

Keyport Environmental Commission
September 23, 2024 Meeting
Keyport Borough Hall

Call to Order

Meeting called to order at 8:01 pm by **Chair Joe Sheridan.**

Sunshine Law was Read

Salute to the Flag

Roll Call

	NAME	STATUS	TERM EXPIRES	PRESENT	ABSENT
1	JOE SHERIDAN (JS)	COMMISSIONER, CHAIR/SECRETARY	12/31/2026	X	
2	MIKE PALMISANO (MP)	COMMISSIONER, VICE CHAIR	12/31/2024	X	
3	ROY JIMENEZ, Sr. (RJ)	COMMISSIONER	12/31/2024		X
4	DON PACHECO (DP)	COMMISSIONER	12/31/2025		X
5	LYNNE KOSOBUCKI (LK)	COMMISSIONER, 2-YEAR ALTERNATE #1	12/31/2025	X	
6	MIKE LANE (ML)	COMMISSIONER	12/31/2025	X	
7	DOUG WEIDER (DW)	COMMISSIONER	12/31/2026	X	
8	KATHLEEN BULL DE LOS REYES	COMMISSIONER	12/31/2025	X	
9	LENNIE WALKER	COMMISSIONER ALTERNATE #2	12/31/2024		X
9	HEATHER BRADY (HB)	KEYPORT BOUROUGH COUNCIL LIAISON	12/31/2024	X	
10	DR. JUN CHENG	KEAN UNIVERSITY ASSOC. PROFESSOR	-	X	

Corrections to the August 26, 2024 KEC Minutes:

None.

Review/Approval of Meeting Minutes:

Minutes of the **August 26, 2024**, meeting; Motion to Accept by HB; LK 2nd; No comments/Edits; Minutes Unanimously Approved. JS abstained.

Introduction of new Commissioners:

Welcomed new Commissioners Kathleen de Los Reyes (present) and Lennie Walker (absent). **ACTION** on HB to provide LW's e-mail information.

Keyport Borough Council (KBC) Item Updates:

The Agenda offered the following KBC items for KEC discussion. No further updates:

1. Mariner's Village

2. Deputy Ventures (formerly Mystic at Keyport (44 Beers Street)

3. 31 W. Front Street (restaurant and Residential Units)

4. Aeromarine Issues

5. Beach Park Outfall Pipe/Flooding Issues

6. Port 149 Bulkhead Progress

Contamination found along Aeromarine Bayfront:

Update from K. Humphrey, Keyport Business Administrator; 9/12/2024: *DEP's investigation is ongoing to confirm whether the (arsenic) material is naturally occurring. This morning, DEP dug test pits on-site and collected samples for laboratory analysis. After collecting the samples, DEP backfilled the test pits. We anticipate receiving the sampling results within the next few weeks, and we will share additional information as the investigation continues.*

Mike Lane's Observations on KBC Items:

- Please see Attachment #1, ML's Health and Safety Input for KEC Meeting 9/23/2024.
- Please see Attachment #2, *Review of Coastal Barrier Designation for Keyport Aeromarine Landfill, Keyport, Monmouth County, New Jersey*, prepared by Sadat Associates, May, 2004.
- ML handed over a thumb drive of a significant number of date/time photos showing flooding in various locations in Keyport.

Dr. Cheng's Report

A quick update on my side. Aeromarine section of the beach has been monitored starting from August 2024. Some monitoring using drones will be scheduled once my equipment is ready.

Open to the Public

9:49pm: JS opened the meeting to the Public.

Close to the Public

9:49pm: JS closed the meeting to the Public.

ACTION ITEMS LIST

MP/LK: To create a Keyport Environmental Commission 'Lifetime Achievement Certificate Award' for Mike Lane.

ATTACHED ITEMS LIST

1. Mike Lane's September 23, 2024, Health and Safety Input for KEC Meeting 9/23/2024.

2. *Review of Coastal Barrier Designation for Keyport Aeromarine Landfill, Keyport, Monmouth County, New Jersey, prepared by Sadat Associates, May, 2004.*

Meeting Adjourned 9:54pm: Motion to Adjourn DW; HB 2nd; Unanimous.

The next meeting will be held on **Monday, October 28th, 2024, at 8:00pm, at Keyport Borough Hall Council Chamber.**

Minutes submitted by Joe Sheridan.

JS 2024/10/07

Health and Safety Input for KEC Mtg. 9/23/24

Items marked NC are unchanged since the 7/24/24 report.

KUPB Hearing 9/28/24

105 Hwy 35 - Cannabis Retail site – not heard

262 First Street – Multifamily in RAD - Use Variance, rescheduled for 10/24

PEDESTRIAN SAFETY

TAP PSIP – Crosswalks with All Way Stops on First Street and on Broadway needed for traffic calming. To date, no agreement on All Way stops and no schedule. Will need a Notice to the residents who will be impacted by the construction.

Need to evaluate County criteria for implementing All Way Stops at Green Grove at Second and Green Grove at Third. Need the Borough Engineer's status report with a timeline for this County Project. **At the August 2024 KBC meeting, the suggestion was made by the Borough leadership that First Street residents should put together a petition to the County in support of implementation of the TAP PSIP with its All Way stops and crosswalks.**

HARBOR ENVIRONMENT

Aeromarine Landfill – The NJ/NY Baykeeper reviewed the Century Land Group, Sadat, and Excel Geotechnical Environmental reports with the NJDEP staff. These reports have identified this site as a source of toxins polluting the harbor. Following this Baykeepers initiative, the site owner, Bay Ridge Realty, received a NJDEP Notice regarding a \$297K fine for the landfill deficiencies.

A key environmental issue for the KEC is the failure of Aeromarine owners to conduct on-going sampling in the test wells on the site and having the reports provided to the Borough. Still no update on any efforts to eliminate the continuing erosion that is silting in the adjacent bay and creek. This erosion is also exposing landfill trash. A 2024 Spring low-low tide exposed more than 120 plus feet of the Harbor floor in front of the bulkheads, exposing tires, logs, and trash. **Installation of an Aeromarine bulkhead along the Bayfront and the abutting Creek is required to eliminate the mud and toxins flowing from this site. Sections of the beach at this site are covered with multiple fallen trees that need to be removed prior to the next severe storm.**

NJDEP posted signage restricting residents' activity in this area.

During July 2024, the Aeromarine owner, Bay Ridge Realty, was also served a NJDEP Notice of Violation for work in a riparian area without required permits.

Keyport Yacht Club

The KYC entity is permitted by its new GMCD zoning to execute the functions of both a Yacht Club and a Marina. The Marina services that for decades were provided by the 2 bayfront marinas (Pedersen and Olsen) are no longer available. To deal with this loss, the KYC is executing Marina services (hauling, cleaning, storing, painting boats and floats). The LUR 25:1.9B.4 Marina Standards defines a set of regulations that apply to execution of these tasks/services. Unfortunately, adherence to the Marina Standards was not made a specific COA for the new site plan. Thus, the required site plan details were not provided. Adherence to these Marina Standards is now an enforcement issue for the staff in the construction office. Need a "Clean Marina" certification for these services.

Ordinance 16-11 executed the vacating of Atlantic Street north of First Street. This Ordinance states that the Borough maintains an easement for utilities (stormwater outfall pipe, etc.). This Ordinance also states that the Borough maintains an easement to preserve and ensure public access to the tidelands and Bay. Action needs to be taken by the Borough to understand how the KYC is adhering to/maintaining these two easements. These easements were not delineated in the latest Site Plan. Further, this public access needs to be delineated by site signage.

Browns Point Marina NC – The KHC has documented multiple operational violations that exist at BPM (lack of a pier standpipe, expanded restroom facilities, and parking management). An additional KUPB hearing is required for boat rack expansions, fueling tanks, and additional fuel docks. Plans show fuel tanks unanchored and on the ground in the Borough wellhead area. A previous application for fueling facilities was withdrawn from KUPB consideration. **No action on standpipe and fire hydrant deficiencies. At the 3/19/24 Town-hall meeting, the owner would not address the issue. At the 8/22/24 KUPB meeting a Resolution granting another one-year extension of the BPM site plan variances was approved.**

SITE CONTAMINATION

Kaputshy Gas Station on Broad St On 12/16/20, NJDEP approved funding from the Hazardous Discharge Site Remediation Fund (HDSRF) to conduct a Preliminary Assessment (PA) and Site Investigation (SI). The approved costs from the HDSRF is in the amount of \$44,242.

This is an example/validation of the need to reactivate the Brownsfield Development Area team to procure clean-up funding and to monitor cleanup project execution.

Mariner's Village, Browns Point Marina Contamination NC - Roger Miller's status report identifies the contaminated dirt pile at the end of Washington St as "historic fill" to be used under the 120-unit apartment area by the EOY 2022. This action has not occurred. **KEC letter regarding contaminated fill at the north end of Washington Street is still not addressed by Borough officials.**

Keyport Towers and Marina NC – Recently, piles of dirt have been observed along the fence abutting West Front Street. Notice for an Environmental Study and Remediation Activities was posted, 8/3/22. **It is suggested that Borough Officials request all the LSRP reports generated by this investigation.** This project is not listed as a Pending Case in the KUPB file as of this report date. This project, in a SFHA, will require a Floodplain Development Permit approved by the Borough Floodplain Manager.

FLOODING

Mystic at Keyport/Deputy Ventures –The NJDEP issued CAFRA permit requires these homes in a CHHA be built on piles with breakaway walls, etc. Reportedly updated architectural plans have been generated. The KBC Update indicates that documents were accepted by the engineer. The developer has failed to request and receive one-year extensions of the KUPB approved plans.

There is a Flood Damage Prevention Ordinance (FDPO) and KUPB Condition of Approval (COA) **require that the property Deeds advise buyers of the flood risk at this SFHA site.** A Floodplain Development Permit is required prior to construction. The 1/13/24 high tide put the site under more than a foot of water, flooding the street and garage areas of dwellings on the east side of Beers Street. Despite the flood history at this site and the FDPO and the COA, the KBC Update documents **indicate Deeds/declaration covenants and restrictions are under legal review.**

Flooding Due to Filled Drainage Ditch NC – No update regarding continuing wetland infringement in the area behind Saint Peter's Place. No enforcement action by the Borough. Filling in of this wetland area and its floodway between Beers and Main has contributed to flooding on Main at Monroe, Broad by the schools, and Atlantic by the ballfield (flooding basements in multifamily buildings across from the ballfield).

Port 149 Bulkhead NC – Bulkhead project remains stalled. It requires removal of multiple power transformers by JCPL before additional work on the last 50 feet of bulkhead by the bridge can resume. The new bulkhead structure is not presently built to permitted specs that require: 1.) a 10 ft. wide concrete splash pad/sidewalk and the ground elevated to the top of bulkhead, 2.) elimination of ~5 ft. of vinyl sheeting patched on top of old steel sheeting, and 3.) old piles and sheeting are still in place for the last ~50 feet before the bridge. West Front Street near the Fishery flooded during the 1/13/24 high tide.

East Third St Flooding NC – The drainage-ditch/floodway along the Henry Hudson Trail (HHT), between Atlantic and Manchester, flows to the pipe under the HHT just east of Manchester Street instead of continuing down the floodway to Chingarora Creek. This 20-inch pipe under the HHT dumps water into the street below the HHT, resulting in flooding of homes on East Third and East Fifth Streets. Hudson Pointe is now approved to discharge their stormwater into the pit abutting this pipe under the HHT, which will further intensify the flooding issue on East Third and East Fifth. This stormwater should flow down the HHT drainage-ditch past Fulton to Chingarora Creek.

Beach Park Outfall Pipe NC – The Beach Park 30-inch Outfall Pipe problem with the significantly restricted outfall pipe capacity due to the duckbill on the end of the pipe remains unresolved. Without a pump to push the water through the duckbill flooding continues. Note that multiple pump stations will be part of the ACE Union Beach flood mitigation project, validating the need for a Keyport Pump Station. A Beach Park pump station fix was not a 2023 or 2024 budget item, which will lead to more Division and E Front flooding. The 6/14/24 intense rainstorm was the latest occurrence of this flooding Problem.

Firemen's Park Bulkhead NC – Borough Bond Ordinance was approved for \$4M to fund elevation of the bulkhead and parking lot. This elevation increase will only deal with tidal flooding of this parking lot, not a 100-year storm. There is no fix

for American Legion Drive flooding by the Post Office fence abutting this road. The Borough has obtained 2 grants to cover a major part of the cost of the bulkhead replacement

Developer's Sites in SFHA

Mariner's Village in CHHA

34 West Front Street in CHHA

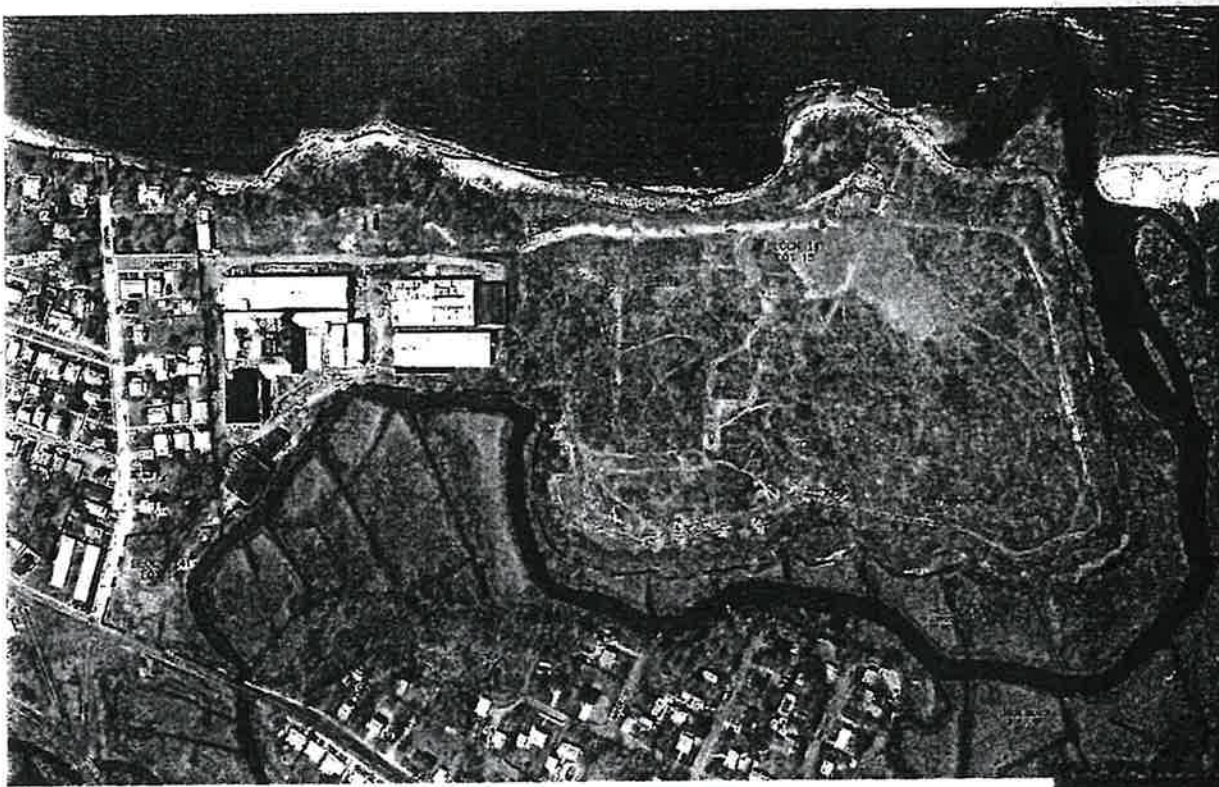
333 First Street townhouses in CHHA

Raritan Cove abutting CHHA

Beach Park Upgrades in VE Zone

25 East Front Mixed Use 5- Story apartment Project

Review of
Coastal Barrier Designation
for
Keyport Aeromarine Landfill
Keyport, Monmouth County, New Jersey



prepared by

 **Sadat Associates, Inc.**
Engineering and Environmental Science
Trenton, New Jersey

May 2004

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1.0 Introduction

The John H. Chafee Coastal Barrier Resources System Act (P.L. 106-67) 16 U.S.C. § 3501-3510 (hereinafter referred to as “the Act”) was created to promote “*a more appropriate use and conservation of coastal barriers along the Atlantic, Gulf and Great Lakes coastlines.*”¹

The Act is designed to use the factors of real estate markets to manage growth and development of these otherwise undeveloped areas. While these areas are generally attractive for development, as the first line of defense from coastal storms and other natural events, costs associated with the protection and/or repair of these areas have been traditionally borne by the taxpayers through federal insurance, flood management and erosion control programs. The designation as a Coastal Barrier prohibits the use of federal funds for storm protection and repair as well as protection from natural erosion. The intent was to steer development away from these areas, which in addition to being risky from a safety perspective also tend to be environmentally sensitive. The Act is designed to apply to undeveloped land within the coastal areas. Therefore, while there is no prohibition from building, any use of this land would require private management.

According to the US Fish and Wildlife Service, in its August 2002 report “*The Coastal Barrier Resource Act, Harnessing the Power of Market Forces to Conserve America’s Coasts and Save Taxpayers’ Money*” speculates that during the period of 1983, promulgation of the Act through 2010, over \$1.3 billion dollars of federal funds could be saved as a result of lessened disaster relief.

Critical to the application of the Act is the designation of specific parcels of land as undeveloped coastal barriers. This Act resulted in the designation of approximately 1.4 Million acres of coastal land as protected coastal barriers that had been expanded to include coastal barriers in Puerto Rico and the Virgin Islands. The Act resulted in the preparation of a series of maps to document designation as a component of the Coastal Barrier Resource System.

One such map, titled *“Coastal Barrier Resources System, Seidler Beach Unit NJ-02, Cliffwood Beach Unit NJ03P Conaskonk Point Unit NJ –04”* dated October 24, 1990 addresses a portion of the Keyport/Union Beach area. This map, included as Figure 1, indicates the inclusion of the area that is currently the Keyport Landfill in the Conaskonk Point Unit. The US Fish and Wildlife Service has produced this map from the maps adopted by Congress and the boundary delineation on this map is identical to that adopted by Congress.

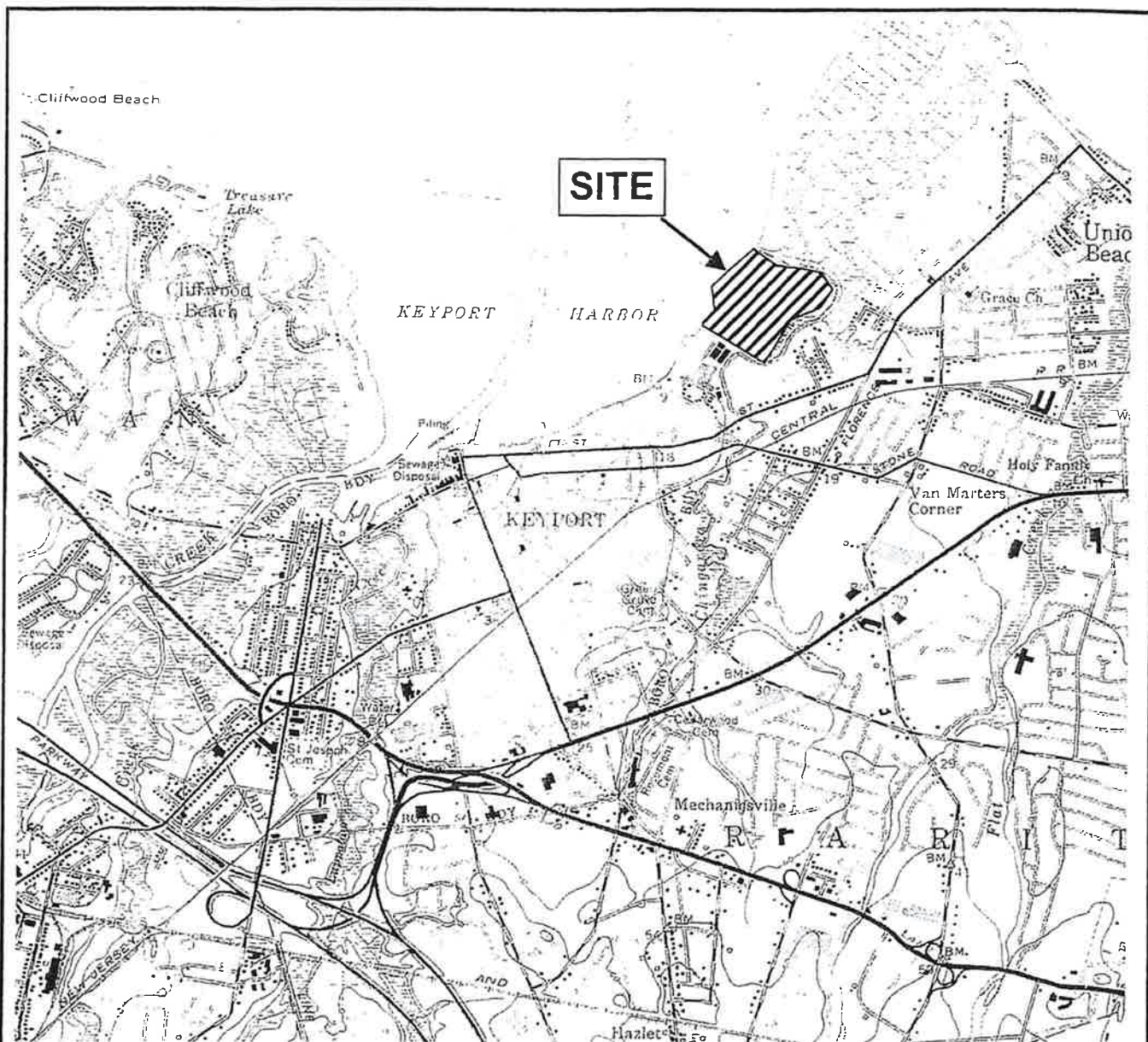
Although the Act appears to be successful in meeting its mandate, incorrect designation of certain parcels could result in improper management of sites. One such incorrect designation is the inclusion of the Keyport Landfill in Keyport New Jersey as an undeveloped coastal barrier. Although included on this map, further review of the legislation conducted by Sadat Associates suggests that the Keyport Landfill has been inappropriately included in this designation because it fails to meet the basic requirements as an undeveloped Coastal Barrier Resource.

2.0 Applicability to Keyport Landfill

2.1 Site Background – Keyport Landfill

The former Keyport landfill (a.k.a. Waste Disposal Inc. Sanitary Landfill – Keyport) (“Site”) is located in the Borough of Keyport, Monmouth County, New Jersey. The Site consists of approximately 42 acres on Block 141, Lot 15 of Borough of Keyport, and is situated on the eastern side of the Keyport Harbor, Raritan Bay and is surrounded on the southeast and east by Chingarora Creek. The creek marks the border between the Borough of Keyport and Union Beach Borough. The property is currently owned by Bayridge Realty Corporation. Site location is shown in Figure 1, “Site Location - USGS.” To the west of the landfill is an industrial parcel of Block 141, also owned by Bayridge Realty Corporation.

¹ www.csc.noaa.gov/opis/html/summary/cbia.htm



Source: USGS 7.5 Minute Series Topographic Map, Keyport, NJ Quadrangle - 1977

	Sadat Associates, Inc. 1545 Lamberton Road, Trenton, NJ 08611 609-826-9600 - (f) 609-826-9601	Site Location - USGS Keyport Aeromarine Landfill Locust Avenue, Keyport, NJ	
		scale:	1:24,000
		filename:	common: 15814.xls

Figure 1

Prior to its use as a landfill in 1962, the majority of the landfill site was tidally influenced marshland. According to the landfill's approved closure plan:

"The site began operation as a sanitary landfill in 1962 when it was operated by a joint venture of Peter Roselle & Sons, Inc. and Fereday & Meyer Co., Inc. The site continued in operation until June 1979 when it was ordered closed under a proposed Administrative Consent Order. At some point between the opening of the site in 1962 and June 1979 operation of the site was transferred from the Roselle joint venture to Waste Disposal, Inc.

2.2 Published Geology

Published geologic data indicates that the landfill is underlain by different deposits, which include Marine Tidal Marsh deposits and Alluvial Deposits, referred to on the geological map of New Jersey by the symbol MTM and AM-23, respectively, underlain by Marine Deposits, referred to by the symbol M-67. Figure 2, "Site Geology".

The marsh deposits are generally described as stratified silty clay and clay, usually very soft and highly compressible. The top 2 to 5 ft usually consists of an organic layer of decomposed roots from tidal marsh plant growth. The published data indicates that the thickness of these deposits exceeds 10 ft at the northern portion of the landfill Site. The alluvial deposits are described as stratified alluvial material deposited during the Quaternary period, shown on the New Jersey Map as primarily the Cape May Formation. These soils are generally described as sand and silty sand becoming coarser with depth. Colors are brown, yellowish brown and orange. Large level areas of these alluvial deposits border the Atlantic Ocean, Sandy Hook and Raritan Bays, in Monmouth County. These soils are deposited in wide, low river terraces. Because of the variable thickness of these deposits, the underlying marine formation occurs close to, or at the ground surface in many places.

The underlying geologic formation is of stratified deposits of marine origin, which are referred to on the Geological Map as the: Cohansey Sand, Kirkwood Sand, Woodbury Clay, Merchantville Clay and Raritan Formations. These formations are generally described as silty and or sandy

clay. The compact, gray to black micaceous clay of the Woodbury and Merchantville of Cretaceous age form most of the extensive areas of these deposits in Monmouth County. These soils are generally clayey soils with varying amounts of silt and sand scattered throughout the profile. Depth to bedrock is greater than 100 ft.

Site geology was obtained from the "Engineering Soil Survey of New Jersey, Report Number 19 Monmouth County," Engineering Research Bulletin Number 33, Rutgers University, 1955.

2.3 Site Subsurface Conditions

The subsurface investigation conducted as a component of SAI's field efforts indicated that the characteristics of the Site soils closely correspond with the published geologic data. In general, the test borings indicated that the waste material is underlain by marsh deposits and/or alluvial deposits, further underlain by marine deposits, extending deeper than 85 ft below existing grades. Sandy soil over clayey cover soil was encountered in all borings and test pits. A general description of the soils encountered is given in the following sections.

Cover Soil (Stratum C)

In general, the site is covered with 1 to 2 ft of cover soil, which consist of granular material overlying a clay cap.

Municipal Solid Waste Material (Stratum W)

Underlying the surface cover, mostly municipal solid waste was encountered in all borings and extended to the depths up to 16 ft below existing grades, as previously described. In order to measure physical characteristics of the materials encountered, a value known as the Standard Penetration Resistance, N-values is traditionally used. This value represents the material's resistance to penetration. In this case, Stratum W N-value ranged from 2 to over 50 blows per foot (bpf). Representative average values ranged from 5 to 15 bpf. In general, these N-values indicate that the waste is in a loose to a medium-dense state of relative density. High N-values are expected to be due to the presence of hard material such as concrete, wood, metal, etc., rather than being an indication of the waste being in a dense state.

Marsh Deposits (Stratum MD)

A stratum of very-soft organic clay was encountered in some of the investigation borings. The soils in this stratum extended to relatively deep depths, exceeding 50 ft, along the northern and western portions of the Site, which are the areas bounded by Chingarora Creek, as indicated on the Inferred Cross-Section B-B and C-C as included on Drawings 2A, 2B and 2C in Appendix F, "Drawings." However, this stratum was not encountered along the southeast portion of the site. Neither the extent nor the thickness of this stratum could be determined in the central portion of the Site, as this area was not accessible to the truck mounted drilling rig. The soils in this stratum are in a very-soft to a soft state of consistency. N-values ranged from Weight of Rod (WOR)/Weight of Hammer (WOH) up to 5 bpf. It is expected that in some areas the waste had penetrated through the top few feet of the underlying organic deposits due to the very soft consistency of the organic deposits, as indicated by the samples obtained from boring B-2.

Alluvial Deposits (Stratum A)/Upper Marine Deposits (Stratum UM)

Along the east and south boundaries of the site a relatively thin stratum, approximately 2 to 7 ft, of granular alluvial/marine sand was encountered underlying the waste. The soils in these strata can generally be described as medium to fine sand with a trace to some silt and/or clay. In general these soils are in a loose to a dense state of relative density, with a medium-dense state prevailing. N-values ranged from 6 to 45 bpf, with an average representative N-value of 15 bpf. Colors of the alluvial deposits include different shades of yellowish brown, and colors of the upper marine sand include different shades of olive brown (green).

Marine Deposits (Stratum M)

Stratified granular and cohesive soils of marine origin underlie the Site. This stratum consists of alternating inter-beds and cross-beds of sandy and clayey soils. This stratum extended to the termination depth of all deep borings. The soils in the granular sublayers can be described as medium to fine sand with a trace of silt, and occasionally with a trace

of decayed roots. These soils are generally in a very-dense state of relative density with N-values exceeding 50 bpf. The soils in the cohesive sublayers can be described as silty clay, frequently with fine sand partings. These soils are in a medium-stiff to a stiff state of consistency with N-values ranging from 13 to 40 bpf. Colors included different shades of gray.

2.4 Coastal Barrier Definition

By definition, a coastal barrier is a unique landform that provides protection and serves as the mainland's first line of defense against the impacts of severe coastal storms and erosion. The actual definition included in the Act is:

Sec.3502. – Definitions

For the purposes of this chapter –

(1) The term "undeveloped coastal barrier" means –

(A) a depositional geologic feature (such as a bay barrier, tombolo, barrier spit, or barrier island) that –

- (i) is subject to wave, tidal, and wind energies, and*
- (ii) protects landward aquatic habitat from direct wave attack; and*

(B) all associated aquatic habitat, including the adjacent wetlands, marshes, estuaries, inlets and nearshore water; but only if such features and associated habitats contain few manmade structures and these structures, and man's activities on such feature and within such habitat, do not significantly impede geomorphic and ecological processes.

Key to the designation of a coastal barrier is that the land under consideration be (1) undeveloped and (2) be a depositional geologic feature.

In the case of the Keyport landfill, the landfill fails both of these criteria. The land was already developed as a permitted solid waste landfill at the time of its inappropriate designation as a coastal barrier. In addition, although elevated above mean sea level, the land form is not a result of natural deposition, but rather composed of 16 to 25 feet of municipal solid waste with soil cover.

2.5 Accuracy of Base Map

The base map referenced in the development of the “*Coastal Barrier Resources System, Seidler Beach Unit NJ-02, Cliffwood Beach Unit NJ03P Conaskonk Point Unit NJ -04*” dated October 24, 1990, identifies the area in question as marshland. While data suggests that at one time this entire area was, in fact, marshland, the site has operated as a permitted solid waste landfill since 1962. Included with this report is a more recent topographic map, titled “**Keyport – FEMA Exhibit**”, prepared by Gladstone Design of Gladstone, New Jersey identifying the actual site topography. The landfill currently exists at a top level of 23 feet above mean sea level, clearly not a marshland.

2.6 Applicability of Definition of Undeveloped Land

The definition in the Act considers the land “undeveloped” if it contains fewer than one structure per five acres. While there are no structures on the landfill, the Keyport Landfill has been used as a permitted solid waste landfill since 1962. At the time of its closure, the landfill had accepted over 1.2 million cubic yards of waste. An average of twenty (20) feet of household waste currently exists across its 47 acres. The landfill had been capped in accordance with the landfill closure rules of the time and has existed as a closed landfill since that time. While there are no buildings on the landfill, the property has been altered from its natural state to a landfill and therefore, can not be considered undeveloped.

The definition of “undeveloped” goes on to eliminate an area with intensive capitalization development projects. The management of a landfill is in itself an intensive capital investment with property and equipment acquisition. The law allows for sites to be eliminated even if the less than five (<5) structures can not be met. Specifically, the law eliminates:

Intensive capitalization development projects, such as condominiums, which effectively establish a commitment to stabilize an area even though there are few actual structures.

Based on this exception, the Act clearly allows for reconsideration of a parcel in circumstances where there are fewer than 5 actual structures.

2.7 Applicability of Definition of Depositional Geologic Feature

As stated above, a coastal barrier defined as a “*depositional geologic feature...*”. The map utilized to include the property of the Keyport Landfill identified the acreage as marshland, but as indicated on the more recent topographic mapping, this area, at the time of designation under the Act was not marshland and was clearly not a geologic deposition. The area is an elevated site, with approximately 20 feet of common household solid waste deposited at the site over a period of 10-15 years under an approved landfill permit from the NJDEP.

The designation of a Coastal Barrier further requires that human activities, if there are any on such features “do not significantly impede geomorphic and ecological processes.” The use of this site as a permitted sanitary landfill can certainly be considered an impediment to any ecological processes of the former natural conditions.

3.0 Proposed Action

Based on the definitions cited for undeveloped coastal barriers and the information provided by this report and the attached site topographic map, it is proposed that the inclusion of the 47 acre Keyport Landfill in the *Coastal Barrier Resources System, Seidler Beach Unit NJ-02, Cliffwood Beach Unit NJ03P Conaskonk Point Unit NJ-04* be rescinded. This request is supported by the following facts:

1. The map originally used to designate the landfill was outdated and showed the area as a natural marshland. Mapping at the time of designation would have indicated the presence of the landfill.
2. The site fails to meet the definition as “undeveloped” due to the use as a permitted solid waste landfill.
3. The site is not a natural geologic formation as the original marshland has been elevated an average of 20 feet above mean sea level with the disposal of solid waste in a permitted landfill.

ATTACHMENTS

- 1) *Coastal Barrier Resources System, Seidler Beach Unit NJ-02, Cliffwood Beach Unit NJ03P
Conaskonk Point Unit NJ-04*
- 2) Topographic Map of Site – *Keyport FEMA Exhibit* (Gladstone Design, Inc. Progress Print)
- 3) Excerpts from *The Coastal Barrier Resources Act of 1982*



Sadat Associates, Inc.
Engineering & Environmental Science

9/26
Copies
returned to
Mike
Hinkle 6/07



*A Partner to Clients
with Environmental Needs*

January 20, 2004

Mark Bellin, Esq.
Century Land Group, LLC
PO Box 6119
East Brunswick, NJ 08816

RE: Preliminary Geotechnical Evaluation
Landfill Closure and Redevelopment of the Keyport Landfill
Keyport, New Jersey Project #03002 - 0301

Dear Mark;

As requested, we have prepared a summary of the geotechnical investigations performed on your behalf at the Aeromarine/Keyport Landfill site in Keyport, New Jersey. Attached to this letter is a summary of the efforts undertaken and conclusions reached in the two phases of geotechnical investigations. In summary, this evaluation indicates the characteristics of the subsurface across the landfill site. The investigation was targeted to develop two understandings critical to site redevelopment - a clear understanding of the depth of solid waste material across the site and an understanding of the characteristics of the underlying organic layer.

In relation to the waste, as can be seen on Figure 1 of 2, attached titled "Bottom of Waste Layer Contour", the waste material exists to a depth from 10 up to 24 feet below surface. Previous investigations provided the general waste characteristics and confirmed that the landfill is predominantly household solid waste. This information is necessary in order to evaluate options for landfill management, site construction and waste relocation.

The second Figure, 2 of 2 titled "Bottom of Organic Layer Contour", depicts the bottom and subsequently the depth of the organic layer underlying the site. This information is important in first understanding the subsurface properties for waste containment. The areas with shallower organic are better suited for construction as building pilings need to be placed below the bottom of this organic layer. In portions of the site where the organic is shallow, piles would also be shallow. In the areas of the site where the organic layer is deeper, pilings would be necessary to below these deeper depths, dramatically increasing construction costs. When reviewed in conjunction with the first drawing, you can estimate the actual thickness of the organic layer. Our investigation indicated that the portion of the landfill on the western side, adjacent to Keyport Harbor has very shallow organic, essentially ineffective in controlling landfill leachate into groundwater. The area to the east of the site has an extremely effective leachate barrier with over 50 feet of hydraulically tight organic layer under the waste.

This information coupled with groundwater data suggests the possibility that leachate from the landfill may be migrating into the underlying groundwater system. Based on this geotechnical review it is our recommendation to utilize the natural conditions of this site to restructure the landfill. By relocating the waste to the area with extensive organic control of leachate, and construction of the residential development on replacement fill, optimum site redevelopment can occur. The restructuring of the landfill allows for updated and permitted waste containment thereby eliminating enforcement concerns related to landfill cover, landfill leachate and landfill gas.

With importation of clean fill to replace the relocated waste, site redevelopment can likely occur without the requirement for deed restriction on the current landfill portion. It is still likely that a deed restriction will be necessary for redevelopment of the industrial portion, although this determination can only be made after the completion of the remedial investigation on this parcel. Consolidation of waste as proposed on attached drawing "Proposed Grading Plan and Cross-Section Locations" present a proposed relocation scenario. In this scenario, approximately half of the waste will be relocated from the bay side of the site and placed in accordance with a new landfill permit on the rear side of the property. Elevations of the waste will be terraced up to 40 feet above mean sea level. Landfill containment will involve a low permeable cover and a low permeable border around the landfill for leachate management. Leachate will be collected and discharges possibly with pre-treatment. Gas management will be designed into the new landfill design and will be limited to this portion of the overall site.

If you have any questions on any of the information in this letter or its attachments, please do not hesitate to contact me at 609-826-9600.

Sincerely,



Susan J. Goetz
Vice President and Senior Project
Manager

cc: A. Fahim, SAI

