

Advisory Committee

Solid Waste Management Plan for Lincoln and Lancaster County (Solid Waste Plan 2040)

June 25, 2013



Solid Waste Management Plan for Lincoln and Lancaster County

 **Solid Waste Plan 2040** 

Purpose of the Plan

The Solid Waste Plan 2040 will be a guidance document, communication tool, and resource for policy decisions regarding solid waste management systems, facilities, and programs.

Agenda

1. Public Meeting Law Acknowledgement & Safety Briefing
2. Call Meeting to Order
3. Roll Call
4. Approve Meeting Minutes from May 14, 2013
5. Process for Developing Recommendations
 - a) Additional Information on Construction and Demolition Material Recycling
6. System Definition
7. Committee Questions and Discussions

BREAK

Agenda

BREAK

8. System Definition (cont.)
9. Public Participation
10. Developing Plan Recommendation
11. Committee Questions and Discussions
12. Next Advisory Committee Meeting
 - a) Timing, Topics and Notification
13. Public Comment (final 15 minutes)
14. Close Meeting

Construction & Demolition Materials Recycling

RECYCLE

Current System:

- 75 – 80% Diversion of Total C&D Generation
 - Includes Concrete and Asphalt Compared to Material Disposed of at City's North 48th Street C&D Landfill
- Quantities of C&D Materials Going to Bluff Road is Unknown:
 - Materials for Reuse/Repurpose, Recycle, Waste
 - State Composition Study was 0.17% Misc. C&D; 0.31% Wood at Bluff Road
 - Iowa Statewide Composition Study was 5.5%
 - Operation personnel identify wood, asphalt shingles, packaging materials as noted components

Construction and Demolition Materials Recycling

RECYCLE

Program Types:

- Regulatory Requirements
 - Mandatory recycling plans
 - Minimum diversion requirements
 - Incorporation into disaster response plans
- Market and Diversion Incentives
 - Modify government procurement/purchasing specifications
 - Require the use of recyclable materials
 - Targeted programs
 - Increased landfill fees
 - Disposal bans
- Materials Recycling and Processing Centers

Construction and Demolition Materials Recycling

RECYCLE

Issue:

Significant quantities of concrete and asphalt are being recycled through private initiatives, but other commercial and residential C&D waste material are being disposed of in the City's C&D Waste Landfill and in the MSW landfill. Limited diversion of this other material is occurring though private and not-for-profit initiatives.

Some of this material can be re-used/re-purposed and some has recycling value. Examples of materials with additional recycling value include: wood, gypsum/drywall, packaging materials, brick, and asphalt shingles. Increased rates of diversion could likely be achieved through several means including: education, regulatory requirements, market and diversion incentives, material recycling and processing centers.

Construction and Demolition Materials Recycling

RECYCLE

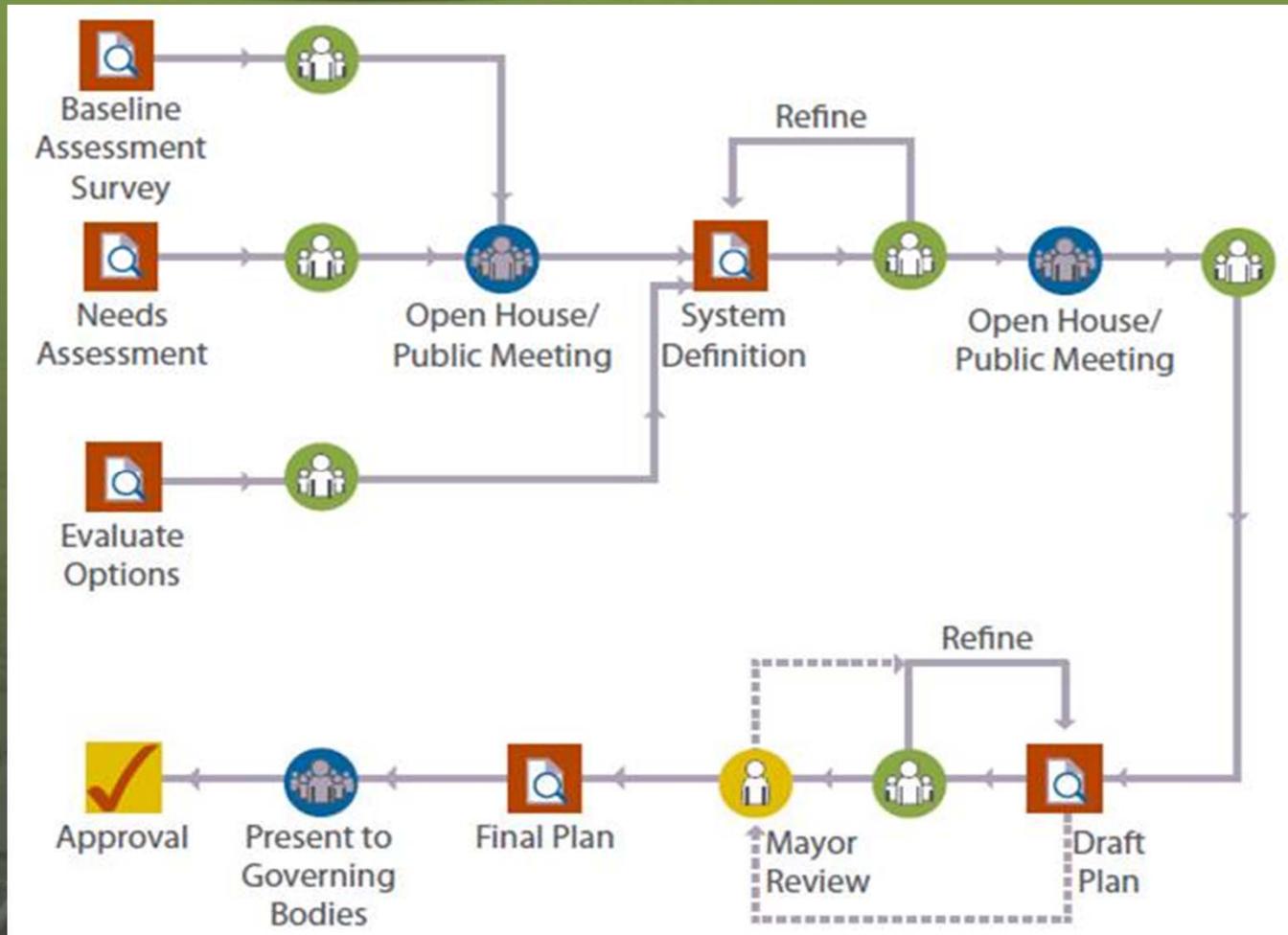
Options:

- 1) Maintain Status Quo:
 - a. Support private recycling and material reuse effort.
- 2) Develop/Support programs to reduce the quantities of construction and demolition waste going to the City's disposal site(s).

Construction and Demolition Materials Recycling

1. Maintain Status Quo.
2. Develop/Support programs to reduce the quantities of construction and demolition waste going to the City's disposal site(s).
3. Abstain.

System Definition



System Definition

- Combines information on existing programs and future program options
- Serve as the basis for the development of the Solid Waste Management Plan
- Basis of Open House and Public Outreach
- Utilizes Preferred Path Options and Associated Discussions

System Definition

Options:

- Strategies
- Quantitative/Qualitative Goals
- Benefits
- Cost Considerations
- Capital Costs
- Operating Costs
- Funding
- Diversion

System Definition - Scenarios

Program Area	Scenario 1		Scenario 2		Scenario 3	
	Strategy	% increase in TOTAL MSW Diversion	Strategy	% increase in TOTAL MSW Diversion	Strategy	% increase in TOTAL MSW Diversion
Source Reduction	Increased Education	1 - 2%	Increased Education in conjunction with more progressive diversion efforts	2-4%	Increased Education in conjunction with incentivized programs (e.g., "volume-based" residential recycling and waste exchanges)	4-6%
Toxics Reduction	Year round facility	<1%	Year round facility	<1%	Year round facility	<1%
Yard Waste	Status Quo	0%	Status Quo	0%	Year round landfill ban for grass and leaves	1-2%
Residential Recycling	Universal with Minimum Levels of Service	5-7%	Universal - more enhanced program	6-8%	Universal with incentives (e.g. volume based rates)	8-10%
Commercial Recycling	Universal with Minimum Levels of Service	6-8%	Universal - more enhanced program	8-10%	Universal with incentives (e.g. volume based rates and space provisions for recycling in new construction)	10-12%
Organic Waste Diversion	Status Quo with added educational emphasis	<1%	Pilot program for food composting	1%	Commercial scale organics composting/digestion, food and soiled papers	5-10%
Waste Conversion Technologies	Status Quo	0%	Status Quo	0%	Waste Conversion facility targeting majority of non-diverted wastes	40 to 50%
Transfer Station	Transfer Station with no processing	<1%	Transfer Station with no processing	<1%	Transfer Station with limited diversion of materials delivered as waste	2-5%
% INCREASE in TOTAL MSW Diversion (above current 18%)		12-18%		17-24%		57-62% (1)
% TOTAL MSW Diversion (including current 18%)		30-36%		35-42%		75-80% (1)

System Definition - Scenarios

Estimates of Diversion – Increase (Total)

1) 12-18% (30-36%)

2) 18-22% (36-40%)

3) 57-62% (75-80%)

System Definition

Evaluation/Screening Criteria

- Waste Reduction/Diversion
- Technical Criteria
- Environmental Impact
- Economic Impact
- Implementation Viability

System Definition – Eval./Screening Criteria

	Waste Reduction/ Diversion	Technical Criteria	Environmental Impact	Economic Impacts	Implementation Viability
Source Reduction	↑	↑	↑	↑	↑
Toxics Reduction	↑	↑	↑	↑	↑
Yard Waste	--	--	--	--	--
Residential Recycling and Diversion	↑	↑	↑		↑
Commercial Recycling and Diversion	↑	↑	↑	--	--
Construction and Demolition Materials Recycling					
Organic Waste Diversion (Composting)	↑	--	↑	↓	↓
Waste Conversion Technologies	↑	--	↑	↓	↓
Municipal Solid Waste Disposal	--	↑	↓	↑	↑
Transfer Station and Processing Facilities	--	--	↑	--	--

System Definition – Cost Information

Program Areas

- Range of Increases in TOTAL MSW Diversion
- Estimate tons Diverted, per Year
- Annualized Cost Equivalent
- Cost /Household/Month

System Definition – Cost Information

Program Area	% increase in TOTAL MSW Diversion ⁽¹⁾	Estimated Tons Diverted per Year ⁽¹⁾		Annualized Cost Equivalent (2013S)		Cost/Household/Month (2013S)	
Source Reduction	1-4 %	4,100	16,500	\$300,000	\$900,000	\$0.21	\$0.63
Toxics Reduction	less than 1%						
Modular Storage Container(s)				\$2,300	\$4,600	\$0.00	\$0.00
Small Storage Building				\$3,100	\$7,600	\$0.00	\$0.01
Permanent Facility		50	50	\$126,000	\$417,000	\$0.08	\$0.29
Yard Waste							
Status Quo	0%						
Year Round Ban	1-2%	4,100	8,200	No Estimate	No Estimate	No Estimate	
Residential Recycling							
Containers	N/A	N/A	N/A	\$500,000	\$700,000	\$0.50	\$0.67
Universal with Minimum Levels of Service	5-7%	20,600	28,800	\$5,100,000	\$7,100,000	\$5 - \$7 Free Market	
				\$3,600,000	\$5,100,000	\$3.50 - \$5.00 Franchise/Contract	
				N/A	N/A	\$0 or less if Franchised/Contracted with Solid Waste Collection	
Universal - More Enhanced Program	6-8%	24,700	32,900	\$5,100,000	\$7,100,000	\$5 - \$7 Free Market	
				3,600,000	\$5,100,000	\$3.50 - \$5.00 Franchise/Contract	
				N/A	N/A	\$0 or less if Franchised/Contracted with Solid Waste Collection	
Universal - Incentivized	8-10%	32,900	41,200	No Estimate	No Estimate	No Estimate	
Commercial Recycling	6-12%	24,700	49,400	No Estimate	No Estimate	Not Applicable	
Organic Waste Diversion	5-10%	20,600	41,200	\$824,000	\$4,100,000	No Estimate ⁽²⁾	
Waste Conversion Technologies	40-50%	168,000	206,000	No Estimate	\$20,000,000	No Estimate ⁽²⁾	

System Definition – Annualized Cost

Annualized Cost

- Option/Topic
- Annualized Capital Expense
- Annual Operating Expense
- Total Annual Expenses

System Definition – Annualized Costs

Option/Topic	Annualized Capital Expense	Annual Operating Expense	Total Annual Expenses
Source Reduction (Education/Behavior Change)	0	\$300,000 - \$900,000	\$300,000 - \$900,000
Toxics Reduction <ul style="list-style-type: none"> • Modular Storage Container • Small Storage Building • Permanent Facility 	<ul style="list-style-type: none"> \$2,300 - \$4,600 \$3,100 - \$7,600 \$76,400 - \$267,000 	<ul style="list-style-type: none"> \$0 Not Estimated \$50,000-\$150,000 	<ul style="list-style-type: none"> \$2,300 - \$4,600-- Not Estimated \$126,000 - \$417,000⁽¹⁾
Yard Waste	\$0	N/A	\$0
Residential Recycling and Diversion <ul style="list-style-type: none"> • Containers • At \$5 to \$7 per household/month • At \$3.50 - \$5.00 per household/month 	Containers Only \$500,000 - \$700,000	Collection Only \$5,100,000 - \$7,100,000 \$3,600,000 - \$5,100,000	\$5,600,000 - \$7,800,000 ⁽²⁾ \$4,100,000 - \$5,800,000 ⁽²⁾
Commercial Recycling and Diversion	(3)	(3)	(3)
Construction and Demolition Materials Recycling	(3)	(3)	(3)
Organic Waste Diversion (Composting)	(3)	(3)	\$824,000 - \$4,100,000 ⁽⁷⁾
Waste Conversion Technologies	(3)	(3)	\$20,000,000 ⁽⁴⁾
Municipal Solid Waste Disposal <ul style="list-style-type: none"> • Expand on adjacent City property 	\$487,000-\$722,000 ⁽⁵⁾	N/A	\$487,000-\$722,000 ⁽⁵⁾
Construction and Demolition Waste Disposal <ul style="list-style-type: none"> • Expand on adjacent City property 	\$7,900 ⁽⁵⁾	N/A	\$7,900 ⁽⁵⁾
Transfer Station and Processing Facilities	\$450,000 - \$610,000	Not Estimated	Not Estimated ⁽⁶⁾

System Definition – Implementation Actions

Implementation Actions

- Changes in Laws, Regulations and Ordinances
- Cooperative Agreements or Arrangements between Units of Government or Private Entities
- Additional Studies or Evaluations
- Monitoring and Enforcement
- Costs and Funding
- Educational Initiatives and Programs of Behavioral Change
- Changes to Existing Programs
- Markets

System Definition – Implementation Actions

	Changes in Laws, Regulations and Ordinances	Cooperative Agreements or Arrangements between Units of Government or Private Entities	Additional Studies or Evaluation	Monitoring and Enforcement	Costs and Funding	Educational Initiatives and Promotion of Behavioral Changes	Changes to Existing Programs	Markets
Source Reduction	No	-	No	No	Yes	Yes	No	-
Toxics Reduction	-	-	Possibly	No	Yes	Yes	Yes	No
Yard Waste	No	No	No	No	Yes	No	No	Yes
Residential Recycling and Diversion	Yes	Yes	Possibly	Yes	Yes	Yes	Yes	Yes
Commercial Recycling and Diversion	Yes	Yes	Possibly	Yes	Yes	Yes	Yes	Yes
Construction and Demolition Materials Recycling								
Organic Waste Diversion (Composting)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Waste Conversion Technologies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipal Solid Waste Disposal	No	No	No	No	-	No	No	No
Construction and Demolition Waste Disposal	No	No	No	No	-	No	No	No
Transfer Station and Processing Facilities	Possibly	Possibly	Yes	No	Yes	No	Yes	No

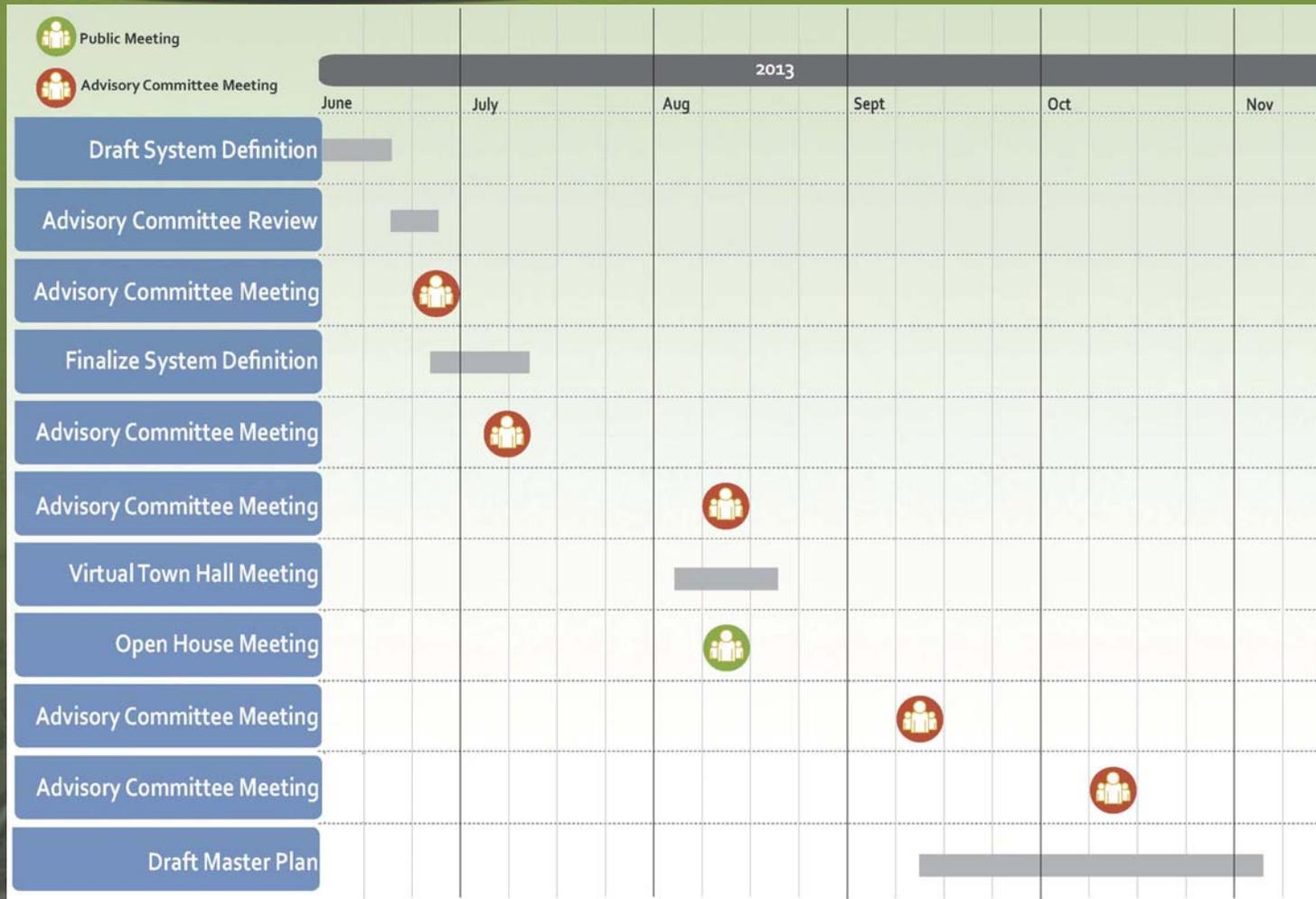
Committee Questions & Discussion

- Construction and Demolition Material Recycling
- System Definition

Purpose of the Plan

The Solid Waste Plan 2040 will be a guidance document, communication tool, and resource for policy decisions regarding solid waste management systems, facilities, and programs.

Public Participation – Schedule Update



Public Participation

- Virtual Town Hall Meeting
 - MindMixer Forum
- Open House In-Person Meeting
- Continued use of the Project Website and Comment Line
- Newsletter
- Others

Public Participation

Website: lincoln.ne.gov

- keyword: solid waste plan

Social Media

- Facebook
- Twitter

Comment Line

- (402) 441-7738



The screenshot shows the website for the Solid Waste Management Plan for Lincoln and Lancaster County. The header includes the City of Lincoln logo and the title "Solid Waste Plan 2040". A navigation menu lists "Home", "The Process", "Committee", "Contact", "FAQs", "Resources", and "Community Comments". Below the menu is a large image of a landfill. A "Solid Waste Plan 2040" section contains introductory text about the plan's development. A "Next Advisory Committee Meeting" box provides details for a meeting on Tuesday, October 9, 2012, at 2:30 p.m. to 4:30 p.m. at the UNL - Lancaster County Extension Education Center. Logos for the City of Lincoln, Lancaster County, and the Public Works & Utilities and Health Department are displayed. At the bottom, there are social media icons and a call to action: "Log on to <http://lincoln.ne.gov> Search: solid waste plan".

Solid Waste Management Plan for Lincoln and Lancaster County

Solid Waste Plan 2040

Process for Developing Recommendations

- Not necessarily tied to the System Definition
- May include Phased Approach
- May include Program Specific Goals

Process for Developing Recommendations

Examples:

- Goal:
 - Numeric diversion rate by certain time frame
- System/Facility/Program:
 - Increased education/behavioral change
 - Expand landfill(s) on City owned property
 - Toxics reduction - create a place to provide year round access
 - Recycling program

Process for Developing Recommendations

Examples:

- General:
 - Develop a means to provide better information on quantities of materials diverted/recycled
 - Further evaluation of certain topic (Leading to decision/action)

Committee Questions & Discussion

Process for Developing Recommendations

Solid Waste Management Plan for Lincoln and Lancaster County

 **Solid Waste Plan 2040** 

Next Advisory Committee Meeting

Next Meeting:

July 9, 2013

2:30 pm to 4:30 pm

Lincoln/Lancaster County Health Department
Lower Level Training Room

Topic:

- System Definition
- Open House
- Developing Plan Recommendations

Public Comment

- **Guidelines:**

- State name and address
- Limit your remarks to time allotted – 3 minutes
- Show respect to the meeting attendees, Advisory Committee members, facilitator and presenter(s)
- No foul language or inappropriate behavior
- Follow standard rules of decorum

Purpose of the Plan

The Solid Waste Plan 2040 will be a guidance document, communication tool, and resource for policy decisions regarding solid waste management systems, facilities, and programs.

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