

Stock Island Landfill

5701 West Junior College Road, Stock Island

Overview of current status, obligations and future possibilities.

Dee Dee Green

Utilities Department City of Key West



Mo Co Aerial Photo
2/22/1959



Comparison Aerials of Stock Island Landfill
1959 and 2015.



Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), Naprium, NGCC, OpenStreetMap contributors, and the GIS User Community

History

1930~ Opened: Originally a dump site. It is thought to have been started in the early 30's, maybe the late 20's, by dumping garbage directly into shallow grass beds and building up from there.

1989~ Consent Order 89-0466 from FDEP

1990~ Phase I Closure

1992~ Phase II Closure. Closed by placing 18 inches of screening sand over one layer of 30-mil PVC geomembrane and covered with 6 inches of bedding sand.

2008~ 2 repairs made of the geomembrane

2016~ Consent Order Ends. Released from Long Term Care. Still required to maintain liner, stormwater management, and grounds maintenance. We also perform pest management and voluntary groundwater monitoring.



Monroe County 1959

Health and Stats

- Elevation approximately 90 feet
- Footprint 16 acres
- No bottom liner or leachate collection. Gas vents installed approximately 20 years ago.
- Upon closure started in 1990, 18 inches of screening sand over one layer of 30-mil PVC geomembrane and covered with 6 inches of bedding sand. This was completed in 2 phases, Phase 1 1990 and Phase 2 1992.
- Engineer reviewed in 2016 and no subsidence when comparing to 2007 topo survey.
- Minimal erosion and stormwater systems are clear and working. Erosion is addressed when noticed and repaired.
- 7 of the gas vents in the deepest areas on the top shelf of the landfill still have a presence of methane and hydrogen sulfide. A slow production.
- Groundwater monitoring from 2011-2015 reviewed. Only parameter to occasionally exceed Groundwater Cleanup Target Levels is TDS (turbidity), at Well #2 and #3. These wells are between the landfill and the Gulf of Mexico, therefore not a sign of leachate leaks.



Current Maintenance



- Mowing 4-6 times per year. Public Works sends employees. Takes 2-3 days. Also maintaining 2 mowers.
- Iguana control. 2019 will cost between \$9,000 and \$14,000. This includes iguana capture and removal and filling in holes and damage caused by iguanas.
- Water sampling. \$1385 annually.
- Repairs to landscaping as needed. 2018 approximately \$24,000.
- We make repairs when areas become bare, soil thins from erosion or liner is showing.
- Repairs needed in future if no changes. New road or road repair and a few landscaping repairs.

Next Steps:

- Review current state of the Stock Island Landfill.
- Decide if there is enough information to determine if there are any environmental concerns at present. Our engineer says none.
- Look at cost, environmental impacts and future uses of land the landfill is on if we were to remove garbage by mining. This can be done by removing everything or parts (for example top off to have a larger flat space.)
- Look at cost, environmental impacts and future uses if landfill is left in place and find a new use (for example a green park or zipline park.)
- Look at cost, environmental impacts if nothing is done.

Resources:

The screenshot shows a web browser window displaying the City of Key West website. The address bar shows the URL <https://www.cityofkeywest-fl.g...>. The page features a teal header with the 'Key West Florida' logo and navigation links: DEPARTMENTS, CITY OFFICIALS, OUR COMMUNITY, and FIND IT FAST. A search bar is located on the right. Below the header is a large banner image of a coastal landscape with a teal overlay containing the text 'Stock Island Landfill'. The main content area includes a breadcrumb trail: 'You are here: Home • Departments • Utilities Department • Stock Island Landfill'. The title is 'The City of Key West Stock Island Landfill'. Under the 'History' section, the text reads: '1930~ Opened: Originally a dump site. It is thought to have been started in the early 30's, maybe the late 20's, by dumping garbage directly into shallow grass beds and building up from there.' It continues with '1989~ Consent Order 89-0466 from FDEP', '1990~ Phase I Closure', '1992~ Phase II Closure. Closed by placing 18 inches of screening sand over one layer of 30-mil PVC geomembrane and covered with 6 inches of bedding sand.', and '2008~ 2 repairs made of the geomembrane'. On the right, the 'In this Department' section lists links: 'Utility Bill Information', 'Recycling, Yard Waste, Garbage', 'Commercial Recycling', 'First Saturdays (Chemicals & Electronics)', 'Keep Key West Beautiful', 'Transfer Station', 'Stormwater', 'Wastewater Treatment', and 'Events'. The Windows taskbar at the bottom shows various application icons and the system clock indicating 4:31 PM on 1/8/2019.

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