

SOLID WASTE CAPACITY REPORT
to the
HOUSE NATURAL RESOURCES AND ENVIRONMENT COMMITTEE
and
SENATE COMMITTEE ON ENVIRONMENTAL QUALITY
Fiscal Year 2011



Louisiana Department of Environmental Quality
Office of Environmental Services
Permits Division
P.O. Box 4313
Baton Rouge, Louisiana 70821-4313

Executive Summary

The Louisiana Department of Environmental Quality (LDEQ) has evaluated the volume and types of solid waste managed in Louisiana as required by La. R.S. 30:2162(A). Part of the overall evaluation of solid waste management is a determination of permitted capacity available to safely manage the solid waste generated within the state.

After careful review, the LDEQ has determined that although Louisiana currently has sufficient capacity to manage the solid wastes generated within Louisiana, solid waste disposal capacity within the state is not excessive relative to annual waste generation and anticipated increases for municipal and industrial solid waste. Additionally, capacity is one of many factors used in determining whether or not to grant a solid waste processing or disposal permit. Other factors considered are service area, zoning, ability to meet regulatory requirements and compliance history.

Background

In Louisiana, solid waste is categorized by type for solid waste management purposes. The types of waste are defined in the solid waste regulations as follows:

Industrial Solid Waste:

solid waste generated by a manufacturing, industrial, or mining process, or that is contaminated by solid waste generated by such a process. Such waste may include, but is not limited to, waste resulting from the following manufacturing processes: electric power generation; fertilizer/agricultural chemicals; food and related products; byproducts; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing/foundries; organic chemicals; plastics and resins manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; stone, glass, clay, and concrete products; textile manufacturing; and transportation equipment. This term does not include hazardous waste regulated under the Louisiana hazardous waste regulations or under federal law, or waste that is subject to regulation under the Office of Conservation's Statewide Order No. 29-B or by other agencies.¹

Commercial Solid Waste:

all types of solid waste generated by stores, offices, restaurants, warehouses, and other nonmanufacturing activities, excluding residential and industrial solid wastes.²

Residential Solid Waste:

any solid waste (including garbage, trash, yard trash, and sludges from residential septic tanks and wastewater treatment facilities) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas).³

Construction/Demolition (C&D) Debris:

nonhazardous waste generally considered not water-soluble that is produced in the process of construction, remodeling, repair, renovation, or demolition of structures, including buildings of all types (both residential and nonresidential). Solid waste that is not *C&D debris* (even if resulting from the construction, remodeling, repair, renovation, or demolition of structures) includes, but is not limited to, *regulated asbestos-containing material (RACM)* as defined in LAC 33:III.5151.B, white goods, creosote-treated lumber, and any other item not an integral part of the structure.⁴

¹ See LAC 33:VII.115.

² See LAC 33:VII.115.

³ See LAC 33:VII.115.

⁴ See LAC 33:VII.115.

Processing and disposal of solid waste can only be done at facilities permitted to accept the specific type of wastes to be processed or disposed.⁵ LAC 33:VII.405 lists five specific categories of facilities (each facility can be one type or more than one type):

Type I—industrial disposal facilities (e.g., landfills, surface impoundments, or landfarms).

Type I-A—industrial processing facilities (e.g., balers, shredders, transfer stations (processing), etc.).

Type II—non-industrial disposal facilities (e.g., landfills, surface impoundments, or landfarms).

Type II-A—non-industrial processing facilities (e.g., composting municipal solid waste facilities, balers, shredders, transfer stations (processing), refuse-derived fuel facilities, autoclaves, etc.).

Type III—construction/demolition-debris and woodwaste landfills, separation facilities, composting facilities, or other.

Each facility considered and discussed in this report falls into one of the above categories. Commercial and residential solid wastes are generally considered together as municipal solid waste and will be considered together in this report.

Unless otherwise noted, the information used in this report was derived from the annual reports submitted by solid waste generators, processing facilities, and disposal facilities.

Industrial Solid Waste Management

In Fiscal Year 2011 (FY11) which ended on June 30, 2011, Louisiana landfills disposed of approximately 13,325,304.2 wet-tons of industrial solid waste.

There are currently thirty-six (36) landfills permitted to dispose of industrial solid wastes in Louisiana (see Table 1). Of these 36, eighteen (18) dispose of only industrial wastes (Type I facilities), and eighteen (18) dispose of industrial wastes, along with municipal and/or construction and demolition (C&D) debris wastes (Type I, II or I, II, III - see Table 1).

The average remaining life (years) of a Type I landfill (industrial wastes only) is 20.42 years. The average remaining life (years) of a multi-type landfill (Type I, II or I, II, III) is 58.46 years.⁶ The total remaining capacity for Type I landfills is approximately

⁵ See LAC 33:VII.509.A.1.

⁶ The LaSalle-Grant Sanitary Landfill reports a remaining life of approximately 444.66 years. If this landfill is excluded from the calculation, the average life of the multi-type landfills decreases to 35.74 years.

145,682,396.93, cubic yards. The total remaining capacity for multi-type landfills is approximately 249,100,650.01 cubic yards.⁷

TABLE 1					
Landfills Accepting Industrial Wastes Only					
AI	Name	Permit No.	Type	Remaining Capacity (cubic yards)	Remaining Time (yrs)
328	International Paper Co - Mansfield Mill	P-0293R1	I	6,659,299.00	13
585	CLECO Corp - Dolet Hills Power Station	P-0064	I	11,387,652.00	14.67
1338	International Paper Co - Louisiana Bastrop Mill	P-0058	I		
1396	Exide Technologies - Baton Rouge Smelter	P-0326	I	144,336.00	9
1406	Motiva Enterprises LLC - Norco Refinery	P-0310	I	97,836.00	10.83
1409	The Dow Chemical Co - Louisiana Operations	P-0069	I	256,560.00	6.83
2082	Honeywell International Inc - Geismar Complex	P-0216R1	I	700,000.00	2.3
2140	International Paper Co - Pineville Kraft Mill	P-0162	I	892,503.00	110.25
2418	ConocoPhillips Co - Alliance Refinery	P-0247	I	31,254.00	43.58
2532	Mosaic Fertilizer LLC - Uncle Sam Plant	P-0103	I	100,000,000.00	21
2617	Georgia-Pacific - Port Hudson Operations	P-0292	I	826,257.00	13
2922	CLECO - Brame Energy Center	P-0379	I	7,933,709.83	10.83
3647	Smurfit-Stone Container Enterprises Inc - Hodge Mill	P-0151	I	247,862.10	12.48
3732	PCS Nitrogen Fertilizer - Geismar Agricultural Nitrogen & Phosphate Plant	P-0201R1	I	14,979,593.00	11
9142	Entergy Gulf States - Nelson Industrial Steam Co (NISCO)	P-0279	I	13,367.00	30
11496	Louisiana Pigment Co LP - Titanium Dioxide Plant	P-0283	I	867,065.00	7.98
19588	Entergy Gulf States LA LLC - Nelson Electric Generating Plant	P-0018	I		
19933	Boise Packaging & Newsprint LLC - DeRidder Paper Mill	P-0098	I	645,103.00	10
				145,682,396.93	326.75
Landfills Accepting Industrial and Other Solid Wastes (Municipal and/or C&D)					
4803	BFI - Colonial Landfill	P-0021R1	I, II	12,531,290.00	48
6961	Jefferson Parish Sanitary Landfill	P-0297	I, II	17,147,597.00	34
9077	Woolworth Road Regional Solid Waste Facility	P-0120R1	I, II	18,514,143.00	44
9340	St Mary Parish Government - Harold J "Babe" Landry Landfill	P-0193R1	I, II, III	3,500,839.00	26
11767	Woodside Sanitary Landfill & Recycling Center	P-0080R2	I, II	28,612,997.00	43.33
12241	Waste Management of LA LLC - Magnolia Sanitary Landfill	P-0046R1	I, II	17,358,000.00	61.33
12389	Jefferson Davis Parish Sanitary Landfill Commission	P-0100-R1	I, II	9,753,060.00	32.58
12448	Sabine Parish Sanitary Landfill	P-0170R1	I, II	876,959.00	4.83
19447	LaSalle Parish Police Jury - LaSalle-Grant Sanitary Landfill	P-0119	I, II	31,589,708.00	444.66
19803	DeSoto Parish Police Jury - Mundy Sanitary Landfill	P-0035R1	I, II, III	2,266,420.01	28
20061	Tidewater Landfill LLC - Coast Guard Road Sanitary Landfill	P-0171-R1	I, II	625,069.00	14.42
25491	Reliable Landfill LLC	P-0032R2	I, II	3,800,862.00	48
31128	East Baton Rouge Parish North Landfill	P-0269R1	I, II	18,492,965.00	31.58
32219	River Birch Inc - River Birch Landfill	P-0321	I, II	46,654,180.00	35.75
41194	CWI - White Oaks Landfill LLC	P-0357	I, II, III	27,569,691.00	104.08
43506	Tensas Parish Police Jury - Sanitary Landfill	P-0260R1	I, II, III	743,721.00	10.83
52277	IESI Corp - Timberlane Landfill	P-0339	I, II	7,639,646.00	28.33
85534	BFI - Webster Parish Solid Waste Landfill	P-0165	I, II	1,423,503.00	12.5
				249,100,650.01	1052.22

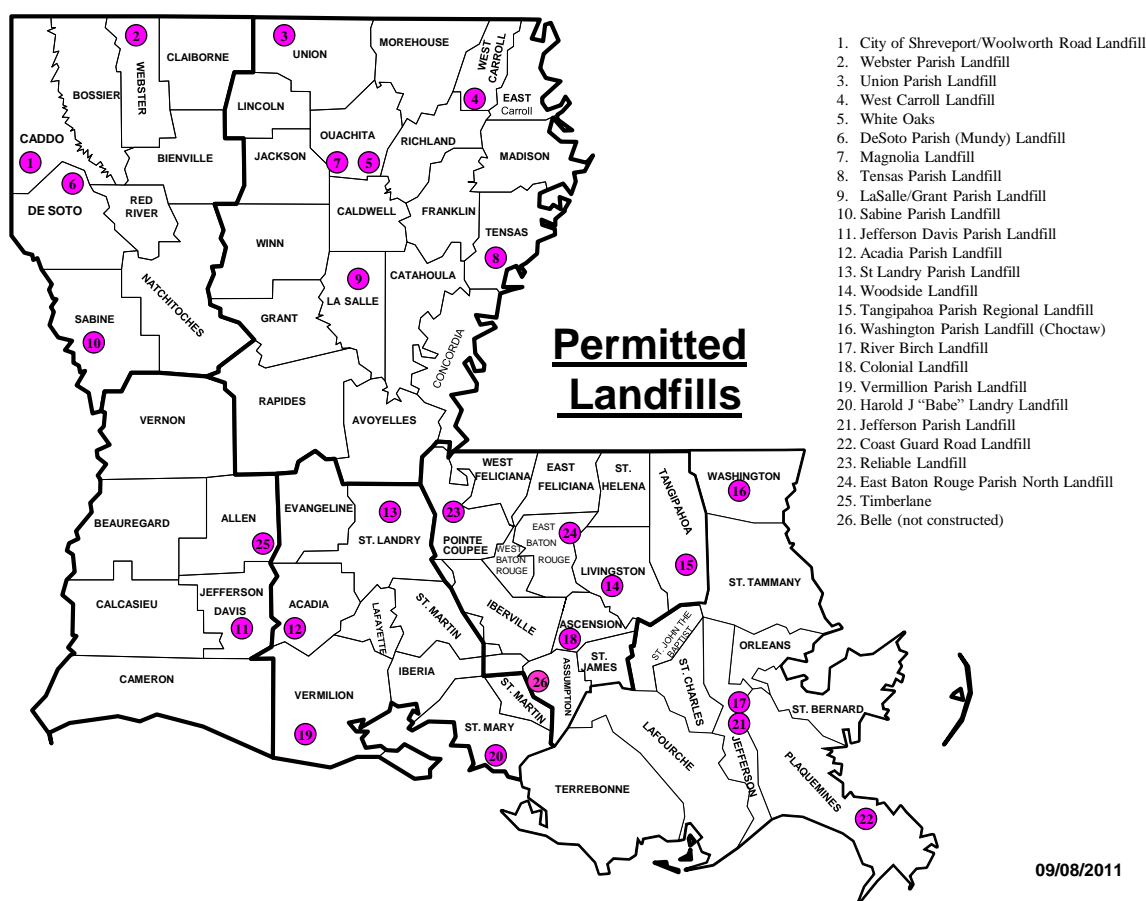
⁷ The numbers for the remaining life of the landfills were taken from the FY11 Solid Waste Annual Disposal Reports submitted by the permitted landfills.

Commercial and Residential (Municipal) Waste Management

Municipal solid wastes disposed of in Louisiana totaled approximately 4,703,552.02 wet-tons, as reported by the disposal facilities (Type II facilities).⁸ Information regarding the amount of municipal solid waste generated, but disposed of out-of-state, is currently not required to be compiled.

There are 26 landfills in Louisiana permitted to accept municipal solid wastes (see Figure 1).

Figure 1



⁸ Taken from the FY11 Solid Waste Annual Disposal Reports.

One of the currently permitted landfills (Belle Landfill) is neither constructed nor operating; therefore only 25 permitted landfills are actually accepting municipal solid waste at this time. Eight of the 25 are privately owned and operated landfills, while 17 are publicly owned. Of the 17 publicly owned landfills, 3 are permitted to accept only in-parish generated wastes: Acadia Parish Sanitary Landfill, Vermilion Parish Municipal Landfill, and Washington Parish Choctaw Road Landfill. The remaining landfills accept wastes from outside of the parish, including out-of-state wastes, for disposal.

The 17 publically owned municipal landfills have approximately 120,064,418.03 cubic yards of remaining permitted capacity, with an approximate average remaining life of 49.16 years (see Table 2).⁹ The eight privately owned landfills have a slightly higher remaining capacity of 144,791,735.00 cubic yards, with an average remaining life of approximately 47.91 years (see Table 3).

The total of all out-of-state wastes received at the permitted municipal landfills is 104,386 wet-tons. In FY11, 25 municipal landfills accepted a total of 5,478,293.22 wet-tons of waste (including industrial, municipal, and C&D wastes). The out-of-state waste accepted totals approximately 1.9 percent of the total.

TABLE 2					
MUNICIPAL SOLID WASTE LANDFILLS (PUBLICALLY OWNED)					
AI	Name	Permit	Type	Remaining Capacity (cubic yards)	Remaining Time (yrs)
148	Vermilion Parish Police Jury - Municipal Landfill	P-0030	II, III		
6961	Jefferson Parish Sanitary Landfill	P-0297	I, II	17,147,597.00	34
9077	Woolworth Road Regional Solid Waste Facility	P-0120R1	I, II	18,514,143.00	44
9340	St Mary Parish Government - Harold J "Babe" Landry Landfill	P-0193R1	I, II, III	3,500,839.00	26
12389	Jefferson Davis Parish Sanitary Landfill Commission	P-0100-R1	I, II	9,753,060.00	32.58
12448	Sabine Parish Sanitary Landfill	P-0170R1	I, II	876,959.00	4.83
19220	St Landry Parish Solid Waste Disposal District	P-0043R1	II	4,228,480.00	23.67
19447	LaSalle Parish Police Jury - LaSalle-Grant Sanitary Landfill	P-0119	I, II	31,589,708.00	444.66
19803	DeSoto Parish Police Jury - Mundy Sanitary Landfill	P-0035R1	I, II, III	2,266,420.01	28
20036	Acadia Parish Police Jury - Acadia Parish Sanitary Landfill	P-0029-R1	II, III	6,236,569.00	55.75
20076	Washington Parish Police Jury - Choctaw Road Landfill	P-0155	II	1,363,675.00	15.58
20079	West Carroll Parish Police Jury - Sanitary Landfill	P-0121R1	II, III	18,524.02	6
31128	East Baton Rouge Parish North Landfill	P-0269R1	I, II, II-A	18,492,965.00	31.58
43470	Tangipahoa Parish Regional Solid Waste Facility	P-0127-R1	II	1,800,000.00	10
43506	Tensas Parish Police Jury - Sanitary Landfill	P-0260R1	I, II, III	743,721.00	10.83
69378	Union Parish Sanitary Landfill	P-0179	II	2,108,255.00	6.58
85534	BFI - Webster Parish Solid Waste Landfill	P-0165	I, II	1,423,503.00	12.5
TOTAL REMAINING CAPACITY:				120,064,418.03	786.56
AVERAGE YEARS REMAINING CAPACITY:					49.16

⁹ The LaSalle-Grant Sanitary Landfill reports a remaining life of approximately 444.66 years. If this landfill is excluded from the calculation, the average life of the remaining publically owned municipal landfills decreases to 23.09 years.

TABLE 3					
MUNICIPAL SOLID WASTE LANDFILLS (PRIVATELY OWNED)					
AI	Name	Permit	Type	Remaining Capacity (cubic yards)	Remaining Time (yrs)
4803	Colonial Landfill (BFI)	P-0021R1	I, II	12,531,290.00	48
12241	Magnolia Sanitary Landfill (Waste Management)	P-0046R1	I, II	17,358,000.00	61.33
11767	Woodside Sanitary Landfill (Waste Management)	P-0080R2	I, II	28,612,997.00	43.33
20061	Tidewater Landfill LLC - Coast Guard Road Sanitary Landfill	P-0171-R1	I, II	625,069.00	14.42
25491	Reliable Landfill LLC	P-0032R2	I, II	3,800,862.00	48
32219	River Birch Landfill	P-0321	I, II	46,654,180.00	35.75
41194	CWI - White Oaks Landfill LLC	P-0357	I, II, III	27,569,691.00	104.08
52277	IESI Corp - Timberlane Landfill	P-0339	I, II	7,639,646.00	28.33
TOTAL CAPACITY:				144,791,735.00	383.24
AVERAGE YEARS REMAINING CAPACITY:					47.91

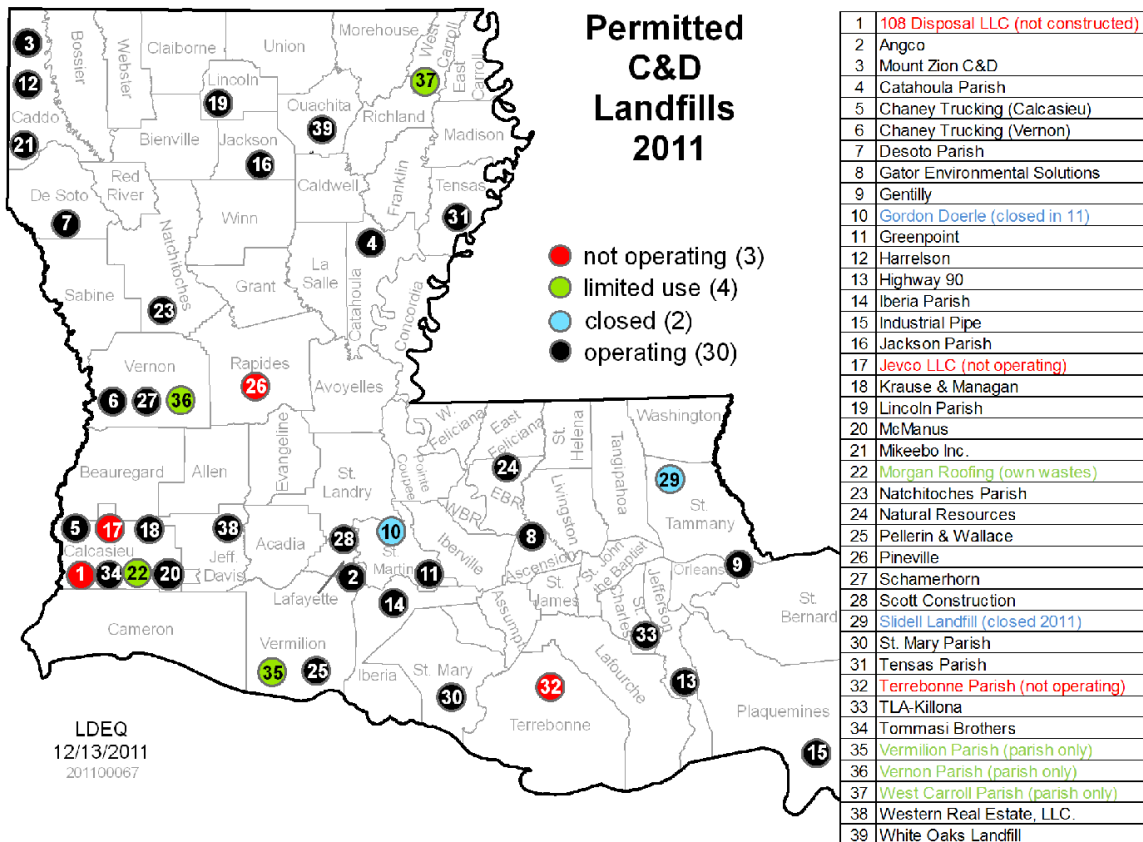
Construction and Demolition (C&D) Debris Waste Management

EPA has estimated that construction and demolition (C&D) debris waste contributes 25 to 45 percent of the waste that is disposed within permitted landfills in the United States.¹⁰ If not for the permitted C&D (Type III) landfills, Louisiana would face a significant reduction in the remaining life of the permitted municipal landfills. There are approximately 30 permitted operating C&D landfills in Louisiana, located throughout the state (see Figure 2).

Approximately 1,257,095.96 wet-tons of C&D debris was placed in landfills during FY11. The waste was disposed of primarily in the 30 permitted Type III landfills. Approximately 71,932.55 wet-tons were disposed of in municipal landfills permitted to accept C&D wastes.

¹⁰ EPA. *Characterization of Building-Related Construction and Demolition Debris in the United States*. June, 1998. EPA530-R-98-010.

Figure 2



In addition to the permitted Type III landfills, the LDEQ has utilized for C&D waste disposal many sites known as Emergency Debris Management Sites. This type of solid waste management and control was especially useful for the management and reduction of the large volumes of vegetative debris generated by hurricanes. Vegetative debris was processed by the approved sites by burning and chipping, and used as fuel, mulch, and daily landfill cover. Overall, the result is a 99.1% diversion of vegetative debris from permitted landfills. Other materials, such as damaged white goods and electronic materials were staged at some of these areas for later recycling or proper disposal.

Based on the success of these emergency debris sites, the LDEQ has begun issuing pre-approvals for emergency debris management sites to other state departments, parish governing authorities, and municipalities that they can activate immediately when needed after an emergency declaration is issued. This will allow for very efficient and effective management of future storm related debris. As of December 1, 2011, 167

applications for pre-approved emergency debris sites have been approved. The LDEQ maintains close scrutiny of these sites via surveillance inspections and reporting requirements. Most of these emergency debris sites are used for staging of debris or for burning or chipping of vegetative debris.

Miscellaneous Solid Waste Management

Louisiana solid waste regulations require¹¹ each parish, in conjunction with its municipalities, to prepare and maintain a recycling and reduction plan detailing educational programs; recycling programs; incentives to promote recycling and waste reduction; review of recycling products, markets, and backup markets; a review of existing recycling programs; contingency measures; and a mathematical formula detailing how the parish intends to calculate the percentage of waste reduction. The plans must be reviewed annually by the local governing institution that prepared the plan and the LDEQ. Annual progress reports are required to be submitted by December 31 of each year.

Improperly discarded waste tires may pose a health and safety risk to humans. Disease carrying pests such as rodents can inhabit especially waste tire piles and mosquitoes can breed in the stagnant water that collects inside tires. Several varieties of mosquitoes can carry deadly diseases, including encephalitis, West Nile, and dengue fever.

The LDEQ has regulations¹² in place that enable it to track waste tire generation and processing so that whole tires are not placed into a landfill and are recycled to the maximum extent possible. Louisiana has five permitted waste tire processors. In FY11, 159,672,705 pounds of waste tires were processed and 165,780,889 pounds of material were marketed for recycling. Excess inventory remaining from FY10 was also marketed during FY11. This resulted in more material being marketed than was processed during FY11. Uses for processed waste tire material include, but are not limited to, crumb rubber products, rubberized asphalt and boiler fuel.

¹¹ See LAC 33:VII.10307.A.

¹² See LAC 33:VII.10501.

Summary

When determining whether to grant or deny a permit application for a solid waste processing or disposal facility, La. R.S. 30:2162(B)(2) requires that permitted capacity along with other relevant factors be considered in the final permitting decision. Other relevant factors include service area, zoning, ability to meet regulatory requirements, and compliance history.

Consideration of the service area of a facility is important in final determinations because transportation costs may limit the ability of a generator of waste to send the waste for proper disposal if the only existing capacity is at a great distance. This tends to increase improper disposal and promiscuous dumping. Where service areas overlap, capacity becomes more significant in final determinations to issue or deny a permit.

Zoning allows local governances the ability to control the location of waste facilities within their jurisdictions. The LDEQ regulations¹³ require all permit applicants to disclose the zoning of the proposed or existing facility at the time of the submittal of the permit application. The LDEQ is very dedicated to working with local governments to determine the most useful and appropriate places to locate solid waste facilities.

Compliance history must also be considered for any final permit decision.¹⁴ Facilities that have repeatedly shown recalcitrance or an inability to meet the regulatory requirements may cause the expenditure of public funds at a later time to clean up sites that were improperly managed. Because of this, compliance history is also one of the required measures in determining whether or not to grant a permit for a solid waste facility to operate.

The LDEQ has determined that solid waste capacity in Louisiana is being successfully managed and given the appropriate weight in solid waste permitting decisions. Statewide solid waste disposal capacity is not excessive relative to annual waste generation and anticipated increases for municipal and industrial solid waste. The management of post-hurricane vegetative debris is a good example of waste reduction and reuse being encouraged by programs the LDEQ has undertaken.

¹³ See LAC 33:VII.519.B.1.m.

¹⁴ See La. R.S. 30:2014(A)(2).