

2012 Report Card for

LOUISIANA'S INFRASTRUCTURE LEVEES

www.lasce.org/reportcard.aspx

The ASCE logo features a stylized graphic of three horizontal lines of increasing length to the left of the letters "ASCE".

Levees Committee

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Grading Criteria

- *Capacity* – level of protection afforded relative to 100-year flood event
- *Condition* – based on regular USACE inspections, judged as A, MA, or U
- *Funding* – availability of funds required for upgrades
- *O&M* – availability of funds, personnel, and equipment to perform regular maintenance
- *Public Safety* – ability of system to meet or exceed 100-year level under current design standards
- *Resilience* – ability of system to withstand overtopping without excessive erosion

Capacity

- Level of flood protection
- 100-year flood – 1% annual chance of exceedance
- Grade: D+

Condition

- How the system can perform
- USACE, levee district, LADOTD, CPRA routine inspections
- Acceptable (A), Minimally Acceptable (MA), Unacceptable (U)
- Grade: C-

FIGURE 1: CONDITION GRADING METHODOLOGY

USACE Inspection Report Rating	# Items Rated MA		# Items Rated U	Grade Assigned
	Minimal	Significant		
A Acceptable				A
MA Minimally Acceptable	Minimal			B
	Significant	None		C
	Significant	1 or more		D
U Unacceptable				F

Funding

- Upgrades needed, funds needed, funds available
- Current funding from Federal and state tax appropriations, local Ad Valorem taxes
- \$1 billion West Closure Pumping Station and Gate Complex - \$5 million/year to maintain
- Funds needed to raise inadequate levees
- Grade: D+

Operations & Maintenance (O&M)

- Funds, equipment, personnel adequate to meet O&M minimum requirements
- Levees largely maintained by local levee districts
- Funding for future projects insufficient
- Grade: C

Public Safety

- Ability of system to meet 100-year flood protection under current design standards
- May and June 2011 high water event
- Dependent on capacity, condition, and risk
- Risk – population, critical infrastructure
- Grade: D+



Resilience

- Ability of system to withstand overtopping without excessive erosion
- Armoring – slope paving, revetments, rip rap
- Proper vegetation
- Seepage issues
- Grade: C



Grade Summary

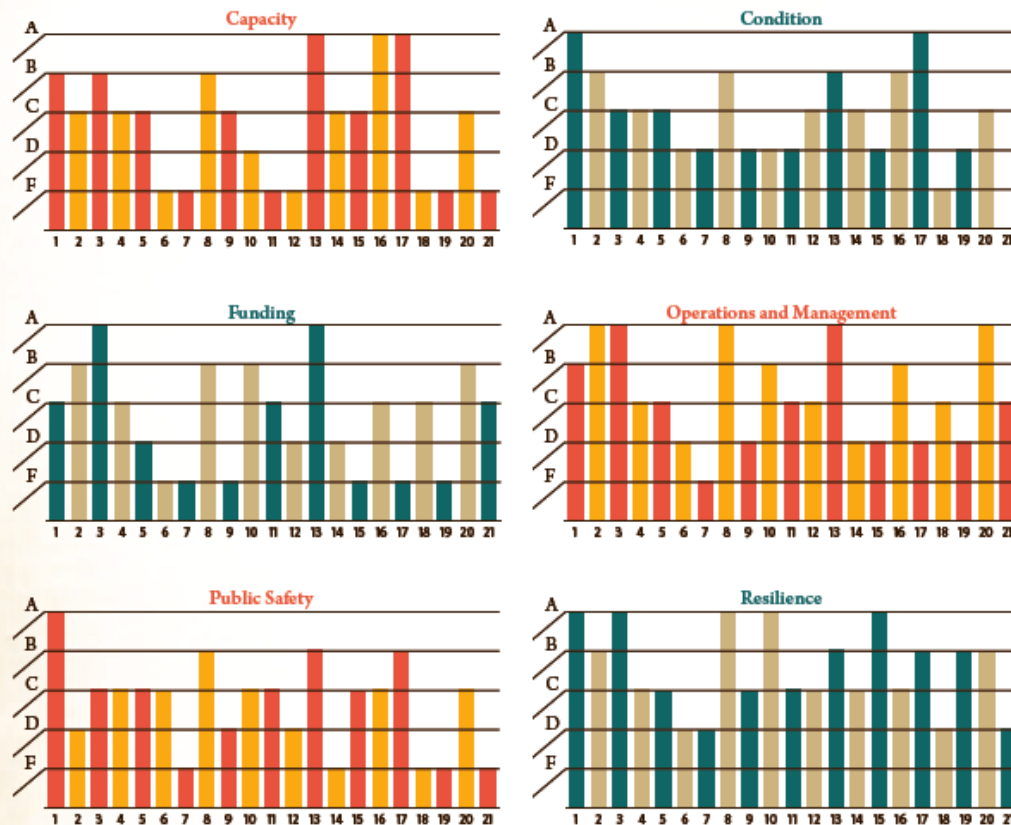
Table 1: GRADE SUMMARY

Fundamental Components	Capacity	Condition	Funding	Operations & Maintenance	Public Safety	Resilience	TOTAL GRADE
Average*	1.7	1.9	1.7	2.2	1.6	2.5	1.9
Grade	D+	C-	D+	C	D+	C	C-
SLFPA-E	A	B	C	B	C	C	C+

*Grade based on our grading scale

Grade Summary

FIGURE 4: GRADE BREAKDOWN BY LEVEE DISTRICT



LEGEND

- | | | | |
|--------------------------|----------------------------------|--|-----------------|
| 1 Atchafalaya Basin | 7 Lafitte Area Independent | 13 Ponchartrain | 19 St. Mary |
| 2 Bossier | 8 Lafourche Basin | 14 Red River, Atchafalaya, Bayou Boeuf | 20 Tensas Basin |
| 3 Caddo | 9 Natchitoches | 15 Red River | 21 Terrebonne |
| 4 City of Baton Rouge | 10 Nineteenth Louisiana | 16 SLFPA-East | |
| 5 Fifth Louisiana | 11 North Lafourche | 17 SFLPA-West | |
| 6 Grand Isle Independent | 12 Plaquemines Parish Government | 18 South Lafourche | |

*Note: Levee districts managed by the same authority were graded collectively.

Recommendations

- Federal funding for O&M of new Hurricane and Storm Damage Risk Reduction System – gates and pump station on navigable waterways, levee lifts
- MRT only 89% complete, 70+ miles of levees still below design grade – elevate levees
- Federal funding to ensure hurricane protection levees below 100-year level are updated

Sources

¹ Atchafalaya Basin Levee District

² Bossier Levee District

³ Caddo Levee District

⁴ City of Baton Rouge Department of Public Works

⁵ Lafitte Area Independent Levee District

⁶ Lafourche Basin Levee District

⁷ North Lafourche Conservation, Levee & Drainage District ⁸ Pontchartrain Levee District

⁹ Red River, Atchafalaya & Bayou Beouf Levee District

¹⁰ Red River Levee & Drainage District

¹¹ Southeast Louisiana Flood Protection Authority – East

¹² Southeast Louisiana Flood Protection Authority – West

¹³ South Lafourche Levee District

¹⁴ St. Mary Levee District

¹⁵ Tensas Basin Levee District

¹⁶ Terrebonne Levee & Conservation District

¹⁷ U.S. Army Corps of Engineers Annual Inspection Reports for Fifth Louisiana LD (September 2009), Lafourche Basin LD (April 2010), Orleans LD (December 2009, February 2010), Plaquemines Parish (April 2010), Natchitoches LD (August 2009), Nineteenth Louisiana LD (September 2009), Red River Levee & Drainage

(September 2010), South Lafourche LD (2006)

¹⁸ Informational Briefing: Flood Control in the State of Louisiana, Prepared by Department of Transportation and Development and Intermodal Transportation Section Federal Programs Unit

¹⁹ U.S. Army Corps of Engineers, New Orleans District public references (website)