APPENDICES

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Appendix A. ILLEGAL DUMPING SUMMITS

Middle Rio Grande Illegal Dumping Summit – October 24, 2002
Albuquerque, Bernalillo county area.
Hispanic Cultural Center, Albuquerque – 81 participants

REGIONAL SUMMITS:

Tucumcari – March 19, 2003
Colfax, Curry, Debaca, Guadalupe, Harding, Quay, Roosevelt, and Union counties (8).
Tucumcari Convention Center – 39 participants

Silver City – August 20, 2003
Catron, Doña Ana, Grant, Hidalgo, Luna, and Sierra Counties (6).
Western New Mexico University. – 32 participants

Roswell – May 5, 2004
Chaves, Eddy, Lea, Lincoln, and Otero counties (5).
Roswell Convention Center – 37 participants

Farmington – November 17, 2004
Cibola, Rio Arriba, Sandoval, McKinley and San Juan counties (5).
San Juan Community College – 87 participants

Los Lunas – May 18, 2005
Bernalillo, Socorro, Torrance, and Valencia counties (4)
UNM – Valencia – 43 participants

Santa Fe – August 17, 2005
Los Alamos, Mora, San Miguel, Santa Fe, and Taos counties (5)
Harold Runnels Building auditorium – 35 participants

TRIBAL SUMMIT:

Farmington – December 14, 2005
San Juan Community College – 76 participants

430 = Total Participation (as of 1/11/06)

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Appendix B

Recycling Program Inventory By County

			Proposed Catagories		Tier I Recyclable Material					Tier II Recyclable Material																	
			Current Categories		Paper		Other			Ferrous		Non Ferrous		Paper				Textiles		Plastic	Glass	Wood	Organic	Other		Residential	
SWB District	County	City	Facility Name	Processor Source Separator	Newspaper ONP #7	Cardboard	Waste Oil Collection	Lead Acid Battery	Scrap Tire	Metal Containers	Scrap Metal and Appliance	Aluminum Containers	Non-Ferrous Scrap Metal	Office Paper	Mix paper	Phone Books	Boxboard/ paperboard	Textiles	Carpet padding	Plastic Containers	Glass	Brush/Tree /Yard Trimmings Chipped	Composter	HHW	E-waste	C&D	Cleanfill
District	County	City	Facility Name																								
1	Bernalillo	Albuquerque	Sandia National Laboratory	S SEP																							
1	Bernalillo	Albuquerque	W W Compost Facility	P, C																			X				
1	Bernalillo	Albuquerque	Barela Landscaping	P, C																			X				
1	Bernalillo	Albuquerque	Cerro Colorado Landfill	Drop-off	X	X				X	X	X	X	X	X					X							
1	Bernalillo	Albuquerque	Wise Recycling	P						X	X	X	X														
1	Bernalillo	Albuquerque	Acme Iron & Metal	P						X	X																
1	Bernalillo	Albuquerque	UNM Recycling Center	Drop-off	X									X	X												
1	Bernalillo	Albuquerque	Intermediate Processing Facility	P	X	X				X	X	X	X	X	X					X							
1	Bernalillo	Albuquerque	Reynold Aluminum Recycling Company	NR																							
1	Bernalillo	Albuquerque	Roadrunners paper LLC	NR																							
1	Bernalillo	Albuquerque	Master Fibers, Inc.	P	X	X								X	X		X		X								
1	Bernalillo	Albuquerque	Capital Recycling of New Mexico Inc	NR																							
1	Bernalillo	Albuquerque	Durango-McKinley Paper Co.	P	X	X								X	X		X		X								
1	Bernalillo	Albuquerque	Northeastern	NR																							
1	Bernalillo	Albuquerque	Albuquerque Metal Recycling	P						X	X	X	X														
1	Bernalillo	Albuquerque	Sandia Motorsports Park Inc	NR																							
1	Bernalillo	Albuquerque	Bernalillo County Tire Recycling Facility	NR																							
1	Bernalillo	Albuquerque	Eagle Rock-Convenience Center	NR																							
1	Bernalillo	Albuquerque	Montessa Park Convenience Center	NR																							
1	Bernalillo	Albuquerque	Don Reservoir Convenience Center	NR																							
1	Bernalillo	Albuquerque	Albuquerque HHW Collection Center	Drop-off			X																	X	X		

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1	Bernalillo	Albuquerque	East Mountain Transfer Station	NR																							
1	Bernalillo	Albuquerque	Bernalillo City Transfer Station	Drop-off			X		X	X	X											X	X				
1	Bernalillo	Albuquerque	Southwest Abatement, Inc.																								
1	Bernalillo	Kirtland AFB	Kirtland AFB Recycling Operation	Drop-off	X	X	X			X	X	X	X	X	X												
1	Bernalillo	Kirtland AFB	Kirtland AFB Transfer Station	Drop-off	X	X	X			X	X	X	X	X	X												
1	Bernalillo	Linthicum	Wise Recycling -- Coors	Drop-off						X	X	X	X														
1	Bernalillo	Linthicum	Wise Recycling -- Sandia	Drop-off						X	X	X	X														
1	Sandoval	Placitas	Placitas Recycling Association	Drop-off		X								X	X												
1	Bernalillo	Tijeras	Soilutions Inc	P, C																		X	X				
1	Sandoval	Bernalillo	Road Runner Waste Service Inc (Transfer Station)																								
1	Sandoval	Corrales	Corrales Recycling	NR																							
1	Sandoval	Corrales	Algodones Transfer Station	NR																							
1	Sandoval	CUBA	Cordova & Sons Tire Recycling	NR					X																		
1	Sandoval	Rio Rancho	Rio Rancho LF																								
1	Sandoval	Rio Rancho	Sandoval County LF																								
1	Sandoval	Rio Rancho	Sabana Grande Recreation Center	NR																							
1	Sandoval	Rio Rancho	Placitas Recycling Facility	NR																							
1	Sandoval	Rio Rancho	Pena Blanca TS																								
1	Sandoval	Rio Rancho	Cuba TS																								
1	Sandoval	Rio Rancho	Canon TS																								
1	Socorro	Magdalena	Magdalena C&D LF	not open																							
1	Socorro	Magdalena	Magdalena Recycling																								
1	Socorro	Magdalena	Waste Collection and Recycling	NR																							
1	Socorro	Playas	Playas Transfer Station	NR																							
1	Socorro	Socorro	Socorro City Landfill	Drop-off		X	X			X	X	X	X														
1	Socorro	Socorro	San Antonio TS																								
1	Socorro	Socorro	City of Socorro TS	NR																							

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1	Socorro	Socorro	Alamo TS	NR																							
1	Socorro	Socorro	La Joya TS	NR																							
1	Socorro	Socorro	Polvadera TS	Drop-off		X	X		X	X	X	X	X														
1	Socorro	Socorro	Veguita TS	Drop-off		X	X		X	X	X	X	X														
1	Socorro	Socorro	Socorro Recycling Center	NR																							
1	Socorro	SOCORRO	Socorro County TS	Drop-off		X	X		X	X	X	X	X														
1	Torrance	Estancia	Mountainair TS	Drop-off		X	X		X	X	X	X	X														
1	Torrance	Encino	Encino TS	Drop-off		X	X		X	X	X	X	X														
1	Torrance	Estancia	TC/BC RLF	Drop-off		X	X		X	X	X	X	X														
1	Torrance	Estancia	McIntosh TS	Drop-off		X	X		X	X	X	X	X														
1	Torrance	Estancia	Hills-N-Valley TS																								
1	Torrance	Estancia	Indian Hills TS																								
1	Torrance	Estancia	Mountainair (Southern) TS																								
1	Torrance	Estancia	Central CC																								
1	Torrance	Estancia	Southern CC																								
1	Torrance	Willard	Willard TS																								
1	Valencia	Belen	Belen TS	Drop-off		X	X		X	X	X	X	X	X	X							X					
1	Valencia	Los Lunas	Los Lunas Recycling Center	Drop-off		X	X		X	X	X	X	X	X	X							X					
1	Valencia	Los Lunas	Los Lunas Transfer Station																								
1	Valencia	Los Lunas	Highland Meadows CC																								
1	Valencia	Rio Rancho	Tri-Sect Landfill																								
2	Los Alamos	Los Alamos	Los Alamos Sludge / Compost Facility	Drop-off																		X	X				
2	Los Alamos	Los Alamos	WMI																								
2	Los Alamos	Los Alamos	Johnson Controls World Services Inc																								
2	Los Alamos	Los Alamos	Duratek Federal Services Inc																								
2	Los Alamos	Los Alamos	Los Alamos Medical Center																								
2	Los Alamos	Los Alamos	Los Alamos County Landfill	Drop-off		X	X			X	X	X	X	X	X							X				X	
2	Los Alamos	Los Alamos	Los Alamos County TS																								
2	Los Alamos	Los Alamos	Household Hazardous Waste																								
2	Los Alamos	Los Alamos	Los Alamos County Tire																								
2	Los Alamos	Whiterock	White Rock TS																								
2	Mora	Mora	Buena Vista TS	NR																							
2	Mora	Mora	Ocate CC	NR																							
2	Mora	Mora	Holman TS	NR																							
2	Mora	Mora	Golondrinas TS	NR																							
2	Mora	Mound	NENMRLF																								
2	Mora	Mound	Wagon Mound TS																								

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			Current Categories		Paper		Other			Ferrous		Non Ferrous		Paper				Textiles		Plastic	Glass	Wood	Organic	Other		Residential	
SWB District	County	City	Facility Name	Processor Source Separator	Newspaper ONP #7	Cardboard	Waste Oil Collection	Lead Acid Battery	Scrap Tire	Metal Containers	Scrap Metal and Appliance	Aluminum Containers	Non-Ferrous Scrap Metal	Office Paper	Mix paper	Phone Books	Boxboard/ paperboard	Textiles	Carpet padding	Plastic Containers	Glass	Brush/Tree /Yard Trimmings Chipped	Composter	HHW	E-waste	C&D	Cleanfill
2	Mora	Watrous	Watrous TS																								
2	Rio Arriba	Espanola	Cordova TS	NR																							
2	Rio Arriba	El Rito	Soil Foods, Inc.																								
2	Rio Arriba	Epanola	Coyote CC																								
2	Rio Arriba	Espanola	Gallegos Scrap Metal							X	X	X	X														
2	Rio Arriba	Espanola	Tierra Amarilla TS	NR																							
2	Rio Arriba	Espanola	Alcalde TS	NR																							
2	Rio Arriba	Espanola	El Rito TS	NR																							
2	Rio Arriba	Espanola	Canjilon TS	NR																							
2	Rio Arriba	Espanola	Espanola/La Loma TS	NR																							
2	Rio Arriba	Espanola	Medanales TS	NR																							
2	Rio Arriba	Espanola	Lumberton TS	NR																							
2	Rio Arriba	Tierra Maria	Medenales TS	NR																							
2	Rio Arriba	Espanola	Velarde TS	NR																							
2	San Miguel	Las Vegas	NM Highlands U	NR																							
2	San Miguel	Las Vegas	Montezuma TS																								
2	San Miguel	Las Vegas	Pecos TS																								
2	San Miguel	Las Vegas	Tecolote TS																								
2	San Miguel	Las Vegas	Tecolotito TS																								
2	San Miguel	Las Vegas	Bernal TS																								
2	San Miguel	Las Vegas	Sapillo CC																								
2	San Miguel	Las Vegas	Conchas TS																								
2	San Miguel	Las Vegas	Villanueva TS																								
2	San Miguel	Las Vegas	San Miguel CC																								
2	San Miguel	Las Vegas	Pendaries TS																								
2	San Miguel	Las Vegas	Gallinas TS																								
2	San Miguel	Las Vegas	Kearny TS																								
2	San Miguel	Las Vegas	Camp Luna TS																								
2	San Miguel	Linthicum	Wise Recycling -- San Miguel																								
2	San Miguel	LAS VEGAS	Las Vegas (City of)																								
2	San Miguel	LAS VEGAS	Transfer & Recycle 1	Drop-off		X	X		X	X	X	X	X		X							X		X			
2	Santa Fe	Santa Fe	Caja del Rio LF																								
2	Santa Fe	Santa Fe	Environmental Control Inc (Recycler)																								

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2	Santa Fe	Santa Fe	Santa Fe TS	Drop-off																							
2	Santa Fe	Santa Fe	Jacona TS	Drop-off																							
2	Santa Fe	Santa Fe	La Cienega TS	Drop-off																							
2	Santa Fe	Santa Fe	Stanley TS	Drop-off																							
2	Santa Fe	Santa Fe	Santa Fe TS	Drop-off																							
2	Santa Fe	SANTA FE	San Marcos TS	Drop-off																							
2	Santa Fe	Santa Fe	Nambe TS	Drop-off																							
2	Santa Fe	Santa Fe	Waste Management of New Mexico Inc	Curbside																							
2	Santa Fe	Santa Fe	El Dorado TS	Drop-off																							
2	Santa Fe		Tesuque TS	Drop-off																							
2	Taos	Taos	Cerro TS	NR																							
2	Taos	Angel Fire	Moreno Valley RC	NR																							
2	Taos	El Prado	Roadrunner Recycler Inc	NR																							
2	Taos	Red River	Red River RC	NR																							
2	Taos	Springer	Springer Roll Off TS																								
2	Taos	TAOS	Taos RC	Drop-off																							
2	Taos	Taos	Costilla TS																								
2	Taos	Taos	Pilar TS																								
2	Taos	Taos	Red River Waste Water Plant TS																								
2	Taos	Taos	Ojo Caliente TS	Drop-off						X	X	X	X														
2	Taos	Taos	Chamisal TS																								
2	Taos	Taos	Tres Piedras TS	Drop-off						X	X	X	X														
2	Taos	Taos	Red River TS	NR																							
2	Taos	Taos	Chamiza TS	NR																							
2	Taos	Taos	Los Cordovas TS	Drop-off					X	X	X	X	X														
2	Taos	Taos	Recycler	NR					X																		
2	Taos	Valley	Twining TS	NR																							
2	Taos	Town of Taos	Taos Regional LF	Drop-off																							
3	Dona Ana	Jemez Springs	Canon Recycling	NR																							
3	Dona Ana	Las Cruces	Las Cruces LF/ Composting	Drop-off																		X	X				
3	Dona Ana	Las Cruces	Corralitos LF																								
3	Dona Ana	Las Cruces	Las Cruces Recycling	Drop-off																							
3	Dona Ana	Las Cruces	Aggie Recycling NMSU	NR																							
3	Dona Ana	LAS CRUCES	Inter Lab Inc/GMA	NR																							
3	Dona Ana	Las Cruces	La Union Transfer Station	Drop-off																							
3	Dona Ana	Las Cruces	Butterfield Transfer Station	Drop-off																							
3	Dona Ana	Las Cruces	Mesquite Transfer Station	Drop-off																							

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3	Dona Ana	Las Cruces	La Mesa Transfer Station	Drop-off																							
3	Dona Ana	Las Cruces	Hill Transfer Station	Drop-off																							
3	Dona Ana	Las Cruces	Garfield Transfer Station	Drop-off																							
3	Dona Ana	Las Cruces	Hatch Transfer Station	Drop-off																							
3	Dona Ana	LAS CRUCES	South Central Transfer/Convenie																								
3	Dona Ana	Las Cruces	Anthony Transfer Station																								
3	Dona Ana	Las Cruces	Tuscarora Inc	NR																							
3	Dona Ana	Sunland Park	Camino Real Landfill																								
3	Dona Ana	White Sands Missile Range	WSMRange (Main Post Landfill)																								
3	Dona Ana	Missile Range	Post C&D Debris Landfill																								
3	Grant	Silver City	SWNMR LF	P, Drop-off																							
3	Grant	Silver City	Grant Co. SWA Recycling																								
3	Grant	Silver City	Hachita TS	Drop-off																							
3	Grant	Silver City	SWR CC	NR																							
3	Grant	Silver City	Gila/Cliff TS																								
3	Grant	Silver City	Mimbres TS	Drop-off																							
3	Grant	Silver City	Tri City TS	Drop-off																							
3	Grant	Silver City	SWNMRLF Tire Recycler						X																		
3	Hidalgo	Animas	Rodeo TS																								
3	Hidalgo	Lordsburg	Cotton City TS																								
3	Hidalgo	Lordsburg	Hidalgo Co. TS																								
3	Hidalgo	Lordsburg	Animas TS																								
3	Hidalgo	Lordsburg	Station																								
3	Hidalgo	Playas	Playas Townsite TS	NR																							
3	Luna	Columbus	Columbus TS	NR																							
3	Luna	Deming	Deming LF																								
3	Luna	Deming	Reynolds Recycling	NR																							
3	Otero	Alamogordo	Otero/Lincoln Co. R LF	NR																							
3	Otero	Alamogordo	Mesa Verde C&D LF																								
3	Otero	Alamogordo	Otero County recycling center																								
3	Otero	Alamogordo	Lavelle Road TS	Drop-off																							
3	Otero	Alamogordo	La Luz TS & Recycling Center	Drop-off		X	X		X	X	X	X	X		X							X		X			
3	Otero	Alamogordo	Alamogordo TS	NR																							

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3	Otero	Alamogordo	Waste & Recycling Center	Drop-off																							
3	Otero	Alamogordo	Orogrande TS	NR																							
3	Otero	Alamogordo	Weed TS																								
3	Otero	Alamogordo	La Velle Small TS	Drop-off		X	X			X	X	X	X									X					
3	Otero	Alamogordo	Pinon TS																								
3	Otero	Alanogordo	Village of Cloudcroft TS																								
3	Otero	Chaparral	Chaparral Sand & Gravel						X																		
3	Otero	Holloman AFB	Recycle/Compost Facility	Drop-off		X	X			X	X	X	X		X							X	X				
3	Otero	Lovington	Lovington Composting & Recycling Facility	Drop-off		x	x			x	x	x	x		x							X	X				
3	Otero	Ruidoso	Ruidoso Recycling Facility	NR																							
3	Otero	Timberon	Timberon TS	NR																							
3	Sierra	T or C	T or C LF	Drop-off		X	X		X	X	X	X	X		X												
3	Sierra	T or C	Sierra County LF	Drop-off		X	X		X	X	X	X	X		X												
3	Sierra	T or C	Shop Recycle Center	NR																							
3	Sierra	T or C	Arrey TS																								
3	Sierra	T or C	Hillsboro TS																								
3	Sierra	T or C	Winston TS	NR																							
4	Chaves	HAGERMAN	Hagerman Tire Recycling Facility	Drop-off					X																		
4	Chaves	Linthicum	Wise Recycling -- Roswell							X	X	X	X														
4	Chaves	Roswell	Roswell MLF																								
4	Chaves	Roswell	Roswell Recycling Center	Drop-off		X				X	X	X	X		X												
4	Chaves	Roswell	Chaves Co. North TS																								
4	Chaves	Roswell	Chaves Co. South TS																								
4	Eddy	Artesia	Artesia TS	Drop-off			X			X	X	X	X														
4	Eddy	Artesia	Artesia Sludge/Compost Facility	Drop-off																		X	X				
4	Eddy	Artesia	J & M Enterprises	P						X	X	X	X														
4	Eddy	Carlsbad	Carlsbad (City of) Composting																			X	X				
4	Eddy	Carlsbad	Rainbow Recycling	NR																							
4	Eddy	Carlsbad	C & B Recycling, LLC	Drop-off						X	X	X	X														
4	Eddy	Carlsbad	Loving TS																								

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4	Eddy	Carlsbad	Loco Hills TS																								
4	Eddy	Carlsbad	Champion Cove	NR																							
4	Eddy	Carlsbad	Hope Convenience Center																								
4	Eddy	Carlsbad	Carlsbad (City of) Convenience Center	NR																							
4	Eddy	Carlsbad	Convenience	NR																							
4	Eddy	CARLSBAD	Recycling Facility																								
4	Eddy	Sunland Park	Sand Point LF																								
4	Lea	Hobbs	Hobbs Iron & Metal	P Drop-off						x	x	x	x														
4	Lea	Hobbs	Hobbs Recycling Center	NR																							
4	Lea	Hobbs	Hobbs TS	NR																							
4	Lea	Jal	Jal CC																								
4	Lea	Lovington	Lovington Recycling	Drop-off		X	X			X	X	X	X		X												
4	Lea	Lovington	Monument CC																								
4	Lea	Lovington	North Hobbs CC																								
4	Lea	Lovington	Lea (County of)																								
4	Lea	Lovington	Maljamar CC																								
4	Lea	Lovington	Knowles CC																								
4	Lea	Sunland Park	Camino Real LF																								
4	Lincoln	Alto	Sierra Contracting Inc																			X	X				
4	Lincoln	Carrizozo	Carrizozo TS	Drop-off		X	X			X	X	X	X		X							X					
4	Lincoln	Ruidoso	Bio-Grind Inc.	NR																							
4	Lincoln	RUIDOSO	Ruidoso TS	NR																							
4	Lincoln	Ruidoso Downs	Lincoln County Composting	NR																							
4	Lincoln	Ruidoso Downs	Lincoln County SWA Recyling Facility	Drop-off																							
4	Lincoln	Ruidoso Downs	LCSWA Ruidoso Downs	Drop-off																							
4	Lincoln	Ruidoso Downs	Carrizoso TS and RC	Drop-off																							
4	Lincoln	Ruidoso Downs	LCSWA Ruidoso Downs TS																								
4	Lincoln	Ruidoso Downs	Lincoln County TS																								
4	Lincoln	Ruidoso Downs	Capitan TS																								
4	Lincoln	Ruidoso Downs	Lincoln TS																								
4	Lincoln	Village of Ruidoso	Ruidoso/Gavilan Canyon TS	Drop-off		X	X			X	X	X	X		X							X					
5	Catron	Quemado	Quemado TS																								
5	Catron	Reserve	Pie Town LF																								

Appendix B

Recycling Program Inventory By County

			Proposed Catagories		Tier I Recyclable Material					Tier II Recyclable Material																	
			Current Categories		Paper		Other			Ferrous		Non Ferrous		Paper				Textiles		Plastic	Glass	Wood	Organic	Other		Residential	
SWB District	County	City	Facility Name	Processor Source Separator	Newspaper ONP #7	Cardboard	Waste Oil Collection	Lead Acid Battery	Scrap Tire	Metal Containers	Scrap Metal and Appliance	Aluminum Containers	Non-Ferrous Scrap Metal	Office Paper	Mix paper	Phone Books	Boxboard/ paperboard	Textiles	Carpet padding	Plastic Containers	Glass	Brush/Tree /Yard Trimmings Chipped	Composter	HHW	E-waste	C&D	Cleanfill
5	Catron	Reserve	Glenwood LF																								
5	Catron	Reserve	Reserve LF																								
5	Catron	Reserve	Alma TS	NR																							
5	Catron	RESERVE	Rancho Grande TS	NR																							
5	Catron	Reserve	Luna TS	NR																							
5	Catron	Reserve	Apache TS	NR																							
5	Catron	Reserve	Aragon TS	NR																							
5	Catron	Reserve	Mogollon TS	NR																							
5	McKinley	Thoreau	NWMR LF	Drop-off																							
5	McKinley	THOREAU	NWNMR SWA Recycling	Drop-off					X																		
5	McKinley	Thoreau	Tohatchi CC	NR																							
5	McKinley	Thoreau	Coyote Canyon CC	NR																							
5	McKinley	Thoreau	McKinley County TS	NR																							
5	McKinley	Thoreau	Crownpoint CC	NR																							
5	McKinley	Thoreau	Breadsprings CC	NR																							
5	McKinley	Thoreau	NWNMR SWA Tire Recycling Facility	NR																							
5	McKinley	Zuni	Zuni Inc Recycling Center	Drop-off		X				X	X	X	X														
5	San Juan	Aztec	San Juan Co. RLF																								
5	San Juan	Aztec	Blanco TS																								
5	San Juan	Aztec	Sand Springs TS																								
5	San Juan	Aztec	Cedar Hills CC																								
5	San Juan	Aztec	Shiprock TS	Drop-off		X	X			X	X	X	X									X					
5	San Juan	Aztec	Upper Fruitland TS	Drop-off																							
5	San Juan	Aztec	La Plata TS																								
5	San Juan	Aztec	Kirtland TS																								
5	San Juan	Aztec	Lake Valley TS	NR																							
5	San Juan	Aztec	Lee Acres TS																								
5	San Juan	Aztec	Waterflow TS																								
5	San Juan	Aztec	Orfano TS	NR																							
5	San Juan	Farmington	Community Recycling Facility	NR																							
5	San Juan	Farmington	Farmington Recycling Center	Drop-off		X	X			X	X	X	X														
5	San Juan	Farmington	Farmington Wastewater	NR																							
5	San Juan	Aztec	Huerfano TS	NR																							
5	San Juan	Artesia	Artesia Metals Inc	NR																							
5	Cibola	Thoreau	Bluewater South TS																								
5	Cibola	Thoreau	Seboyeta TS																								
5	Cibola	Thoreau	San Mateo TS																								

Appendix B

Recycling Program Inventory By County

			Proposed Catagories		Tier I Recyclable Material					Tier II Recyclable Material																	
			Current Categories		Paper		Other			Ferrous		Non Ferrous		Paper				Textiles		Plastic	Glass	Wood	Organic	Other		Residential	
SWB District	County	City	Facility Name	Processor Source Separator	Newspaper ONP #7	Cardboard	Waste Oil Collection	Lead Acid Battery	Scrap Tire	Metal Containers	Scrap Metal and Appliance	Aluminum Containers	Non-Ferrous Scrap Metal	Office Paper	Mix paper	Phone Books	Boxboard/ paperboard	Textiles	Carpet padding	Plastic Containers	Glass	Brush/Tree /Yard Trimmings Chipped	Composter	HHW	E-waste	C&D	Cleanfill
5	Cibola	Thoreau	Pine Hill CC																								
5	Cibola	Thoreau	Cubero TS																								
5	Cibola	Thoreau	Cibola Co. TS																								
6	Colfax	Angel Fire	Angel Fire Services TS	NR																							
6	Colfax	El Prado	Eagle Nest TS																								
6	Colfax	Maxwell	Maxwell TS	NR																							
6	Colfax	RATON	Raton Mulching Facility	NR																							
6	Colfax	Raton	Raton LF																								
6	Colfax	Springer	Springer LF/TS	NR																							
6	Curry	Cannon AFB	Cannon AFB Recycling Center	Drop-off		X	X			X	X	X	X														
6	Curry	Clovis	Clovis R SW LF																								
6	Curry	CLOVIS	Eds Recycling	NR																							
6	Curry	Clovis	Clovis Recycling Program	Drop-off		X	X			X	X	X	X														
6	Curry	Clovis	Clovis Recycling	Drop-off		X	X			X	X	X	X														
6	Curry	Melrose	Melrose TS																								
6	Curry	Texico	Texico TS	NR																							
6	Curry	CLOVIS	Clovis WWTP Compost Facility	NR																							
6	De Baca	Fort Sumner	Landfill	Drop-off		X	X	X		X	X	X	X											X			
6	Guadalupe	Santa Rosa	Transfer Station	Drop-off		X	X		X	X	X	X	X														
6	Guadalupe	Vaughn	Vaughn LF																								
6	Harding	Roy	Roy CC	Drop-off		X				X	X	X	X														
6	Harding	MOSQUERO	Mosquero C & D	Drop-off		X				X	X	X	X														
6	Quay	Logan	Logan TS	Drop-off		X	X	X	X	X	X	X	X														
6	Quay	Tucumcari	Tucumcari LF																								
6	Roosevelt	Portales	Eastern NM U	NR																							
6	Roosevelt	Portales	Portales CC																								
6	Union	Clayton	Clayton LF																								
6	Union	DES MOINES	Des Moines Recycling	NR																							
6	Union	Des Moines	Des Moines TS	NR																							

Appendix B. Municipal Recycling Programs in New Mexico, 2004

No.	Community	Recycling	Sector	Type	Materials
1	City of Alamogordo	Yes	Commercial/ residential	Drop-off	Metal/ Green Waste/ Motor oil & antifreeze/ Automotive Batteries/ Appliances
2	City of Albuquerque	Yes	Commercial/ residential	Drop-off/ Curbside	Aluminum / Tin cans/ Glass/ Plastics/ Paper/ Cardboard
3	City of Artesia	Yes	Commercial/ residential	Drop-off	Cardboard/ Newpaper/ Metal
4	City of Aztec	Yes	Commercial/ residential	Drop-off	Cardboard/ Newspaper/Plastic/ Glass/ Aluminum
5	City of Bayard	Yes	Commercial/ residential	Drop-off/ Curbside	Cardboard/ Newpapers/ Office paper/Plastic / Metal
6	City of Belen	Yes	Commercial/ residential	Drop-off	Cardboard/ Metal/ Appliances
7	City of Bloomfield	Yes	Commercial/ residential	Drop-off	Paper/ Plastic/ Glass
8	City of Carlsbad	Yes	Commercial/ residential	Collection services	Cardboard/ Newspaper/ Office paper/ Mixed paper/ Plastics/ metal/ Green waste
9	City of Clovis	Yes	Commercial/ residential	Drop-off	Cardboard/ Office Paper/ Metal/ Green Waste
10	City of Deming	In progress	Commercial/ residential	Drop-off	Metal/ Green Waste
11	City of Elephant Butte	No			
12	City of Española	Yes	Commercial/ residential	Drop-off/ Curbside/ Commercial	Cardboard/ Newpaper/ Metal
13	City of Eunice	No			
14	City of Farmington	Yes	Commercial/ residential	Drop-off	Cardboard/ Newspaper/ Office Paper/ Plastic/ Glass/ Metal
15	City of Gallup	Yes	Residential	Drop-off	Plastics Bags/ Paper/ Metal
16	City of Grants	Yes	Residential	Drop-off	Oils/ Automotive
17	City of Hobbs	Yes	Commercial/ residential	Drop-off	Cardboard/ Newspaper/ Office Paper/ Magazines/ Plastic/ Metal
18	City of Jal	No			
19	City of Las Cruces	Yes	Commercial/ residential	Drop-off/ Curbside	Cardboard/ Newspaper/ Office paper/ Plastic
20	City of Las Vegas	Yes	Commercial/ residential	Drop-off	Metal/ Green Waste
21	City of Lordsburg	Yes	Commercial/ residential	Drop-off	Cardboard/ Metal/ Green Waste
22	City of Lovington	Yes	Commercial/ residential	Drop-off	Cardboard/ Newspaper/ Metal/ Green Waste
23	City of Moriarty	No	Residential	Scheduled Recycling	Appliances
24	City of Portales	Yes	Commercial/ residential	Drop-off	Computer Paper/ Mixed Paper
25	City of Raton	Yes	Commercial	Collection Services	Cardboard/ Green Waste
26	City of Rio Rancho	Yes	Commercial/ residential	Drop-off/ Curbside/ Special	Cardboard/ Newspaper/ Office Paper/ Telephone Books/ Plastic/ Glass/ Metal

No.	Community	Recycling	Sector	Type	Materials
				Collection	
27	City of Roswell	Yes	Commercial/ residential	Drop-off	Cardboard/ Office Paper/ Newspaper/ Plastic/ Metals/ Green Waste
28	City of Ruidoso Downs	Yes	Commercial/ residential	Collection services	Cardboard/ Newspaper/ Metals/ Green Waste
29	City of Santa Fe	Yes	Commercial/ residential	Drop-off/ Curbside/ Commercial/ Events	Cardboard/ Office Paper/ Mixed Paper/ Newspaper/ Plastic/ Glass/ Metal/ Green Waste
30	City of Santa Rosa	No			
31	City of Socorro	Yes	Commercial/ residential	Drop-off at landfill	Cardboard/ Newspaper/ Office Paper/ Plastic/ Glass/ Metal
32	City Sunland Park	Yes	Residential	Drop-off	Cardboard/White Paper/Newspaper
33	City of Truth and Consequences	Yes	Commercial/ residential	Drop-off/ Collection Services	Cardboard/ Metal/ Green Waste/ Appliances
34	City of Texaco	No			
35	City of Tucumcari	Yes	Commercial/ residential	Drop-off	Composting Biosolids/ Green Waste
36	County of Los Alamos	Yes	Commercial/ residential	Drop-off/ Curbside/ Commercial	Cardboard/ Newspaper/ Office Paper/ Mixed Paper/ Green Waste/ Biosolids/ Metal/ Oil/ Car Batteries/ Appliances
37	Town of Bernalillo	Yes	Commercial/ residential	Drop-off/ Curbside	Aluminum/ Tin/ Glass/ Plastic/ Paper/ Cardboard
38	Town of Carrizozo	Yes	Commercial/ residential	Drop-off	Cardboard/ Plastic/ Glass/ Metal
39	Town of Clayton	No			
40	Town of Dexter	No			
41	Town Edgewood	No			
42	Town of Elida	No			
43	Town of Estancia	Yes	Residential	Drop-off	Metal/ Green Waste/ Oils/ Automotives/ Tires
44	Town of Hagerman	No			
45	Town of Hurley	No			
46	Town of Lake Arthur	No			
47	Town of Mesilla	Yes	Residential and Commercial	Curbside	Metal/ Newspaper/ Cardboard/ Plastic
48	Town of Mountainair	No			
49	Town Red River	No			
50	Town of Silver City	Yes	Commercial/ residential	Drop-off/ Curbside	Cardboard/ Newspaper / Metals
51	Town of Springer	No			
52	Town of Taos	Yes	Commercial/ residential	Collection Services	Cardboard/ Newspaper/ Office Paper/ Metal/ Glass
53	Town of Tatum	No			
54	Town of Vaughn	No			
55	Village of Angel Fire	Yes	Commercial/ residential	Drop-off	Plastic/ Metal
56	Village of Bosque Farms	Yes	Residential	Curbside	Paper/ Cardboard/ Newspaper/ Plastic
57	Village of Captain	No			
58	Village of Causey	Yes	Community cleanup day	Drop-off	Metal

No.	Community	Recycling	Sector	Type	Materials
59	Village of Chama	No			
60	Village of Cloudcroft	Yes	Commercial/ residential	Drop-off	Cardboard/ Newspaper/ Plastic/ Metals
61	Village of Columbus	Yes	Commercial/ residential	Drop-off	Newspaper/ Metal
62	Village of Corona	No			
63	Village of Corrales	Yes	Commercial/ residential	Drop-off	Cardboard/ Newspaper/ Mixed Paper/ Magazines/ Plastic/ Metal
64	Village of Cuba	Yes	Commercial/ residential	Drop-off	Mixed Paper
65	Village of De Moines	No			
66	Village of Dora	No			
67	Village of Eagle Nest	Yes	Commercial/ residential	Drop-off	Cardboard
68	Village of Encino	No			
69	Village of Floyd				
70	Village of Folsom	No			
71	Village of Fort Sumner	No			
72	Village of Grady	No			
73	Village of Grenville	No			
74	Village of Hatch	No			
75	Village of Hope	No			
76	Village of House	No			
77	Village of Jemez Springs	Yes	Commercial/ residential	Drop-off	Mixed Paper/ Plastic/ Glass
78	Village of Logan	Yes	Commercial/ residential	Drop-off	Metal/ Appliances
79	Village of Los Lunas	Yes	Commercial/ residential	Drop-off	Cardboard/ Metal/ Paper/ Appliances/ Plastic
80	Village of Los Ranchos	Yes	Commercial/ residential	Curbside	Cardboard/ Newspaper/ Plastic/ Metal
81	Village of Loving	No			
82	Village of Magdalena	No			
83	Village of Maxwell	No			
84	Village of Melrose	Yes	Commercial/ residential	Drop-off	Metal/ Appliances
85	Village of Milan	Yes	Commercial	Drop-off	Metal
86	Village of Mosquero	No			
87	Village of Pecos	No			
88	Village of Questa	No			
89	Village of Reserve	No			
90	Village of Roy	No			
91	Village of Ruidoso	Yes	Commercial/ residential	Drop-off/ Commercial Collection	Cardboard/ Newspaper/ Metal/ Green Waste/ Plastic
92	Village of San Jon	No			
93	Village of San Ysidro				
94	Village of Santa Clara	Yes	Commercial/ residential	Drop-off/ Commercial Collection	Cardboard/ Newspaper/Office Paper/ Metal
95	Village of Taos Ski Valley	Yes	Commercial/ residential	Drop-off	Carboard/ Glass/ Metal (Tin)
96	Village of Tijeras	Yes	Commercial/ residential	Drop-off /Three Clean-	Tires/ Green Waste

No.	Community	Recycling	Sector	Type	Materials
				up Saturdays	
97	Village of Tularosa	No			
98	Village of Virden	No			
99	Village of Wagon Mound	Yes	Commercial/ residential	Drop-off	Metal/ Appliances
100	Village of Willard	No			
101	Village of Williamsburg	No			

Source: *Transforming the Economics of Recycling in New Mexico Strategic Plan 2004*

Recycling Program Summary, 2004

Recycling Program Type	Number
Drop-off only	36
Drop-off / Curbside (residential)	11
Drop-off / Commercial Collection	2
Drop-off / Curbside / Commercial	3
Special collection events	1
Total Recycling Programs	53
Towns / Cities w/ No Recycling	43

Appendix C. NEW MEXICO COMPOST FACILITY LIST
(UPDATED APRIL, 2005)

Albuquerque, City of (Pilot Composting Facility)
7401 Access Road NW
Albuquerque, NM 87102
4201 2nd St. SW (waste water treatment plant)
Albuquerque, NM 87105
Contact: Steve Glass - Technical Programs Manager
e-mail: sglass@cabq.gov
Phone: 836-8713 or 873-6255
Feedstocks: 20% solids (municipal biosolids), waste horse stable bedding, pulverized green waste, bark fines and chips
The City is now also producing a compost produced from yard trimmings only.
Quantity produced: 45,000 cu.yds. per year capacity ; Actual production Jan-Apr. 1995 was 8,990 cu. yds. (27,000 cu. yds. per year)

Types of Equipment: Scarab Model 18, two Sludge Systems International compost mixers, Wildcat Model 6-160 trommel screen, two Michigan l-120 loaders, two dump trucks, tractor with sweeper and vacuum attachments.
Application: City Parks and medians, school campuses, Kirtland AFB turf, Veteran's Administration hospital turf, private applications via marketing contract and associated retail outlets.

Artesia, City of
P.O Drawer 1310
Artesia, NM 88210
Contact: Joe Smith
Phone: 746-9651
e-mail: awwtp@plateautel.net
Feedstocks: drying bed biosolids
Quantity: 50-110 metric tons per year
Application: Chase Farms (Pecan Trees)
Equipment: Brown Bear Turner
(Facility is permitted for composting WWTP biosolids with yard trimmings, however they are only composting biosolids)

Barela Landscaping
7713 Bates
Albuquerque, NM 87105
Contact: Eddie Barela, owner
e-mail: cb0513@myway.com
phone: 877-8522
Feedstocks: yard trimmings, steer manure, dairy manure, chili peelings
Quantity produced: 40,000 cu.yds. per year
Types of Equipment:
Application:

Barela Timber Management Co.
Contact: Ralph Barela
Las Vegas, NM
Phone: 617-1966 or 425-2885
60,000 cu. yds. ???

Carlsbad, City of
P.O. Box 1569
Carlsbad, NM 88221
Contact: Art Sena
Phone: 887-5412
e-mail: wastewater@carlsbadnm.com
Preparing permit for Biosolids/Yard trimmings compost facility
Applications: Land application Pecos Valley, homes & gardens, City golf course greens, parks, and fairways, sod farm, tree nursery

Equipment: Tubgrinder, Erin Star Screen, Brown Bear
Quantity: 180 cu. yds. Per year

Desert Rock
2600 Idalia
Rio Rancho, NM 87124
Contact: Steve or Terri Espinosa
Phone: 892-9865
E-Mail: tpe05@msn.com
Quantity: 400 cubic yards per year (6 mo. Per year)
Applications: Homeowners, landscapers

Dick Laronge Composting
1005 Cimmaron Ave.
Aztec, NM 87410
Phone: 334-7230
E-mail: rjl@cpt.com
Feedstocks: Yardwaste

Earth Wipp
P.O. Box 431
Los Lunas, NM 87031
Contact Person: Andres & Nancy Abeyta
Phone: 864-9159
Feedstocks: yard trimmings, leaves and grass, horse manure (drop off for free), grass
Quantity Produced: 100 cu. yds. per year
Types of Equipment: Massey Ferguson 204 with PTO and 6' x 8' manually powered sifter
Application: To be determined

Garcia Landscape Materials
Los Luceros, NM
Phone: 852-2569
Feedstocks:
Quantity Produced:

Gardner's Turf Grass, Inc.
Dave Landess, Farm manager
Phone: 915-422-8200
e-mail: susieturf@aol.com
5590 Mc Nutt Rd.
P.O. Box 18
Santa Teresa, NM 88008
Applying to grass. Some compost is sold

High Desert Worm Ranch

P.O. Box 600
McIntosh, NM 87032-0600
Contact Person: Kate Heath, Owner
Phone: 384-5302
e-mail: Kate@HighDesertWorms.com
Feedstocks: Stable Bedding(horse manure with limited straw), newspaper (Owner is looking for sawdust)
Quantity Produced: 40 Beds @30 cu.ft./bed = 1800 cu ft/yr or 70 cu. yds./yr.
Application:
Equipment: trommel screen
*Worms and castings available for sale.

Holloman Air Force Base
49 CES/CEV
550 Tabosa Ave.
Holloman AFB, NM 88330-8458
Contact Person: David Scruggs or Tony Lucero
Phone: 475-3931
e-mail: Lucero711@msn.com
Feedstocks: Yard trimmings, tree trimmings, and scrap lumber
Quantity Produced: 240 Tons/year
Types of Equipment: Olathe Tub grinder and Bobcat Model 753
Application: On Base

Las Cruces, City of
P.O. Box 20,000
Las Cruces, NM 88004
Contact: Klaus Kemmer, Director of Solid Waste
Phone: 528-3543
e-mail: klaus.Kemmer@lascruces.org
Comments: Biosolids at wwtp are still going to the sludge injection site. Most yard trimmings are chipped and then used as erosion control for old landfill closure or composted.
Feedstocks: yardwaste, grass
Quantity received: 5000 T/year
Quantity compost produced (finished): approx. 2000 T/year
Application: general public and City projects

Las Comunidades
P.O. Box 130
El Rito, NM 87530
Contact: John Ussery
Phone: 581-4550
E-Mail: john@ussery.biz or john@lcdn.org
Feedstocks: old sawmill sawdust, bark
Quantity Available June 2005 = 20,000+ cu. yds.

Lincoln County Composting
Harlan & Rhonda Vincent
Rhondita@charter.net
Phone: 378-8538
Ruidoso, New Mexico

Los Alamos, County of
901 Trinity Drive
Los Alamos, NM 87544
Contact: Regina Wheeler
Phone: 662-8050
e-mail: wheelerr@lac.losalamos.nm.us
Feedstocks: yard trimmings, biosolids, stable waste
Quantity produced: 50 Tons/year (finished) April thru October only due to cold temperature in Winter. Biosolids will be increasing 5-10x (may need carbon source) in coming year due to improvement of effluent. Going from 60 to 16% solids so more moisture as well. Los Alamos building new security entrance so they are having to relocate facility. Probably will require a new permit or modification.
Equipment: Morbark Hog Grinder, loaders, mechanical brush for cleaning roads
Application: Class A Biosolids/yardwaste compost, 30% given away to general public, 30% sold @$28/ton to landscapers, 30% to Parks & Recreation

Midwest Bio-Systems
3333 Majestic Ridge -207B
Las Cruces, NM 88011
Contact: Greg Berry
Phone: 521-3692 Fax 521-3699
e-mail: gberry@totacc.com
Applications: Composting systems, microbe applications and Aeromaster turning equipment, Compost and balanced soil fertility consulting.

Nature's Way Compost (bought out Miller's Compost)
750 S. Bosque Loop
Bosque Farms, NM 87068
Contact: Rick Cox
Phone: 869-1051 Cell: 249-1357
tchadcox@abq.com
Feedstocks: Dairy manure, sawdust, straw & hay
Quantity produced: 4,000 cubic yards per year
Equipment: Sandberger tractor pulled turner
Application: landscapes, gardeners, farmers

New Mexico Compost (bought out by Soilutions, Inc.)
Alameda, NM
Contact: Dave Harris, owner
phone: 898-4346
Feedstocks: stall waste, grass, leaves
Quantity produced: 2000-3000 cu.yds. per year
Types of Equipment:
Application:

New Mexico State University
NMSU-PPD
MSC- 3545
P.O. Box 30001
Las Cruces, NM 88003-8001
Contact: Brett Woywood
Phone: 505-646-5957
e-mail: woywood@nmsu.edu
Feedstocks: yard trimmings, pecan hulls & pecan prunings, manure, grass, cafeteria food scraps
Quantity: 180 tons / year
Type of Equipment: Olathe tub grinder HD-8, Bobcat skid loader model 763H multi material handling bucket, model G-30 Auger Dog compost turner, 3 yd. case loader
Application: Campus turf and landscaping
Comments: The University wants to demonstrate the value of an integrated approach to solid waste management by recycling industrial and agricultural organic waste back onto the campus and by supporting a composting research program.

Sandoval County Landfill
Contact: Mike Foster
Phone: 867-0816
e-mail: waynefoster@sandovalcounty.com
Feedstocks: Greenwaste, cow manure, horse manure
Future feedstocks to include biosolids and municipal solid waste
Quantity Produced: to be determined
Equipment: RRT Design & Construction Digesters, Melville, NY - 12, 50 cubic yard bins with dryers
Application: (planned) – BLM, forest revegetation, county projects, general public

Santa Fe Racing: Ferti-gro (operation inactive)
27475 I-25 West Frontage Road
Santa Fe, NM 87505
Contact: Bruce Bolan
Feedstocks: Old low-nitrogen stall bedding and stable waste-high carbon content only
Quantity produced: 30,000 cu.yds. per year
Types of Equipment:
Application: inactive

Santa Fe Solid Waste Management Agency
Caja del Rio Landfill
149 Wildlife Way
Santa Fe, NM 87507
Contact: Justin Stockdale – Recycling / Special Projects Manager
E-mail: jstockdale@cajadelrio.com
Phone: 424-1850 or 780-0628
Feedstocks: ground greenwaste and horse manure / stable bedding
Qty Produced: Actual 2004 = 10,000 Tons
Types of Equipment: 2 Bandit 3680 grinders, 2 Cat 950G Loaders, Duratech 7216 Trommel Screen.
Application: DOT Erosion Control Compost

Sierra Contracting, Inc.
P.O. Box 935
Alto, NM 88312
Contact: Paul Wetzel
Phone:378-1091
e-mail: vanpatton4923@yahoo.com
Feedstocks: Green waste, slash
Application: FINISHED COMPOST 2500 yds. To Village Parks & Recreation, 10,000 cu. yds. To Highway 70, Mesilla Valley 5000 to 6,000 cu. yds.
Incoming waste 60,000 cu. yds./year taken in or 600 trucks @ 100 cu.yds.
Quantity Produced: Finished Compost 12-16,000 cu. yds. per year

Sierra Vista Growers
P.O. Box 225
Chamberino, NM 88027
Contact: Kent Halla or Steve Kaeppler
Phone: 589-3924 or Kaeppler Cell @ 644-2874
chamberino@starband.net or **laayudaani3@earthlink.net**
Feedstocks: Horse bedding with sawdust, chips etc., from training stables, manure, alfalfa, switching to chicken manure for less salt content in windrows, dairy manure will be composted in digesters to dilute salts, methane will heat greenhouses
Quantity Produced: 15,000 cu. yds. yds. per year
Equipment: HCL Machine Works Digesters (4) @200 feet each – Currently windrowing as well
Application: Some used on site and some sold to landscapers

Soil Foods, Inc.
P.O. Box 787
El Rito, NM 87530 (Site is presently in El Rito-moving to Nambe Pueblo by August 2004)
Contact: Terry Moffitt, President (Northern NM contact)
Phone: 888-393-7845
e-mail: soilfoods@yahoo.com
Feedstocks: Primarily dairy manure
Quantity produced: 3,000-5,000 tons per year in NM
Equipment: Self-propelled 10 & 12' Fletcher Simms turners, Massey Ferguson 3 yd. Loader, International 32' end-dump, Case Loader
Application: landscapers, home gardeners, small organic farms, Nurseries, some to farms

Soilutions, Inc.
P.O. Box 1479
Tijeras, NM 87059
9008 Bates Road., SE (no zip - Delivery address)
Contact: Jim Brooks or Misch Lehrer
Phone: 505- 877-0220 or 281-8425
e-mail: soilutions@aol.com
Thompson@tvi.edu
Feedstocks: Yard trimmings, selected animal manures, stall bedding, agricultural residues, and surplus food processing residuals
Quantity Produced: in startup phase - expect 10-20,000 cu. yds. annually
Types of equipment: Frontend loader/backhoe, screen, brush grinder
Application: Erosion control and food production
Method: Static Piles
Products Available: "New Mexico Compost", Vermi-Compost, Vermi-Compost Worms, Soil Blends and Mulches, Permaculture Tools and Supply, Erosion Control
Comments: Company is actively pursuing nitrogen sources as well as distributorships in New Mexico**.**

Tucumcari, City of
Box 1188
Tucumcari, NM 88401
(facility next to WWTP)
Contact: Joe Ramirez, WWTP Superindent
Phone: 461-4542
e-mail: jramirez@cityoftucumcari.com
Feedstocks: yard trimmings, WWTP biosolids, small amt. of water
Quantity Produced: 40 cubic yards per month projected
Application: golfcourse, parks, mulch to citizens, ball fields, cemetery
Equipment: Haybuster model 8 Tubgrinder, Bobcat loader 7753 with industrial grapple, processing concrete slab with drains to sludge drying beds.

Western Organics
9000 Bates SE
Albuquerque, NM 87105
Contact: David Hanchett, Division Mgr., or Jeff Adams
phone: 505-877-8670 or 1-800-955-3245 or 505-877-8672 for wholesalers
email: jadams@westernorganics.com
Feedstocks: yard trimmings, stall bedding, sawmill waste, bark, dairy manure, zeolites - custom designed mixes (blending & processing facility).
Company markets compost produced from Albuquerque Co-Composting facility as *Rio Grande Compost (Rowlands Nursery)* and as *Omni (Lowes, Home Depot, Wal-Mart).*
Quantity Produced: 300,000+ cu. Yds. Per year
Types of equipment: extensive
Application: Wholesale, retail, golfcourses and other turfgrass applications, etc.

Total active operations = 28

Appendix D. E-WASTE TASK FORCE RECOMMENDATIONS

(Excerpts from REPORT TO LEGISLATURE, SJM 9 – A Joint Memorial Requesting the Secretary of Environment to Appoint a Task Force to Assess the Problem of Electronic Waste and Make Recommendations for Recycling and Disposal, November 21, 2005)

The Task Force recommends a voluntary statewide e-waste collection and recycling program be implemented, first as a pilot program, then statewide. Mandatory recycling should be considered if voluntary approaches do not achieve estimated results. Also, mandatory recycling now is not considered a preferred approach due to the lack of existing infrastructure to collect the e-waste.

The Task Force believes a voluntary collection program should be based on a regional concept taking into consideration population densities, housing units, and proximity to major transportation routes.

The Task Force recommends that the legislature fund a voluntary e-waste collection pilot program. The pilot program would: 1) identify collection sites, 2) enable the Solid Waste Bureau of the NMED and communities to standardize e-waste collection operations, 3) establish a best practices procedure, 4) develop an educational package tailored to rural and urban communities, 5) validate that a regional "hub and spoke" approach is most functional, 6) determine if volumes and participation match previous collection events, 7) help evaluate if computer e-waste stored throughout the region is reduced, 8) provide an opportunity to query participants (and perhaps non-participants) on a wide-range of e-waste collection issues, 9) generate data and statistical information that will be used to establish a baseline for subsequent collections, and 10) help identify unanticipated problems and provide time to implement solutions.

Voluntary e-waste recycling can be implemented quickly and is supported by professional solid waste and recycling businesses and organizations such as the Solid Waste Association of North America and the New Mexico Recycling Coalition. Voluntary e-waste recycling already is established in New Mexico. It could be expanded efficiently with the cooperation of the above-mentioned organizations and those businesses involved in e-waste collection/processing. Currently most e-waste collection events are associated with city sponsored Household Hazardous Waste collection events and special events arranged specifically for e-waste (e.g., City of Albuquerque).

The Task Force recommends that the amount of e-waste recycled through the voluntary program be reported via the Solid Waste Bureau Annual Report Questionnaire. This questionnaire is an established reporting process for all permitted and registered solid waste facilities in the state.

The Task Force recommends that an educational component accompany the pilot voluntary e-waste recycling program and that the Solid Waste Bureau manage the education activity. The Solid Waste Bureau, through its Outreach Section, conducts community education and regional

summits for a variety of solid waste disposal options. With additional FTEs, the Outreach Section could develop and coordinate the education efforts and provide oversight of the e-waste program. The Task Force recommends that the Legislature fund this educational activity.

The Task Force recommends that the Hazardous Waste Bureau of the Environment Department provide a guidance document for local public bodies clarifying hazardous waste rules related to the collection and management of e-waste destined for recycling and resale. Such a document may help diminish local communities' concerns regarding the collection and transportation of hazardous components in e-waste.

The Task Force recommends that electronic retailers (local and national corporations) provide their customers with information regarding the voluntary e-waste recycling program. Further, some members of the Task Force suggested that computer manufacturers might be able to assist in various ways such as informational and financial.

The Task Force recommends that state purchasing rules and regulations be revised to enable recycling as a statewide disposal option.

The Task Force recommends that a state e-waste recycling contract be developed by the General Services Department (Purchasing Division). This contract would enable local public bodies, State agencies, school districts and other governmental entities to participate in e-waste recycling using one contract. This will relieve local communities from having to undergo the cost of researching and developing specifications of a recycling contract. It would provide standardization and a means of accurate reporting throughout the state for e-waste recycling. A single state contract may also provide the means to negotiate more favorable contract terms.

Appendix E - 2005 Review & Renewal Status for Solid Waste Facilities (SWFs)

	Permitted Landfills ****RCRA Subtitle D Facilities***	**Permit Issued Date**
*1	Caja del Rio	6/27/95
*2	Camino Real	3/5/97
*3	Cerro Colorado	6/22/00
*4	Clovis	6/15/98
*5	Corralitos	8/9/95
*6	Lea County	12/17/97
7	Magdalena C&D	8/7/00
8	Mesa Verde C&D	3/12/01
*9	Northeastern NM Regional	3/26/97
*10	Northwestern NM Regional	10/12/95
*11	Otero/Lincoln Regional	10/4/93
~~12~~	~~Rhino~~ (*remanded by the NM Supreme Court*)	~~1/30/02~~
*13	Rio Rancho	4/29/94
*14	Roswell	5/21/97
*15	Sand Point	3/2/94
*16	Sandoval County	8/5/98
	Renewal	6/17/05
*17	Southwest	5/8/97
*18	SW NM Regional	12/19/94
*19	Taos	8/16/01
*20	Torrance/Bernalillo County	6/18/97
*21	Tucumcari (*not currently active)*	5/31/05
	Permitted Sp. Waste (only) Landfills	
*1	Keers Asbestos	7/16/93
*2	Lea Land Industrial	2/27/96

	Permitted Processing Facilities	**Permit Issued Date**
1	Stericycle	7/15/94
	Permitted Recycling Facilities	
1	Camino Real	3/5/97
2	Cerro Colorado IPF	8/5/99
3	Environmental Control	1991
4	Master Fibers	11/15/96
5	Durango-McKinley Fiber Co.	4/17/96
	Permitted Composting Facilities	
1	Albuquerque	8/5/99
2	Artesia	9/17/93
3	Los Alamos	1/3/96

Source: Solid Waste Bureau Permit Section

Appendix E - 2005 Review & Renewal Status for Solid Waste Facilities (SWFs) - continued

Permitted Transfer Stations		**Permit Issued Date**
1	Artesia	3/16/95
2	Cibola County	1/23/96
3	Deming	11/11/01
4	Don Reservoir	8/24/00
5	Eagle Rock	8/7/00
6	East Mountain	12/2/02
7	Las Vegas	10/19/99
8	Los Lunas	11/17/99
9	McKinley County	1/23/96
10	Montessa Park	5/11/98
11	Ruidoso (Gavilan Canyon)	12/19/94
12	Santa Fe	5/7/96
13	South Central SWA	11/2/95

Source: Solid Waste Bureau Permit Section

Appendix F - Active Registered Landfill Status - 2005

	Registered Landfills	Registration Date
1	Coyote/Youngsville (6)	11/6/81
2	Deming (3)	5/10/78
3	Raton	9/14/83
4	San Juan County (1) (2)	1/21/88
5	Socorro (1) (2)	5/9/80
6	Valencia Regional (2)	9/25/87
7	Clayton (5)	No Record
8	DeBaca County (2) (5)	3/24/81
9	Glenwood (5)	12/24/74
10	Los Alamos (5)	12/6/74
11	Pie Town (5)	12/24/74
12	Reserve (5)	12/24/74
13	Sierra County	3/18/87
14	T or C	8/12/87
15	Vaughn (2)	4/9/85
16	White Sands Main Post (4)	1982

KEY

1 = RCRA Subtitle D facility design proposed
2 = Permit application submitted for current site
3 = Permit application submitted for new site
4 = Permit application submitted for C & D and Asbestos Landfill
5 = Closure plan submitted
6 = Locked

Source: Solid Waste Bureau Permit Section

Placeholder
For pdf of State of Garbage in America article

Appendix H. Recycling Goals and Progress U.S. States 2005

State	Recycling or Reduction Goal	Reduction Goal Only?	Most Recent Recycling Rate	How Calculated	LF Diversion or Per-capita Waste Reduction	Recycling BUDGET	Mandatory Recycling ?	Source of Funds	Commercial Recycling Mandated?
ALABAMA	25%	No	17%	NA	NA	$90,000 (Oct.1-Sept. 30, 2005)	No		No
ALASKA	25%	No	10% - 12%(2002) (latest available)	Commercial	10%-12% (est)	NA	No	N.A.	Local
ARIZONA	None (local targets)	NA	18.5%	EPA method - MSW only - not including waste to energy (except for used oil, which is considered HW	30.3% (1999)*	$2.2 million	No		No
ARKANSAS	40% by 2005, 50% by 2010	No	39%- 2003	C&D waste, industrial waste, ash, and commercial	NA	$3.5 million	No	2,3,4	No
CALIFORNIA	50% diversion	No	Don't track recycling rates - diversion rate only Diversion 47% in 2003	C&D waste, industrial waste, and commercial	47% in 2003	$149.5 million (2004-05)	Yes. Counties must reach goal	3,4	Local
CONNECTICUT	40%	No	**25%	Some commercial	NA	$800,000 (2002-03)	Yes. Counties must mandate	6	Yes
DELAWARE	*30% by 2007	No	13% residential recycling (2002)	C&D waste, sludge, ash, and commercial	NA	$4 million (2003-04)	No	3	No
D.C.	45%	No	13% (2004)	includes residential only and no commercial	13% (est)	$4.7 million (2003)	Yes, not enforced	3	No
FLORIDA	*30%	No	28%	C&D waste, ash, and commercial	28% (2002)	$13,000,000 (2003-04)	Yes. Counties must implement	7	Local
GEORGIA	NA	NA	**23%	NA	NA	NA	No	N.A.	No
HAWAII	35% by 2005	No	25%- 2001	Commercial	NA	NA	No	County	Local

State	Recycling or Reduction Goal	Reduction Goal Only?	Most Recent Recycling Rate	How Calculated	LF Diversion or Per-capita Waste Reduction	Recycling BUDGET	Mandatory Recycling ?	Source of Funds	Commercial Recycling Mandated?
IDAHO	None	NA	**13%	NA	NA	None	No	4	No
INDIANA	50%	No	39% (2002)	Commercial	18% - 1993	$2 million (2004-05)	No	2,3	No
IOWA	50% (2000)	Yes	32.5%	Some commercial	32.5% (2002)	$6.35 million	Yes	7	Yes
KANSAS	None	NA	15% to 18% (2001)	Partial commercial	NA	*$1.5 million (2005)	NA	7	No
KENTUCKY	NA	NA	20% (2003)	Commercial	15% (est)	$200,000	No	2	No
LOUISIANA	30%	Yes	18% (2004 est.)		15% (2202 est.)	NA	No		No
MAINE	50% (2003)	No	39%	NA	65,000 tons (2003)	$450,000 (2005)	NA	2	NA
MARYLAND	40% recycling by 2005	No	39.6%- 2003	Commercial	NA	$268,123 (2004-05)	Yes	2,4	Local
MASSACHUSETTS	NA	Yes	47%- 2000	Commercial	6,790,000 tons in 2002	$3.5 million (2004)	Yes. Source separation	6	No
MICHIGAN	20%-30% by 2005	No	18%	NA	NA	$200,000 (2004-05)	No	7	No
MINNESOTA	30%	No	46.5%- 2001	Commercial	NA	$12 million	No	2,4	Local
MISSISSIPPI	25%	No	14% (2002)	NA	5% (est)	$500,000 (2003)	No	3,4	No
MISSOURI	40%	Yes	45% using EPA methodology for municipal solid waste portion of Missouri's waste stream (approx. 60% total)	Commercial	45%	$7.5 million	No	1,2	No
MONTANA	25%	NA	15%	Sludge, and commercial	12%	$84,000 (2004-05)	No	3,4	No
NEBRASKA	50%	No	25%- 2002	Commercial	NA	$5 - 5.5 million (2004-05)	No	1,4,5	No
NEVADA	NA	NA	19%	NA	19%	$350,000 (2004-05)	No	2, 7	Yes

State	Recycling or Reduction Goal	Reduction Goal Only?	Most Recent Recycling Rate	How Calculated	LF Diversion or Per-capita Waste Reduction	Recycling BUDGET	Mandatory Recycling ?	Source of Funds	Commercial Recycling Mandated?
NEW HAMPSHIRE	40%	Yes	**21%	Commercial	23% (2001)	$60,000 (2003)	Yes	2	No
NEW JERSEY	50% MSW	No	54% (total) MSW rate 34% (2002)	Commercial	54%	$ 8 million (2004-05)	Yes. Source separation	7	Yes
NEW YORK	50% (1999)	No	29./8%	Commercial	29.8%	$1-2 Millions	Yes	2,7	Yes
NORTH CAROLINA	40% (2001)	Yes	**25%	NA	25%-30% (2001 est.)	$1.6 million (2002-03)	Yes. Source separation	2,4	Local
NORTH DAKOTA	NA	NA	26%- 2002	NA	NA	NA	No	3	No
OHIO	50% by 2005	Yes	**20%	C&D, industrial, sludge, commercial	51% incl. commercial & industrial	$12.5 million ((2003-04)	25% MSW, 50% industrial, 50% combined	1,7	No
OKLAHOMA	NA	No	14% (2002)	NA	8% (2003 est.)	NA	mandates for cities over 10,000	NA	No
OREGON	45% by 2005 50% by 2009	No	47.3% (includes 2% credits as defined by statute)	C&D, commercial	NA	$1.1 million (2002-03 est)	Yes	2,3	No
PENNSYL-VANIA	25% by 1997	No	36.1% (2001)	Ash, commercial	21.8% (cumulative since 1989)	$54 million	Yes. Counties to develop source sep.	3	Yes
RHODE ISLAND	NA		16%- 2001 15% - 1999	NA	20%	$920,000	Yes Separation of recyclables.	1	Yes
SOUTH CAROLINA	35% by 2005	Yes	22.4% (2004)	Industrial waste, commercial	43% (all solid waste generated)	$6.3 million (2004-05)	No	4	No
SOUTH DAKOTA	NA	NA	37% (2001)	local	37%	NA	only one program	NA	No

State	Recycling or Reduction Goal	Reduction Goal Only?	Most Recent Recycling Rate	How Calculated	LF Diversion or Per-capita Waste Reduction	Recycling BUDGET	Mandatory Recycling ?	Source of Funds	Commercial Recycling Mandated?
TEXAS	40% by 1994	No	35% (1998)	C&D, industrial, commercial	35% (1997 est.)	NA	No	2,4,6	No
UTAH	None	NA	12%-15% (average annual rate)	No established method	15% (est.)	$50,000 (2003-04)	No	NA	No
VERMONT	50% (diversion goal by 2005)	No	31 % (2003)	Commercial	31% (2003)	$428,000 (2004-05)	Yes	3	Local
VIRGINIA	25%	No	30.3% (2003 - EPA method)	Commercial	NA	$1.2 million (2004)	Yes	5	Local
WASHINGTON	50% by 2007	No	38% (2001)	Commercial	47% (2001)	$17.8 million (2003-05)	No	5	No
WEST VIRGINIA	50% by 2010	No	39.42% (2001)	Commercial	5% (est)	$1.5 million (2004)	No	3	No
WISCONSIN	40% (Diversion goal)	NA	32% (2003)	Landfill data/waste sort/generation	40.4% (2003 - 180% increase over 1990)	$30.2 million (2004)	No	NA	No (de facto due to landfill bans)
WYOMING	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Chartwell Rate, 2002

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NOTE: Used by permission for New Mexico Solid Waste Management Plan.

1 = State Solid Waste Management fund 2 = State General Fund 3 = Tip fee surcharge 4 = Surcharge on tires or other item 5 = Tax on business or some other entity 6 = Bonds 7 = Grants 8 = DOE oil overcharge N.A. = figures not available from this survey; SOURCE: Most from SRLU 2000 state recycling manager survey; where we could not get a response, we used some data from the 11th Annual Biocycle Nationwide Survey and the Northeast Recycling Council. = source: *Biocycle* April 1999. =source: Northeast Recycling Council web site, www.nerc.org/recycling, 08/10/2000.

ANY STATES THAT HAVE NOT BEEN LISTED DID NOT HAVE ANY UPDATED INFORMATION FOR THIS FISCAL YEAR. PLEASE REFER TO OUR 2004 REPORT FOR DETAILS ON THESE STATES.

Appendix I. Links for Selected Waste Characterization Studies

1. Comprehensive study done by RW Beck of Pennsylvania cities and counties, includes multiple seasons and takes into account rural, suburban, and urban variations in waste generation

http://www.dep.state.pa.us/dep/deputate/airwaste/wm/RECYCLE/Waste_Comp/Study.htm

2. 2002 Oregon Waste Characterization and Composition Final Report

http://www.deq.state.or.us/wmc/solwaste/wcrep/wccr2002.htm

3. 1992 Washington State Waste Characterization Study

http://www.ecy.wa.gov/programs/swfa/solidwastedata/waste.asp

4. Waste Calc computer model for quantifying/updating waste composition studies

http://www.dep.state.fl.us/waste/categories/recycling/pages/WasteComp.htm

5. 2000/2001 Toronto waste composition study, residual residential (take-away) study, many other excellent resource materials

http://www.city.toronto.on.ca/wes/techservices/involved/swm/net/bg.htm

6. Composition study at South Hilo landfill on Big Island c 2002

http://www.hawaii-county.com/env_mng/iswmp_final_update.htm

7. Alameda County, CA waste characterization study, 2000

http://www.stopwaste.org/home/index.asp?page=590

8. City/County of Los Angeles, CA study includes C&D, landscaping, residential, more

http://www.ci.la.ca.us/SAN/wcqs-2002.pdf

9. Minnesota 2000 Waste Composition Study (statewide sampling includes analysis of waste from residential and commercial/industrial sources)

http://www.moea.state.mn.us/policy/wastesort.cfm

10. US EPA 2003 MSW Facts & Figures Report and Data Tables in pdf, also prior year reports

http://www.epa.gov/epaoswer/non-hw/muncpl/msw99.htm

11. California's 2003-2004 statewide waste composition study.

http://www.ciwmb.ca.gov/Publications/default.asp?pubid=1097

12. Description of comp study data measurement methods and links to prior year studies

http://www.ciwmb.ca.gov/WasteChar/

13. Links to recent state waste characterization studies
http://www.epa.gov/jtr/state/wstchrac.htm

14. New York City 4 season waste characterization study Quarterly Reports, 2005
http://www.nyc.gov/nycwasteless

Appendix J. TCEQ Solid Waste Annual Report Form 2004

(placeholder – insert pdf of form)

APPENDIX K. NOTES ON DATA

These notes pertain to the data tables and comments in Chapters 2, 3, and 5.

In general, the Working Groups found that data on solid waste generation and disposal, solid waste facilities, and recycling and diversion in New Mexico are incomplete and inconsistent. In many instances they could not derive conclusive facts and figures on which to base key waste management planning decisions. The Working Group members cite the following specific problems and recommendations:

1. Proper data are not available (through Solid Waste Annual Reports submitted to NMED) to support engineering level discussions on the extent of need for additional disposal capacity.
2. The Annual Report system needs to be updated and made more user-friendly, e.g., to accommodate online completion and submission of forms, and to allow reporting entities to view prior year data they submitted.
3. The Solid Waste Management Annual Report database should be modified accordingly.
4. Standards must be established for uniform measuring and reporting of such things as remaining air space, and remaining disposal capacity at landfills.
5. Operator Certification training should include instruction on correct reporting procedures.
6. Funding should be allocated to overhaul the Annual Report Form and SWAR database either using internal IT resources or contracted expertise, including evaluating several off-the-shelf information systems already market-tested and used by several other states for this purpose.
7. In developing the new report forms and database, there must be connectivity to information in the present database.
8. Reporting forms should be developed to capture annual diversion tonnages from recycling, composting, and other beneficial use smaller programs that do not require Solid Waste Facility permits.
9. SW Regulations should be revised to require accountability of these smaller entities to report diversion performance.
10. SW Regulations on reporting by permitted and registered facilities should be strengthened to assure accuracy and completeness of data submitted to NMED, with the possible inclusion of penalties and fines for failure to provide correct and complete data.
11. Methods should be explored for obtaining voluntary tonnage reports from private sector recycling, composting, and other diversion businesses, and salvaging/reuse organizations, such as thrift stores and used building material outlets.
12. Methods should be explored for capturing recycling diversion tonnages by private sector businesses, such as large warehouses, supermarkets, and retailers that recycle OCC and pallet wrap; large offices that recycle office paper; food services that send food wastes for composting; and so on. A voluntary reporting and awards program along the lines of EPA's Waste Wise model may serve for this purpose. Possibly this could become part of the Green Zia Program, with data reported to the SWB.

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Appendix L. EMNRD Recycling Grants List

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Appendix M. Profile of Nebraska Recycling & Waste Reduction Funds/Resources

(Source: http://www.epa.gov/jtr/state/ne.htm)

I. Agencies and Financial Resources

A. Nebraska Department of Environmental Quality
Contact Information:
Steve Danahy
1200 "N" Street, Suite 400
P.O. Box 98922
Lincoln, NE 68509-8922
Phone: 402 471-0273
Fax: 402 471-2909
E-mail: steve.danahy@NDEQ.state.ne.us
Web site: www.deq.state.ne.us

Available Publications:
Nebraska Recycling Resources Directory, Guidance Document: Measuring and Tracking Recyclables and Organics (1996), Grants and Planning Unit Annual Report, Litter Reduction and Recycling Grant Program, Annual Report to the Governor, 2001 Nebraska Litter Survey, Economic Impact of Recycling in Nebraska (1997), Markets for Recyclables: Nebraska's Blueprint for Action (1998).

Financial Assistance:

1. Waste Reduction and Recycling Incentive Fund

Eligible Applicants for Funds from Disposal Fee: Counties, municipalities, and agencies.

Eligible Applicants for Funds from Business Fee: Political subdivisions or other public, private, or non-profit entities or organizations.

Eligible Uses of Funds: Source reduction, recycling, reuse, composting, and other programs, which promote market development of recycled commodities and integrated waste management systems.

2. Scrap Tire Reduction and Recycling Incentive Fund

Eligible Applicants: Political subdivisions or other public, private, or non-profit entities or organizations.

Eligible Uses of Funds: Studies, capital and startup costs for processing, manufacturing, collecting, and transporting scrap tires. Partial reimbursement for purchase of tire-derived products, cost-sharing for manufacturing, processing, or using in civil engineering applications.

3. Litter Reduction and Recycling Grant Program

Eligible Applicants: Political subdivisions or other public, private, or nonprofit entity or organization.

Eligible Uses of Funds: Public education, litter cleanup of public areas, recycling, and source reduction activities.

4. Landfill Disposal Fee Rebate Program

Eligible Applicants: Any municipality or county with an approved "buy recycled" policy may receive ten cents off the $1.25 fee for each ton of solid waste disposed. Only applies to permitted landfills and waste originating in the same municipality or county.

5. Illegal Dump Site Cleanup Program

Eligible Applicants: Political subdivisions

Eligible Use of Funds: Clean up of illegal dump sites on or adjacent to public right-of-way.

B. Nebraska Environmental Trust
   Contact Information:
   Mary Harding

2200 N. 33rd Street
P.O. Box 30370
Lincoln, NE 68503-0370
Phone: 402 471-5409
Fax: 402 471-5528
E-mail: trust@ngpc.state.ne.us
Web site: www.environmentaltrust.org

Financial Assistance: Nebraska Environmental Trust Fund

Eligible Applicants: Government agencies, individuals, nonprofit and for-profit organizations.

Eligible Uses of Funds: Grants are awarded under four priorities, including the development of recycling markets and reduction of solid waste volume and toxicity; preservation and restoration of critical habitat areas; surface water quality; and ground water quality.

Restrictions: Projects must benefit the overall public. Projects that result primarily in private gain are not funded. Spending on approved projects is not a replacement for other tax dollars or for un-funded mandates of government.

C. Nebraska State Recycling Association
Contact Information:
Steve Andrews
1941 S. 42nd Street, Suite 512
Omaha, NE 68105
Phone: 402 933-3059
Fax: 402 933-3239
E-mail: sandrews@nsra.omhcoxmail.com

Assistance is provided for new or expanding recycling businesses; supply and market analysis; facilitation of projects; procurement of professional services; technology identification evaluation and transfer; grant writing and fund raising.

D. Nebraska Department of Administrative Services
Contact Information:
Christy Thomas
State Recycling Coordinator
301 Centennial Mall South
P.O. Box 94847
Lincoln, NE 68509
Phone: 402 471-2431
Fax: 402 471-2089
E-mail: cthomas@notes.state.ne.us
Web site: www.das.state.ne.us [Exit Disclaimer]

The State Recycling Coordinator, located in the Department of Administrative Services, Material Division, works with the buyers in state purchasing to ensure that recycled-content products are purchased whenever practical and appropriate. Research is conducted on recycled-content products and assistance is provided to agencies in writing performance based specifications which do not discriminate against recycled-content material. Political subdivisions are encouraged to utilize state contracts to purchase recycled-content products.

II. Significant Enabling Legislation:

Legislative Bill 120 (1979) Litter Reduction and Recycling Act: Created the Litter Reduction and Recycling Grant Program which provides grant funding for public education, cleanup, and recycling projects and programs. Funds are collected through a litter fee assessed on manufacturers, wholesalers, and retailers of products commonly found in the litter stream.

Legislative Bill 163 (1990) Waste Reduction and Recycling Incentive Act: Created the Waste Reduction and Recycling Incentive Grants Program which provides grant funding for source reduction, recycling, reuse, and composting projects and programs.

Legislative Bill 1257 (1992): Created the Integrated Solid Waste Management Act, which required municipalities and counties to take responsibility for the waste generated in their area and to develop plans on how they will address their waste issues. The Act established waste reduction goals and banned landfill disposal of yardwaste, lead-acid batteries, waste oil, waste tires, household appliances, and unregulated hazardous waste. LB1257 also required the Nebraska Department of Environmental Quality to develop rules and regulations for the disposal of solid waste.

Legislative Bill 1207 (1994): Created the Landfill Disposal Fee Rebate Program. The program allows any municipality or county with an approved "buy recycled" policy to receive ten cents off the $1.25 fee for each ton of solid waste disposed. Only applies to permitted landfills and waste originating in the same municipality or county. Rebates are issued quarterly.

Legislative Bill 592 (1999): Removed the $800,000 cap on the Litter Reduction and Recycling Fund. Allows for multi-year grants. Moved the Scrap Tire Reduction and Recycling Fund back into the Waste Reduction and Recycling Incentive Grants Fund.

III. Jobs Through Recycling (JTR) Grants Awarded for Recycling Economic Development:

Nebraska ('94 - Recycling Economic Development Advocate [REDA])

This has been a collaborative project to create a REDA program. The REDA Support Team, composed of representatives from the departments of Economic Development, Administrative Services, and Environmental Quality, the Nebraska Energy Office, Nebraska Environmental Trust Fund, and the Nebraska State Recycling Association, worked together to pursue recycling business growth and provide technical and financial assistance. The state developed a comprehensive strategy to foster market development for products made with recycled content. The initiative, Markets for Recyclables: Nebraska's Blueprint for Action, includes specific

strategies and action steps designed to enhance recycling market development in five areas including: new product development, procurement, market information and assistance, sustainability, and regionalization.

Nebraska ('96 - Economic Measurement Project and Investment Forum)

This two-part project involved the development of a study entitled Economic Impact of Recycling in Nebraska, which looked at the effects of recycling on the state's economy, assessed the needs for growth in recycling, and measured the excess capacity of Nebraska's companies to absorb additional recyclable materials. Access to capital was listed by businesses as one of the top barriers to growth in the survey. The Nebraska Department of Economic Development presented the first Midwest Recycling Investment Forum on March 23, 1998, in Omaha, Nebraska to introduce investors to some of the region's most promising recycling companies.

Appendix N. Existing Economic Development Incentives in New Mexico

(Source: Excerpted from *The Strategic Plan for Transforming the Economics of Recycling in New Mexico Report*, TERN Steering Committee, 2004)

New Mexico has a portfolio of incentives that have been developed to encourage the creation and expansion of high quality job opportunities across the state. Certain incentives target specific industry sectors, such as technology, or regions within the state. Others support businesses in workforce training, research, or purchasing capital equipment.[1]

Existing economic development incentives in New Mexico that the TERN Committee reviewed are:

Manufacturer's Investment Tax Credit
Description**:** Manufacturers may take a credit equal to 5% of the value of qualified equipment put into use in a manufacturing plant in New Mexico, provided the manufacturer meets the criteria of hiring additional workers to earn the credit. To qualify for the credit the manufacturer is required to hire 1 person for every $500,000 in qualified equipment.

Opportunity: Recycling companies that manufacture products from recycled material have taken advantage of this tax credit (RASTRA, Durango McKinley). Having these plants operating in New Mexico creates excellent markets for increased recycling of OCC and Styrofoam™. Both companies stated that they need more material coming into their plants.

This credit has not been used by companies collecting or processing recyclables, because of the job creation requirement. Recycling equipment at a processing or collection facility may not increase jobs at that plant, but increases the size and total employment in the industry. For instance, if American Furniture purchases a cardboard baler, this may not create a job at American Furniture, but it is likely that the overall growth in recovery will increase jobs in other sectors in the state, such as transporting and processing.

Industrial Revenue Bonds
Description: Industrial Revenue Bonds (IRBs) are issued by a government to finance privately-operated development projects. Issuance is a political process and must begin in accordance with local and state laws. The issuing government retains ownership of the facility until the bond is paid off. The party to whom the bond was issued agrees to rent the facility, and thus is not obligated to pay property taxes.

Opportunity: According to companies the TERN committee interviewed, securing an IRB requires intensive overhead that reduces the profitability of the approach. Waste Management of New Mexico finds that IRBs are not economical for projects under $3 million dollars.

[1] Incentives & Assistance; http://www.edd.state.nm.us/PROGRAMS/incentives.html

Companies with less access to capital than Waste Management would find smaller amounts to be worth the time investment. However, the clause for default is also a disincentive to using IRBs.

Rural Job Tax Credit
Description: Employers may earn the rural job tax credit for each qualifying job created. Employers receive a credit of 6.25% of the first $16,000 in wages paid for a qualifying job for a maximum of $1,000 per year for 4 years. Rural New Mexico is any part of the state other than Los Alamos County, Albuquerque, Rio Rancho, Las Cruces, Santa Fe, and a ten-mile zone around those select municipalities. The intent of this incentive is to reward employers for establishing jobs in rural parts of New Mexico

Opportunity: This tax credit could be an incentive for a manufacturing plant creating products from recycled materials (such as Durango McKinley located in Prewitt, NM). It is not likely to apply to processing facilities since they are most effectively located in a regional hub such as Santa Fe, Las Cruces, or Albuquerque.

Recycled Content Price Preference
Description: New Mexico State procurement code provides for a 5% preference for recycled content goods.

Opportunity: By encouraging 'Buy Recycled' programs in government, the market for recycled content goods is increased and opportunities for employment in recyclables processing and manufacturing are increased.

Local Economic Development Act
Description: The New Mexico Legislature in 1994, passed this act allowing state, local and regional governments with carefully circumscribed powers to contribute assets to develop projects. The Local Economic Development Act contains the exclusive authority for local and regional government economic development contributions. The Act must be passed by a municipality or county in a referendum.

Opportunity: This incentive could be used for large scale projects such as a glass factory making glassware and tiles from reclaimed glass bottles.

Qualified Business Facility Rehabilitation Credit
Description: This income tax credit (both personal and corporate) is intended to help create new jobs and to revitalize economically distressed areas. The owner of a qualified business facility may claim a credit equal to 50% of the cost of restoring, rehabilitating or renovating the facility. The credit maximum is $50,000. A qualified facility is a building: located in an enterprise zone; vacant for at least 24 months prior to the project but suitable for use; and put into use immediately after the project by a person in the manufacturing, distribution, or service industries.

Opportunity: This incentive could be used for a new factory or processing center that could be built into an existing building such as an abandoned WalMart or K-Mart.

Double Weight Sales Factor

Description: This incentive allows a manufacturing company to reduce its tax burden by modifying the income apportioning formula to double-weight the sales component over the payroll and property. This incentive is ideal for new manufacturers that invest heavily in plant and equipment in the first few years of incorporation in New Mexico. The benefit of the Double Weight Factor puts a 50% tax burden on sales, reducing property and payroll to 25% apiece, thus reducing the tax burden on initial costs of operation. In addition, lowering the % weight of property and payroll factors and increasing its sales factor rather nicely reduces a company's corporate income tax obligations compared to the standard formula where all the factors are weighted equally at 33.33%.

Opportunity: This incentive could be used by new recycled product manufacturers to reduce their tax liability while they grow their business.

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Appendix O. Incentive Programs for Local Government Recycling and Waste Reduction

Overview

Local governments define the economics of solid waste in their areas. Through their policies, laws, regulations, rate structures, fees, and taxes, local governments can have a tremendous impact on what is "economic" to do in their community. The California Integrated Waste Management Act of 1989 (AB 939, Sher, Chapter 1095, Statutes of 1989 as amended [IWMA]) challenges local governments to rethink incentives in place for one-way disposal, and to redesign the system to reward and encourage waste prevention, reuse, recycling, and composting.

Program Characteristics

Incentive programs are designed to use economic and policy tools to harness the forces of the marketplace to accomplish adopted public policy goals. Many of the economic tools highlighted below are designed to reward those who decrease the amount of waste they produce, or those who reuse, recycle, or compost it. Conversely, for those who continue to waste, these tools are designed to increase their costs. People can reduce-reuse-recycle, or they can pay for the privilege of wasting.

Strategic Recycling

In her landmark book, *Strategic Recycling*, Kay Martin highlights the difference between past "linear systems" and the opportunity for local governments to move toward "cyclical systems" of managing solid waste and fostering recycling and waste prevention.

Major characteristics of linear systems are:

- Government rules by command and control systems.
- Major budget items for government are for waste collection and disposal (either directly provided or indirectly contracted through franchise agreements).
- Prohibits diversity and competition and requires all generators of waste to use system provided by government.
- Recycling costs are added on top of existing waste collection and disposal system; materials are pushed into an uncertain marketplace.
- Little funding for public education or waste prevention.

By contrast, a cyclical system "redefines the role of local government as the system regulator, manager, educator, intervener and facilitator" working to develop a locally sustainable recycling economy. In a cyclical system:

- Government accomplishes its purposes through its leadership in adopting policies and incentives to reward those who are achieving its goals.
- Government helps to structure the marketplace and set minimum standards for operations and reporting.
- Government influences pricing of services to reflect public policy goals.
- Government encourages diversity, competition, and innovation.
- The private sector assumes actual investments, debt service, and risk.

In fact, the IWMA recognized that local governments could accomplish their responsibilities under that law in a wide variety of ways:

". . .programs funded or operated by a jurisdiction as franchise or contract conditions, rate or fee schedules, zoning or land use decisions, disposal facility permit conditions, or activities by a waste hauler, recycler, or disposal facility operator acting on behalf of a city, county, regional agency or local governing body, or other action by the local governing body." (Title 14, California Code of Regulations [CCR], section 18730.)

An incentive-based approach to meeting the challenges of the IWMA would include the adoption of policies and the structuring of the marketplace for residential and commercial generators, waste and recycling haulers, transfer station and MRF operators, landfill owners and operators, manufacturers, and retailers.

Local governments can adopt policies in a wide variety of instruments, including:

- Ordinances.
- Contracts or franchises.
- Land use permits.
- Solid waste facility permits.
- Zoning regulations.

- General plans.
- Financing agreements.

Local governments can also influence the economics of the marketplace by the way they structure their:

- Garbage collection rates.
- Franchise fees.
- IWMA fees.
- Permit fees.
- Facility taxes.

One of the most powerful incentives is tax, fee, or cost avoidance. Local governments at little or no cost may adopt many of these tools. The primary cost may be in the preparation and adoption of these tools and subsequent monitoring of their outcomes. Monitoring costs can be minimized if proper reporting and evaluation requirements are included in the design and adoption of the particular tool.

The greatest difficulty in adopting these tools may be in gaining support from the existing waste collection and disposal industry. Problems with these industries can be resolved through early and continuous dialogue with all parties of affected interests. By outlining the city's goals and keeping an open mind about the details, local governments can usually solve most of the specific concerns identified by existing waste haulers and other interested parties.

Generator Incentives

Residential: Pay-As-You-Throw. One of the best examples of an incentive that has proven its tremendous value over the past decade is the restructuring of residential garbage rates. The U.S. Environmental Protection Agency (U.S. EPA), the California Integrated Waste Management Board, and many others have documented that "pay-as-you-throw" programs can have a major impact on decreasing wastes. In a comprehensive study for the Solid Waste Association of North America, Skumatz Economic Research Associates found that such "variable rate" programs can lead to an additional 8 to 13 percentage points of diversion, even if communities already have mandatory curbside recycling and diversion programs.

Commercial Incentives. The larger the costs for waste collection and disposal, the higher the interest level for businesses in waste prevention, reuse, recycling, and composting. This is particularly true if the businesses can benefit from recycling by decreasing their waste collection and disposal services, both in number and size of bins and decreasing the frequency of pickups. Many communities now offer "free" collection of recyclable materials from small businesses, if the amount of materials collected is comparable to that from residents. Other communities require their franchised haulers to provide discounts for recycling services. Haulers may be required to charge businesses for recycling services offered at rates that are at least 50 to 80 percent of the costs of disposing of those materials to provide an incentive to the businesses to reduce their wastes at the source or recycle.

Haulers may also be creative in their encourage-ment of recycling. One hauler requires that a recycling bin of equal size and frequency of pickup accompany every commercial waste bin requested for service. This clearly communicates to the generators that they should be able to reduce their wastes by 50 percent if they use the companion recycling bins.

For construction and demolition (C&D) debris, some cities are now requiring deposits when residents, businesses, or contractors seek permits for C&D activities. The City of Atherton, California, requires a $50 per ton deposit for all waste estimated to be produced by that project. Contractors must show that they have recycled at least 50 percent of the waste generated, or the town keeps $50 for each ton below their 50 percent goal that was not recycled.

The City of Cotati requires posting of a $200 deposit that is refunded after proof of reuse, recycling, or attempts thereof. In a model ordinance prepared by the Alameda County Waste Management Authority, a deposit is required that is the smaller of three percent of the total project cost or $10,000.

The City of San Jose is working on adopting a C&D deposit for diversion. The city proposes to collect a deposit when a building permit is issued for construction, demolition, and remodeling projects. These deposits will be set at a level sufficient to pay for the gate fees at certified recycling facilities. To have their deposits returned, contractors will have to provide receipts showing that the project's C&D waste has been accepted by a city-certified recycling facility.

Franchise Hauler Incentives

Franchise Contractor Payments. Some garbage companies say they make more money in garbage collection and disposal, instead of recycling, because that's how cities pay them. The basis of paying contractors has not changed much over the past 50 years.

Residential payments to contractors are often made on the basis of the number of households serviced. This does not provide any incentive to recycle more and dispose less. Payments per household value the speed at which garbage can be collected per household, over all other factors. This led to the compactor truck and the elimination of a well-established recycling infrastructure after World War II.

For residential payments to contractors, other ways to structure those could include payments for every ton recycled or for every ton landfilled.

By paying contractors solely on the basis of the tons they recycled, they would make more money with increases in recycling tonnage. If contractors were paid inversely to the amount they landfilled wastes, they would have an incentive to maximize both waste prevention and recycling.

In considering how to pay contractors, cities must weigh the benefits of new incentives, such as the above, versus the increased costs that will result from increasing uncertainty and risks to the contractors. Since most contractors have no experience with a garbage collection system based on these new incentives, they will need to inflate their estimates of how much they would like to be paid in order to assure that they have a sufficient cushion to account for unknowns and contingencies.

San Jose, Calif., has pioneered these types of incentive programs (see profile below). Seattle, Wash., also has explored these concepts in some depth.

In Seattle, the new integrated garbage and recycling contracts that started April 1, 2000, pay their contractors on a per-household and a per-ton recycled basis.

This is a good transition from past practices, as the contractors have the comfort of estimating the amount of revenue they can expect from payments per household. They can also reasonably project the amount of revenue they can expect from recycling tonnage. Because Seattle also changed the design of its citywide recycling program at the same time, there is some risk to the contractor about how much recycling tonnage is to be expected. Overall, the city estimates that it saved $2 million per year through the competitive bidding process it used and by integrating a variety of garbage and recycling contracts into full-service contracts for the city.

Commercial payments to contractors have historically been based on the number and size of bins serviced and the frequency of service. This provides generators with a strong incentive to recycle. However, it is in the hauler's interest to recommend the largest number of small bins to service most frequently. The more garbage service specified (whether needed or not), the more money the hauler makes.

One of the common results of this approach is that haulers encourage generators to design their system for peak loads. Haulers will often "haul air" because they dump whatever is in a bin, even if the bins are usually half empty. This is usually only mitigated by competition. If there is little or no competition in an area (e.g., if there is an exclusive franchise or an oligopoly situation), generators will usually pay more without
knowing it.

In any comprehensive waste audit of a system (see related CIWMB model study in this series on solid waste assessments), an auditor will usually reduce the amount of garbage service regularly scheduled. This can provide significant savings to the generator. However, commercial rates based (at least in part) on tons recycled or landfilled would be an improvement over the current system. By introducing payments for recycled tonnage or landfilled tonnage, commercial haulers would find they could make more money by reducing garbage service and increasing recycling service.

Some municipalities are exploring changing their franchise fee structures as initiatives for haulers who increase recycling. None appear to be experimenting with commercial rate structures in the way San Jose and Seattle have done with residential rates.

Avoided Disposal Costs. In structuring payments for landfill disposal, one of the incentives for increased recycling is the responsibility for disposal payments. If contractors are responsible for paying disposal fees out of their contract prices, they will be motivated to find ways to avoid paying those disposal fees.

Avoided Collection Costs. When tipping fees for waste disposal are less than $30 per ton (as they are in most of California today), avoided disposal costs need to be enhanced by avoided collection costs. The average costs of collection in most solid waste and recycling systems is 80 percent; usually 10 to 20 percent is the cost of processing and marketing recyclables or disposing of wastes in a landfill. With higher recycling and reuse rates, municipalities need fewer garbage collection trucks. The cost savings for each garbage truck—about $150,000—can help offset the costs of recycling services.

Revenue Sharing. One of the more popular incentives curbside programs offer to their haulers is a share in the revenue from the sale of materials (usually 50/50). The theory behind this is that such revenue sharing provides an incentive to both the city and the contractor to improve the system. The contractors get more revenue if they:

- Collect more materials.
- Keep the materials cleaner on route.
- Process materials to higher quality standards.

The city gets more revenue if it promotes public participation in the program and increases the value of materials recycled through market development initiatives.

In practice, some haulers have viewed the 50/50 revenue sharing proposition as a penalty to the hauler. They viewed it as having to share 50 percent of the benefit with the city without the city being required to split 50 percent of the costs of achieving that benefit. Consequently, revenue sharing is most appro-priately considered at the local level, where the city and the

hauler can agree in advance on the goals of such a structure.

Penalties for Nonperformance. Penalties for nonperformance as "liquidated damages" are becoming more popular in solid waste and recycling contracts. The following situations are examples of such nonperformance at a MRF:

- Takes more than 30 minutes for contracted vehicles to enter, dump and leave.
- MRF does not achieve a minimum recycling or diversion rate.
- Facility is unable to transport residue to landfill on a timely basis.
- Contracted landfill is not able to accept residue upon delivery.

Public agencies find, and contractors agree, that it is difficult to reasonably determine the extent of damages from these and other similar problems. But substantial damage to public health and safety may result to members of the public who are denied services or denied quality or reliable service.

Such breaches cause inconvenience, anxiety, and frustration. They can also deprive individuals of the benefits of receiving recycling services in subjective ways and in varying degrees of intensity that are incapable of measurement in precise monetary terms. The actual monetary loss resulting from denial of services or denial of quality or reliable services is impossible to calculate in precise monetary terms in most instances.

Agreements recognize that consistent, reliable services are of utmost importance to the public. Public agencies rely on the contractor's representations regarding the company's knowledge, experience, and commitment to quality of service when awarding the work to it. Agreements recognize that some quantified standards of performance are necessary and appropriate to ensure consistent and reliable service and performance. Agreements also recognize that if a contractor fails to achieve such performance standards, the agency and/or residents will suffer unknown damages. As a result, liquidated damage amounts are included in agreements to represent a reasonable estimate of the amount of such damages considering all of the circumstances existing on the date of the agreement.

Other Hauler Incentives

Franchise Fees. Most of the experiments with incentives in California during the past decade have included franchise fees. Several communities have tried to use fees to encourage their exclusive and non-exclusive franchise holders to increase recycling.

The City of Santa Clara, California, charges a differential franchise fee to haulers based on whether or not they have a city-approved recycling program. All nonexclusive franchised haulers collecting waste from the industrial areas of Santa Clara must pay the city a franchise fee of 25 percent of their total gross billings. To obtain a reduction of the franchise fee to 10 percent, haulers must meet at least two of the following three conditions (see details in case study below):

1. Provide a waste audit and containers, and collect 50 percent (by weight) of customer's recyclable materials.
2. Provide a recycling service program and a designated recycling representative to perform specified tasks.
3. Provide another certified and documentable recycling or resource recovery program that reduces the amount of waste collected by at least 50 percent.

Monrovia, in Southern California, has a similar program. The city reduces its nonexclusive commercial service agreement fees directly proportional to the amount of wastes diverted. Franchise fees are 16 percent for haulers diverting 24 percent or less, 12 percent if they divert 25 to 49 percent, and 8 percent if they divert 50 percent or more.

The average franchise fee for commercial wastes in California ranges from 10 to 15 percent of gross receipts or billings. Most communities include a specific amount for franchise fees in their collection agreements. To provide more flexibility for local governments over time, a franchise agreement may reserve the right to adjust the franchise fee at any time, or at the time of any rate adjustments approved for the hauler. This enables the community to increase franchise fees to fund the implementation of other recycling programs if needed. In San Jose, the franchise fees have increased to 30 percent of the gross receipts (see profile below).

IWMA Fees. Section 41901 of the IWMA authorizes local governments to raise fees specifically for the costs of implementing their waste diversion programs to comply with this law:

"A city, county[,] or city and county may impose fees in amounts sufficient to pay the costs of preparing, adopting, and implementing a countywide integrated waste management plan prepared pursuant to this chapter. The fees shall be based on the types or amounts of the solid waste, and shall be used to pay the actual costs incurred by the city or county in preparing, adopting, and implementing the plan, as well as in setting and collecting the local fees. In determining the amounts of the fees, a city or county shall include only those costs directly related to the preparation, adoption, and implementation of the plan and the setting and collection of the local fees. A city, county, or city and county shall impose the fees pursuant to Section 66016 of the Government Code."

Section 41902 clarifies that:
"A local agency may directly collect the fees authorized by this chapter or may, by agreement, arrange for the fees to be collected by a solid waste hauler providing solid waste collection for the city or county."
Some communities have adopted IWMA fees applying to haulers, and others have adopted IWMA fees applying to solid waste facilities in their jurisdictions. In San Jose, the IWMA fee applying to commercial haulers is 28 percent of their gross receipts. In combination with their franchise fees, commercial haulers pay 58 percent of their gross receipts to the city. In Santa Clara County, an IWMA fee was levied at all solid waste facilities in the county. The countywide IWMA implementation fee is currently $1.30 per ton of disposed waste. These monies are distributed quarterly to Santa Clara County jurisdictions based on the total waste disposed in that quarter by a jurisdiction, as reported in the disposal reporting system. Monies for wastes from outside of Santa Clara County are distributed on the basis of each city's share of total countywide population.
Each jurisdiction uses the countywide IWMA implementation fee monies to fund waste prevention and recycling programs. Programs funded differ by jurisdiction. Funded projects have included purchase of rolling carts for curbside collection of yard waste, purchase of recycling bins, public outreach, staffing for special recycling projects, and other IWMA-related purposes.
Other Hauler Incentives. In addition to these economic incentives, there are numerous policies that could be included in exclusive and non-exclusive franchise agreements that could assist in waste diversion, including:

- Diversion goals. Many communities are now requiring haulers to meet certain waste diversion goals as a condition of operating and maintaining their franchise. For example, in Monterey Park, all haulers doing business in the city must have a permit issued by the Department of Public Works and a business license from the city's support services division. Commercial haulers were required to recycle 25 percent of the waste that they collect in the city by June 1998. Other communities using this system include Sacramento County, Costa Mesa, Newport Beach, El Monte, Gardena, Torrance and Bell Gardens.

- Planning requirements. Some communities require haulers to develop recycling plans, either for their own services (e.g., Bell Gardens and Costa Mesa require source reduction and recycling plans), or for businesses that they service (e.g., Portland, Oreg.).

- Promotions requirements. Most communities now require haulers to assist in providing comprehensive promotional support for recycling to residents and businesses.

- Market development requirements. Some contracts reserve the right for cities to direct materials collected by haulers to new markets as a part of the city's market development activities. In San Jose, they reserve the right to do this for all materials. In San Francisco, they reserve the right to do it for 10 percent of any materials. Other communities reserve the right only for targeted materials.

Transfer Station, MRF, and Landfill Incentives

Permit Requirements. The best time for incentives to be adopted as conditions of permits is at the time of siting for transfer stations, MRFs, and landfills. Local land use permits (e.g., conditional use permits [CUP]) or solid waste facility permits can include incentives as conditions. Planning departments can write local land use permit conditions, and local enforcement agencies (LEA) can write solid waste facility permits.
Some possible options for inclusion in one or more of the permits are:

- Offer source separation discounts, which allow lower rates to generators for clean, source-separated materials, to enable facilities to more easily recycle those materials.

- Provide areas for reuse and salvaging, drop-off and buyback recycling, composting, and retail sales of reused, recycled, and compost products on site.

- Require landfill operators to exceed federal pollution control design standards (especially on liners). This minimizes the risk that a site used by the city will become a "Superfund" site. U.S. EPA is now reviewing Subtitle D regulations, which may undergo significant changes in the next two to three years.

- Establish strong financial assurances (not just value of stock, as U.S. EPA allows), in perpetuity to provide for sufficient long-term care, preventive maintenance, and corrective action/cleanup costs.

- Distribute public information materials on reuse, recycling, and composting.

- Assisting the community in meeting its waste reduction goals.

Contract Clauses. Conditions could be included in long-term agreements for these facilities, such as:

- Disposal. Commit to a total capacity, not an annual amount, as in the City of San Francisco agreement with Altamont Landfill (Waste Management, Inc. [WM]). This enables the community to benefit directly by extending the life of the landfill, if it reduces the amount of wastes it brings to the facility.
- Preprocessing. Require that all wastes be processed for reuse, recycling, and/or composting before landfilling. This is particularly important for the larger, more distant "mega-landfills" increasingly being developed by the larger garbage companies. This requirement could be structured to require landfill operators to arrange for wastes to go to MRFs prior to shipping them to their landfills, or it could be done on site, depending on market and space considerations.
- Source separation. Require that targeted materials be source-separated before accepting at facilities, or provide strong economic incentives through design of rates for facilities.

Lease and Financing Conditions. Local governments could require some of the above clauses as part of a lease or financing agreement, if the city is assisting on financing or leasing a site to a project developer.

Facility Fees and Taxes. Communities could establish fees or taxes on solid waste facilities to help fund their programs, in addition to those noted above as IWMA fees.

Measure D in Alameda County in 1990 established by referendum a $6-per-ton surcharge on landfills in the county. That surcharge, and other waste import mitigation fees at the Altamont, Vasco Road, and Tri-Cities landfills fund the Alameda County Waste Management Authority.

San Jose has a $13 per ton disposal facility tax that generates revenues for the city's general fund.

Transfer station, MRF, and landfill fees and taxes have the beneficial effect of also encouraging more waste reduction. The higher the cost of waste disposal, the more attractive reuse, recycling, and composting become.

Manufacturer and Retailer Incentives

Many policies and economic incentives can impact business decisions regarding waste management, including:

- Recycling planning requirements.
- Waste diversion requirements.
- Source separation requirements.
- Product bans.
- Landfill bans.
- Procurement requirements.
- Takeback requirements.
- Deposits.
- Advanced recycling fees.
- Land use permit conditions.
- Zoning issues.

These are discussed in detail in a companion model study in this series, "Business Recycling Plans and Policies."

Impact of Proposition 218

Voters passed Proposition 218 on November 5, 1996. This proposition, the "Right to Vote on Taxes Act," detailed many situations in which the public is required to be consulted, or participate in, decisions regarding the enactment of a wide variety of fees and taxes. Proposition 218 became effective July 1, 1997. Because many of the economic incentives outlined above address fees and taxes enacted by local governments, city attorneys need to consider whether Proposition 218 applies. Unfortunately, many disagree about when and how Proposition 218 applies. As a result, each city's attorney must evaluate the language of the California Constitution amended by Proposition 218 and interpret how it may apply for a given proposal.

CIWMB counsel believes that Proposition 218 does not appear to affect fees collected through direct billing, tipping fees, franchise fees, or similar methods. IWMA fees (as described above) are not necessarily covered by Proposition 218 because they do not have to be charged upon parcels, nor as an incident to property.

If fees are collected through the property tax bill, there may be some impact. However, a majority of attorneys in the field believes that Proposition 218 does not cover these fees because the fees are for services, not fee property. If the municipality set the fee at a reasonable amount, then a challenge may be less likely.

If a fee is charged on the property tax bill, the following factors may be relevant in determining if Proposition 218 applies:

- Does the agency rely on parcel maps to set the fee?
- Must the fee be paid simply because of property ownership, or must a service be requested?

- Does the property owner have the opportunity to "opt out" of the fee by declining the service?
- Is the fee based on size of the parcel, amount of service requested, or are all bills the same?
- How is the fee applied to multi-residence parcels?
- Is the fee secured by a lien at the outset of its imposition?

Case Study: Santa Clara

The City of Santa Clara, Calif., charges a differential franchise fee to haulers based on whether or not they have a city-approved recycling program. All non-exclusive franchised haulers collecting waste from the industrial areas of Santa Clara must pay the city a franchise fee of 25 percent of their total gross billings (including bin and rental charges). To obtain a reduction of the franchise fee to 10 percent, haulers must meet at least two of the following conditions:

1. For industrial customers who regularly set out more than nine cubic yards of refuse per week for collection, the contractor must provide containers for and collect 50 percent (by weight) of a customer's recyclable materials. An initial waste audit for each of these customers is required. If a customer has an in-place recycling program that reduces its wastes by at least 50 percent, the contractor would not be bound to provide containers and collect materials there. The contractor would only need to submit annual certified documentation of that program. A customer may also be exempted from this requirement.
2. Provide a recycling services program and a designated recycling representative to perform these tasks:
   - Contact each of their industrial customers at least once every year to discuss the various types of recycling possibilities available for the customers.
   - Work with each new customer concerning recycling options.
   - Keep written documentation of customer contact and any recycling options implemented. Maintain in contractor's office for city review.
   - Submit a quarterly report to the city documenting the amount of recycled materials collected by weight and type, and the number of recycling customers in the city.
   - Maintain a list of customers serviced by name and service address for city's review.
3. Contractor has another certified and documentable recycling or resource recovery program that reduces the amount of industrial waste being collected by at least 50 percent. Contractor needs to document waste flow for processing and disposal to all facilities and landfills. Certified quarterly reports must be submitted to the city with specific waste flow detail and documentation. Contractors must pay the 25 percent franchise fee each quarter for all generators with greater than 50 percent recoverable waste in their refuse set out for collection and disposal until less than 50 percent is achieved. The contractor may submit a new waste audit to the city at any time, to reduce the franchise fees paid for those customers that achieve less than 50 percent recoverable wastes.

The waste audit must be performed and certified by a qualified individual or firm experienced in the waste audit process. Typical qualifications of an individual would be a four-year degree in civil engineering or environmental waste management with experience in preparing waste audits or with equivalent education and experience approved by the city. A consulting engineering firm experienced in preparing waste audits would also be appropriate.

The city reviews and determines the adequacy and completeness of the waste audit reports. Comments are submitted to the contractor for response, revision, update, and re-submittal of the report until it is approved by the city.

Santa Clara has authorized fifteen haulers under its non-exclusive franchise system to collect waste from the industrial areas of Santa Clara. All of the haulers have been certified to obtain the reduced franchise fee.

Case Study: San Jose

San Jose has long been a pioneer in the use of economic incentives to achieve its waste reduction goals. The city has adopted rates, fees, and taxes that are structured to encourage waste generators to reduce their waste as much as possible and to recycle or compost the rest.

Residential System. San Jose implemented its "Recycling Plus!" system for integrated solid waste, recycling, and yard waste collection services in the residential sector on July 1, 1993. This system has been tremendously successful, achieving a 60 percent waste diversion rate for single-family households. Overall, the city has achieved a 47 percent waste diversion rate. Since the start of the Recycling Plus! system, 86 to 87 percent of San Jose residents consistently have paid $13.95 per month for a 32-gallon garbage cart and unlimited recyclables collection. Another 13 percent pay $24.95 per month for a 64-gallon cart, and 1 percent pay $37.50 per month for 96 gallons of service. Residents may buy extra trash stickers for $3.50 each to attach to 32-gallon trash bags set next to their normal

garbage cart when they have extra wastes. The city instituted this aggressive pay-as-you-throw rate structure along with a citywide yard waste collection service and added a wide range of other recyclable materials to its curbside collection program. (See details in
Cutting the Waste Stream in Half , a U.S. EPA study listed at the end of this study.)

Of particular note in the Recycling Plus! system is the structure of contractor payments. San Jose told bidders that it wanted them to make their profit on this contract from recycling, not garbage, and the city structured its payments to contractors to accomplish that.

San Jose actually capped the amount of costs that bidders were to recover from fees per household at 80 percent of their estimated total system costs. Proposals varied significantly in how they responded. Western Waste (now WM) proposed $6.64 per household per month and $58.38 per ton for every ton they documented they recycled. GreenTeam of San Jose proposed $5 per household per month and $270.10 per ton recycled. These "recycling incentive fees" have escalated over time to the current $60.02 per ton for WM and $277.80 for GreenTeam.

The recycling incentive fees have provided a strong incentive to maximize recycling to the haulers. In addition, contractors must pay their own disposal fees for wastes not recycled (about $30 per ton), encouraging them further to minimize landfilled wastes. Finally, the city lets the contractor keep all the revenues from the sale of recyclables (which has varied between $50 to $60 per ton average for all the materials recycled).

Commercial System. In 1993, the commercial sector generated about 65 percent of the total waste stream in San Jose. As a result, the city adopted a number of policies, rates, fees, and taxes to encourage businesses to increase their waste diversion efforts. San Jose actually eliminated the exclusive franchise it had for commercial garbage (putrescible wastes) collection, to encourage greater experimentation by entrepreneurial waste and recycling firms in composting of food wastes and the recycling of all commercial wastes.

San Jose adopted non-exclusive commercial franchise fees for all commercial haulers consisting of 30 percent of gross receipts on all commercial solid waste set out for disposal to landfill. An additional IWMA fee is levied on generators and included on bills provided to customers from commercial haulers of 28 percent of gross receipts. The total hauling fees paid to the city are 58 percent of hauler gross receipts. These levels were set to generate sufficient revenue to cover the costs of city programs and to encourage businesses to avoid these costs by recycling.

No franchise fees or IWMA fees are paid on source-separated recyclables. As a nonexclusive system in the commercial sector, generators can select any franchised or permitted hauler. In addition, businesses generating less than one cubic yard of material for disposal per week can apply for residential garbage and recycling service.

San Jose's source reduction and recycling element (SRRE) outlined a phased approach for San Jose commercial waste reduction policies:

1. Information. City guides and technical assistance to businesses and recyclers sharing information with the city about how much they recycled.
2. Incentives. Economic and policy incentives to encourage businesses to reduce waste and recycle.
3. Mandates. Requiring all or portions of the commercial waste stream generators to do more to recycle. Options include landfill bans for particular commercial materials (e.g., corrugated paper), requirements to recycle at certain levels of diversion, and/or requirements to plan for recycling.
4. City services. If all the above failed, then the city would consider whether it had to reinstitute an exclusive franchise system for commercial wastes or provide some or all of the commercial solid waste and recycling services needed to increase waste diversion in this sector.

To date, the city has decided only to work on the first two levels of this strategy. Staff is working to provide information and technical assistance and encouraging business waste reduction through economic and policy incentives.

Other San Jose Incentives

Disposal Facility Tax. In 1987 San Jose revised its business tax for landfills to better reflect the type of business activity at the landfill. Rather than charging the operators on the basis of the number of employees (as it did with most other businesses), the city decided to charge landfills in San Jose on the basis of the amount of garbage buried in the landfills. The city initially set the charge at $2 per cubic yard, measured by annual aerial surveys. After problems the first year with the volumetric measurement, the city changed the tax basis to $3 per ton and required all landfills to provide scales. Now called the disposal facility tax, the charge is $13 per ton.

Although established to raise money for the city general fund, this tax has also encouraged businesses and residents that haul their own materials to the landfills to further reduce their wastes. In addition, the disposal facility tax is structured to provide an incentive to the landfill operators to maximize their waste diversion on-site. All materials recycled or beneficially used are

deducted from the tax obligation of the landfills to the city.

Landfill Permit Conditions. San Jose has four landfills operating within its borders: Zanker Road Landfill (independent), Newby Island Landfill (BFI/Allied), Kirby Canyon (WM) and Guadalupe Mines Landfill (was independent, now WM). Solid waste facility permits written for three of the four landfills in the 1980s required them to assist in meeting the city's waste reduction goals as a condition of their permits. The fourth facility had grandfathered permits but was required under its disposal agreement with the city to help meet the city's waste reduction goals. Permit conditions contained in one or more of the permits included:

- Source separation discounts. Landfills were required to offer lower rates to generators for clean source-separated materials to enable landfills to more easily recycle those materials.
- Using compost for cover material.
- Providing areas for salvaging, drop-off recycling, and composting on site.
- Distributing public information on recycling.
- Assisting the city's solid waste program to meet its waste reduction goals.

Conditions included in the 30-year disposal agreement for the Newby Island Landfill are:

- Providing a recycling center at least 7.5 acres in size.
- Using compost as cover material.
- Allowing the city to unilaterally decrease its put-or-pay commitments to the landfill by 25 percent in response to recycling and waste reduction initiatives.
- Providing a process for negotiating even lower waste flow commitments by mutual consent.

One of the landfills in San Jose (Zanker) particularly embraced the goals of these permit conditions and researched alternative technologies to implement at their facility. Zanker's permits restrict it to receive only nonputrescible wastes. Over the last five years, Zanker diverted 94 percent of all wastes entering its facility.

Local Government Challenges and Opportunities

Local governments define the economics of solid waste in their areas. Through their policies, laws, regulations, rate structures, fees, and taxes, local governments can have a tremendous impact on what is "economic" to do in their community.

The IWMA offers local governments an opportunity to change all facets of the old solid waste management system. This law will transform the old system that produced wasteful throwaway products and focused on the quickest and easiest way of burying garbage in a landfill. The IWMA challenges local governments to rethink the incentives in place for this one-way disposal orientation and redesign the entire system to reward and encourage waste prevention, reuse, recycling, and composting.

One of the dilemmas for local governments is where to start. There are many opportunities to make changes, such as:

- Rate reviews.
- Permit requests.
- Contract change requests.
- New contracts or requests for proposals (RFP).

When a hauler requests something of the community, it is reasonable to ask for something in return that will help the community. The ideal time to make significant changes is when communities renegotiate contracts with their haulers or develop an RFP for competitive proposals.

The IWMA intended local governments to tailor their programs, policies, and incentives to make this type of incremental progress. As more and more communities experiment with the types of incentives noted above, there will be a clearer understanding of what will work best for different situations. For now, communities should pick and choose those incentives of greatest interest, network with other municipalities, then adapt the ideas to their own local needs for continued improvement of these concepts and tools.

Tips for Replication

- Review current policies and economics, including fees, taxes, contracts, ordinances, and permits.
- Identify two to three of the best ideas from the above menu and convene a meeting of key stakeholders in your community to get their input and suggestions about those ideas.
- Review proposed policies with the CIWMB Office of Local Assistance to get the latest examples of other communities who have implemented those tools.
- Contact other communities who have implemented the two to three tools and ask them detailed

questions about how those were designed, implemented, and are working today.

- Reconvene a meeting of your local stakeholders to review your research. Brainstorm ways to address concerns identified.
- Work with your attorneys to draft language.
- Circulate draft language widely for review and comment by stakeholders, residents, and businesses. Involve the media to solicit input from the public-at-large. Meet with the editorial board of the local paper before bringing the policy forward for adoption.
- Arrange for elected officials to consider the policy in the most open of forums, either a public hearing, informal committee meeting, or other method to avoid surprising anyone.
- Revise your proposal based on input from these forums, redraft, and recirculate for review and comment.
- Go slow to build the greatest consensus possible. Keep your goals in mind and be flexible when implementing these tools in your community.
- Draft your final proposal, identify any concerns remaining for elected officials, and then submit for consideration and adoption.

For more Information

CIWMB Publications

Many CIWMB publications are available on the Board's Web site at: www.ca.gov/Publications/.
To order hard copy publications, call 1-800-CA-Waste (California only) or (916) 341-6306, or write:
California Integrated Waste Management Board
Public Affairs Office,
Publications Clearinghouse (MS-6)
1001 I Street
P.O. Box 4025 (mailing address)
Sacramento, CA 95812-4025

Other Publications

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Contacts

CIWMB Contacts

For more information about local government recycling models, contact the Office of Local Assistance at CIWMB, at (916) 341-6199.
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Credits and Disclaimer

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The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Web site at www.ciwmb.ca.gov.

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Appendix P

REACHING FOR ZERO:
THE CITIZENS PLAN FOR ZERO WASTE IN NEW YORK CITY
Executive Summary & Financing Discussion

With close to 8 million residents and over 12 million people during a workday when commuters are in the City, New York City produces enormous amounts of waste. New York has thousands of businesses, hundreds of institutions like museums, colleges and universities, and a large number of City, state and federal agencies. So when NYC generates waste it is not just at home, it is on the way to work or school, in public transportation, while visiting government agencies, while shopping at stores and supermarkets, or while at work or play at many of New York City's recreational facilities, such as parks, zoos, and sports venues.

The City generates 13,000 tons per day of trash and recyclables from the residential and institutional sectors and 9,900 tons per day of putrescible trash—food scraps, dirty paper, and recyclable containers-- from the commercial sector. Commercial construction and demolition debris and fill material are generated in even larger quantities.

Since the announcement in 1997 that the Fresh Kills landfill on Staten Island, which had previously taken all the City's waste, would be closed, the City has maintained almost an exclusive focus on exporting waste out of the City to distant landfills and incinerators as the solution to its waste management problems. The costs of waste export to the City are enormous and have risen 91% since 2000 so that they are now over $100 a ton.

Following the announcement of the Fresh Kills closure, the City Council and planning committees in the offices of each Borough President made extensive recommendations about how the City should handle its waste. The recommendations, while differing on details, spoke to the need for the City to reduce or prevent waste, to recycle more, to create a larger reuse network, and to compost organic waste. To a large extent, these recommendations have been ignored.

Reaching for Zero: The Citizens Plan for Zero Waste seeks to alter New York City's current course**.** *Reaching for Zero* proposes a plan for reducing New York City's waste exports to very close to zero in 20 years, through a combination of waste prevention, reuse, recycling and composting. This plan will not only reduce and ultimately eliminate the crushing expense of waste exports from the City, but it will also keep dollars spent on waste management circulating within the City's economy, creating industry and jobs here rather than shipping our dollars along with our waste to out of state locations.

The Central Elements of The Citizens Plan for Zero Waste in New York City

- Establish a zero waste goal for NYC in 2024.
- Strengthen the existing recycling program.

- Build or contract for the needed infrastructure for reuse, recycling and composting.
- Establish viable ongoing waste prevention, reuse, and composting programs to address parts of the waste stream that paper and metal, glass and plastic recycling cannot.
- Change our focus from export and disposal to encompass economic development: building industry and creating jobs with materials that are recovered from our waste stream.
- Minimize environmental impacts and ensure that the burdens and benefits of the zero waste system are equitably distributed.
- Achieve the following milestones of increased waste diversion for each of three time periods: Near Term--30% diversion, Intermediate Term--50% diversion, and Long Term--100% diversion for all waste sectors- residential, institutional and commercial.

Recommendations to the City

This report recommends that the City Council and Mayor Bloomberg act immediately on the following priorities:

1. Pass the City Council Resolution #174 establishing a Zero Waste Goal for New York City.
2. Ensure that top level management in the City is committed to Zero Waste and to providing adequate funding for the necessary programs needed to reach our goals.
3. Ensure that key staff have adequate authority to be able to work across agencies and establish the necessary programs.
4. Require detailed Zero Waste Program Plans to be the major part of the 20 year Comprehensive Solid Waste Management Plan.
5. Think economic development, while investing in and developing zero waste programs.
6. Utilize all of the Pieces of Zero-- waste prevention, reuse, recycling and composting-- to achieve zero waste (or close to it) in 2024.
7. Ensure that all the necessary support programs are in place- Economic Development, Education, Enforcement, Transportation, Legislation and Regulation, Research and Data-gathering and Financing.

9. Financing

The City of New York Department of Sanitation (DSNY) budget has now topped $1 billion a year. The NYC Independent Budget Office reported in Feb. 2004 that the budget for disposal and recycling had reached $1.04 billion. Since the City began to export waste from the Bronx in FY 1997, this budget has increased by $359 million or 53%. (This was calculated using disposal and recycling costs in 1998, minus the $390,000 for the initial Bronx export, as compared to current total disposal including export and recycling costs as reported by IBO in 2004). (City of New York Department of Sanitation, Comprehensive SWMP Draft Modification, 1998 and IBO, 2004).

The DSNY budget alone consumes approximately 22% of all City residential property taxes. However most taxpayers do not appreciate the costs of the current system, or the savings possible in a zero waste system, since those costs and savings are not clearly visible to them (Hammer, 2002). In planning for a zero waste future, the City must provide sufficient and consistent funding for waste prevention, reuse, recycling and composting. To date, DSNY has viewed these programs as nonessential to its core mission – keeping the streets of the city clean and getting rid of garbage.

Budget cuts and later partial reinstatements have been a hallmark of the City's recycling program. Unfortunately, inconsistent funding can actually waste money and increase cost—witness the recent interruption of certain elements of the recycling program. This change has caused considerable confusion about what is and is not collected for recycling. The overall recycling rate has dropped from 20% before the cuts to around 13% at present (DSNY**).** It will cost millions to dispel this confusion and re-educate New Yorkers about what they can recycle and when.

Efficient and effective zero waste management requires a certainty of funding availability that cannot be guaranteed if budgets are subject to annual review and adjustment depending on the state of the economy, tax revenue and current political sentiment. While the long-term savings of zero waste programs may be significant, many programs require several years of investment before savings are seen. As a result, a review of costs and benefits of these programs needs to be longer term than one budget year. A key example is the failure of the City to really make investments in waste prevention, even though they are likely to result in millions in recurring annual savings for the City.

One way to provide stable funding for zero waste programs is to look at sources other than the general tax base. Ensuring a steady stream of adequate funding for zero waste programs is essential to developing a system for the future that will save money and create jobs. Alternate sources range from the simple – applying for grants and stepping up enforcement – to the more complex – Pay as You Throw volume- based pricing. It is important to note that financing and policy are very closely linked and that many of these options require legislation or regulation. Those changes are discussed further in Chapter 10, Legislation and Regulation. Some combination of the following strategies could raise sufficient revenue to finance many of the programs identified in other sections of the report.

- **Waste Disposal Surcharge:** Communities like Alameda County, CA, have financed waste prevention, reuse, recycling and composting by placing a surcharge on the transfer of waste for disposal. This surcharge could be applied in NYC at commercial waste transfer stations for waste sent for disposal, not for recyclables. The surcharge is intended to provide a steady stream of funding for zero waste programs. This provides the dual economic driver of increasing the cost of wasting while simultaneously ensuring the necessary funds to build the infrastructure and programs for a more cost-effective zero waste future. In NYC this plan is a bit more complicated since the City is paying for export and naturally would not want to increase its own costs. In the City's case the surcharge would require a budget set aside. However, the intent of a disposal surcharge is to provide a certainty of funding for diversion programs while adding a disincentive to disposal. (A surcharge is added on top of tipping fees that usually cover the costs of waste transfer and disposal. Some portion of tipping fees may also be allocated to provide community benefits to communities that host these facilities.)

- **Enforcement:** The fines generated from enforcement of recycling violations should be dedicated to fund recycling education. Similarly, fines on waste carting trucks for on-street idling and queuing should be increased and dedicated to finance cleaner vehicle/fuel conversions.

- **Franchise Fees:** Under a new system of commercial waste collection franchises, described fully in Chapter 8, Transportation, carters would pay a fee for the opportunity to obtain a franchise for a commercial waste district. Revenues from franchise fees should be dedicated to finance education and technical assistance services to support commercial zero waste programs.

- **Grants:** State and Federal agencies often provide grants for innovative programs. For example, the New York State Energy Research and Development Authority funds the development of energy-saving recycling technologies and Empire State Development funds research and development and capital costs for new or expanding recycling enterprises and projects.

- **Fee for Service:** Many cities charge residents for certain waste services. A fee for service could be charged for collection of spring and summer yard debris, for example, and it could be a trial project for the roll out of a larger PAYT program (see below).

- **Partnership with Industries:** Recycling industries have aided other communities in financing research, market development and education programs. They have a stake in the success of the city's recycling program since they depend on our materials.

- **The Bigger Better Bottle Bill:** The improved bottle bill (A3922-A and S1696-A) would expand the current bottle deposit/return system, which keeps 69% of covered containers out of the waste stream, to include non-carbonated beverages like iced teas, bottled water and juice drinks. It would also enable the state to use the unclaimed bottle deposits that remain with beverage distributors in the current system**.** The deposits would be used to finance waste prevention, reuse, recycling and composting programs, including redemption centers that would take back all deposit bottles, not just those sold at a particular store. The bill is expected to

generate approximately $179 million in unclaimed deposits statewide, of which more than $75 million is estimated as New York City's share (Gitlitz, 2004).

- **Pay As You Throw:** Instead of treating garbage collection as a "free" service, that is paid out of the general tax base, PAYT programs create a utility like system, similar to electricity, water and gas, where a resident is charged based on their use of the system—usually by the volume of garbage they generate. A user fee system can be fairer to City residents than a property tax system. Institutions that currently pay no property taxes currently pay nothing for waste disposal and would have to share the costs of waste handling under PAYT. Also, rather than paying the costs of garbage collection indirectly through property taxes, residents and institutions would be charged based on how much garbage they put at the curb. However, waste prevention, reuse, recycling and composting services must be provided at no charge in order to create an incentive to reduce and recycle as much as possible. There are considerable challenges to successfully implementing such a program in NYC such as devising a simple payment and record keeping system, and ensuring that PAYT does not put a burden on low income residents or create public health problems. Overcoming hurdles associated with apartment residents in multi-family buildings and preventing illegal dumping would also need to be addressed.

- **Extended Producer Responsibility (EPR):** Usually pursued through legislation, EPR systems ensure that the manufacturer of a product bears the financial responsibility for its ultimate disposal/recycling. Such programs can actually require the take back of a product such as a computer, thus relieving the City of the responsibility and cost of managing these wastes. Set up in a different way, manufacturers can fund the programs necessary to reuse and recycle their products – thus providing actual dollars to the City for handling these materials. (See Chapter 10, Legislation & Regulation, for this discussion.) More detail on these alternative revenue-raising strategies is provided below.

- **Waste Disposal Surcharge:** Applying a surcharge to the transfer of waste for disposal enables a municipality to squirrel away monies to build its zero waste infrastructure and programs for the future. No surcharges apply to reuse, recycling or composting tonnages. This mechanism has been successful in other jurisdictions, most notably Alameda County, CA, that has used the revenues to finance recycling-based economic development projects, waste prevention, education and other activities. (A surcharge is added on top of tipping fees that usually cover the costs of waste transfer and disposal. Some portion of tipping fees may also be allocated to provide community benefits to communities that host these facilities.)

In the case of the NYC commercial stream, the surcharge would be levied at the transfer station on commercial garbage being sent for disposal on a per-ton basis. The commercial transfer surcharge revenue should be used to finance zero waste business technical assistance programs and recycling-based business development. In the City's residential and institutional system, the surcharge would effectively be a budget "set aside" by the City, based on the amount of waste sent for disposal, for the necessary zero waste programs. That is, for every ton of residential and institutional waste sent for disposal, the City would commit a specified amount to fund waste prevention, reuse, recycling and composting. The dollar amount should be sufficient to cover the bulk of the costs of these programs, at least until other mechanisms are put in place. While this proposal may look like an unnecessary accounting device, we have noted the City's willingness

to almost spend any amount on garbage disposal while depriving alternative programs of the necessary resources. This proposal ensures that zero waste funding is generated from disposal.

It is important to note that a surcharge on its own, without accompanying infrastructure development and improved access to waste prevention and recycling opportunities will not have the effect of reducing overall waste generation. Therefore, the surcharge should be pursued in concert with other zero waste policy and infrastructure improvements described elsewhere in this plan.

Implementation Schedule: 2005: Identify the means to implement a commercial waste surcharge (i.e., regulation, legislation, etc.); establish a similar surcharge or "set-aside" funding commitment for municipal residential/institutional stream. 2006: Pursue the implementation of a commercial waste transfer surcharge.

Enforcement: The enforcement of recycling violations should be increased and their revenues dedicated to the programs that generated the violations. That is, recycling violation revenues should be dedicated to recycling education; revenue from commercial carter idling or on-street queuing violations should be dedicated to cleaner vehicle/ fuel programs. Enforcement and the minimal fines need to be increased for multifamily buildings and for institutions that are not adequately participating, which are currently too low to encourage a change in behavior—essentially the same fine as for a single family household. To date, for example, not a single $500 fine has been issued. However, enforcement should encourage correct recycling behavior, not frustrate it. For more detail see Chapter 7, Enforcement.

Franchise Fees: In Chapter 8, the Transportation Chapter, we proposed a commercial waste collection franchise system. In such a system bids would be issued for waste and recycling services in commercial districts so that these districts are each served by one carter, instead of the multiple carters and associated truck traffic, as is the case today. As this system is implemented, carters should be charged a franchise fee – a fee for the right to provide commercial collection services in a district. The revenue from this fee should be dedicated to business education and technical assistance to support zero waste programs, in addition to oversight by the City of the quality of franchise services.

Implementation Schedule: 2006: Conduct groundwork to implement commercial franchise system. 2007: Propose regulatory changes. Establish districts and fees for franchise system. 2008 and beyond: Implement commercial franchise system citywide.

Grants: Several State and Federal agencies provide grants to municipalities to offset the cost of programs and environmental technologies. For example, the New York State Energy Research and Development Authority funds the development of energy-saving recycling technologies and Empire State Development funds research and development and capital costs for new or expanding recycling enterprises and projects. The State Environmental Protection Fund was recently expanded to enable it to fund waste prevention and recycling education programs. Similarly, the federal Transportation Equity Acts have focused on opportunities to reduce emissions, traffic and congestion and may offer a variety of funding opportunities to NYC. New York City should take greater advantage of these opportunities to finance a zero waste future.

The City can also assist community-based organizations conducting zero waste programs to be viable by supporting their grant efforts and providing in-kind contributions. Zero waste programs conducted by these organizations at low costs and involving communities offer the City substantial benefits in reducing costs for waste disposal.

Implementation Schedule: 2005 and beyond: Establish a zero waste grants unit with appropriate staffing; monitor state, federal and private grant programs; apply for grants.

Fee for Service: Fee for service programs could be instituted for other problematic streams, such as the landscaper-generated yard debris that is often left for curbside collection, despite rules against doing so. Residents could be charged for collection of yard debris, and it could be a trial project for the roll out of a larger PAYT program, which is discussed below. Payment of these charges could be managed by a software program, like ProFee, the billing system used by DSNY to charge medical professionals with offices in residential buildings for collection services.

Implementation Schedule: 2006: Examine other options for fee-for-service revenues, including yard debris removal. 2007: Implement other fee-for-service programs as appropriate.

Partnership with Industry: Many municipalities have partnered with the recycling industry, remanufacturing industries or brand owners to finance specific programs including education, technology evaluation, market development and advertising. Industries have an incentive to participate because, in the case of the recycling industry, they depend on our programs to generate the material they recycle and, in the case of other industries and brand owners, they receive bad public relations if their materials and products are habitually wasted. Literally hundreds of communities have partnered with trade associations and industries to finance recycling education and to provide in-kind services, such as the development of public service announcements, graphics and other valuable tools. In addition, dozens of cities and towns have worked with the recycling industry to test and evaluate new processing technologies and to develop new markets for recyclable materials.

New York City should take advantage of opportunities to engage industry members to finance certain program elements, specifically where the programmatic content will not be affected. As noted in Chapter 6, the Education Chapter, partnerships with industry can be a valuable strategy to implement large-scale, simple message advertising campaigns, assuming the City carefully reviews and approves the content. However, this recommendation does not suggest in any way that the City allow industry- sponsored educational materials in the public schools, which can contain biased and inaccurate messages.

Implementation Schedule: 2005: Research models of industry/municipality partnership toward zero waste goals. 2006: Determine which types of partnership are the most viable and valuable to the city and work with industry to pursue those. 2007: Begin implementing partnerships with industry toward zero waste goals.

The Bigger Better Bottle Bill: New York City should become a strong advocate for passage of the Bigger Better Bottle Bill (A3922-A and S1696-A) currently pending before the state legislature. The bill would expand on the most successful recycling program in New York's

history – the deposit/return system in place for beer and soda. This simple system effectively captures 69 percent of the City's cans and bottles covered by the program. The new bill would expand the system to include non-carbonated beverages, such as juice drinks, sport drinks, bottled water, teas, and other so-called "new age beverages." In so doing it will remove an additional 2.5 million containers from the waste stream statewide, more than half of those being in NYC (Gitlitz, 2004).

The bill will also enable the state to assume control of the unclaimed deposits that are held by beverage distributors in the current deposit/return system and use them to fund reduction, reuse, recycling and composting programs. These unclaimed deposits likely account for approximately $179 million statewide annually. The bill would make $75 million in deposits available to fund New York City recycling programs (Gitlitz, 2004). Public support is strong; a recent survey of New York State voters found that approximately 70 percent of New Yorkers support the Bigger Better Bottle Bill and an even larger 86% support using the unclaimed deposits for environmental programs (Public Policy Associates, 2004). New York City was a critical force behind the passage of the first bottle bill, and given the substantial potential benefits and revenues to the City, should be a major force to pass the Bigger Better Bottle Bill.

Implementation Schedule: 2004: Advocate for the passage of the Bigger Better Bottle Bill. 2005: Plan for redemption centers in NYC.

Changing the Way We Pay for Garbage Services: Pay As You Throw (PAYT): In New York City we currently pay for garbage services through property taxes. This means that there is no cost savings for those who reduce their generation of garbage and recycle more than others. In addition, tax exempt organizations, such as universities and cultural institutions pay nothing for waste disposal. Overall garbage costs have risen dramatically to over $1 billion annually. It may be time for NYC to consider a new way to charge for garbage services, which rewards those who reduce their waste for disposal and recycle more.

One possible system is called "Pay As You Throw". In this section we discuss some of the issues associated with PAYT programs and recommend study and pilot testing in conjunction with a task force that includes strong public participation. Any actual plan for establishing a PAYT system in NYC must include: 1) dedicated revenue devoted to zero waste programs; 2) provide strong incentives for recycling (by not charging for this collection service); 3) provide some minimal level of free collection service so that the cost is not a burden to those who have low or fixed incomes; 4) developing similar PAYT systems in the City agency, institutional, and commercial sectors; and 5) must overcome significant challenges to implementation in NYC.

Background On PAYT Programs: More than 5000 communities in the United States have "Pay as You Throw" programs where residents are charged for the amount of waste that they generate, usually by volume (US Environmental Protection Agency, Could PAYT Offer Hope for New York City's Recycling Program, 2003). Coupled with this is usually no charge or reduced charges for recyclables or organics collections (dedicated to yard and food waste). In addition some companies are developing technology that could assist with PAYT in multifamily dwellings (US Environmental Protection Agency, PAYT: Apartments/Multifamily Dwellings, 2004). PAYT takes different forms depending on the goals and needs of a particular community.

The key feature is that instead of treating garbage collection as a “free” service, paid for by the general revenue tax base as is done in NYC, these programs create a utility like system, similar to electricity, water and gas, where a resident is charged based on their use of the system. So, rather than paying the costs of garbage collection through a tax, residents would be charged based on how much garbage for disposal they put at the curb.

System Options: There are three types of PAYT systems. The first requires households to subscribe to a service whereby they choose a particular size locking can or toter and are billed monthly based on the size of that toter. Recycling households can usually request much smaller cans and are thus billed less. In the event that they need additional waste disposal, such as a party or special event, they can purchase stickers or tags for their additional waste. While this system is costly to start (cans or toters must be purchased by the City) and administer (billing system), it has the benefit of reducing rats and vermin because garbage is in a sealed container. To ease administration the garbage costs could be integrated into the water billing system. Landlords would generally pay the bills for renters in multi-family buildings in this system.

The second type of system requires that households can only put their waste out in city-approved bags. The bags are sold at local stores at a cost that covers the expense of handling that amount of waste. The stores return the revenue to the city. The third system is similar to the bag system, but instead of providing an approved bag, residents must purchase tags or stickers for whatever bag or bin they use. These programs are administratively simple, since they do not involve billing, and minimize start up costs. They could also potentially cover all residents including renters in multi-family buildings. But they do not provide any benefit in vermin control.

In most PAYT programs, residents are charged for solid waste, but reuse, recycling and composting services are provided at no cost. As a result, these programs support a zero waste system because they provide a direct financial incentive for the waste generator to reduce and recycle as much as possible.

A PAYT program must be implemented along with expanded programs for recycling, reuse, composting and waste prevention. If not, the opportunity for savings will be hampered by a lack of infrastructure for prevention and recycling. PAYT programs can be structured to be revenue neutral, which means property taxes are reduced when PAYT service charges are imposed. The big change often is that those institutions that are currently tax exempt would now be paying for garbage services. Thus, to some degree, PAYT as a way of paying for garbage would be fairer to households in NYC.

PAYT could provide significant benefits to New York City. If people generate less waste, the benefits include reduced waste disposal costs – at a cost of more than $105 per ton for garbage disposal, a reduction of even 10 percent would save $31.5 million on disposal alone, in addition to any collection cost savings that might be achieved (City of New York Office of Operations, 2003). The funds generated from PAYT would enable the City to finance education, waste prevention, reuse, composting and recycling in a much more significant way than has been possible in the past—but only if the funds are set up as a dedicated revenue stream.

A PAYT program in NYC could also reduce the rat population in NYC, if the City follows Buffalo's system and institutes a fee system and rigid locking containers. The Buffalo Department of Health estimated an 80% reduction in pest control expenses as a result (Cornell Waste Management Institute, 2001).

Low and Fixed Income Households: There are several models for combating the regressive aspects of PAYT and insulating low and fixed income residents from negative impacts. In the first, used by San Francisco, San Jose and Los Angeles, low and fixed income households qualify for a discounted rate, anywhere from 15 to 50 percent of costs. Residents would have to show proof of low income, as when applying for the school lunch program, for example. In the second model, usually used in cities with bag or tag systems, free or low cost bags or tags are distributed to residents with other public assistance, such as food stamps, social security.

Finally, a minimal amount of free garbage disposal could be provided to all City residents with the amount set to encourage recycling behavior. Low-income residents tend to generate less waste than those with higher incomes, therefore there is a fairness rationale for keeping garbage costs low for those residents with low and fixed incomes beyond ensuring affordability and protecting public health. PAYT systems can be designed to address this issue.

Another option would be to cap waste disposal costs at a fixed rate, as is done with water charges in New York City. This would ensure that costs do not increase for those who cannot afford to pay. Most waste prevention advocates prefer the first option, a discounted rate, because it still provides an incentive for residents to reduce waste and recycle more. When coupled with strong education and assistance, this can be an effective means of both containing costs and reducing waste.

Advantages of a PAYT System: The potential advantages of PAYT include the following:

- A recent Duke University study found that on average 14-27% of the waste a community generates is reduced or eliminated in the first year after PAYT is implemented, often saving million of dollars (Miranda, 1996).
- User fees can ensure support for needed alternatives to disposal- like composting and recycling—so that they are not pummeled with each budget cycle.
- The system is more fair to people because they pay for their own use. Institutions that are tax exempt must pay for waste services also. The 1996 Duke University study, supported by EPA, also found that the amount recycled in these communities increased by between 32 and 59 percent, on average (Miranda, 1996). This is largely due to the strong incentive participants have to recycle under PAYT programs.

The largest number of PAYT programs exists in the following states: Washington, Minnesota, Iowa, Wisconsin, and Pennsylvania. The US Environmental Protection Agency strongly recommends PAYT programs to American communities as a simple and fair way to encourage good behavior and reduce waste. The EPA web site and newsletter report experience with PAYT programs in other cities through case studies, research, and other information on how these systems work (see http://www.epa.gov/epaoswer/non-hw/payt/). In 2000, a Roundtable on PAYT for major cities was convened in New York City with support from EPA (Cornell Waste Management Institute, 2001).

Significant Challenges to Implementing PAYT in New York City

Potential difficulties in instituting PAYT in the City include:

- The most serious concern about such a program is that City officials will see PAYT only as a new revenue opportunity to close budget gaps and as a way to pay disposal costs. However, the primary purpose of a PAYT program should be to encourage people to reduce waste generation and increase recycling. It is absolutely critical that the City follow EPA guidance when establishing a PAYT system so that it creates incentives for the right behavior and is not used merely as a way to pay for waste export.

- Protecting low income residents from excessive charges will be extremely important in New York City with large low income populations.

- Garbage will be created whether people can pay or not and an appropriate fee structure that encourages recycling and prevents improper dumping will be essential. One solution might be to allow each family a certain allowable amount of garbage—say one bag of non-recyclables a week, for free, along with free disposal of all recyclables.

- Preventing cheating – or dumping in other people's cans.

- Making the program work in multifamily rental buildings, where the disposal cost will be imposed on the landlord.

- Ensuring that billing is structured and handled in an efficient manner that does not use up all the revenue generated in the administration of the program.

- Providing adequate enforcement

Interestingly, although all municipalities worry that implementing PAYT will increase illegal dumping, according to the US EPA most cities where PAYT has been implemented, have found that illegal dumping is less of a concern than anticipated. Case studies on how PAYT has been implemented in other cities are available at the EPA website http://www.epa.gov/epaoswer/non-hw/payt/.

Implementing PAYT in New York City will be challenging, particularly in devising systems that work in multi-family contexts and in insulating low and fixed income residents from the regressive tax potential of this type of system. Nonetheless, the system offers such significant potential benefits that it should be explored, tested and debated for implementation in New York City. A recent study by Hammer Environmental Consulting, Inc. estimates that annual PAYT costs for a household in NYC would be $322 per year or $26 per month and that it could generate $977 million for the City (Hammer, 2002).

With a minimum of 5,000 PAYT models to learn from, NYC has an opportunity to benefit from the experience of others when designing a program that meets our goals and needs. At the same

time we know that NYC has unique challenges. Therefore we recommend that the City approach this concept with caution, openness and a strong democratic process. A substantial planning effort including a Task Force with broad public participation should be a first step and then several well-designed pilot projects should test the adequacy of any potential PAYT systems. A Task Force is consistent with recommendations from EPA that PAYT programs require a considerable planning effort with broad participation from citizens. The Task Force would have to tackle all of the important challenges--low income rates, multifamily dwellings, city agency participation, efficient administration, illegal dumping and possible public health impacts –while soliciting extensive public input and recommending the best designs for pilot PAYT projects.

Implementation Schedule: 2005: Establish PAYT task force with broad participation especially representation from low-income groups.

Agencies and Institutions: City agencies and other tax-exempt institutions generate 1 million tons of waste per year. In the current system they are provided with free disposal – the costs of disposal do not even appear in their budgets. In order to provide some incentive to reduce their waste, the City must develop a plan for, and then implement, a transition to some form of a PAYT system. This is relatively easy for the tax-exempt institutional sector; the City has to merely establish waste disposal rates for institutions and encourage them to participate in waste audits and in waste prevention, recycling, reuse and composting programs. For City agencies, it is a bit more complicated, and the City has resisted even attempting to quantify waste costs for each agency.

The City might consider the Federal Government model in which agencies that meet or exceed waste diversion goals get to keep some of the revenues from recycling. That model could be expanded to provide both revenues from recycling and credit for savings due to reduced disposal costs. If agencies do not cooperate with waste audits and fail to make progress toward recycling and reduction goals, increased fines and the cost of waste disposal should be charged directly to that agency as a part of their annual budget. Thus City agencies may need both a carrot and stick approach. Without question, every year city agencies should be required to report their zero waste progress with measurable milestones in the Mayor's Management Report.

Implementation Schedule: 2005: Begin planning effort for institutions and city agencies. 2006: Complete plans for program roll-out to institutional sector; outreach & education; start waste audits/technical assistance; implement larger fines for institutions. Target several city agencies for piloting shared savings program. 2007: Begin institutional PAYT program. 2008: Using lessons learned from pilots, rollout city agency modified "PAYT" program.

1-3 Family Homes: Approximately 2.5 million people live in housing with under 4 units and generate close to 33% of the waste stream (Hammer, 2002). This sector presents the least challenges, and should therefore be the first to implement PAYT after institutions. The program would begin by raising awareness of costs. Homeowners would be provided with a line item on their property tax bill that delineates the costs for waste disposal or an informational mailing could be prepared detailing the costs for each homeowner.

After one year of education, PAYT would be pilot tested in at least five predominantly single family districts. Initially, property taxes would be reduced to reflect the amount allocated for waste disposal. As a result, homeowners would not face increased costs, but would have an opportunity to reduce costs overall by wasting less. Once kinks are worked out, the system would be implemented in all low-density districts.

Implementation Schedule: 2005: Inform homeowners of costs of waste disposal system 2006: Perform pilot test in five districts (one per borough) 2007: Expand pilot to all low density districts in one borough; plan for roll out in other boroughs 2008: Implement PAYT in all low density districts

Multi-Family & High Rise Buildings: In multi-family buildings it is difficult to track the individuals waste disposal habits and therefore difficult to implement and enforce PAYT systems. The city should identify a number of incentive and operating systems that could be implemented in multi family buildings and pilot test them to determine which is the most viable for different housing stocks. Pilot tests should also evaluate the benefits of locking containers on rat control for the tested district. Once the tests are complete, a public dialogue should begin about how and whether to implement a full-scale program.

For example, in some cities where the trash bill is paid by the landlord, the city works with landlords to create programs whereby they share the savings that result from waste prevention with their tenants, either in the form of cash, rent reduction or building improvements. This assumes that the landlord has received an equivalent property tax reduction as PAYT is begun. This can create an incentive for the landlord to educate the tenants, for the porter or superintendent to recycle as much as possible, and for the tenants to reduce their waste. In a high-rise context, the city should test garbage meter systems that could be integrated into current buildings and develop new building code requirements that require buildings to integrate design elements that enable implementation of PAYT, waste prevention and recycling in new buildings.

Implementation Schedule: 2005-2007: Task Force deliberations and implementation recommendations for pilots. 2008: Begin pilot scale implementation in select districts (one per borough), including use of locking containers where rats are a priority problem. 2009: Using lessons learned, expand pilot to additional medium and high-density districts, while continually working to solve problems that arise. 2010: Report on the Task Force deliberations and the results of pilot projects; decide appropriate next steps.

Commercial: A PAYT system exists in the commercial sector in New York City where companies are charged by the cubic yard for the amount of waste they generate. However, carting fees set by the City provide no reduced rates for recyclable materials, which would provide an incentive for recycling. There is a limited infrastructure for commercial waste prevention and recycling. There are strong markets for commercially generated paper and scrap metals, but little else. In terms of waste prevention and reuse, few companies have the internal capacity to make real gains, and the technical assistance available has been limited to a few small companies and programs, such as Wa$teMatch in New York City. (See discussion of this program in Chapter 2, Reuse.)

Second, commercial carters have not promoted or encouraged the use of the limited infrastructure that is in place. As a result, most commercial businesses either do not have the opportunity to recycle and reuse more, or they are not aware of that opportunity if it exists. This experience underscores the importance of implementing PAYT in conjunction with investments in reuse and recycling infrastructure, as well as education and technical assistance, including waste audits. (See report sections on these topics.) Only with this combination of programs and strategies will PAYT help to move New York City to a true zero waste future.

Implementation Schedule: 2005: Develop a commercial PAYT implementation strategy with appropriate incentives to encourage waste prevention, reuse, recycling and composting 2006: Establish differential rate for source-separated recyclables; ensure that there is adequate recycling infrastructure in the City for commercial recyclables 2007: Implement the new PAYT strategy and monitor results.

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Appendix Q. Recycling Business Loans/Grants & Tax Credits 2004-05

STATE	MARKET DEVELOPMENT BUDGET	Tax Credits
Alabama	$43,205	No tax credits for recycling
Alaska	NA	Municipality of Anchorage has program for businesses. No tax credits for recycling
Arizona	$1.1 million for small start-up businesses	Tax credit law expired
Arkansas	None	Tax credits for recycling
California	Loans for using recycled feedstock in new products; $11.7 million available; increase of about $41 million to implement the Electronic Waste Recycling Program pursuant to Ch. 526	None; However there are Recycling Market Development Zones where industries using recycled feedstocks qualify for low-interest loans & other economic development incentives.
Connecticut	None specifically set aside by the Dept. of Economic and Community Development for recycling businesses because they receive loans/grants the same way other businesses receive such incentives.	No tax credits
Delaware	None	Tax credit incentive program for brownfield clean up has expired.
D.C.	None	No tax credits for recycling
Florida	$500,000 available for Recycling Loan Program	Sales tax credit on new recycling equipment.
Georgia	None	No tax credits for recycling
Hawaii	None	No tax credits for recycling.
Idaho	None	No tax credits for recycling.
Illinois	$3 million (approx) for eligible waste reduction activities	No tax credits for recycling.
Indiana	$2 million for loans via the Dept. of Commerce	No tax credits for recycling.
Iowa	$3 million annually for recycling collection, processing and market development.	Recycling equip. exempt from sales and property taxes, prop. tax exemption applies to property used for recycling plastics, paper and board.
Kansas	$500,000 - $1.5 million (2005-06); $200,000-$250,000 for waste tired grant program	Tax credits expired in 1995
Kentucky	None	Sales tax credit for equip., income and property tax credit, 10% of allowable credit; grants available for start-up businesses
Louisiana	None	Sales tax credit.
Maine	None for business loans or grants	No tax credits for recycling
Maryland	None	Sales tax credit on recycling equipment.
Massachusetts	$883,000 in direct grants, $100,000 in technical assistance and research projects; $700,000 in loans from Recycling Loan Fund	No tax credits for recycling
Michigan	None	No tax credits for recycling.
Minnesota	$300,000	Tax credits for recycling

STATE	MARKET DEVELOPMENT BUDGET	Tax Credits
Mississippi	None	No tax credits for recycling
Missouri	$7.5 million in grants	No sales tax on recycling equipment.
Montana	$85,000	25% on equip., reduction on recycled materials
Nebraska	$4.6 million	No tax credits for recycling
Nevada	$350,000	Property tax exemption on certain recycling operations
New Hampshire	None	No tax credits for recycling
New Jersey	None	No tax credits for recycling
New Mexico	None	No Tax credits
New York	Loans available for various operations through a number of departments.	No tax credits
North Carolina	$200,000 - $300,000	Property tax abatement for qualified buildings and equipment.
North Dakota	None	No tax credits for recycling
Ohio	$2.5 million	No tax credit for recycling
Oklahoma	None	15% sales tax credit on equip. & facilities using recyclable materials
Oregon	$225,000 through local governments	Income tax credit for recycling equip., and pollution prevention
Pennsylvania	Loan program for recycling; LF tax brings in budget	No tax credits for recycling
Rhode Island	$150,000	No tax credits for recycling
South Carolina	None for business directly	Conditional tax credits for recycling facilities
South Dakota	None	No tax credits for recycling.
Tennessee	Certain funds available to cities, counties and non-profits only	No tax credits for recycling.
Texas	None (grants to local gov'ts.)	Property/sales tax credit on manufacturing and pollution prevention equipment
Utah	None	5% tax credits on equip and machinery, 20% on operating exp. ($2,000 cap) for recycling businesses in recycling zones
Vermont	None (pass-through grants for construction)	No tax credits for recycling
Virginia	None	10% credit on purchase price of recycling equipment.
Washington	$3 million (grants to support local programs)	No tax credits for recycling.
West Virginia	$1.5 million	No tax credits for recycling.
Wisconsin	$500,000 (recycling/waste reduction, demonstration/start-up grants)	No tax credits for recycling.
Wyoming	None	None

Source: SRLU surveys

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Appendix R. STATE LANDFILL BANS as of 1/2005 (Courtesy, Raymond Communications, Inc)

State	Lead Acid Batteries	Tires	Yard Waste	Used Oil	White Goods	All HH waste	HH Batteries	Packaging	Scrap Metal	Other	Local Bans
ALABAMA	X			X						Liquid, untreated medical	Few
ARIZONA	X	X		X						Auth. Electronics	Yes
ARKANSAS	X	X	X	X						Auth Electronics 2005	Few
CALIFORNIA	X	X		X		NE	X		X	Merc, AF, Latex paint, adhesives, pesticide, solvents, Electronics w/hazardous components	Yes
COLORADO		X								Liquid	
CONNECTICUT	X		X				X				MRec
DELAWARE										asbestos, imported waste	No
D.C.			X	X							
FLORIDA	X	X	X	X	X		X			C&D, Merc	Yes
GEORGIA	X	X	X								No
HAWAII	X			X						Rec.	Yes
IDAHO	X	X									Yes
ILLINOIS	X	X		X	X						Few
INDIANA		X	X								Yes
IOWA	X	X	X	X				DEP		Liquid	No
KANSAS											Yes
KENTUCKY	X	X									Yes
LOUISIANA	X	X		X						Creo-lumber	No
MAINE	X	X			X	Merc.				CRTs	Yes
MARYLAND	X	X								CRTs	Yes
MASSACHUSETTS	X	X	X	X	X			G&M92		P&PL CRTs	No
MICHIGAN	X	X	X	X		Merc.		CTR		Low level radio active waste, lead, PCBs, beverage containers, sewage, asbestos, certain yard clippings	Fees
MINNESOTA	X	X	X	X	X	X		X		PH, Merc, fluorescent AF & auto fluids, oil filters, imports CRTs 2005	Few

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State	Lead Acid Batteries	Tires	Yard Waste	Used Oil	White Goods	All HH waste	HH Batteries	Packaging	Scrap Metal	Other	Local Bans
MISSISSIPPI	X	X									Yes
MISSOURI	X	X	X	X	X	X					No
MONTANA										Bulky $	Yes
NEBRASKA	X	X	X	X	X	X					No
NEVADA	X	X		X							No
NEW HAMPSHIRE	X		X	X						Wood St	Yes
NEW JERSEY	X		X	X		CTR				Sewage sludge, Electronics	Yes
NEW MEXICO	X			X				X		Liquid	Few
NEW YORK	X					Merc.				Oil Filters, Rec.	Yes
NORTH CAROLINA	X	X	X	X	X			X (cans)		AF	Yes
NORTH DAKOTA	X			X						Liquid	Few
OHIO	X	X	X								Few
OKLAHOMA	X	X									No
OREGON	X	X	X	X	X			X		out-of-county waste, Autos	No
PENNSYLVANIA	X		X (leaves)	X	X		X			CHEM T, contaminated recyclables	Few
RHODE ISLAND	X					Mercury		COMR		>20% Rec	N/A
SOUTH CAROLINA	X	X	X	X	X						
SOUTH DAKOTA	X		X	X	X			X		All Pkg 1997 Paper Products	No counties can be exempted
TENNESSEE	X	X		X		X					Few
TEXAS	X	X		X							Few
UTAH	X	X							X		Fees
VERMONT	X	X		X	X		X (ni-cads)			Paint, oil/latex Mercury Products	Yes

State	Lead Acid Batteries	Tires	Yard Waste	Used Oil	White Goods	All HH waste	HH Batteries	Packaging	Scrap Metal	Other	Local Bans
VIRGINIA	X		X (leaves)	X						AF, local govts can ban electronics w recycling program	Yes
WASHINGTON	X			COM						Local, Electronics	Yes
WEST VIRGINIA	X	X		X							Yes
***WISCONSIN**	X	X	X	X	X			X		ONP	Yes
WYOMING	X										

Abbreviations: AF = Antifreeze COMR = Commercially generated only ONP = Old Newsprint
C&D = Construction & Demolition Debris G&M = Glass & Metal Containers P = Paper
CTR = Container MRec = Mandatory Recycling PH = Phone Books
DEP = Deposit Merc= Mercury PROPOS = Proposal
CHEM T = Chemical Test NE = Not Enforced Rec = Recyclables
OCC = Corrugated * Wisconsin passed a bill in 1996 allowing an exemption from the rigid plastics landfill bans. Please see Wisconsin in state wrap for information.

*Wisconsin - Bans all recyclable packaging including fibers, ONP, magazines, corrugated, office paper, glass, aluminum, tin, bimetal, plastic containers, and PS foam.

Notes :

DC - Year End says has no landfill bans, but several are listed here - left orig. info.

ANY STATES THAT HAVE NOT BEEN LISTED DID NOT HAVE ANY UPDATED INFORMATION FOR THIS FISCAL YEAR. PLEASE REFER TO OUR 2004 REPORT FOR DETAILS ON THESE STATES.

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APPENDIX S - GLOSSARY OF TERMS

Act – The Solid Waste Act, NMSA 1978, Section 74-9-1 through 74-9-42.

Agricultural Wastes — Solid wastes of plant and animal origin, which result from the production and processing of farm or agricultural products, including manures, orchard and crop residues, which are removed from the site of generation for solid waste management, or treated on site. Agricultural wastes are not regulated in New Mexico under the Solid Waste Act.

Aluminum Can or Aluminum Container — Any food or beverage container that is composed of at least 94 percent aluminum.

Asbestos — Fibrous forms of various hydrated minerals, including chrysotile (fibrous serpentine), chrocidolite (fibrous reibecktite), amosite (fibrous cummingtonite-grunerite), fibrous tremolite, fibrous actinolite, and fibrous anthrophyllite.

Beneficial Use — Use of waste materials as a substitute for a virgin material. Applies to materials that are solid waste before being beneficially used. Includes any activity that provides measurable environmental, economic or other benefits from the alternative use of a municipal solid waste that would otherwise require disposal. The material used for such a purpose must perform by meeting or exceeding the generally accepted specifications of the natural or commercial product that it is replacing, and in a manner consistent with all applicable laws. The material or product must also be safe in that use, it will not pollute the land, waters or ambient air of the State, nor constitute a hazard to health or welfare, nor create a nuisance. Beneficial use occurs in a manner that does not constitute recycling, and it is not disposal.

Beverage Containers — Glass, aluminum, steel, plastic, or paperboard containers with liquid contents intended for human consumption, such as milk, juice, or water.

Bottles — Plastic or glass containers with narrow necks or mouth openings smaller than the diameter of the container bodies. This category also includes containers with integral handles.

Buy-Back Recycling Center — A facility that purchases source separated recyclables from the public on a weight basis according to going market prices.

Capital Costs — The direct costs of acquiring real property assets (e.g., land, buildings, building additions, site improvements, machinery, and equipment).

Cell – A confined area engineered for the disposal of solid waste.

Closed Facility -- Any solid waste facility that no longer receives solid waste; and for landfills, those closed in accordance with the regulations in effect at the time of closure.

Compost — the end-product — actually a range of soil amendment products depending on input materials — from composting processes.

Composting — Controlled microbial decomposition of organic wastes, which yields various types of soil amendment products depending on various blends of carbon and nitrogen materials. Carbon, or brown, sources include wood wastes (e.g, brush and tree trimmings) and dried leaves. Nitrogen, or green, sources include grass clippings, food wastes, and manures.

Composting Facility — A solid waste facility at which organic materials are composted to produce a safe and nuisance-free soil amendment product.

Composting Program — A composting program targets organic wastes such as yard trimmings and landscaping debris for landfill diversion by transforming them into reusable soil amendment products. Composting can be done on a large scale, such as an entire city, or at the household level, such as backyard composting. Composting processes can be active, with frequent turning, moistening, and aeration of piles to accelerate decomposition; or passive, with static piles left to break down at nature's own rate. Wind-row composting is a slower, low-cost, outdoor method requiring a large space, while in-vessel composting is a more capital-intensive, accelerated, containerized process requiring a small amount of space.

Construction and Demolition (C&D) Debris -- Materials generally considered to be not water soluble and non-hazardous in nature, including, but not limited to, steel, glass, brick, concrete, asphalt roofing materials, pipe, gypsum wallboard and lumber from the construction or destruction of a structure or project, and includes rocks, soil, tree remains, trees and other vegetative matter that normally result from land clearing. If construction and demolition debris is mixed with any other types of solid waste, it loses its classification as construction and demolition debris. Construction and demolition debris does not include asbestos or liquids, including, but not limited to, waste paints, solvents, sealers, adhesives or potentially hazardous materials.

Convenience Center — In New Mexico "convenience center" typically refers to a drop-off facility where citizens can deposit solid waste to be picked up for disposal at another location. Convenience centers usually are located in rural areas with scattered, sparse populations where household trash collection is not economically feasible.

Cooperative Association -- A refuse disposal district created pursuant to the Refuse Disposal Act, NMSA 1978, Sections 4-52-1 through 4-52-15, or a sanitation district created pursuant to the Water and Sanitation District Act, NMSA 1978, Sections 73-21-1 through 73-21-54, a special district created pursuant to the Special District Procedures Act, NMSA 1978, Sections 4-53-1 through 4-53-11, a Solid Waste Authority created pursuant to the Solid Waste Authority Act, NMSA 1978 Sections 74-10-1 through 74-10-100, or other such association created pursuant to the Joint Powers Act, NMSA 1978 Sections 11-1-1 through 11-1-7.

Corrugated Container — A paperboard container fabricated from two layers of kraft linerboard sandwiched around a corrugated medium. Kraft linerboard means paperboard made from wood pulp produced by a modified sulfate pulping process, with a base weight ranging from 18 to 200

pounds, manufactured for use as facing material for corrugated or solid fiber containers. Linerboard also may mean that material which is made from reclaimed paper stock. Corrugating medium means paperboard made from chemical or semi-chemical wood pulps, straw or reclaimed paper stock, and folded to form permanent corrugations.

Cost-Effective — Means "economic" in terms of tangible benefits produced by money spent.

Discards — The municipal solid waste remaining after recovery for recycling and composting. These discards are usually disposed of in landfills, although some municipal solid waste is littered, stored, or illegally dumped, particularly in rural areas.

Disposal — The management of solid waste through landfilling, incineration, or transformation at permitted solid waste facilities.

Diversion Alternative — Any activity that results in diverting materials from landfills, through reuse, source reduction, recycling or composting. See also Beneficial Use.

Double Handling — A general material handling concept indicating unnecessary steps and inefficient workflow in collecting, processing, transferring, shipping, or otherwise handling all waste stream components, including recyclables, compostables, or other discard materials. Double handling causes wasted time, energy, labor, and expense. For example, a recyclable material is dropped down a chute to a ground level bunker and then picked up again and loaded into a dumpster. Placing the dumpster directly under the chute removes the extra step, eliminates one instance of double handling, and streamlines the process.

Drop-Off Recycling Center — Means staffed or un-staffed depots where the public can place source-separated materials into designated bins for the purpose of recycling or composting.

Electronic Waste — Also called E-Waste or E-Scrap, this term refers to discarded computers, CRTs, TVs, VCRs, faxes, cell phones, and similar electronic products.

End-Products — Refers (in the recycling field) to new, finished products manufactured with part or all reclaimed post-consumer material content.

End-Use Industries — Refers to manufacturers such as paper mills and steel mills that utilize recycled materials as feedstocks for new products; these are the actual *recyclers* in the original sense of the word.

Ferrous Metal — Any iron or steel scrap that has an iron content sufficient for magnetic separation.

Food Waste — All animal and vegetable solid wastes generated by food facilities or residences that result from the storage, preparation, cooking, or handling of food.

Generation — Means the amount (broken down by weight, volume, or percentage) of materials and products discarded into the overall waste stream and available for subsequent recycling, composting, other diversion methods, or disposal.

Glass Containers — This classification includes glass carbonated beverage bottles and other glass bottles and jars. Most markets require glass to be color-sorted into flint (clear), amber, or green. Recycling uses exist for mixed-color glass, but markets are very limited. Other glass products that are contaminants to container glass recycling include: pyrex, plate glass, automotive glass, light bulbs, mirrors, drinking glasses, ceramics, etc.

Household Hazardous Wastes — Wastes from products purchased by the general public for household use that, because of their quantity, concentration, or physical, chemical, or infectious characteristics, may pose a substantial known or potential hazard to human health, or the environment, if improperly treated, disposed, or otherwise managed. Examples are cleaning solvents, sprays, insecticides, herbicides, pharmaceuticals, etc.

Household Hazardous Waste Collection — Refers to a program through which household hazardous wastes are brought to a designated collection point for temporary storage and ultimately, recycling, treatment, or disposal.

Industrial Solid Waste — Refers to solid waste originating from mechanized manufacturing facilities, factories, refineries, construction and demolition projects, and publicly operated treatment works, and/or solid wastes placed in debris boxes.

Inert Solids (Inert Wastes) — A non-liquid solid waste including, but not limited to, soil and concrete, that does not contain hazardous waste or soluble pollutants at concentrations in excess of water-quality objectives established by a regional water authority, and does not contain significant quantities of decomposable solid waste.

Intermediate Processing Facility (IPF) — A facility that receives and processes for market recyclable materials diverted from the waste stream by residential and drop-off collections. Typically, curbside participants have pre-sorted designated materials for pick-up in compartmentalized trucks so the facility performs limited sorting, and chiefly bales or otherwise packages materials to meet market specifications. Over time, the distinction between an IPF and a MRF has blurred. See also Material Recovery Facility.

Landfill -- A solid waste facility that receives solid waste for disposal.

Locked Gate – "locked facility" means any solid waste facility which has permanently stopped receiving solid waste, recyclable materials, or compostable materials, but has not yet met the requirements of 20.9.1.500 NMAC.

Material Recovery Facility (MRF) — Refers in its original meaning to a specialized facility designed for sorting and processing an input stream largely composed of co-mingled recyclable materials that have been collected separately from compostables and other solid wastes. Although some solid waste contamination will be present in the form of residues from the

container stream, or materials mistakenly placed by participants in recycling containers, solid waste residuals from a true MRF generally fall below 10 percent of total throughput. See also Intermediate Processing Facility.

Mixed Paper — Refers to a mixture, unsegregated by color or quality, of at least two of the following paper wastes: newspaper, corrugated cardboard, office paper, computer paper, white paper, coated paper stock, or other paper waste. Mixed paper definitions vary by receiving mills.

Metric Ton – a metric ton (spelled "tonne" in some European countries) is a unit of weight equal to 2200 pounds and the measurement typically used material transactions for export. See also Ton.

Mulch — typically refers to chipped or shredded woody materials used for ground-cover, moisture retention, weed control, and preventing soil erosion.

Municipal Landfill -- A discrete area of land or an excavation that receives household waste and that is not a land application unit, surface impoundment, injection well or waste pile as these terms are defined under 40 CFR 257.2. A municipal landfill may also receive other types of RCRA Subtitle D waste such as commercial solid waste, nonhazardous sludge, small quantity generator waste, industrial solid waste, construction and demolition debris and other special wastes as defined in Section 105.BZ *New Mexico Solid Waste Management Regulations* 20 NMAC 9.1 October 27, 1995 (NMSWR). A municipal landfill may be publicly or privately owned and may be existing, new or a lateral expansion.

Municipal Solid Waste or MSW — Refers to all solid wastes generated by residential, commercial, and institutional sources, and all solid waste generated at treatment works for water and waste water, which are collected and transported under the authorization of a jurisdiction, or are self-hauled. Municipal solid waste does not include construction and demolition (C&D) wastes, agricultural crop residues, animal manures, mining wastes and fuel extraction waste, forestry wastes, and ash from industrial boilers, furnaces and incinerators.

Municipality -- Any incorporated city, town or village, whether incorporated under general act, special act or special charter, incorporated counties and class H counties.

Non-Ferrous Metals — Any scrap metals that have value and are derived from metals other than iron and its alloys in steel. Non-ferrous metals include aluminum, copper, brass, bronze, lead, zinc, and other metals. A magnet will not adhere to non-ferrous metals.

Non-Renewable Resource — A resource that cannot be readily replenished, such as those resources derived from fossil fuels.

Old Corrugated Cardboard (OCC) — Corrugated containers recovered and marketed to mills for use in manufacturing new corrugated containers.

Old Newspaper (ONP) — Includes all reading material printed on "groundwood" paper, such as newspapers, newspaper inserts, advertising mailings, many catalogs and magazines, and many

government publications and forms. Groundwood is produced by mechanical grinding to break down lignin fibers when pulping the wood. It is identified by sight, touch, or application of a test chemical. Many glossy publications like magazines are groundwood coated with clay for better color and photographic reproduction. Modern de-inking processes can reclaim newspaper and glossy stock for manufacture of new newsprint or other paper products such as brown paper towels, egg cartons, or cereal boxes that are gray on the inside surface. However, not all mills have the capability to process mixed stock or heavily soiled newspaper. Specifications should be checked in advance, and can change depending on other market forces.

ONP#7

Open Landfill - Any landfill that is not in at least a Locked Facility status, is not a 108C, is constructed and operating, and is open to the public.

Operational Costs — Those costs incurred while maintaining the ongoing operation of a program or facility, and do not include capital costs.

Organic Waste — Solid wastes originating from living organisms and their metabolic waste products, such as yard wastes and food wastes, and which are biologically decomposable by microbial and fungal action into the constituent compounds of water, carbon dioxide, and other simple organic compounds.

Participating Organizations — as discussed in the diversion strategy in Chapter 4, this term refers to counties, cities with populations over 3,000 people, tribes and other organizations electing to provide access to recycling for their service populations.

Plastics

Film Plastics — Highly flexible sheetings of various thicknesses that do not hold their shape against the pull of gravity (as opposed to rigid plastics). Most common resins, including PET, HDPE, LDPE, PP, and PVC, can be formed into film. Plastic film is used for agricultural coverings, greenhouse roofing, grocery bags, food industry wraps, dry cleaning bags, trash bags, etc. Film can be opaque or clear, and has a very low weight to volume ratio.

High Density Polyethylene (HDPE) — One of the most widely used materials for rigid plastic containers that are generally translucent or solid in color (e.g., milk containers, household cleaning solution bottles, base cups of large beverage bottles, etc.). Rigid HDPE containers carry the triangular recycling symbol with a 2 inside. Besides bottles and wide mouth containers, HDPE is used extensively for crates, drums, recycling set-out containers, refuse carts, toys, irrigation pipe, and many other applications. HDPE can also be blown into film for grocery bags, trash bags, and similar applications. Some HDPE film items are voluntarily coded #2.

Low Density Polyethylene (LDPE) — A flexible PE used chiefly for film applications like bread and dry cleaning bags, but also in squeezable products like honey bears and restaurant ketchup and mustard bottles. LDPE is also used in some durable products needing flexibility

and resistance to tearing, such as wash basins and buckets. Rigid LDPE containers carry the resin code #4. Some film LDPE products, such as grocery bags, are voluntarily coded #4.

Linear Low Density Polyethylene (LLDPE), a variant of LDPE — A very thin, but strong variant of LDPE. Its most dominant film application is as stretch (shrink) wrap for pallets and overwraps of paperboard packaging. LLDPE is also used for semi-rigid applications such as swimming pool and car wash hoses.

Other Plastics — This category includes high-end durable and engineering plastics, as well as miscellaneous rigid containers coded #7 because they are multi-resin or multi-material combinations, or plastics other than the six most common resins classified in the rigid container coding system. Examples of items that would carry the #7 code are: water cooler bottles and multi-resin layered snack bottles

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Polyethylene Terephthalate (PET or PETE) — The plastic most commonly used for beverage bottles, and containers for products like spring water, salad dressings, pudding cups, dish washing liquids, cough syrups, clear carry-out clamshells, and microwave meals. PET softdrink bottles are identified by always being transparent and usually green or clear in color. The bottles do not have seams, and the bottoms have a small nipple, or blow-molding nub. Most microwaveable trays and plates are also PET. Rigid PET containers are coded with the triangular recycling symbol with a 1 inside of it. PET film is used as the seal on microwave dinners, and for boil-in-bag foods. PET also has non-packaging applications such as pallet strapping, rope or twine, fiberfill, and textiles (polyester).

Polypropylene (PP) — A very sturdy, weather-proof plastic widely known for its use in outdoor furniture. PP has been called "the living hinge" because in semi-rigid products like videocassette cases it is highly resistant to fatigue or cracking from being flexed. PP can be film or rigid form and is used in many functions including: auto battery cases, prescription bottles, some dairy tubs, deli containers, cereal box liners, bottle labels and caps, rope and strapping, combs, snack wraps, and bags. Rigid PP containers are marked with the resin code #5.

Polystyrene (PS) — Rigid polystyrene containers coded #6 include yogurt cups and tubs, and high impact items like audiocassette cases and vitamin bottles. PS is also used for cookie and muffin trays, disposable cutlery, and lids for carry-out cups. Foamed polystyrene, commonly known by Dow's tradename Styrofoam™, is used for meat and produce trays, egg cartons, and carry-out (clamshell) containers. Expanded polystyrene (EPS) is used for hot cups, packing peanuts, packing shapes for electronics like TVs and computers, and building insulation sheets and other products. High impact PS (HIPS) also appears in durable products including housings for some office equipment, e.g., computers, printers, copiers.

Polyvinyl Chloride (PVC or V for Vinyl) — A highly versatile plastic used primarily in durable applications, such as building materials, furniture, flooring, wire and cable, and imitation leather accessories like shoes, suitcases, and purses. PVC is used to a limited extent for bottles, mainly for imported mineral waters, store brand salad dressings and vegetable oils, floor polish, and many auto maintenance products such as waxes and cleaners.

Most bubble packs and blister packs, as for batteries and hardware items, are made of PVC. PVC containers have a seam down the side, and clear items have a faint blue or gray cast. PVC rigid containers carry the #3 resin code.

Polyvinylidene Chloride (PVDC) a relative of PVC — Known by its trade name "saran," PVDC is used in film or sheet form as a heat seal wrap for fresh meat and produce, and a stiffer wrap for cheese, bacon, and other perishables requiring the oxygen barrier action of this resin.

Post-Consumer Plastic — Denotes used plastic items from residential, commercial, or institutional sources that would normally be discarded after use. These items generally carry a certain degree of contamination such as food or soap residues, paper labels, printing inks, etc.

Post-Consumer Resin (PCR) — A term adopted by plastic manufacturers to refer to recycled plastic feedstocks (usually flakes or pellets) derived from plastics diverted from residential, commercial, and industrial waste streams. PCR is post-use material destined for disposal unless intercepted for reclamation and reuse.

Putrescible Wastes — Organic materials such as animal and vegetable food scraps which, by their composition and moisture content, are subject to rapid decomposition, or putrefaction, and generally cause unpleasant odors and off-gassing. In the solid waste management industry, the term “garbage” specifically refers to putrescible wastes.

Recovered Material — Means material that has been retrieved or diverted from disposal for the purpose of recycling, reuse or composting. "Recovered material" does not include those materials generated from and reused on site for manufacturing purposes.

Recovery — Removing materials from the discard stream for the purpose of reuse, recycling, or composting. Recovery does not automatically equal recycling and composting. For example, if markets for recovered materials are not available, the materials that were originally separated from the waste stream for recycling may simply be stored or, in rare cases, sent to a landfill.

Recycling — Technically, the processes at the end of the recovery sequence in which post-consumer and other post-use materials are converted into new raw materials or manufactured into finished products. In general, recycling has come to have a broader meaning denoting all steps from collection to end-use manufacture.

FOR PURPOSES OF THE NEW MEXICO SOLID WASTE MANAGEMENT PLAN, “RECYCLING” IS DEFINED MORE BROADLY TO INCLUDE COMPOSTING AND BENEFICIAL USE METHODS THAT DIVERT DISCARDS FROM DISPOSAL, AS WELL AS TRADITIONAL MATERIAL RECOVERY.

Recycling Program — A program that enables citizens, businesses, and other entities to set aside targeted materials to be recovered and returned to manufacturing processes as economically valuable commodities, and thus be diverted from landfill disposal. Recycling programs typically include public education to elicit participation; use curbside, alley, drop-off,

or buy-back collection, and include processing/shipping of materials to brokers or end-use industries.

Residential Solid Waste — Solid waste originating from single-family or multiple family dwellings.

Reusability — The ability of a product or package to be used more than once in its same or a closely similar form.

Reuse — Means the use, in the same or a closely similar form as it was produced, of a material or product which might otherwise be discarded.

Rubber — An amorphous polymer of isoprene derived from natural latex of certain tropical plants or from petroleum.

Salvage — The controlled removal of solid waste materials at a permitted solid waste facility for recycling, reuse, composting, or transformation.

Seasonal — Refers to those periods of time during the calendar year that are identifiable by distinct cyclical patterns of local climate, tourism, trade or commerce.

Service Center — as defined in the diversion strategy in Chapter 4, an entity in the Participating Organization's area that collects or accepts each of the materials targeted for recycling as listed on the Tier chosen by the organization.

Sewage Sludge — Any residual solids and semi-solids resulting from the treatment of waste-water; it does not include waste-water effluent discharged from such treatment processes.

Sludge -- Any solid, semi-solid, or liquid waste excluding treated effluent generated from a municipal, commercial, or industrial waste water treatment plant, water supply treatment plant, or air pollution control device.

Small Exempt Landfill -- Any new or existing municipal landfills or lateral expansion that dispose of less than 20 tons of solid waste daily, based on an annual average, and that are exempt from the design requirements in Subpart III of the NMSWR.

Small Transfer Station -- A transfer station with a total operational rate of 120 cubic yards or less per day of solid waste that does not include separated recyclable materials.

Solid Waste -- Any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations and from community activities.

Solid Waste Bureau (SWB) — the office within NMED charged with developing, implementing, and enforcing the Solid Waste Act and Regulations, and the comprehensive solid waste management program as set forth in the New Mexico Solid Waste Management Plan.

Solid Waste Facility -- Any public or private system, facility, contiguous land and structures, location, improvements on the land, or other appurtenances or methods used for processing, transformation, recycling or disposal of solid waste, including landfill disposal facilities, transfer stations, resource recovery facilities, incinerators and other similar facilities.

Source Reduction — Any action that causes a net reduction in the generation, volume, or toxicity of solid waste. This approach is based on the concept of minimizing or eliminating waste up front, through interventions in production and use cycles. Source reduction promotes a broad variety of changes in product design and manufacture, supply and purchasing choices, public awareness, and utilization and disposal patterns, in order to reduce the quantity, toxicity, or other environmental impacts of material goods at any point prior to their entry into the waste management system. Examples of source reduction include:

- Redesigning products to extend product life, be reusable, or be more recycling-friendly;
- Light-weighting packages or products by using less material;
- Pollution prevention measures by industry such as changes in manufacturing processes and product composition to decrease the amount and/or toxicity of component materials;
- Revised purchasing programs emphasizing environmentally preferable alternatives, such as reusable rather than disposable products;
- Changes in distribution and supply systems, such as just-in-time inventory, to minimize surpluses and outdated stock that may later need disposal.

A principle component of successful source reduction programs is education to raise public awareness of simple, everyday actions individuals can take to reduce the amount of waste they generate, such as resisting impulse buying; donating reusable discards to thrift shops; or following the old adage, “Use it up, wear it out, make it do, or do without.”

Source Separation — refers to a conscious choice by the individual at the moment of discarding an item no longer of use to him or her, to segregate the item from other wastes so that it can be captured for some form of material recovery, such as recycling, reuse, or composting, or for special handling, as mandated for hazardous or medical wastes. Source separation also refers to specialized collection systems designed to make it easy and convenient for individuals to sort discards into all categories designated for recovery or special handling.

Steel Can, Steel Container — any food, beverage, or other container that is composed of steel with a thin tin coating. Commonly referred to as "Tin can" or "tin container." Depending on markets, steel cans may also include steel aerosol cans.

Tin Can or Tin Container — See Steel Can.

Tires and Rubber — Products of an amorphous polymer of isoprene derived from natural latex of certain tropical plants, or synthetic rubber derived from petroleum.

Ton — a unit of weight in the U.S. Customary System of Measurement equal to 2,000 pounds. Also called a short ton or net ton, in contrast to a metric ton (tonne) which is 2200 pounds.

Transfer – The handling and storage of solid waste for reshipment, resale, or disposal, or for waste reduction or resource conservation.

Transfer station – A facility managed for handling and storage of solid waste in large containers or vehicles for transfer to another facility**.**

Transformation – Incineration, pyrolysis, distillation, gasification or biological conversion other than composting.

Volume — A three dimensional measurement of the quantity of space taken up by an item, commonly expressed in terms of cubic yards or cubic meters.

Waste Characterization Study — A waste sampling and sorting study that identifies constituent materials that compose solid waste generated in a given population unit, and projects total waste quantities generated over a given period of time. It should be statistically representative and should, ideally, represent seasonal and other variations relevant to that locale. The constituent materials should be measured by weight, volume, percentage, material type, generation sources, generation rates, and delivery methods. Generation rate is usually measured in terms of weight or volume of each material per person over a specified time period. Waste characterization studies are tools used to plan integrated waste management systems for residential, commercial, institutional, industrial, governmental, and other sources. Waste characterization studies are also used to evaluate the results of recycling, composting, and other waste reduction programs over time.

Waste Diversion — Means to divert solid waste, in accordance with all applicable federal, state and local requirements, from disposal at solid waste landfills recycling, reuse, composting, or beneficial use.

Waste Generator — Means any person or entity that produces solid waste in the course of routine activities or processes.

Waste Reduction — In contrast to source reduction, which occurs **before** materials enter the waste management system, waste reduction refers to efforts **after** materials enter the waste management system to divert them for recovery rather than final disposal in a landfill. Waste reduction includes recycling, composting, and salvaging operations--both source separation programs designed to intercept materials from generators at the point when they are being thrown away, and "end of the pipe" extraction programs designed to retrieve recyclables, reusables, or compostables from the solid wastes delivered to a disposal facility.

White Goods — Discarded, enamel-coated major appliances, such as washing machines, clothes dryers, hot water heaters, stoves and refrigerators.

White Ledger Paper — White office bond paper, laser printer paper, and non-colored photocopy paper with presentation quality fiber content and consistency.

Wood Waste — Includes tree trunks, stumps, and large limbs from landscaping activities; transport products such as wood pallets and shipping crates; discarded furniture and other manufactured wood products; and dimensional lumber and wood debris from construction and demolition activities. In the industrial sector, wood waste refers to solid waste consisting of wood pieces or particles generated from harvesting, processing, or storing forest products, or manufacturing of wood or wood-derived products.

Yard Waste --- Any wastes generated from the maintenance or alteration of public, commercial or residential landscapes including, but not limited to, grass and yard clippings, leaves, tree trimmings, prunings, brush, and weeds.