

Falmouth Transfer Station Operations Manual for 2009

This manual was generated in May of 2009 to assist staff with the proposed changes to the Transfer Station. The enclosed changes are key components in operating the transfer station in a more efficient, productive, and self-sufficient manner.

The major areas have been separated into the following sections:

1. Hours of Operation and
Employee Regular Work Schedules
2. Hauling
3. Fee Structure Proposals and Public Outreach
4. Logistics/Daily Operations
5. Composting
6. Addendum

1. *Hours of Operation and Employee Work Schedules*

Facility Hours

Currently, the facility hours of operation are as follows:

Tuesday	12:00 PM to 4:00 PM
Thursday	12:00 PM to 6:00 PM
Friday	9:00 AM to 4:00 PM
Saturday	9:00 AM to 4:00 PM

The proposed facility hours of operations, to be implemented on July 1, are as follows:

Tuesday	12:00 PM to 4:00 PM
Thursday	12:00 PM to 4:00 PM
Friday	10:00 AM to 5:00 PM
Saturday	10:00 AM to 5:00 PM

Although these modified hours result in a net reduction of 2 hours per week, this schedule provides the least amount of change to the public. These hours allow for two attendants to be at the transfer station during all open hours of operation. It also allows for the hauling of the containers throughout the week while maintaining a 40-hour work schedule for the hauler/attendant. The two hours eliminated on Thursday were chosen as a result of the traffic count/analysis. The analyses indicate that Thursday between 4:00 PM and 6:00 PM are 2 of the 3 slowest hours of the week. The third slowest hour is Friday between 9:00 AM and 10:00 AM. This further explains the move from 9:00 AM to 10:00 AM on Fridays, which also allows hauling time before opening the facility at 10:00 AM. See the Addendum section for traffic count information.

During winter months the transfer station attendants are reduced from two to one. The use of the facility is also greatly reduced (by the public). Further analysis will be done to evaluate the possibility of reducing hours during the winter. This would allow the utilization of the transfer attendant in other capacities with the Parks and Public Works Department (or additional hours with the Wastewater Department). This could also result in some operational cost savings (power/water consumption/etc.).

Transfer Station Attendant Hours

Mr. Peter Marlowe is the Town's transfer station attendant. His existing and proposed schedule is as follows:

<u>Existing</u>		<u>Proposed</u>	
Tuesday	11:00 AM to 4:30 PM	Tuesday	11:00 AM to 4:30 PM
Thursday	11:00 AM to 6:30 PM	Thursday	11:00 AM to 4:30 PM
Friday	8:00 AM to 4:30 PM	Friday	8:00 AM to 5:30 PM
Saturday	8:00 AM to 4:30 PM	Saturday	8:00 AM to 5:30 PM

The total work hours remains the same at 30 hours. The changes are 2 hours less on Thursday, one hour more on Friday, and one hour more on Saturday.

This schedule allows for Mr. Marlowe to be present one-hour before and one-half hour after the open hours of the transfer station. This is critical to keeping up with the housekeeping, environmental compliance, and cleanup. The ‘logistics’ section will have a new procedure for opening and closing the facility, which will include a new ‘circle check’.

Truck Driver/Laborer/Attendant Hours

Mr. Matthew Joyce is the Town’s Truck Driver/Laborer/Transfer Station Attendant. His existing and proposed schedule is as follows:

<u>Existing</u>		<u>Proposed</u>	
Tuesday	8:00 AM to 4:30 PM	Tuesday	7:00 AM to 4:30 PM
Wednesday	6:30 AM to 4:30 PM	Wednesday	7:00 AM to 1:00 PM
Thursday	11:30 AM to 6:30 PM	Thursday	11:00 AM to 4:30 PM
Friday	8:00 AM to 4:30 PM	Friday	7:00 AM to 5:30 PM
Saturday	8:00 AM to 4:30 PM	Saturday	7:00 AM to 5:30 PM

The total work hours remain the same at 40 hours.

Hauling and Attending Hours

The proposed hauling and attendant times are as follows:

	<u>Hauling Recyclables</u>	<u>Transfer Station Attendant</u>
Tuesday	7:00 AM to 12:00 PM	12:00 PM to 4:00 PM
Wednesday	7:00 AM to 1:00 PM	
Thursday		11:00 AM to 4:30 PM
Friday	7:00 AM to 10:00 AM	10:00 AM to 5:30 PM
Saturday	7:00 AM to 10:00 AM	10:00 AM to 5:30 PM

These hours are intended to balance the needs of the recycling containers, the operations and hours of the transfer station, and non-peak hours at ECOMaine. ECOMaine has stated that Wednesday is the slowest day at the tipping station/scales, thus the 6 hours of hauling on Wednesday is ideal for optimum travel time.

If the proposed hours do not work well for any reason, they can be modified. Also, if the demand for hauling increases in a particular week, the public works staff will be trained and available to cover either the transfer station or hauling duties.

2. Hauling

As part of the Town's budgetary proposal for fiscal year 2009-2010, minimizing the hauling costs was a key component in the Town's solid waste budget. Historically, the Town budgeted approximately \$60,000 to haul recycling, bulky, and solid waste containers. The Town's goal is to offset those costs by purchasing a truck and perform the hauling in-house.

The purchase of the roll-off truck began in May. The retrofit of the cable assembly will be completed and delivered to the Town around June 1.

At this time, the Town will need to contact both hauling vendors and arrange a transition date. Staff training will also occur in June. It is the Department's goal to commence with the hauling by July 1.

On average, about 15 hauls (or 'pulls') per week occur. This is spread over 4 locations. At this time, the recycling containers ("silver bullets") will remain at their current locations. However, further analysis may be done to research the consolidation of the recycling containers. It has been suggested that consolidating the silver bullets would lower the total hauls. Consolidation could also minimize non-Falmouth resident use, and minimize non-recycling dumping at the remote locations.

There are 12 containers total. They are as follows:

Transfer Station:	3 Silver Bullets, 1 Bulky Waste, 1 Compacted Cardboard
Bucknam Road:	3 Silver Bullets
High School:	1 Silver Bullet
Exit 53:	3 Silver Bullets

By performing the hauling in-house, it is estimated that at least 2 pulls per week will be eliminated by allowing the containers to reach maximum capacity. The weekly hauling and tonnage information provided by our existing hauling vendor was analyzed to come to this conclusion.

The goal is to perform all of the hauling within the 16 hours of non-transfer station time. This equates to 13 pulls over a 16 hour period, or 1.2 hours per pull.

3. *New Fee Structure Proposals and Public Outreach*

Option A:

As part of the 2010 budget, a revised fee analysis was created to offset disposal costs. The analysis, in spreadsheet form, is in the addendum (section 6) and is for consideration as option A. This option would require the transfer station to be altered to control circulation. A transfer station attendant would also need to be assigned to stopping vehicles, screening, assessing, and collecting fees at the entrance of the facility.

Option B:

Option B involves adjusting the permit sticker to \$5.00 annually. It also converts the large item tag system to a new 'disposal item tag'. Currently, large item (bulky item) tags are used for bulky waste and for commercial leaf and brush disposal. Option B adjusts the tag cost from \$6.00 to \$5.00, and sets new rates for additional items. Full detail of Option B items and proposed costs are included in the addendum. Some of the benefits of Option B include the following:

- Logistics, cash transactions, usage of staff time/ease of management, minimizing the impact on the residents, and maintaining recycling efforts.

By minimizing the increase in the permit fee and utilizing the tag system, this allows users of the facility to 'pay as you go'. Option C is a more simplified version of Option B; however, it may deter residents from participating in recycling efforts.

Option C:

The proposed revenues, along with historical permit sticker annual sales, were used to adjust the permit sticker fee and create option C. Option C is an increase in the permit sticker fee along with using the existing fee structure. As with option B, Option C eliminates the monetary transactions at the entrance to the transfer station. It also frees up the time of the transfer station attendants, and also keeps the circulation/logistics somewhat the same. The proposed permit fee as part of option C is \$20.00. The fee was calculated utilizing historical permit sales along with the projected additional revenue for fiscal year 2010.

Implementation of Fee Structure:

If option B or C are adopted by the Town Council, existing stickers purchased prior to the selected implementation date could be honored at the Transfer station until December 31, 2009. It is proposed that new stickers will be made in order to differentiate the use of parking stickers for Town Landing and the Transfer Station. The new Transfer Station stickers will include the parking at Town Landing, i.e., a resident can either buy a parking sticker for \$1.00 or buy a transfer station/parking sticker for the new fee.

The permit sticker change will be publicly advertised through the following media:

- i. Handing out fliers at the transfer station to residents (July)
- ii. Updating the Web (July)
- iii. Ad placed in the Forecaster (July)
- iv. Cable TV (July)

The new fee structure will also be posted at Town Hall where permits and large item tags are currently purchased. This will be done starting the month of July in anticipation of implementing the changes. If option B is selected, it is proposed that existing permit holders will also need to obtain disposal tags on or after the selected implementation date.

By performing these notifications in July, it will help residents transition to the new change and result in an easier implementation.

4. Logistic/Daily Operations

With all of the proposed changes, some logistical changes to the transfer station are needed. Currently, there are two full time attendants working from April to November. A number of other municipal transfer stations were evaluated for hours, manpower, circulation and logistics, and so forth. The majority of the transfer stations (similar to Falmouth in size and use) utilize one attendant to manage the vehicle circulation at the entrance of the facility. Currently, Falmouth is not set up this way and vehicles are allowed to enter and circulate through the facility without any initial screening by an attendant.

Depending of which fee structure is adopted by the Town Council, the transfer station will be re-arranged to accommodate whichever fee structure is selected. This could involve the initial stop, screen, sticker check, and fee assessment occurring upon entering the facility. Stop signs would be placed near the recycling containers and a stop bar will be painted on the pavement. This would be placed so that vehicles will be able to stack, or cue, in the entrance. It is estimated that between 5 and 10 vehicles can be cued in this area at any given time. Upon meeting an attendant, the user will be have their permit sticker verified, the fee or disposal tag(s) collected, then directed to the appropriate disposal area. At that time, the user will circulate through the facility. The second transfer attendant's role will be to manage the circulation, material handling, disposal, daily upkeep, and so forth.

The attendant at the entrance will also monitor the following: recycling containers, household hazardous waste, scrap metal, appliances, and propane tanks.

The attendant managing the 'yard' will manage the following: brush, leaves, bargain barn (drop off and sales), batteries, wood pallets, waste oil, universal waste, cardboard, trash, and bulky waste.

The following are the Department's top priorities of the facility:

1. Customer service
2. Environmental Compliance
3. Safety
4. Proposed changes:
 - a. Initial screening/assessment at the entrance, and
 - b. Materials disposal and circulation.

Other responsibilities such as pushing the leaf and brush piles back, cleaning out the bargain barn, etc., shall be done during slower times or after closing the facility.

The transfer station will be arranged in this manner in July to test any new logistics and to allow the users of the facility to become acclimated with the new arrangements.

5. Composting

The other major change at the facility is the composting operation. In fall of 2008, the Town requested proposals from two private entities. One consultant, Eco-logic systems, provided superior expertise to the Town. This included various quality control, logistical, and budgetary details. The proposal was also a key factor in striving toward managing the compost in-house.

A consulting agreement has been reached with Eco-logic systems and they are being utilized by the Town. The Town has begun the 'in-house' process of composting. Full details of the operation can be found in the 'Composting Proposal' by Ecologic systems. The following are the expanded details of the operation:

The Town of Falmouth possesses a Class 1A permit from the Maine DEP for composting. This allows the facility to compost up to 10,000 cubic yards of the following materials: leaves, grass clippings, wood chips, corrugated cardboard, newsprint, sawdust, and more. The proposal is to compost leaves and grass clippings at this time. The Town allows leaves to be dropped off at the transfer station at no charge. The Town also provides bio-degradable leaf bags to Falmouth residents and also contracts with their waste hauler to perform curbside leaf collection in the spring and fall.

The leaves are then placed in rows, or 'windrows', to obtain optimum temperature and moisture content. They are monitored and turned periodically based on their internal temperature readings. Please refer to the appendix for the temperature log that has been created for quality control. When the process is completed, the material is then screened using a rented 'trommel' style screener. This separates the finish compost from any unfinished material. Unfinished material returns to the windrows for further aging.

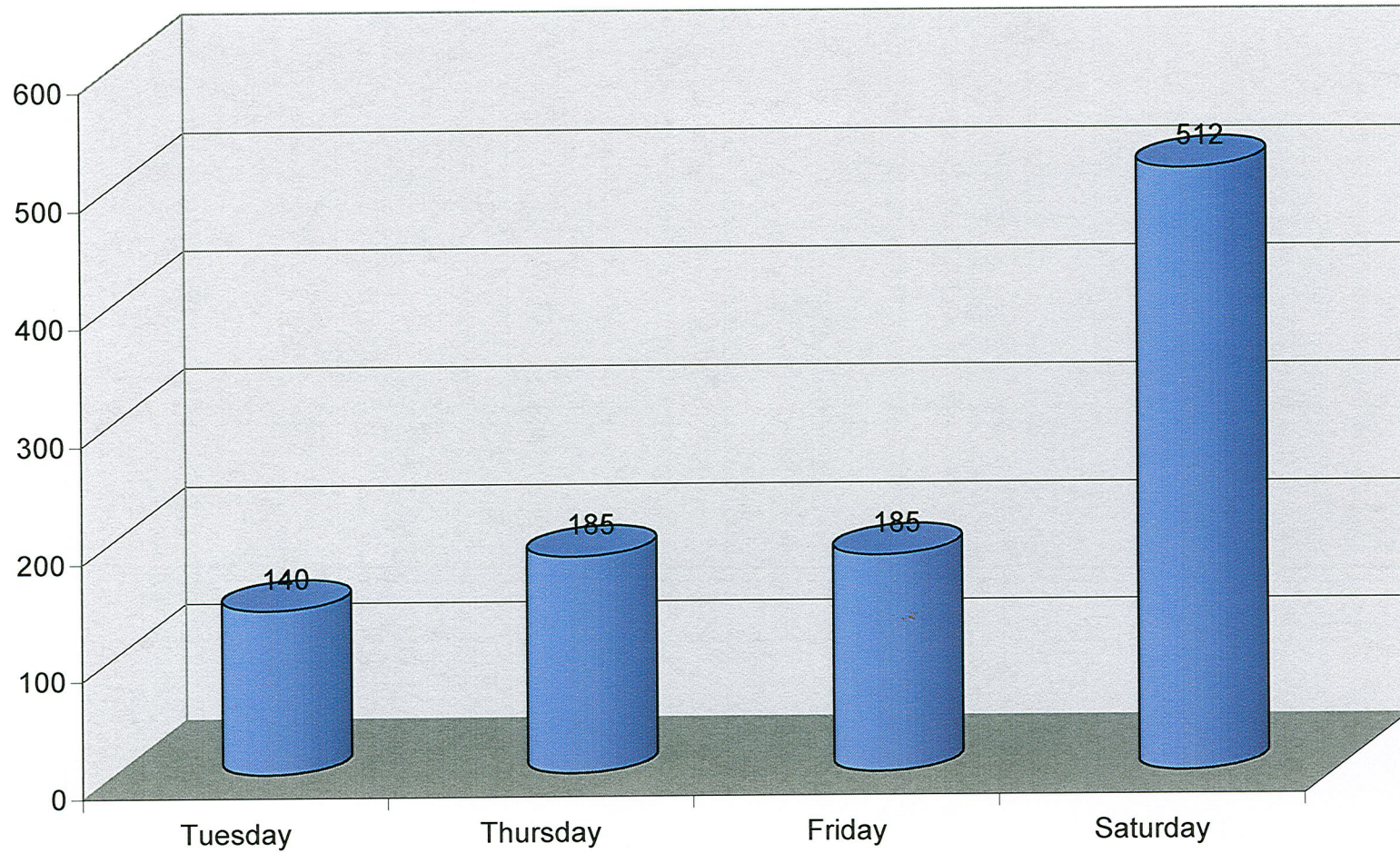
It is estimated that 1,800 cubic yards of compost will be produced annually. The screening process is expected to occur in April, July, and September. Each weekly screening involves renting the equipment and using Public Works staff time. The process yields approximately 600 yards each time.

The variable that will become clearer as the Town becomes more experienced with composting is the supply/demand. The Town is currently proposing to sell compost wholesale. This will allow The Town to sell higher volumes of product in a shorter time frame. The wholesale approach is just a starting point that may change depending on supply/demand.

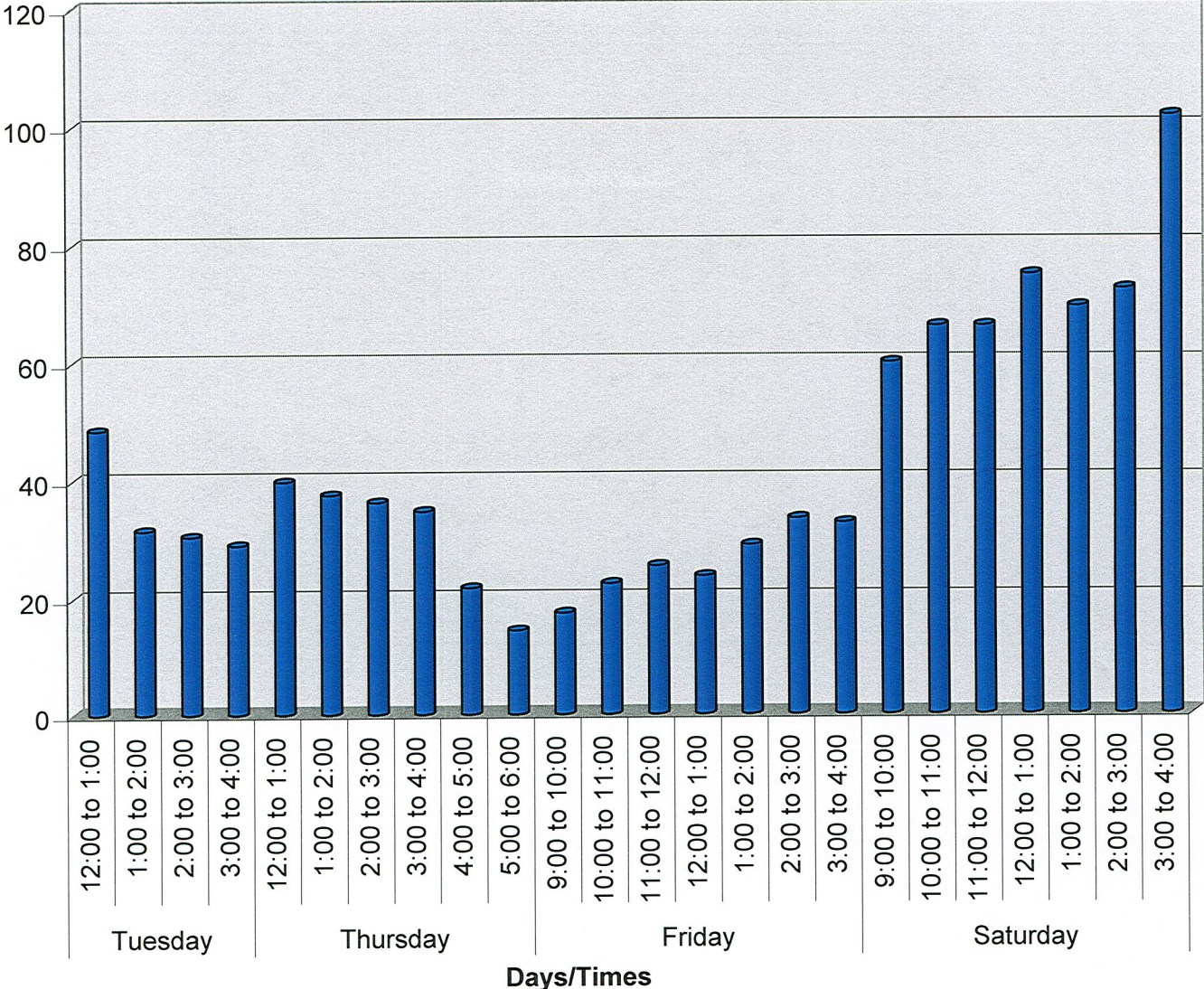
6. *Addendum*

- ❖ Traffic Counts- Average Daily Totals
- ❖ Traffic Counts-Average Hourly Totals
- ❖ Fee Analysis (Option A)
- ❖ Disposal Tag Fee System (Option B)
- ❖ Permit Sticker Fee Change (Option C)
- ❖ Composting Layout-Excerpt from Ecologic Systems Proposal
- ❖ Composting/Windrow Testing Log
- ❖ Opening and Closing procedures

Transfer Station Average Daily Totals



Transfer Station Average Hourly Totals



**Falmouth Transfer Station
Fee Structure and Revenue Sources Analysis**

Option A

as shown in FY'10 budget:

(Same permit fee \$1.00 Annually, with new fees collected at the Transfer Station)

<u>Materials Collected</u>	<u>Current Fee Town Fee</u>	<u>City of Portland Fee (for comparison)</u>	<u>Proposed Town Fee</u>	<u>Estimated Yearly Intake</u>	<u>Proposed Revenue Generation Scenario I</u>		
Computer monitors	\$0.00	\$4.00	ea	\$2.00	ea	200	\$400.00
Tvs	\$0.00	\$5.00	ea	\$2.50	ea	150	\$375.00
tv's (console)	\$0.00	\$20.00	ea	\$10.00	ea	50	\$500.00
circuit boards, drives, and misc.	\$0.00	\$9.00	ea	\$4.50	ea	300	\$1,350.00
bulky waste items (large: >35lbs.)	\$6.00	\$15.00	ea	\$6.00	ea	200	\$1,200.00
bulky waste items (small: <35 lbs.)	\$3.00	\$15.00	ea	\$3.00	ea	100	\$300.00
bulky metal items	\$0.00	\$15.00	yd	\$7.50	yd	300	\$2,250.00
Appliances (w/wo frion)	\$0.00	\$19.00	ea	\$9.50	ea	200	\$1,900.00
Propane tanks	\$0.00	\$5.00	ea	\$2.50	ea	200	\$500.00
Batteries	\$0.00	\$5.00	ea	\$2.50	ea	100	\$250.00
Hazardous Waste	\$0.00	\$6.50	gal	\$3.00	gal	550	\$1,650.00
Tires	\$2.00	\$7.00	ea	\$4.00	ea	50	\$200.00
Corrugated Cardboard (commercial)	\$0.00	\$5.00	load	\$5.00	load	75	\$375.00
Leaves (residential)	\$0.00	\$16.00	cy	\$0.00	cy	0	\$0.00
Leaves (commercial)	\$12.00	\$20.00	load	\$16.00	load	700	\$11,200.00
Brush (residential)	\$0.00	\$24.00	cy	\$0.00	cy	0	\$0.00
Brush (commercial)	\$12.00	\$53.00	load	\$24.00	load	150	\$3,600.00
Fluorescent Lights/tubes	\$0.00	\$2.00	ea	\$1.00	ea	500	\$500.00
Subtotal for Fee Modifications							\$26,550.00

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Option B

(Proposed Permit Sticker Fee of \$5.00 Annually and the following Tag System Fee Structure)

<u>Materials Collected</u>	<u>Current Fee</u>		<u>Proposed</u>			<u>Estimated</u>	<u>Proposed</u>
	<u>Town Fee</u>		<u>Town Fee</u>	<u>Town Fee</u>		<u>Yearly Intake</u>	<u>Revenue Generation</u>
Computer monitors	\$0.00	ea	1 disposal tag	\$5.00	ea	200	\$1,000.00
Televisions	\$0.00	ea	1 disposal tag	\$5.00	ea	150	\$750.00
Televisions (console or greater than 40")	\$0.00	ea	2 disposal tags	\$10.00	ea	50	\$500.00
circuit boards, drives, and misc. e-waste	\$0.00	ea	1 disposal tag	\$5.00	ea	300	\$1,500.00
bulky waste items (large: >35lbs.)	\$6.00	ea	2 disposal tags	\$10.00	ea	200	\$2,000.00
bulky waste items (small: <35 lbs.)	\$6.00	ea	1 disposal tag	\$5.00	ea	100	\$500.00
Appliances	\$0.00	ea	2 disposal tags	\$10.00	ea	200	\$2,000.00
Propane tanks	\$0.00	ea	1 disposal tag	\$5.00	ea	200	\$1,000.00
Batteries (car)	\$0.00	ea	1 disposal tag	\$5.00	ea	100	\$500.00
Household Hazardous Waste	\$0.00	gal	Free				
Tires	\$2.00	ea	1 disposal tag	\$5.00	ea	50	\$250.00
Corrugated Cardboard	\$0.00	load	Free				
Leaves (residential)	\$0.00	cy	Free				
Leaves (commercial)	\$12.00	load	2 disposal tags	\$10.00	load	700	\$7,000.00
Brush (residential)	\$0.00	cy	Free				
Brush (commercial)	\$12.00	ton	2 disposal tags	\$10.00	load	150	\$1,500.00
Fluorescent Lights/Cathode Ray Tubes	\$0.00	ea	1 disposal tag	\$5.00	ea	250	\$1,250.00
Compact Fluorescent Light Bulbs	\$0.00	ea	Free				
Waste Oil	\$0.00	gal	Free				
Wood Pallets	\$0.00	ea	Free				
Scrap Metal Items	\$0.00	ea	Free				
Reusable/Donation Items	\$0.00	ea	Free				
Cell Phones and Rechargeable Batteries	\$0.00	ea	Free				
Subtotal for Fee Modifications							\$19,750.00
Permit Sticker Fee	\$1.00	yr	\$5.00	permits per year +/-		1000	\$5,000.00
Total for All Modifications							\$24,750.00

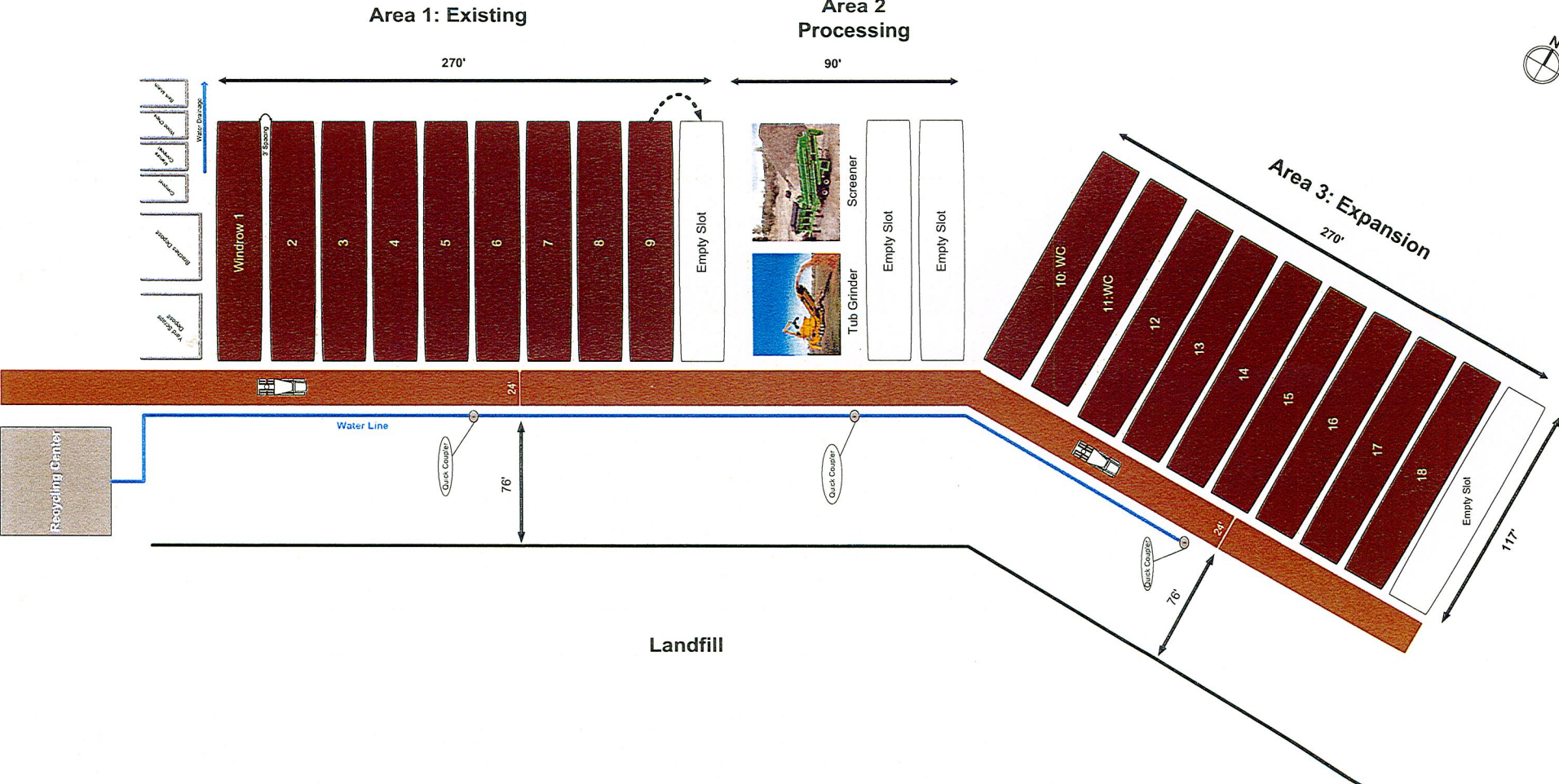
Falmouth Transfer Station

Option C

(Proposed Permit Sticker Fee of \$20.00 Annually and Modifying the Existing System Fee Structure)

<u>Materials Collected</u>	<u>Current Fee</u>		<u>Proposed</u>	<u>Estimated</u>	<u>Proposed</u>
	<u>Town Fee</u>		<u>Town Fee</u>	<u>Yearly Intake</u>	<u>Revenue Generation</u>
Computer monitors	\$0.00	ea		200	\$0.00
Televisions	\$0.00	ea		150	\$0.00
Televisions (console or greater than 40")	\$0.00	ea		50	\$0.00
circuit boards, drives, and misc. e-waste	\$0.00	ea		300	\$0.00
bulky waste items (large: >35lbs.)	\$6.00	ea	\$10.00	200	\$2,000.00
bulky waste items (small: <35 lbs.)	\$3.00	ea	\$5.00	100	\$500.00
Appliances	\$0.00	ea		200	\$0.00
Propane tanks	\$0.00	ea		200	\$0.00
Batteries (car)	\$0.00	ea		100	\$0.00
Household Hazardous Waste	\$0.00	gal			\$0.00
Tires	\$2.00	ea	\$0.00	50	\$0.00
Corrugated Cardboard	\$0.00	load			\$0.00
Leaves (residential)	\$0.00	cy			\$0.00
Leaves (commercial)	\$12.00	load		700	\$8,400.00
Brush (residential)	\$0.00	cy			\$0.00
Brush (commercial)	\$12.00	ton		150	\$1,800.00
Fluorescent Lights/Cathode Ray Tubes	\$0.00	ea		250	\$0.00
Compact Fluorescent Light Bulbs	\$0.00	ea			\$0.00
Waste Oil	\$0.00	gal			\$0.00
Wood Pallets	\$0.00	ea			\$0.00
Scrap Metal Items	\$0.00	ea			\$0.00
Reusable/Donation Items	\$0.00	ea			\$0.00
Cell Phones and Rechargeable Batteries	\$0.00	ea			\$0.00
				Subtotal for Fee Modifications	\$12,700.00
Permit Sticker Fee	\$1.00	yr	\$20.00	500	\$10,000.00
				Total for All Modifications	\$22,700.00

Falmouth Transfer Station: Master Plan



Compost Data

		5/4/2009		5/11/2009		5/13/2009	5/19/2009	
Front (Transfer Station)		access rd.		access rd.			access rd.	
	Row 1	110°	100°	120°	100°	Turned	145°	110°
	Row 2	95°	90°	110°	100°	Turned	110°	100°
	Row 3	132°	115°	120°	140°	Turned	120°	115°
Roadway	Row 4	85°	85°	100°	110°	Turned	105°	115°
	Row 5	105°	100°	105°	105°	Turned	120°	115°
	Row 6	145°	140°	150°	150°	Turned	150°	135°
	Row 7	152°	130°	130°	140°	Turned	140°	150°
	Row 8	155°	155°	155°	140°	Turned	145°	150°
	Row 9	125°	120°	140°	140°	Turned	120°	100°
	Row 10	90°	80°	110°	80°	Turned	120°	115°
Back	Row 11			125°	130°	Turned		

Transfer Station Opening Procedure

1. Unlock and enter through Exit Gate
2. Open Bargain Barn
3. Open Main Building
4. Perform daily maintenance on compactors
5. Perform daily maintenance on loader
6. Push up brush pile if needed
7. Push up or haul leaves if needed
8. Clean up items around metal bin
9. Clean up Bargain Barn and surrounding area
10. Pack bulky waste bin with loader
11. Park loader at metal bin
12. Dump paint, gasoline and antifreeze if needed
13. Organize and inspect Universal Waste area
14. Clean up trash around silver bullets and front fence line *if time allows before opening*
15. Clean up other fence lines *if time allows before opening*
16. Make phone calls to vendor *if time allows before opening*
17. Open gates at the scheduled opening time.

Transfer Station Closing procedure

- ✓ Close entrance gate
- ✓ Close and lock Bargain Barn
- ✓ Clean up waste paint, gas and antifreeze
- ✓ Run Compactors
- ✓ Close main building doors
- ✓ Remove doors from refrigerators and freezers in white goods area
- ✓ Push up brush pile *if time permits*
- ✓ Haul leaves into compost area *if time permits*
- ✓ Check fuel level in loader -- call Street Superintendent if loader needs fuel
- ✓ Park loader and lock back door
- ✓ Power down the compactors
- ✓ Lock main building doors
- ✓ Lock exit gate as you go home