

HRK Holdings Presentation

Manatee County Board of County Commissioners Workshop

February 2, 2021

PINEY POINT SITE TIMELINE



PINEY POINT SITE TIMELINE

Bradenton Herald, September 1965

- \$14 million deep water port and phosphate loading facility at Piney Point
- \$13.5 million countywide water system
- \$15 million industrial plant

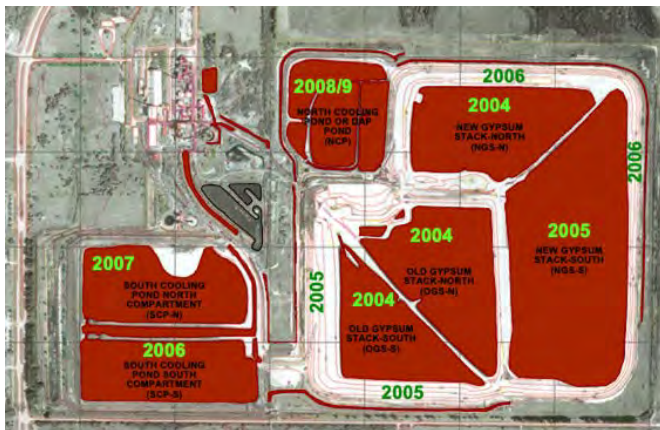


PINEY POINT SITE TIMELINE

- Mulberry Corporation files for bankruptcy in February 2001
- FDEP steps in with Court Appointed Receiver
- FDEP begins with site closure activities in 2002



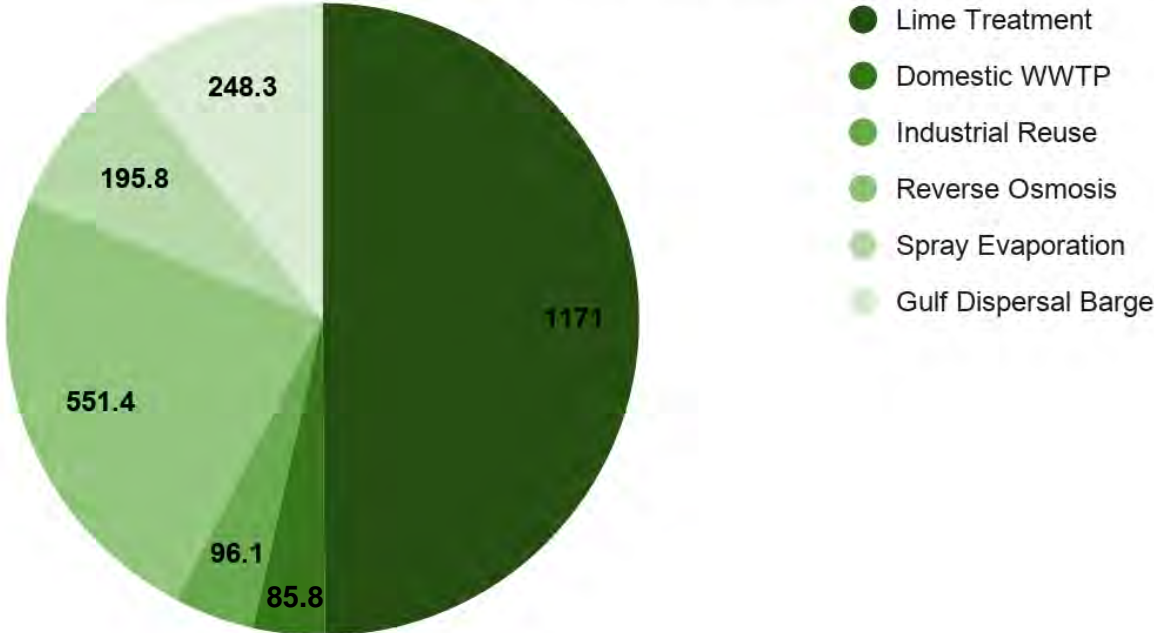
FDEP INVESTMENTS 2001-11



WATER REMOVAL THROUGH 2007

Piney Point - Process Water Consumption

2.35 Billion Gallons through March 31, 2007



HRK HOLDINGS ACQUISITION - 2006

- Coordination with FDEP on continued closure construction
- Former plant demolition, environmental clean-up, and permitting
- Port Manatee Dredge Materials Containment Agreement (DMCA 2007)
- Long term care of the site (through 2065)
- Development of the property to support port related businesses

FDEP CLEANUP EFFORTS 2001-11



Closed 70 acre
South Cooling
Pond

Closed 27 acre
North Cooling
Pond

Closed stack top areas with
three lined/clean reservoirs

Remaining 140 MGal
Excess Process Water

Closed Stack side
slopes and stormwater
ditches

PORT MANATEE BERTH 12 CONSTRUCTION

- Authorized dredge material disposal on site
- 1.5 million yards of dredge materials, mostly seawater
- Created Post Panamax Berth, millions in revenue



PORT MANATEE BERTH 12 CONSTRUCTION



Project commenced on April 22, 2011 and was completed on October 21, 2011

DREDGE DISPOSAL LEAK

- May 11, 2011 - HRK discovers leak
- June 7, 2011 - HRK performs a 'controlled breach'
- Emergency discharge of 169.18 million gallons
- Completed gypstack system repairs and recommenced with dredging July 19, 2011



HRK ACCOUNTABILITY

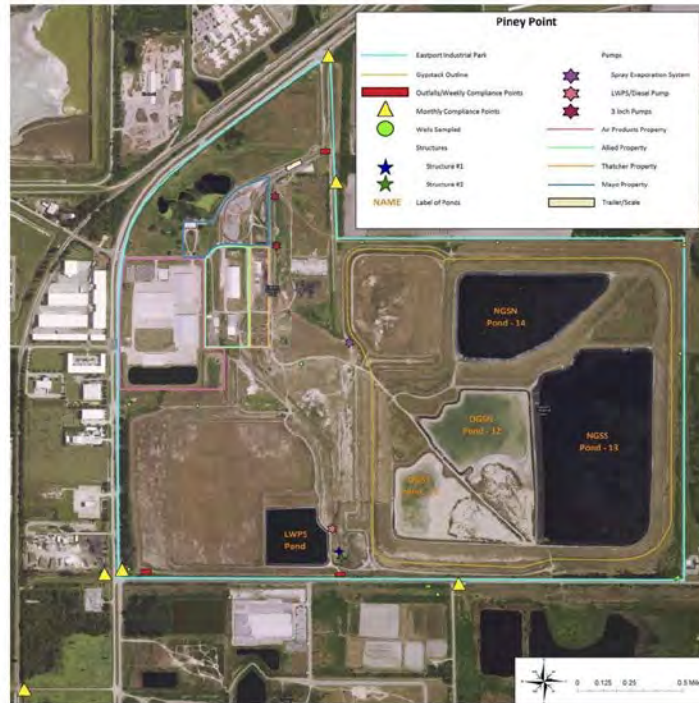
- 24/7/365 environmental monitoring through 2065
- Onsite process and stormwater management
- Permit, pumps, drains, liner, outfall monitoring and management
- Overall site and community stewardship





WHERE ARE WE NOW?

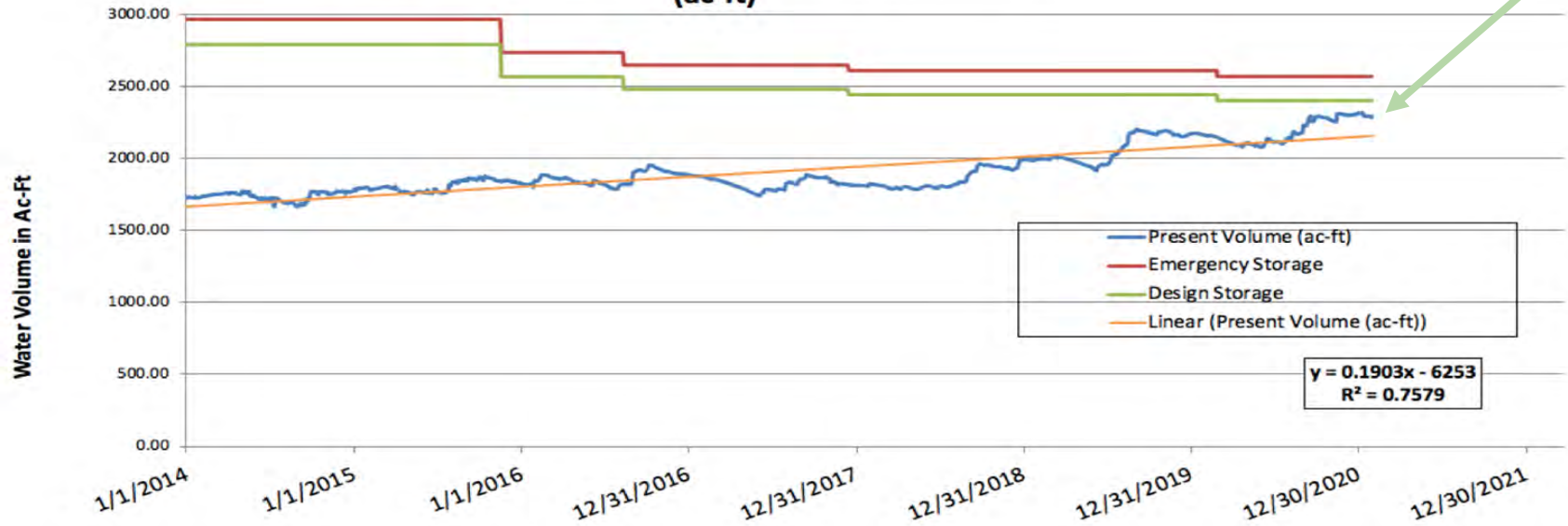
Piney Point Site



***This map is not to scale.

1/31/21 COMBINED SITE

2013-2021 Total Stored Volume of the Three Ponds
(ac-ft)



LPWS

1/31/21

Freeboard: Approximately 3 feet below the lowest surveyed
gypstack crest road elevation.

Millions of Gallons = MG

Rain Fall: 6.06" Total Inches Remaining

Freeboard Elevation: 21.9 NGVD

Current Elevation: 21.35 NGVD

Ponded Process Water: 26.42 MG

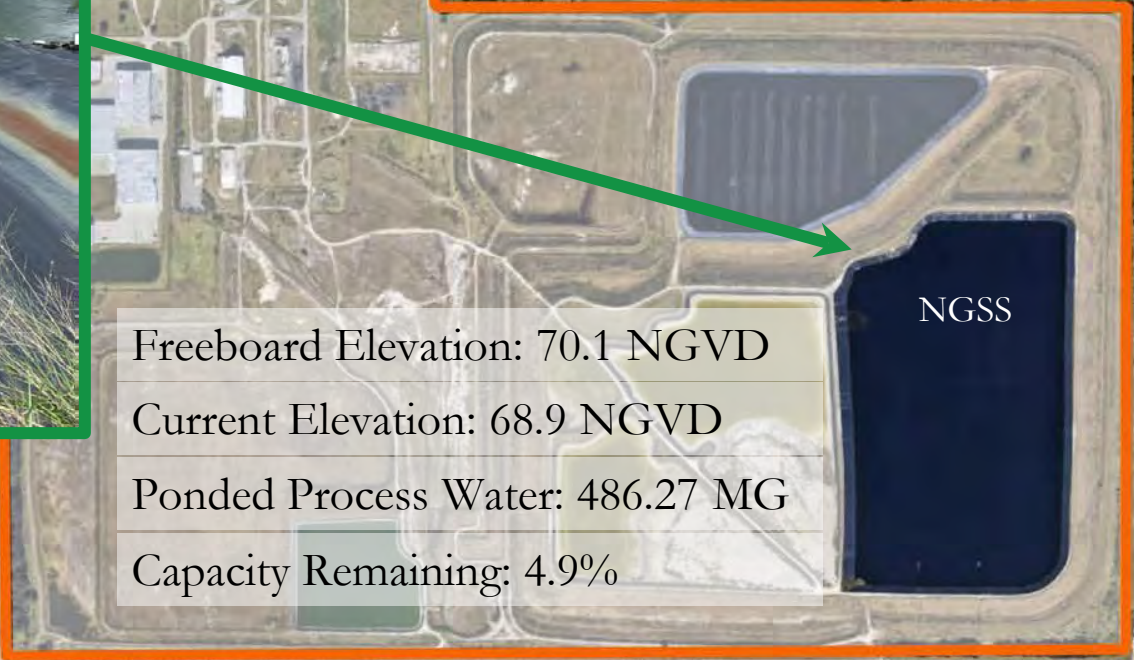
Capacity Remaining: 6.7%

LPWS



NGSS
1/31/21

Freeboard: Approximately 3 feet below the lowest surveyed gypstack crest road elevation.
Millions of Gallons = MG
Rain Fall: 12.86" Total Inches Remaining



Freeboard Elevation: 70.1 NGVD
Current Elevation: 68.9 NGVD
Ponded Process Water: 486.27 MG
Capacity Remaining: 4.9%

NGSS



NGSN

1/31/21

Freeboard: Approximately 3 feet below the lowest surveyed gypstack crest road elevation.

Millions of Gallons = MG

Rain Fall: 7.92" Total Inches Remaining

NGSN

Freeboard Elevation: 70.43 NGVD

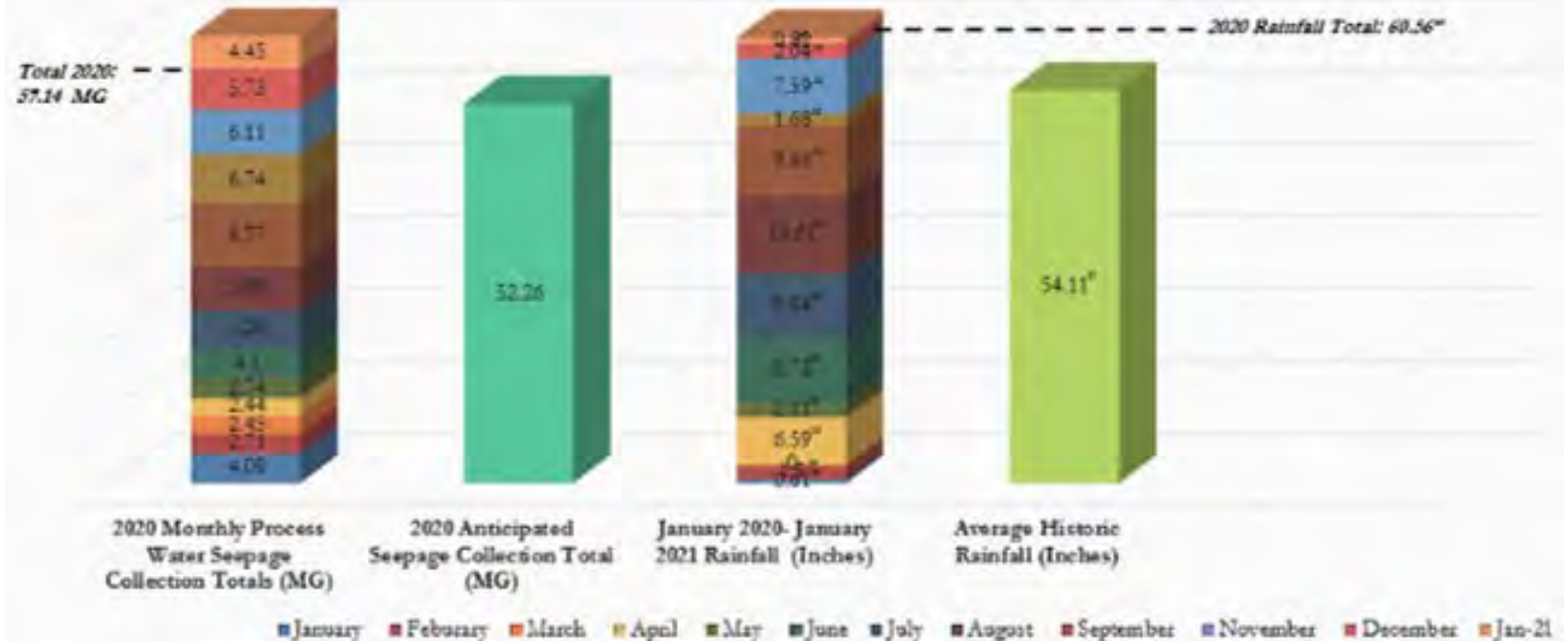
Current Elevation: 70.10 NGVD

Ponded Process Water: 235.49 GM

Capacity Remaining: 3.2%

2020-2021 RAINFALL & PROCESS WATER SEEPAGE COLLECTION TOTALS

2020-2021 Rainfall & Process Water Seepage Collection Totals



CURRENT STATUS AS OF 1/31/21

- **748,180,000** gallons of process water ponded onsite
- **4.4%** capacity remaining within process water cells
- **10.70"** of remaining rainfall capacity
- **52,560,000** gallons of process water seepage collection annually (average)
- **55,600,000** gallons of process water treated onsite annually by enhanced spray evaporation

THE PATH FORWARD



Arcadis Study for FDEP (2016)

- Evaluated 8 water treatment and management scenarios
- Identified pros, cons and assumptions with each water management option

EVALUATED ALTERNATIVES

1. Spray Evaporation
2. Publicly Owned Treatment Works (POTW)
3. Treat and Discharge
4. Underground Injection Control Well (UIC)

ALTERNATIVES DETAILED

Spray Evaporation - Underway Now

- Enhanced evaporation system
- 73 million gallons per year evaporated
- Evaporation offsets average rainfall
- Evaporation rates influenced by weather



ALTERNATIVES DETAILED

Publicly Owned Treatment Works (POTW) - March 1, 2021

- Water pre-treated then discharged to Manatee Co.
- 50,000 gallons per day
- pH monitoring, flow rates, water chemistry
- Third-party compliance



ALTERNATIVES DETAILED

Limited Volume, Treat & Discharge

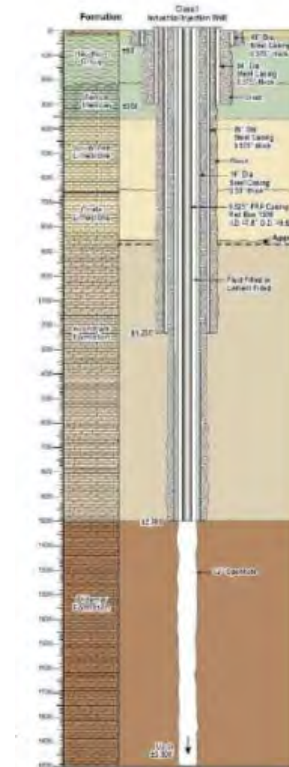
- HRK continues to evaluate new water treatment technologies
- An initial pay for performance pilot to treat and discharge approx. 50-75 GPM proposed
- Evaluation criteria: efficacy of nutrient removal, capacity to scale to entire pond treatment, and affordability
- Resulting nutrient discharge should be minimal



ALTERNATIVES DETAILED

Underground Injection Control Well (UIC)

- Up to 1.5 Million gallons per day
- Estimated total depth is around 3,500 BLS
- Pre-treatment required for pH and solids
- Well concept, modeling and evaluation based on Manatee County's *test* injection well drilled onsite in 2013
- Arcadis: UIC is the highest evaluated, lowest cost option available



IN CONCLUSION

- Based on current water volumes, action is needed ASAP
- All stakeholders must work together quickly to address challenges
- Since 2011: HRK has managed the site in an environmentally responsible manner
- Assistance from local and state agencies is now needed to maintain this level of stewardship

