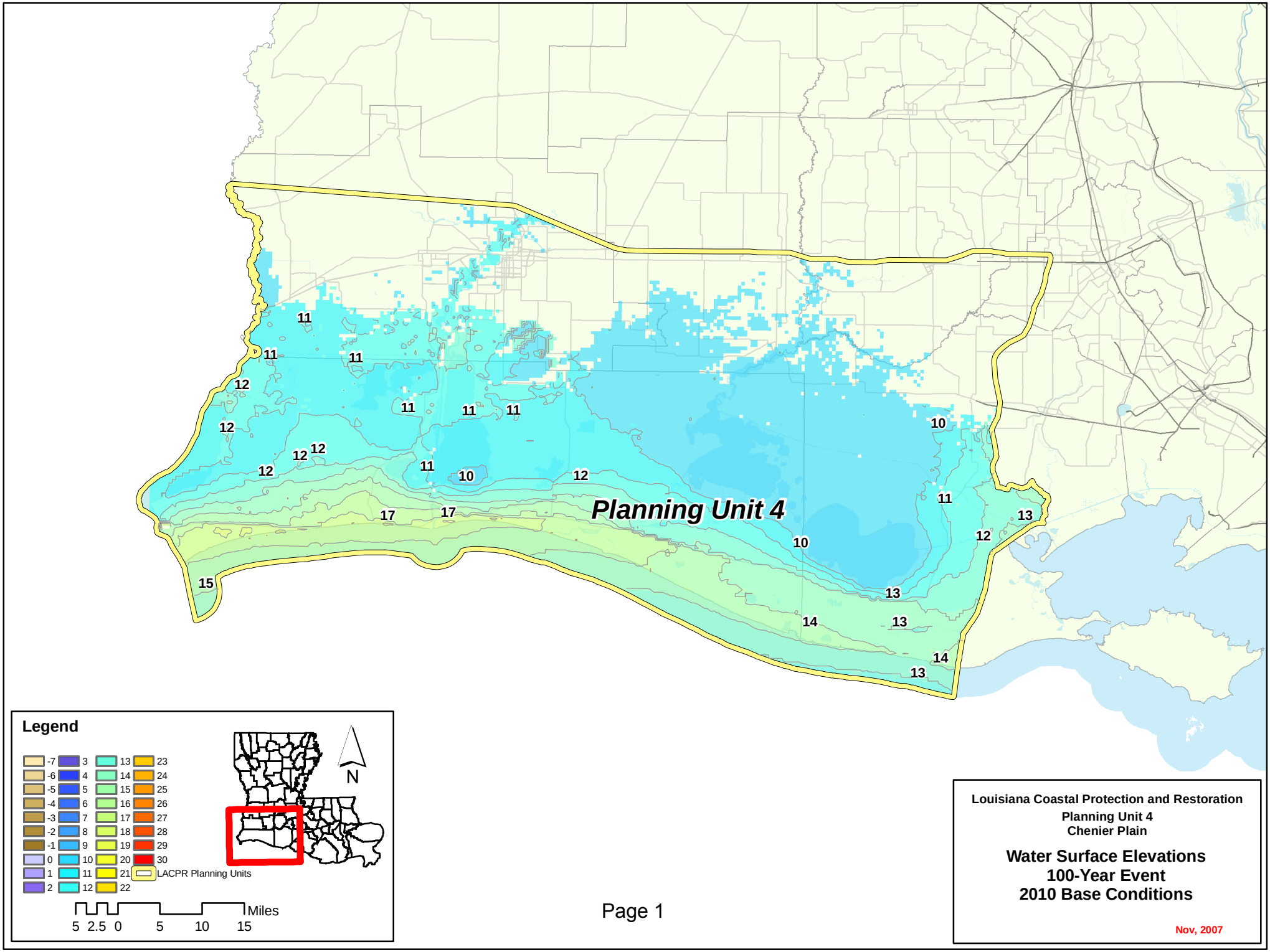
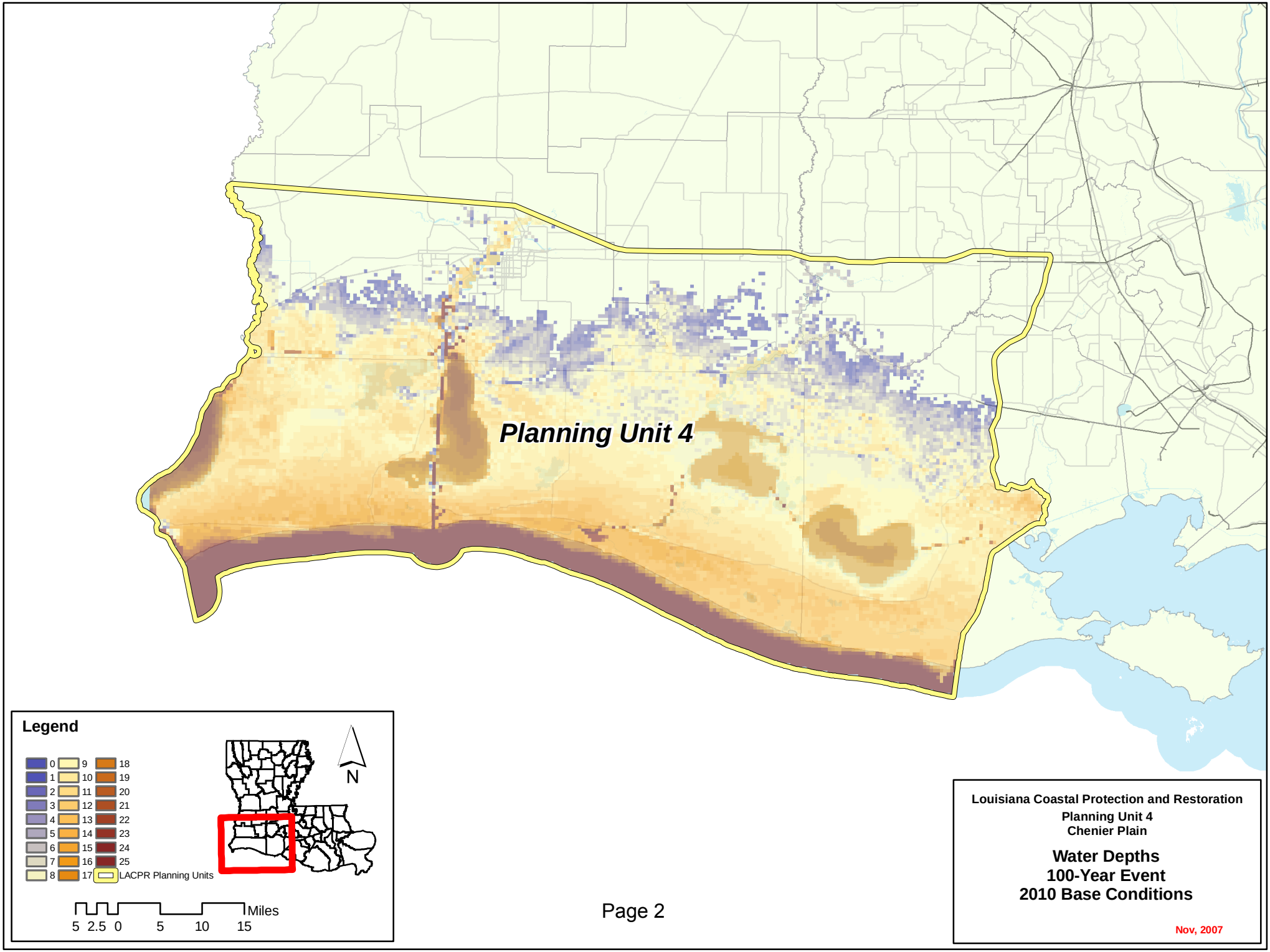


Louisiana Coastal Protection and Restoration
Planning Unit 4
Chenier Plain

Water Surface Elevations
100-Year Event
2010 Base Conditions

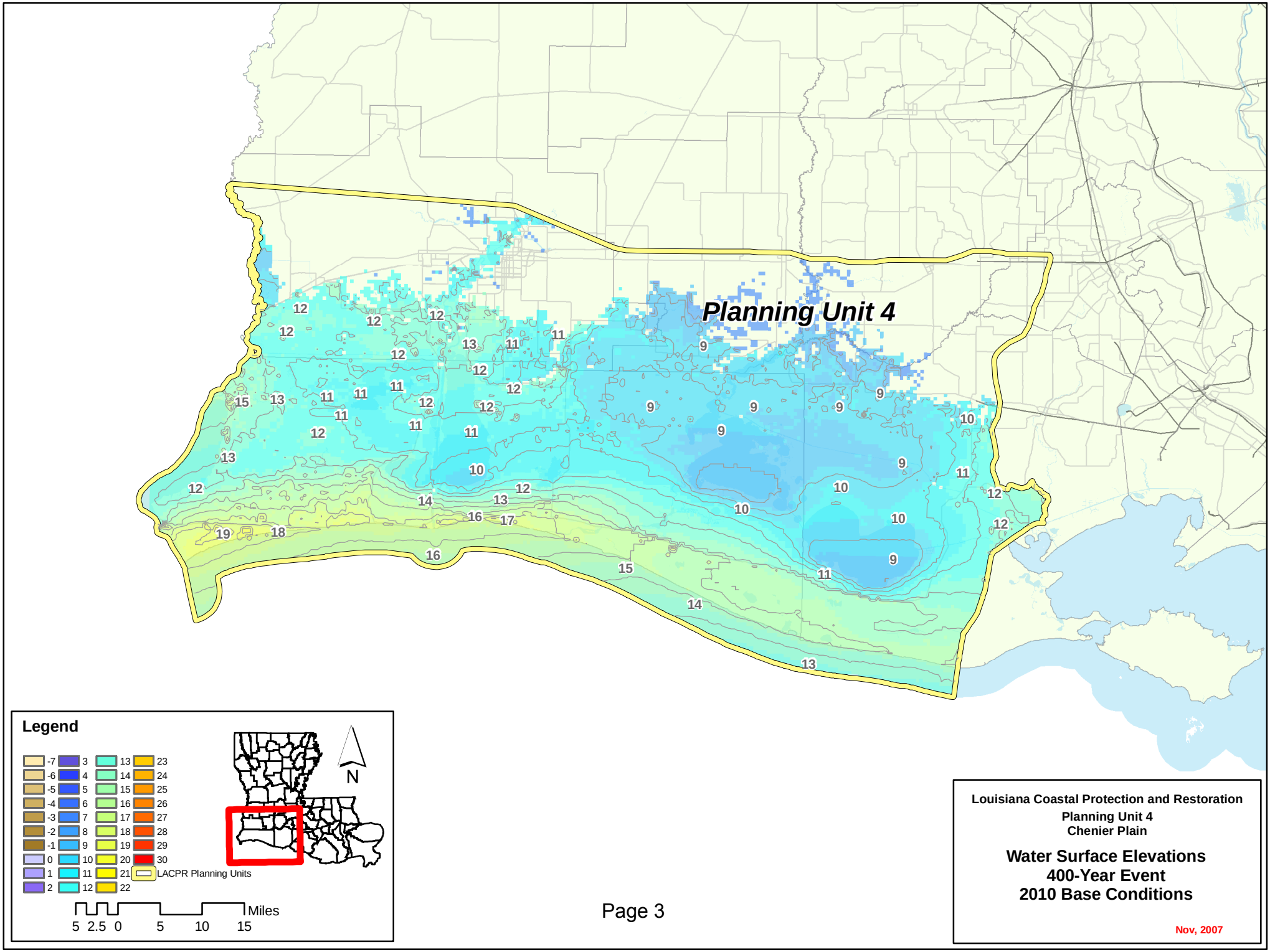
Nov, 2007



Louisiana Coastal Protection and Restoration
Planning Unit 4
Chenier Plain

Water Depths
100-Year Event
2010 Base Conditions

Nov, 2007

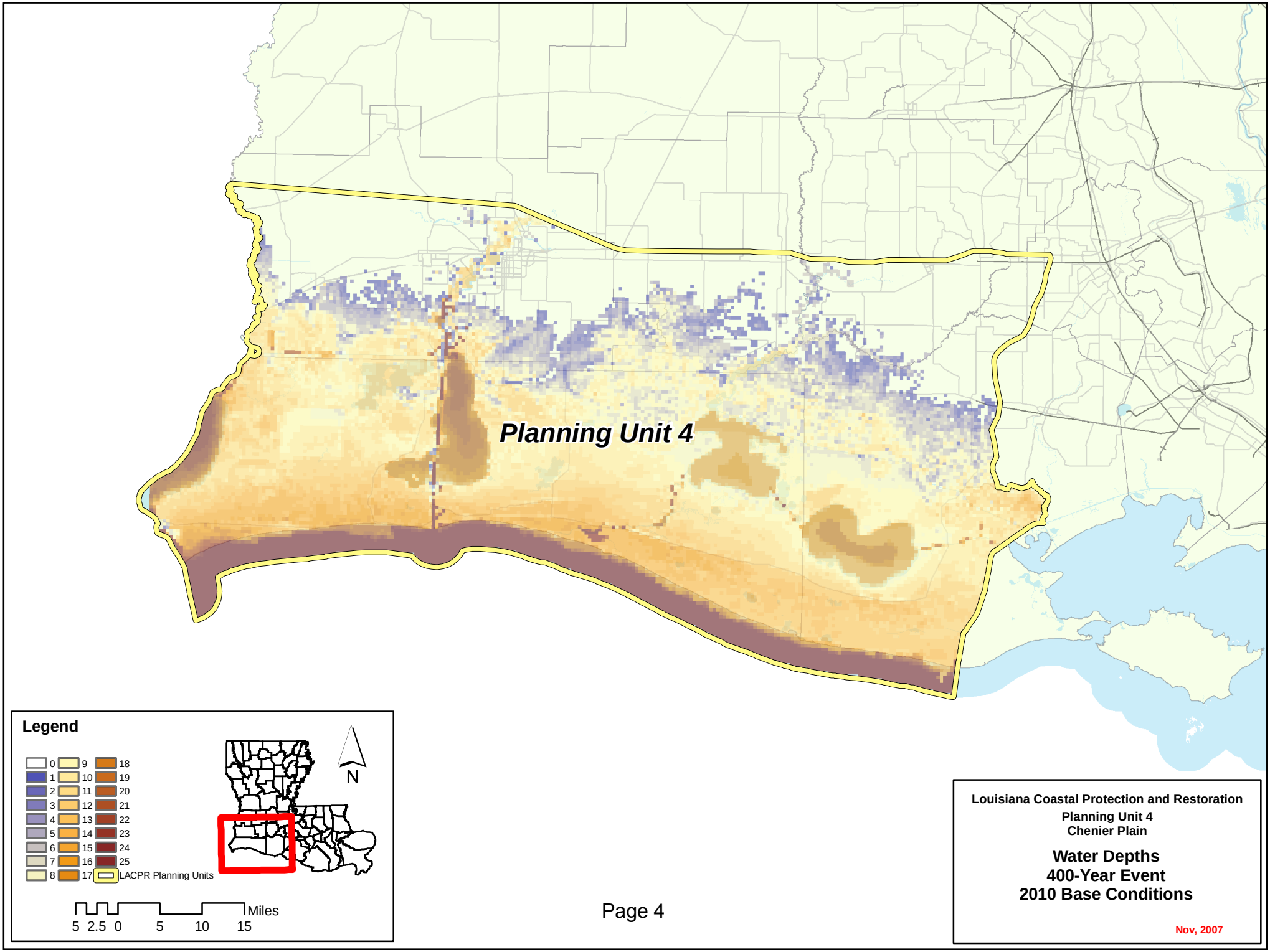


Page 3

Louisiana Coastal Protection and Restoration
Planning Unit 4
Chenier Plain

Water Surface Elevations
400-Year Event
2010 Base Conditions

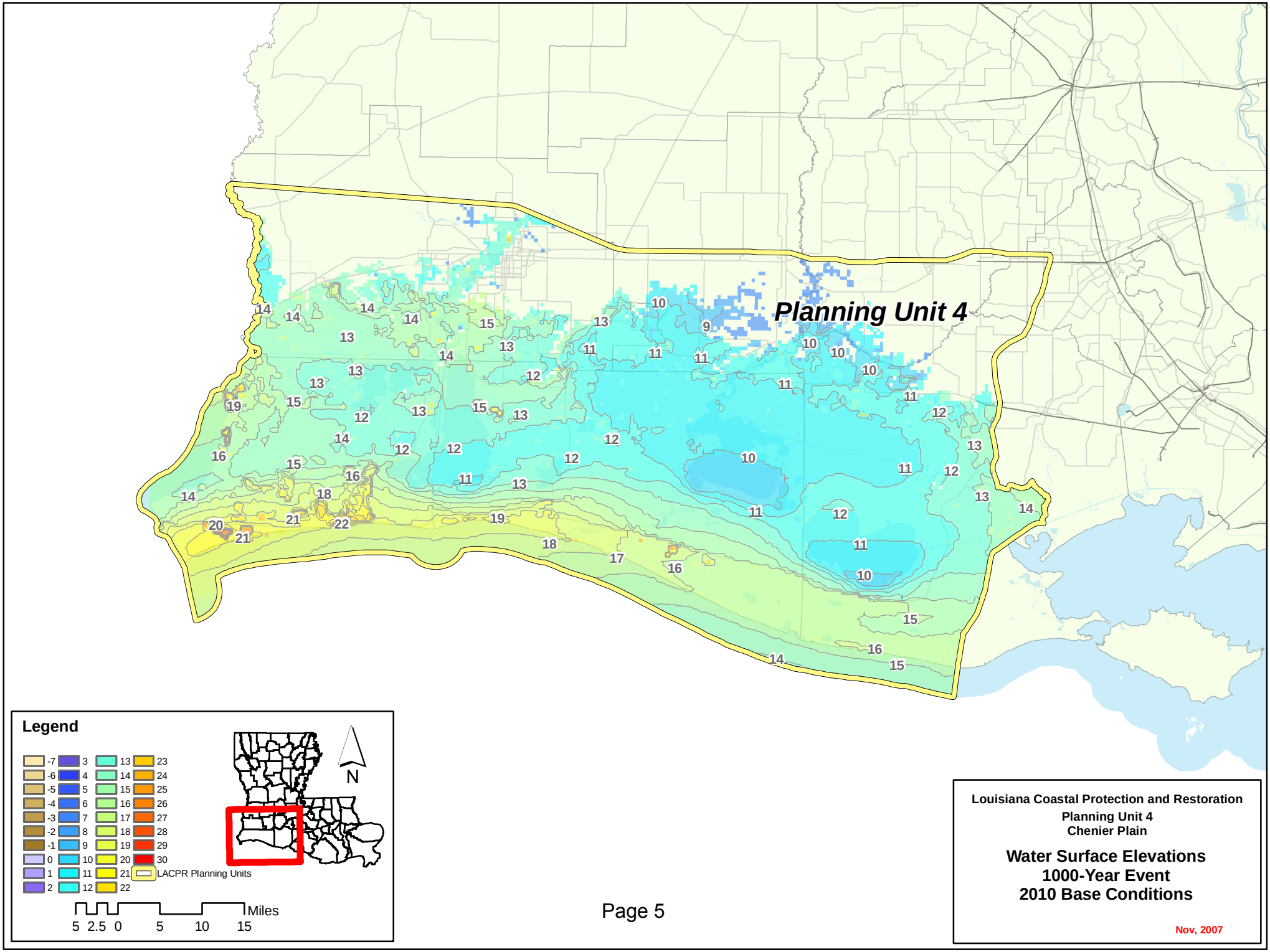
Nov, 2007

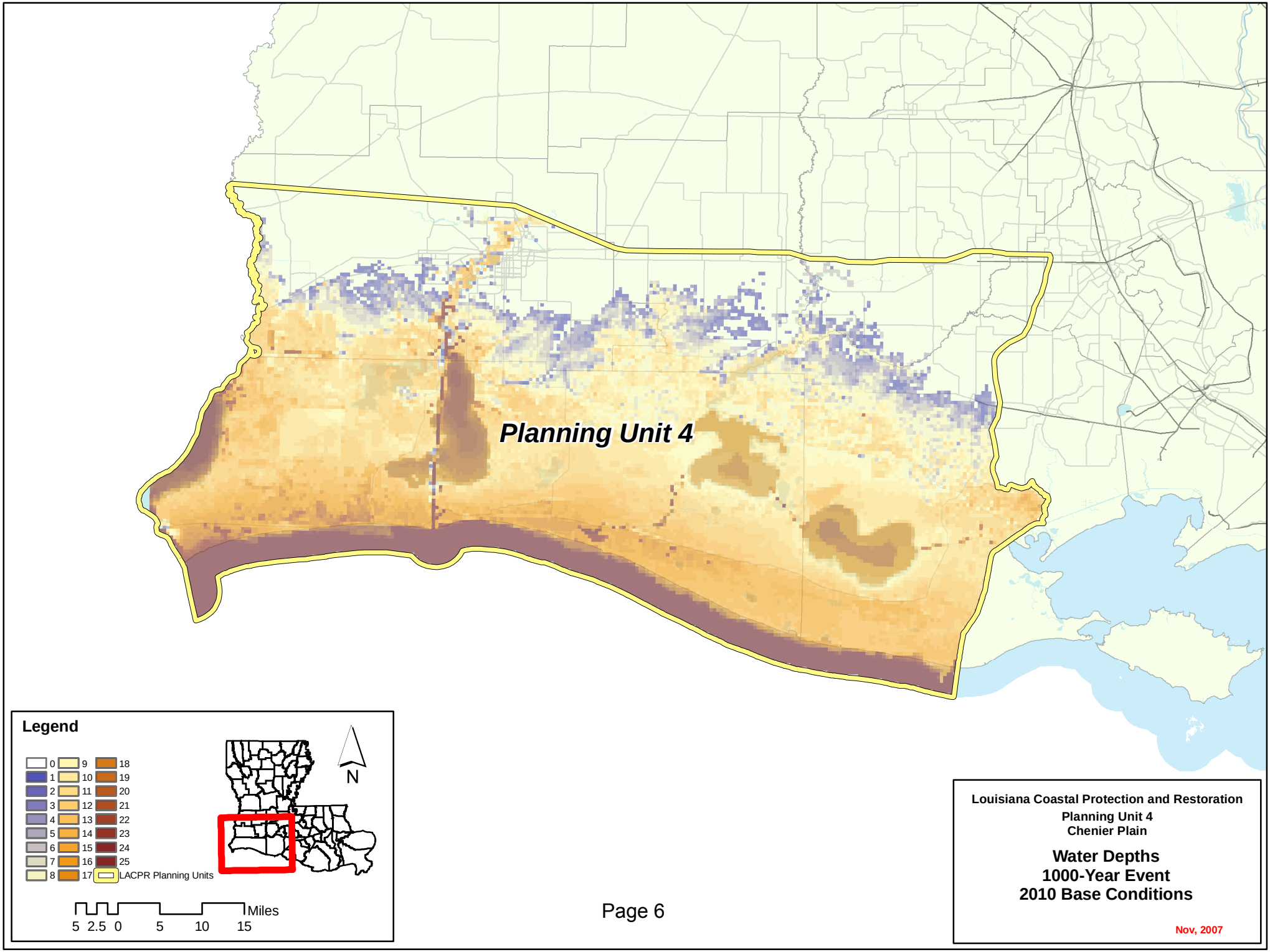


Louisiana Coastal Protection and Restoration
Planning Unit 4
Chenier Plain

Water Depths
400-Year Event
2010 Base Conditions

Nov, 2007

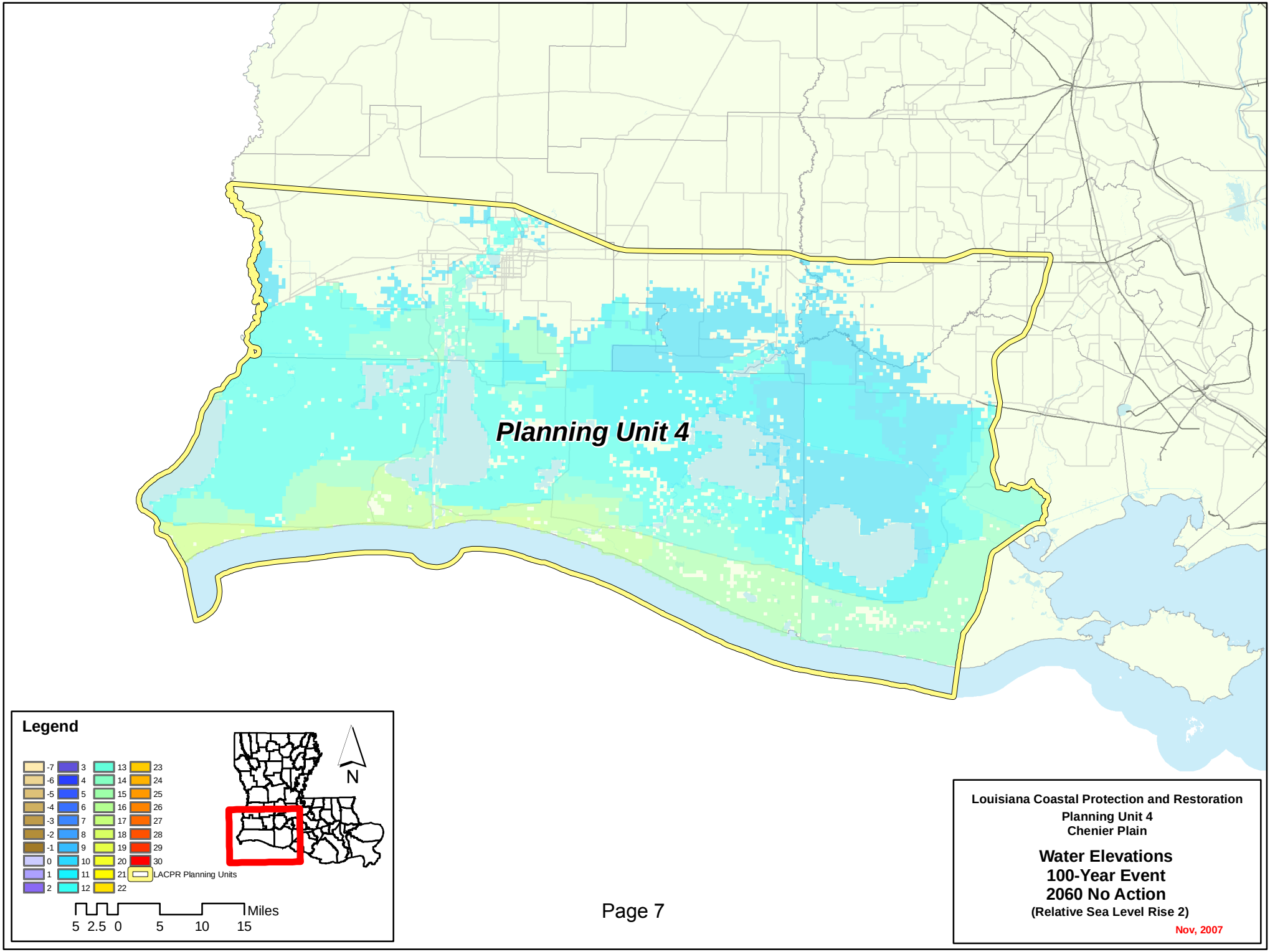

Planning Unit 4
Legend
-7 -6 -5 -4 -3 -2 -1 0 1 2
3 4 5 6 7 8 9 10 11 12
13 14 15 16 17 18 19 20 21 22
23 24 25 26 27 28 29 30
LACPR Planning Units
N
Miles
5 2.5 0 5 10 15
Louisiana Coastal Protection and Restoration
Planning Unit 4
Chenier Plain
Water Surface Elevations
1000-Year Event
2010 Base Conditions
Nov, 2007



Louisiana Coastal Protection and Restoration
Planning Unit 4
Chenier Plain

Water Depths
1000-Year Event
2010 Base Conditions

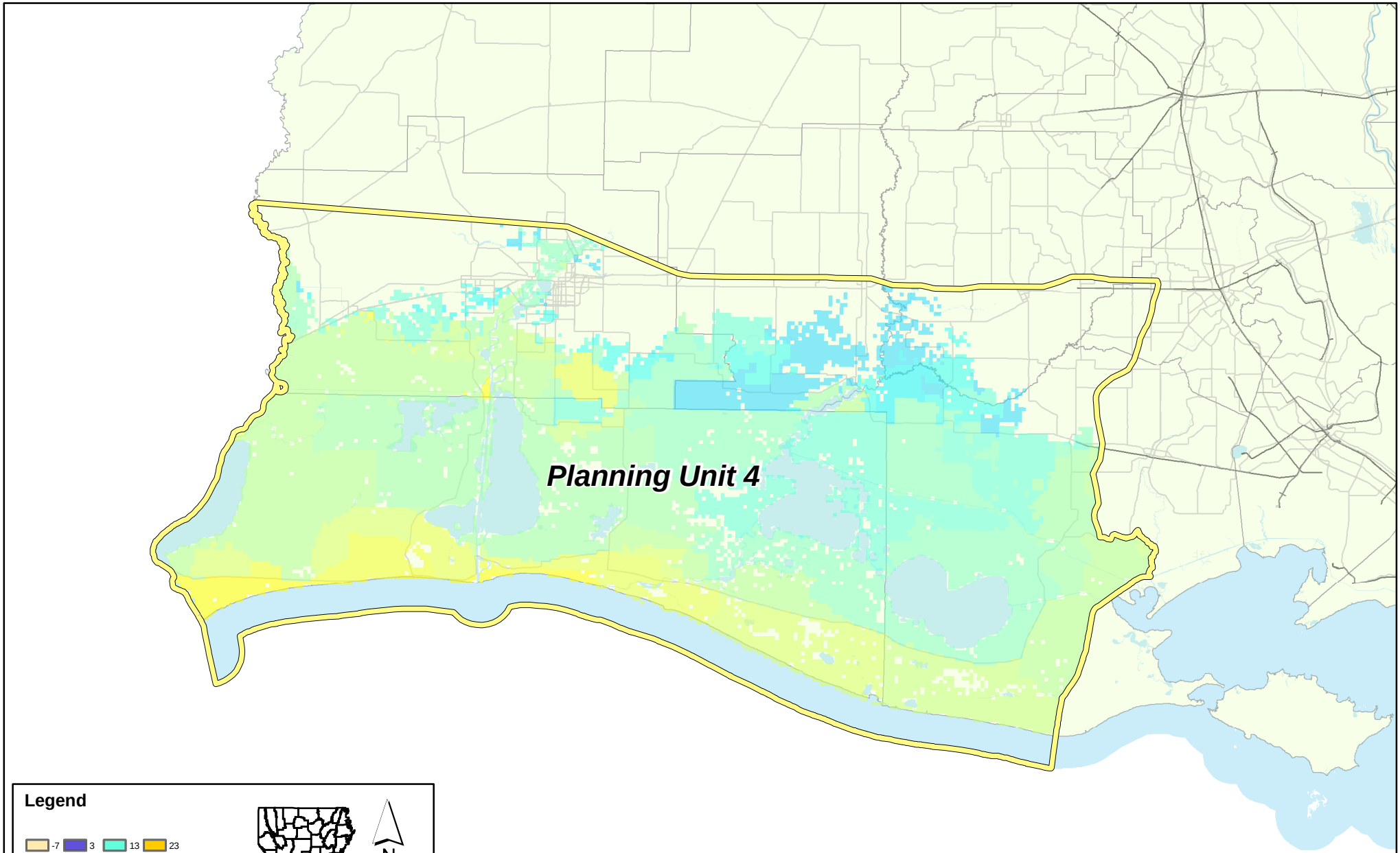
Nov, 2007



Louisiana Coastal Protection and Restoration
Planning Unit 4
Chenier Plain

Water Elevations
100-Year Event
2060 No Action
(Relative Sea Level Rise 2)

Nov, 2007



Legend

-7 -6 -5 -4 -3 -2 -1 0 1 2
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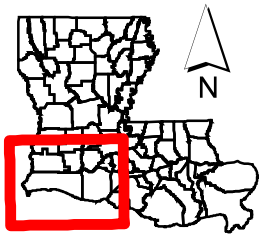
13 14 15 16 17 18 19 20 21 22
23 24 25 26 27 28 29 30
LACPR Planning Units

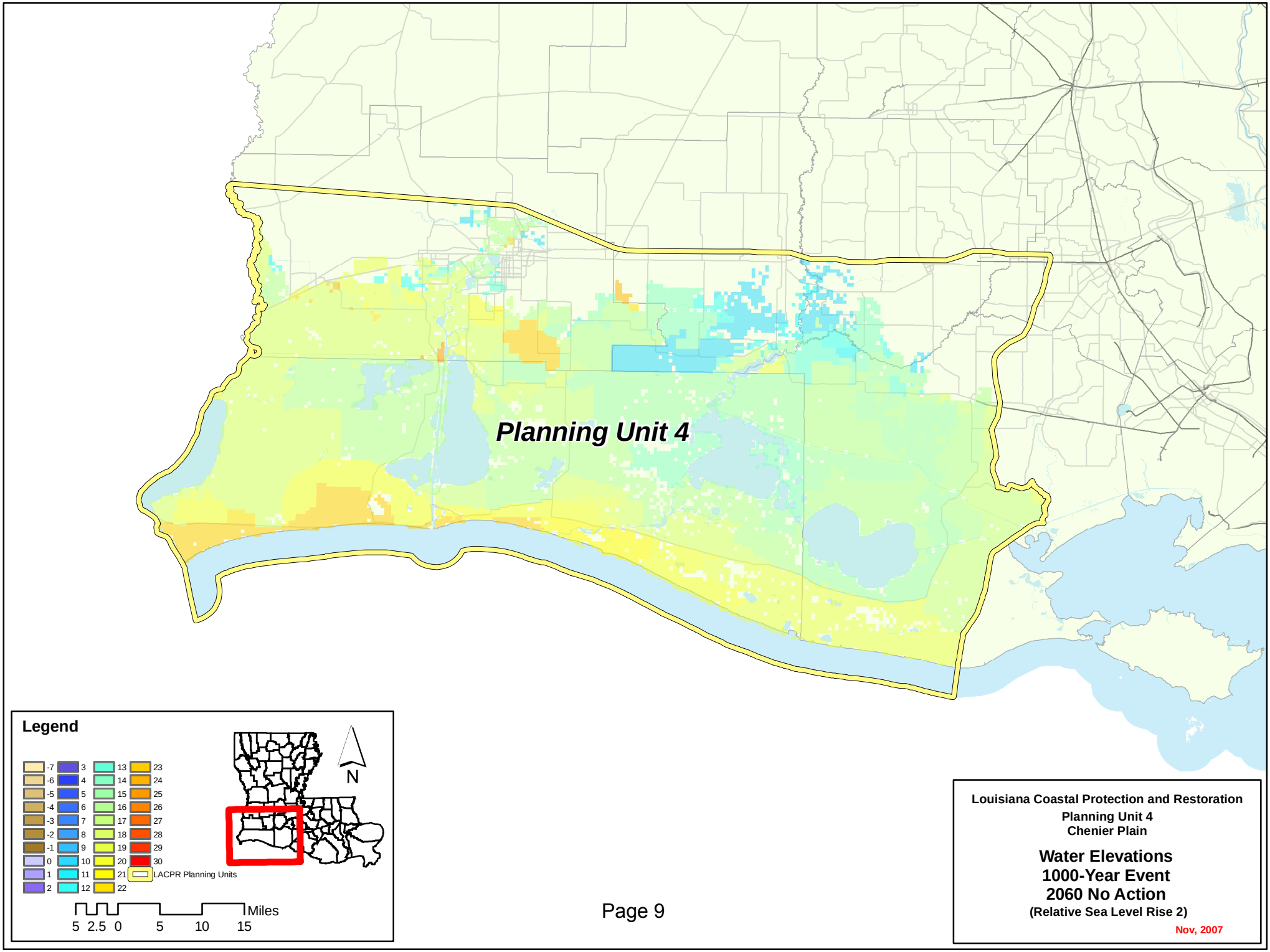


5 2.5 0 5 10 15 Miles

Louisiana Coastal Protection and Restoration
Planning Unit 4
Chenier Plain

Water Elevations
400-Year Event
2060 No Action
(Relative Sea Level Rise 2)

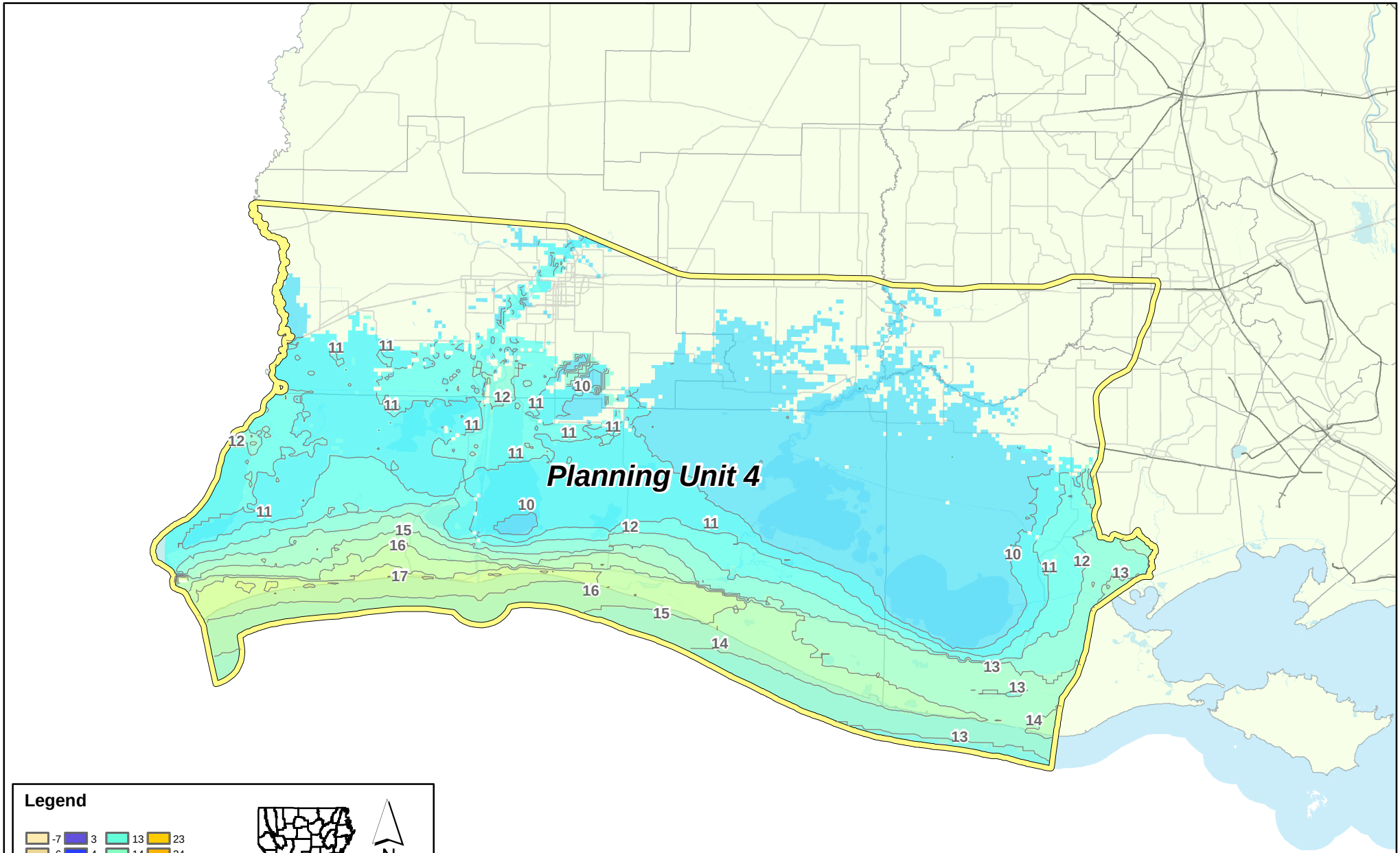
Nov, 2007



Louisiana Coastal Protection and Restoration
Planning Unit 4
Chenier Plain

Water Elevations
1000-Year Event
2060 No Action
(Relative Sea Level Rise 2)

Nov, 2007



Legend

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3 4 5 6 7 8 9 10 11 12
13 14 15 16 17 18 19 20 21 22
23 24 25 26 27 28 29 30
LACPR Planning Units

N

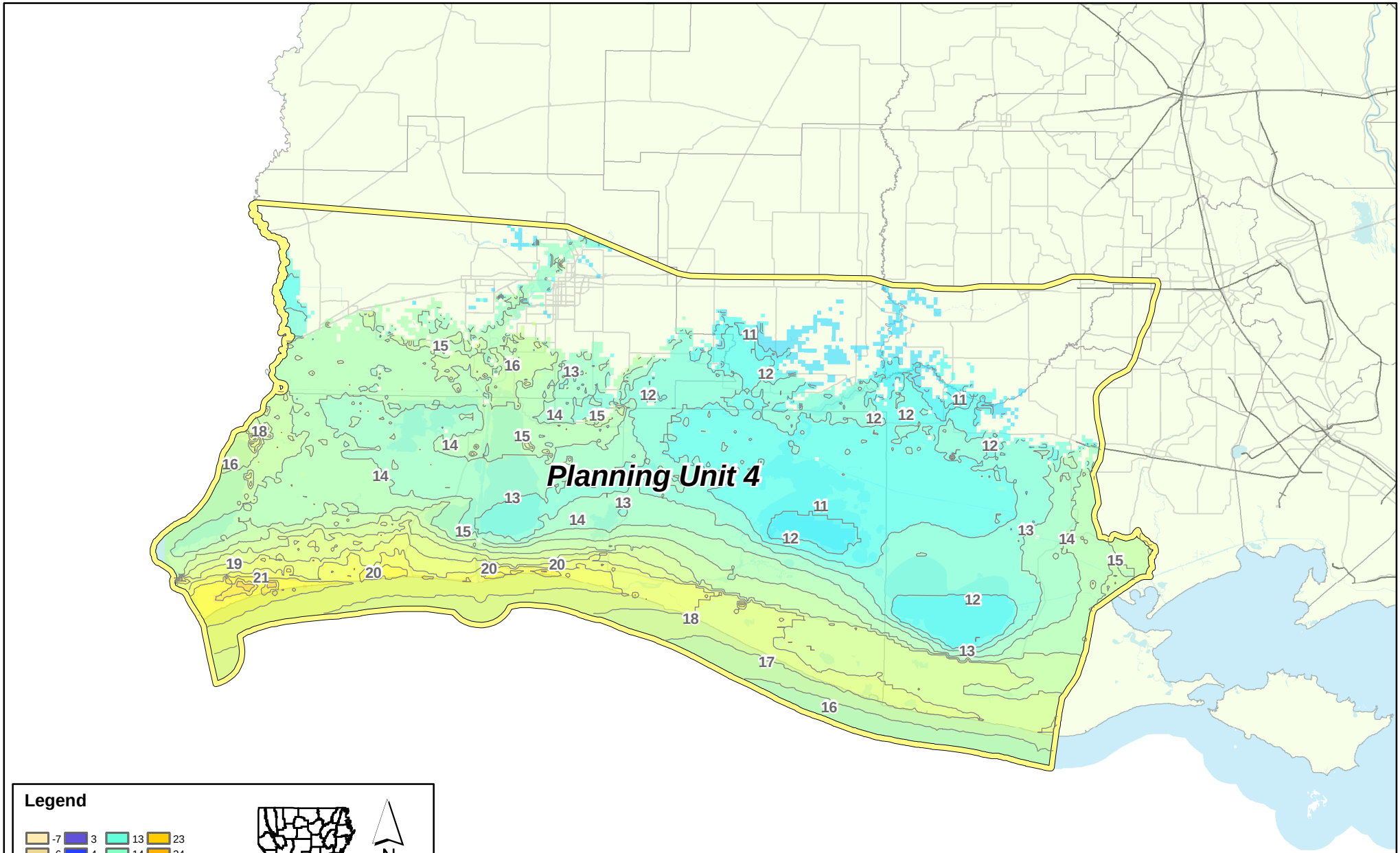
5 2.5 0 5 10 15 Miles

Page 10

Louisiana Coastal Protection and Restoration
Planning Unit 4
Chenier Plain

Water Surface Elevations
100-Year Event
2060 Maintain
(Relative Sea Level Rise 2)

Nov, 2007



Legend

-7 -6 -5 -4 -3 -2 -1 0 1 2
3 4 5 6 7 8 9 10 11 12
13 14 15 16 17 18 19 20 21 22
23 24 25 26 27 28 29 30
LACPR Planning Units

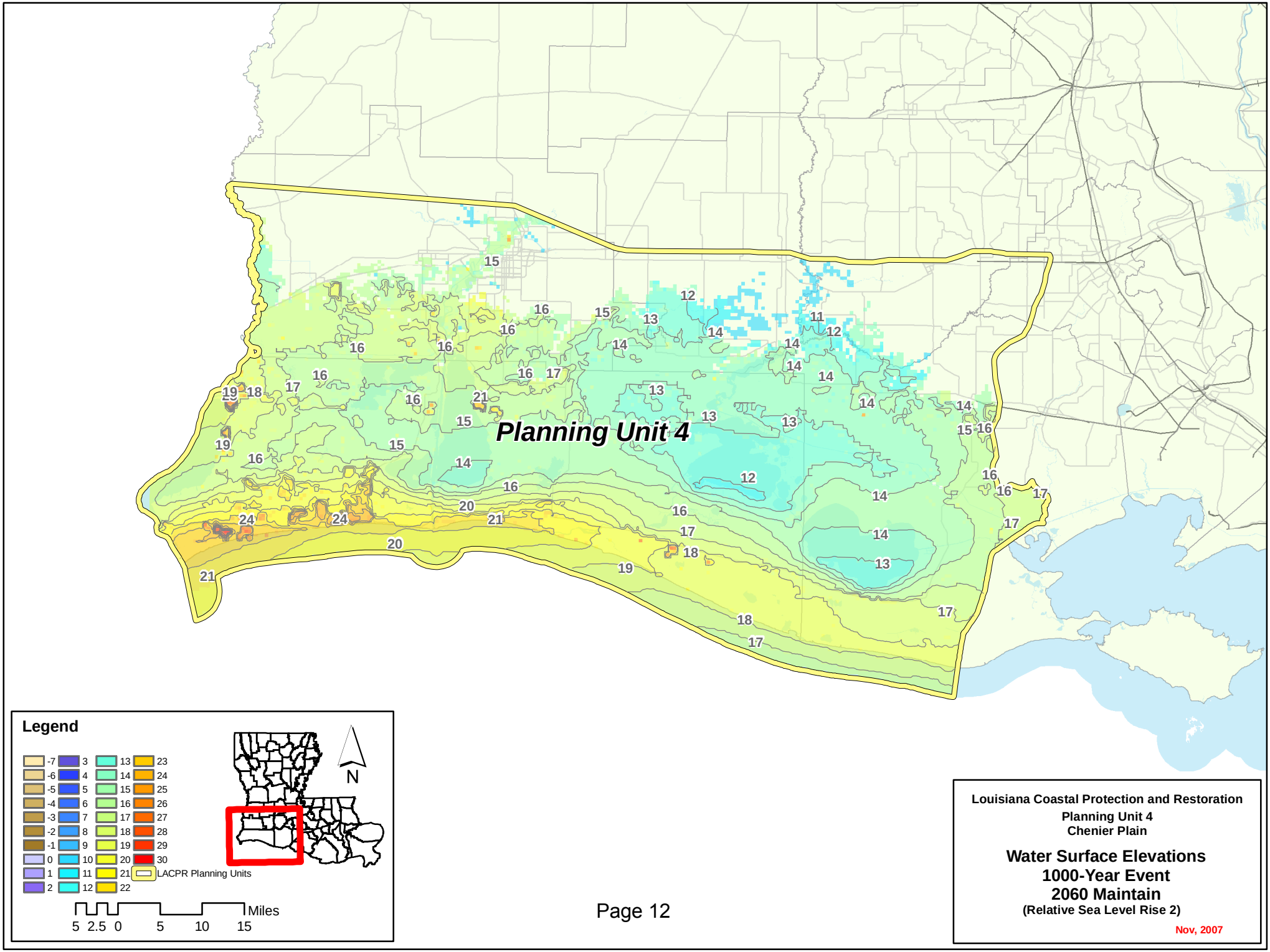
N

Miles
5 2.5 0 5 10 15

Louisiana Coastal Protection and Restoration
Planning Unit 4
Chenier Plain

Water Surface Elevations
400-Year Event
2060 Maintain
(Relative Sea Level Rise 2)

Nov, 2007



Louisiana Coastal Protection and Restoration
Planning Unit 4
Chenier Plain

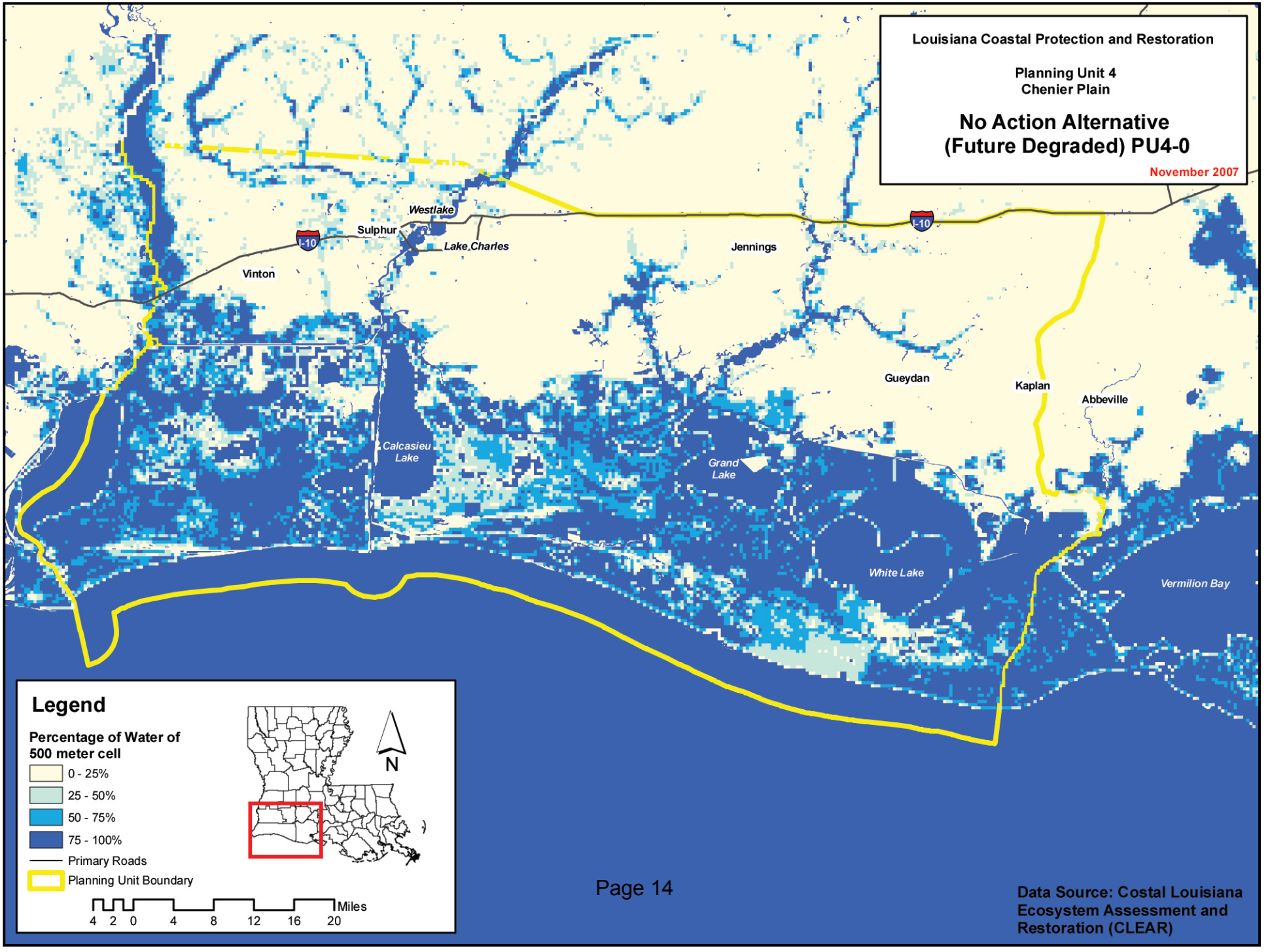
Water Surface Elevations
1000-Year Event
2060 Maintain
(Relative Sea Level Rise 2)

Nov, 2007

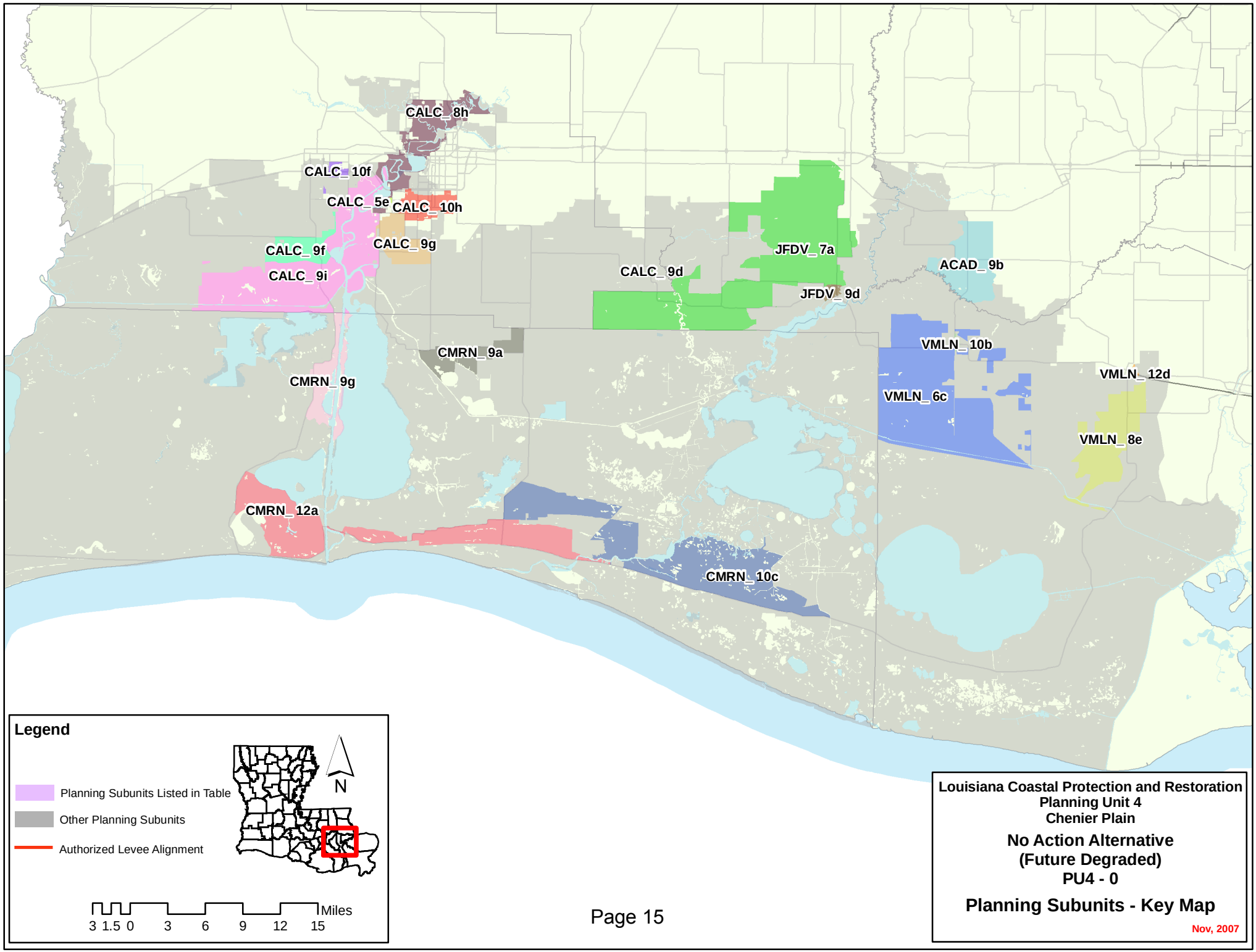
Planning Unit:	4	**Alt. No.**	PU4-0	**Category**	No Action
Alternative Description:	No action (without project) alternative.				
Coastal Component:	Degraded coast--increasing risk			**Nonstructural Component:**	None
Structural Component:	No new levees or increases in risk reduction level to existing levees.				

		Metric Results by Scenario with Uncertainty Bands								
		Life-cycle Cost	Resident Population Impacted	Residual Damages	Gross Regional Output Impacted	Employment Impacted	People's Earned Income Impacted	Archeo. Sites Protected	Historic Properties Protected	Historic Districts Protected
		$ Billions	Ann. Equiv. #	Ann. Equiv ($ 1000's)	Ann. Equiv ($ 1000's)	Ann. Equiv #	Ann. Equiv ($ 1000's)	# Sites	# Properties	# Districts
Scenario 1	**Low**	0.00	4,128	381,729	371,298	826	54,716	29	0	0
	Mean	0.00	6,733	593,651	518,604	1,212	79,751	33	0	0
	High	0.00	8,574	760,451	628,851	1,466	93,689	37	1	0
Scenario 2	**Low**	0.00	4,573	419,560	390,477	920	61,366	29	0	0
	Mean	0.00	7,449	642,943	599,785	1,340	88,535	33	0	0
	High	0.00	9,560	824,282	743,534	1,752	120,743	37	1	0
Scenario 3	**Low**	0.00	3,929	364,855	396,562	894	61,053	29	0	0
	Mean	0.00	6,219	563,987	531,436	1,258	84,037	33	0	0
	High	0.00	7,494	712,242	619,156	1,470	95,204	37	1	0
Scenario 4	**Low**	0.00	4,293	398,745	416,998	985	67,625	29	0	0
	Mean	0.00	6,644	605,807	596,683	1,363	90,990	33	0	0
	High	0.00	8,251	762,254	705,895	1,676	114,206	37	1	0

Other Metric Results							
Construction Time (years)	0	**Wetlands Created/**	**Scen 1&3**	**Scen 2&4**	**PV Cost of**	**Scen 1&2**	**Scen 3&4**
Direct Wetland Impacts (acres)	0	**Protected (acres)**	0	0	**NS Comp**		
Indirect Impacts	N/A	**PV Cost of Coastal**			**($ Billions)**	N/A	N/A
Spatial Integrity		**Component ($ Billions)**	N/A	N/A			
		PV Cost of Structural					
		Component ($ Billions)	N/A	N/A			



Data Source: Costal Louisiana Ecosystem Assessment and Restoration (CLEAR)



Louisiana Coastal Protection and Restoration
Planning Unit 4
Chenier Plain

No Action Alternative
(Future Degraded)
PU4 - 0

Planning Subunits - Key Map

Nov, 2007

Alternative: PU4-0

Water Surface Elevations (feet - NAVD88 2004.65)

Planning Sub Unit	2010 (Base) Conditions						2060 (Future) Conditions					
	100-yr Event		400-year Event		1,000-yr Event		100-yr Event		400-year Event		1,000-yr Event	
	Without Project	With Project	Without Project	With Project	Without Project	With Project	Without Project	With Project	Without Project	With Project	Without Project	With Project
ACAD_ 9b	7.8		9.4		12.2		10.4		14.4		17.4	
CALC_ 10f	7.8		7.8		7.9		10.4		10.4		12.9	
CALC_ 10h	7.8		7.8		8.5		10.6		12.4		13.5	
CALC_ 5e	7.8		8.5		12.1		10.4		13.6		17.1	
CALC_ 8h	7.8		10.7		12.8		12.3		15.8		17.8	
CALC_ 9d	7.8		9.7		13.6		10.4		13.9		17.3	
CALC_ 9f	8.8		13.6		16.0		13.8		18.7		21.0	
CALC_ 9g	10.9		14.6		17.1		13.9		20.4		24.1	
CALC_ 9i	8.4		12.8		15.3		13.4		17.9		20.4	
CMRN_ 10c	11.1		14.8		16.8		13.4		17.4		19.3	
CMRN_ 12a	13.0		16.9		19.0		16.7		20.5		22.5	
CMRN_ 9a	9.5		14.1		16.3		14.0		18.3		20.5	
CMRN_ 9g	9.6		13.1		15.2		12.2		16.1		17.8	
JFDV_ 7a	7.8		7.8		7.8		10.4		10.4		10.4	
JFDV_ 9d	7.8		7.8		9.0		10.4		10.9		12.4	
VMLN_ 10b	7.8		11.2		13.5		10.4		14.6		17.0	
VMLN_ 12d	7.8		11.1		14.3		10.4		15.0		18.6	
VMLN_ 6c	7.8		10.7		12.7		11.6		15.7		18.0	
VMLN_ 8e	8.6		12.1		14.2		12.2		16.0		18.5	

Evaluation Parameters						
	Confidence Level:	90%		Levee Design:	No Friction Waves	
	Future Sea Level Rise:	High		Levee Overtopping:	No Friction Waves	

Planning Unit:	4	**Alt. No.**	PU4-R1	**Category**	Coastal Restoration Only
Alternative Description:					
Coastal Component:	R1			**Nonstructural Component:**	None
Structural Component:	No new levees or increases in risk reduction level to existing levees.				

		Metric Results by Scenario with Uncertainty Bands									
		Life-cycle Cost	Resident Population Impacted	Residual Damages	Gross Regional Output Impacted	Employment Impacted	People's Earned Income Impacted	Archeo. Sites Protected	Historic Properties Protected	Historic Districts Protected
		$ Billions	Ann. Equiv. #	Ann. Equiv ($ 1000's)	Ann. Equiv ($ 1000's)	Ann. Equiv #	Ann. Equiv ($ 1000's)	# Sites	# Properties	# Districts
Scenario 1	**Low**		3,925	363,261	296,440	786	50,673	29	0	0
	Mean	10.78	6,610	575,581	409,893	1,102	68,174	33	0	0
	High		8,409	739,967	580,706	1,410	85,810	37	1	0
Scenario 2	**Low**		4,336	399,376	320,303	831	54,211	29	0	0
	Mean	11.08	7,230	625,539	552,421	1,288	81,056	33	0	0
	High		9,407	803,053	727,038	1,700	116,043	37	1	0
Scenario 3	**Low**		3,770	350,225	340,535	867	58,439	29	0	0
	Mean	10.78	6,121	551,110	440,378	1,163	74,211	33	0	0
	High		7,394	697,160	579,154	1,432	89,263	37	1	0
Scenario 4	**Low**		4,120	383,046	360,534	909	61,820	29	0	0
	Mean	11.08	6,501	592,613	556,681	1,324	85,066	33	0	0
	High		8,121	746,973	694,204	1,640	111,046	37	1	0

Other Metric Results							
Construction Time (years)	25	**Wetlands Created/**	**Scen 1&3**	**Scen 2&4**	**PV Cost of**	**Scen 1&2**	**Scen 3&4**
Direct Wetland Impacts (acres)	0	**Protected (acres)**	45,684	45,618	**NS Comp**		
Indirect Impacts	N/A	**PV Cost of Coastal**			**($ Billions)**	N/A	N/A
Spatial Integrity	0.575	**Component ($ Billions)**	10.78	11.08			
		PV Cost of Structural					
		Component ($ Billions)	N/A	N/A			