tasks is nearly impossible, and this concept will likely never be implemented on Cape Cod.

Material Separation Plans (MSP)

Since early 2000, the DEP has mandated that CRT's be diverted from the waste stream and be re-used or recycled. This was done principally because CRT's contain high amounts of mercury, which has been proven to be a dangerous toxic material. When incinerated, the trace particles of mercury return to the food chain via rainwater. Removing CRT's and fluorescent lights from the waste stream will minimize the amount of mercury contaminates entering the Cape's surface and groundwater.

To assist in collecting mercury-laden products prior to incineration, SEMASS is undertaking a two-year program to remove mercury from the waste stream. The MSP, funded by a \$.50/ton surcharge on all MSW collected, will provide a series of unique collection, storage and recycling programs for all SEMASS member communities.

Also, a number of Massachusetts firms are recycling products that contain mercury and other metals, including computers and televisions; however, it is difficult to process and recycle the large numbers of computers, computer screens and televisions because there are few markets for refurbished computer equipment. Due to the expense of recycling CRT's, towns must also charge a fee for each CRT that is dropped off at the local transfer station.

Options/Opportunities

A goal (both identified in the Cape Cod Commission's Regional Policy Plan and the DEP's Solid Waste Master Plan) is to increase municipal recycling rates. Recently, it has proven difficult to significantly increase municipal recycling rates; however, a good approach to achieving significant increases in recyclables is to provide towns with an incentive to reduce the amount of solid waste that is being sent to SEMASS.

As previously mentioned, Cape Cod communities' pay very little for solid waste disposal (by way of comparison with off-Cape municipalities). The spot market (non-contracted) cost for waste disposal at the SEMASS incinerator is approximately \$85.00 per ton; currently, Cape towns pay approximately \$40.00 per ton (including surcharges) to dispose of waste at SEMASS. In its simplest form, SEMASS is not making money by providing this contracted service with Cape towns. This is because the "space" that Cape towns have per their contracts for solid waste disposal could be sold by SEMASS on the spot market for more than 100 percent of what Cape towns are currently paying for this service.

A good approach to achieving a significant increase in recyclables is to provide towns with a financial incentive to reduce the amount of solid waste that is being sent to SEMASS.

This fact provides a financial incentive for Cape communities to consider the benefits of a public/private program that would reduce the amount of MSW sent to SEMASS. This reduction in waste could best be obtained through a PAYT program. SEMASS remains interested in this concept, as any contracted reduction in “inexpensive” Cape Cod solid waste is a real financial benefit to the company.

Integrated approach to commercial and municipal MSW and recycling programs

Cape Cod towns need to evaluate the individual strengths and weaknesses of their recycling and solid waste collection and disposal programs. Outlined below are several alternatives that may assist towns in better managing their solid waste and recycling programs.

Alternatives to over-the-road MSW deliveries to SEMASS

Currently, eight Cape towns deliver their solid waste to the SEMASS Waste to Energy facility in Rochester, MA via tractor-trailer. This form of delivery is chosen because the total costs (tip fee, fuel expense, driver time, and wear-and-tear on the vehicle) are currently less expensive than driving the solid waste to one of the two railheads on Cape and sending the MSW to SEMASS via rail. To entice Cape towns to utilize the railheads, the costs currently charged by Old Colony Rail to municipalities must decrease. An analysis should be done to determine what the break-even costs would be for municipalities to more equitably deliver MSW to SEMASS via the Bay Colony Rail.

It is important to note that the Bay Colony Rail Co. would likely have to reduce the tip fee it assesses per ton at the railhead to entice towns to utilize the rail instead of driving MSW to SEMASS. To make it financially attractive for Bay Colony to reduce tip fees to increase rail utilization, it would likely require a contractual commitment from each town that is currently driving waste to SEMASS. This contract would ensure that the rail company could re-coup those capital costs (additional cars, etc.) expended to meet the new demand, particularly since the per ton tip fee would have to be lowered.

By altering the mode of delivery of MSW to SEMASS from the highway to rail, many tractor trailer vehicle trips can be reduced from the highway system. This benefits the environment, and would allow those municipalities which currently use town employees to haul trash to use them for other departmental functions.

Regional cardboard recycling

Currently, a long-term commercial solid waste disposal contract is being negotiated between the towns of Barnstable and Yarmouth, and American Re-Fuel (SEMASS) in Rochester. The contract would allow SEMASS to bill directly those commercial solid waste haulers utilizing the Yarmouth railhead facility. In return, the towns would receive \$5.00/ton for every ton of refuse tipped at the facility, and SEMASS would pay the annual debt service at the railhead transfer facility in Yarmouth.

This idea, while still being negotiated, could be expanded to include the location of a cardboard aggregation center adjacent to the waste transfer station. This aggregation center would allow commercial haulers (BFI, Waste Management) to deliver cardboard to market via rail, instead of driving it to New Bedford. Doing so would decrease the number of vehicle miles traveled (VMT's) on the Cape's highway network. This would likely require extending the existing rail line in New Bedford to the cardboard recycling centers. There are capital grants available from the State DOT that would assist in the planning and implementation of this idea.

Development of a Transfer of VMT's Plan between SEMASS and Bourne ISWMF

The idea of developing a “credit” based upon a reduction of VMT's would be the result of:

- commercial haulers being able to tip commercial cardboard at a cardboard aggregation facility on Cape Cod at a railhead facility, and
- municipalities that now deliver MSW to SEMASS using the railheads at a discounted fee to encourage the use of rail transport.

The net result of both endeavors would lead to a reduction of Vehicle Miles Traveled (VMT's), which would (in theory) result in the generation of a "credit". The accumulation of these credits would then be made available to an entity which might desire to purchase a portion of those credits for an increase in traffic at an existing or proposed facility.

The Bourne Integrated Solid Waste Management Facility is currently limited to accepting up to a maximum of 500 tons per day (440 one-way, or 220 round trips daily) of construction demolition and difficult to manage waste. Should the town express an interest in increasing the amount of C&D, it must seek approval (in the form of a major modification) from the Cape Cod Commission; however, traffic is the primary issue that might prevent any expansion in the number of trips (and thus the amount of material accepted) to the facility. If "credits" were to be made available for the town to purchase for an increase in operations, the town would be able to expand operations in a way that still would not increase the regional traffic problem or add to air quality issues. These credits would have to be negotiated up front, with the Town of Bourne being an active participant in both the municipal railhead and commercial cardboard aggregation center concepts in Yarmouth. A portion (or all) of the costs to Bourne for the traffic credits would be to assist in paying for the costs of constructing the infrastructure upgrades to the Yarmouth railhead facility.

Regional Transfer Station/Aggregation Center

The Town of Dennis has been approached by Cassella Wastes, Inc. to design, construct and operate a DTM/Bulky Waste landfill and recycling transfer station on Cape Cod. While the program is still very preliminary, the intent is to provide an additional, privately operated landfill on Cape in exchange for several benefits to the host community. These benefits include:

- Free curbside collection of MSW and recyclables for twenty years, and an annual HHW collection;
- The construction of an eighteen hole, municipally owned golf course;
- Buyout of all town MSW and recycling operating equipment from the town;
- Royalty payments to town (\$5.00 per ton) for bulky waste disposed of at landfill;
- Pay for MSW disposal costs as SEMASS, and;
- Design, permit and construct landfill on 133-acre site in town.

North Shore Recycled Fiber "No-cost tip or transport" recycling program

North Shore Recycled Fibers (part of the Newark Group) has made an offer to all Cape towns for free (no tip fee) recycling of both commingled and loose paper products. As a bonus, North Shore will also provide free transport of recycled paper from a town's transfer station to the North Shore paper mill in Fitchburg, and free transport of commingled recyclables to the Springfield MRF. North Shore is offering a ten-year contract to interested municipalities, with service beginning by early Spring 2001.

Currently, many towns are sending recycled product to Martin Recycling in New Bedford, MA. To compete with the North Shore proposal, Martin Recycling is proposing a financially comparable recycling program. This offer includes no fee tipping and no fee transport of recycled product from Cape transfer stations to the New Bedford recycling facility.