

Agenda



- Call to Order
- Roll Call of Membership
- Welcome by Chair
- Approve minutes from December 6, 2017 Meeting
- 2017 Annual Progress Report Presentation & Approval
- Board Member Q&A
- Public Comment
- Long-term Solid Waste Master Plan Diversion
- Board Member Q&A
- Public Comment
- Other Business
- Adjournment



Metro Nashville
Public Works



2017 Annual Solid Waste Progress Report

March 29, 2018

Education Summary



- 5,873 people in our community received recycling education workshops
- Enhanced our educational programs to have a measurable and direct impact on waste reduction
- In late 2017 we started a volunteer recycling neighborhood ambassador program
- Received an TDEC organics grant to educate the community about organic landfill diversion
- Received a recycling bin grant from Coca Cola to help support MNPS green team programs
- Submitted and since received a TDEC recycling education grant

2017 Landfilled Waste



MSW/Class I	862,641.49
C&D/Class III/IV	405,456.27

Recycling Tons-Residential



	2017 Tons	2016 Tons
Automotive Fluids	43.79	37.66
Cardboard	2,863.73	2,273.13
Carpet/Pad	77.38	106.58
Electronic Waste	196.27	218.47
Glass	2,366.91	2,282.41
Grease	9.33	7.80
HHW	38.48	33.26
Metal	671.02	674.41
Mixed Plastic/Metal	918.56	831.74
Mixed Recyclables	13,435.61	13,219.46
Paper	1,953.21	2,176.39
Tires	7,100.58	7,327.61
Wood Waste	37,326.81	53,319.47
TOTAL	67,001.68	82,508.39

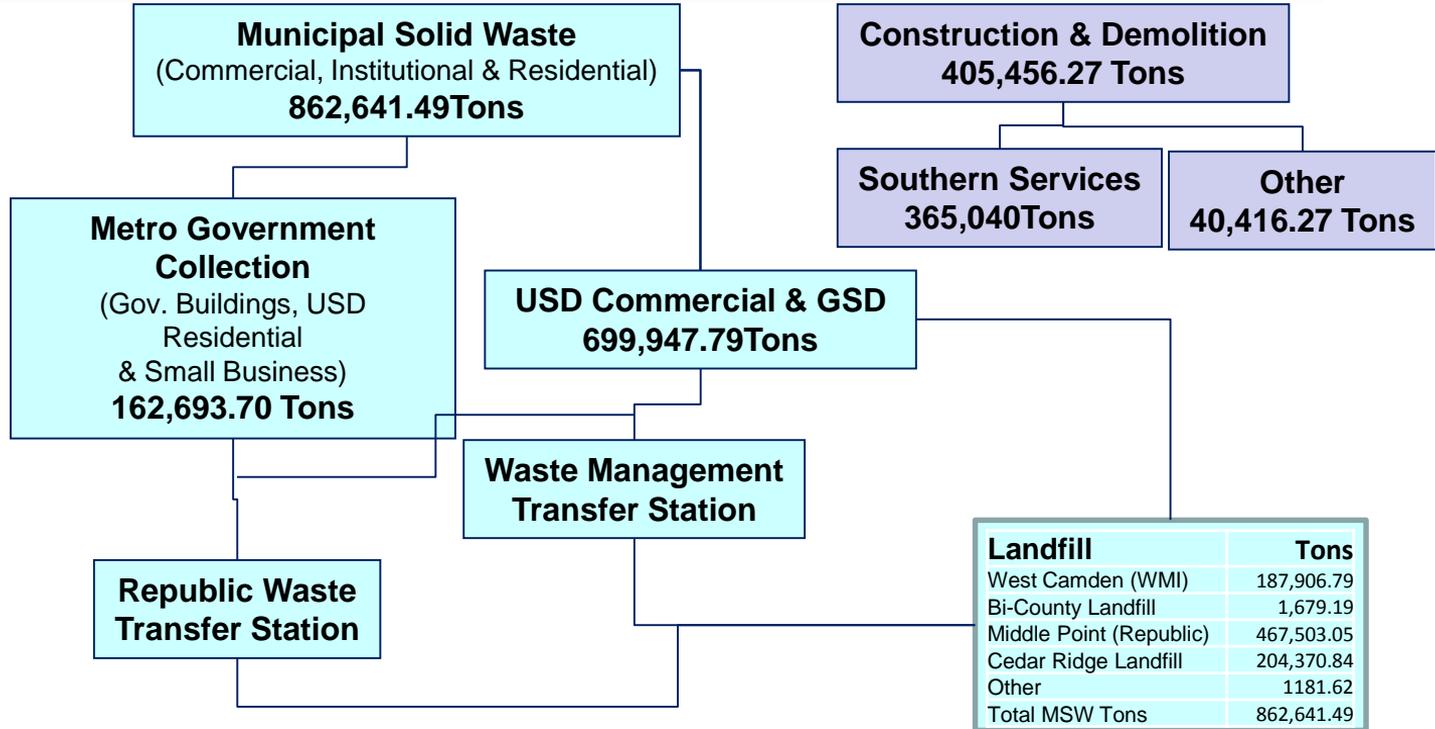
Recycling Tons-Commercial



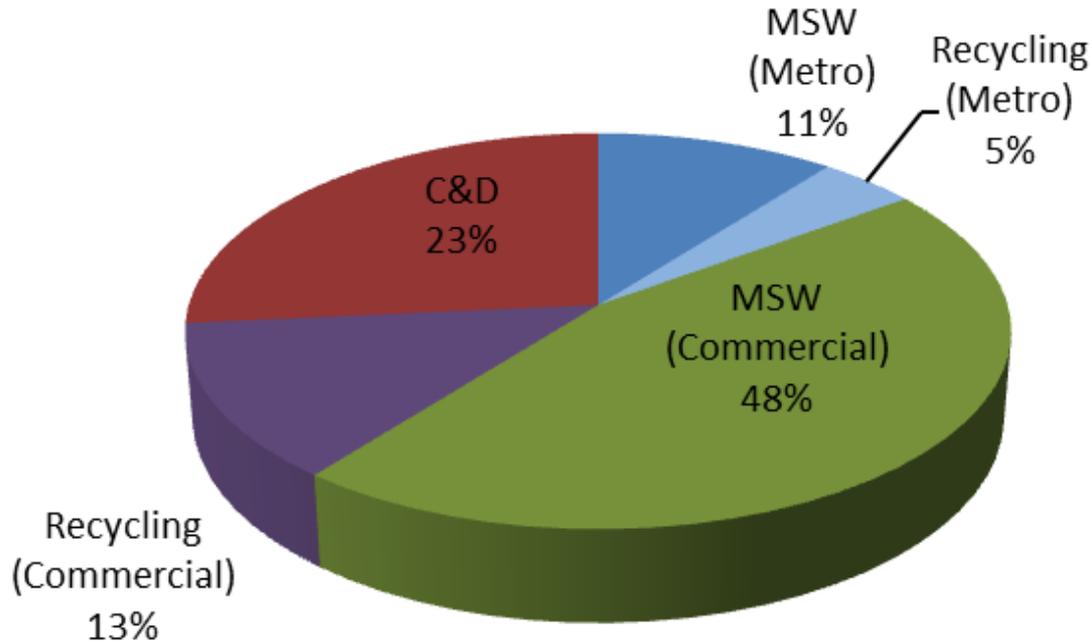
Davidson County
Solid Waste Region Board

	2017 Tons	2016 Tons
Batteries, Automotive Fluids	1,074.84	836.84
C&D Recycling	2,188.35	3,093.15
Cardboard	47,225.91	21,316.86
Carpet/Pad	4,843.00	4,817.00
Food Waste	1,368.94	750.00
Glass	2,860.76	18,435.22
Grease	8,507.08	8,012.00
Metal	97,573.68	94,984.61
Mixed Recyclables	14,733.55	14,067.80
Paper	16,070.87	21,264.59
Plastic	2,305.42	479.66
Textiles	7,518.00	7,083.00
	15,208.15	
TOTAL	221,478.55	195,140.73

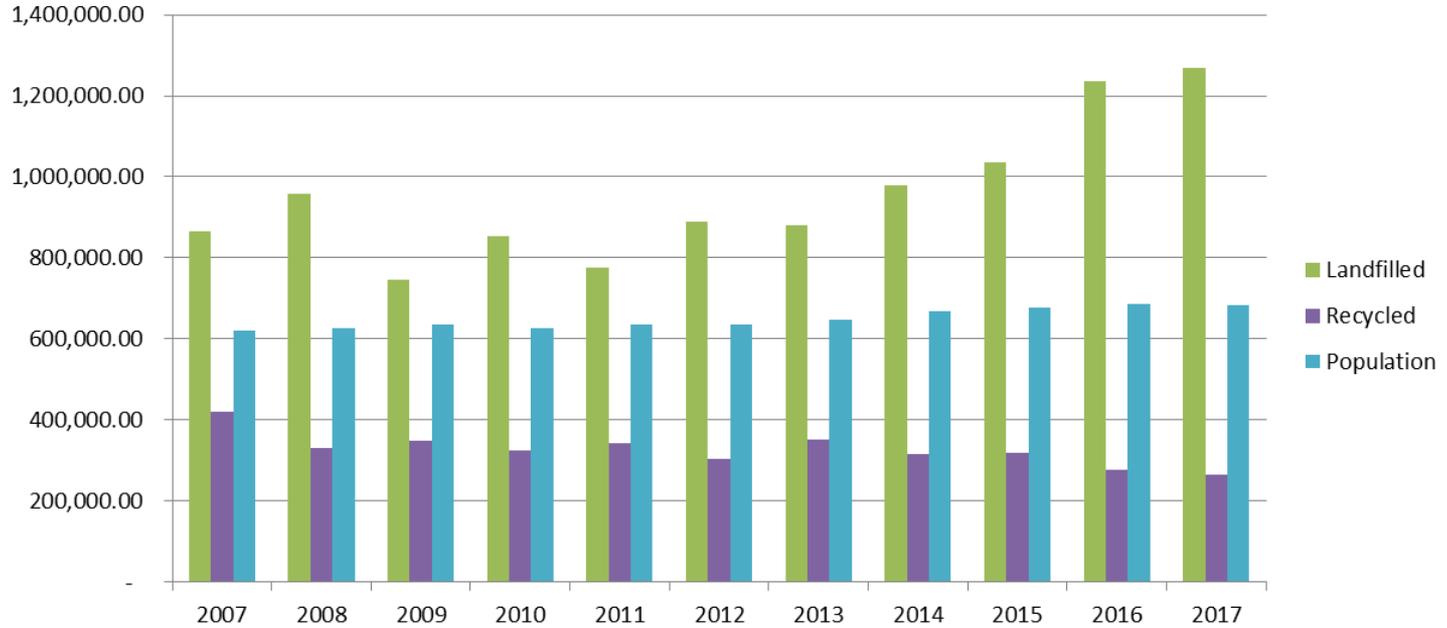
2017 Davidson County
Landfilled Waste
1,268,097.76 TONS



Davidson County 2017 Waste and Recycling Stream



Historical Trends



Annual Progress Report & 10 Year Plan Update



Questions

Solid Waste Master Plan Update

Nashville and Davidson County

CLEAR GLASS
CLEAR GLASS

BROWN GLASS
BROWN GLASS

GREEN GLASS
GREEN GLASS



March 29 2018

**CDM
Smith**

Presentation Outline

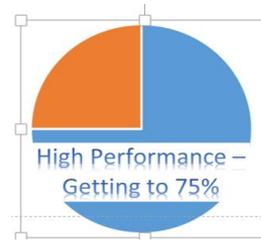
- Online Survey Results
- Waste & Recycling Characterization Results
- Program Strategy Discussion
 - High Performance Featured Strategies
 - Zero Waste Featured Strategies
- *Break*
- Diversion Modeling Discussion
- Program Costs
- Program Foundation Policies and Funding
- Q&A



ACRONYMS



- BMP – Best Management Practices
- SF – Single Family
- MF – Multifamily
- Res – Residential (SF & MF)
- Com'l – Commercial
- EOW - Every Other Week / Fortnightly
- SAYT – Save As You Throw
- HP – High Performance
- ZW – Zero Waste
- C&D / CDL– Construction & Demolition / Landclearing
- FW – Food Waste / Food scraps
- OCC - Cardboard
- YW – Yard Waste
- PRR – Percent Recoverables Remaining Metric



SURVEYS AND FEEDBACK

- Residential and Commercial Feedback Surveys
- Statistical and “open”
- Single Family, Multifamily, and Business respondents
- Services, providers, satisfaction, service usage, costs, remaining materials, barriers, and most importantly, support for changes.

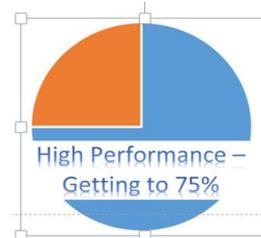


SURVEYS AND FEEDBACK

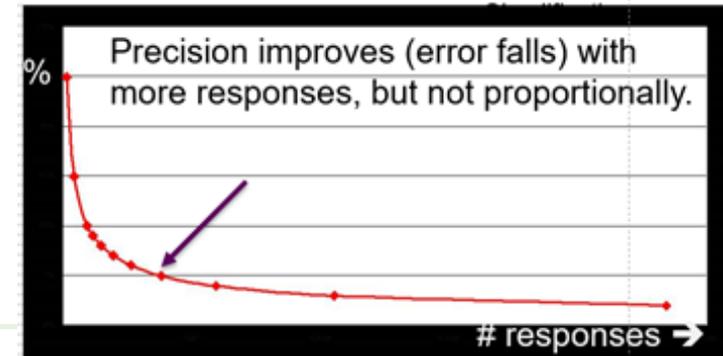


- Residential and Commercial Feedback Surveys

Responses	Statistical	Open
Single Family (SF)	183	2,494
Multi Family (MF)	88	211
Commercial (Com'l)	89	21
Total	360	2,726



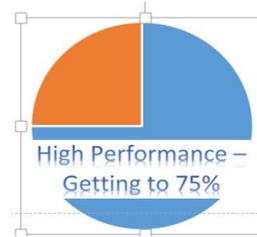
IF your population (homes or comm'l bldgs) is...	95% confidence		90% confidence	
	+/-5%	+/-10% ¹	+/-5%	+/-10%
100	79	49	73	40
1,000	278	88	213	63
10,000	370	95	263	67
100,000	383	96	270	68
1,000,000	384	96	271	68
10,000,000	384	96	271	68



SURVEY AND FEEDBACK



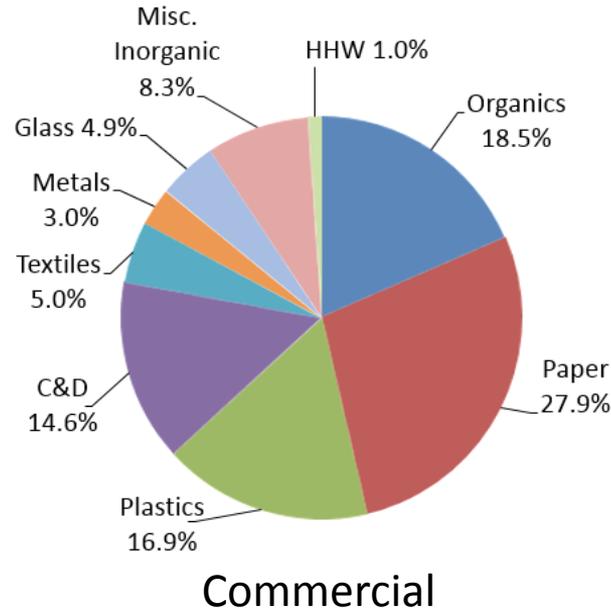
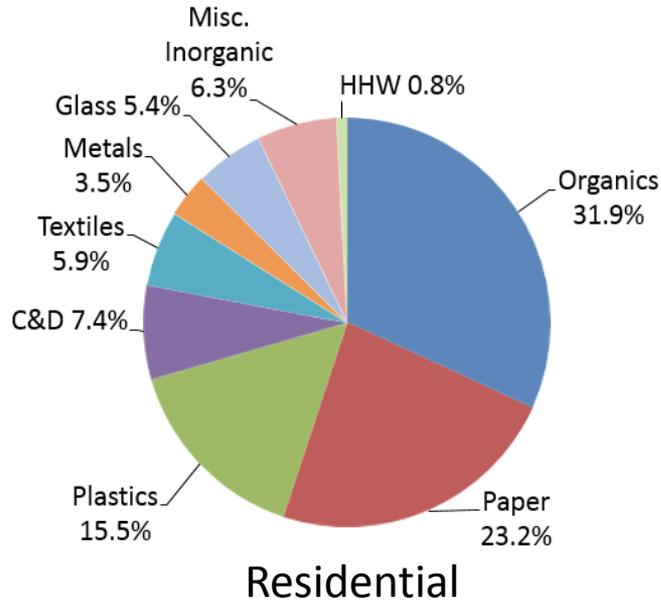
Support for Key Strategies	SF USD	SF GSD	MF	Commercial (Impt)
Adding Glass	76%	63%	57%	n/a
Adding Weekly Food / Yard Waste (FW/YW)	70%	52%	51%	75%
EOW Recycling	74%	56%	58%	n/a
SW Goal	79%	62%	64%	74%
More Biz Recy/ C&D Recy	84%/81%	68%/70%	61%/68%	75% / 64%
Embedded recycling	71%	55%	48%	70%
Hauler contract	67%	55%	55%	n/a
Save As You Throw (SAYT)	55%	51%	47%	n/a
Required Yard Waste (YW)	55%	43%	34%	59%



Landfilled Waste Profile: Residential vs. Commercial



- Residential has much higher Organics content
- Commercial has higher C&D content



Top Ten Components of Landfilled Waste



- More than 1/3 of Residential Landfilled Waste is Organics
- More than 1/3 of Commercial Landfilled Waste is C&D, Food and Cardboard

Category	Waste Composition %
Food Scraps	20.8%
Compostable Paper	9.3%
Construction and Demolition	7.4%
Household bulky items	5.1%
Clothing and other textiles	5.1%
Diapers	3.7%
Uncoated OCC	3.5%
Other Organic	3.2%
Yard Waste	3.1%
Glass Bottles and Jars - clear	3.0%
Total	64.3%

Residential Landfilled Waste

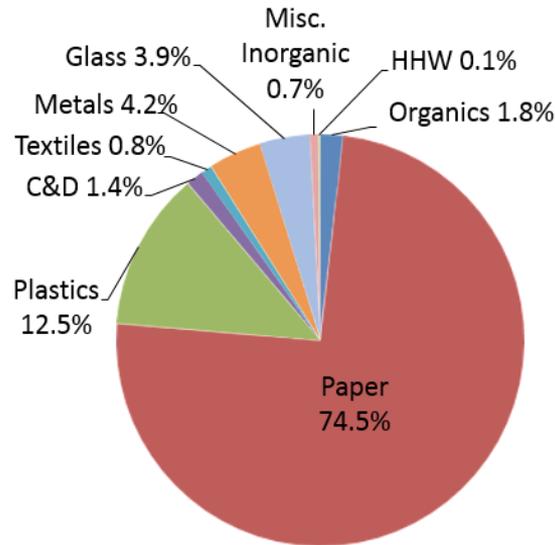
Category	Waste Composition %
Construction and Demolition	14.6%
Food Scraps	12.7%
Uncoated OCC	10.1%
Compostable Paper	9.4%
Household bulky items	6.6%
Clothing and other textiles	4.6%
Boxboard	3.6%
Trash Bags	2.4%
Other Film	2.3%
Yard Waste	2.3%
Total	68.5%

Commercial Landfilled Waste

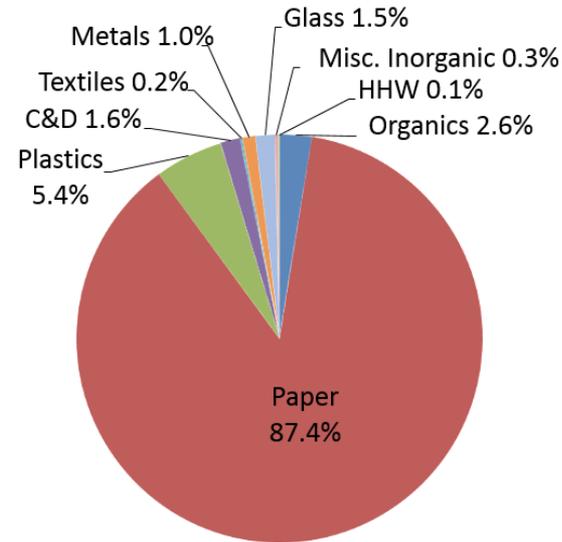
Recycled Waste Profile: Residential vs. Commercial



- Both are high in Paper by there is twice as much cardboard in Commercial
- Residential is higher in plastics, magazines and newsprint



Residential



Commercial

Top Contaminants of Recycled Waste



- Residential: Has higher level of contaminants than Commercial
- Commercial: Food service businesses have highest contaminant levels

Category	Waste Composition %
Glass	3.9%
Compostable Paper	3.2%
C&D	1.4%
Food Scraps	1.0%
Clothing	0.8%
Batteries and Bulbs	0.7%
Total	11.0%

Residential Recycled Waste

Category	Waste Composition %
Food Scraps	2.1%
Compostable Paper	1.6%
C&D	1.6%
Glass	1.5%
Electronics	0.3%
Clothing	0.2%
Total	7.3%

Commercial Recycled Waste



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Getting to High Performance



75%

HIGH PERFORMANCE

- Getting to 70/75%
- Funding / financial structure
- Policies / mandates
- Commercial

90%

ZERO WASTE

- Zero Waste Options
- Also discuss Collection and advanced recycling



FACILITIES

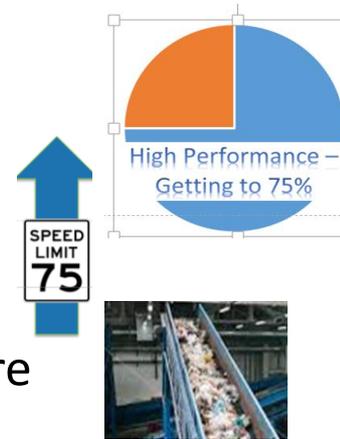
- Capacity and expansion
- New technologies



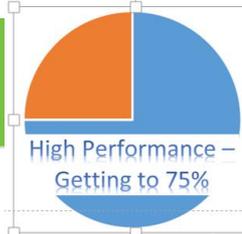
STRATEGIES FOR GETTING TO HIGH PERFORMANCE (75%)



- In Context:
 - Moving to High Performance
 - Zero Waste (ZW) Strategies
 - Build-up of Supporting Infrastructure



HIGH PERFORMANCE STRATEGIES (TO 75%)



Diversion

Current 13%

Add 62%+

→ 75%

Smaller Ton Strategies:

S21 Education/Outreach

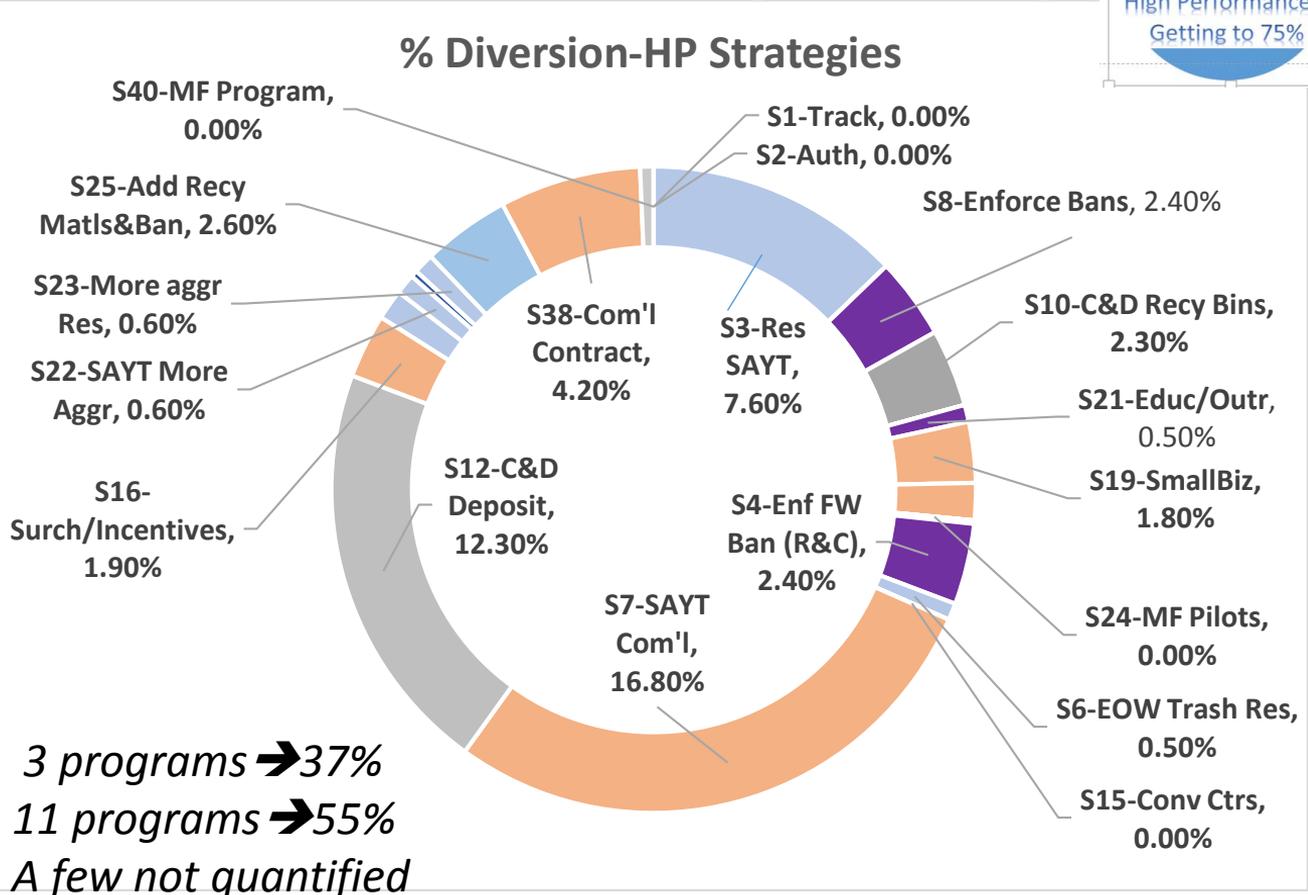
S41 Landscape Yard Waste (YW)

S20 Public Space Recycling (PSR)

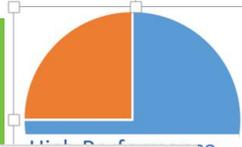
S11 City Jobs Preferences

S42b Compost in Building Codes

S33 SAYT (Save As You Throw) more aggressive.



HIGH PERFORMANCE STRATEGIES (TO 75%)



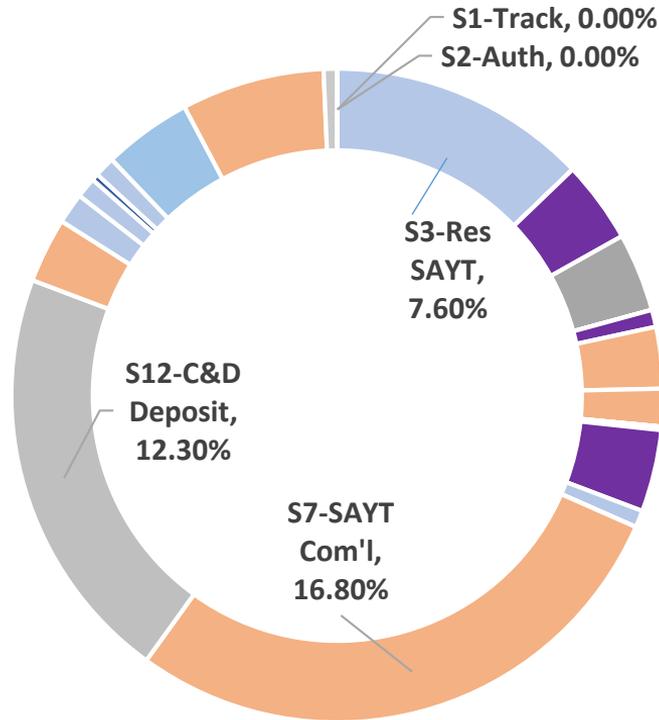
Diversion

Current 13%

Add 62%+

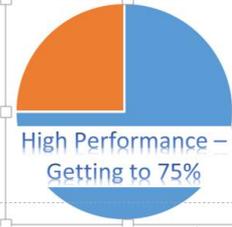
→ 75%

% Diversion-HP Strategies



3 programs → 37%
 11 programs → 55%
 A few not quantified

HIGH PERFORMANCE STRATEGIES (TO 75%)



Diversion

Current 13%

Add 62%+

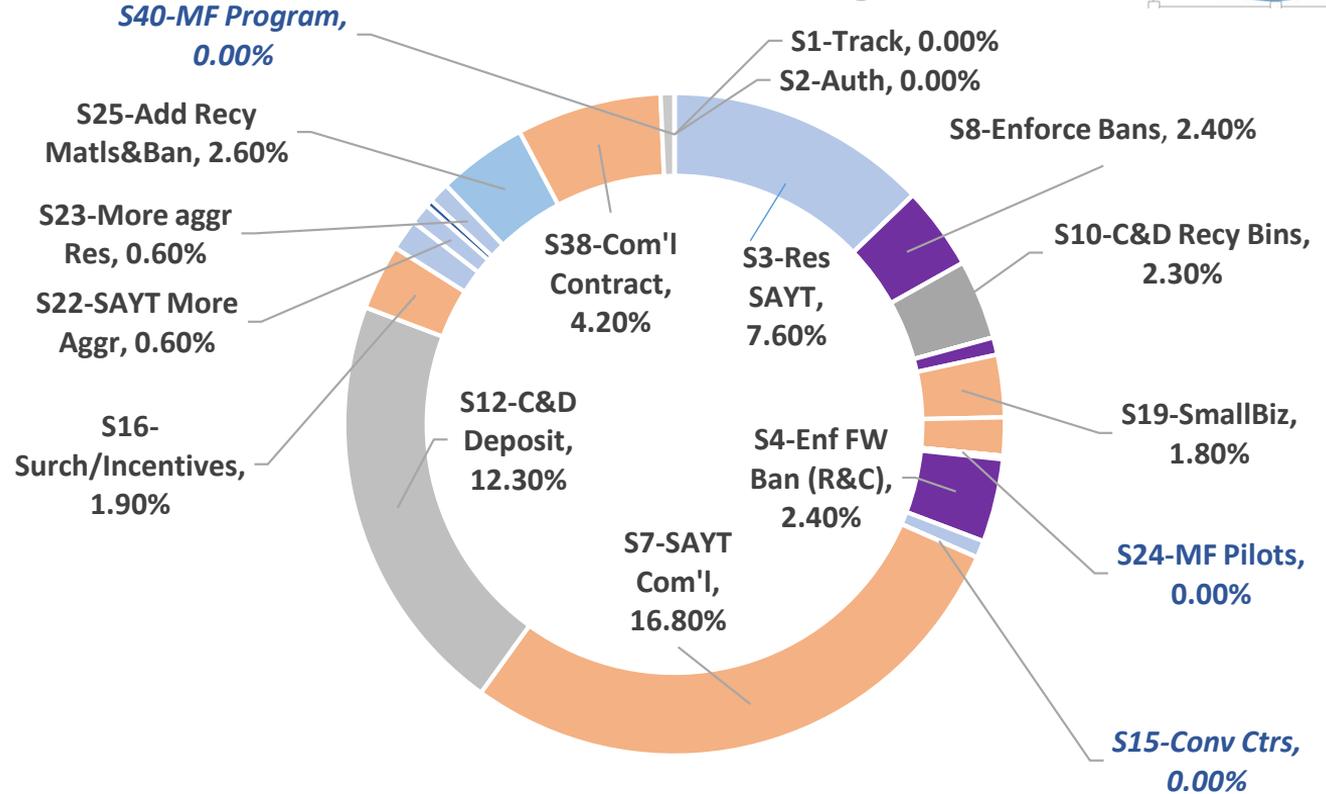
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A few not quantified

% Diversion-HP Strategies



HIGH PERFORMANCE STRATEGIES (TO 75%)



Diversion

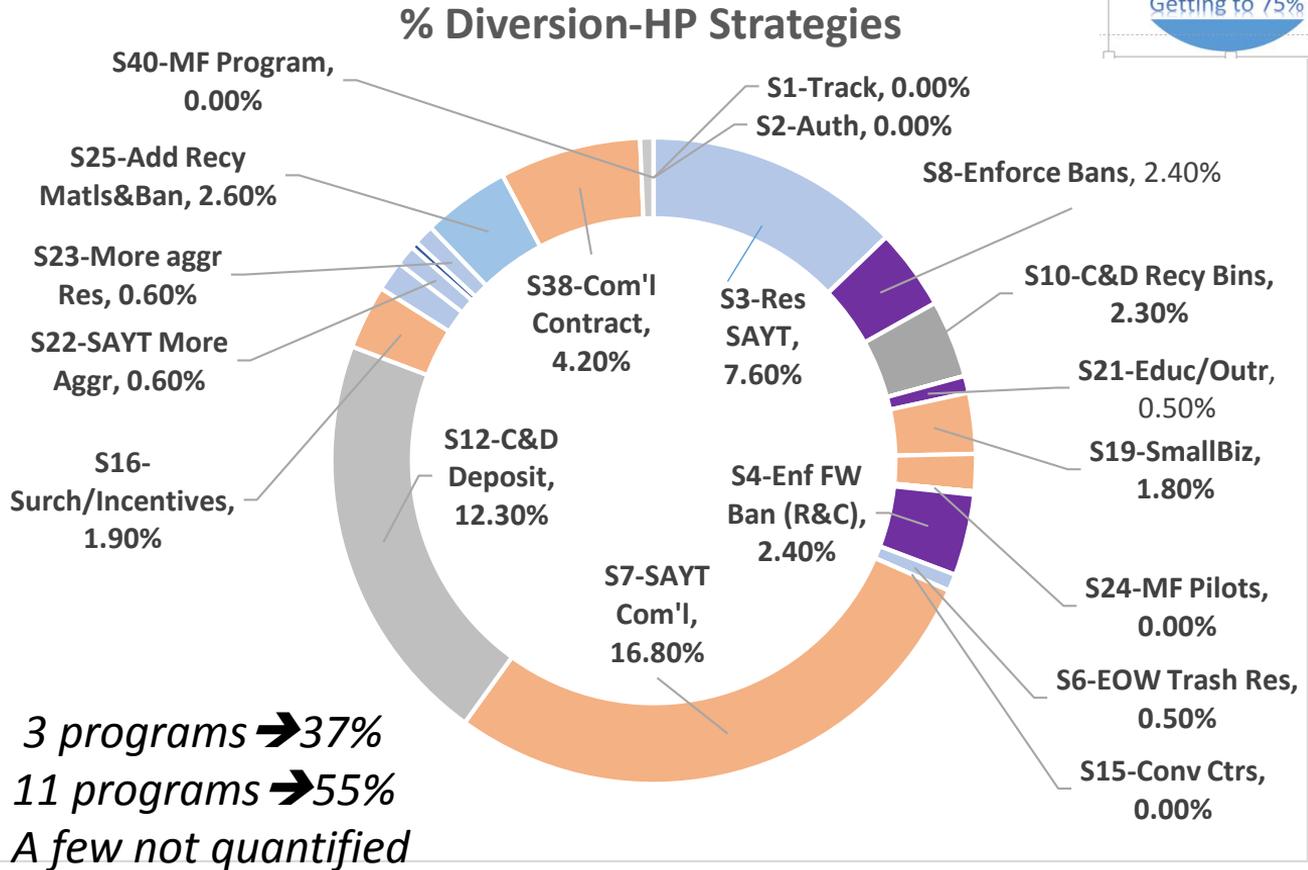
Current 13%

Add 62%+

→ 75%

Smaller Ton Strategies:

- S21 Education/Outreach
- S41 Landscape Yard Waste (YW)
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- S11 City Jobs Preferences
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STRATEGIES FOR GETTING TO HIGH PERFORMANCE (75%) – FIRST STEP



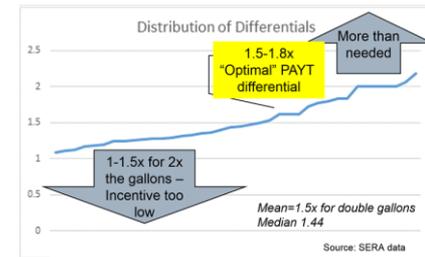
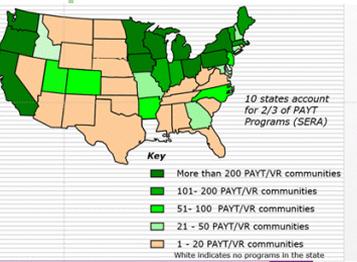
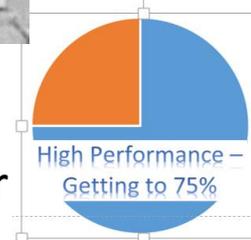
- Essential for High Performance (HP) strategies
 - 1) Essential Authorities – integrated platform of responsibilities, authorities, enabling services / enforcement & funding (methods discussed later);
 - Enforceable, area-wide ordinances, services, mandates, regulatory authority, policies across all sectors
 - Regulate service providers region-wide
 - Recover funds for services, charge for services provided
 - Issue RFPs, contracting arrangements across all generator sectors
 - Work cooperatively to develop facilities to assure capacity and C/E
 - 2) Tracking / Goals / Metrics to benchmark progress & prompt decisions (PRR). Need authority to compel reporting by service providers, facilities



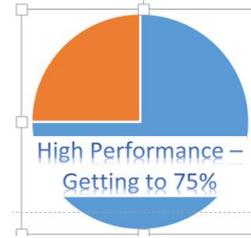
STRATEGIES FOR GETTING TO HIGH PERFORMANCE (75%)



- SAYT SF Service & Incentives Package – 7.5% (S3)
 - SAYT, 3-stream supporting bans (adding FW). City Changeover plus ordinance for All Area Haulers (vs contract).
 - Single most effective & cost-effective strategy – 17% Res red'n*
 - 3 effects (Recycling, Organics, Source Reduction)
 - 10K towns* with SAYT, including share of largest cities
- BMP: small container option, embedded EOW recycling and weekly orgs/food), threshold price differential (50-80% prem), parallel containerization, hauler inspections.



STRATEGIES FOR GETTING TO HIGH PERFORMANCE (75%)



- SAYT Residential Service & Incentives Package

Strengths / weaknesses

- Strengths: Equity, incentive, low cost / only new billing system, user pay
- Concerns: illegal dumping, large families, small haulers, billing, implem., HOA, MF.

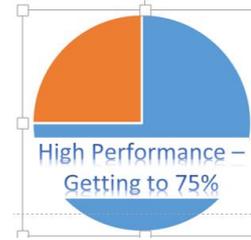
- Three-bin program key component – convenience / access; with SAYT incentive

- More effective than other options (rebates, etc.)

- Examples: Many cities across US & Canada; Mandated in MN, VT, OR, WA; Seattle, Austin, thousands of others (10,000 per SERA count)



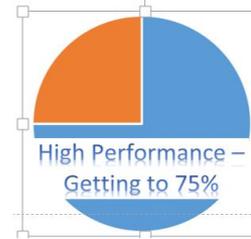
STRATEGIES FOR GETTING TO HIGH PERFORMANCE (75%)



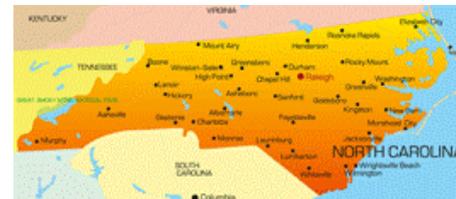
- Commercial SAYT & ABC Law Adapted – 17% (S7)
 - Ordinance for all haulers operating in area
 - Parallel to residential – key is embedded recycling (& FW) fee. Must have trash plus recycling NOT more expensive than trash only
 - Size ratio to limit hauler risk, set to reflect goal; EOW trash allowed
 - Specify recycling list, minimum 32 (FW), 96 gal; Inspection of hauler records an element
 - Examples, Seattle, Aspen, other
 - **Coupled with ABC law** – enforcement via liquor (a la NC, elsewhere)



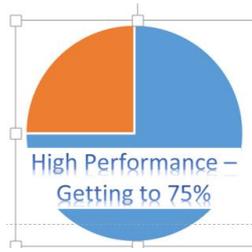
KEY STRATEGIES FOR GETTING TO HIGH PERFORMANCE (75%)



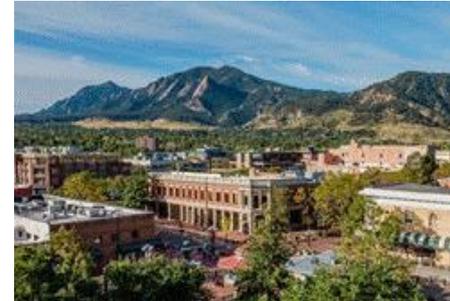
- Enforce Existing Bans – 2.4% (S8/9)
 - Hard work done - YW, Cardboard (OCC), E-waste, C&D
 - Phase in Residential & Commercial FW Ban Enforcement (2.4%)
 - Enforcement via inspectors (generators, not haulers)
 - Penalties via inspections; warning, fine(s), water bill
 - Examples: Seattle, NC, others



STRATEGIES FOR GETTING TO HIGH PERFORMANCE (75%)



- Small Business Policies – 11 components -1.8% (\$19)
 - Space for recycling, Plans, MF recycling bins (Portland, other)
 - Tech Assistance, Web Info & Hotline, Recognition program
 - Bin Grants, 1st 3 months free service, Small business on Res (Boulder, Seattle, KAB, many)
 - Clear invoicing / tips on contracts
 - Examples: Portland, Boulder, many others.

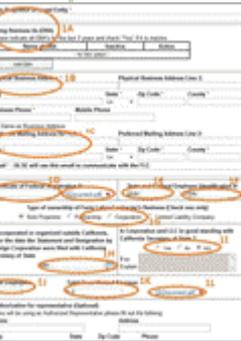
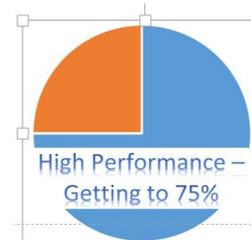


Current Invoice Charges					
Administrative Fee					\$1.02
[REDACTED]					
1 - Front Load (2 Yd) Scheduled Service (\$3)					
Date	Description	Reference	Quantity	Unit Price	Amount
01/25	Rate Adjustment 01/15/13-02/28/13		1.0000	\$106.56	\$39.98
01/25	Basic Service 02/01/13-02/28/13			\$81.56	\$81.56
1 - Front Load Recycling (2 Yd) Scheduled Service (\$4) Single Stream Recycling					
Date	Description	Reference	Quantity	Unit Price	Amount
01/25	Recycling Service 02/01/13-02/28/13			\$52.14	\$52.14
	Total Fuel/Environmental Recovery Fee				\$83.35
	Total County Environmental Charge				\$26.75
	Total Solid Waste Management Tax				\$337.31
Current Invoice Charges					\$337.31



STRATEGIES FOR GETTING TO HIGH PERFORMANCE (75%)

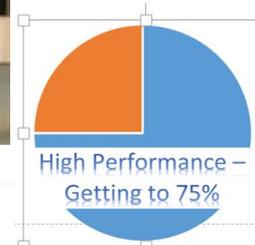
- C&D Deposit System – 13% (S12)
 - Huge stream
 - Deposit required when drawing permit; deposit varies with size (sq. ft.) and type and sector of job
 - Can reclaim funds if meet threshold recycling of materials (weight slips or “certified facility”)
 - Waits for development of C&D recycling facilities (certification)
 - Can ramp up threshold; omit lowest 25%
 - Examples: San Jose / many CA, variations in Austin, elsewhere



STRATEGIES FOR GETTING TO HIGH PERFORMANCE (75%)



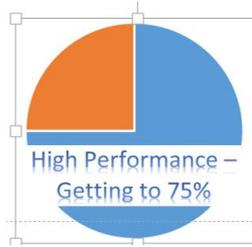
- Surcharges / Discounts at Transfer / Disposal – 10% (S16)
 - Surcharge on trash to increase incentive to divert; make diversion more financially attractive; Forgive taxes on diverted streams
 - Need all disposal facilities/ transfer stations
 - Differential can substantially affect uptake of programs*; funding
 - Realigns costs; carry through
 - Examples: MN, Seattle, other



STRATEGIES FOR GETTING TO HIGH PERFORMANCE (75%)



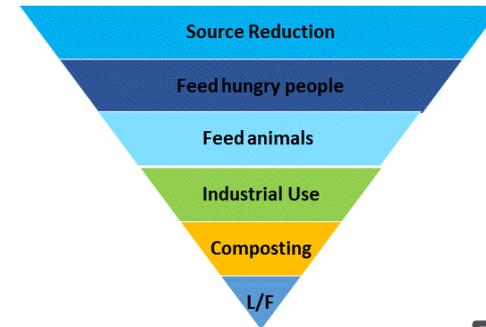
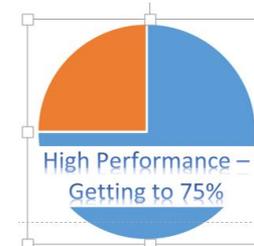
- MF Pilots - <math><0.5\%</math> (S24) to Full Scale MF Strategies
 - Important – but problematic; 25 years
 - Hauler-based Idea grant program with reporting
 - Example – Austin, other
- Roll out MF Programs (S40) (from pilots)
 - Important sector to reach goal
 - Examples mixed: San Jose, Austin, Portland, other



STRATEGIES FOR GETTING TO HIGH PERFORMANCE (75%)



- Add Materials and Follow-up Bans:
 - Enhanced Organics Materials - 0.2% (S35)
 - Add / Ban Recyclables (Glass, textiles, etc.) – 2.5% (S25-37)



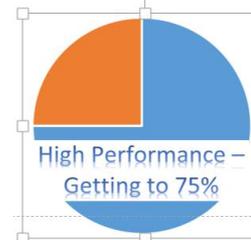
STRATEGIES FOR GETTING TO HIGH PERFORMANCE (75%)



- Residential Contracts / Franchises – 1% (S18)
 - Integrate services / authority; uniformity, can reduce costs, GHG, wear and tear on streets
 - Defined process (noticing, RFP, competition), takes time, political issues and decisions regarding small haulers, and many other issues. Tips for processes, implementation. Split vs. integrated.
 - 1 or districts; fees and billing options.
 - Examples: CA, Seattle, numerous
- SAYT Enhanced Incentives & EOW trash options – 1.2%



STRATEGIES FOR GETTING TO HIGH PERFORMANCE (75%)



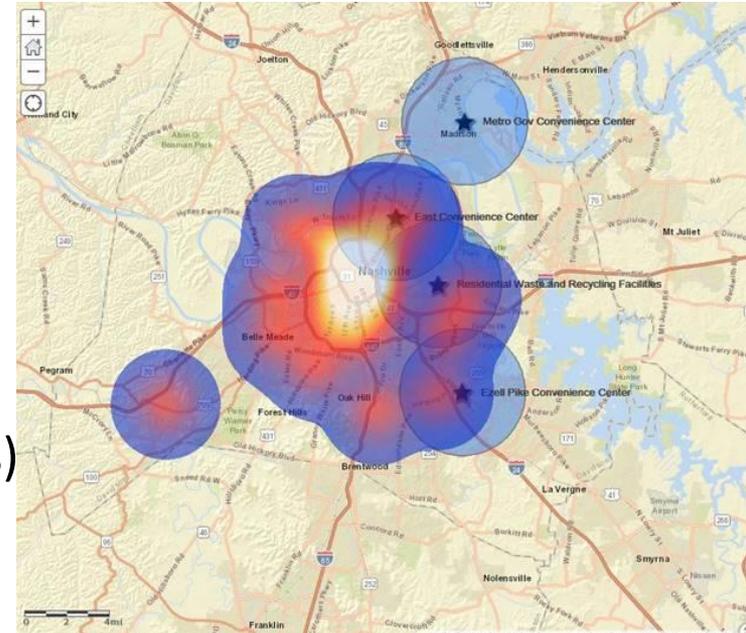
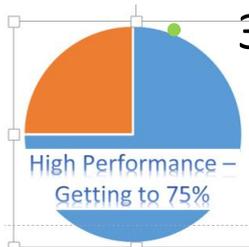
- Contracted Commercial Collection – 4.2% (S38)
 - Authorities / methods vary; actors; all or part of sector (improvement districts, etc.)
 - Less commonly implemented; process will be less familiar
 - Examples: Seattle, Santa Barbara, others
- EOW trash allowed for Commercial – 0.4% (S39)



STRATEGIES FOR GETTING TO HIGH PERFORMANCE (75%)



- Drop Off/Convenience Center Access Service Req's - (S15)
 - Currently 3-4; mostly eastern area
 - 200K:1 similar to Austin, Seattle, SF
 - Convenient access key; add 1+
 - Consider / broaden materials taken
- 3 mile circles first-cut (or similar access)



Moving Past High Performance



75%

HIGH PERFORMANCE

- Getting to 70/75%
- Funding / financial structure
- Policies / mandates
- Commercial

90%

ZERO WASTE

- Zero Waste Options
- Also discuss Collection and advanced recycling



FACILITIES

- Capacity and expansion
- New technologies



Getting to Zero Waste Featured Strategies



- Public Education and Outreach
- Metro Construction Recycled Content Ordinance
- Deconstruction and Reuse Ordinance
- Food Donations
- Recycling Economic Development
- Model Communities Utilizing These Strategies



Public Education And Outreach



- Create a vision
- Build a ten year messaging platform
- Avoid individual program messaging
- Unify messaging
- Measure behavior changes
- Target messaging to under-performing areas
- Commit to an annual budget
- Model Communities: Alameda Co. CA, King Co. WA

Metro Construction projects Recycled Content Ordinance



- Set recycled content levels for building materials
- Develop standards for reuse of glass, concrete, asphalt, and residual plastics (e.g. Honky Tonk glass to be used as aggregate)
- Require use of compost on road projects
- Model Communities: Austin, Seattle, San Francisco

Deconstruction and Reuse Ordinance



- Establish an ordinance requiring deconstruction, repair, reuse and/or recycling of valuable materials (Model Community: Berkeley CA)
- Integrate LEED criteria into ordinance to push for higher diversion focus (Model Community: Austin TX)
- Engage and seek advice for technical advice and advance



Food Recovery and Waste Reduction



- Implement Food Recovery Ordinance
- Promote Food Waste Reduction for Residents (before LF ban)
- Expand NRDC Challenge / Nashville Food Waste Initiative to grocers (e.g. Krogers), retailers (e.g. Target, Walmart), cafes, cafeterias, caterers and food producers
- Model Communities: San Diego CA, Boston MA



Recycling Economic Development



- Use local economic development tools
- Create a new job position
- Offer rebates encourage regional zero waste businesses
- Join a materials exchange network (e.g. Tennessee Materials Exchange)
- Promote research & development in recycling technologies
- Financial support for “remanufacturing hub”
- Model Communities: Phoenix AZ, Austin TX, Edmonton



Communities Utilizing Zero Waste Strategies



- Austin, Texas
- Edmonton, Alberta
- San Francisco, California
- Zero Waste Model City Case Study: Best Practices



Austin Texas



- Hundreds of citizens participated in community meetings in 2010 for the plan development phase
- Universal access to recycling service but no mandates to utilize the service
- Waste composition studies that form the basis for new collection programs (e.g. food waste collection)
- Economic development through the circular economy concept of local jobs

Edmonton Alberta



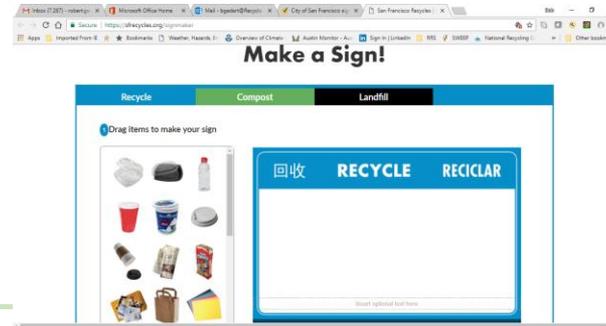
- Edmonton Waste Management Centre



San Francisco California



- Extensive multilingual, door-to-door outreach
- Inspects curbside bins throughout the city
- Offer the Signmaker Tool to residents and businesses
- Prioritizes education and outreach to encourage compliance rather than impose fines
- Launched RecycleWhere



Zero Waste Cities: Best Practices



- City Council adopts Zero Waste Plan with annual funding
- Practices Highest and Best Use hierarchy
- Use of local economic development tools for support of ZW
- Recycling & Composting Ordinance requiring access to recyclables and compostables collection
- Support for local reuse collection systems
- Requiring city departments to prevent waste, maximize recycling, buy recycled content

Getting to High Performance

75%

HIGH PERFORMANCE

- Getting to 70/75%
- Funding / financial structure
- Policies / mandates
- Commercial

90%

ZERO WASTE

- Zero Waste Options
- Also discuss Collection and advanced recycling



FACILITIES

- Capacity and expansion
- New technologies



High Performance Facility Needs



- Higher Diversion Requires Increased Annual Processing Capacity
- Material Recovery Facilities
 - Approximately 500,000 tons of new recycling
- Composting and Anaerobic Digestion
 - Increase in yard waste of 100,000 tons
 - Food waste diversion of 160,000 tons
- Construction and Demolition Recycling
 - Additional diversion of 260,000 tons
 - New recycling and diversion from landfills
- Landfill Disposal
 - 340,000 tons of material requires disposal

Recycling Processing Capacity



Regional Processing Capacity

Facility	Materials Accepted	2016 Tons Reported to TDEC	Current Operating Capacity Tons/Yr	Available Operating Capacity Tons/Yr. (3 shifts)
Nashville RRC River Hills Facility	Fiber, Plastic, Aluminum, Metal Cans	33,343	48,000	144,000
Nashville RRC River Gate Facility	Fiber	N/A	30,000	90,000
Southern Recycling	Metal	25,310	N/A	N/A
Pratt Industries	Fiber, C&D	6,000	29,000	72,000
West Rock	Fiber, Plastic	11,168	51,600	66,000
Combined Resources	Paper, Plastic	N/A	21,000	
Shapiro Recycling Systems	Metal	5,122	5,123	20,800
Strategic Materials	Glass	18,318	N/A	N/A
PSC Metals	Metal	64,353	252,420	420,000

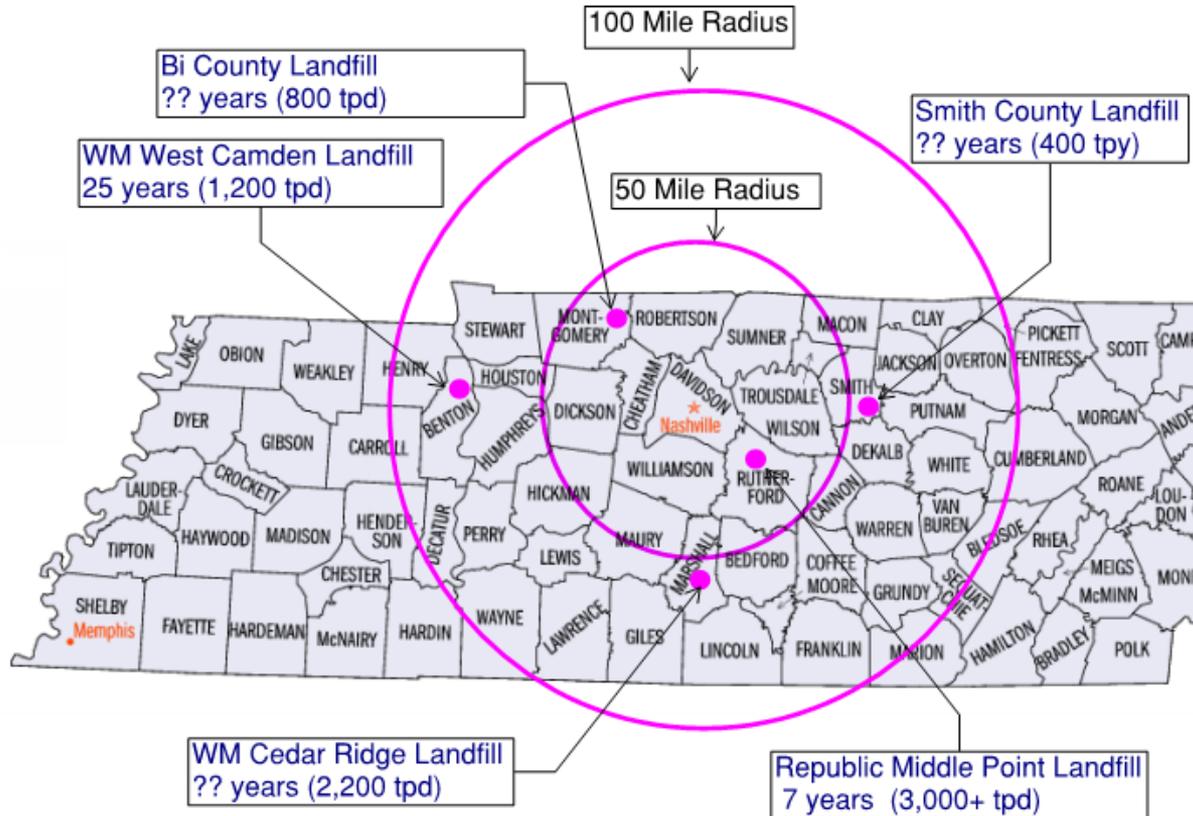


Organics Processing Capacity



Regional Processing Capacity				
Facility	Materials Accepted	Current Operating Capacity Tons/Yr.	Available Operating Capacity Tons/Yr.	Capacity After Facility Expansion Tons/Yr.
Ground Up Recycling	Tires & Wood Pallets	21,000	30,000	N/A
AEP Inc.	Wood	13,505	unknown	N/A
The Compost Company, LLC	Food Waste, Yard Waste, Brush	6,000	2,000	11,000

MSW Landfilling



After Middle Point LF closes
WM has ample capacity
How to address lack of disposal competition?



Presentation Outline

- Online Survey Results
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- Break
- Diversion Modeling Discussion
- Program Costs
- Program Foundation Policies and Funding
- Q&A



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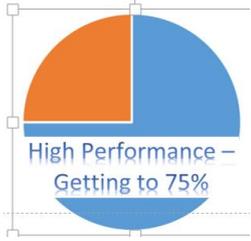


STRATEGIES FOR GETTING TO HIGH PERFORMANCE (75%)

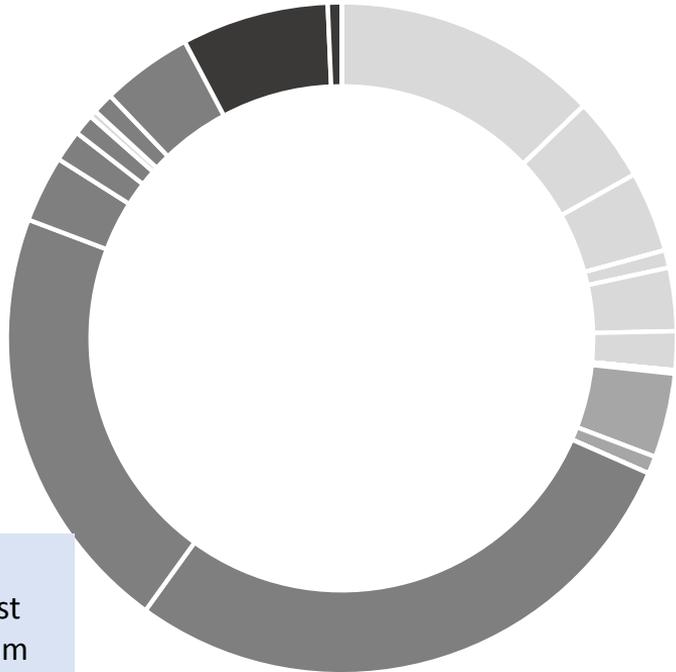


- Phased Approach
 - Phase 1 (essential / core items, some easy or visible; Years 1-4)
 - Phase 2 (next steps progress; big gains, some take more time; Years 3-8)
 - Phase 3 (more difficult, longer to implement; Years 7-on)
- Scenarios – More partnerships / buy-in, new sectors – but more diversion
 - Conservative
 - Moderate
 - Aggressive

DRILL-DOWN ON HP STRATEGIES



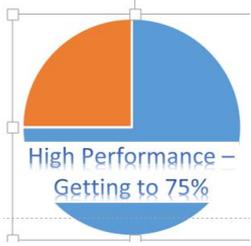
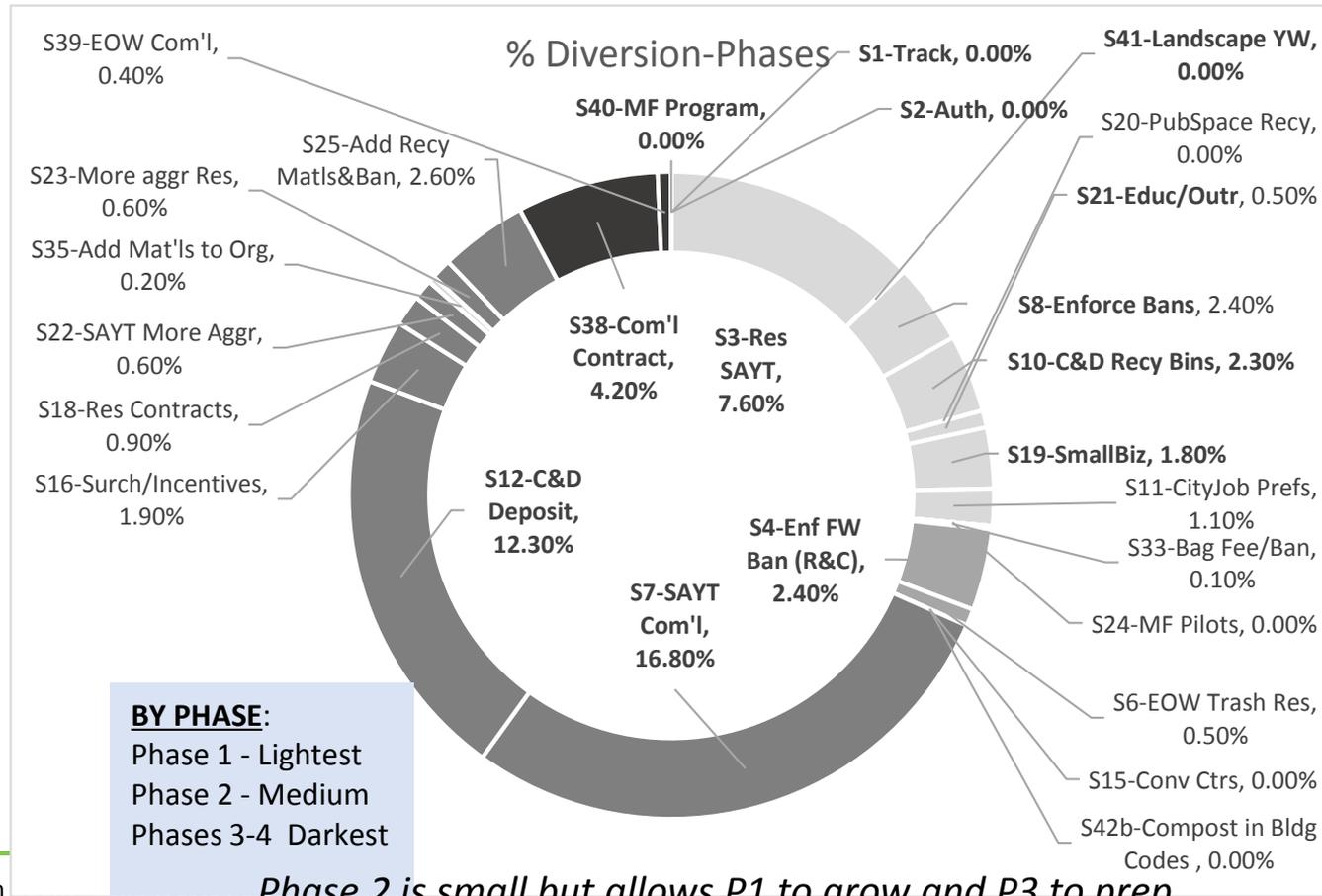
% Diversion-Phases



BY PHASE:
Phase 1 - Lightest
Phase 2 - Medium
Phases 3-4 Darkest

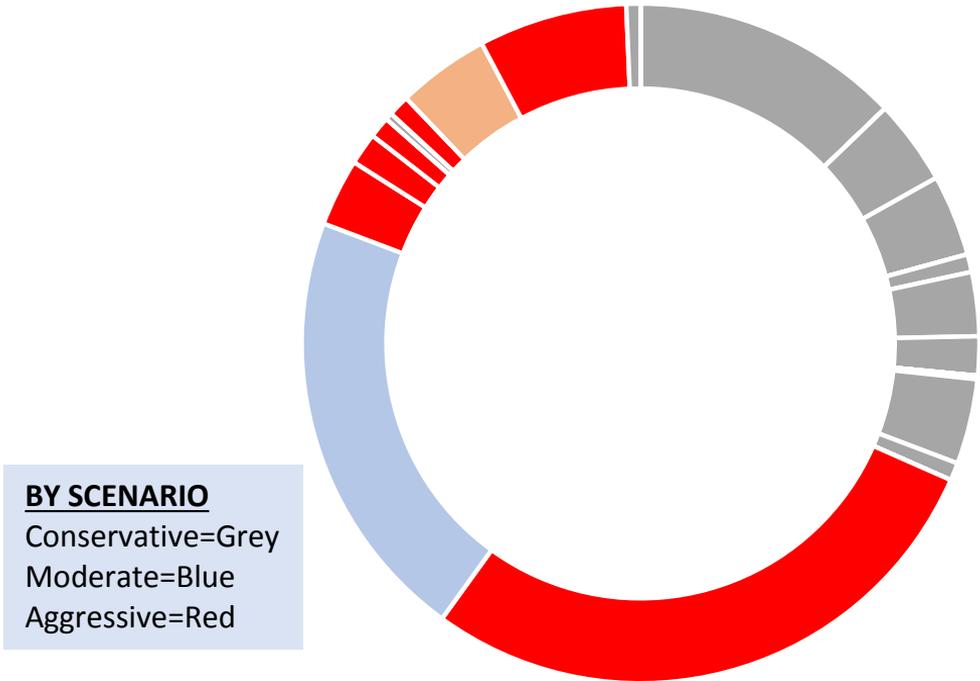
Phase 2 is small but allows P1 to grow and P3 to prep

DRILL-DOWN ON HP STRATEGIES

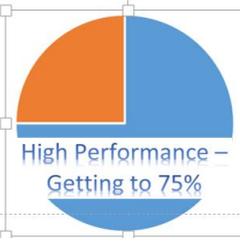


DRILL-DOWN ON HP STRATEGIES

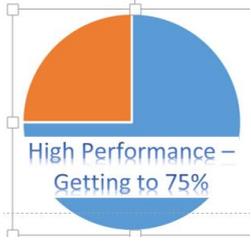
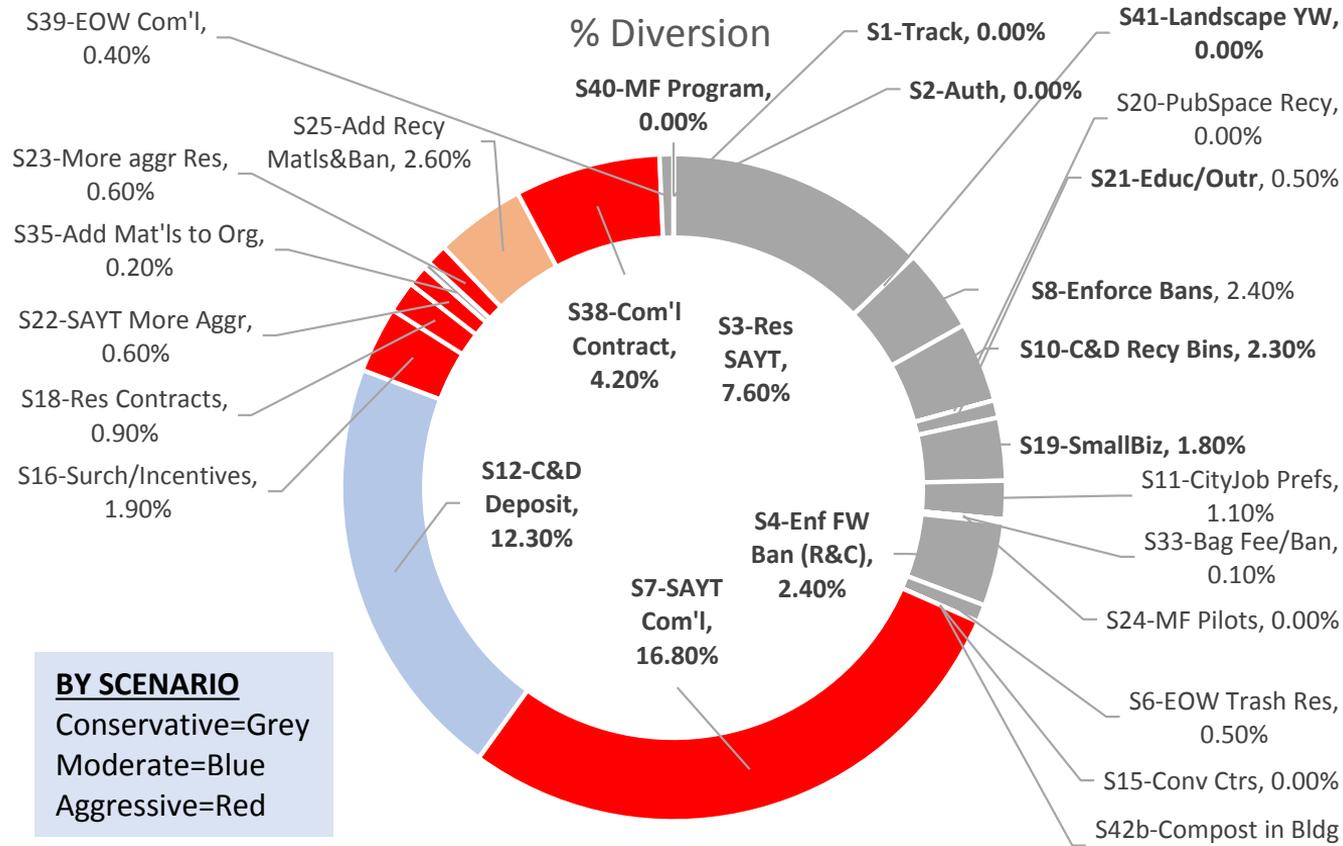
% Diversion - By Scenario



Aggressive harder but accounts for significant share – important for total



DRILL-DOWN ON HP STRATEGIES

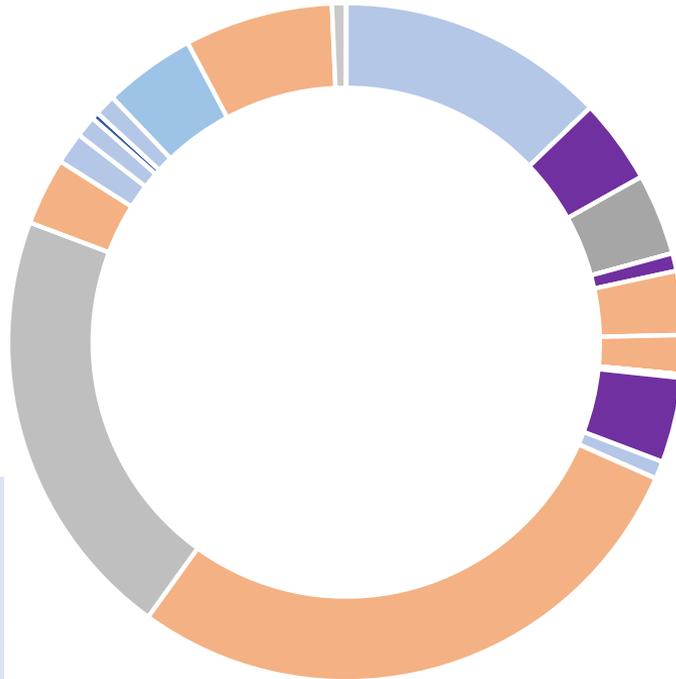


Aggressive harder but accounts for significant share – important for total

DRILL-DOWN ON HIGH PERFORMANCE (HP)

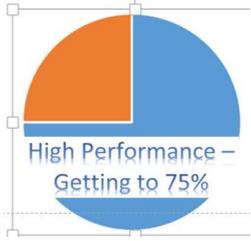


% Diversion-HP Strategies

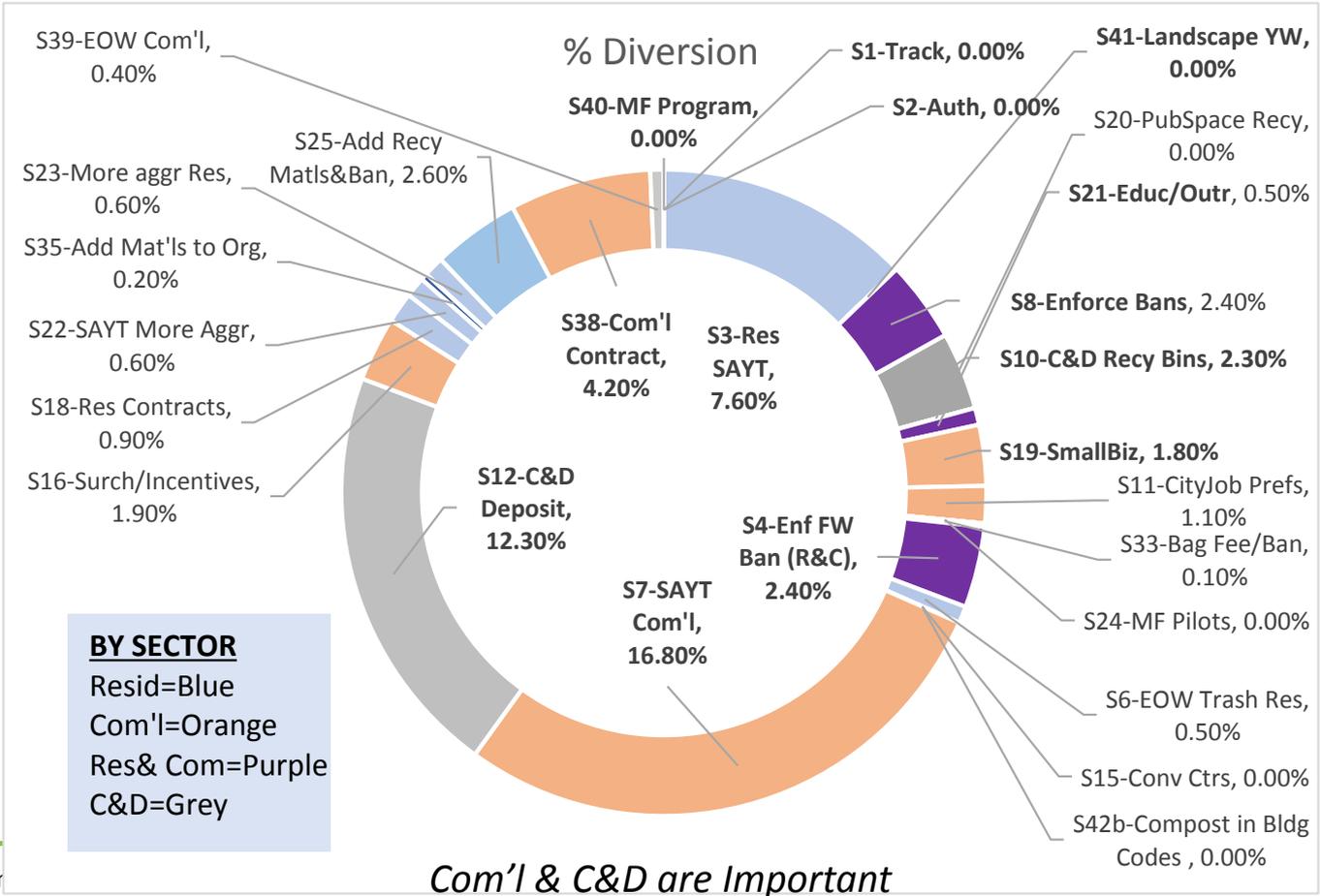
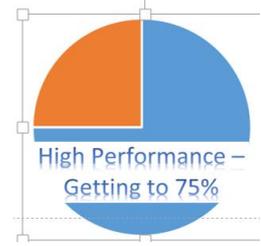


BY SECTOR
Resid=Blue
Com'l=Orange
Res& Com=Purple
C&D=Grey

Com'l & C&D are Important



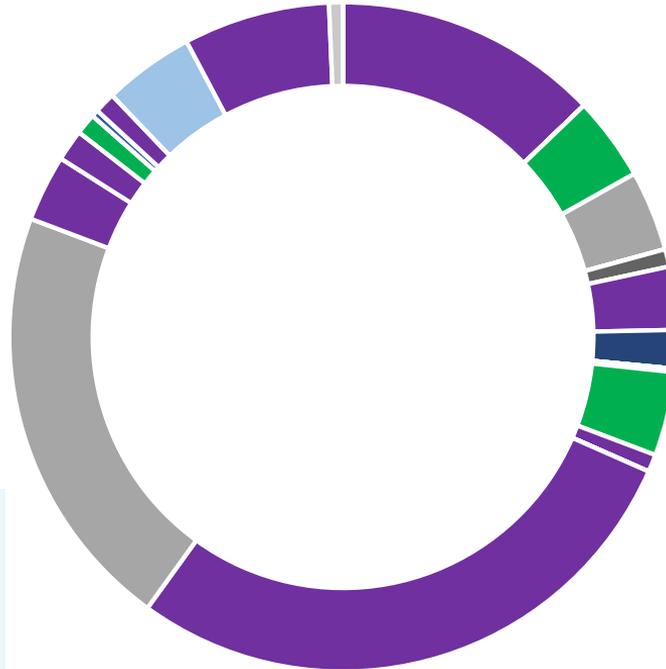
DRILL-DOWN ON HP STRATEGIES



DRILL-DOWN ON HP STRATEGIES



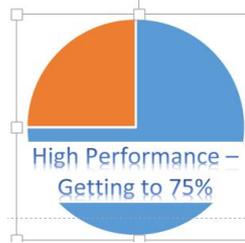
% Diversion



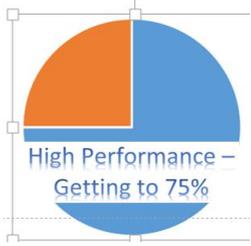
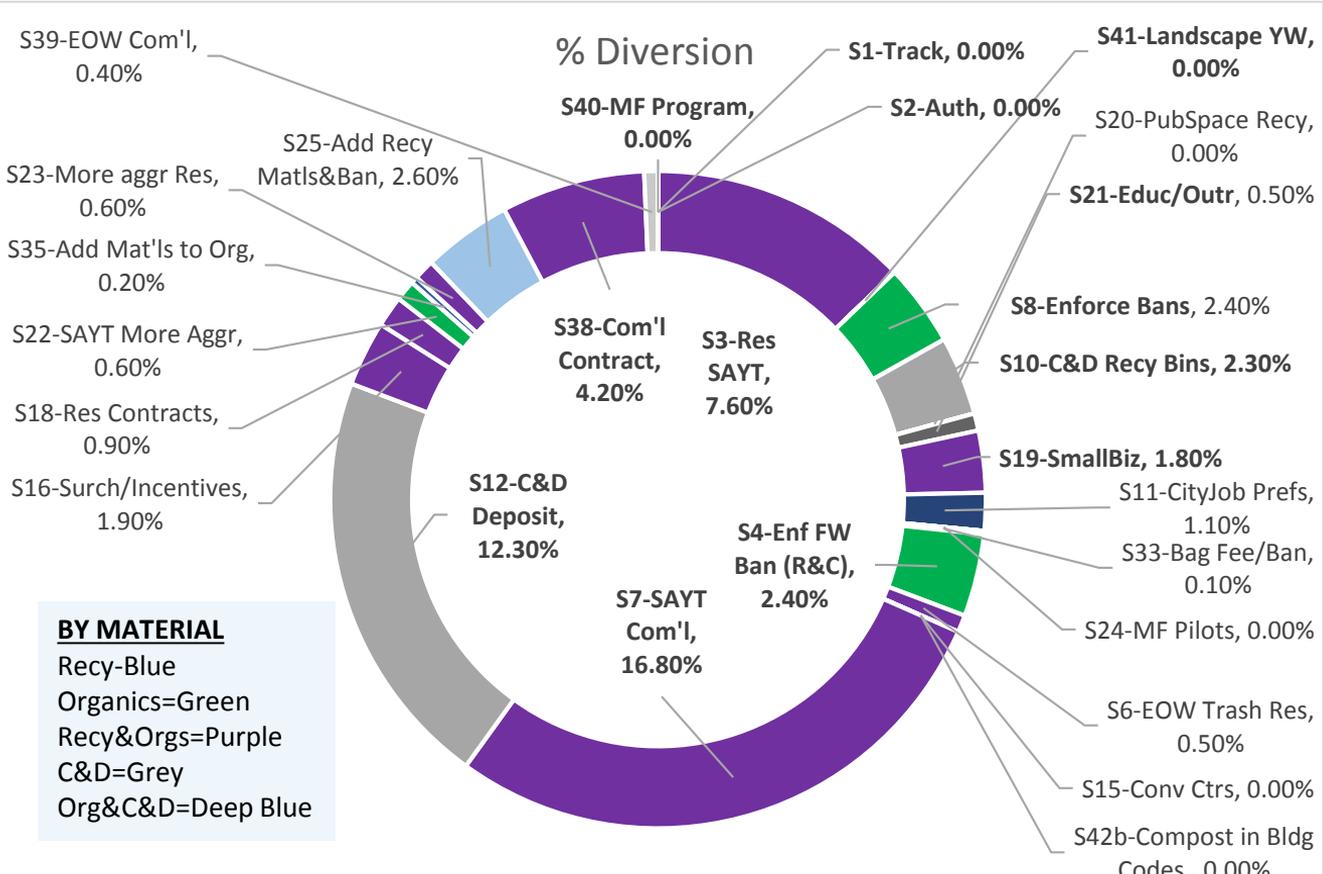
BY MATERIAL

- Recy-Blue
- Organics=Green
- Recy&Orgs=Purple
- C&D=Grey
- Org&C&D=Deep Blue

C&D is Important but so are Orgs/Recy



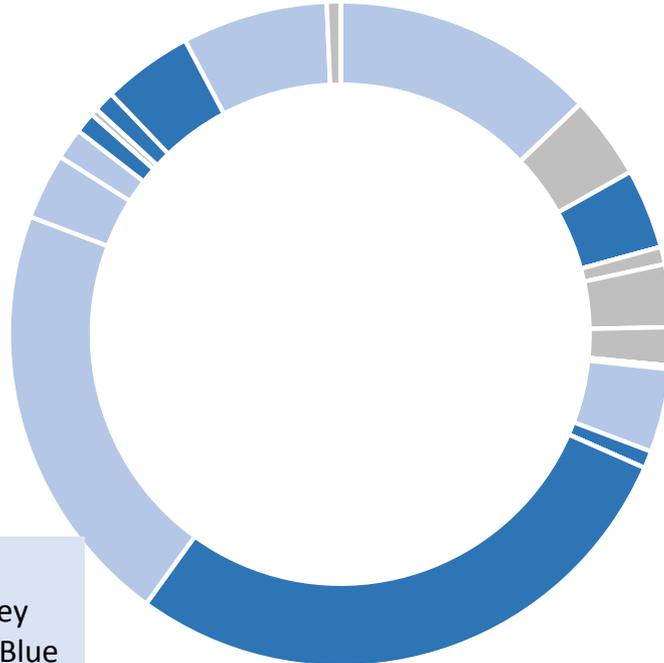
DRILL-DOWN ON HP STRATEGIES



C&D is Important but so are Orgs/Recy

DRILL-DOWN ON HP STRATEGIES

% Diversion - By Responsibility



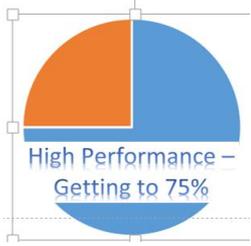
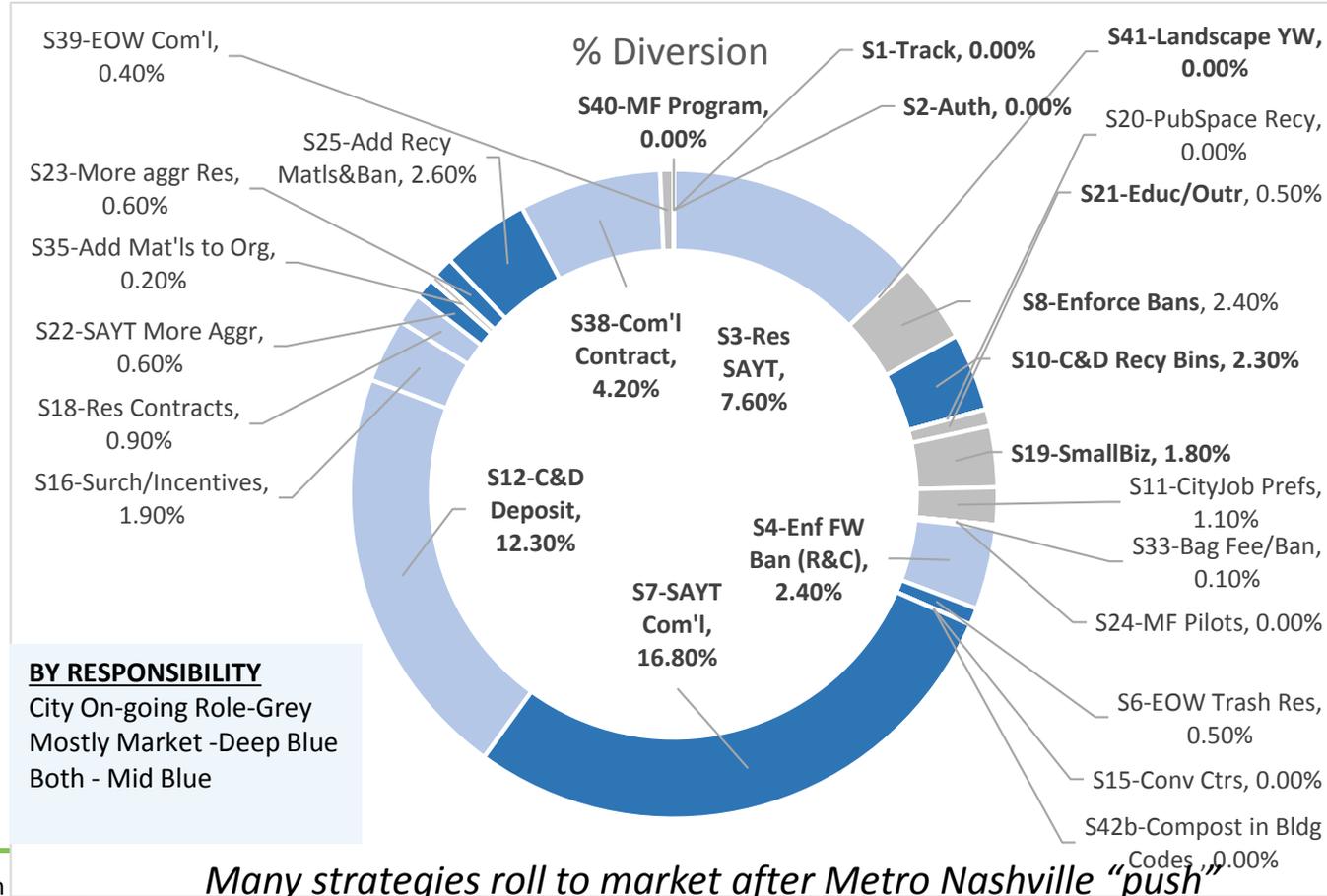
BY RESPONSIBILITY

- City On-going Role-Grey
- Mostly Market -Deep Blue
- Both - Mid Blue

Many strategies roll to market after Metro Nashville "push"



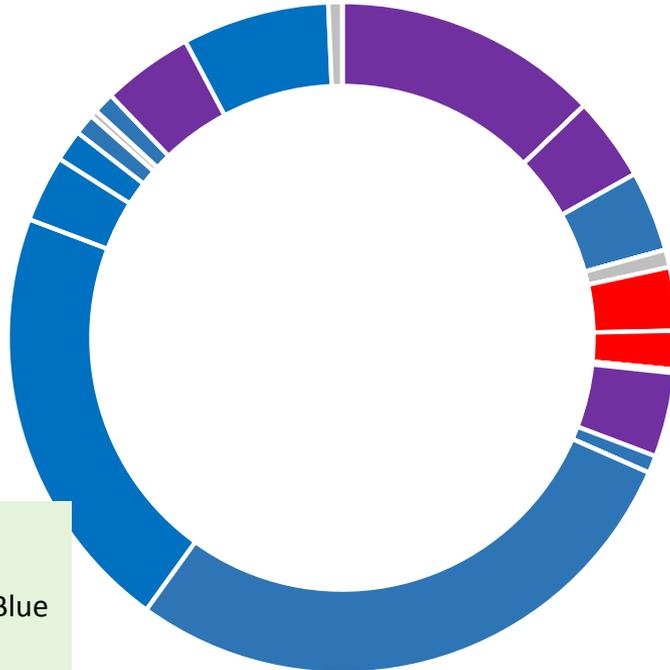
DRILL-DOWN ON HP STRATEGIES



Many strategies roll to market after Metro Nashville "push"

DRILL-DOWN ON HP STRATEGIES

% Diversion - by Who Pays



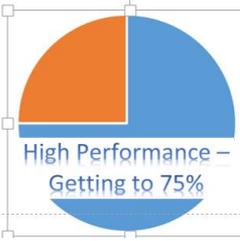
BY WHO PAYS

Mostly City - Red

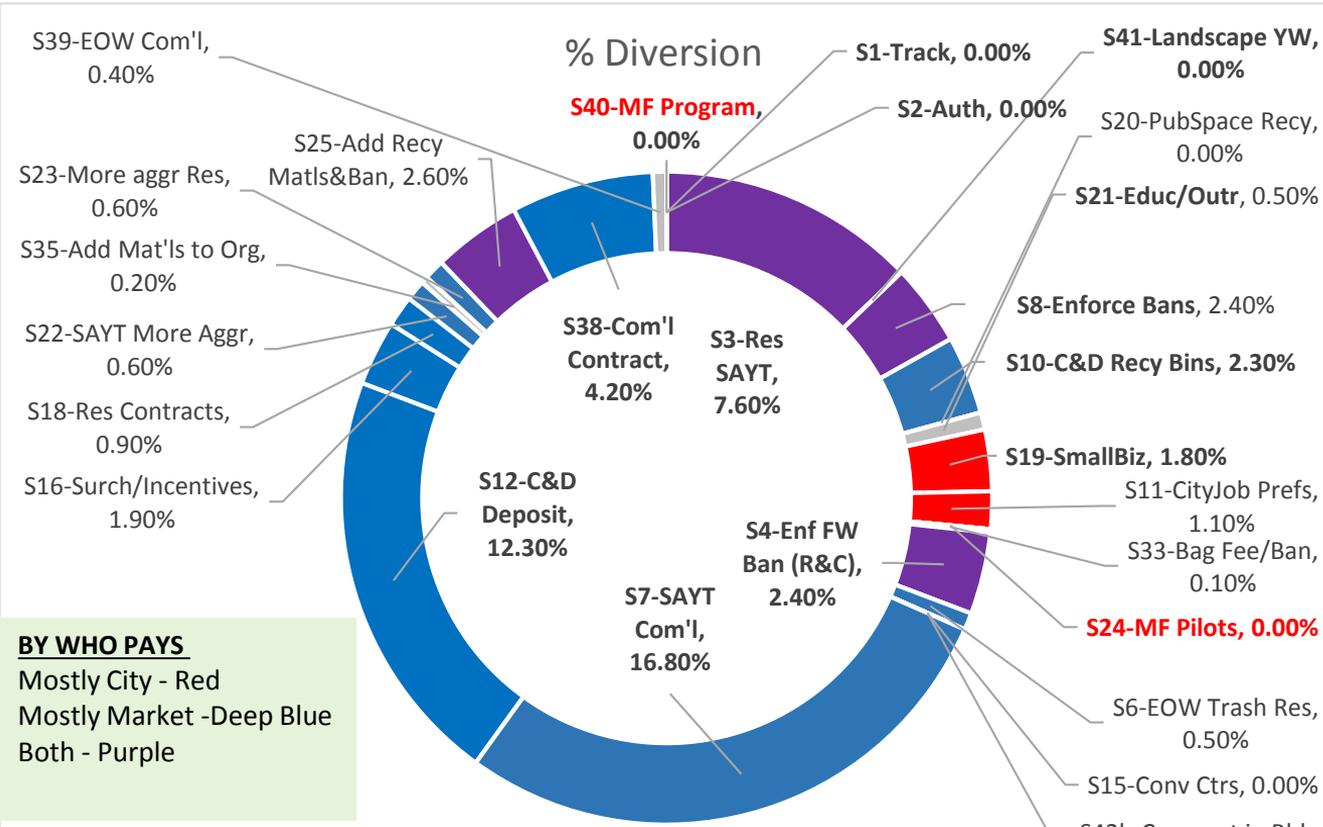
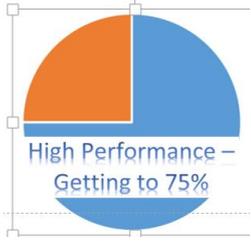
Mostly Market - Deep Blue

Both - Purple

Nashville budget doesn't bear largest share of total costs (\$3 thru budget but paid by rates)



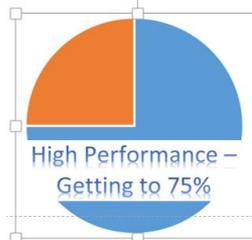
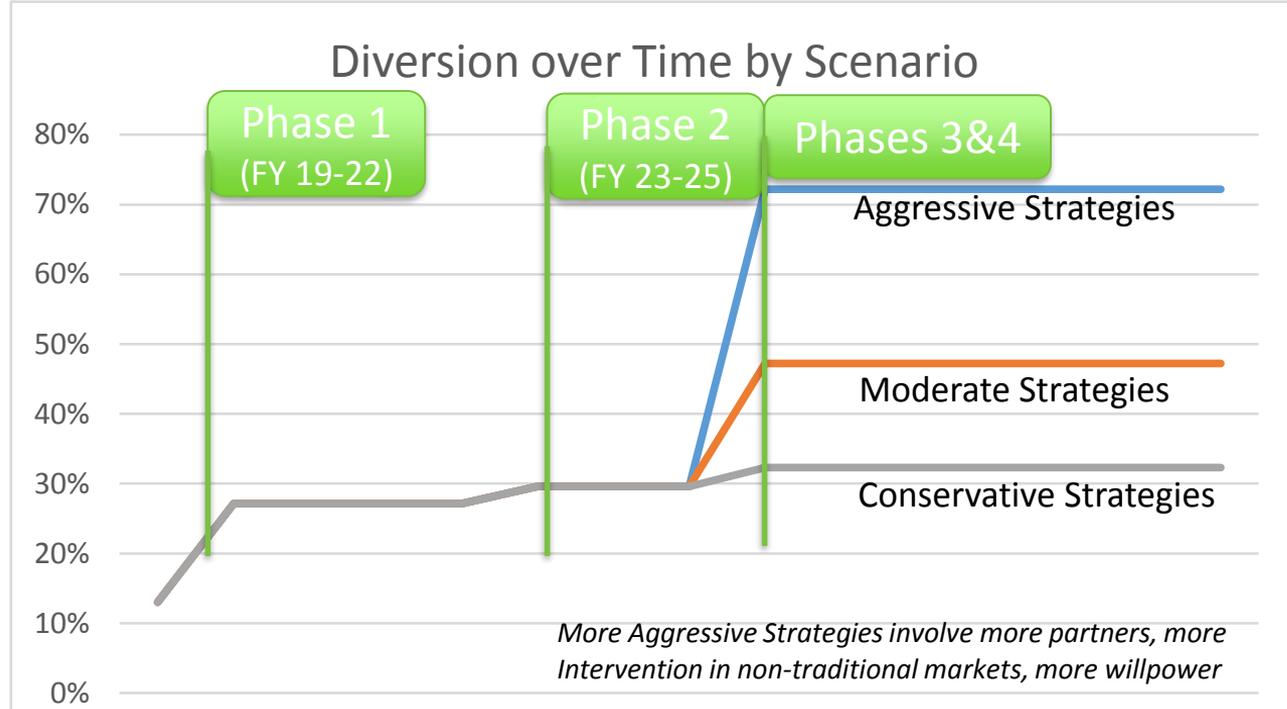
DRILL-DOWN ON HP STRATEGIES



Nashville budget doesn't bear largest share of total costs (s3 thru budget but paid by rates)



GETTING TO HIGH PERFORMANCE (75%) – PROGRESS OVER TIME



Aggressive strategies make a big difference; needed to achieve 75%

Presentation Outline

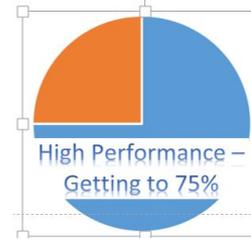
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STRATEGIES FOR GETTING TO HIGH PERFORMANCE (75%) – OTHER PROGRESS



- Program Costs
- Benefit/Cost and Patterns
- Triple bottom line
- Survey report
 - Open vs. Statistical comparison

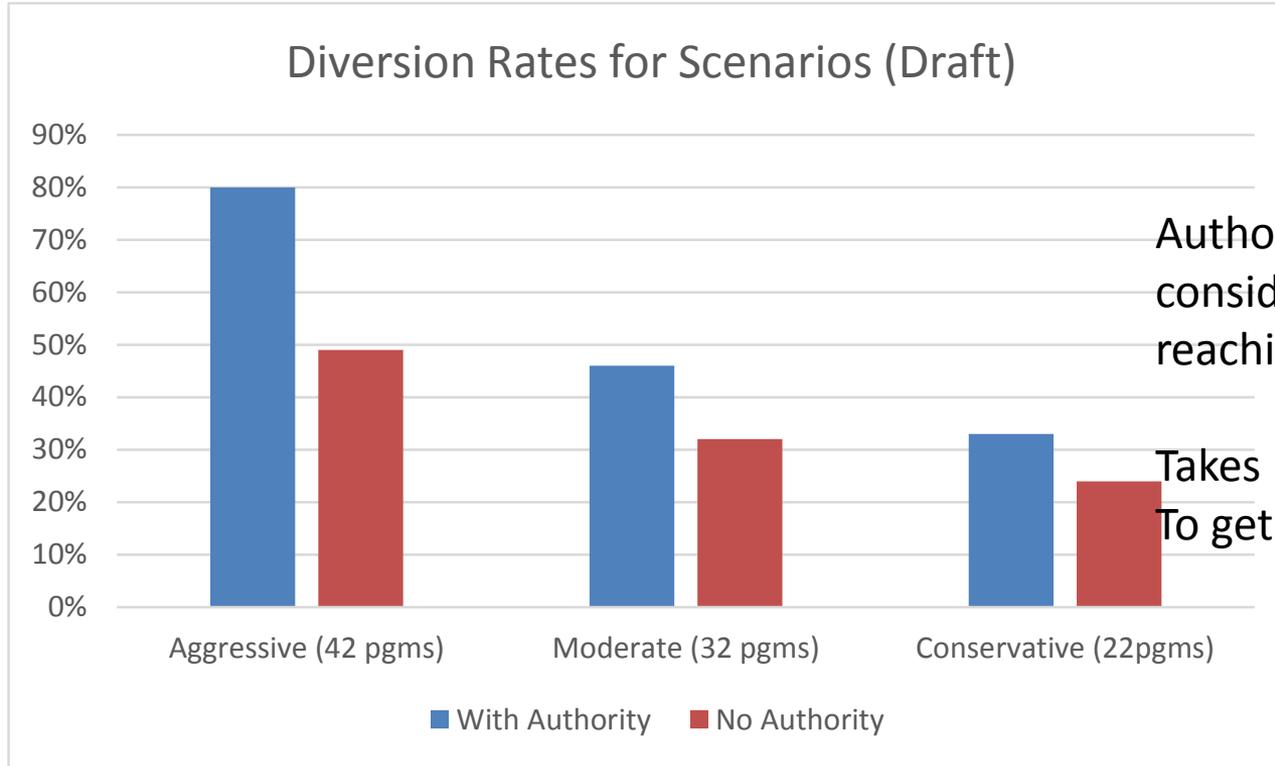


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GETTING TO 75% - Importance of Policies and Authorities



Authority is a big consideration for reaching 75%

Takes many programs To get to 75%



Policies Critical to Solid Waste Master Plan Success



- Consistent Service Delivery Policies across Davidson County
 - Create all-inclusive programs, goals, service levels, and metrics
- Provide Sustainable Funding Sources
 - Address USD / GSD funding dynamics (tax base vs. subscription)
 - Authority to implement license or household fees
- Establish Uniform Program Implementation
 - Countywide Access to services and facilities
 - Drive Participation Levels

Policies Critical to Solid Waste Master Plan Success



- Residential and Commercial Collection
 - Service Delivery Programs i.e. Save-as-you-throw
 - Hauler Contracting/Franchises
- Disposal Bans for Targeted Recyclable Materials
- Expansion of programs Regionally
 - Improve cost-effectiveness of facilities
 - Create incentives for increased public and private partnerships



Solid Waste Program Funding Framework



- Solid Waste Management Act of 1991
 - Requires special revenue funds or enterprise funds
- Current Under Metro Code
 - Tiered General Fund tax rates: USD and GSD
 - Residential and some commercial solid waste services included in USD tax base
 - Program Revenue Sources – 22% of operating revenues
 - General Fund Transfers – 78% of operating revenues



Funding Challenges



- Obtaining Long-Term Sustainable Funding Sources
- General Fund Contributions Limited
 - Charter amendment required to implement new fees
- Lack of Revenue-Generating Facilities
- Funding Options for Consideration
 - Enterprise Fund
 - Solid Waste Authority
 - Public-private partnerships

Enterprise Funds



- **Business-Type Activities**
 - Separate accounting and financial reporting for local government services provided under a specific fee structure
 - Cost of service, including debt, must be recovered by fees and charges
 - Debt repayment based solely on fees and charges
- **Increasing Trend for Major Cities**
 - Development of enterprise funds has been increasing in the areas of stormwater (i.e. Memphis) and solid waste

Enterprise Funds



- Benefits
 - Full-cost accounting – full documentation of all service delivery costs i.e. direct, indirect, and capital
 - User fees and charges shift payment of costs to specific users of services and avoid general taxation.
 - Fees and charges can be used to support debt
 - Sustainable funding and ability to budget for long-term needs

Solid Waste Authority



- Solid Waste Authority Act of 1991
 - Allows counties in a “municipal solid waste region” to participate
 - Establish by resolution
 - Agreement approved by each member jurisdiction
- Structure
 - Establishment of a Board of Directors with at least 1 member from each representative jurisdiction
 - Participants can be added or deleted by amendment of resolution
 - Legal rights and powers as a “Public Instrument” of the county(s)

Key Powers of a Solid Waste Authority



- Control collection of solid waste for disposal or processing
 - Constant delivery of solid waste services and contracting across USD and GSD
- Development of projects within the jurisdiction boundaries
- Property acquisition
- Operate, maintain, and manage projects
 - Self perform or enter into contract
- Issue debt to finance projects
- Enter into negotiated contracts or agreements with local governments, state of TN, or “any person”

Regional Solid Waste Authority



- Potential Benefits
 - Shared commitment towards provision of solid waste services
 - Maximize utilization of funds and resources.
 - Increased efficiency and cost-effectiveness
- Interlocal Solid Waste Authority
 - Franklin, Bedford, Lincoln, and Moore Counties; and City of Tullahoma
- Bi-County Solid Waste Management
 - Montgomery and Stewart Counties
- Rutherford County – under consideration

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Agenda



- Call to Order
- Roll Call of Membership
- Welcome by Chair
- Approve minutes from December 6, 2017 Meeting
- 2017 Annual Progress Report Presentation & Approval
- Board Member Q&A
- Public Comment
- Long-term Solid Waste Master Plan Diversion
- Board Member Q&A
- Public Comment
- Other Business
- Adjournment