LOWER PASSAIC RIVER
COMMERCIAL NAVIGATION ANALYSIS

United States Army Corps of Engineers
New York District

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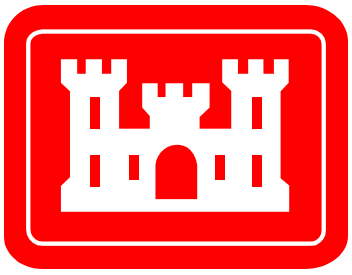

US Army Corps
of Engineers ®

LOWER PASSAIC RIVER RESTORATION PROJECT
COMMERCIAL NAVIGATION ANALYSIS

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Lower Passaic River Commercial Navigation Analysis
U.S. Army Corps of Engineers, New York District
Revised December 29, 2008 and June 9, 2010

1.0 Study Background and Authority

The Lower Passaic River Restoration Project is an interagency effort to remediate and restore the complex ecosystem of the Lower Passaic River, which is a 17-mile tidally influenced river located in northern New Jersey. The Lower Passaic River is one of eight urban waterways that have been designated as pilot projects to demonstrate the planning and implementation of urban river cleanups and restoration as part of the Urban River Restoration Initiative (URRI) under both the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Water Resource Development Act (WRDA) authorities. This URRI program is a national initiative to foster cooperation between the U.S. Environmental Protection Agency (USEPA) and the U.S. Army Corps of Engineers (USACE) and is memorialized in a Memorandum of Understanding between these two agencies, which was signed in 2002 and renewed in 2005. The USACE component of this study was authorized in April 1999 by the U.S. House of Representatives, Committee on Transportation and Infrastructure, Docket Number 2596. The New Jersey Department of Transportation is the non-federal sponsor for the WRDA component of the Study.

2.0 Study Purpose

This document has been prepared to assist the New York District and other partner agencies in assessing the current status of commercial navigation on the Lower Passaic River. The draft of this report (March 2007) was presented in Appendix F in the Draft Source Control Early Action Focused Feasibility Study (USEPA, June 2007). The updated report utilizes information from two data sets obtained from the USACE, Institute for Water Resources, Navigation Data Center (NDC) publication, *Waterborne Commerce Statistics*. The first data set contains general information on commercial navigation trends over the period 1980 to 2006 (USACE-NDC, 1980-2006). The second dataset contains detailed information on the current uses of the waterway, berth by berth, for the most recent ten years available (1997-2006) to evaluate recent commercial use of the lower reaches of the Passaic River (USACE-NDC, 2008). *Waterborne Commerce Statistics* data is readily available through the Navigation Data Center website. The analysis was revised a second time to reflect a Commercial Users Outreach Meeting held on August 27, 2009 by USEPA. Participants were asked to submit comments to USEPA, USACE, and New Jersey Department of Protection (NJDEP) by letter or email providing detailed input as to their current and future operational considerations. Darling International, Passaic Valley Sewerage Commissioners (PVSC), Harms Construction Co Inc., Disch Construction, Clean Earth of North Jersey (CENJ), Getty Petroleum, Innovation Fuels and Napp-Grecco/Newark Asphalt Corp. responded to this inquiry and their input is documented in Section 6.2 and Appendix 2.

Figure 1a. Federal Navigation Channel (RMs 0.0-8.0)

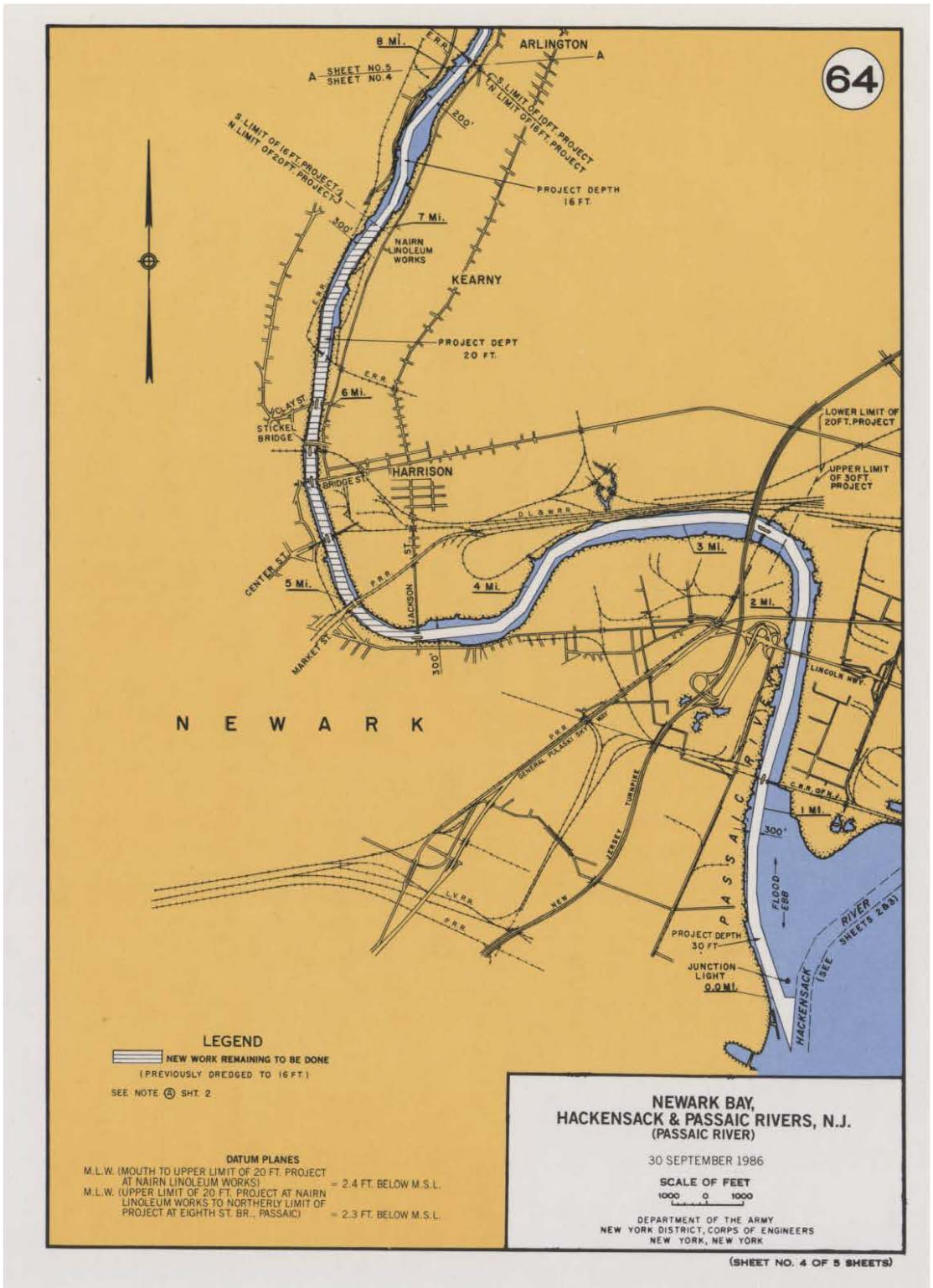
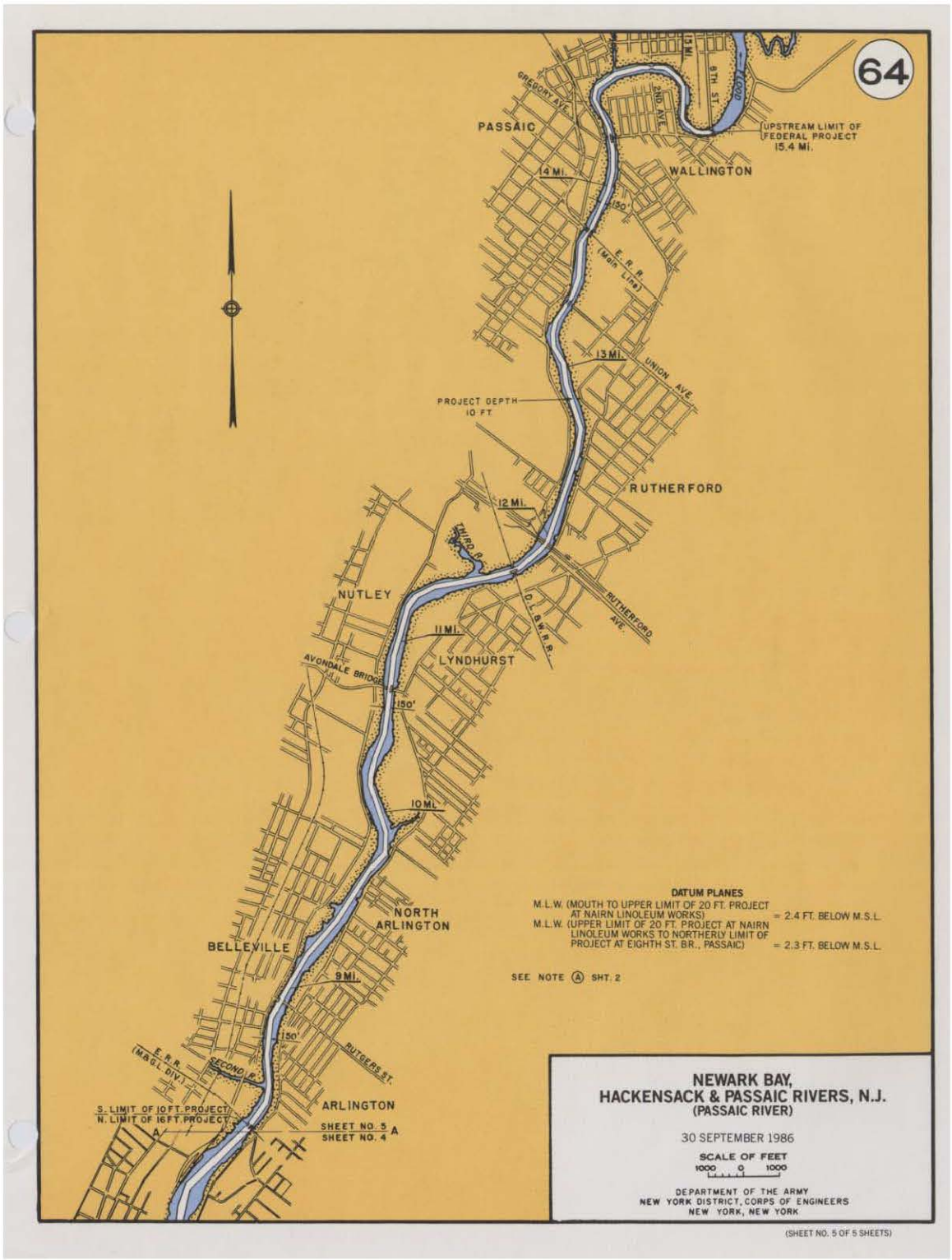


Figure 1b. Federal Navigation Channel (RMs 8.0-15.4)



3.0 Location and Study Area Description

The Lower Passaic River is classified as the tidally influenced, lowest seventeen miles of the ninety mile Passaic River from Dundee Dam at River Mile (RM) 17 to the confluence of Newark Bay (RM 0.0). The Passaic River's authorized federal navigation channel, shown in Figures 1a and 1b, lies between the mouth of the river at the confluence with Newark Bay and the Eighth Street Bridge in Wallington, New Jersey (RM 15.4).

Most of the Lower Passaic River has been deepened as a result of various navigation projects. The federal navigation channel can be divided into segments based upon four different authorized depths. These segments include:

- **30 foot segment:** From RM 0.0 upstream to RM 2.6 (Junction Light in the Newark Bay Turning Basin to the Point-No-Point Conrail Bridge) the channel has an authorized and constructed depth of 30 feet mean low water (MLW) and is 300 feet wide. The mean tidal range in this segment of the river is 5.5 feet.

- **20 foot segment:** From RM 2.6 upstream to RM 4.1 (Point-No-Point Conrail Bridge to Jackson Street Bridge in Harrison) the channel has an authorized and constructed depth of 20 feet MLW and is 300 feet wide. From RM 4.1 to RM 7.1 (Jackson Street Bridge in Harrison to the Nairn Linoleum Works [currently Congoleum Nairn Company of Kearny facility] in Kearny) the channel had an authorized depth of 20 feet MLW and is 300 feet wide; however, the project was only constructed to 16 feet MLW, and as of 1990 (see note below) is officially authorized to a depth of 16 feet.

- **16 foot segment**: From RM 7.2 to RM 8.1 (the Nairn Linoleum Works facility in Kearny to the Erie/Montclair and Greenwood Lake Railroad Bridge in Arlington) the channel has an authorized and constructed depth of 16 feet MLW and is 200 feet wide.

- **10 foot segment:** From RM 8.1 to 15.4 in Wallington, New Jersey, the channel has an authorized and constructed depth of 10 feet MLW and is 150 feet wide.

Land use along the Passaic River generally transitions from industrial uses closest to Newark Bay to park land further upstream. The 30 feet and 20 feet segments can best be characterized as fully industrially developed along the right descending bank of the river in Newark, where petroleum handling facilities are dominant in the lowest two miles. Further upstream in the Harrison reach, the left descending bank of the river is occupied by the railroad tracks of the Port Authority Trans Hudson (PATH) system and by an intermodal container-handling facility.

Note: All uncompleted portions of the larger Newark Bay, Hackensack River, and Passaic River navigation project authorized prior to 1986 were deauthorized in 1990 (USACE-NDC, 1999). Therefore, the current authorized depth between RMs 4.1 and 7.1 is now 16 feet given deauthorization in 1990.

In the 16-foot to10-foot segments, McCarter Highway continues north along the right bank. Both sides of the river just upstream of the Jackson Street Bridge (Figure 2) have recently been under construction. The right bank is dominated by McCarter Highway (NJ Rt. 21), and Joseph G. Minish Waterfront Park: a collaborative effort of the USACE, NJDEP and the City of Newark. The left bank of the river is characterized by recreational park land, containing at least one small public marina and a few private docking facilities for recreational craft.

Further information on current and expected future land use patterns within the lower eight miles of the Passaic River have been compiled by NJDOT and are presented in Appendix F of the Focused Feasibility Study (NJDOT, 2007; USEPA, 2007).

Figure 2. Downstream View of Jackson Street Bridge and the City of Newark, May 2007.

4.0 Navigation & Maintenance Dredging History

The Passaic River has been utilized primarily for commerce and industry for almost two centuries. The utility of the river for transportation accelerated the early development of the City of Newark and surrounding communities including Kearny, Harrison, Belleville and Nutley. The Passaic River was first used for sawmills and gristmills during colonial times. Soon after, industrialization and manufacturing was first conceived in the City of Paterson's Great Falls area, which later developed into the City of Newark. Newark's population boomed in the late 1700s with new jobs that came with a growing economy and the building of the first bridge over the Passaic River.

Around the time of the Civil War, the Passaic also became a popular recreation destination for boating, rowing, swimming, fishing and ice skating. Post-Civil War times had a returned focus to industry on the river. Shortly thereafter, the Lower Passaic River was designated as a federal navigation channel and established to promote opportunities for cargo carrying commercial vessels. The USACE first dredged the Passaic River for commercial navigation in 1874, initially dredging only smaller areas on an as needed basis (Table 1: Dredging History).

Table 1: Dredging History

Passaic River Reaches	Dredging History (*USACE, 2010*)
Kearny Point Reach: RM 0-1.2 Authorized Depth: 30 feet	1884 – Constructed to 10 Feet 1906 – Deepened to 12 Feet 1913 – Deepened to 16 Feet 1914 – Deepened to 20-22 Feet 1916 – Maintained at 16-17 Feet 1917 – Maintained at 21-22 Feet 1921 – Maintained at 20 Feet 1932 – Constructed to 30 Feet 1933 – Maintained at 30 Feet 1941 – Maintained at 30 Feet 1946 – Maintained at 30 Feet 1951 – Maintained at 30 Feet 1957 – Maintained at 30 Feet 1962 – Maintained at 30 Feet 1965 – Maintained at 30 Feet 1971 – Maintained at 30 Feet 1972 – Maintained at 30 Feet 1977 – Maintained at 30 Feet 1983 – Maintained at 30 Feet
Point No Point Reach: RM 1.2-2.5 Authorized Depth: 30 feet	1884 – Constructed to 10 Feet 1899 – Maintained at 10 Feet (from RM 1.9) 1906 – Deepened to 12 Feet 1913 – Deepened to 16 Feet 1914 – Deepened to 20-22 Feet (to RM 1.9) 1916 – Maintained at 16-17 Feet 1917 – Maintained to 21-22 Feet (to RM 2.0) 1921 – Maintained at 20 Feet 1922 – Maintained at 20 Feet (from RM 1.4) 1932 – Constructed to 30 Feet 1933 – Maintained at 30 Feet 1941 – Maintained at 30 Feet 1946 – Maintained at 30 Feet 1951 – Maintained at 30 Feet (to RM 1.3) 1957 – Maintained at 30 Feet (to RM 2.1) 1965 – Maintained at 30 Feet (to RM 1.8) 1971 – Maintained at 30 Feet (to RM 1.5) 1972 – Maintained at 30 Feet (to RM 1.8) 1983 – Maintained at 30 Feet (to RM 1.9)
Harrison Reach: RM 2.5-4.6 Authorized Depth: 30 feet to RM 2.6 Authorized Depth: 20 feet From RM 2.6	1884 – Constructed to 10 Feet 1899 – Maintained at 10 Feet 1906 – Deepened to 12 Feet 1913 – Deepened to 16 Feet 1916 – Maintained at 16-17 Feet 1916 – Deepened to 20-21 Feet (RM 2.6-4.5) 1921 – Maintained at 20 Feet 1922 – Maintained at 20 Feet (to RM 4.2) 1923 – Maintained at 20 Feet (RM 4.2-4.6) 1932 – Constructed to 30 Feet (to RM 2.6) 1937 – Maintained to 20 Feet (starting at RM 2.6)

Table 1: Dredging History (Continued)

Passaic River Reaches	Dredging History (*USACE, 2010*)
Newark Reach: RM 4.6-6.1 Authorized Depth: 20 feet (Constructed Depth: 16 feet)	1884 – Constructed to 10 Feet (to RM 5.4) 1899 – Maintained at 10 Feet (to RM 5.4) 1906 – Deepened to 12 Feet 1913 – Deepened to 16 Feet (to RM 5.8) 1916 – Maintained at 16-17 Feet 1919 – Maintained at 16 Feet (starting at RM 4.6) 1933 – Maintained at 10 Feet (from RM 6.0) 1950 – Maintained at 16 Feet (from RM 5.5)
Kearny Reach: RM 6.1-7.1 Authorized Depth: 20 feet (Constructed Depth: 16 feet)	1883 – Constructed to 6 Feet 1906 – Deepened to 12 Feet (to RM 6.5) 1906 – Deepened to 12 Feet (from RM 6.5) 1913 – Deepened to 16 Feet (to RM 5.8) 1916 – Maintained/Deepened at 16-17 Feet 1919 – Maintained at 16 Feet (to RM 6.4) 1933 – Maintained at 16 Feet (to RM 6.3) 1950 – Maintained at 16 Feet (to RM 7.0)
Arlington Reach: RM 7.1-8.1 Authorized Depth: 16 feet	1883 – Constructed to 6 Feet 1906 – Deepened to 10 Feet (to RM 8.0) 1915 – Constructed to 6-7 Feet (from RM 8.0) 1916 – Deepened to 16-17 Feet (to RM 8.0) 1927 – Maintained to 6 Feet (from RM 8.0) 1929 – Maintained to 6 Feet (from RM 8.0) 1930 – Constructed to 10 Feet (from RM 8.0)
Belleville Reach: RM 8.1-8.3 (Partial Reach) Authorized Depth: 16 feet	1915 – Constructed to 6-7 Feet 1927 – Maintained to 6 Feet 1929 – Maintained to 6 Feet 1930 – Constructed to 10 Feet 1931 – Maintained to 10 Feet 1932 – Maintained to 10 Feet
Above Erie/Montclair & Greenwood Lake Railroad Bridge: RM 8.3 – 15.4 Authorized Depth: 10 feet	1915 – Constructed to 6-7 Feet (to RM 13.2) 1927 – Maintained to 6 Feet (to RM 9.0) 1929 – Maintained to 6 Feet (to RM 9.0) 1930 – Constructed to 10 Feet (to RM 9.0) 1931 – Maintained to 10 Feet (to RM 9.0) 1931 – Constructed to 10 Feet (RM 9.0 to 15.4) 1932 – Maintained to 10 Feet (to RM 15.4) 1950 – Maintained to 10 Feet (RM 14.3-15.4) 1976 – Maintained to 10 Feet (RM 9.0-10.2)

The first comprehensive dredging effort on the Passaic River was undertaken in 1884 to deepen the channel to ten feet from Newark Bay to the Pennsylvania Railroad Bridge at RM 5.0, removing about 165,000 cubic yards of dredged material. Another ten foot maintenance dredging project in 1899 was completed between RMs 1.9 and 5.4. In 1906, the channel from Newark Bay to the Congoleum Nairn Company of Kearny at RM 6.5 was deepened to twelve

feet, and a ten foot channel was constructed from RM 6.5 to RM 8.0. Deepening and maintenance projects for commercial navigation in the new federal channel steadily increased over the first fifty years, from the initial construction of the channel in 1874 until the late 1920s.

In 1913, the channel was deepened from ten feet to sixteen feet from Newark Bay to the Morristown Line Bridge at RM 5.9. The following year in 1914, the lowest two miles of the river were deepened once more, but this time to twenty feet. These two projects, combined, removed over 5.5 million cubic yards of dredged material from the river. The project was extended upriver by deepening the channel to six feet between RMs 8.0 and 13.2 in the City of Passaic in 1915. In 1916, the sixteen foot project was extended to RM 8.0, and the twenty foot project was extended to RM 4.5 near the Jackson Street Bridge. The twenty foot project between the Bay and RM 4.6 was maintained from 1921 to 1937 (***USACE, 2010***).

The first thirty foot deepening project was constructed in 1932 from Newark Bay to RM 2.6, just above the Lincoln Highway Bridge (Figure 3), removing nearly 1.5 million cubic yards of material. A year prior, the ten foot project area was extended to its furthest point, from RM 8.0 to 15.4 at the Eighth Street Bridge. No further new construction was authorized after 1932, but the channel was regularly maintained for nearly fifty more years. The entire length of the new thirty foot project was first maintained in 1933, one year after construction and again in 1941 and 1946. During the 1940s the river was busy with traffic as the height of industrialization and manufacturing industries on the Passaic River coincided with World War II. Post-war, the project was regularly maintained. However, maintenance typically focused only on the first two miles. Portions of the thirty foot project were maintained in 1951, 1953, 1957, 1962, 1965, 1971, 1972, 1977 and 1983. The last maintenance dredging project was completed by USACE in 1983 when just over 500,000 cubic yards were removed from the lower 1.9 miles of the federal project area ((***USACE, 2010***)).

Figure 3. View Upstream to the Lincoln Highway Bridge and the Pulaski Skyway, May 2007.

Future maintenance dredging by the USACE would require economic justification of project costs to obtain federal funding. Economic analysis of maintenance dredging would be reevaluated in the future given changes in commercial usage and sediment conditions post-

remediation. In addition, the decision to maintain the navigational channel would be further influenced by a commitment from the users to maintain their berths.

5.0 Physical Constraints including Bridges

Bridges and dams are examples of constraints that may be obstacles to certain types of waterborne traffic. The dimensions and functionality of a bridge (lift, swing, etc.) will restrict traffic that exceeds the available horizontal and vertical clearance. The commercially navigable portion of the Lower Passaic River has fourteen bridges to be considered by commercial traffic traveling the river (Table 2). There are no berths located above the fourteenth bridge, the Erie/Montclair-Greenwood Lake Railroad Bridge. There are no locks on the Lower Passaic River and the first dam, Dundee Dam (approx. RM 17), is located upstream of the federal navigation channel.

Table 2. Bridges on the Lower Passaic River.

Bridge Name	River Mile	Bridge Type	Maximum Horizontal Clearance	Maximum Vertical Clearance [Low Tide]
Point-No-Point Reach				
Central Railroad of NJ *(not in use)*	1.2	Lift	145	NA
Lincoln Highway Bridge	1.85	Lift	300	45 (140) *
Pulaski Skyway	2.0	Fixed	520	140
Harrison Reach				
Point-No-Point Conrail	2.6	Swing	103	21
NJ Turnpike Bridge	2.7	Fixed	352	105
Newark Reach				
Jackson Street Bridge	4.6	Swing	72	20
Amtrak Dock Bridge	5.0	Lift	200	29 (143)
Penn RR at Market Street	5.0	Draw	75	21
Penn RR at Center Street	5.0	Draw	80	10
Bridge Street Bridge	5.7	Swing	80	12
Morristown Line RR Bridge	5.85	Swing	77	20
Stickel Bridge	5.9	Lift	200	40 (140)
Kearny Reach				
Clay Street Bridge	6.1	Swing	75	13
Fourth Ave Conrail Bridge	6.35	Bascule	126	12
Arlington Reach				
Erie/Montclair-Greenwood Lake RR Bridge	8.1	Swing	48	40

** Vertical clearance in parentheses refers to clearance when the lift bridge is open.*

NA: Not Applicable since bridge removed.

There are horizontal and vertical constraints within the Point No Point Reach. The abutments of a formerly utilized railroad freight bridge (Central Railroad of NJ) lie at approximately RM 1.2.

These abutments limit channel width to 145 feet. However, NJDOT is currently investigating the feasibility of a new Lower Passaic River Bridge within the existing alignment of the former railroad freight bridge. If construction of the new bridge was to move forward, the derelict structure at RM 1.2 would be removed and would be replaced with a structure designed with adequate horizontal and vertical clearance for typical vessel traffic on the Lower Passaic River (Personal Communication, 2008a). At RM 2.6, the Point-No-Point Conrail Bridge (Figure 4) limits channel width (or horizontal clearance) to 103 feet and limits vertical clearance to sixteen feet at high water requiring four hours notice before opening.

Based on channel design guidance specifications (EM 1110-2-1613), safe navigation in the Lower Passaic River federal navigation channel recommends channel width to be three times the beam of the vessel for one-way traffic and five times the beam for two-way traffic. The Corps' design standards ensure that new construction will be safe for the transit of the design vessel. However, these design standards do not, in and of themselves, prevent any vessel operator from employing any vessel in any manner or in any circumstance. As an example, if the recommended criteria were used, the largest vessel that could safely pass Kearny Point, beyond RM 1.2 (without removal of the abutment), would have a maximum of 48 feet in beam.

Figure 4. View Upstream to the Point-No-Point Conrail Bridge & NJ Turnpike Bridge, May 2007.

Another physical constraint that limits traffic would be the requirement of turning basins having a diameter of at least 1.2 times the length of the design ship and preferably 1.5 times the length of the ship. Therefore, the maximum length of vessel should not exceed 200 ft (up to RM 6.3 with authorized channel width of 300ft) and 130 feet in length (upstream of RM 6.3 with authorized channel width of 200 ft). This specification further limits the number of vessels that could use the Lower Passaic River.

If we assume the greatest depth vessel to reach or pass RM 2.5 (the upper limit of the thirty foot project) must draw 27 feet or less, assuming three feet of underkeel clearance, and have a beam of 45 feet or less, (34 feet or less beyond Point-No-Point) there are a number of inferences that can be drawn:

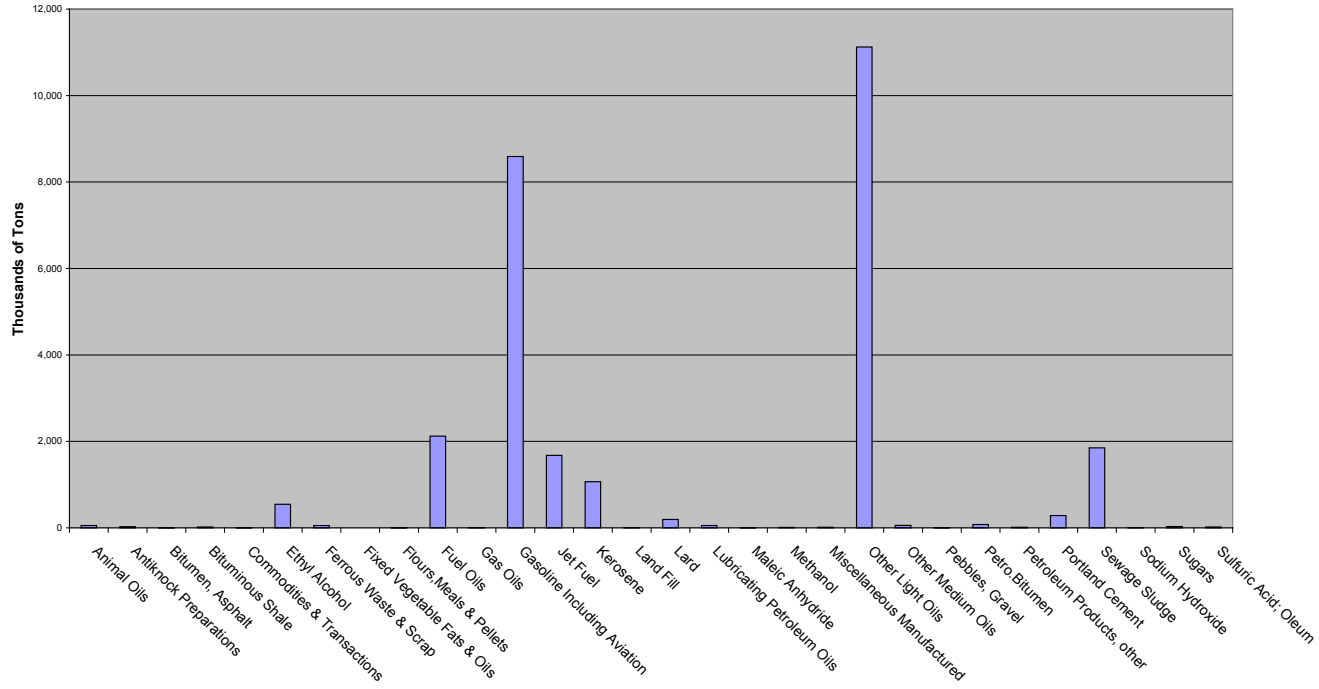
1) Of the three principal types of ocean-going cargo carrying vessels – containerships, car carriers, and bulk carriers – only bulk carriers could potentially be used efficiently on this waterway. There are no vessels in the container fleet or the car carrying fleet that meet the dimensional requirements imposed by the configuration of the bridges and channel. Current use tends to confirm this constraint. Liquid and dry bulk tankers/barges are the only commercial vessels observed using the channel (see section 6.2 berth analysis). Car carriers or containerships would not be built with these smaller specifications, as they do not allow for these vessels to operate in an economically efficient manner.

2) The number of bulk carriers/tankers that can be used is rapidly declining within the fleet because they cannot be operated in an economically efficient manner with such low payload. Interviews with barge operators in the area suggested that a tank barge with a 70-foot beam be considered small for efficient transport of fuel-based products. Unless intended for a specific physically-constrained waterway, a barge operator would not use or order a 70-foot beam vessel (which is at least two times the beam width of any vessel that could currently utilize the Passaic in a safe manner, even under one-way traffic conditions). Current fuel terminal operations use 60,000 barrel barges, which are light loaded, and therefore not being used optimally. Several fuel terminal operators have even decreased operations to use between 20,000 to 27,000 barrel barges.

6.0 Operational Information

Despite competition from the more modern, easily accessible facilities of Ports Newark and Elizabeth, the Lower Passaic River, particularly within the Kearny Point Reach, has retained a niche of Petroleum commodity transportation. Of the estimated 28 million tons transported on the Passaic River over the most recent ten years (1997-2006), 11 million tons were classified as "other light oils from petroleum and bitum minerals." 8.5 million tons were classified as gasoline, and jet fuel and kerosene combined accounted for nearly another 3 million tons. Another 2 million tons of fuel oil were also transported on the Lower Passaic River during 1997-2006. The major non-petroleum product transported during this time was an estimated 2 million tons of sewage sludge (Figure 5).

Figure 5. Commodities Transported, Lower Passaic River, 1997-2006



6.1 Summary Data for Commodity Flow, Trips and Drafts (1980-2006)

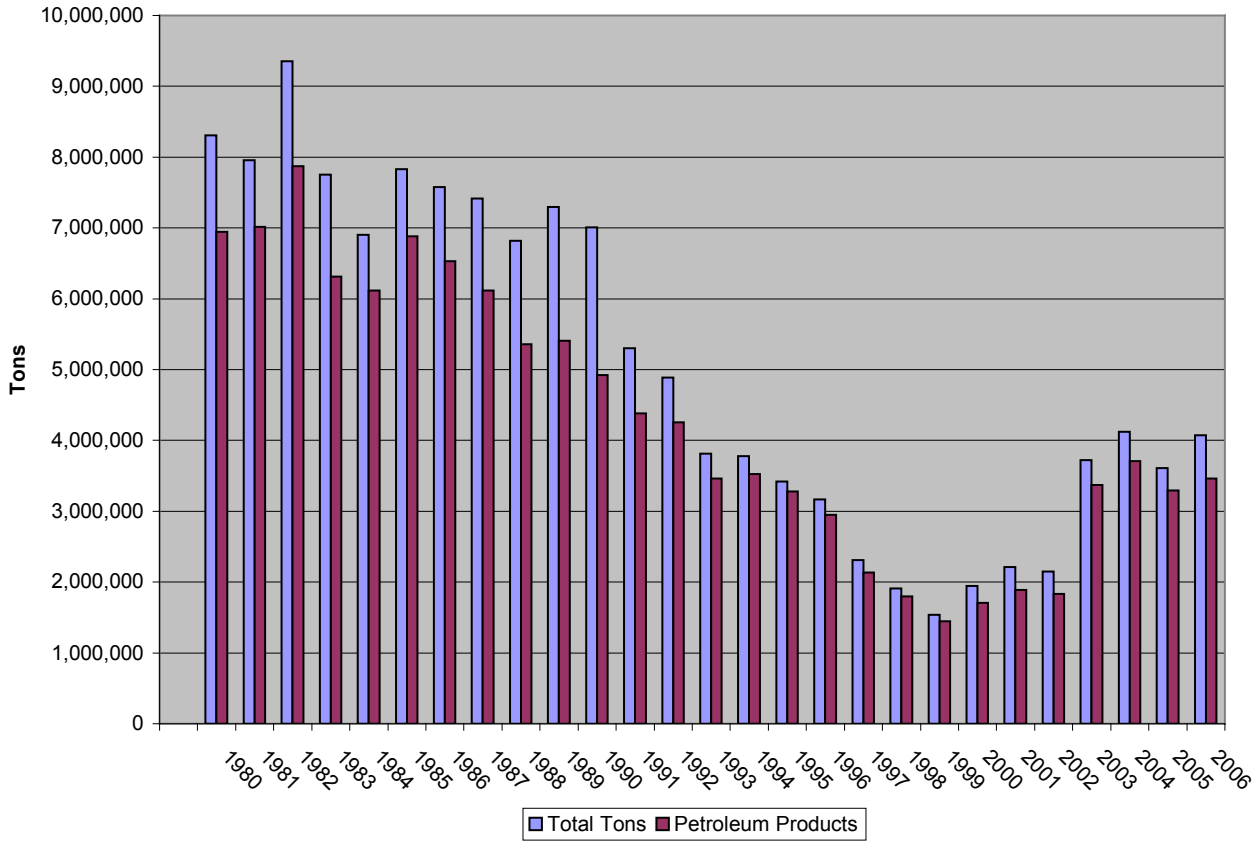
Waterborne Commerce Statistics revealed several interesting characteristics of the waterborne commerce conducted on the Passaic River over the period 1980 – 2006. For this period, three observations can be made:

1) From 1980 to 1999, the trend in the volume of commerce was generally down, peaking at roughly 9.5 million tons in 1982 and reaching a trough of about 1.5 million tons in 1999. Since 1999, the volume of commerce has been rising, reaching just over 4 million tons in 2006 (Figure 6).

2) Throughout this period, the overwhelming bulk of this commerce consisted of petroleum and petroleum products. Over the last ten years petroleum and petroleum products have accounted for more than 90 percent of the total volume. The remainder is mostly sewage sludge (Figure 5).

3) Approximately 2/3 of this commerce is by vessels whose loaded draft is 13 feet or less; however, there are records of barges needing more depth, particularly for the petroleum facilities within the Kearny Point reach. Specifically, approximately 1/3 of the commerce needed greater than 13 feet ranging up to 27 feet (see specific berth usage in Section 6.2).

Figure 6. Petroleum Products as a Segment of Freight Traffic, Lower Passaic River, 1980-2006



Data collected by Essex County and Hudson County in 2004 indicate that a total of 384 bridge openings (representing a total of 48 forty eight round trips based on four bridges and two openings per round trip) were reported at the Jackson Street, Clay Street, Bridge Street and Avondale locations. In 2005, there were 230 bridge openings at the above locations. Bridge openings were limited due to necessary repair work. These bridges lie upstream of the Point-No-Point Conrail Bridge which, by virtue of its width constraints, limits vessel access upstream of that point. Therefore, openings of the upstream bridges have little impact on the commercial navigation of the Passaic River.

6.2 Berth-by-Berth Analysis (1997-2006)

The purpose of the ten year berth-by-berth analysis was to describe the current state of commercial navigation on the Lower Passaic River. Detailed data was requested from the USACE's Institute for Water Resources, Navigation Data Center (NDC), as the agency

responsible for the data used in the *Waterborne Commerce Statistics* report. Another report produced by NDC is the *Port Series* report for The Port of New York, NY and NJ, and Ports on Long Island, NY (USACE-NDC, 1999), which describes all available berths by waterway in the larger port. Data requested from NDC included, for the most recent ten years available 1997-2006, all trips, drafts, commodities, vessel types for each berth in the Passaic River below the Dundee Dam (USACE-NDC, 2008). Drafts described herein reflect the measured draft at the time of delivery given the load without consideration of underkeel clearance requirements as reported to NDC. Drafts of the vessels are dependent upon bathymetric conditions and operational considerations. Operational considerations include market conditions, commerce flows, tidal restrictions, lightering and light-loading. Data provided to New York District for this analysis included approximately 4500 records for more than twenty berths located on the Lower Passaic River over those ten years. The data provided allowed for a qualitative description of total tons transported to and from each berth, vessels used, commodities transported, and range of drafts for the years 1997-2006. Berth locations are illustrated in the corresponding map in Figure 7. Berths are also described, reach by reach, below and in Tables 3 and 4. In addition, information is included from interviews conducted in 2008 and information summarized from commercial user input as a result of the Commercial User Outreach meeting in August 2009 (Appendix 2).

Kearny Point Reach – Newark Bay at RM 0.0 to RM 1.2:
The Port Series indicates eight berths are located within Kearny Point Reach between Newark Bay and RM 1.2. These berths include operations such as Amerada Hess Delancey Street Terminal, Cardolite Corporation, Darling International, Motiva Enterprises, Passaic Valley Sewerage Commissioners, Apex Oil Company at Center Point Terminal Newark LLC (formerly Stratus Petroleum) and Sunoco Logistics Partners, L.P. These companies primarily transport petroleum and petroleum products.

The authorized and constructed depth of this reach is thirty feet. It is the busiest reach of the Lower Passaic River because it is the deepest and the most easily accessible. The channel width is 300 feet, and no bridges restrict access to this reach. The 2008 Conditions Survey indicated that the minimum depth in the channel for vessels entering from Newark Bay is 12.9 feet in the left outside quarter, 14.2 feet in the middle half and 10.8 feet in the right outside quarter (see USACE Operation's Division September 2008 Conditions Survey, Appendix 1). Depth within the channel ranged from ten to 29 feet, with an average depth close to nineteen feet.

Motiva Enterprises (#401) is the busiest berth in this reach and within the river overall with an estimated 6.5 million tons passing through it during the period of 1997-2006. In any given year over that period, a minimum of 400,000 tons and a maximum of 1.1 million tons (in 2006) passed through the Motiva facility. The majority of trips to or from the Motiva Enterprises berth were made by vessels carrying gasoline (estimated 3 million tons), with significant trips also made by vessels carrying jet fuel (estimated 1.5 million tons) or other light oils from petroleum and bitum minerals (estimated at another 1.5 million tons). Other commodities transported in lesser amounts included fuel oils, ethyl alcohol, antiknock preparations, kerosene, and other lubricating oils. Gasoline and all other commodities were transported to and from Motiva in liquid carrying barges. The loaded draft for these barges ranged up to 28 feet. The vast majority

of trips required less than 20 feet of water depth. Towboats using the berth drew as much as 18 feet.

In 2007, Motiva was permitted by NJDEP Office of Dredging and Sediment Technology to dredge 4,000 cubic yards at their berth to a depth of 20 feet (plus two feet overdredge) below MLW (Personal Communication 2008k). Motiva had dredged their berth in December 2007, allowing vessels drawing 19.9 feet. Prior to December 2007, Motiva was limited to utilizing 20,000 barrel vessels. Since the dredging, Motiva is now capable of utilizing 40,000 barrel vessels (Personal Communication 2008b).

Sunoco Logistics Partners, L.P. (#396) transported an estimated 3 million tons over the period of 1997-2006, with a generally increasing trend over those ten years. Nearly all of the commodities transported through Sunoco's berth were classified as other light oils from petroleum and bitum minerals. Much smaller quantities of gasoline, kerosene, and fuel oils were also transported. The light oils were transported by tankers and liquid carrying barges. Tankers utilizing the berth at Sunoco drew between up to 18 feet and liquid carrying barges drew up to 24 feet with most needing only 20 feet or less. Towboats stopping here drew 18 feet or less. Sunoco Logistic Partners, L.P. was planning to dredge 6,654 cubic yards at their berth to a depth of 20 feet (plus two feet overdredge) below MLW in 2008 (Personal Communication 2008k). Permit applications are pending for Sunoco to dredge 10,000 cubic yards of sediment 20 feet below the plane of Mean Low Water (Personal Communication, 2010a).

Apex Oil Company at Center Point Terminal Newark LLC (#400), formerly known as **Stratus Petroleum**, transported an estimated 1.7 million tons over the period 1997-2006, but the amount shipped per year has been declining to well under 100,000 tons in both 2005 and 2006. Trips show a decreasing trend at Apex as well. The most commonly shipped commodity is other light oils from petroleum and bitum mineral (estimate 900,000 tons), followed by gasoline (estimated 700,000 tons). Other commodities included kerosene, fuel oils and ethyl alcohol. Tankers and liquid barges were used for the transport of these commodities. Tankers drafted up to 18 feet; liquid barges drafted up to 20 feet. Towboats using the berth drew up to 16 feet. Personal communication indicated that Apex's berth is limited to approximately 15 feet at low tide. Therefore, shipping lines must be notified of this restriction prior to arrival. Apex has plans to rebuild their dock toward the channel in order to have access to greater water depths for their vessels (Personal Communication, 2008c).

Apex Oil had a previous application (App No. 2007-473) to dredge 30,000 cubic yards to a depth of -22 ft MLW plus a 2 foot overdredge with upland placement of the dredged material (public notice: http://www.nan.usace.army.mil/business/buslinks/regulat/pnotices/2007473.pdf) However, that application was withdrawn on October 3, 2008 as they submitted an application (Application Number 2008-00314-WSC) to extend their berthing pier approximately 30 feet waterward and received a permit for the pier. Apex reduced the area to dredge in their application for dredging and placement in the NBCDF (Personal Communication, 2010b).

A permit application is pending with the USACE (Application No. 2009-00538-WSC) from Apex Oil to dredge 25,000 cubic yards to a depth of 22 feet below MLW plus a 2 foot overdredge to a total depth of -24 ft MLW with placement of the dredged material in the Newark

Bay CDF. A public notice (http://www.nan.usace.army.mil/business/buslinks/regulat/pnotices/200900538.pdf) was issued on July 27, 2009. The application is pending and a final decision is awaiting receipt of a Water Quality Certificate (WQC) and Coastal Zone Management Consistency (CZM) from the NJDEP.

Amerada Hess' Delancey Street Terminal (#402) has transported an estimated 3.6 million tons of petroleum from 1997 to 2006. Commodities shipped or received there include fuel oil, gasoline, kerosene, jet fuel, anti-knock preparations, ethyl alcohol, and other light oils from petroleum and bitum minerals. Vessels visiting this berth include liquid carrying barges, tankers and towboats. Drafts observed at this berth did not normally exceed 23 feet and were most frequently below 20 feet. A few tankers have drawn as much as 13 feet. A permit was issued in 2007 by NJDEP Office of Dredging and Sediment Technology for the removal of 10,000 cubic yards to a depth of 25 feet below MLW (Personal Communication 2008k).

Personal communication indicated that Amerada Hess dredged their berth to 24 feet in August 2007 after delays for almost 10 years. Prior to dredging in 2007, Hess could only load barges on an incoming tide. Recent soundings from June 2008, revealed that the current bathymetry within their berth is now 21 feet. Unfortunately, Hess now has to operate once again with tidal restrictions and has to light load shipments. At times, shipments are partially loaded at the Delancey Street Terminal and are then filled to capacity at another terminal location outside the Lower Passaic River (Personal Communication, 2008d)

Figure 7. Berths Available for Commercial Navigation (1997-2006)

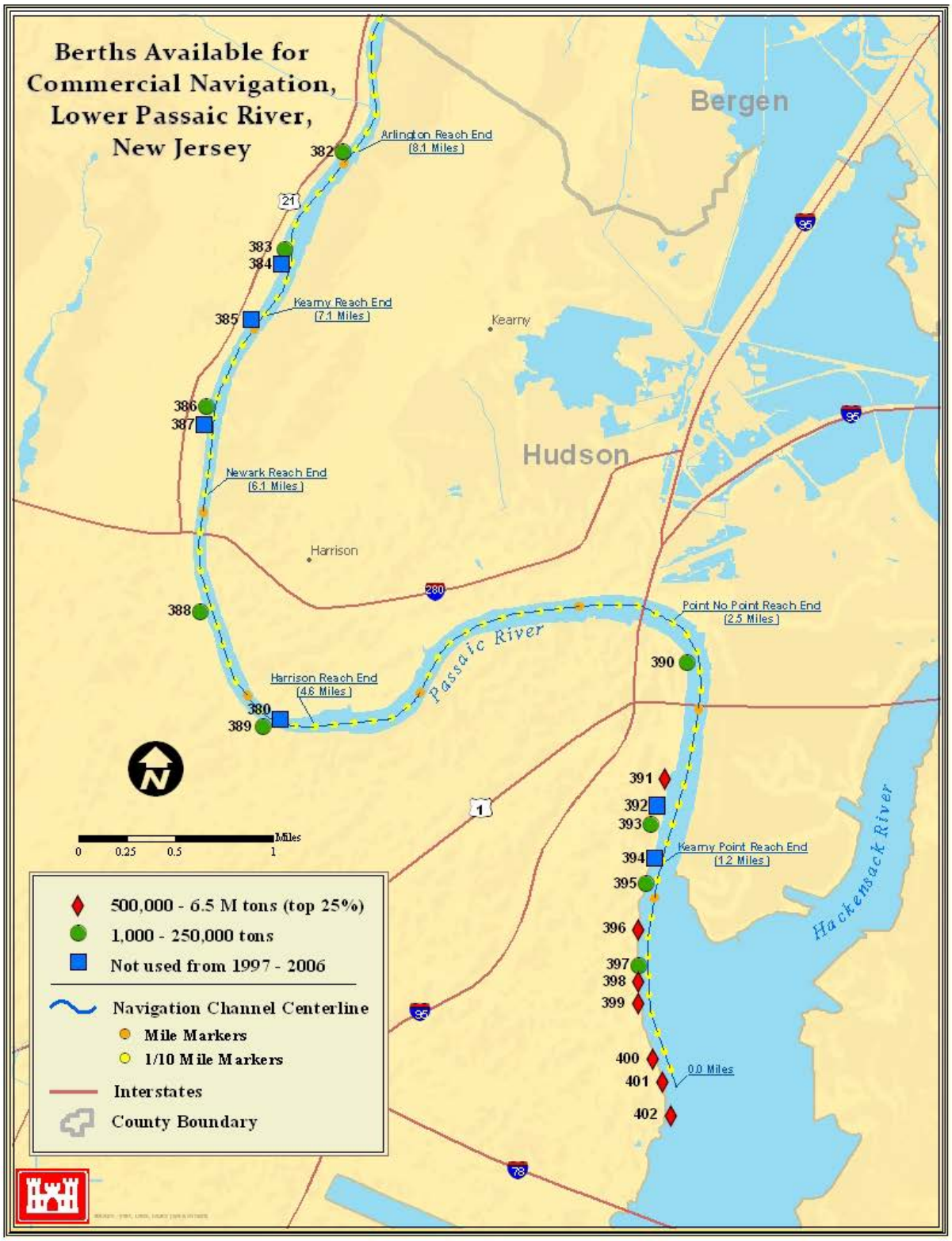


Table 3. Channel Reaches and Active Berths of the Lower Passaic River

Passaic River Reaches (Aug 2008 Conditions Survey*)	**Existing Berths** (Port Series Data, USACE-NDC, 1999)
Kearny Point Reach: RM 0-1.2 Authorized Depth: 30 feet Controlling Depth: -14.2 feet Average Depth: -18.9 feet Range: -10.4 to -29.2 feet Mode: -21.0 feet	#402 Amerada Hess, Delancey Street Terminal #401 Motiva Enterprises #400 Apex Oil Company at Center Point Terminal Newark LLC #399 Passaic Valley Sewerage Commissioners Wharf #398 Darling International #397Cardolite Corporation #396 Sunoco Logistics Partners, L.P. #395 General Chemical
Point No Point Reach: RM 1.2-2.5 Authorized Depth: 30 feet Controlling Depth: -4.0 feet Average Depth: -14.6 feet Range: +0.5 to -27.0 feet Mode: -14.2 feet	#394 Nimco Shredding Company Wharf #393 Blue Circle Cement #392 Amerada Hess, Newark Terminal Wharf #391 Getty Petroleum Marketing #390 Public Service Electric & Gas Co, Essex Generating Station Wharf
Harrison Reach: RM 2.5-4.6 Authorized Depth: 30 ft to RM 2.6, 20 feet to RM 4.1 Controlling Depth: -3.7 feet Average Depth: -12.3 feet Range: +1.1 to -24.1 feet Mode: -12.6 feet	No berths.
Newark Reach: RM 4.6-6.1 Authorized/Constructed Depth: 20 ft/16 ft Controlling Depth: -6.6 feet Average Depth: -13.2 feet Range: +5.6 to -22.6 feet Mode: -12.4 feet	#389 City of Newark Municipal Dock #388 Colonial Concrete Company #380 Public Service Electric & Gas Co, Harrison Gas Plant Wharf
Kearny Reach: RM 6.1-7.1 Authorized/Constructed Depth: 20 ft/16 ft Controlling Depth: -6.8 feet Average Depth: -12.6 feet Range: +1.5 to -20.9 feet Mode: -13.6 feet	#387 Linde-Griffith Construction Company Wharf #386 Passaic River Terminals (Formerly W.A.S. Terminals Wharf) #385 Napp-Grecco Wharf
Arlington Reach: RM 7.1-8.1 Authorized Depth: 16 feet Controlling Depth: -8.7 feet Average Depth: -12.6 feet Range: -0.1 to -19.6 feet Mode: -12.0 feet	#384 Q Facility Petroleum Wharf #383 Lionetti Oil Recovery Services Company Wharf #382 Riverbank Petroleum Company Wharf

*Average Depth reflects the average of all recorded depths within the authorized channel by reach during the August 2008 Conditions Survey. Survey was conducted by NY District Operations Division in May 2008. Controlling Depth is the minimum observed depth in the middle half of the channel by reach. Range of depths show minimum, maximum and mode values for all recorded depths within the authorized channel. Depths are negative values, while positive values indicate a mudflat exists within the channel.

Table 4: Most Active Berths, by Volume (tons) Transported on Lower Passaic River, 1997-2006

Port Series #	Berth	Tons Transported (1997-2006)	Symbol
401	Motiva Enterprises	6,500,000	◆
391	Getty Petroleum Marketing	4,500,000	◆
402	Amerada Hess Corp., Delancey Street Terminal	3,600,000	◆
396	Sunoco Logistic Partners, L.P.	2,900,000	◆
400	Apex Oil Company at Center Point Terminal Newark LLC	1,700,000	◆
398	Darling International	*750,000	◆
399	Passaic Valley Sewerage Commissioners Wharf.	500,000	◆
393	Blue Circle Cement (currently Harms)	250,000	●
389	City of Newark	200,000	●
386	Passaic River Terminal (Formerly W.A.S. Terminals Wharf).	150,000	●
390	Public Service Electric & Gas Co., Essex	50,000	●
395	General Chemical	35,000	●
397	Cardolite Corp.	10,000	●
383	Lionetti Oil Recovery Services Co. Wharf.	2,500	●
382	Riverbank Petroleum Co. Wharf.	1,500	●
388	Colonial Concrete Co.	1,000	●
392	Amerada Hess, Newark Terminal Wharf	0	■
380	Public Service Electric and Gas Co., Harrison	0	■
384	Q Facility	0	■
385	Newark Asphalt Corp. Wharf.	0	■
387	Linde-Griffith Construction Co. Wharf.	0	■
394	Nimco Shredding Co. Wharf.	0	■
◆ = 500,000 - 6.5 M tons (top 25%)			
● = 1,000 – 250,000 tons			
■ = not used from 1997-2006			

*Tons Transported (1997-2006) reported by Darling International (Singer, 2009)

Darling International (#398) specializes in transporting liquid bulk products. Darling alerted the USACE to the fact that the NDC inaccurately reported that, over the period of 2005-2006, Darling was transporting an estimated 75,000 tons of lard/rendered pig and poultry fat using tankers drawing about 19 to 25 feet. Furthermore NDC had reported that 35,000 tons of sewage sludge that passed through the facility in 1998 transported in liquid barges drawing about 17 feet. Darling informed USACE that it never transported sewage sludge or petroleum products (e.g., fuel oils, gasoline). Darling International's current shipments average 75,000 tons each year, for a total of 750,000 tons over the ten year period analyzed, and tonnage transported continues to increase to date. (Singer, 2009- Appendix 2). Darling has been restricted by shipping lines to utilize smaller vessels due to current depth constraints. Darling has also had to partially load shipments, followed by complete loading at Hudson Tank Terminal Corp located in Newark Bay (Personal Communication, 2008e).

A permit was issued in 2000 by NJDEP Office of Dredging and Sediment Technology for the removal of 22,000 cubic yards to a depth of 31 feet below MLW. This permit expired but a new permit was issued in 2005 and dredging of 21,000 cubic yards was performed to a depth of 31 feet below MLW (Personal Communication 2008k). Darling currently has another application before the USACE and NJDEP to dredge 25,000 cubic yards of sediment to a depth of 31 feet MLW plus a two feet allowable overdepth for a total maximum of 33 feet below MLW (Personal Communication, 2010a).

General Chemical (#395) has mainly transported sulfuric acid/oleum during the period of 1997-2006 accounting for more than two-thirds of the total tonnage of all commodities shipped to or from that berth. The sulfuric acid/oleum has been transported roughly once per year until the last recorded trip of that commodity in 2003. It was transported using liquid tankers drawing twelve feet. Other products transported have included kerosene. Most recently, ethyl alcohol was shipped during one trip in 2006. The liquid barge used for that receipt drew 22 feet.

Cardolite Corporation (#397) did not regularly transport any commodities over the period 1997-2006, but did transport several shipments of "miscellaneous manufactured articles" in 2004 and 2005. The vessels used were dry cargo barges and did not require more than four feet of draft.

The **Passaic Valley Sewerage Commissioners (PVSC)** (#399) operates a berth within the Kearny Point reach of the Lower Passaic River. This berth was not as busy as some of the petroleum berths but has seen an increase in traffic over the period of 1997-2006. From 1997 to 1999, the berth was used occasionally for the transportation of relatively small amounts of fuel oils. However, starting in 2000, the wharf was used more regularly for the transportation of sewage sludge. Transportation of sewage sludge increased steadily each year through 2006 for an estimated total of over 400,000 tons transported over the last seven years. Liquid barges using the berths have not drafted more than 16 feet. Personal communication revealed that PVSC had been contracted to receive materials from the City of New York, which would have been transported using the City's own self-propelled tankers. However, these tankers needed at least 25 feet, which was unavailable. Materials were instead transported on private barges hired

by the City, which reportedly still needed to be light loaded significantly to be able to make the trip to PVSC's facility (Personal Communication, 2008f).

PVSC is currently the largest customer for New York City Department of Environmental Protection (NYCDEP) sewage sludge and had a two year contract with the agency, running through April 2011. Current conditions limit their ability to process material at this time. All barges (drafting 16-18 feet) currently come in light-loaded and can only transit the channel at high tide. Breasting barges and extra tugs are needed, and problems with depth at the berth and turning basin are a regular occurrence. PVSC has plans to expand their operations in the near future on properties to the south of the existing facility (Burns, 2009).

PVSC's post dredge survey from January 2010 showed that they dredged 39,636 cubic yards to a depth of 23 feet plus 2 foot overdepth for a total of -25 ft Mean Low Water from its northern and southern berths. The dredged material was placed in the Newark Bay CDF (Personal Communication, 2010a).

Figure 8. Sunoco Berth in the Kearny Point Reach, September 2008

Point No Point Reach – RM 1.2 to Pulaski Skyway at RM 2.5:
The *Port Series* reports five berths available in the Point No Point Reach of the Passaic River, located between RM 1.2 and the Pulaski Skyway at RM 2.5. These berths include Amerada Hess Newark Terminal Wharf, Blue Circle Cement, and Getty Petroleum Marketing.

The authorized and constructed depth of this reach is 30 feet and the constructed channel width is 300 feet. Two bridges cross the Passaic River in this reach, including the Lincoln Highway Bridge and the Pulaski Skyway. The Lincoln Highway Bridge is not vertically constraining when in the open position and provides 300 feet of horizontal clearance. The 2008 Conditions Survey reports that the minimum depth in the channel for vessels entering from the sea is +0.5 feet in the left outside quarter, 4.0 feet in the middle half and 8.6 feet in the right outside quarter (Appendix 1). Average depth in this reach is close to 15 feet with a range of mudflats (+0.5) to 27 feet deep.

Amerada Hess' Newark Terminal Wharf (#392) has been closed since 1993 (Personal Communication, 2008d).

Getty Petroleum (#391) operates another busy petroleum berth in the Point No Point Reach, transporting an estimated 4.5 million tons from 1997-2006. Getty Petroleum is ranked the second most active facility based on tonnage within the Lower Passaic River. Over that period, at least 250,000 tons were transported in each of the ten years, with one year estimated at about 600,000 tons. The majority of these trips were for the transportation of gasoline. Other commodities transported included fuel oils, kerosene, ethyl alcohol and other light oils from petroleum and bitum minerals. Getty's berth, relative to the other major petroleum operations on the Lower Passaic, is located furthest upstream of Newark Bay at about RM 1.6. Commodities were transported to and from Getty in liquid carrying barges and tankers. The liquid carrying barges were used most often and drew up to 25 feet but most commonly drew less than 16 feet. The tankers ranged in draft up to 17 feet. Towboats also utilized the berth, drawing between eight and 18 feet.

Personal communication with Getty Petroleum has indicated that historically (15 to 17 years ago), the facility received shipments carrying 50,000 barrels of gasoline and ethanol, but now can only receive smaller shipments of 20,000 to 27,000 barrels due to current depth restrictions. The facility has two operable berths (one located between RMs 1.6 and 1.7) and the active current berth between RM 1.5 and 1.6) The upstream berth, which is over 300 ft in length, was historically used over 20 years ago for larger vessels. There would be plans to use this berth in the future given the opportunity. Presently Getty is using the Noelle Cutler, a barge that carries loads up to 27,000 barrels and has a draft of 12.5 feet fully loaded. The deepest barge they plan on bringing into Getty at Newark is the Eva Leigh Cutler, a barge that carries loads up to 78,000 barrels and draws 22 feet with fuel oil on board (Sharpe, 2009). Currently, vessels are light loaded and must enter the channel under operational restrictions during high tide only (Personal Communications, 2008g). The facility could bring in much larger barges, specifically barges needing up to 25 feet, in the absence of current depth restrictions. Getty would make short term investments in such vessels and the dredging of their berthing area if the channel depth was available (Stendardi, 2009).

The berth operated by **Blue Circle Cement** (#393) was used for the transportation of two types of commodities from 1997-2006: 1) pebbles, gravel or crushed stone; and 2) Portland, aluminous, slag, or supersulfate cement. From 1997 through 2006, it is estimated that less than 250,000 tons was transported. Dry cargo ships and towboats utilized this berth with the draft generally ranging between 10 and 16 feet.

The berth formerly owned by Blue Circle Cement is now owned and operated by **George Harms Construction** (#393). Correspondence with the owner and attorney indicates that they intend to use the berth in the near future for the transport of construction equipment and materials. Barges ranging in draft from six to thirty feet would be used by the company for the transport of these materials from places including Philadelphia, Virginia, and Nova Scotia, Canada. Air draft will be a concern for George Harms construction as they will be transporting equipment such as ringer cranes, that require 145-150 feet of clearance above the water line. The owner indicated that the "continuation of current conditions would greatly impact business." A new bulkhead

and receiving platform is being constructed at this berth (Harms, 2009). Harms provided operational details which are contained within the outreach appendix (Appendix 2, User Outreach).

Neither **Nimco Shredding** (#394) nor **PSE&G Co., Essex Generating Station Wharf** (#390) was regularly used for commercial navigation over the period 1997 to 2006.

POTENTIAL FUTURE USE: Disch Construction has recently leased (from Getty Petroleum at RM 1.7 to Harrison Creek) and purchased (upstream of Harrison Creek to RM 1.9) the waterfront property from Quality Carriers. Disch Construction is in the process of obtaining permits from NJDEP's Division of Land Use Regulation and the Tidelands Council. Disch plans to utilize their dock to transport empty and fully loaded scows of dredged material to minimize delays while waiting for a berth at dredged material processing facilities (solidification/stabilization) for the Harbor Navigational dredging program. Fully loaded barges brought to the facility could have a maximum of 16 ft draft and would potentially need a navigational channel with water depth of approximately 18 ft (Personal Communication, 2008h). Disch Construction confirmed that they would continue to utilize barges drafting up to 15 feet under future conditions but does have concerns about dredging the berth due to sediment conditions. Disch Construction plans to dredge their berth and operating area areas to eight feet and four feet MLW. However, Disch Construction indicated that the financial burden to dredge and dispose of dredge material below these grades was beyond their means (Disch, 2009).

POTENTIAL FUTURE USE: **Clean Earth's New Jersey (CENJ)** site is approximately 5.5 acres located on Jacobus Avenue, South Kearny, NJ at about RM 2.1 to 2.3. CENJ has adjacent property leased for an additional 8.25 acres. This site is currently an approved hazardous and solid waste storage, treatment and transfer facility that is served by truck and rail. Clean Earth is in the process of expanding to include the purchase or lease of an additional adjacent 15.5 acre site. Clean Earth is planning to develop the site, including limited dredging and bulkheading of 780 feet to receive barges. The new site will operate as a treatment, storage, recycling and transfer facility as a hazardous waste, dredged material, multimodal trans-shipment facility. The combined property will be approximately 29.25 acres of upland with over 780 feet of waterfront access. The site will have multi-modal capabilities including barge, truck and rail access. Current proposed operations will involve up to four barge trips per day, six days per week, and about 1250 barge trips per year (Personal Communication, 2008i). Unfortunately, CENJ would not be able to operate the proposed dredge processing facility with existing conditions, and the facility has not yet been constructed due to the costs of dredging the berth, specifically related to the cost of disposal of the sediments. When dredging is financially feasible for CENJ and channel depth is available, they plan to transport two to three scows of dredged material per day with a loaded draft ranging from 16-17 feet (Fixter 2009).

<u>Harrison Reach – Pulaski Skyway at RM 2.5 to Jackson Street Bridge at RM 4.6:</u>
The Harrison reach is described as the area from a point 600 feet seaward of the Pulaski Skyway to the Jackson Street Bridge at RM 4.6. According to *Port Series* data, no berths for commercial navigation exist in the Harrison reach of the Lower Passaic River (NDC, 1999).

Channel depth in this 1.87 nautical mile reach was authorized and constructed to 20 feet, with the exception of RM 4.1 to 4.6. There, the channel was authorized to 20 feet, constructed to 16 feet, and in 1990 authorized to 16 feet. The constructed channel width is 300 feet. Bridges located within the Harrison reach include the New Jersey Turnpike Bridge and the Point-No-Point Conrail Bridge. Of these, only the Conrail Bridge is constraining river traffic because this swing type bridge only allows for 103 feet of horizontal clearance and 21 feet of vertical clearance at low tide. Vertical clearance is not constraining when the Conrail swing bridge is open. However, width is still quite constrained at this bridge when open. The NJ Turnpike Bridge, with 105 feet of vertical clearance and 352 feet of horizontal clearance, does not constrain current river traffic. The 2008 Conditions Survey indicates that the minimum depth in the channel for vessels entering from the sea is +0.7 feet in the left outside quarter, 3.7 feet in the middle half and 0.7 feet in the right outside quarter (Appendix 1). Average depth in this reach is close to 13 feet and depths within the authorized channel range from mudflats (+1.1) to 24 feet deep.

Newark Reach – Jackson Street Bridge at RM 4.6 to Clay Street Bridge at RM 6.1:
The Newark Reach is located between the Jackson Street Bridge and the Clay Street Bridge located at RM 6.1. The *Port Series* reports three berths within the Newark Reach, including the City of Newark Municipal Dock, Colonial Concrete Company, and PSE&G Co.'s Harrison Gas Plant Wharf.

The former authorized depth in this reach was 20 feet but was only constructed to 16 feet. In 1990, the authorized depth was changed to 16 feet. The constructed channel width is 300 feet in this 1.3 nautical mile stretch of the Lower Passaic River. This portion of the river is severely constrained by seven bridges, including the Jackson Street Bridge, an Amtrak bridge, two Pennsylvania Railroad bridges, the Bridge Street Bridge, NJ Transit's Morristown Line Bridge and the Stickel Bridge for Interstate 280 (Table 2). The Jackson Street Bridge, Bridge Street Bridge and three of the railroad bridges in this reach all provide a little more than 70 feet of horizontal clearance. Any vessel requiring vertical clearance greater than 12 feet will necessitate time consuming bridge openings. The 2008 Conditions Survey indicates that the minimum depth in the channel for vessels entering from the sea is +0.3 feet in the left outside quarter, 6.6 feet in the middle half and +0.7 feet in the right outside quarter (Appendix 1). Average depth in this reach is 13 feet, and depths range from mudflats (+5.6) to 23 feet deep.

Neither **Colonial Concrete Company** (#388) nor **PSE&G Co.'s Harrison Gas Plant Wharf** (#380) were used for commercial navigation over the period 1997 to 2006. However, Colonial Concrete received 1,000 tons of pebbles, crushed stone, and gravel in 2002. The **City of Newark Municipal Dock** (#389) has been used occasionally over the period 1997 to 2006. In that time, an estimated 200,000 tons were transported using this berth, the majority of which were light oils from petroleum or bitum minerals. Lesser amounts of gasoline, fuel oils and ethyl alcohol were also transported from the City of Newark Municipal Dock.

Kearny Reach – Clay Street Bridge at RM 6.1 to Congoleum Nairn Company of Kearny at RM 7.1:
The Kearny reach is described as being located between Clay Street Bridge at RM 6.1 and the Congoleum Nairn Company of Kearny at RM 7.1. The *Port Series* indicates three berths available for commercial navigation within the Kearny Reach of the Lower Passaic River,

including the Linde-Griffith Construction Company Wharf, Newark Asphalt Corp. Wharf and Passaic River Terminals Wharf. Neither **Linde-Griffith Construction** (#387) nor the **Newark Asphalt Corp.** berths (#385) were used for commercial navigation over the period of 1997 to 2006.

Newark Asphalt Corp., formerly **Napp-Grecco**, had previously used barges to ship construction aggregates for their asphalt plant but currently uses trucks. Napp-Grecco/Newark Asphalt indicated that they discontinued the use of the river due to the lack of maintenance. However, they are interested in transporting material by barge again sometime in the future but would need the ability to use barges that would carry aggregates with loaded draft of 10 feet (Biggica, 2009).

The former authorized depth in this reach was 20 feet, but the channel was never constructed deeper than 16 feet. In 1990 the authorized depth was changed to 16 feet. The constructed channel width is 300 feet in 0.9 nautical miles of river. Only the Clay Street Bridge, with only 75 feet of horizontal clearance, constrains river traffic in this reach. Also, when this swing bridge is not open, vertical clearance at low tide is limited to 13 feet. The 2008 Conditions Survey indicates that the minimum depth in the channel for vessels entering from the sea is +0.7 feet in the left outside quarter, 6.8 feet in the middle half and +0.7 feet in the right outside quarter (Appendix 1). Average depth in this reach is nearly 13 feet with depths within the authorized channel ranging from mudflats (+1.5) to 21 feet deep.

Passaic River Terminals (#386), formerly **W.A.S. Terminals Wharf** was used until 2001 for the transportation of fuel oils. An estimated 130,000 tons of fuel oil was transported through W.A.S. from 1999 to 2001 using liquid carrying barges. W.A.S. was sold in 2006 to **Passaic River Terminals**. Starting in Fall 2008, Passaic River Terminals was barging petroleum products, including biofuels and diesel, in 10 to 20,000 barrel barges. They planned to transport about 40 million gallons per year or just under 150,000 tons (Personal Communication, 2008j). On 3 December 2008, **Innovation Fuels** transported about 14,280 barrels (or nearly 600,000 gallons) of biodiesel at Passaic River Terminals berth using a barge that drafted 10 feet with that load. The barge used had a 50 foot beam, was 236 feet long, had a maximum draft of 14.6 feet and a maximum carrying capacity of 23,500 barrels (Personal Communication, 2008l). In 2009, Innovation continued to operate using 10-15,000 barrel barges, with a loaded draft ranging from 14-18 feet depending on tide conditions. If more depth was available and channel conditions were safer for the operation of larger vessels, a larger 25,000 barrel barge would be used. Under current conditions, not many barge operators are even willing to go that far up the river due to safety concerns (Lindenbaum, 2009).

Figure 9.
Barge Cold Spring Harbor transporting Biodiesel Fuel from the Passaic River Terminals berth, December 2008.

Arlington Reach – Congoleum Nairn Company of Kearny at RM 7.1 to Erie Railroad Bridge at RM 8.1:
The Arlington Reach is described as the Lower Passaic River between the Congoleum Nairn Company of Kearny at RM 6.3 and the Erie Railroad Bridge at RM 7.2. The *Port Series* reports three berths within the Arlington Reach, including Lionetti Oils Recovery Services Company Wharf, Q Facility Petroleum Wharf, and Riverbank Petroleum Company Wharf.

The authorized and constructed depth in this reach is 16 feet. The river narrows here with a constructed channel ranging from 200 to 250 feet wide over 0.9 nautical miles. Two railroad bridges are located in the Arlington reach of the Passaic, one of which is an unused bascule style bridge left permanently raised. The second is the Erie Montclair-Greenwood Lake Railroad swing bridge, located further upstream in the reach and also constraining with only 48 feet of horizontal clearance and 40 feet of vertical clearance at low tide. More bridges, including the recently reconstructed lift style bridge for Rutgers Street/Route 7 (locally known as the Bellville Turnpike), are located upstream of the rail bridge, but no active berths are located above Erie Montclair-Greenwood Lake Railroad swing bridge. The 2008 Conditions Survey indicates that the minimum depth in the channel for vessels entering from the sea is 6.6 feet in the left outside quarter, 8.7 feet in the middle half and 0.1 feet in the right outside quarter (Appendix 1). Average depth in this reach is nearly 13 feet, with depths within the authorized channel ranging from approximately 0 to 20 feet deep.

Q Facility Petroleum Wharf (#384) was not used for commercial navigation over the period of 1997 to 2006. **Lionetti Oils Recovery Services Company Wharf (#383)** had one receipt of gasoline under 3,000 tons in 2005 and **Riverbank Petroleum Company Wharf (#382)** had one shipment of under 2,000 tons of fuel oils in 1997.

7.0 Conclusions

The commercial navigational analysis utilized data from the *Waterborne Commerce Statistics* for navigation trends over the period of 1980 to 2006 and detailed berth usage for 1997 through 2006. This evaluation concluded that commercial navigation on the Lower Passaic River is constrained by several factors. The most significant of these factors are the channel dimensions of the river. Channel depth, for the last 25 years, has been constrained by accretion from the natural siltation process in the system combined with a lack of maintenance dredging. Although not discussed in detail herein, the presence of more modern, larger, and more accessible facilities in Newark Bay, on the Kill Van Kull, and on the Arthur Kill are also known to be a factor influencing commerce on the Lower Passaic River. How those facilities will impact commerce has not been evaluated and, as competition for capacity continues throughout the larger Port of New York and New Jersey, Passaic River berths could be a considered as a location for expansion of capacity.

Horizontal and vertical clearance from bridge structures presents an additional constraint to navigation in the Lower Passaic River. The presence of the derelict former railroad freight bridge (RM 1.2) and Point-No-Point Railroad Conrail Bridge (RM 2.6) restrict width of the channel by 145 and 103 feet, respectively. However, NJDOT is investigating construction of a new Lower Passaic River Bridge, which would result in the removal of the former freight bridge structure, thereby removing any width restrictions within the Point No Point Reach. In addition,

the channel is 300 feet at its widest location, which currently would restrict the turning radius of larger vessels.

Table 5. Summary of Berth-by-Berth Analysis, below RM 2.0, 1997-2006.

Berth	River Mile	Maximum Drafts Observed (MLW)	Total Tonnage (1997-2006)	User Operating Drafts (MLW)***	
				Existing	Future
Amerada Hess	0	23 feet (33 feet*)	3,600,000	-	-
Motiva Enterprises	0	23 feet (28 feet*)	6,500,000	-	-
Apex Oil Company at Center Point Terminal Newark LLC	0.1	19 feet (21 feet*)	1,700,000	-	-
PVSC	0.4	16 feet	500,000	16-18.5 ft	16-18.5 ft
Darling International	0.6	26 feet (34 feet**)	750,000****	-	-
Cardolite Corp	0.7	4 feet (8 feet*)	10,000	-	-
Sunoco Logistics Partners, L.P.	0.9	20 feet (26 feet*)	2,900,000	-	-
General Chemical	1.1	15 feet (22 feet*)	35,000	-	-
Harms (formerly Blue Circle Cement)	1.4	18 feet (26 feet*)*****	250,000	n/a	18ft
Getty Petroleum	1.6-1.7	20 feet (25 feet*)	4,500,000	12.5 ft	22 ft
Disch Construction	1.9	n/a	n/a	n/a	6-15 ft
Clean Earth NJ	2.2	n/a	n/a	n/a	16-17ft

*Drafts presented here were reported to Waterborne Commerce Statistics but seem to be outliers and represent less than 1% of all trips recorded over the period 1997-2006.
**Similarly, these drafts represent less than 5% of all trips recorded over the period 1997-2006
***Drafts presented here are based on user input (if provided) from the August 2009 User Outreach
**** Darling International's records indicate 750,000 tons over ten years while WCS indicates 125,000 (Singer, 2009).
*****Drafts observed and reported here reflect previous owner Blue Circle Cement, not Harms.

Despite formidable challenges, the Lower Passaic River has established a niche for the transportation of petroleum products to or from major facilities, including those of Motiva Enterprises, Amerada Hess, Sunoco Logistics Partners, L.P., Apex Oil Company at Center Point Terminal Newark LLC, and Getty Petroleum (among others), which are all located below RM 1.7. The findings of the Berth-by-Berth analysis for the period 1997 to 2006 have been summarized in Table 5 showing vessel drafts and tonnage for berths in the lower two miles. Commercial navigation within the Kearny Point and Point-No-Point Reaches of the Passaic River have been most successful for these commodities due to accommodating channel depth, width and absence of bridges restricting passage to Petroleum berths. There is also a potential

future use for dredged material management facilities up to RM 2.3 and recent (December 2008) transport of biodiesel to Passaic River Terminals up to RM 6.5.

Formal correspondence with the entities that use the federal channel for the transport of commodities has shown larger vessels that could be used on the Passaic River, given different operating conditions are instead calling other ports with more favorable conditions. Larger vessels have been shown to generally operate more efficiently by reducing the cost of operating a vessel on a per ton or unit basis, therefore contributing to national economic development. The result of the correspondence is summarized in Table 5 and in detail in Appendix 2. The commercial users of the Lower Passaic River show a clear interest in using larger, more efficient vessels in the channel, and generally speaking, would not need to make large investments to do so. The vessels already exist in the local fleet but are being used on different service routes due to the operational limitations within the federal channel.

Future maintenance dredging by the USACE is subject to receipt of funding through the federal appropriation process. This project would be competing for funds with other projects nationally, with priority for funding given to projects that provide the greatest benefits relative to the cost of maintenance. The decision to maintain the navigational channel would also be influenced by the commitment from the terminal operators to maintain their berths.

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Appendix A.
Commercial User Outreach Information

Current and Future Use of
Lower Passaic River

Invitation Letter, Agenda and
Sign-in Sheet for
Commercial User Outreach Meeting
27 August, 2009

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

AUG - 5 2009

Motiva Enterprises
Mr. Geoffrey Pace and Mr. Gene Bernhard
909 Delancey Street
Newark, New Jersey 07105

Dear Messrs. Pace and Bernhard:

This is to invite you to a meeting to discuss the future of the Passaic River's navigation channel.

Date/Time:	August 27, 2009 at 10:00 AM to 12:00 PM
Location:	U.S. Army Corps of Engineers, New York District 26 Federal Plaza (Broadway and Duane Street), New York, NY Room 1802 (18th Floor)

The U.S. Environmental Protection Agency (EPA), U.S. Army Corps of Engineers (USACE) and New Jersey Department of Environmental Protection (NJDEP) are leading a group of federal and state agencies in an effort to clean-up and restore the Lower Passaic River. The partner agencies are evaluating options for cleaning up contamination in the sediments of the lower eight miles of the Passaic River, while a broader study continues on the Passaic River from Newark Bay to Dundee Dam. As part of that evaluation, various alternatives are being considered:

- No action, which is required to be evaluated under the Superfund program;
- Dredging all of the silt from the lower eight miles; and
- Capping the lower eight miles with sand and rock, with some dredging so that the cap does not cause additional flooding and to allow for commercial navigation.

In order to fully evaluate the capping option, the future use of the Passaic River's navigation channel must be considered. To that end, USACE conducted a Commercial Navigation Analysis which included a current berth-by-berth evaluation and interviews conducted with many of you regarding your current needs and practices. The report, posted on www.ourPassaic.org, provides a basis for discussion of your navigational needs. On behalf of EPA, USACE and NJDEP, I invite you to attend this meeting to continue that discussion of how you are currently using the Passaic River's navigation channel and how you expect to use it in the future.

Please let me know if you will be attending the meeting by sending a message to Alice Yeh of my staff at 212-637-4427 or yeh.alice@epa.gov.

Sincerely yours,

Raymond Basso

Raymond Basso, Strategic Integration Manager
Emergency and Remedial Response Division

Agenda

Agencies' Meeting with Commercial Users of Passaic River Navigation Channel

August 27, 2009 at 10:00 AM to 12:00 PM
26 Federal Plaza, NY, NY, Room 1802

10:00-10:30 Introductions and Overview of Lower Passaic River Clean Up

- Focused Feasibility Study: Alternatives for Clean Up
- 2008 Commercial Navigation Analysis

10:30-12:00 Discussion

- How are you currently using the Passaic River navigation channel?
  - Discuss any physical constraints that limit how you are operating.

- How do you expect to operate in the future?
  - How would you operate if conditions stayed the same as they are now?
  - How would you operate if the channel were deeper?
  - Are there facility/infrastructure changes, operational modifications or other investments you would need to make in order to operate in a deeper channel?
  - If so, how likely is it that you will be able to make these investments in the short term (2-5 years)? In the longer term (5+ years)?

SIGN IN

Meeting: Commercial Users of Passaic River Navigation Channel
Location: 26 Federal Plaza, NYC, Room 1802
Date/Time: 27 August 2009 at 10 AM – 12 PM

Name	Organization	Phone	E-Mail
Douglas Pabst	EPA Region 2	212-637-3797	pabst.douglas@epa.gov
Janine MacGregor	NJDEP	609-633-0784	janine.macgregor@dep.state.nj.us
Robert FixTea	Clean Earth	973-344-4004	RFixTea@CleanEarthinc.com
Jodi McDonald	USACE Plan Formulation	917 790 8720	jodi.m.mcdonald@usace.army.mil
Tom Hodson	USACE (CENAN-PL-F)	(917) 790-8602	thomas.j.hodson@USACE.ARMY.mil
Thomas Gozzi	NJDEP	(609) 292-1250	Tgozzi@dep.State.nj.us
Raymond Basso	EPA	(212) 637-4417	basso.ray@epa.gov
Larry Dolegiewitz	Center Point (Stratus)	973-589-8582	CenterPointNewark@YAHoo.com
Sam Hahn	George Harms Construction	732-751-2989	shahn@ghcci.com
Rob Harms	George Harms Const	732-251-2011	Rharms@ghcci.com
Steve Barnett	Connell Foley LLP for George Harms Construction	609-676-2367	sbarnett@connellfoley.com
Tricia Aspinwall	CENAN-PL-F	917-790-8734	tricia.aspinwall@usace.army.mil
Lisa Baron	USACE	917-790-8806	lisa.a.baron@usace.army.mil
Warren Disch	Disch Construction	908-233350	DischConstr.C@cl.com
Joseph Biggica	Napp-Grecco	973-482-3500	JBiggica@Napp-Grecco.com

Name	Organization	Phone	E-Mail
Patrick Thrasher	City of Newark (Planning)	917/848-7563	pthrasher@panynj.gov
Gary Burns	PVSC	973-466-2567	GBurns@PVSC.com
Scott Thompson	Malcolm Pirnie	914-641-2628	SThompson@pirnie.com
Carolyn Zeiner	Malcolm Pirnie, Inc	914-641-2975	czeiner@pirnie.com,
Ken Sharp	Getty Petroleum	973-344-7860	Ksharp@getty.com
Alice Yeh	EPA	212-637-4427	yeh.alice@epa.gov
Scott Douglas	NJDOT/OMR	609 530 4773	scott.douglas@dotstate.nj.us
Amanda Switzer	USACE	917 790 8618	amanda.m.switzer@usace.army.mil
Bob Lindenbaum	Innovation Fuels	973-483-5590	bob@innovationfuels.com

Follow-up Questions
to Commercial Users
Current and Future Use

1 September 2009
3 September 2009

Original Email Request from USACE:

-----Original Message----From: Baron, Lisa A NAN02 Sent: Tuesday, September 01, 2009 5:10 PM To:

Subject: Lower Passaic River Navigation User Meeting-8/27/09

On behalf of the partner agencies, we thank you all for participating in the meeting to discuss the future commercial use of the Lower Passaic River. Attached please find the meeting sign in sheet.

As discussed at the meeting, please review the information related to your facility and operations presented in the USACE's Commercial Navigation Analysis (December 2008, www.ourpassaic.org). Please provide any updates to ensure the report accurately reflects your company's operations and use of the river.
The agencies also request your input on the following agenda questions:

1) How are you currently using the Passaic River navigation channel? Discuss any physical constraints that limit how you are operating.

2) How do you expect to operate in the future?

2a) How would you operate if conditions stayed the same as they are now (no maintenance)?

2b) How would you operate if the channel were deeper?

2c) Are there facility/infrastructure changes, operational modifications or other investments you would need to make in order to operate in a deeper channel?

2d) If so, how likely is it that you will be able to make these investments in the short term (2-5 years)? In the longer term (5+ years)?

We greatly appreciate your response. Please send your input to the Corps (lisa.a.baron@usace.army.mil) and also furnish a copy to USEPA (Alice Yeh at yeh.alice@epa.gov) and NJDEP (Janine MacGregor at Janine.Macgregor@dep.state.nj.us) within the next 30 days-no later than Thursday October 1, 2009.

Thank you in advance! Lisa

Lisa A. Baron Project Manager, Harbor Programs Branch
U.S. Army Corps of Engineers Programs & Project Management Division 26 Federal Plaza -Room 2119 New York, NY 10278-0090

Phone: 917-790-8306 Fax:
212-264-2924 Cell: 646-385-
1429

From: Baron, Lisa A NAN02 Sent: Thursday, September 03, 2009 3:30 PM To:

Subject: RE: Lower Passaic River Navigation User Meeting-8/27/09

Good afternoon!

I wanted to clarify my email regarding agenda question #1. Can you please include in your response, specific information about the vessels you are bringing in such as vessel size, draft and even name of the vessel if known. These parameters are all relevant to your response on how are you are "currently using the Passaic River navigation channel"?

Also, I would like to clarify question 2b) "How would you operate if the channel were deeper and/or maintained at its authorized depth?"

Thank you very much for your response. Lisa

Lisa A. Baron Project Manager, Harbor Programs Branch
U.S. Army Corps of Engineers Programs & Project Management Division 26 Federal Plaza -Room 2119 New York, NY 10278-0090 Phone: 917-790-8306 Fax: 212-264-2924 Cell: 646-385-1429

Responses from Commercial Users
Following User Outreach Meeting

Held 27 August, 2009

Passaic Valley Sewerage Commissioners
River Mile 0.4

1 October, 2009

-----Original Message-----
From: Burns, Gary [mailto:GBurns@PVSC.COM]
Sent: Thursday, October 01, 2009 2:48 PM
To: Baron, Lisa A NAN02
Subject: RE: Lower Passaic River Navigation User Meeting- 8/27/09

Lisa,

Thank you for your patience in getting our response.

I owe you some detail on vessels currently using our dock:

Spectraserv operates two barges regularly to our dock.

1.) MARIA BEAM: 64' L:300 DRAFT: 14'11" CAPACITY: 1,600,000 GALS.
2.) LISA BEAM: 68' L:68' DRAFT: 18' 4" CAPACITY: 1,900,000 GALS.

Barges coming in to our dock are always short loaded due to draft issues. This increases the overall cost of transportation.

NYCDEP operates three self propelled marine vessels

1.) MV NORTH RIVER: BEAM:50' L:324' DRAFT:16'
2.) MV NEWTOWN CREEK: BEAM:50' L:305 DRAFT:16'
3.) MV RED HOOK: BEAM:53'02" L:350'05" DRAFT:18'

NY Marine Section reports the vessels require a minimum clearance of 2' under keel requiring a minimum depth of 20' for the fleet.

As I stated at our meeting, the entire area north of the Lehigh Valley bridge is problematic for the vessels. This includes the turning basin which is critical in maneuvering to and from our dock. NYCDEP is currently hiring local harbor pilots to handle every vessel through this area. I have also witnessed tugs brought in on standby in case of grounding.

Regarding future usage, NYCDEP and PVSC just entered into a new two yr. Agreement with an option for two additional years. BCUA is currently in its second five year Agreement with us.

Further out beyond that time frame we have been in discussions with other agencies regarding the placement of a new regional sludge treatment facility on our property. The property I refer to is currently unused; it was purchased and set aside for such future use. It has a dock, which once improved could facilitate a third vessel birth. Good water access would certainly be a key to that facility's success.

Thanks again,
Gary

-----Original Message-----
From: Burns, Gary
Sent: Monday, October 05, 2009 9:47 AM
To: 'Baron, Lisa A NAN02'
Subject: RE: Lower Passaic River Navigation User Meeting- 8/27/09
Importance: High

Lisa,
My apologies. I spotted a major typo, the length of the LISA, Spectraserv's barge is 272', I copied the beam a second time. I hope it is not too late to correct for the record.
Thank you for your efforts on this project.
Gary

Darling International Inc.
River Mile 0.6

12 August, 2009

Steven T. Singer
Counselor-At-Law
34 Hillside Avenue
Montclair, New Jersey 07042
Tel: 973.744.6093
Fax: 973.744.6097
Email: stsinger@verizon.net

August 12, 2009

Mr. Raymond Basso
United States Environmental Protection Agency
Region 2
290 Broadway
New York, NY 10007

Re: Passaic River Navigation Channel

Dear Mr. Basso:

On behalf of Darling International Inc., this will respond to your August 5, 2009 letter to Mr. Ed Schlagenhaft concerning the Passaic River Navigation Channel.

We have reviewed the "Commercial Navigation Analysis" referenced in your letter and note several errors as it relates to Darling International. At page 19, the Analysis states that Darling International transported an estimated 75,000 tons of liquid bulk material in the period of 1997-2006. In fact, Darling International transported approximately 75,000 tons of liquid bulk materials each year during that period, for a total of approximately 750,000 tons. To further supplement that information, Darling International shipped approximately 60,000 tons in 2007, approximately 81,000 tons in 2008, and approximately 40,000 tons to date this year. Please also note that Darling International does not ship sewage sludge, nor does it ship petroleum products or sodium hydroxide as mentioned in the analysis.

Lastly, please note that Mr. Ed Schlagenhaft of Darling International will be attending the August 27, 2009 meeting.

Please do not hesitate to contact me should you have any questions concerning this reply.

Very truly yours,

Steven T. Singer, Esq.

Cc: Mr. Ed Schlagenhaft

George Harms Construction Co., INC,
River Mile 1.4

24 September, 2009

GEORGE HARMS CONSTRUCTION CO., INC.

Mailing: P.O. Box 817, Farmingdale, NJ 07727 / 62 Yellowbrook Road, Howell, NJ 07731
Phone: 732-938-4004 / Fax: 732-938-2782
Website: www.ghcci.com / Email: info@ghcci.com

September 24, 2009

Ms. Lisa A. Baron
Project Manager, Harbor Programs Branch
U.S. Army Corps of Engineers
26 Federal Plaza – Room 2119
New York, NY 10278-0090

Dear Ms. Baron,

Enclosed please find the agenda questions and answers you requested in your September 1, 2009 email, along with the following:

Pages 1 through 4 are the stability letter for the barges we generally use,
Page 5 is a catalog cut of the Jackup Barge,
Page 6 is specifications of the tug boat we charter, and
Page 7 is the investments/improvements to the property.

If you have any questions or need additional information, please feel free to contact me.

Very truly yours,
George Harms Construction Co., Inc.

Robert Harms
Vice President of Operations

RH/ds

CC: T. Hardell
J. Griffin
S. Hahn

1. **How are you currently using the Passaic River navigation channel? Discuss any physical constraints that limit how you are operating. Please include any specific information about the vessels you are bringing in, including size, draft, and the name of the vessel.**

As discussed in the meeting on 8-21-09 we purchased the property in Feb. 2009. We have only recently started our permitting and site plan approval process and have had limited use of the property. Even with our limited use, to date, we have been hampered by the shallow water depths and have had to work around the tides due to the draft of our tugs.

The main physical constraint that limits our operation is the depth of water. Depending on what the USACE does or does not do to the Passaic River channel, they could have a major impact on our operation. The vessels we use draft in the range of 4.5' to as much as 18'. The vessels that draft 4.5' are sectional barges which are assembled in a wide variety of sizes. We also use tug boats that draft 18' which are 124' long by 31.6' wide.

2. **How do you expect to operate in the future?**

We expect to operate as a marine service provider and a loading and off loading location for our construction work, as well as servicing others needing access to the water for the loading and unloading of materials, equipment, and other related services. One of our plans is to bring construction aggregates in on ships to be loaded and off loaded at our location, as well as using our location as a distribution point for these aggregates. We also have plans on using the location as a staging site for off shore and costal water work in the tri-sate area. We plan to establish an onsite precast concrete products plant for supply and shipping of precast products by barge from the property.

a. **How would you operate if the conditions stayed the same as they are now (no maintenance)?**

We would be forced to operate around the tides for loading and off – loading. It would severely limit the activities we could perform at the site thereby limiting our volume of business and our ability to generate employment and trade opportunities.

The fact that the current conditions could possibly worsen, if not addressed, is an issue that the USACE should also be considering.

b. How would you operate if the channel were deeper and/or maintained at its authorized depth?

We are taken back by the possibility that the USACE may not maintain the depths of the channel. We fully anticipated, when we purchased the property, that the channel depths would be provided and maintained, based on the past history of the dredging in the Lower Passaic River.

Although maintenance dredging to maintain the channel depth is a necessity, we feel the channel need only be maintained at a 25 foot depth to operate efficiently.

c. Are there facility/infrastructure changes, operational modifications or other Investments you would need to make in order to operate in a deeper channel?

Yes, and we are currently making these investments in anticipation of full operation. We have recently applied for all permits and have submitted a property site plan for approval. We are finalizing the design of a heavy load wharf and bulkhead to support off loading cranes and heavy handling equipment, which has been depicted in our recently submitted documents. We intend to perform the improvements in phases.

d. If so, how likely is it that you would be able to make these investments in the short term (2-5 years)? In the longer term (5+ years)?

We do plan on making all of these investments short term. Attached is our plan of improvements.

ABS AMERICAS
A DIVISION OF THE AMERICAN BUREAU OF SHIPPING

Stability Letter

June 15, 1998

Master, "U-798" O.N. 1068524
Newpark Shipbuilding Hull 9516
180'-0" x 54'-0" x 12'-6"
Unmanned Deck Cargo Barge (I)

You are responsible for maintaining this vessel in a satisfactory stability condition at all times and for following the instructions and precautions below.

A deadweight survey, witnessed by ABS Americas was conducted on the U-796, O.N. CG050479, a sister to the U-798, O.N. 1068524 at Houston, Texas, on May 9, 1996. On the basis of this survey, stability calculations have been performed. Results indicate that the stability of the U-798, as presently outfitted and equipped, is satisfactory for operation on Exposed Waters, provided that the following restrictions are observed.

OPERATING RESTRICTIONS

1. ROUTE: Operation on Exposed Waters is permitted.

2. FREEBOARD AND DRAFT: A maximum molded keel draft of 10 feet 0-1/4 inches (10 feet 0-3/4 inches extreme) is permitted. This corresponds to a minimum freeboard from the main deck measured at amidships of at least 2 feet 5-3/4 inches. Trim should be minimized.

3. WEIGHT CHANGES: This stability letter has been issued based upon the following light ship parameters:

Displacement:	407.50 long tons
VCG:	7.50 feet above the baseline
LCG:	3.56 feet forward of frame 13

No fixed ballast or other such weights may be added, removed, altered, and or relocated without the authorization and supervision of the cognizant Officer in Charge, Marine Inspection (OCMI). The barge is not fitted with permanent ballast.

4. HULL OPENINGS: Any openings that could allow water to enter into the hull or deckhouse should be kept closed when underway.

(1)

16855 NORTHCHASE DRIVE, HOUSTON, TX 77060-6008 USA
WORD55\new9516b.doc TEL: 281-877-6000 FAX: 281-877-6001

5. DECK CARGO: The height of deck cargo above the deck in any loading condition shall not exceed two times the allowable VCG above the deck. However, in no circumstance shall the cargo height above the deck exceed 123 feet. The cargo must be positively secured against shifting before leaving protected waters. The height of the cargo VCG above the main deck shall not exceed the following:

Keel Draft (ft)	Maximum Allowable Cargo VCG above Deck (ft)
10.20	2.90
10.00	3.05
9.00	10.20
8.00	19.37
7.57	24.00
7.00	25.92
6.00	30.50
5.00	36.33
4.00	43.88

For intermediate draft values, use the maximum VCG values for the higher draft.

6. WATERTIGHT BULKHEAD: No watertight bulkheads shall be removed or altered without the authorization and supervision of the OCMI.

7. BILGES: The vessel's bilges and voids shall be kept pumped to minimum content at all times consistent with pollution prevention requirements.

8. LIST: You should make every effort to determine the cause of any list of the vessel before taking corrective action.

This stability letter, along with the Load Line Certificate, shall be maintained in a suitable location onboard the barge. It supersedes any stability information previously issued to the barge.

Thomas M. Gruber
Principal Engineer
ABS Americas

WORD55\new9516b.doc

McDonough Marine

180' x 54' x 12'-6" DECK BARGE

DEADWEIGHT CAPACITY TABLE

BARGES U798 & U799

LT SHIP WEIGHT 407.5 L TON

DRAFT FT	DISPLACEMENT L TON	DEADWEIGHT L TON
2.00	452.40	44.90
2.50	569.40	161.90
3.00	687.80	280.30
3.50	807.40	399.90
4.00	928.40	520.90
4.50	928.40	520.90
4.50	1,050.70	643.20
5.00	1,174.40	766.90
5.50	1,298.30	891.80
6.00	1,425.50	1,018.00
6.50	1,553.10	1,145.60
7.00	1,682.00	1,274.50
7.50	1,812.20	1,404.70
8.00	1,943.70	1,536.20
8.50	2,076.50	1,668.00
9.00	2,210.70	1,803.20
9.50	2,346.10	1,938.60
10.00	2,482.80	2,075.40
Load Line 10.021	2,488.84	2,081.14

(3)

U 800

SHIP - 180 x 54 x 12.5 DECK BARGE - NEWPARK HULLS 9533 & 9534

HYDROSTATICS - PART I TRIM .000 FEET

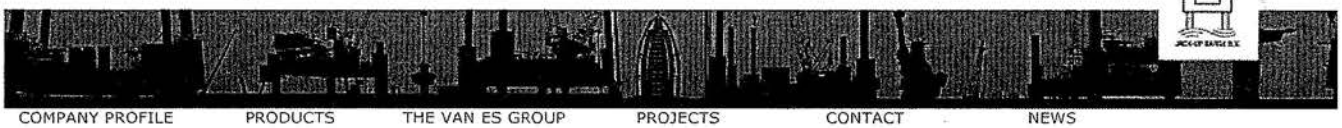
DRAFT FT	VOLUME FT^3	DISPLACEMENT LTON	LCB FT	KB FT	WETTED SURFACE FT^2	PRISMATIC COEF	BLOCK COEF	WPLANE COEF
2.00	15844.	452.4	.00	1.01	8606.	.977	.972	1.000
2.50	19942.	569.4	.00	1.27	8849.	.972	.968	1.000
3.00	24087.	687.8	.00	1.52	9093.	.966	.963	1.000
3.50	28278.	807.4	.00	1.78	9339.	.961	.959	1.000
4.00	32515.	928.4	.00	2.04	9587.	.956	.954	1.000
4.50	36798.	1050.7	.00	2.30	9836.	.951	.949	1.000
5.00	41128.	1174.4	.00	2.56	10087.	.947	.945	1.000
5.50	45504.	1299.3	.00	2.82	10340.	.942	.940	1.000
6.00	49925.	1425.5	.00	3.08	10594.	.937	.936	.999
6.50	54393.	1553.1	.00	3.34	10850.	.933	.932	.999
7.00	58907.	1682.0	.00	3.60	11108.	.929	.927	.999
7.50	63467.	1812.2	.00	3.86	11368.	.924	.923	.999
8.00	68073.	1943.7	.00	4.12	11629.	.920	.919	.999
8.50	72724.	2076.5	.00	4.39	11892.	.916	.915	.999
9.00	77422.	2210.7	.00	4.65	12157.	.912	.911	.999
9.50	82166.	2346.1	.00	4.92	12423.	.908	.907	.999
10.00	86955.	2482.9	.00	5.18	12691.	.904	.903	.999
10.50	91790.	2620.9	.00	5.45	12961.	.900	.899	.999
11.00	96647.	2759.6	.00	5.72	13144.	.905	.904	1.000
11.50	101507.	2898.4	.00	5.98	13325.	.909	.908	1.000
12.00	106367.	3037.2	.00	6.24	13505.	.913	.912	1.000

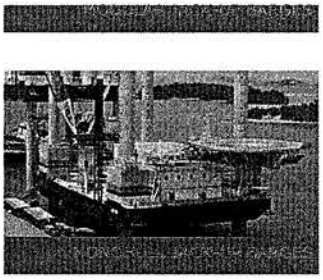
HYDROSTATICS - PART II TRIM .000 FEET

DRAFT FT	WPLANE AREA FT^2	LCF FT	TPI LT/IN	CIDOFTS LTON	LONG. KM FT	TRNSV KM FT	MT1 FTxLT	LWL FT	BEAM FT
2.00	8150.	.00	19.39	.00	977.3	125.97	204.5	150.94	54.00
2.50	8242.	.00	19.61	.00	803.5	101.66	211.5	152.66	54.00
3.00	8334.	.00	19.83	.00	688.3	85.56	218.7	154.37	54.00
3.50	8426.	.00	20.05	.00	606.4	74.15	226.0	156.08	54.00
4.00	8518.	.00	20.27	.00	545.3	65.66	233.5	157.80	54.00
4.50	8610.	.00	20.49	.00	498.0	59.11	241.1	159.51	54.00
5.00	8702.	.00	20.71	.00	460.5	53.93	249.0	161.22	54.00
5.50	8794.	.00	20.93	.00	429.9	49.73	256.9	162.93	54.00
6.00	8886.	.00	21.14	.00	404.7	46.28	265.1	164.64	54.00
6.50	8978.	.00	21.36	.00	383.5	43.40	273.4	166.35	54.00
7.00	9070.	.00	21.58	.00	365.5	40.97	281.8	168.06	54.00
7.50	9162.	.00	21.80	.00	350.1	38.89	290.5	169.77	54.00
8.00	9253.	.00	22.02	.00	336.7	37.11	299.3	171.47	54.00
8.50	9345.	.00	22.24	.00	325.1	35.57	308.3	173.18	54.00
9.00	9437.	.00	22.45	.00	314.8	34.23	317.5	174.89	54.00
9.50	9528.	.00	22.67	.00	305.8	33.05	326.8	176.59	54.00
10.00	9620.	.00	22.89	.00	297.8	32.02	336.3	178.30	54.00
10.50	9712.	.00	23.11	.00	290.6	31.12	346.0	180.00	54.00
11.00	9717.	.00	23.12	.00	277.0	30.13	346.6	180.00	54.00
11.50	9720.	.00	23.13	.00	264.5	29.25	346.9	180.00	54.00
12.00	9720.	.00	23.13	.00	253.0	28.45	346.9	180.00	54.00

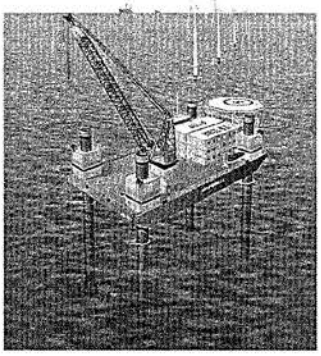
(4)

Jack-Up Barge marine services worldwide





Self elevating platform JB-114 and JB-115



Click for more photos

General

Type	MSC SEA 2000 general purpose platform
Make/Yard	Labroy Marine Limited, Singapore
Class	A.B.S. + A1 self elevating unit

Main dimensions

Length	55.50 metre
Breadth	32.20 metre
Depth	5.00 metre
Draft Max.	3.60 metre
Leg length	73.2 metre (max. 80 metre)
Leg diam.	3.00 metre

Jacking system

Jacking speed	0.5 metre / min
Jacking stroke	1.7 metre
Max. pay load	1250 tons

Mooring system

Winches	4 x 30 tons line pull electric driven
Anchors	4 x Delta Flipper 3.0 tons

Crane

Make	Favco Cranes, Malaysia
Type	PC 300 HD offshore crane
Capacity	280 tons at 22 metre radius

Heli deck

Size	19.5 metre diam. (only for the JB-115)
Capacity	Super Puma or equal (only for the JB-115)

Operating conditions

Max. water depth	± 50 metre
Wave height/period	2.0 metre/6.0 sec
Wind speed	20 metre/sec

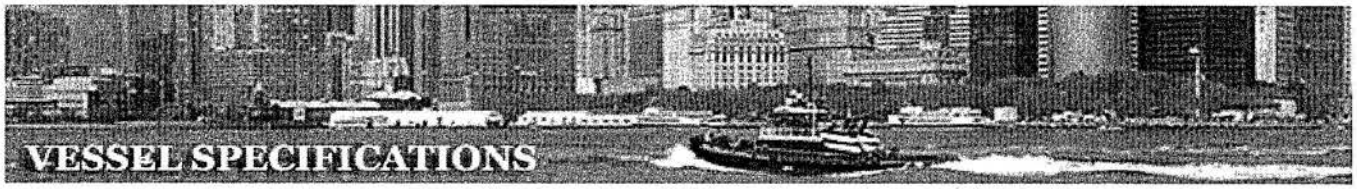
Survival conditions (based on 40 metre water depth)

Max wave	15.0 metre/12.5 sec
Wind speed	39.0 metre/sec

Optionals

Accommodation units up to 160 persons incl. all facilities
4 x 30 tons line pull
Drilling equipment
Pile driving equipment
Spudcans 24.00 sq. metre each

(5)



HOME

CHOOSE A PORT

FLEET LOCATION REPORT

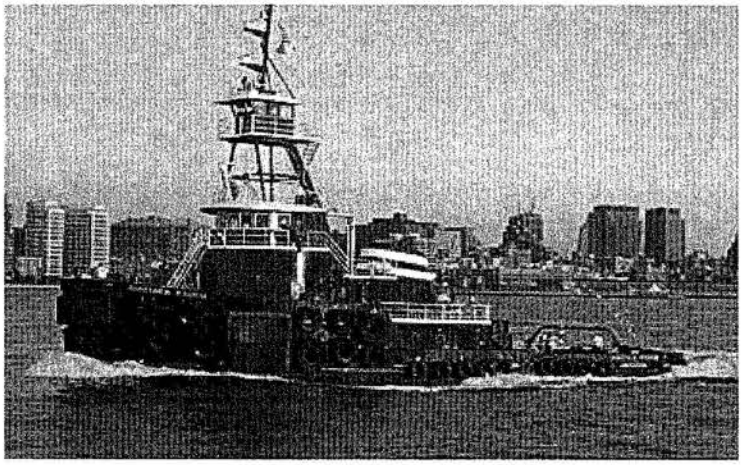
SERVICES

ABOUT McALLISTER

EMPLOYMENT OPPORTUNITIES

McALLISTER STORE

EXTRAS

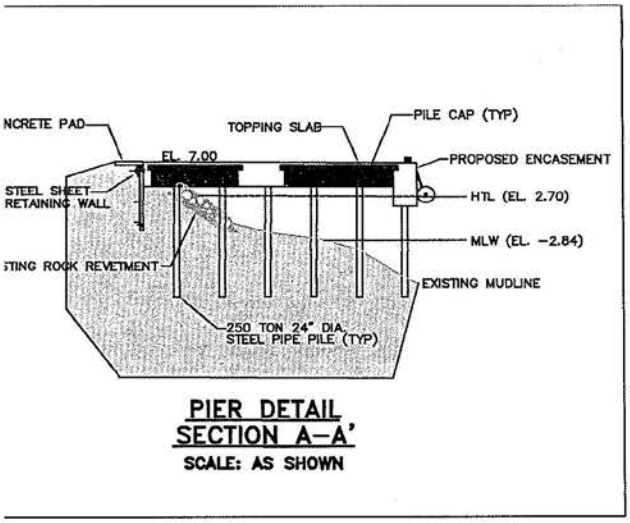


Christine McAllister

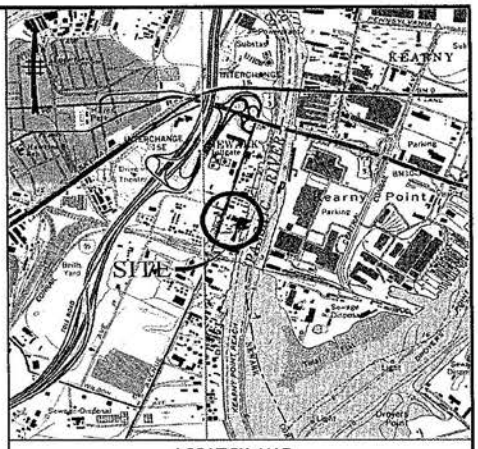
Official # 563058

General:	
Year Built:	1975
Class:	ABS Classed +A-1 Towing, A.M.S., Ice Class C
Dimensions:	
Length Overall:	135'
Length:	125'
Breadth:	38'
Depth:	20'
GRT:	198
NRT:	143
Draft Loaded:	18.5'
Draft Light:	14.5'
Propulsion:	
Main Engines:	(2) EMD 16-645-E5
Horsepower:	6,000
Propellers:	Twin Screw, Kort Nozzle
Reduction Gears:	Lufkin - 4.98:1
Machinery:	
Fire Fighting:	(4) Fire Stations
Towing Gear:	Intercon Double Drum 3,500' of 2 ¼" towing wire on main drum 2,500' of 2 ¼" towing wire on anchor drum
Deck Crane:	QMC 5555 PED 38,000 lbs. @ 10' - 55'

Upper



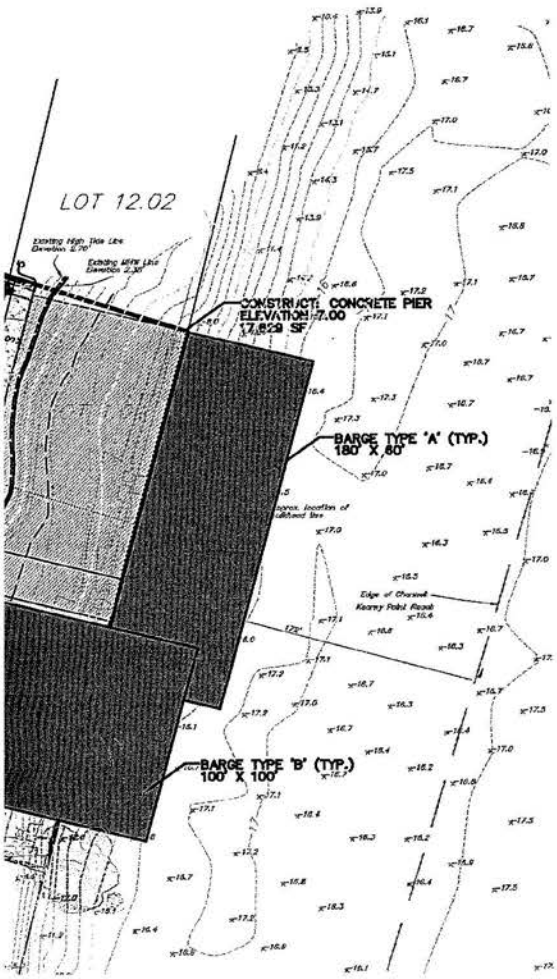
PIER DETAIL
SECTION A-A'
SCALE: AS SHOWN



LOCATION MAP
SCALE: 1"=2000'

2000 1000 0 2000 4000 8000

GRAPHIC SCALE



GRADING AND UTILITY NOTES:

1) ALL LOCATIONS OF EXISTING UTILITIES AT ALL POTENTIAL CROSSINGS ARE TO BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

2) LOCATIONS OF SEWER LATERALS AND WATER SERVICES ARE APPROXIMATE. FINAL LOCATIONS ARE TO BE CONFIRMED WITH THE ARCHITECTURAL PLANS.

3) STREET LIGHTING IS NOT PROPOSED FOR THIS PROJECT. THE SITE IS BOUND BY EXISTING STREETS WITH LIGHTING ALREADY IN PLACE.

GENERAL NOTES:

1) KNOWN AND DESIGNATED AS BLOCK 5014, LOTS 1, 1.03, & 1.04 AS SHOWN ON THE CURRENT TAX MAP OF THE CITY OF NEWARK, ESSEX COUNTY, NEW JERSEY, DATED JANUARY 1, 2001, SHEET 123.

2) LOT AND BLOCK NUMBERS, ALONG WITH WATERWAY AND ROAD NAMES SHOWN HEREON ARE AS SHOWN ON THE CURRENT TAX MAP OF THE CITY OF NEWARK, ESSEX COUNTY, NEW JERSEY, DATED JANUARY 1, 2001, SHEET 123.

3) BOUNDARY INFORMATION SHOWN HEREON WAS BASED ON MAP REFERENCE NUMBER 1 BELOW.

4) HYDROGRAPHIC INFORMATION SHOWN HEREON IS AS SHOWN ON MAP REFERENCE NUMBER 3 BELOW.

5) THIS PLAN IS A GRAPHICAL REPRESENTATION OF EXISTING LOT LINES AND IS NOT INTENDED TO BE USED AS A BOUNDARY SURVEY.

6) THE PROPERTY LIES WITHIN THE AE FLOOD HAZARD ZONE (SUBJECT TO 100-YEAR FLOOD) PER FEMA FLOOD MAPPING.

7) PROJECT DESCRIPTION:
IT IS PROPOSED TO REMOVE THE EXISTING PIER, REGRADE THE SITE, REPLACE FENCING, ADD SITE LIGHTING, AN ASPHALT APRON IN THE FRONT OF THE PROPERTY, ELECTRIC SERVICE, GAS SERVICE, AND 2" WATER SERVICE FROM THE EXISTING BUILDING. CONSTRUCTION OF A BULKHEAD AND PIER IN THE SITE'S REAR IS ALSO PROPOSED FOR USE IN THE TRANSPORTATION OF CONSTRUCTION EQUIPMENT AND MATERIALS VIA BARGE ALONG THE PASSAIC RIVER.

MAP REFERENCES:

1) "LOCATION SURVEY LOTS 1, 1.03 & 1.04 BLOCK 5014 CITY OF NEWARK ESSEX COUNTY NEW JERSEY" PREPARED BY HEDGES & ASSOCIATES INC., DATED NOV. 18, 2008.

2) FIRM – FLOOD INSURANCE RATE MAP, CITY OF NEWARK, NEW JERSEY, ESSEX COUNTY, PANEL 8 OF 12, COMMUNITY PANEL NO. 340189 0008 B, MAP REVISED MARCH 28, 1980.

3) "HYDROGRAPHIC SURVEY PORTION OF TAX MAP LOTS 1, 1.03 & 1.04, BLOCK 5014 DOREMUS AVENUE DEVELOPMENT SITUATED IN CITY OF NEWARK, ESSEX COUNTRY, NEW JERSEY", PREPARED BY LGA ENGINEERING, INC., DATED APRIL 7, 2009 AND REVISED ON JULY 15, 2009.

COORDINATE SYSTEM:

HORIZONTAL DATUM – NAD 1983, BASED ON GPS OBSERVATIONS BY LGA ENGINEERING, INC., APRIL 7, 2009 AND REFER TO NATIONAL GEODETIC MONUMENT "N.J.2" (PID-AJ3348).

VERTICAL DATUM – NAVD 1988, BASED ON GPS OBSERVATIONS BY LGA ENGINEERING, INC., ON APRIL 7, 2009 AND REFER TO NATIONAL GEODETIC MONUMENT "N.J.2" (PID-AJ3348.)

TIDAL ELEVATION:

REFER TO NAVD 1988

MHHW =	2.70 FEET
MHW =	2.35 FEET
NAVD 88 =	0.00 FEET
MSL =	-0.12 FEET
MLW =	-2.84 FEET
MLLW =	-3.08 FEET

TIDAL ELEVATIONS BASED ON TIDAL BENCHMARK STATION NO. 8530743 LOCATED AT POINT NO POINT, PASSAIC RIVER, NEW JERSEY. POINT IDENTIFICATION NUMBER: KV0265.

NO.	DATE	REVISION	DRAWN	CHK'D	REL'D
2.	9/11/09	ADDED BARGE PER ACOE COMMENT	DG		
1.	9/3/09	REVISED SHEET PER PLANNER'S 8/28/09 REVIEW	RRE		

N

40 30 20 10 0 40 80 120

GRAPHIC SCALE
1 inch=40 feet

LGA ENGINEERING, INC.
A SUBSIDIARY OF BIRDSALL SERVICES GROUP, INC.
CONSULTING ENGINEERS & SURVEYORS

DATE:

PHILLIP SCOTT, P.E.
PROFESSIONAL ENGINEER
N.J. Lic. No. 44179

Alan P. Wills PE No.20393
Michael J. Giuliano, Jr. PE No.23314
John L. Wacewicz PE No.36098
David O. Eicholtz PE No.42144

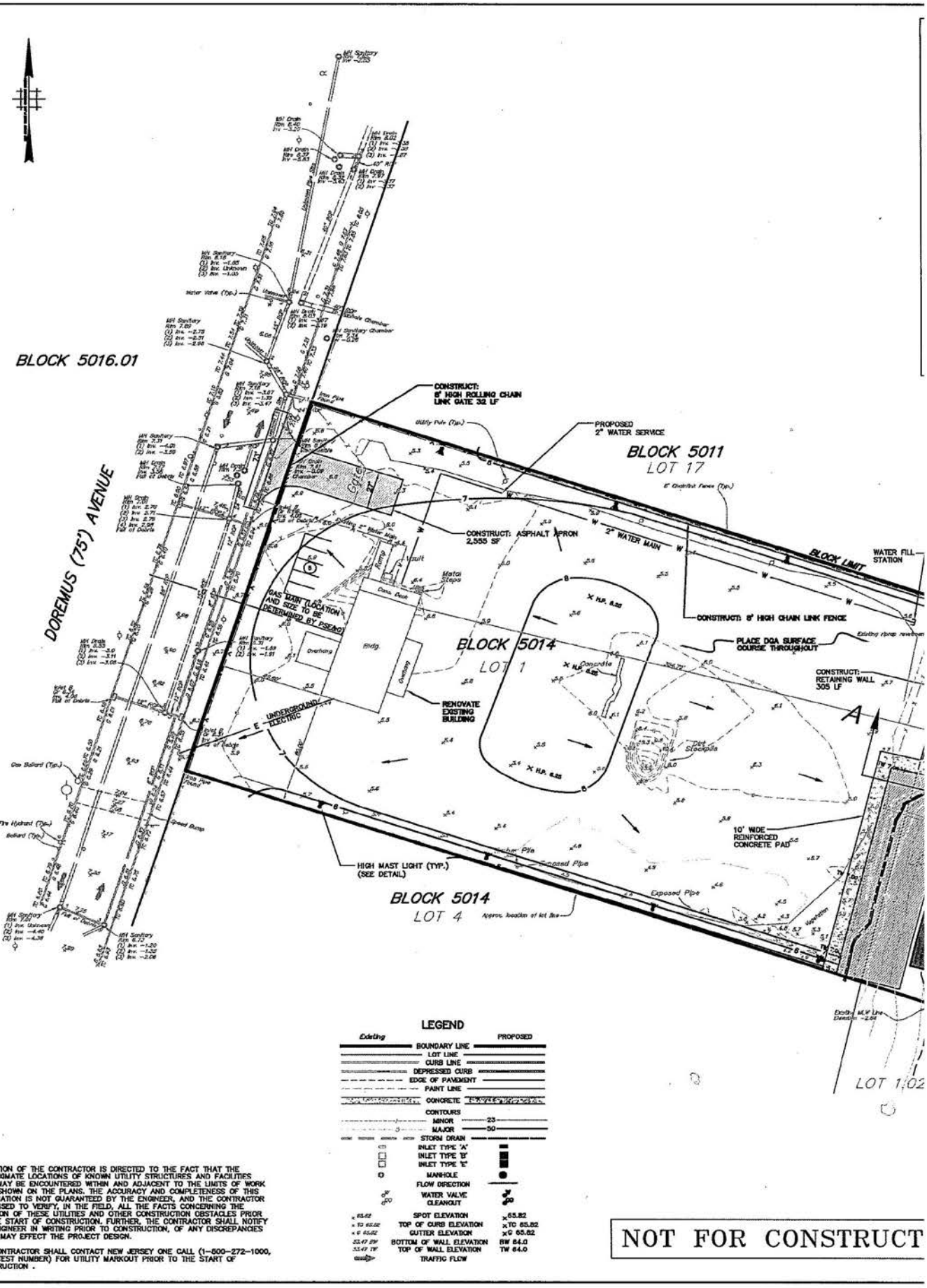
750 Vassar Avenue
Lakewood, N.J. 08701
Tele (732) 961-2162
WWW.BIRDSALL.COM Certificate of Authorization No. 24GA27999000

Date	Scale: (H)1"=40' (V)	Drawn	Checked	Released
7/23/09		DS		

PRELIMINARY & FINAL MAJOR SITE PLAN
PORTIONS OF
TAX LOTS 1, 1.03, 1.04; BLOCK 5014
192 DOREMUS, LLC
GRADING AND UTILITY PLAN

SITUATED IN
CITY OF NEWARK, ESSEX COUNTY, NEW JERSEY

Job No.	Drawer Number	Drawing Name:	4 of 7
504313000100	411-008	02-Site Plan.dwg	


BLOCK 5016.01
DOREMUS (75') AVENUE
CONSTRUCT: 8' HIGH ROLLING CHAIN LINK GATE 32 LF
PROPOSED 2" WATER SERVICE
BLOCK 5011
LOT 17
CONSTRUCT: ASPHALT APRON 2,555 SF
2" WATER MAIN
BLOCK LIMIT
WATER FILL STATION
CONSTRUCT: 8' HIGH CHAIN LINK FENCE
PLACE DGA SURFACE COURSE THROUGHOUT
BLOCK 5014
LOT 1
CONSTRUCT: RETAINING WALL 305 LF
GAS MAIN LOCATION AND SIZE TO BE DETERMINED BY PSE&G
RENOVATE EXISTING BUILDING
E UNDERGROUND ELECTRIC
10' WIDE REINFORCED CONCRETE PAD
HIGH MAST LIGHT (TYP.) (SEE DETAIL)
BLOCK 5014
LOT 4
LOT 1.02
LEGEND
Existing
PROPOSED
BOUNDARY LINE
LOT LINE
CURB LINE
DEPRESSED CURB
EDGE OF PAVEMENT
PAINT LINE
CONCRETE
CONTOURS
MINOR
MAJOR
STORM DRAIN
INLET TYPE 'A'
INLET TYPE 'B'
INLET TYPE 'E'
MANHOLE
FLOW DIRECTION
WATER VALVE
CLEANOUT
SPOT ELEVATION
TOP OF CURB ELEVATION
GUTTER ELEVATION
BOTTOM OF WALL ELEVATION
TOP OF WALL ELEVATION
TRAFFIC FLOW
ATTENTION OF THE CONTRACTOR IS DIRECTED TO THE FACT THAT THE APPROXIMATE LOCATIONS OF KNOWN UTILITY STRUCTURES AND FACILITIES THAT MAY BE ENCOUNTERED WITHIN AND ADJACENT TO THE LIMITS OF WORK AREA SHOWN ON THE PLANS. THE ACCURACY AND COMPLETENESS OF THIS INFORMATION IS NOT GUARANTEED BY THE ENGINEER, AND THE CONTRACTOR IS ADVISED TO VERIFY, IN THE FIELD, ALL THE FACTS CONCERNING THE LOCATION OF THESE UTILITIES AND OTHER CONSTRUCTION OBSTACLES PRIOR TO THE START OF CONSTRUCTION. FURTHER, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING PRIOR TO CONSTRUCTION, OF ANY DISCREPANCIES WHICH MAY EFFECT THE PROJECT DESIGN.
THE CONTRACTOR SHALL CONTACT NEW JERSEY ONE CALL (1-800-272-1000, OR LATEST NUMBER) FOR UTILITY MARKOUT PRIOR TO THE START OF CONSTRUCTION .
NOT FOR CONSTRUCT

Getty Petroleum
River Mile 1.6-1.7

26 October, 2009
5 November, 2009

Getty Petroleum: RM 1.6-1.7

From: Paul Stendardi Sent: Mon 10/26/2009 11:56 AM To: Ken Sharpe Subject: RE: Lower Passaic River Commercial Navigation User Outreach

1) How are you currently using the Passaic River navigation channel? Discuss any physical constraints that limit how you are operating. *We currently use the channel to receive barges of petroleum products into our Newark terminal. Draft limitations limit our ability to bring in bigger barges.*

2) How do you expect to operate in the future?

2a) How would you operate if conditions stayed the same as they are now (no maintenance)? *We would continue to bring in the same size vessels*.

2b) How would you operate if the channel were deeper? *If the channel was deeper, this would allow us to bring in larger vessels, reducing the frequency of vessel trips. We would need aproximatly 25 feet.*

2c) Are there facility/infrastructure changes, operational modifications or other investments you would need to make in order to operate in a deeper channel? *Again, if the channel was deeper, we would dredge our own docking area to take full advantage of the deeper channel depth.*

2d) If so, how likely is it that you will be able to make these investments in the short term (2-5 years)? In the longer term (5+ years)? *The probability is good that we would make these investments in the next 2-5 years if we saw that the channel was being dredged.*

Sincerely,

Paul J. Stendardi Getty Petroleum Marketing Inc. Director of Terminals and Transportation
(516) 542-5250

"Ken Sharpe" <ksharpe@getty.com>
11/05/2009 11:34 AM
To: Alice Yeh/R2/USEPA/US@EPA
cc

bcc

Subject: FW: Passaic River Navigation Channel Depth

History: This message has been replied to and forwarded.
_____

From: Joseph Guarino
Sent: Thu 11/5/2009 10:49 AM
To: Ken Sharpe
Subject: RE: Passaic River Navigation Channel Depth

Alice,

Presently Getty is using the Noelle Cutler(barge load 27K bbls), which has
a draft of 12.5 feet fully loaded. The deepest barge we plan on bringing into
Getty @ Newark is the Eva Leigh Cutler(barge load 78K bbls), which draws 22 feet with fuel oil on board).

I hope this answers their questions.

Regards,

Joe Guarino
_____

From: Ken Sharpe
Sent: Thursday, November 05, 2009 10:25 AM
To: Joseph Guarino
Subject: FW: Passaic River Navigation Channel Depth

Joe,

Per our conversation please answer the following question and send this e-mail
back to me.

Thanks!

Ken Sharpe
Newark Terminal Manager
Getty Petroleum Marketing Inc.
973-679-2370 (Office)
973-344-5082 (Fax)
973-445-8437 (Cell)
_____

From: Yeh.Alice@epamail.epa.gov [mailto:Yeh.Alice@epamail.epa.gov]
Sent: Mon 11/2/2009 12:28 PM

To: Ken Sharpe; Paul Stendardi
Cc: Lisa.A.Baron@usace.army.mil; janine.macGregor@dep.state.nj.us
Subject: Passaic River Navigation Channel Depth

Thank you for your 10/26/09 e-mail providing feedback on the depth of the Passaic River navigation channel that you would prefer to operate under in the future. However, your feedback was not detailed enough for us to use it in our evaluation of how deep a navigation channel we should build into any potential future Superfund clean-up of the Passaic River.

Specifically, we are looking for the draft (in feet) of the vessels you are currently using and the draft of any vessel you are planning to use in the future, if it is deeper than what you are currently using.

I would appreciate receiving your detailed information by the end of this week, if possible, so that we can take it into account in our evaluations.

Thank you. Please call me with any questions at 212-637-4427.

-- Alice Yeh
Project Manager
U.S. EPA, Region 2, Superfund Program

Disch Construction
River Mile 1.9

4 October, 2009

Disch Construction: RM 1.9

From: Warren Disch [mailto:dischconstr@aol.com] Sent: Sunday, October 04, 2009 12:06 PM To: Baron, Lisa A NAN02 Cc: yeh.alice@epa.gov.macgregor.janine@dep.state.nj.usyeh.alice@epa.govmacgregor.

janine@dep.state.nj.us Subject: Re: Lower Passaic River Navigation User Meeting-8/27/09

Lisa: 1) Presently in the permitting stage, permits are complete and should be submitted in the next 30 days.
No water at the pier and bulkhead line where the new dock will be constructed. Vessels owned by Disch Construction which will use the site. -dredge 200 85' x 40'x 8' 6' draft -dredge 300 112' x 45' x8' 6'draft -dredge Spuyten Duyvil 70' x26' x 4.5' draft 2' -tug Bear 57',x 17' x 8.5' draft 8.0' -tug Little Bear 52' x 15' x 6' draft 6' -dewatering barge Stepping Stone 200'x56'x13.3' draft 10' -hopper barges 171'x42'x16' draft 15' Kill Van Kull, Aruther Kill -hopper Barge 171'x46'x16' draft 15' -sand barge Raritan 130'x40'x12' draft 10' -sand barges 100,x34,x10, draft 10'Dutch Kills,English Kills

2) Plan to dredge operating areas to 8' and 4' MLW. The financial burden to dredge and dispose of dredge material below these grades is beyond our means. Due to sediment contamination and the fact we may have to place a sand cap over the dredge area.

2a) Same answer as question #2.

2b) Would be able to fully utilize the facility with barges loaded to maximum draft. As long as the improvement is made bank to bank with a sand cap. Which brings us back to the question of who is responsible for dredging, disposal and sand capping of the area from the federal channel limit line to the pier and bulkhead line. More specifically restoration of the dredge grades that existed at the facility prior to the contamination event.

2c) New Structures have been designed for a depth of 16'MLW.

2d) The budget for the recent purchase of the property and the improvements to make the facility usable for our dredging equipment .The funds have been allocated for this project and will be spent over the next 2 -5 years.

Please contact me should you have any other questions.

Warren

Warren Disch DischConstr@aol.com PO Box 1412 Summit NJ. 07901 Ph 908 273 3500 Fax 908 273 3501

Clean Earth of New Jersey
River Mile 2.2

14 October, 2009

October 14, 2009

Ms. Lisa Baron US Army Corps of Engineers Program & Project Management Division 26 Federal Plaza-Room 2119 New York, NY 10278-0090

Re: Passaic River Commercial Navigation Analysis

Dear Ms. Baron:

On behalf of Clean Earth of North Jersey (CENJ) please accept the following input on the questions outlined in your previous e mail.

Question 1 How are we currently using the Passaic River navigation channel.

Answer # 1 CENJ obtained a Waterfront Development Permit (#0907-94-0007.2) in 1998 from NJDEP to construct a dredge management processing Facility at the rear of the existing CENJ hazardous waste facility. The dredge facility was never constructed, in part, because of the obstacles (costs) encountered with the disposal of dredge sediments contaminated with dioxins from the river bed. This dredging was necessary in one are in order to accommodate the depth of the barge/tug drafts. CENJ is currently in negotiations with a PRP to receive contaminated dredge spoils for processing on our site which may happen as early as second quarter 2010. As such it is important to have the necessary draft to maneuver tugs and barges in the area.

Question 2 How do you expect to operate in the future.

Answer # 2 CENJ anticipates re applying for the expired Waterfront Development permit to manage dredge materials on site. Rail access to the area is already in place. CENJ is actively pursuing projects that have dredge materials which are unsuitable for reuse and must be disposed of after conditioning of the material at CENJ.

Question 2A How would you operate if conditions stayed the same as they are now (no maintenance)

Answer 2A CENJ would not be able to operate the proposed dredge processing facility with existing conditions.

Question 2B How would you operate if the channel were deeper.

Answer # 2B CENJ would operate the proposed dredge processing facility according to the proposed design criteria that would be indentified in our Waterfront Development Permit application or under a permit equivalency in the case of the dredge material coming from a PRP of Passaic River sediments. Currently we would be looking at receiving 2-3 barges per day drawing 13-14 feet. The goal would be to switch to scows 2-3 per day drawing 16-17 feet.

Question 2C Are there facility/infrastructure changes, operational modifications or other investments you would need to make in order to operate in a deeper channel.

Answer 2C CENJ would need to make certain modifications to our existing facility configuration which may include an upgraded bulkhead, rail spur expansion, construction of a processing plant and storage areas.

Question 2D If so, how likely is it that you will be able to make these investments in the short term (2-5 years)? In the longer term (5+ years)?

Question 2D Answer It is very likely that CENJ, or other subcontracted entities, would make significant investments within the next 6 months.

I thank you for the opportunity to comment on these proceedings and if there is any other information you may need please give me a call.

Sincerely,

Robert Fixter General Manager

Innovation Fuels
River Mile 6.5

14 October, 2009

Innovation Fuels: RM 6.5

From: Bob Lindenbaum <bob@innovationfuels.com> To: Baron, Lisa A NAN02 Sent: Wed Oct 14 07:40:32 2009 Subject: RE: Lower Passaic River Navigation User Outreach

Hi Lisa See responses below anything else needed please advise Bob

Bob Lindenbaum | Innovation Fuels | CMO 126 Passaic St. | Newark NJ 07104 www.Innovationfuels.com <http://www.innovationfuels.com/> (917.699.8877 | 6 212.656.1836 | * bob@innovationfuels.com

From: Baron, Lisa A NAN02 [mailto:Lisa.A.Baron@usace.army.mil] Sent: 2009-09-03 15:30 To: Baron, Lisa A NAN02; rfixter@cleanearthinc.com; centerpointnewark@yahoo.com; shahn@ghcci.com; rharms@ghcci.com; sbarnett@connellfoley.com; dischconstr@aol.com; Joe Biggica; pthrasher@panynj.gov; Rich, Damon; gburns@pvsc.com; ksharp@getty.com; bob@innovationfuel.com; k.sharp@getty.com Cc: Pabst.Douglas@epamail.epa.gov; McDonald, Jodi M NAN02; janine.macGregor@dep.state.nj.us; Hodson, Thomas J NAN02; tom.cozzi@dep.state.nj.us; Basso.Ray@epamail.epa.gov; Aspinwall, Tricia NAN02; sthompson@pirnie.com; czeiner@pirnie.com; Yeh.Alice@epamail.epa.gov; Scott Douglas; Switzer, Amanda M NAN02; Weppler, Peter M NAN02; Slezak, William F NAN02 Subject: RE: Lower Passaic River Navigation User Meeting-8/27/09

Good afternoon!

I wanted to clarify my email regarding agenda question #1. Can you please include in your response, specific information about the vessels you are bringing in such as vessel size, draft and even name of the vessel if known. These parameters are all relevant to your response on how are you are "currently using the Passaic River navigation channel"?

We have currently brought in 15,000BBL barges

To the best of my knowledge; low tide 14' -high 18'.

Also, I would like to clarify question 2b) "How would you operate if the channel were deeper and/or maintained at its authorized depth?"

The larger the barge that can be brought up for our terminal, the more business that can be done -example 25000 BBL barge etc.

Thank you very much for your response.
Lisa

Lisa A. Baron Project Manager, Harbor Programs Branch
U.S. Army Corps of Engineers Programs & Project Management Division 26 Federal Plaza - Room 2119 New York, NY 10278-0090

Phone: 917-790-8306 Fax: 212-
264-2924 Cell: 646-385-1429

-----Original Message----From: Baron, Lisa A NAN02 Sent: Tuesday, September 01, 2009 5:10 PM To: 'rfixter@cleanearthinc.com'; 'centerpointnewark@yahoo.com'; 'shahn@ghcci.com'; 'rharms@ghcci.com'; 'sbarnett@connellfoley.com'; 'dischconstr@aol.com'; 'jbiggica@napp-grecco.com'; 'pthrasher@panynj.gov'; 'Rich, Damon'; 'gburns@pvsc.com'; 'ksharp@getty.com'; 'bob@innovationfuel.com' Cc: 'Pabst.Douglas@epamail.epa.gov'; McDonald, Jodi M NAN02; 'janine.macGregor@dep.state.nj.us'; Hodson, Thomas J NAN02; 'tom.cozzi@dep.state.nj.us'; 'Basso.Ray@epamail.epa.gov'; Aspinwall, Tricia NAN02; Baron, Lisa A NAN02; 'sthompson@pirnie.com'; 'czeiner@pirnie.com'; 'Yeh.Alice@epamail.epa.gov'; 'Scott Douglas'; Switzer, Amanda M NAN02; Weppler, Peter M NAN02; Slezak, William F NAN02 Subject: Lower Passaic River Navigation User Meeting-8/27/09

On behalf of the partner agencies, we thank you all for participating in the meeting to discuss the future commercial use of the Lower Passaic River. Attached please find the meeting sign in sheet.

As discussed at the meeting, please review the information related to your facility and operations presented in the USACE's Commercial Navigation Analysis (December 2008, www.ourpassaic.org). Please provide any updates to ensure the report accurately reflects your company's operations and use of the river.

The agencies also request your input on the following agenda questions:

1) How are you currently using the Passaic River navigation channel? Discuss any physical constraints that limit how you are operating.

We are at the mercy of the river depths -with limited barge operators who will risk coming or out as drafts change.

2) How do you expect to operate in the future?

Without the river, logistics becomes additional expenses which limit us on large orders as the economics is no longer there.

2a) How would you operate if conditions stayed the same as they are now (no maintenance)?

Quite challenging.

2b) How would you operate if the channel were deeper?

Larger barges -25000BBL vs 10-15,000 now.

2c) Are there facility/infrastructure changes, operational modifications or other investments you would need to make in order to operate in a deeper channel?

No.

2d) If so, how likely is it that you will be able to make these investments in the short term (2-5 years)? In the longer term (5+ years)?

We greatly appreciate your response. Please send your input to the Corps (lisa.a.baron@usace.army.mil) and also furnish a copy to USEPA (Alice Yeh at yeh.alice@epa.gov) and NJDEP (Janine MacGregor at macgregor.janine@dep.state.nj.us) within the next 30 days-no later than Thursday October 1, 2009.

Thank you in advance! Lisa

Lisa A. Baron Project Manager, Harbor Programs Branch
U.S. Army Corps of Engineers Programs & Project Management Division 26 Federal Plaza - Room 2119 New York, NY 10278-0090

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2924 Cell: 646-385-1429

Newark Asphalt Corp
(Napp-Grecco)
River Mile 7

28 September, 2009

Newark Asphalt Corp (Napp-Grecco): RM 7

From: Joe Biggica [mailto:JoeBiggica@napp-grecco.com] Sent: Monday, September 28, 2009 10:26 AM To: Baron, Lisa A NAN02 Subject: RE: Lower Passaic River Navigation User Meeting-8/27/09

Newark Asphalt Corp used the Passaic River to barge aggregates to our hot mix asphalt facility until the early 1980's. We discontinued the use of the river due to the lack of maintenance which forced Newark Asphalt Corp to use dump trucks for the delivery of the aggregates. This was not as cost effective and forced us to raise our prices. If the channel were deeper we would resume the use of the barges and become more competitive with our prices and reduce the amount of truck traffic on the roads.

We also assisted J. Supor & Son Trucking and Rigging and Weeks Marine Inc. by allowing them to use our bulkhead to unload two 280 ton P.S.E.&G transformers in March of 2009 and the arrival of the third transformer in January 2010. We had to unload the transformers within a 15 minute time period because of the tide and shallow waters. If we had deeper waters we would have a greater window of opportunity to operate and have possible future use for the bulkhead. Our neighbors Innovation Fuels would like to barge and store liquid asphalt cement at their facility for our use on a daily basis, this would be another possible use if the river were to be maintained and also reduce truck traffic.

We are not able to utilize the Passaic River because of shallow channel. The standard scow used for stone transportation is 130x40x11 with a loaded draft of 10 feet. I was advised that the controlling depth of the channel leading to our yard should be maintained to a minimum of 12 feet at mean low water and the depth at our bulkhead should also be maintained to at least a depth of 10 feet at mean low water. At this point Weeks Marine Inc. believes we can use the Passaic River as we once have.

Thank You,

Joseph Biggica

Joseph Biggica General Manager Newark Asphalt Corp Foot of Passaic Street Newark, New Jersey 07104 (973)482-3503 (973)268-3639 fax Original Email Request from USACE:

Appendix B.
USACE, Operations Division
Controlling Depth Report

May 2008

REPORT OF CHANNEL CONDITIONS 100 TO 400 FEET WIDE *(ER 1130-2-306)*	PAGE 1 OF 1 DATE August 6, 2008

TO: The Record	FROM: U.S. Army Corps of Engineers 26 Federal Plaza, ATTN: CENAN-OP-ST New York, NY 10278-0090

RIVER/HARBOR NAME AND STATE:
Newark Bay, Hackensack and Passaic Rivers – Passaic River, New Jersey

NAME OF CHANNEL	DATE OF SURVEY	AUTHORIZED PROJECT			MINIMUM DEPTHS IN CHANNEL ENTERING FROM SEAWARD		
		WIDTH (feet)	LENGTH (nmiles)	DEPTH (feet)	LEFT OUTSIDE QUARTER (feet)	MIDDLE HALF (feet)	RIGHT OUTSIDE QUARTER (feet)
Reach A: Kearny Pt. Reach Begins at the junction between the Hackensack and Passaic Rivers at a point approximately 2,250 feet seaward of RED LIGHT #2 to a point approximately 1,900 feet landward of RED #4.	Map 891 Pg 1 thru 2 of 14; 5 - 8, 23 & 27 May 2008	300	1.01	30	12.9	14.2	10.8
Reach B: Point No Point Reach From a point approximately 1,900 feet landward of RED #4 to a point approximately 600 feet seaward of the GENERAL PULASKI SKY WAY.	Map 891 Pg 2 thru 5 of 14; 5 - 8, 23 & 27 May 2008	300	1.13	30	+0.5	4.0	8.6
Reach C: Harrison Reach From a point approximately 600 feet seaward of the GENERAL PULASKI SKY WAY to a point at JACKSON ST BRIDGE in Harrison, NJ.	Map 891 Pg 5 thru 8 of 14; 5 - 8, 23 & 27 May 2008	300	1.87	20	+0.7	3.7	0.7
Reach D: Newark Reach From a point at JACKSON ST BRIDGE in Harrison, NJ to a point at CLAY ST BRIDGE in Newark, NJ.	Map 891 Pg 8 thru 11 of 14; 5 - 8, 23 & 27 May 2008	300	1.28	20*	+0.3	6.6	+0.7
Reach E: Kearny Reach From a point at CLAY ST BRIDGE in Newark, NJ to a point where the river narrows to 200 feet wide and the project depth becomes 16 feet at Nairn Linoleum Works.	Map 891 Pg 11 thru 13 of 14; 5 - 8, 23 & 27 May 2008	300	0.85	20*	+0.7	6.8	+0.7
Reach F: Arlington Reach From a point where the river narrows to 200 feet wide and the project depth becomes 16 feet at Nairn Linoleum Works to a point at the E.R.R. BRIDGE in Arlington, NJ.	Map 891 Pg 13 thru 14 of 14; 5 - 8, 23 & 27 May 2008	200 – 250	0.89	16	6.6	8.7	0.1
Partial Reach G: Belleville Reach From a point the E.R.R. BRIDGE in Arlington, NJ to a point approximately 1,000 feet landward of the start of this Reach G.	Map 891 Pg 14 of 14; 5 - 8, 23 & 27 May 2008	235 – 205	0.16	10	+0.8	2.9	10.7

REMARKS:

- All depths in Mean Low Water (MLW).
- Channel length is in nautical miles.

PASSAIC RIVER

- **All Reaches:** Shoaling occupies the entire length and width of all channel reaches described above. Authorized project depths are available only in a few isolated areas.

* Reaches D & E were never completed to a 20 foot depth. Previous dredging was to 16 feet only.

ENG FORM 4020-R, Nov 90 EDITION OF JUL 59 IS OBSELETE (Proponent: CECW-OM)