

WASTE / BIOMASS**GOAL** (*What We Want to Achieve Long-Term*)

Implement programs and practices that will achieve or draw us nearer to a zero waste community

CURRENT STATUS (*Where We Are Now*):

Waste management on the Vineyard meets minimum health and safety requirements and complies with applicable state law. The fragmentation of current management systems – whether among towns or between the public and private sectors – potentially increases administrative and operational costs as well as inhibits opportunities to increase recycling and reuse programs and practices.

OBJECTIVE 1: Pursue known and emerging opportunities to reuse and recycle waste materials

Many communities are attempting more creative ways to manage waste in response to space limitations, regulations, financial considerations and, to an unknown extent, increased concern about the wasteful consumption of resources that still contain utility.

UNDERLYING OBSTACLES (*What's In The Way*)

Varying practices among towns and private contractors. Costs and convenience to reuse materials versus purchasing new. Learning-curve for short-term visitors. Capital costs of new programs and infrastructure improvements. Habitual behavior. Public (and political and administrative) preconceptions. Lack of incentives.

STRATEGIES (*How To Do It*)

1.1: Education and promotion targeting seasonal residents and construction, cleaning, and landscaping businesses.

1.2: Improve and increase options for people to reuse/recycle

 Increase availability with more recycling containers and satellite drop-off sites

 Provide SSA on-board recycling containers

 Provide recycling containers in more public places

1.3: Latex paint reuse program

Create a program that would feature an independent entity to collect, mix and then redistribute for use used latex paint

1.4: Swap shops and thrift store promotion; website for unwanted goods

1.5: Minimize “tear downs” of homes

 Provide incentives to not tear down

 Promotion alternatives such as restoration, improvement, relocation and de-construction for reuse and recycling

 Prohibit tear downs

49 1.6: Consider the use of residential septic tank dewatering systems to lessen the transport costs
50 associated with septic tank pumpouts as well as reducing the need to treat nitrogen-laden
51 wastewater at the sewage treatment facility

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53 1.7: Construct a biodiesel production facility using waste cooking oils

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55 1.8: Recycle used compact fluorescent lights (CFL); including the increase in available recycling
56 options for other fluorescent bulbs

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58 **INFORMATION (What We Need To Know):**

59 We need an inventory of what is being handled and who is handling it. We need research to
60 determine what we are generating and not currently using on-island as opposed to disposal of
61 those materials. We need research to identify what we should be separating and how to
62 prepare it to take advantage of off-island opportunities for reuse/recycling. We need to identify
63 the costs associated with these options and how the funding will be generated.

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65 **INTERDEPENDENCIES (Primary Relationships With other Work Groups):**

66 “Tear downs” of homes also relates to the Housing and the Livelihood (construction and service
67 industries) groups and the Plan’s overall issue of Character. Could relate to Natural
68 Environment group by promoting utilization of what is now dumped in the woods.

69 Transportation subgroup needs to address biodiesel use as a function of production options, i.e.
70 can quantities needed be generated from waste cooking oil conversion or will other sources be
71 needed.

72 Energy production subgroup needs to address feasibility of longterm use of biodiesel fuels and
73 ability to make/grow/convert sufficient amounts

74 Transportation and energy efficiency subgroups can also note potential savings from
75 consolidation of waste handling operations and implementation of programs, which cause less
76 waste to be transported off-island.

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80 **OBJECTIVE 2: Use construction debris and available biomass (wood waste, leaves,
81 organic wastes) as a local resource.**

82 Under this objective, government or a private sector operator would create and/or operate a
83 facility to accept and receive construction waste, demolition debris and other unwanted or
84 surplus building materials; essentially a supermarket for used building materials and processed
85 wood waste – the latter for use as fuel, mulch, or compost supplements. The operator would
86 conduct sorting, separation, storage and inventory functions to make materials available for
87 reuse. Fees and charges for materials would be expected but still representing a savings over
88 disposal costs or purchasing items new. These efforts could be supplemented by ordinances
89 requiring on-site separation of materials or prohibitions on disposal. On a more aggressive
90 level, this facility could also become involved with processing forest and landscaping wood
91 waste.

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93 **UNDERLYING OBSTACLES (What’s In The Way)**

94 Costs to sort and reuse construction debris materials versus purchasing new. Lack of someone
95 to initiate the process (funding and organization). Facility siting concerns. Funding to staff
96 operations.

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98 **STRATEGIES (How To Do It)**

99 2.1: Manage existing available biomass from land clearing operations for potential fuel, compost
100 amendment or landscape material

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102 2.2: Create mandates and incentives to cause separated collection at construction sites
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104 2.3: Create a building materials reuse facility to accommodate, sort and convert materials; direct
105 converted materials to “best use” facility for use as mulch, compost, direct fuel source (wood
106 waste), indirect fuel source (pellets), etc.

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108 **INFORMATION (What We Need To Know):**

109 A database of material types, quantities and sources to be able to identify potential options.

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111 **INTERDEPENDENCIES (Primary Relationships With other Work Groups):**

112 Relationship to energy efficiency subgroup where laws will require changes to building codes or
113 design requirements we also need to add new requirements for management of construction
114 debris. Evaluation of the potential availability of fuel and how they may best be used relates to
115 the energy production subgroup; Livelihood/Commerce and Transportation may be interested in
116 the potential diminishment of construction products/mulch shipped to the Island.

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120 **OBJECTIVE 3: Construct an island-wide composting facility including sewage sludge**

121 A large portion of the Island’s waste that cannot be recycling or reused in its present form can
122 be “cooked,” which breaks down the volume of material and significantly reduces the amount of
123 solid waste we need to ship off-island. This facility would also allow towns to mine their capped
124 landfills; harvesting useable contents of the buried waste and removing the threat to ground
125 water quality posed by the capped (impervious membrane on top) but not lined (impervious
126 membrane underneath) landfills. Once all usable resources are extracted from the excavated
127 waste, the remaining material would return to a lined area of the landfill and ultimately capped.

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129 **UNDERLYING OBSTACLES (What’s In The Way)**

130 Public preconceptions of what such facilities look, smell and sound like. Properly dealing with
131 heavy metals and other contaminants in sewage sludge. Finding a suitable site.

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133 **STRATEGIES (How To Do It)**

134 3.1: Conduct a feasibility study for development and operation of an island composting facility
135 Facility site considerations
136 Identify material sources
137 Identify methods of collection
138 Options for use
139 Marketing of compost

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141 3.2: Develop a program to provide factual information to the public and to address their
142 concerns.

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144 **INFORMATION (What We Need To Know):**

145 Identify what is right and wrong with the Nantucket composting operation. Estimations of the
146 value of usable waste within the existing landfills and project costs

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148 **INTERDEPENDENCIES** (*Primary Relationships With other Work Groups*):
149 Identify with Natural Resources potential habitat and environmental impact issues.
150 Livelihood/Commerce would be interested in the potential for job creation.
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152 **EMERGING CONCEPTS** (*Ideas Not Yet Ready for Prime Time*):
153 Construction of a waste-to-energy facility (WTE) (Note: Although an option utilized off-island
154 for 20+ years, WTE facilities are currently not considered technically or economically viable on
155 the Vineyard due to (a) the low off-season tonnage and (b) the variability in the amount of
156 tonnage between peak and off-season, and (c) the prohibitive economics of these systems.)
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160 **OBJECTIVE 4:** Develop an island-wide system(s) for the coordinated management of
161 wastes and available biomass to promote efficiency and avoid duplication of effort.
162 Although four the Island's towns now operated under a regional refuse district, the Vineyard
163 continues to manage its wastes in a fractured way. As transportation and processing costs
164 continue to climb and population increases, an approach to waste management which
165 combines all handling systems under an integrated system would not only be more efficient, to
166 combined volume of waste resources could open up new opportunities such as composting and
167 building materials recycling to draw us nearer to being a zero waste community.
168

169 **UNDERLYING OBSTACLES** (*What's In The Way*)
170 Parochial interests; business interests; resistance to regional governmental efforts; differences
171 in down-island versus up-island development patterns; ability to generate necessary capital
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173 **STRATEGIES** (*How To Do It*)

174 4.1: Involve town and county government and planning agencies in assessment and
175 implementation of cooperative system
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177 4.2: Consider town pick up paid through taxes rather than by user fees
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179 4.3: Involvement of the private sector to assure development of options better handled by the
180 private sector
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182 **INFORMATION** (*What We Need To Know*):
183 identify the island's needs; quantified as well as qualified
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185 **INTERDEPENDENCIES** (*Primary Relationships With other Work Groups*):
186 This will affect the Governance and the Health work groups and perhaps have economic
187 consequences of interest to Livelihood/Commerce.
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189 **EMERGING CONCEPTS** (*Ideas Not Yet Ready for Prime Time*).
190 Require private collectors to adopt practices compatible, in not completely consistent, with
191 collection practices of the public sector.
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195 **OBJECTIVE 5:** Reduce the generation of waste and minimize the amount of potential
196 waste brought to the island

197 Vineyarders' efforts to manage wastes in economically and ecologically responsible ways are
 198 aided by trying to minimize the importing of unnecessary materials that will ultimately be
 199 disposed of.
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201 **UNDERLYING OBSTACLES** (*What's In The Way*)

202 Culture of convenience – individual serving sizes, individual packaging; “disposable” culture –
 203 designed obsolescence; packaging requirements.
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205 **STRATEGIES** (*How To Do It*)

206 5.1: Reduce the importation of hazardous materials by identifying alternatives to continued use
 207 of hazardous and toxic materials, especially those that will cause disposal issues; educate both
 208 consumers and retailers; assure availability of alternate products
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210 5.2: Education of individual consumer issues

211 Minimizing junk mail

212 Re-using bags and packaging
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214 5.3: Reduce packaging materials

215 Adopt packaging polices for retailers

216 Adopt packaging policies for shipping goods to the island
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218 5.4: Address 3rd-Class mail volume by making sure everyone is educated in the current options
 219 as to what they can do on their own to stop it from coming to them (calls to catalog companies,
 220 email to senders); lobby for more aggressive laws; raise rates for 3rd class mail
 221

222 **INFORMATION** (*What We Need To Know*):

223 An evaluation of our existing trash to determine what components, if reduced or eliminated,
 224 would have significantly impact; how communities can legally prohibit certain commodities or
 225 containers; examples from other communities include exclusion of drinking straws and, most
 226 recently, San Francisco's ban of plastic grocery bags.
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228 **INTERDEPENDENCIES** (*Primary Relationships With other Work Groups*):

229 The Livelihood, Health and Governance work groups should be consulted regarding this.
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233 **PREVIOUSLY DISCUSSED IDEAS** (*Proposals That Were Set Aside*)

234 There are many other good ideas the Work Group has identified. Many of these may well be
 235 acted on under the broader Strategies above. Others are, in fact, already being done.

- 236 - Use biomass from State Forest for school furnaces.
- 237 - Workshops; provide incentives to towns, business community and individuals
- 238 - Clarify that BFI/CMASS really recycle
- 239 - Require several dumpsters at construction sites for material sorting
- 240 - Curbside pick-up instead of homeowner taking trash/recyclables to transfer station
- 241 - Fund pick up and disposal through taxes rather than pay-as-you-go (may also alleviate
 242 roadside and empty-lot dumping)