



NESHAP

63.602(d) – Standards and Compliance

Gypsum Dewatering Stack and Cooling Pond Management Plan

MOSAIC FLORIDA OPERATING FACILITIES

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PHOSPHOGYPSUM ENGINEERING DEPARTMENT

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NESHAP

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Gypsum Dewatering Stack and Cooling Pond Management Plan

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Section 1.0 63.602(e)

1.1 Gypsum Dewatering Stack and Cooling Pond Management Plan

Upon receipt of 40 CFR Parts 60 and 63 (NESHAP Findings), the Mosaic Phosphogypsum Engineering Group has developed a compliance plan as it pertains to the Gypsum Dewatering Stack and Cooling Pond Management plan outlined under section 63.602(d). The following report includes the information specified in paragraphs 63.602(e) (1) through (e) (3) and meeting the compliance schedule specified under section (e) (4).

Section 2.0 63.602(e) (1)

2.1 Facility Locations per permit (See Appendix)

Facility	Facility Coordinates					
	Latitude (N)			Longitude (W)		
	Deg.	Min.	Sec.	Deg.	Min.	Sec.
Riverview	27	51	45.5064	82	23	24.4691
Bartow	27	54	7.1200	81	55	6.7500
New Wales	27	49	33.2700	82	2	44.2900
Plant City	28	9	59.7700	82	8	29.2000

2.2 Location of Specific Gypsum Dewatering and Cooling Pond

(See Appendix)

Facility	Center Coordinates					
	Latitude (N)			Longitude (W)		
	Deg.	Min.	Sec.	Deg.	Min.	Sec.
Riverview						
Gypsum Stack(s)						
North	27	53	6.5755	82	22	47.9185
Expansion	27	52	41.1444	82	22	48.1383
Closed	27	52	13.9889	82	23	47.4538
Cooling Pond(s)						
32 acp	27	52	9.5918	82	23	24.4228
160 acp	27	52	21.2661	82	22	46.2439

Facility	Center Coordinates					
	Latitude (N)			Longitude (W)		
	Deg.	Min.	Sec.	Deg.	Min.	Sec.
Bartow						
Gypsum Stack(s)						
Phase 1/3	27	52	55.8325	81	53	33.3310
Phase 2	27	53	19.0992	81	53	37.8397
North Lined Pond	27	54	49.9598	81	54	42.0088
South Lined Pond	27	54	25.2230	81	54	36.6538
Cooling Pond(s)						
R3	27	54	36.8460	81	54	12.3855
R5	27	54	18.2141	81	54	9.2774
R6	27	54	7.6459	81	54	39.6005
R7	27	55	4.6662	81	54	38.0793
R1/2	27	54	33.3805	81	54	52.8879

Facility	Center Coordinates					
	Latitude (N)			Longitude (W)		
	Deg.	Min.	Sec.	Deg.	Min.	Sec.
New Wales						
	Gypsum Stack(s)					
	North	27	49	50.1525	82	2 17.0276
	South	27	48	50.0716	82	1 41.2662
	Cooling Pond(s)					
	Cooling Pond	27	49	24.4711	82	2 5.7925
	AHP	27	49	24.9622	82	3 2.4362
	Cooling Channels	27	50	9.0000	82	2 26.0000

Facility	Center Coordinates					
	Latitude (N)			Longitude (W)		
	Deg.	Min.	Sec.	Deg.	Min.	Sec.
Plant City						
	Gypsum Stack(s)					
	Old Stack Pond 1	28	9	58.1150	82	7 40.6001
	Old Stack Pond 2	28	9	43.3338	82	7 47.9476
	Old Stack Pond 3	28	9	40.0734	82	8 7.1550
	Phase 1 Pond 4	28	9	27.5400	82	7 36.4800
	Phase 1 Pond 5	28	9	28.2431	82	7 48.4732
	Phase 1 Pond 6	28	9	27.9346	82	8 3.7563
	Phase 2 Pond 7	28	9	6.1288	82	7 31.6060
	Phase 2 Pond 8	28	9	6.0963	82	7 50.1524
	Phase 2 Pond 9	28	9	6.0626	82	8 8.9963
	Cooling Pond(s)					
	Cooling Pond	28	10	6.2196	82	8 10.6163
	Gyp Return Ditch	28	10	14.7963	82	7 53.9790
	ESA	28	9	59.8700	82	7 44.1200
	Perimeter Ditch	28	10	16.1396	82	7 34.9824

Section 3.0 63.602(e) (2)

3.1 Maximum Permitted Footprint Acreage per system

Facility		Areas
		(acres)
Riverview		
	Gypsum Stack(s)	
	North	340
	Expansion	178
	Closed	359
	Cooling Pond(s)	
	32 acp	34
	160 acp	142

Facility		Areas
		(acres)
Bartow		
	Gypsum Stack(s)	
	Phase 1/3	257
	Phase 2	130
	North Lined Pond	34
	South Lined Pond	55
	Cooling Pond(s)	
	R3	73
	R5	68
	R6	21
	R7	37
	R1/2	9

Facility		Areas
		(acres)
New Wales		
	Gypsum Stack(s)	
	North	380
	South	708
	Cooling Pond(s)	
	Cooling Pond	302
	AHP	92
	Cooling Channels	62

Facility		Areas
		(acres)
Plant City		
	Gypsum Stack(s)	
	Old Stack Pond 1	181
	Old Stack Pond 2	131
	Old Stack Pond 3	89
	Phase 1 Pond 4	77
	Phase 1 Pond 5	78
	Phase 1 Pond 6	81
	Phase 2 Pond 7	45
	Phase 2 Pond 8	45
	Phase 2 Pond 9	45
	Cooling Pond(s)	
	Cooling Pond	73
	Gyp Return Ditch	29
	ESA	12
	Perimeter Ditch	30

Section 4.0 63.602(e) (3)

4.1 Approved Control Measures

- (e)(3)(i). Submerge Discharge Pipes - N/A
- (e)(3)(ii). Raise pH of Pond Water - N/A
- (e)(3)(iii). Reduce Cooling Pond Footprint – N/A
- (e) (3) (iv). Rim Ditch Operations –
 - See Appendix A
- (e)(3)(v). Slaked lime – N/A
- (e)(3)(vi). Soil Cover on Slopes – N/A
- (e)(3)(vii). Closure Schedule – Florida
 - A. Timing of when Closure will occur
 - See Appendix
 - B. Closure Plan (material and process)
 - The closure process and materials used under closure activities will comply with standards set forth in the Florida Phosphogypsum rules 62-673 F.A.C.

4.2 Control Measure Matrix

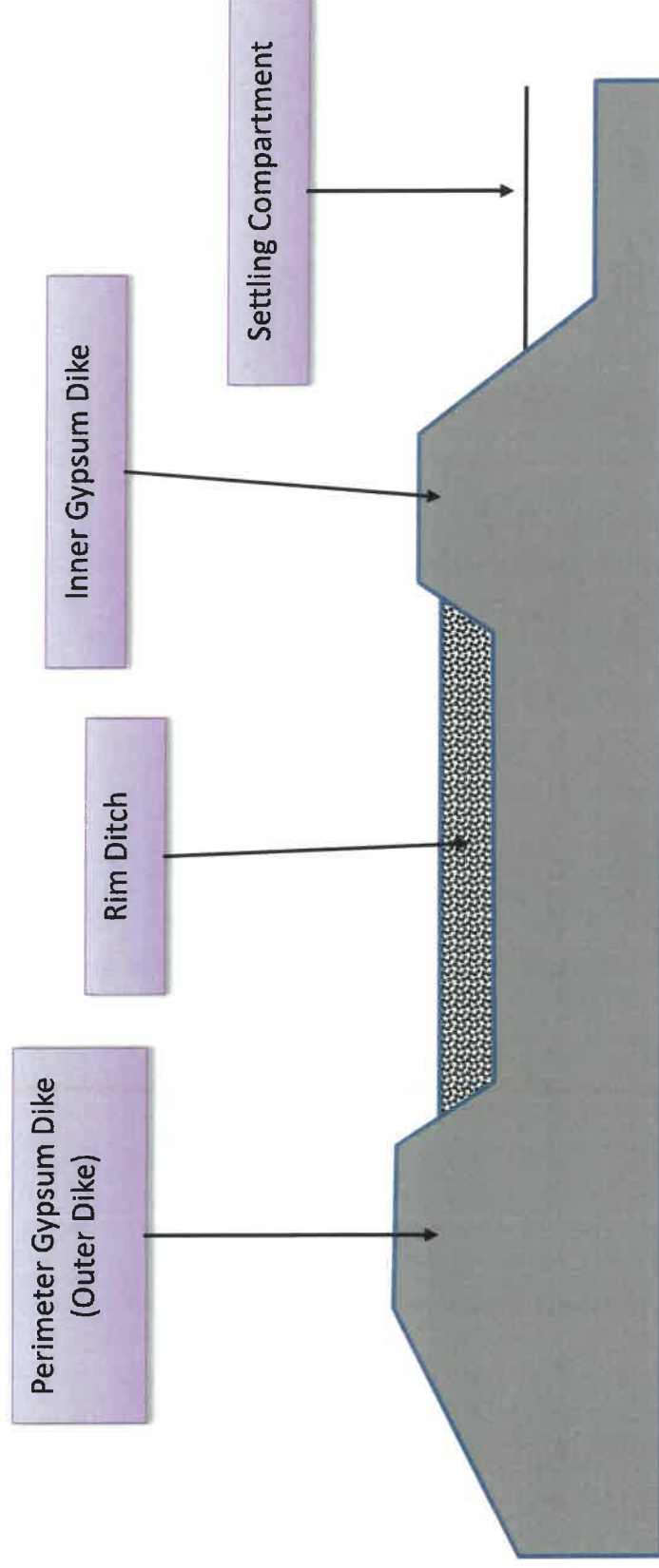
The below chart assigns the respective control measure as outline above to the specific Mosaic Operating facility.

		RVW	BTW	NW	PC
(e)(3)(i)	Submerge Discharge Pipe				
(e)(3)(ii)	Raise pH of PW				
(e)(3)(iii)	Reduce cooling pond footprint				
(e)(3)(iv)	Rim ditch operation	X	X	X	X
(e)(3)(v)	Slaked lime				
(e)(3)(vi)	Soil cover on slopes				
(e)(3)(vii)	Closure Schedule and Method	X	X	X	X

Appendix

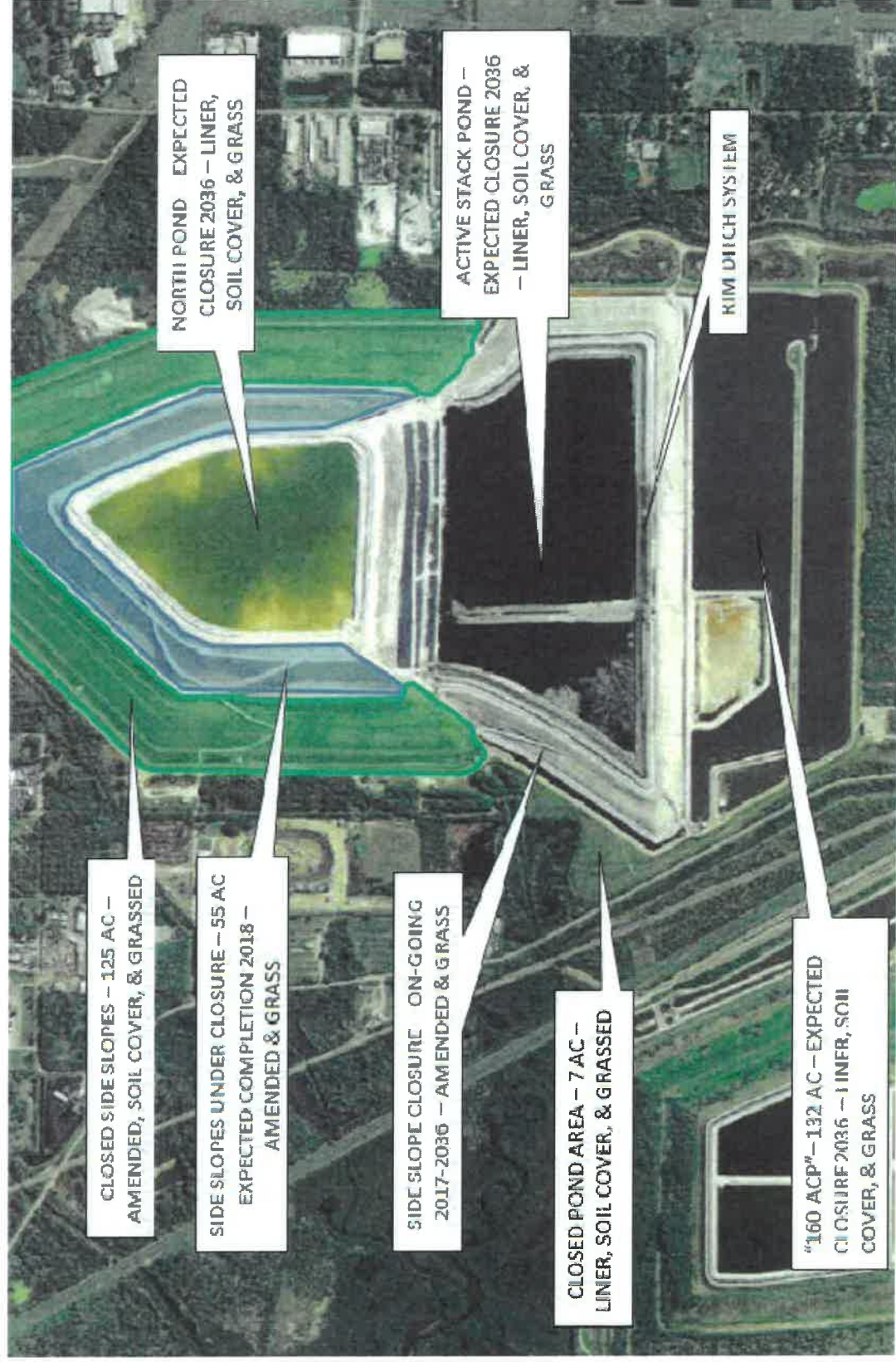
APPENDIX A:

"Typical" Rim Ditch Cross Sections for Florida Sites - 63.602(e) (3) (iv)

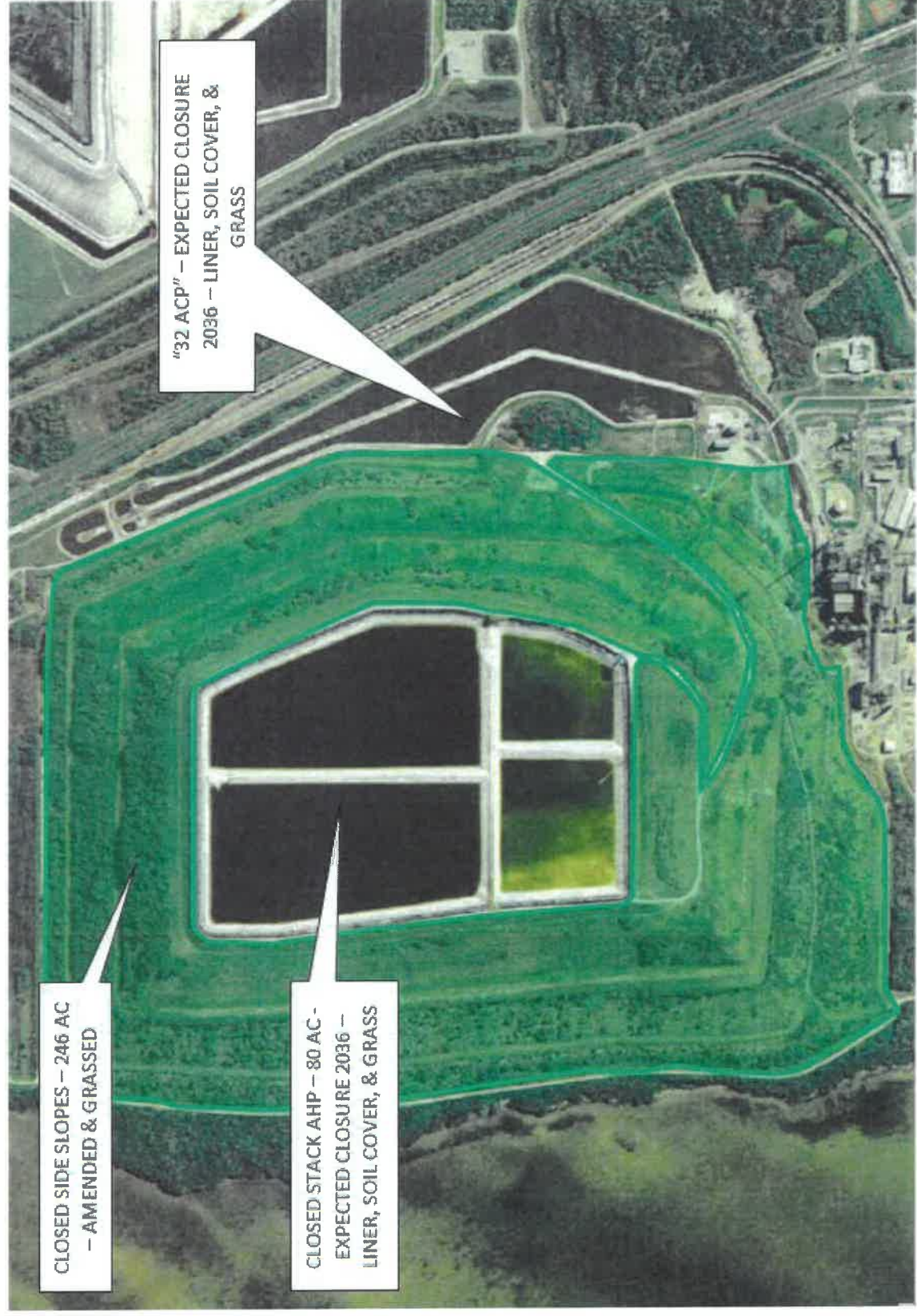


APPENDIX B:

Riverview Overview: Control measures (e) (3) (iv) & (e) (3) (vii)

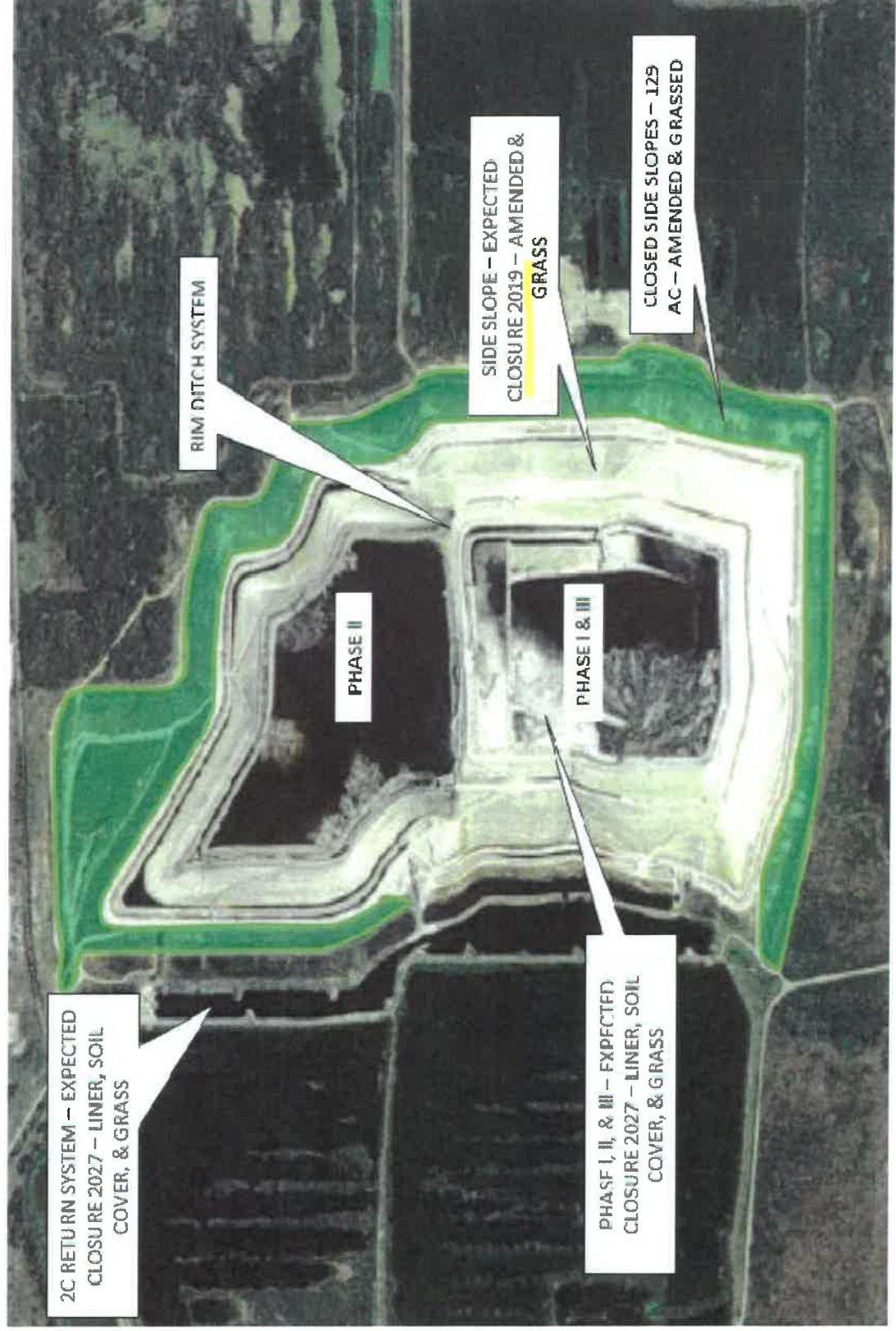


Riverview Overview: Control measures (e) (3) (iv) & (e) (3) (vii)

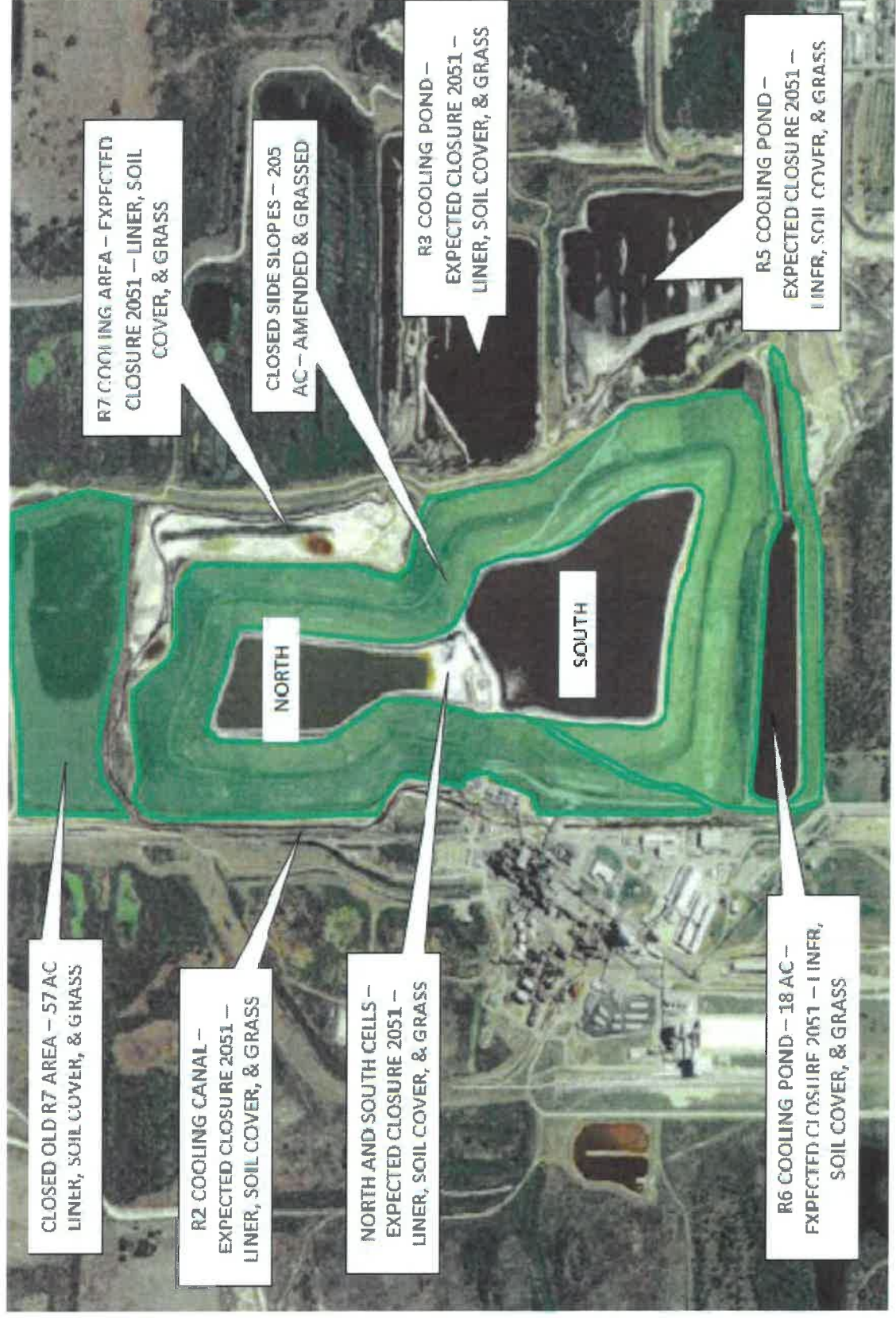


APPENDIX C:

Bartow Overview: Control measures (e) (3) (iv) & (e) (3) (vii)

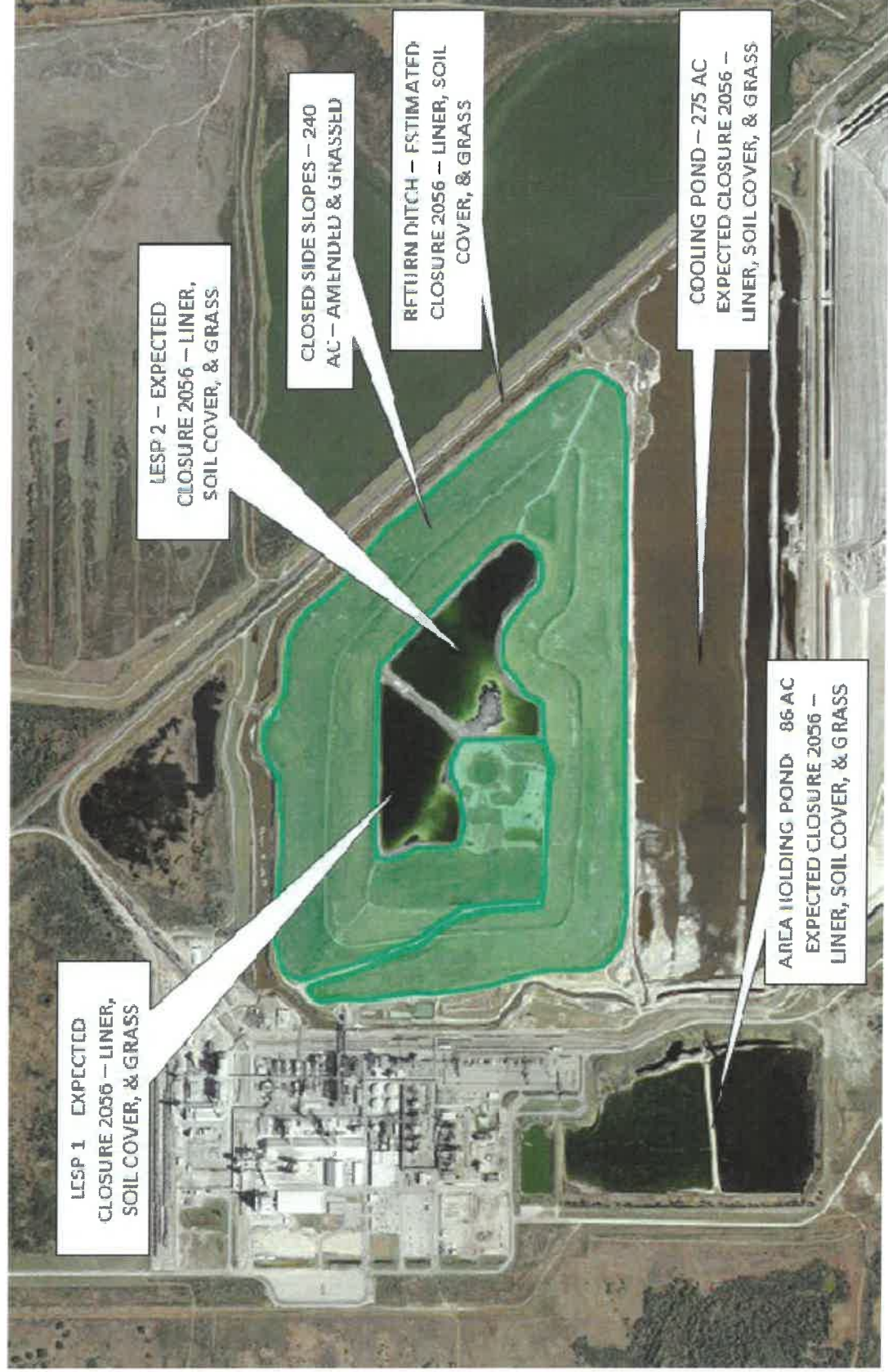


Bartow Overview: Control measures (e) (3) (iv) & (e) (3) (vii)

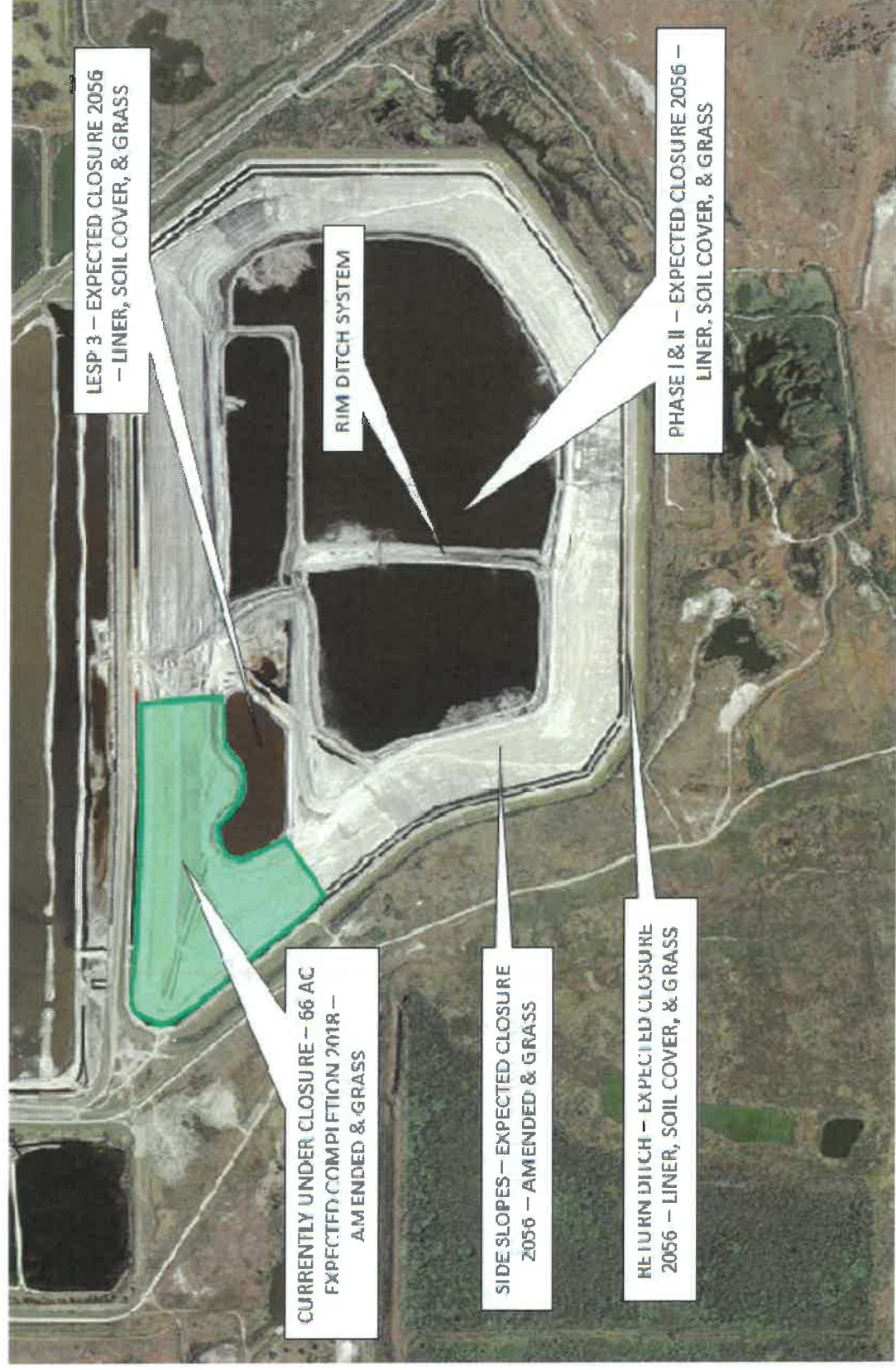


APPENDIX D:

New Wales Overview: Control measures (e) (3) (iv) & (e) (3) (vii)



New Wales Overview: Control measures (e) (3) (iv) & (e) (3) (vii)



APPENDIX E:

Plant City Overview: Control measures (e) (3) (iv) & (e) (3) (vii)

