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**REPORT TO THE  
Agency of Natural Resources  
Solid Waste Program**

Recommendations made during  
facilitated meetings of  
**Solid Waste Working Group** and the  
**Vermont Solid Waste District  
Managers' Association**

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## Introduction

DSM Environmental Services, Inc. (DSM) was contracted by the Vermont Agency of Natural Resources (ANR) in August 2008 to facilitate two sets of four meetings during the fall of 2008 with two distinct groups:

- The Solid Waste Working Group (SWWG) appointed by the Vermont Legislature to review and report back to the Legislature on the Agency of Natural Resource's January 2008 Solid Waste Report to the Vermont Legislature (ANR Report) ; and,
- Vermont Solid Waste District Managers Association (VSWDMA), an existing organization comprised of managers of each of the Vermont Solid Waste Districts and one alliance of municipalities with authority to managed solid waste in Vermont.

A description of each group, the issues raised and discussed and the decisions made, including specific recommendations to the Vermont Legislature, are summarized below.

## Solid Waste Working Group

Section 293b of the 2007 Budget Bill required the ANR to convene a SWWG to examine the ANR Report and to develop proposals and recommendations to implement and improve upon the ANR Report, including best management practices. The SWWG was not limited to matters addressed in the ANR Report, but was required to report to the House and Senate committees on natural resources no later than January 15, 2009. DSM was contracted by ANR to facilitate four meetings of the SWWG and prepare a summary report to ANR of the results of the meetings. DSM was asked to bring into the SWWG discussion existing work being done on solid waste by solid waste Districts in Vermont, and where feasible, decisions made by the Composting Study Committee. DSM was also asked to include recommendations of the Waste Prevention Study Committee and their Report, *Life Beyond Garbage, Vermont Waste Prevention and Diversion Strategies* (Waste Prevention Report) as part of the SWWG considerations.

Given the broad scope of work and the tight time frame associated with four meetings, DSM determined that the organizing principal of the four meetings should be the need for potential changes to Act 78 to implement the priorities decided upon by the SWWG.

The SWWG is comprised of 15 members identified by the Vermont Legislature to represent the solid waste management interests of the state. A list of members and the interest they represent is included in Appendix A.

Although 15 members were appointed, one member did not participate in any of the meetings (Jeff Myers, Myers' Disposal) and one member (Senator Robert Hartwell) only participated in the last meeting. The balance, 13 members, participated in most or all of the meetings and filled out the survey developed by DSM to gain feedback on both the State of Vermont Waste Prevention Initiative and the ANR *Report to the Legislature on Solid Waste Management in Vermont*,

### **Meetings**

The SWWG meetings facilitated by DSM were held in the fall of 2008 on September 12, October 3, November 3 and December 8. All agendas were initially prepared by DSM, and then reviewed and approved by ANR. Because the SWWG had not worked together before, and was designed to represent broad interests, time was spent at the first meeting agreeing to basic ground rules regarding participation and how decisions would be made. The group agreed that the goal was to reach consensus on all decisions, but in the absence of consensus, or when sufficient time could

not be given to reach consensus, a vote would be taken and the majority vote recommended but with a report out on the minority opinion.

The SWWG was asked to review the following reports in advance of the first meeting:

- *Solid Waste Report to the Vermont Legislature January 2008; and,*
- *Life Beyond Garbage, Vermont Waste Prevention and Diversion Strategies (Waste Prevention Report).*

The SWWG was also asked to review and approve minutes from each meeting to ensure that the group agreed to the comments made and outcomes documented in the minutes. Finally the SWWG was asked to review and fill out two surveys in between meetings.

The majority of the first meeting was spent brainstorming Critical Issues in solid waste management in Vermont and what changes (if any) should be made in how Vermont manages solid waste in the next ten years. The meeting included large group and small group exercises designed to hammer out the themes of critical issues identified, and add what was missing.

The second meeting concentrated on the ANR Vision for solid waste management for the next ten years as contained in the ANR Report to the Legislature, as well as discussion of Legislative actions necessary to advance pure Waste Prevention issues.

The ANR Report proposed a new *“Sustainable Materials Vision as a new direction for solid waste management in Vermont. This vision focuses on preventing or minimizing waste rather than managing waste after it has been generated”* The goals of the Proposed Sustainable Materials Vision for Vermont were stated as:

*“To promote sustainable materials management,  
To prevent waste from being generated,  
To minimize reliance on waste disposal, and  
To minimize energy consumption, green house gas emissions and other adverse environmental impacts.”*

SWWG members discussed whether they agreed with the vision and if not, what modifications or further definition were necessary to support the vision. The comments made are detailed in the October 3 meeting minutes. The vision was revisited again at the third meeting, where the October 3 meeting minutes were reviewed and the November 3 agenda sent out to the group proposed a summary statement on the Vision based on those minutes. The group discussed the vision once again, and after some discussion one member agreed to rework the comments on the vision and report back at the fourth meeting. A rewrite of the comments made on the vision were sent out to the group before the 4th and last meeting and the group discussed the vision once again. The group decided to rewrite the original ANR vision goal statement above to include a line to recognize that materials would need to be managed (see recommendations below).

The rest of the second meeting was devoted to a discussion of “pure” waste prevention strategies (those that prevent waste from being generated) that Vermont might undertake. The group first brainstormed pure waste prevention strategies. DSM then grouped the strategies by general theme and split SWWG members into small groups to further develop and refine the strategies and determine whether or not they needed legislative changes and if so, should they be recommended to the legislature.

The final list of strategies was then incorporated into a survey and SWWG members were asked to vote as a group on each measure as to whether or not they recommended that the strategy or measure be proposed to the Legislature. For those measures that a majority voted for, members

were also asked whether the measure should be considered by the Legislature in the next year (short term) or in the next five years (long term).

The third meeting focused on how best to increase waste diversion (e.g. recycling, composting and other activities that would divert materials to a higher or best use other than disposal), and specifically what legislative measure were necessary to improve upon waste diversion in Vermont.

The VSWDMA had met in advance of the third SWWG meeting and presented a report to the SWWG of the VSWDMA waste diversion priorities requiring legislative action (outlined in Table 1 below).

The VSWMDA recommendations were coupled with recommendations listed in the Waste Prevention Report and those listed in the ANR Report to the Legislature to create a list of potential recommendations for the SWWG to discuss and review. While the final list did not cover all of the recommendations in the Waste Prevention Report or the ANR Report to the Legislature, it did cover all of the measures that are most commonly employed in other states to increase recycling, composting and diversion of other materials from disposal. Given the amount of time available to the SWWG, there was not sufficient time to review every possible measure for either waste prevention or waste diversion.

The final facilitated meeting of the SWWG completed the discussion of waste diversion measures that the SWWG might recommend to the legislature, and reviewed institutional structures and funding to carry out waste prevention and solid waste management functions in Vermont. The VSWDMA reported to the SWWG on their recommendations on institutional structure and asked the SWWG to adopt their recommendations. Finally a review of current funding methods, monies raised and potential methods to fund programs in the future was provided by DSM to help inform the discussion on funding.

Presented below are the recommendations and votes of the SWWG compiled from the four meetings and the two surveys.

### ***SWWG Survey Results***

DSM developed a survey that asked the SWWG members to rank seven overarching themes developed under the waste prevention initiative (as outlined in the Waste Prevention Report) as to what the ANR Report should address. The survey also addressed the ANR Report Vision Statement and asked for rankings of items in the ANR Report listed as comprising the framework to achieve the Vision. The survey form is included in Appendix B, and the summary of results are presented in Table 1 below.

**TABLE 1**  
**SWWG Survey #1 Results**

Ranked overarching themes from the Waste Prevention Initiative and ranked items that make up the framework for the Sustainable Materials Management Vision (As described in the Solid Waste Report to the Legislature)

<b>Ranked overarching themes developed under the <i>Waste Prevention Initiative</i> as to what the ANR Report should better address:</b>	<b>Total Points</b>	<b>Average Rank (1)</b>
<b><i>Infrastructure:</i></b> The state needs to develop collection and processing systems for reusable, recyclable, and compostable materials and provide incentives for the private sector to develop businesses that use and sell the materials.	<b>26</b>	<b>2.0</b>

<b>Product Stewardship:</b> Ensure that responsibility for waste is shared by all those involved in a product's life cycle.	<b>46</b>	3.5
<b>Public Education and Outreach:</b> Educate Vermonters about the value of waste prevention, why it is important, and how to prevent waste.	<b>49</b>	3.8
<b>Mandates and Bans:</b> Mandates and bans can drive an economy to reuse and recycle discarded materials, and ensure that resources are not wasted.	<b>58</b>	4.5
<b>Partnerships:</b> The State must actively collaborate and coordinate with regional, national, and international efforts to change the way we manage our resources.	<b>60</b>	4.6
<b>Standards:</b> Vermont needs standards to ensure best practices are used for waste prevention, such as designing and constructing buildings or manufacturing products. Standards can also insure that diversion efforts are conducted in an environmentally and socially responsible manner.	<b>62</b>	4.8
<b>Government Leadership:</b> State government must show leadership in preventing waste through its purchasing practices and other policies, such as its state building contracts.	<b>63</b>	4.8

<b>Ranked items from ANR's Report to the Legislature that make up the framework to achieve the sustainable material management vision.</b>	<b>Total Points</b>	<b>Average Rank (1)</b>
Increase Infrastructure and Evaluate New Technologies:	<b>33</b>	2.5
Evaluate Vermont's Solid Waste Planning Entities:	<b>42</b>	3.2
Target Certain Waste Streams and Establish Measurable Goals:	<b>44</b>	3.4
Strengthen Current and Create New In-State Partnerships:	<b>47</b>	3.6
ANR Leadership:	<b>56</b>	4.3
Create Long-Term and Adaptable Outreach and Education Programs:	<b>56</b>	4.3
Participate in Regional and National Efforts, Initiatives, and Partnerships:	<b>73</b>	5.6

(1) Scale of 1 - 7, where 1 is the highest priority and 7 the lowest.

### **Waste Prevention Priorities Requiring Legislative Action**

A second survey form was also sent to SWWG members on potential waste prevention measures. The survey form is included in Appendix B.

Each item was discussed by the SWWG during their second meeting and then voted on. The results are summarized below in Table 2.

**TABLE 2**  
**Summary of Waste Prevention Legislative Measures Voting**

<b>Measure</b>	<b>YES<sup>1</sup></b>	<b>NO<sup>1</sup></b>	<b>NOT SURE<sup>1</sup></b>	<b>Priority ST<sup>2</sup></b>	<b>Priority LT<sup>2</sup></b>
Make Changes to State Bid Specifications and Purchasing Guidelines	13	0	0	8	5
Pass framework legislation for product stewardship and producer responsibility	10	0	2	9	1

Mandate Data Collection & Analysis be Done on How Vermont Can Achieve Waste Prevention and Toxic Use Reduction	8	0	5	7	1
Review Opportunities to Mandate Design Standards	7	4	1	1	6
Enhance Waste Prevention Requirement in Act 250 permit process	7	3	3	2	5
Work Toward Material Bans from Landfilling	7	1	5	7	0
Ban on the sale of bottled water at state buildings	6	4	3		
Make Changes to the State Franchise Tax on Waste	4	1	8		
Tax homes larger than some minimum square footage as a funding mechanism for waste prevention	0	11	2		

<sup>1</sup> Support Legislation: Yes, No, Undecided (number of votes)

<sup>2</sup> Priority if majority is in support: Short Term-ST (one year), Long Term - LT (5 years) (# of votes)

### ***Waste Diversion Measures Requiring Legislative Action***

The SWWG discussed and voted on waste diversion measures requiring Legislative action during their third meeting. The results are summarized in Table 3.

**TABLE 3**  
**Summary of Waste Diversion Related Legislative Measures Voting**

<b><i>Measure</i></b>	<b>YES<sup>1</sup></b>	<b>NO<sup>1</sup></b>	<b>NOT SURE<sup>1</sup></b>	<b>Priority ST<sup>2</sup></b>	<b>Priority LT<sup>2</sup></b>
PAYT pricing with minimum standards.	13			13	
Infrastructure needs assessment and plan for implementation	13			13	
Parallel collection of recyclables haulers offer both commercial and residential embedded in total bill.	13			13	
Municipalities must be members of a district/alliances	6	4	3		
Mandatory Recycling	6	1	6		
Expand Bottle Bill or Change/Repeal, but only if a Better System is Put in Place	14				
Organics Management/Recycling needs comprehensive management including infrastructure improvements that need further study	14				

<sup>1</sup> Support Legislation: Yes, No, Undecided (number of votes)

<sup>2</sup> Priority if majority is in support: Short Term-ST (one year), Long Term - LT (5 years) (# of votes)

### ***Institutional Structure***

During the fourth meeting the SWWG was presented with recommendations from the VSWDMA on which institutional structures might serve the State best to direct and manage a sustainable solid waste future. The VSWDMA recommended that the SWWG consider the creation of an

independent State Solid Waste Management Board, or Authority, to advance many of the issues endorsed by the SWWG.

The SWWG voted on the following:

"The Solid Waste Working Group recommends that the Legislature explore the need for, and creation of, a state-wide "integrated solid waste management board" with dedicated funding source(s) and dedicated staff to establish policy and move management of solid waste in Vermont forward."

The Board could:

- Advance interstate issues, such as product stewardship and producer responsibility issues
- Conduct analysis on issues of state-wide importance to inform legislative and district operational decisions and priorities
- Support infrastructure of regional or state-wide importance
- Work with ANR to prepare State Solid Waste Management Plans
- Work with related groups (e.g., toxic substances advisory committee, CAV, AVR)

The Board should be broadly representative of:

- ANR
- Practitioners (District Managers and Private Solid Waste Management Companies)
- Businesses who would potentially be impacted by the Board
- Environmental Organizations
- Municipalities

Funding for the Board could include:

- Increased Revenue Sources (see list below)
- Free up funds from ANR through transfer of management responsibility
- Increased revenues through product stewardship charges
- Reduce existing costs to free up revenues:
  - Reduce costs or increase revenues through organized collection and PAYT pricing
  - Reduced costs of special/HHW collection through state-wide purchasing

### ***State-wide Funding for Solid Waste Management***

The SWWG determined that until a state-wide Needs Assessment is completed, no recommendations could be made as to the need for additional funds. However, the SWWG voted to include in the report to the Legislature the potential to use the following funding sources to advance solid waste management in Vermont if demonstrated needs for additional funds were documented.

- Increase franchise tax
- Evaluate disbursements from Solid Waste Assistance Fund
- Increase District surcharges
- Collect surcharges statewide on all waste
- Dedicate new Pay as You Throw revenues
- Product stewardship funding models
- Packaging tax



- Escheat money [unredeemed bottle deposits],
- Advanced Recycling Fees
- percentage of market share paid by manufacturers for computers
- Appropriate State/Federal funds (General Funds, Capital Funds)
- Carbon credits for recycling

## **Vermont Solid Waste District Managers Association**

The Vermont Solid Waste District Managers' Association (VSWDMA) meets regularly to address solid waste management challenges facing Vermont and their member municipalities. VSWDMA represents 11 Solid Waste Districts and one alliance of municipalities. Together, the VSWDMA represents a total of 204 Vermont municipalities that make up about 80% of the State's population.

A Memorandum of Understanding was signed September 12, 2008 between ANR and the VSWDMA that outlined the purpose of the four meetings DSM would facilitate with the VSWDMA, specifically to provide:

- Input on drafting a new State Solid Waste Plan;
- Input on examining the statewide economic structure of solid waste management and on the infrastructure needed to move forward; and
- The provision of equitable solid waste management services statewide

It was decided that work on the State solid waste plan would occur after December 2008 and so the four meetings facilitated by DSM should focus on the other two issues outlined in the MOA, bullets 2 and 3 above.

Meeting agendas were developed jointly with ANR in order to facilitate a discussion of the economic structure of solid waste and equitable solid waste management services. The agendas and meeting minutes are posted on the ANR web site and briefly summarized below. The results of the VSWDMA meetings were used to help inform the SWWG meetings.

### ***Participation***

All but one of the 12 organizations that are members of the VSWDMA were present at at least one meeting. The Northwest Solid Waste District did not attend any meetings, and the CVSWMMD attended only the first meeting.

The rest of the Districts participated in at least 3 of the 4 meetings. All Districts provided their revenues and expenditures to ANR to help calculate total revenues and expenses from operating the solid waste districts.

### ***Meetings***

Meetings were held on September 12, October 2, October 30 and December 8 in Waterbury, Montpelier and Hartland, Vermont (at the offices of the GUVSWMD). DSM used a combination of large group brainstorming, small group exercises and large group discussion to review agenda items and develop recommendations.

The first meeting established the ground rules for the group including the procedure for decision making. The group agreed after a short discussion that the goal was to reach consensus, but in



the absence of consensus, a vote would be taken and the majority recommended but with a minority report out.

Discussion then focused on the infrastructure needed to create more equitable services state-wide. Rough agendas for the following three meetings were then established. These included a discussion of what comprehensive service would include, what institutional structure was necessary to carry out these services (and were existing institutions sufficient) and how any new services would be funded.

The second meeting (October 2) focused on defining what a uniform level of service would include. Each District manager was asked to describe what services were necessary to achieve goals of waste prevention, increased materials reuse and recycling and better management of special waste and residual solid waste. After a comprehensive list was developed, items were grouped into similar categories and assigned to small groups. This process fleshed out the service descriptions in order to move to the discussion of institutional structure.

At the third meeting on October 30, the VSWDMA continued to flesh out the service descriptions and then grouped them into five categories. These were:

- Activities that are local or regional and would clearly be carried out by existing organizations (e.g. districts and municipalities);
- Activities that are regional or statewide and should be carried out jointly or by a statewide entity;
- Activities that were clearly interstate issues (e.g. needed to be coordinated with other states);
- Activities that need legislative action in order to carry out the service, program or improvement; and,
- Activities that need further analysis in order to determine how best to provide the services.

These lists are included below in the recommendations section.

The VSWDMA then reviewed the items that needed legislative action and ranked them as needing immediate action (short term) or action within the next 5 years (termed long term)

Finally, the VSWDMA met for a last time on December 8 to revisit the lists once more and make decisions as to whether existing institutions are sufficient to carry out the activities necessary or whether there was a need for a new institutional structure.

The last meeting ended with a review of how current monies are raised at the municipal, district and statewide level to support solid waste management services, how much is estimated to be raised and whether new funding mechanisms or sources are necessary to carry out the activities outlined.

## ***Recommendations***

Activities determined by the VSWDMA as necessary to provide a comprehensive level of service to all Vermonters, grouped into broad action categories to accomplish them, are shown below in Table 4:

**TABLE 4**  
**Solid Waste Management Services/Activities Categorized by Action Needed**

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### **Activities Managed by Existing Institutions**

- Drop-off collection facilities
- Special wastes, including bulky wastes
- Organics collection services

**Activities to be Managed by A State Solid Waste Board or Authority**

<b>Interstate Issues, including:</b>	
Product Stewardship	
Material Bans from Land filling/Disposal	
C&D processing and market development	
<b>Coordination of Activities that Require State-wide/Regional Management</b>	
High Hazardous waste- statewide program	
Statewide contract for HHW	
State-wide brokering of materials (possible market development after needs analysis)	
State-wide recycling processing and transport infrastructure	
New technologies evaluation (may include bioreactor landfills, dirty MRFs, gasification, etc)	
C&D processing (May need to be evaluated)	
<b>Needs Analysis</b>	
a) Disposal/management of waste pharmaceuticals	
b) HHW Management, including:	<ul style="list-style-type: none"> <li>- Need Priorities for materials to manage</li> <li>- The costs and benefits of significantly expanding HHW collection programs versus disposal of certain HHW's, and how best to expand programs;</li> </ul>
c) The potential costs and benefits of constructing a second single stream Materials Recovery Facility in Vermont, including a fair and equitable means of sharing in economies of scale and transport costs, including:	<ul style="list-style-type: none"> <li>- Number of facilities needed state-wide</li> <li>- Value of single stream vs. source separated</li> <li>- Transport cost sharing</li> <li>- Commercial materials</li> </ul>
d) The potential costs and benefits of constructing regional organics processing facilities in Vermont (including new technologies to process organics)	<ul style="list-style-type: none"> <li>- How do we achieve economies of scale</li> <li>- How many facilities and what type are really needed?</li> </ul>
e) The behavior of Vermont residents using existing drop-off facilities, with the intent of developing a convenient and cost effective drop-off infrastructure (explicitly accounting for the costs and environmental impacts of residents driving to the drop-offs) for hard to handle wastes, MSW and recyclables.	
f) Parallel collection including:	<ul style="list-style-type: none"> <li>- How much parallel recycling collection is occurring in the state?</li> <li>- How are the haulers offering it?</li> <li>- What is needed to increase parallel collection?</li> </ul>
g) Whether or not C&D processing infrastructure is necessary?	
h) Issue of flow control and collection:	

	- organized collection
	- control of funds
	- enough competition
i)	What is the value of mandatory recycling vs. bans
j)	What new technologies does the state really need and what are the environmental benefits and costs?
	- Dirty MRF's, Gasification, Bio-reactor landfills
k)	Market development for special wastes materials
l)	Performance of districts vs. towns needs to be evaluated.
m)	Are there opportunities to organize collection and reduce collection costs (and improve service)

### ***Activities Needing Legislative Action***

The VSWDMA first developed the list of items that were necessary to undertake to develop comprehensive service then grouped them under needing legislative action. The VSWDMA then voted on whether each item should be addressed in the short term (S) – meaning the next year or two (S) or long term (L), meaning within in the next five years.

- Product Stewardship Framework legislation (S), materials targeted (S and L)
- Enabling Legislation for ANR Regulatory Bans (S) – May include ban on organics to landfills (yard waste) or on other materials such as paper, electronics, cardboard, C&D materials in future.
- Infrastructure needs analysis (see list below) and benchmarking study funding (S)
- All municipalities must be part of a district or alliance (S)
- Illegal burning/dumping ordinance (S)
- Mandatory recycling (S)
- Creation of a statewide authority to manage SW (S)
- Reporting requirement for recyclables for business/large generators (S)
- Mandating parallel recycling collection (S) – Note that this item was voted and the majority (6) voted for and 2 against, with the discussion focusing on whether the infrastructure was there to enable collection and transfer of recyclables in some regions of the state, and whether there would be additional costs to set-up this infrastructure. The minority opinion was that this lack of infrastructure needed to be taken into consideration.

### ***Funding***

The VSWDMA reviewed an analysis of current expenditures on solid waste management in Vermont prepared by ANR and DSM.

The VSWDMA discussed how to potentially make changes to funding methods to fund specific programs or improvements. This included:

- Funding the management of hard to handle waste and HHW by some sort of product stewardship program legislation;
- Organizing collection through franchising or other means to reduce refuse collection costs to free up money to pay for recycling collection expenditures;
- Implementing a packaging tax to pay for waste prevention initiatives;
- Subject all waste disposed in the State to a surcharge to help fund other state, district and municipal programs, whether the generator was based in an existing district or not; and,
- Increase the state franchise fee to set up a capital fund for low or no interest loans earmarked for infrastructure improvements that were identified in the needs analysis.

No final decisions were made about recommendation to the Legislature, although the VSWDMA recognized that they should meet again to continue the discussion.

## APPENDIX A

### Members of the Solid Waste Working Group:

- one member of the senate to be appointed by the committee on committees; **Sen. Robert Hartwell**
- one member of the house of representatives to be appointed by the speaker of the house; **Rep. Jim McCullough**
- the secretary of natural resources or his or her designee; **Cathy Jamieson of the Solid Waste Management Program**
- two representatives of solid waste management districts; **Tom Moreau and Fred Moody with alternates Donna Barlow Casey and Paul Tomasi**
- two representatives of citizens groups involved with solid waste issues; **Alyssa Schuren of VT Toxics Action Center with alternate Jessica Edgerly and Tracey Tsugawa of VOCAL**
- a member of the Vermont league of cities and towns to be recommended by the league: **Bill Bryant, Town Administrator, Bristol Vermont.**
- a representative of an environmental group; **Norm Staunton, Director Association of Vermont Recyclers**
- two representatives of the private solid waste industry in Vermont, one a landfill owner and one a solid waste hauler; **John Casella, Casella Waste Management with alternate Karen Flanders and Jeff Myers, Myers Container Services**
- a representative from the business sector; **Thomas Jagielski of IBM with alternate Peter Mattos or Reg Beliveau Jr.**
- a third party consultant skilled in solid waste facility design or risk assessment; **Paul O'Leary of O'Leary – Burke Civil Assoc.**
- representatives of other interests as added to the group by the secretary. **Erich Kruger of Waste Prevention Steering Committee and New Building Materials and Salvage. Bob Foster of Composting Association of Vermont.**

## APPENDIX B

### SOLID WASTE WORKING GROUP SURVEY AND HOMEWORK

Name \_\_\_\_\_

- 1) **Please rank** the seven overarching themes developed under the waste prevention initiative as to what the Solid Waste Report to the Legislature should better address. (More information can be found in the full report – *Life Beyond Garbage*)

Rank successively from 1 to 7 (only use a number once). Use 1 for the theme that represents the highest priority (needs to be addressed right away) and 7 for the lowest.

**Public Education and Outreach:** Educate Vermonters about the value of waste prevention, why it is important, and how to prevent waste. (Rank = \_\_\_\_\_)

**Product Stewardship:** Ensure that responsibility for waste is shared by all those involved in a product's life cycle. (Rank = \_\_\_\_\_)

**Government Leadership:** State government must show leadership in preventing waste through its purchasing practices and other policies, such as its state building contracts. (Rank = \_\_\_\_\_)

**Infrastructure:** The state needs to develop collection and processing systems for reusable, recyclable, and compostable materials and provide incentives for the private sector to develop businesses that use and sell the materials. (Rank = \_\_\_\_\_)

**Mandates and Bans:** Mandates and bans can drive an economy to reuse and recycle discarded materials, and ensure that resources are not wasted. (Rank = \_\_\_\_\_)

**Standards:** Vermont needs standards to ensure best practices are used for waste prevention, such as designing and constructing buildings or manufacturing products. Standards can also insure that diversion efforts are conducted in an environmentally and socially responsible manner. (Rank = \_\_\_\_\_)

**Partnerships:** The State must actively collaborate and coordinate with regional, national, and international efforts to change the way we manage our resources. (Rank = \_\_\_\_\_)

- 2) **Proposed Sustainable Materials Vision** – ANR proposes a new *Sustainable Materials Vision* for solid waste management in Vermont whose goals are to:

“promote sustainable materials management,  
prevent waste from being generated,  
minimize reliance on waste disposal, and  
minimize energy consumption, green house gas emissions and other adverse environmental impacts.”

**Do you agree that this should be the focus for solid waste management in Vermont for the next 10 years? If not, what should the vision include? (Please list below.)**

**3) ANR's Report to the Legislature cited the items below as making up the framework to achieve the sustainable material management vision.**

**Do you agree that they are important for ANR to focus on?**

**If you agree, rank successively from 1 to 7 (only use a number once). Use 1 for the theme that represents the highest priority (needs to be addressed right away) and 7 for the lowest. Assume the State has limited resources and has to prioritize these.)**

**If you disagree, what is missing from this list? (Add below)**

**Evaluate Vermont's Solid Waste Planning Entities: (Rank = \_\_\_)**

In addition to state planning, there are 43 solid waste planning entities in Vermont, making it difficult to implement necessary programs and infrastructure to carry out the Sustainable Materials Vision for Vermont. ANR will work with the planning entities and the Legislature to determine how to best develop and implement integrated state-wide strategies.

**Increase Infrastructure and Evaluate New Technologies: (Rank = \_\_\_)**

There is a wide variation in how materials and solid waste are managed in Vermont. Services need to be more consistent, convenient and equitable in price. Recycling services must handle a changing material list. ANR must collaborate with districts (alliances, and municipalities) and businesses to provide infrastructure and consistent programs. Emerging technologies should be evaluated when facilities are planned and constructed. Goals should be adopted including:

- Convenient, consistent, and cost-effective recycling for all Vermonters;
- On the go recycling (such as shopping, ball games, etc) available; and,
- Recycling available as part of residential and commercial curbside collection or within 10 miles of home.

**Create Long-Term and Adaptable Outreach and Education Programs: (Rank = \_\_\_)**

All Vermonters will need to understand the Sustainable Materials Vision and how they can participate, as significant changes in behavior regarding how waste is viewed and managed is necessary (e.g. waste must be viewed as a resource and managed as something of value). Behavior change is needed on the individual, community, business, and institutional level as well as long-term collaborative outreach and educational programs that can evolve as programs progress.

**Target Certain Waste Streams and Establish Measurable Goals: (Rank = \_\_\_)**

Large components of the waste stream (e.g. organics, recyclables, and construction & demolition waste) or toxic components (electronics and household hazardous waste) should be targeted for reduction and reduction goals set. The Waste Prevention Stakeholder Initiative action steps should be evaluated by ANR and the State Solid Waste Plan revised accordingly.

**Participate in Regional and National Efforts, Initiatives, and Partnerships: (Rank = \_\_\_)**

Sustainable materials and solid waste management issues cross state and regional boundaries. Product stewardship requires us to work beyond state boundaries including with manufacturers. Vermont will be more effective when joined by other states and regions. ANR will seek out, participate in, and/or initiate partnerships (outside of the state) that benefit and promote the Sustainable Materials Vision for Vermont.



**Strengthen Current and Create New In-State Partnerships: (Rank = \_\_\_)**

To implement the Sustainable Materials Vision for Vermont, a large and diverse group of stakeholders need to be involved. ANR will play a key role in strengthening and creating new partners in these efforts including:

- Solid Waste Managers: Districts, alliances and towns, businesses, and non-profit organizations;
- State educational groups: Association of Vermont Recyclers, Vermont Earth Institute and 10% Challenge, colleges and universities;
- Business and Economic Development: Vermont Sustainable Jobs Fund, Manufacturing Extension Centers, Small Business Development Centers, VBSR, State Economic Development Agencies for economic development
- Green and Waste Prevention Groups: Vermont Green Building Network, VPIRG, Building for Social Responsibility, reuse organizations (VT Food Bank, Salvation Army);
- Environmental Groups: VPIRG, VT Toxics Action Coalition, NOEMOA, NERC;
- Other Government entities: Agency of Transportation, Agency of Agriculture, Vermont League of Cities and Towns, municipalities, State Buildings and Purchasing, and EPA;
- Regional and National organizations promoting sustainable materials management and product stewardship

**ANR Leadership: (Rank = \_\_\_)**

As ANR takes on a leadership role in promoting and advancing the Sustainable Materials Vision for Vermont, it will need to take on new functions and increase its capabilities. ANR staff will become experts in the policies, programs, and technologies associated with the Sustainable Materials Vision for Vermont. The Agency's current reorganization efforts will foster the ability of ANR to be a leader in this area.

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**NOTE**

**Your ideas from the September 12 meeting were organized into the following groupings which may be helpful in doing the rankings:**

**Regulatory**

- Overlap of regulations- jurisdiction unclear
- Policy/rules that support new technology
- Better incentives for having an approved SWIP
- Enforcement of regulations/rules that are on the book
- Regional cooperation/collaboration. Small Vermont impact. Examples- Walmart, product stewardship meeting next week.

**Administrative and Infrastructure**

- Number of planning entities in Vermont - too many
- Disparity of service level statewide, ease of collection
- Bigger regions managing waste - fewer districts more consistent services. All towns should be within a district.
- Statewide authority with statewide flow control
- New collaborative - private, public, & institutional cooperation
- No town on their own
- Larger infrastructure to manage increase waste diversion
- Increased ride in public transit strictly financial but need infrastructure to sustain
- Provide more public facilities for solid waste management
- A consistent plan through out Vermont

- Equitable services statewide so we can manage our materials as resources with the right economic structure

### Implementation

- Increase diversion rate by any means possible
- Take action

### Funding

- Change in funding mechanisms to discourage disposal. Incentify waste reduction
- Funding mechanism that pays for waste diversion and charges more for disposal. Incentives & disincentives
- Funding mechanisms. Enable good examples/practices to expand.
- Funded mandate to current institutions
- Environmentally preferable products are not more expensive
- **Change the financial structure to value waste reduction and not disposal**

### Education

- Educate the public
- Behavior change & cultural identify away from being consumer more cultural connection, & more than money. Personal identity impact related to having new items
- Prevention is primary rather than management
- Shift the paradigm from waste management to waste prevention
- Change peoples view of waste to resource optimization
- More education to the population
- Waste needs to be looked at a resource (what is potential life cycle, once disposed once can be used)
- Waste should be viewed as a commodity

### Analysis

- Evaluate new technology
- Develop Model: LCA Product, economics, carbon impacts, energy, & nutrients
- We need a mathematical model to determine highest and best use of any economics carbon nutrient balance
- Need data on what we need to manage first before learning how to manage

Below are the lists created by the three small groups to answer the question:

***“What are the primary changes that must be made in how Vermont manages solid waste in the next 10 years? What are the top critical issues that need to be addressed? (e.g. top 2 – 4 changes or issues that need to be addressed)”***

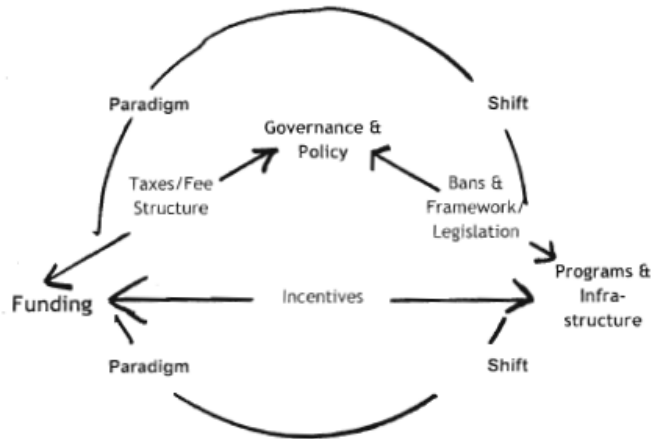
Group 1- Tom, Alyssa, Karen, Pete

- 1) Need to look at resources/waste as commodities
- 2) Need to create new infrastructure including new technologies to support new material inflows
- 3) Need to develop economic model that supports diversion and sustainable use
- 4) Need critical mass of commodities to create economies of scale.

Group 2- Erich, Fred, Tracy, Reg

Governance & Policy, Programs & infrastructure, and Funding all need to be addressed through a paradigm shift. We need mandates, infrastructure improvements, and grants and loans to support the change.

See graphic that illustrates the relationship between all these changes to make this shift:



Group 3 - Norm, Paul, Bob, Cathy

Changes are needed in the areas of:

- Legislation/regulation/funding/mandating
- Infrastructure/Technology/Investment-Economics
- Organization/Accountability/Standardization
- Education/Behavior change/Sustainability

Need to have appropriate Incentives and disincentives

Need to *have fewer districts* with no independent towns to create economy of scale and provide equitable service

## APPENDIX C – Survey #2

<b>WASTE PREVENTION LEGISLATIVE MEASURES RANKING</b>				
Review the waste prevention legislative measures below and determine whether or not you would support legislation on each. If you are uncertain, check "not sure." After you have picked those to support, rank them from 1 (highest priority) up to 10 (lowest priority). Please use each number only once.				
	YES	NO	NOT SURE	Priority (1 - 10)
<b>Review Opportunities to Mandate Design Standards</b> <i>These may include:</i> Focus on architectural design for minimization and reuse of materials. Build to LEED Standards – points for waste diversion				
<b>Enhance Waste Prevention Requirement in Act 250 permit process</b> Strengthen the waste management and prevention requirement in Act 250 permit development, and criteria, including sample waste prevention permit conditions.				
<b>Make Changes to State Bid Specifications and Purchasing Guidelines:</b> <i>These may include:</i> Durability considered the highest criteria in bid specifications Both service and durable good providers need more focus on durables. Include waste prevention in performance reviews. Example – cleaning services.				
<b>Work Toward Material Bans from Landfilling</b> Support framework legislation to allow ANR to impose regulatory bans on a material by material basis. Consider leaf and yard waste and cardboard first.				
<b>Mandate Data Collection &amp; Analysis be Done on How Vermont Can Achieve Waste Prevention and Toxic Use Reduction</b> Look at Vermont first, and then region as a whole. Partner with other States on current and future efforts.				
<b>Pass framework legislation for product stewardship and producer responsibility</b> Need framework and criteria for prioritizing products for extended producer responsibility. Reestablish Advisory Council on Toxic Substances to assess hazardous, toxic, persistent, and bio-accumulative chemicals in consumer products and waste.				
<b>Tax homes larger than some minimum square footage as a funding mechanism for waste prevention</b>				
<b>Make Changes to the State Franchise Tax on Waste</b> Change the state franchise tax to include a % increase as waste disposal decreases and use portion to fund waste prevention. Grants for waste prevention for industry, commercial businesses, municipalities and institutions				
<b>Ban on the sale of bottled water at state buildings</b>				

## **APPENDIX D**

### **Funding Discussion Presentation**