

**ARCADIS US, INC
SUBMITTAL FORM**

To Mr. Matthew Bowman, Construction Manager
 Arcadis Us, Inc
 251 E. Ohio Street, Suite 800
 Indianapolis, IN 46204

Submittal No. 010000-05-A
 Date of Submittal: July 13, 2011
 Contractor: Weeks
 Contract No.: B0009966.001
 Subject of Submittal: USCG Form

Specification No. N/A Par. No. N/A
 Drawing No. G-12

WE ARE SENDING YOU ATTACHED THE FOLLOWING: (Indicate All Applicable Items)

- Shop Drawings
 Progress Schedules
 Testing Procedure
 First Submission
 Third Submission
 Sample
 O&M Manual
 Contact List
 Second Submission
 _____ Submission

| DESCRIPTION (Itemize All Components) | NO. OF COPIES |
|--------------------------------------|---------------|
| USCG CG-2554 (rev. 09-05) form | 1 |
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Complete either (a) or (b) and ©, in the case of technical Submittals or Progress Schedule Submittals:

- a () The Contractor verified that the material, equipment, or other item contained in this Submittal meets all the requirements specified, shown,, or indicated in the Contract Documents with no exceptions.
- b () The Contractor has verified that the material, equipment, or other item contained in this Submittal meets all requirements specified, shown, or indicated in the Contract Documents except for variances identified in the following attached documents:

c () The Contractor has stamped or written its approval on each Shop Drawing sheet, or cover sheet in the case of other Submittals, certifying that the Contractor has satisfied its responsibilities with respect to the review of the submission including, but not limited to, the requirements of Article 6 of the General Conditions.

Signed (By the Contractor): Claude Dion
 Claude Dion

NO PRIVATE AID TO NAVIGATION MAY BE AUTHORIZED UNLESS A COMPLETED APPLICATION FORM HAS BEEN RECEIVED BY 4:00 P.M. S.C. 183.133(C.F.R. 166.01-5) D

1. ACTION REQUESTED FOR PRIVATE AIDS TO NAVIGATION: A. ESTABLISH AND MAINTAIN B. DISCONTINUE C. CHANGE D. TRANSFER OWNERSHIP

2. DATE ACTION TO START: 2011-08-15

3. AIDS WILL BE OPERATED: A. THROUGHOUT THE YEAR B. TEMPORARILY UNTIL 2012-10-12 C. ANNUALLY TO _____

4. NECESSITY FOR AID (Continue in Block 8)
Mark construction of enclosure under Arcadis-US

| LIGHT LIST NUMBER OR PAGE | NAME OF AID | NO. OR LTR. (7a) | LIGHT | | POSITION (7e) | DEPTH OF WATER (7f) | CAN- DLE POWER (7g) | HT. ABOVE WATER (7h) | STRUCTURE | | REMARKS (See Instructions) (7i) |
|---------------------------|-------------|------------------|------------------|------------|--------------------|---------------------|---------------------|----------------------|---|--------------|---------------------------------|
| | | | FLASH LGTH. (7c) | COLOR (7d) | | | | | TYPE, COLOR, AND HEIGHT ABOVE GROUND (7i) | | |
| | | 1 | 1s | Whit | 150' west of encl | 12' | | 3'6" | | white/orange | reduced draft buoy |
| | | 2 | 1s | whit | 75' west of encl | 12' | | 3'6" | | white/orange | reduced draft buoy |
| | | 3 | 1s | whit | -50' west of encl | 12' | | 3'6" | | white/orange | reduced draft buoy |
| | | 4 | 1s | whit | -120' west of encl | 12' | | 3'6" | | white/orange | reduced draft buoy |
| | | 5 | 1s | whit | 50' east of encl | 12' | | 3'6" | | white/orange | reduced draft buoy |
| | | 6 | 1s | whit | 150' east of encl | 12' | | 3'6" | | white/orange | reduced draft buoy |
| | | 7 | 1s | whit | 250' east of encl | 12' | | 3'6" | | white/orange | reduced draft buoy |
| | | 8 | 1s | whit | Center of encl | 10' | | 10' | | dolphin pile | 24" dia. pile w/reflector |
| | | 9 | 1s | whit | Center of encl | 10' | | 10' | | dolphin pile | 24" dia. pile w/reflector |
| | | 10 | 1s | whit | west corner encl | 10' | | 8' | | King pile | enclosure west corner |
| | | 11 | 1s | whit | east corner encl | 10' | | 8' | | king pile | enclosure east corner |

8. ADDITIONAL COMMENTS
The "navigation aids" to be installed with anchors are "Reduced Draft". The temporary enclosure will be mounted with solar lights. Monopiles and dolphins will be mounted with solar lights and reflectors. All vessels are mounted with solar lights. In addition please see attached contract drawing G-12 showing the above navigation aids.

9a. NAME AND ADDRESS OF PERSON IN DIRECT CHARGE
Claude Dion
4 Commerce Drive, Cranford, NJ

9b. TELEPHONE NO. (908) 230-5279

10a. NAME AND ADDRESS OF PERSON OR CORPORATION AT WHOSE EXPENSE
Weeks Marine, Inc.
4 Commerce Drive
Cranford, NJ

10b. THE APPLICANT AGREES TO SAVE THE COAST GUARD HARMLESS WITH RESPECT TO ANY CLAIM OR CLAIMS THAT MAY RESULT ARISING FROM THE ALLEGED NEGLIGENCE OF THE MAINTENANCE OR OPERATION OF THE APPROVED AID(S).

10c. DATE: 7.13.2011

10d. SIGNATURE AND TITLE OF OFFICIAL SIGNING: *[Signature]* PROJECT MANAGER

DATE APPROVED: _____

SIGNATURE (By direction): _____

U.S. DEPARTMENT OF
HOMELAND SECURITY
U.S. COAST GUARD
CG-2554 (Rev. 09-05)

PRIVATE AIDS TO NAVIGATION APPLICATION

(See attached instructions and copy of Code of Fed. Reg., Title 33, Chap. 1, Part 66)

Form Approved
OMB-1625-0011

NO PRIVATE AID TO NAVIGATION MAY BE AUTHORIZED UNLESS A COMPLETED APPLICATION FORM HAS BEEN RECEIVED (44 U.S.C. 1331(c), 1333(c), F.R. 166.01-5) D

1. ACTION REQUESTED FOR PRIVATE AIDS TO NAVIGATION: A. ESTABLISH AND MAINTAIN B. DISCONTINUE C. CHANGE D. TRANSFER OWNERSHIP
2. DATE ACTION TO START: 2011-08-15

3. AIDS WILL BE OPERATED: A. THROUGHOUT THE YEAR B. TEMPORARILY UNTIL 2012-10-12 C. ANNUALLY TO _____

4. NECESSITY FOR AID (Continue in Block 8)
Mark construction of enclosure Passaic River PERMIT OR LETTER (file and date) under Arcadis-US

| LIGHT LIST NUMBER OR PAGE | NAME OF AID | LIGHT | | | POSITION (7e) | DEPTH OF WATER (7f) | CAN-DLE POWER (7g) | HT. ABOVE WATER (7h) | STRUCTURE | | REMARKS (See instructions) (7i) |
|---------------------------|-------------|------------------|-----------|------------------|-------------------|---------------------|--------------------|----------------------|-------------------|---|---------------------------------|
| | | NO. OR LTR. (7a) | PER. (7b) | FLASH LGTH. (7c) | | | | | COLOR (7d) | TYPE, COLOR, AND HEIGHT ABOVE GROUND (7i) | |
| 12 | | 1s | | Whit | 20' west of encl | 2' | 3'6" | | white/orange | boat keep out buoy | |
| 13 | | 1s | | whit | 20' east of encl | 2' | 3'6" | | white/orange | boat keep out buoy | |
| 14 | | 1s | | | east corner encl | 10' | 10' | | sign white/orange | caution pump intake struct sign 36" x 36" | |
| 15 | | 1s | | whit | 250' east of encl | 10' | 10' | | monopile | 16" dia. pile w/reflector | |
| 16 | | 1s | | whit | 250' east of 15 | 10' | 10' | | monopile | 16" dia. pile w/reflector | |
| 17 | | 1s | | whit | 250' east of 16 | 10' | 10' | | monopile | 16" dia. pile w/reflector | |
| 18 | | 1s | | whit | 250' east of 17 | 10' | 10' | | monopile | 16" dia. pile w/reflector | |
| 19 | | 1s | | whit | 250' east of 18 | 10' | 10' | | monopile | 16" dia. pile w/reflector | |

8. ADDITIONAL COMMENTS
The "navigation aids" to be installed with anchors are "Reduced Draft". The temporary enclosure will be mounted with solar lights. Monopiles and dolphins will be mounted with solar lights and reflectors. All vessels are mounted with solar lights. In addition please see attached contract drawing G-12 showing the above navigation aids.

9a. NAME AND ADDRESS OF PERSON IN DIRECT CHARGE OF AID
Claude Dion
4 Commerce Drive, Cranford, NJ

10a. NAME AND ADDRESS OF PERSON OR CORPORATION AT WHOSE EXPENSE
Weeks Marine, Inc.
4 Commerce Drive
Cranford, NJ

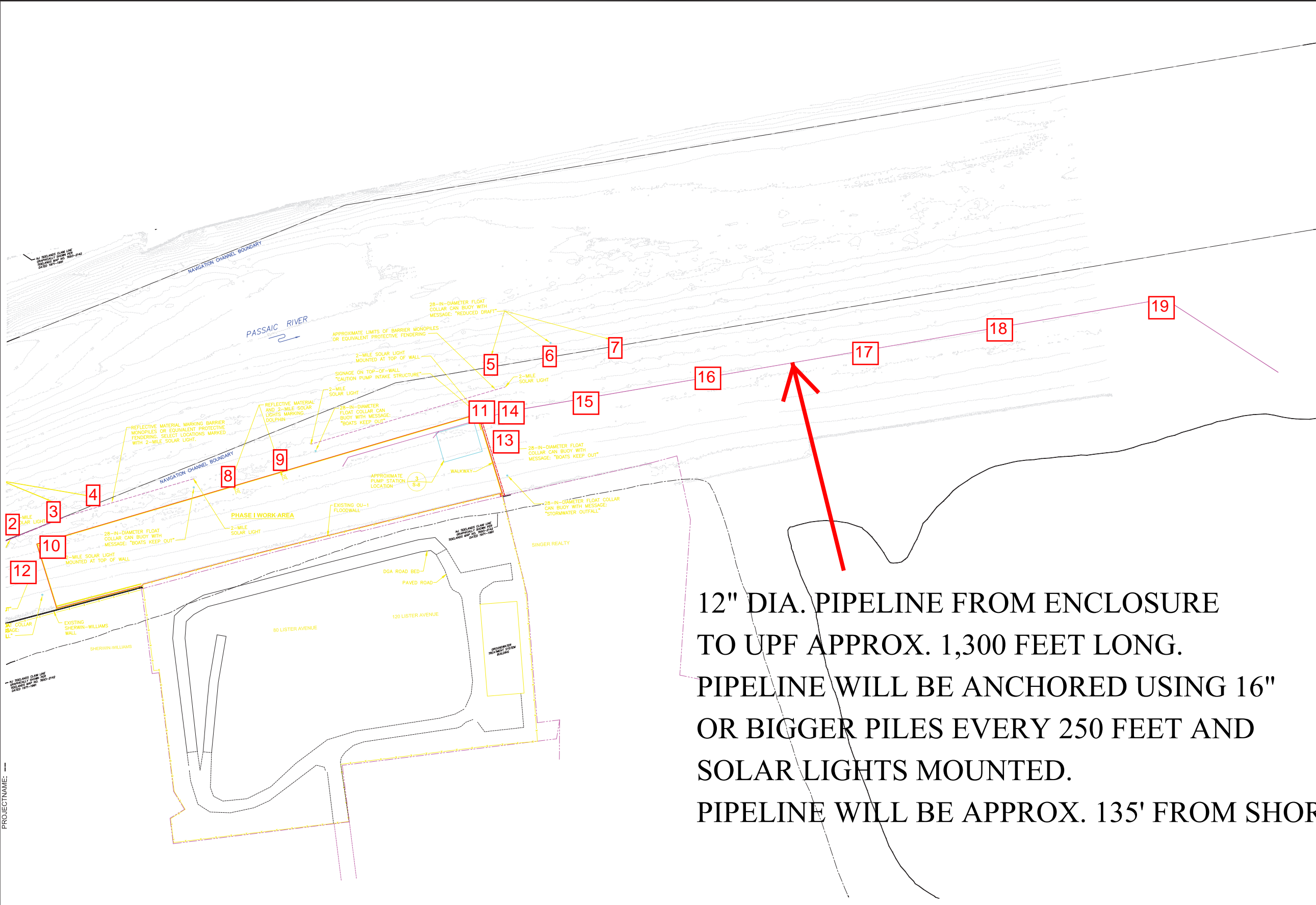
9b. TELEPHONE NO.
(908) 230-5279

FOR USE BY DISTRICT COMMANDER
CLASSIFICATION OF AIDS

10b. THE APPLICANT AGREES TO SAVE THE COAST GUARD HARMLESS WITH RESPECT TO ANY CLAIM OR CLAIMS THAT MAY RESULT ARISING FROM THE ALLEGED NEGLIGENCE OF THE MAINTENANCE OR OPERATION OF THE APPROVED AID(S).
10c. DATE: 7-13-2011
10d. SIGNATURE AND TITLE OF OFFICIAL SIGNING: [Signature] Project Manager

SERIAL NO. []
DATE APPROVED []
SIGNATURE (By direction) [Signature]

CITY: SYRACUSE DIV/GROUP: 141 DB: GMS LD: (ort) PICR ROMAGNOLI PMR ROMAGNOLI TMR ROMAGNOLI LVR ON: OF 1 PAGES: 18 OF 18 PLOT: 7/17/2011 5:05 PM BY: CLAUDE DION
 PROJECTNAME: --- PAGES: 18 OF 18 PLOT: 7/17/2011 5:05 PM BY: CLAUDE DION



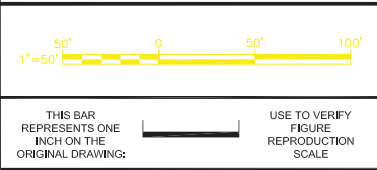
LEGEND:

- PIPELINE ALIGNMENT
- PHASE I WORK AREA (REVISED 07/01/2010)
- NAVIGATION CHANNEL BOUNDARY
- BATHYMETRY
- x— FENCE
- - - PROPERTY BOUNDARY
- DRAINAGE SWALE
- - - PIERHEAD AND BULKHEAD LINE
- TIDELANDS CLAIM LINE
- EXISTING STRUCTURE
- - - LIMITS OF PROTECTIVE FENDERING

| +4.5 FT (SPRING MHHW)
| +3.6 FT (MHW)
| +1.0 FT (MSL)
| +0 FT NGVD29
| -1.7 FT (MLW)

- NOTES:**
1. BATHYMETRY DATA ARE FROM OCEAN SURVEYS, INC. DATED 06/30/2009; REVISED 09/15/2009.
 2. UPLAND TOPOGRAPHY AND EXISTING FEATURES WERE TAKEN FROM SHEET NO. 9 OF THE FINAL SITE CONDITIONS PLAN SUBMITTED BY FRENCH AND PARRELLO ASSOCIATES ON 06/17/2004.
 3. SURVEY SPOT ELEVATIONS WERE PROVIDED BY DPK CONSULTING, L.L.C. DATED 2009.
 4. ALL LIGHTS, SIGNAGE, AND OTHER NAVIGATIONAL AIDS WILL BE APPROVED BY THE USCG PRIOR TO INSTALLATION.

**12" DIA. PIPELINE FROM ENCLOSURE
 TO UPF APPROX. 1,300 FEET LONG.
 PIPELINE WILL BE ANCHORED USING 16"
 OR BIGGER PILES EVERY 250 FEET AND
 SOLAR LIGHTS MOUNTED.
 PIPELINE WILL BE APPROX. 135' FROM SHORE**



| No. | Date | Revisions | By | Ckd |
|-----|------|-----------|----|-----|
| | | | | |

Professional Engineer's Name
ROBERT ROMAGNOLI
 Professional Engineer's No.
 24GE04659400
 State
 NJ
 Date Signed
 Project Mgr.
 RAR
 Designed by
 APC
 Drawn by
 BKD
 Checked by
 JRB

ARCADIS
 ARCADIS U.S., INC.
 NEW JERSEY ENGINEERING CERTIFICATE OF AUTHORIZATION NUMBER 24GA27939600

TIERRA SOLUTIONS, INC. - LOWER PASSAIC RIVER, NEWARK, NJ
 PHASE I CERCLA NON-TIME-CRITICAL REMOVAL ACTION
AIDS TO NAVIGATION
 GENERAL

ARCADIS Project No.
 B0009964.0001
 Date
 JULY 2011
 ARCADIS
 6723 TOWPATH ROAD
 BOX 66
 SYRACUSE, NY 13214
 TEL: 315.446.9120

G-11



Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
2601 Meacham Boulevard
Fort Worth, TX 76137

Aeronautical Study No.
2011-AEA-3622-OE

Issued Date: 09/23/2011

Claude Dion
Weeks Marine, Inc
4 Commerce Drive
Cranford, NJ 07016

****DETERMINATION OF NO HAZARD TO AIR NAVIGATION FOR TEMPORARY STRUCTURE****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

| | |
|------------|---|
| Structure: | Crane (Crane Barge) |
| Location: | Newark, NJ |
| Latitude: | 40-44-27.71N NAD 83 |
| Longitude: | 74-08-09.45W |
| Heights: | 187 feet above ground level (AGL) 192 feet above mean sea level (AMSL) |

This aeronautical study revealed that the temporary structure does exceed obstruction standards but would not be a hazard to air navigation provided the following condition(s), if any, is (are) met:

As a condition to this Determination, the structure is marked/lighted in accordance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting, flags/red lights - Chapters 3(Marked),4,5(Red),&12.

See attachment for additional condition(s) or information.

Any height exceeding 187 feet above ground level (192 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination expires on 03/23/2012 unless extended, revised or terminated by the issuing office.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates and heights. Any changes in coordinates and/or heights will void this determination. Any future construction or alteration, including increase to heights, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of a structure. However, this equipment shall not exceed the overall heights as

indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination did not include an evaluation of the permanent structure associated with the use of this temporary structure. If the permanent structure will exceed Title 14 of the Code of Federal Regulations, part 77.9, a separate aeronautical study and FAA determination is required.

This determination concerns the effect of this temporary structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

A copy of this determination will be forwarded to the Federal Aviation Administration Flight Procedures Office if the structure is subject to the issuance of a Notice To Airman (NOTAM).

If you have any questions, please contact our office at (781) 238-7522. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2011-AEA-3622-OE

Signature Control No: 149549392-150029469

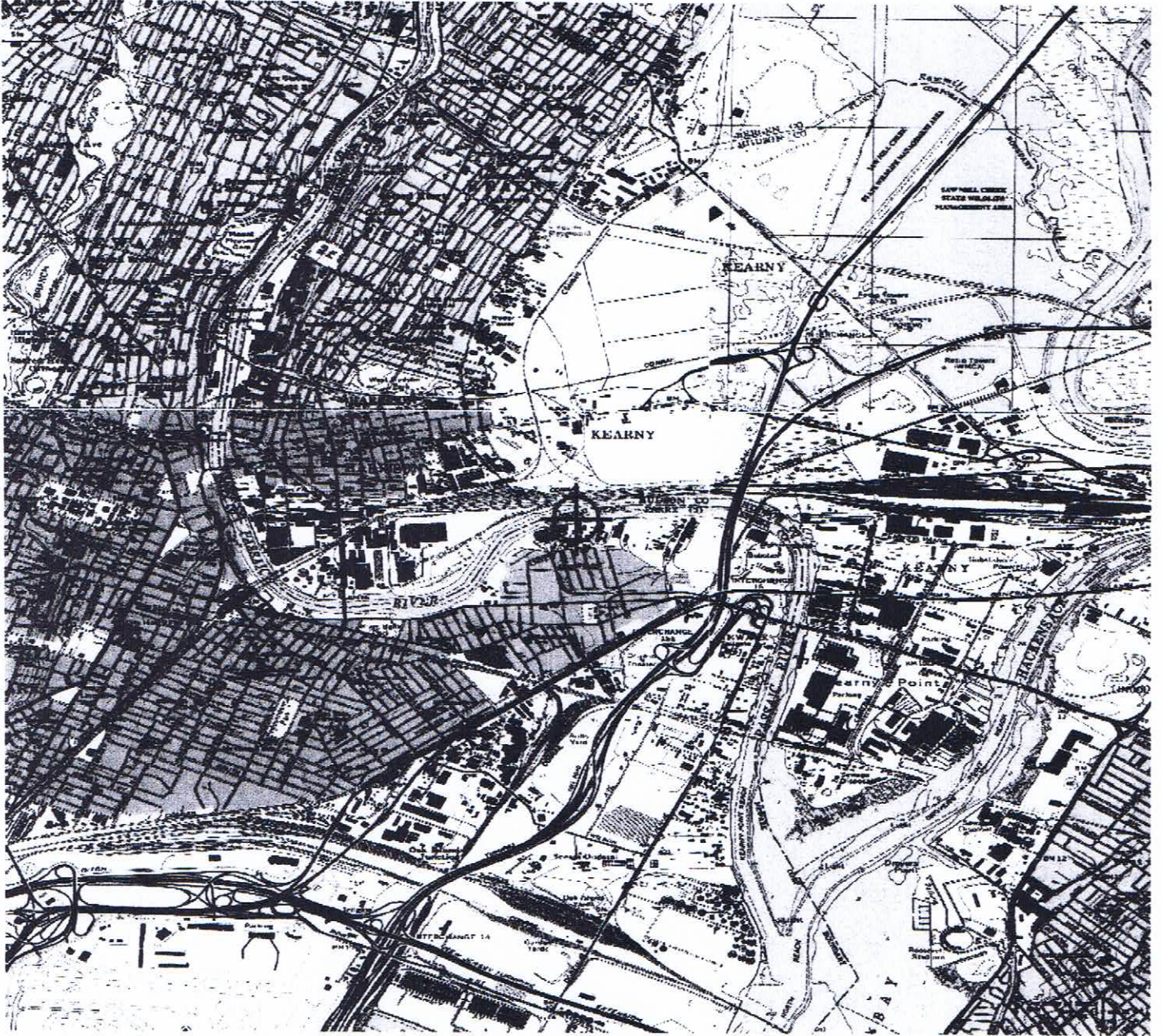
Suzanne Dempsey
Technician

(TMP)

Attachment(s)
Additional Information
Map(s)

Additional information for ASN 2011-AEA-3622-OE

As a condition of this determination, the temporary crane shall be lowered to the maximum extent practical at night and when not in use.



Denkenberger, Erika

From: Claude Dion [cldion@WeeksMarine.Com]
Sent: Thursday, July 28, 2011 8:00 AM
To: Bowman, Matthew; Walker, Sarah
Cc: Dave A. Vosseller; King, Coleman; Chris W. Fenton; Patrick J. Granitzki; Melwiki, Jenna; Denkenberger, Erika
Subject: FW: Lower Pasaic River ATON

Follow Up Flag: Follow up
Flag Status: Flagged

Sarah and Matt,

Please see Coast Guard answer regarding he PATON approval.

If you have an y questions please call.

Regards,

Claude Dion

-----Original Message-----

From: Michael.R.Lehansky@uscg.mil [<mailto:Michael.R.Lehansky@uscg.mil>]
Sent: Thursday, July 28, 2011 7:29 AM
To: Claude Dion
Subject: RE: Lower Pasaic River ATON

Claude-

After review, it was decided that the PATON applications will not be needed. I will publish the buoys and pilings associated with this project in the Local Notice to Mariners to alert mariners.

v/r,
BM1 Michael Lehansky
USCG Sector New York
Waterways Management
Private Aids to Navigation
212 Coast Guard Drive
Staten Island, NY 10305
(718)-354-4354 office
(718)-354-4190 fax

Link for Private Aid Applications
www.usharbormaster.com

Link for Code of Federal Regulations Part 66 www.access.gpo.gov/nara/cfr/waisidx

Link for Homeport
<http://homeport.uscg.mil/newyork>

-----Original Message-----

From: cldion@weeksmarine.com [<mailto:cldion@weeksmarine.com>]
Sent: Wednesday, July 27, 2011 3:30 PM

To: Lehansky, Michael BM1
Subject: RE: Lower Pasaic River ATON

Mike,

I did not receive confirmation for the PATON approval. Do you had time to look at it.

Thanks

Claude Dion
Weeks Marine

-----Original Message-----

From: Michael.R.Lehansky@uscg.mil [<mailto:Michael.R.Lehansky@uscg.mil>]

Sent: Wednesday, July 13, 2011 1:16 PM

To: Claude Dion

Cc: Yunker, Jeff

Subject: RE: Lower Pasaic River ATON

Claude-

The link is below for submitting the applications (us harbormaster). Attached is a "how to" on registering and submitting applications. An application is required for each buoy/piling. Once you initially register, wait 48 hours before submitting the applications otherwise you will receive an error.

Feel free to contact me with any questions.

v/r,
BM1 Michael Lehansky
USCG Sector New York
Waterways Management
Private Aids to Navigation
212 Coast Guard Drive
Staten Island, NY 10305
(718)-354-4354 office
(718)-354-4190 fax

Link for Private Aid Applications
www.usharbormaster.com

Link for Code of Federal Regulations Part 66 www.access.gpo.gov/nara/cfr/waisidx

Link for Homeport
<http://homeport.uscg.mil/newyork>

-----Original Message-----

From: Yunker, Jeff

Sent: Wednesday, July 13, 2011 12:50 PM

To: Lehansky, Michael BM1

Cc: cldion@weeksmarine.com

Subject: FW: Lower Pasaic River ATON

Mike,

Weeks Marine is submitting a paton request for a superfund site cleanup project they have on the Passaic River.

Regards,

Jeff Yunker, Waterways Management Coordinator USCG Sector New York

PH: 718.354.4195, FX: 718.354.4190

Jeff.M.Yunker@uscg.mil <http://homeport.uscg.mil/newyork>

-----Original Message-----

From: cldion@weeksmarine.com [<mailto:cldion@weeksmarine.com>]

Sent: Wednesday, July 13, 2011 11:02 AM

To: Yunker, Jeff

Cc: Bowman, Matthew; Dave A. Vosseller; Dan L. Mowers

Subject: Lower Pasaic River ATON

Jeff,

Please find attached form USCG CG 2554(rev.09-05). Could you please send to the officer responsible and cc me.

If you have any questions please call.

Regards,

Claude Dion

Weeks Marine Inc.

4 Commerce Drive

Cranford, NJ 07016

Office: 908-272-4010

Cell.: 908-230-5279

Newark

Cory A. Booker
Mayor

Department of Economic & Housing Development

Stefan Pryor, Deputy Mayor/Director

Central Planning Board

Arcelio Aponte
Director of Operations

920 Broad Street, Room 112
Newark, New Jersey 07102
Tel. 973-733-6333
Fax 973-733-4369

Michele Alonso, AICP, PP
Principal Planner
Acting Supervising Planner

DETERMINATION FOR

TAX CERTIFICATION

TO: DAVID TORRES
FROM: CENTRAL PLANNING BOARD
RE: July 11, 2011
DATE: July 12, 2011

The below listed items were before the Central Planning Board for site plan/subdivision approval. Those that received approval have the words “**APPROVED FOR FINAL SITE PLAN**” OR “**APPROVED FOR PREL/FINAL SITE PLAN**” OR “**APPROVED FOR MINOR SITE PLAN**” below their listing. Resulting blocks/lots that have received approval are inclusive of any applicable subdivisions that are made thereafter. Any such subdivision should be regarded as having received site plan approval. Blocks/lots that have been subdivided will have a decimal in their number, where the whole numbered digits would match one of the corresponding approved block/lot numbers included below:

Determination

NEWARK CENTRAL PLANNING BOARD AGENDA
REGULAR PUBLIC HEARING
Council Chambers –Newark City Hall
July 11, 2011
6:30 PM

- I. OPENING STATEMENT (SUNSHINE LAW/MUNICIPAL LAND USE LAW)**
- II. ROLL CALL**
- III. MINUTES**
- IV. COMMUNICATIONS**
- V. PUBLIC HEARING**

- 1. Section 31 Review of a temporary dredging processing facility for the Passaic River at 117 Blanchard Street. –Positive Recommendation for project given**

SITE PLAN REVIEWS

| | | |
|------------------|---|---|
| <p>1.</p> | <p>54-88 Cornelia Street, 55-91 Joseph Street, and 51-85 Lister Avenue Block: 2451, & 2423; Lot: 1,1 & 16 Description: Demolition of the existing structure (block 2451, Lot 1) and construction of a new distribution and processing center of fruits and vegetables. The two existing structures on block 2423, Lot 1 & 16 will be demolished after the proposed building has been constructed and will be utilized for parking space. Applicant/Owner: Newark Market, LLC Approved with Conditions</p> | <p>New Application Preliminary and Final Site Plan Zone: I-2 East Ward Architect: SNS Architects & Engineers: PC Variance: Parking</p> |
| <p>2.</p> | <p>394-402 Broad Street Block: 29; Lot: 1,2 & 16 Description: addition to the existing mixed use building on lot 1 (commercial and residential) to create larger mixed use building on lot 2 & 16 Approved with Conditions</p> | <p>New Application Preliminary and Final Site Plan Zone: B-4 Central Ward Architect: Newwork Architecture LLC Engineers: Edwards Engineering Group, Inc. Variance: Front Yard Setback</p> |
| <p>3.</p> | <p>18 Calumet Street Block: 951; Lot: 22 Description: converting a two family dwelling into a three family residential building. Carried to Regular Meeting of 7/25/2011</p> | <p>New Application Preliminary and Final Site Plan Zone: I-1 East Ward Architect and Engineer: Comito Associates, PC No variance</p> |
| <p>4.</p> | <p>60 McClellan Street Block: 3775 Lot: 20 Description: Wireless telecommunications monopole and related equipment: construction to 120 feet. Rehabilitation and new construction of an industrial building for a commercial bakery. Final Site Plan Approved. Fencing shall be heard at a special meeting of July 18 , 2011</p> | <p>New Application Final Site Plan South Ward Zone: I-3 Architect: Casey and Keller and Advantage Engineer: The Austin Companies Variance: Landscaping</p> |

VI. Memorialization of Resolutions

NEXT REGULAR SCHEDULED HEARING DATE: July 25, 2011



State of New Jersey

Christine Todd Whitman
Governor

Department of Environmental Protection

JUN 18 2000

Robert C. Shinn, Jr.
Commissioner

Mr. Kevin Walsh
Environmental Protection & Improvement Company, Inc.
305 Palmer Road
Denville, New Jersey 07834

CERTIFIED MAIL P839145240
RETURN RECEIPT REQUESTED

RE: Hazardous Waste and
Solid Waste Transporter License
N.J.S.A. 13:1E-126 et seq.

Dear Mr. Walsh:

The investigative report from the Attorney General required under N.J.S.A. 13:1E-126 et seq. had been received by the Department of Environmental Protection. Based on our review of the aforementioned investigative report, the Department had issued both a Solid and a Hazardous Waste Transporter License on August 23, 1994 to:

R. J. LONGO CONSTRUCTION COMPANY, INC.

This letter reflects the amendment to the certificate of incorporation received by the New Jersey Department of the Treasury on January 31, 2000, which changes the name of R.J. Longo Construction Company, Inc. to Environmental Protection & Improvement Company, Inc. d/b/a EPIC. Therefore, the aforementioned Hazardous and Solid Waste Transporter Licenses are being re-issued in the name of;

ENVIRONMENTAL PROTECTION & IMPROVEMENT COMPANY, INC. D/B/A EPIC

This letter will serve as documentation that both a hazardous and a solid waste transporter license have been issued. These licenses must be renewed annually by filing the Annual License Update form and any other change of information concerning your company or its operation as required by the Department.

You may also be required to obtain a Certificate of Public Convenience and Necessity prior to commencing solid waste business operations. Questions regarding this certificate should be directed to the Bureau of Solid Waste Regulation at (609) 984-2080. Any transportation equipment must be registered prior to commencing operations: and in accordance with the hazardous waste regulations, your company must undertake provisions for a training program in the safe management of hazardous waste for all employees who will handle such waste. Questions regarding equipment registration of the above license should be directed to the Bureau of Hazardous Waste Regulation at (609) 292-7081.

Sincerely,

Norine Binder, Chief
Bureau of Hazardous Waste Regulation

LC: 00/EPIC-nc:lc
c: Harley Williams
Wolf Skacel
Mike DeTalvo



Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
2601 Meacham Boulevard
Fort Worth, TX 76137

Aeronautical Study No.
2011-AEA-3622-OE

Issued Date: 09/23/2011

Claude Dion
Weeks Marine, Inc
4 Commerce Drive
Cranford, NJ 07016

****DETERMINATION OF NO HAZARD TO AIR NAVIGATION FOR TEMPORARY STRUCTURE****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

| | |
|------------|---|
| Structure: | Crane (Crane Barge) |
| Location: | Newark, NJ |
| Latitude: | 40-44-27.71N NAD 83 |
| Longitude: | 74-08-09.45W |
| Heights: | 187 feet above ground level (AGL) 192 feet above mean sea level (AMSL) |

This aeronautical study revealed that the temporary structure does exceed obstruction standards but would not be a hazard to air navigation provided the following condition(s), if any, is (are) met:

As a condition to this Determination, the structure is marked/lighted in accordance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting, flags/red lights - Chapters 3(Marked),4,5(Red),&12.

See attachment for additional condition(s) or information.

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NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates and heights. Any changes in coordinates and/or heights will void this determination. Any future construction or alteration, including increase to heights, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of a structure. However, this equipment shall not exceed the overall heights as

indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination did not include an evaluation of the permanent structure associated with the use of this temporary structure. If the permanent structure will exceed Title 14 of the Code of Federal Regulations, part 77.9, a separate aeronautical study and FAA determination is required.

This determination concerns the effect of this temporary structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

A copy of this determination will be forwarded to the Federal Aviation Administration Flight Procedures Office if the structure is subject to the issuance of a Notice To Airman (NOTAM).

If you have any questions, please contact our office at (781) 238-7522. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2011-AEA-3622-OE

Signature Control No: 149549392-150029469
Suzanne Dempsey
Technician

(TMP)

Attachment(s)
Additional Information
Map(s)

Additional information for ASN 2011-AEA-3622-OE

As a condition of this determination, the temporary crane shall be lowered to the maximum extent practical at night and when not in use.





State of New Jersey

DEPARTMENT of ENVIRONMENTAL PROTECTION

Division of Air Quality

Bureau of Air Permits

401 E. State Street, 2nd floor, P.O. Box 420, Mail Code 401-02

Trenton, NJ 08625-0420

CHRIS CHRISTIE
Governor

BOB MARTIN
Commissioner

KIM GUADAGNO
Lt. Governor

Air Pollution Control Preconstruction Permit and Certificate to Operate Construction of a New Source

Permit Activity Number: PCP100001

Program Interest No: 08773

| Mailing Address | Plant Location |
|---|--|
| PAUL J BLUESTEIN PROJECT MGR TIERRA SOLUTIONS INC 2 TOWER CENTER BLVD - 10TH FLR East Brunswick Twp, NJ 08816 | LPR PHASE 1 REMOVAL ACTION SITE Lister Ave Newark City Essex County, New Jersey |

Approval Date: 03/16/2012

Expiration Date: 03/15/2017

The New Jersey Department of Environmental Protection (Department) has reviewed the above referenced air pollution control permit application. On the basis of the information provided, the Department concludes that the application satisfies all applicable requirements of the New Jersey Air Pollution Control regulations codified at N.J.A.C. 7:27 et seq. This permit allows for inspection and evaluation of the equipment by the Department to assure conformance with all provisions of N.J.A.C. 7:27 et seq. and any other applicable federal requirements codified at 40 CFR 52, 60, 61 and 63.

The equipment, that is authorized to be installed and operated under this approval, is described in Section A, Source Operations and Section D, Equipment Inventory. Equipment at the facility referenced by this Permit shall be operated in accordance with the Conditions of Approval set forth in Section D, Facility Specific Requirements.

The Department hereby issues this permit and certificate under the authority of chapter 106, P.L. 1967(N.J.S.A 26:2C-9.2). You may construct, reconstruct, install, or modify the above referenced equipment and/or control apparatus consistent with the approval.

The approved Permit is available for download in PDF format which contains the facility's specific requirements (compliance plan) at: <http://www.nj.gov/dep/aqpp>. After accessing the web site, click on "Approved PCP Permits" listed under "Reports" and then type in your Program Interest (PI) Number, 08773, as instructed on the screen. You will be able to view, print or electronically store your permit. If you have any questions regarding this permit approval, please contact the Department at the Preconstruction Permit Help Line available from

9:00 AM to 4:00 PM daily, where you may speak to someone about any technical questions you may have. The Preconstruction Permit Technical Help Line number is 609-292-6716.

If, in your judgment as an applicant for an air pollution control permit, the Department is imposing any unreasonable Condition of Approval, you may contest the Department's decision and request a contested case hearing pursuant to the Administrative Code at N.J.A.C. 7:27-1.32(a). All requests for contested case hearings must be received in writing by the Department within twenty (20) calendar days of the date you receive this permit approval and must contain the information specified in the Administrative Hearing Request Checklist and Tracking Form.

If you have any non technical questions please use the Bureau's number 609- 292-0834. If you have any questions when filing a General Permit please use the General Permit Help number 609-633-2829.

Approved by,

A handwritten signature in cursive script that reads "William Kuehne".

William Kuehne
Environmental Engineer 4 (Supervisor)
Preconstruction Permits

Administrative Hearing Request Checklist and Tracking Form

I. Document Being Appealed

| Name of the Facility | Facility ID Number | Permit Activity Number | Issuance Date |
|---------------------------------|--------------------|------------------------|---------------|
| LPR PHASE 1 REMOVAL ACTION SITE | 08773 | PCP100001 | |

II. Contact Information

| | |
|--|---|
| Name of Person Requesting Hearing | Name of Attorney (if applicable) |
| | |
| Address: | Address: |
| | |
| | |
| Telephone: | Telephone: |

III. Please include the following information as part of your request:

- A. The date the permittee received the permit decision;
- B. Two printed copies of the document being appealed – for submitting to address 1 below;
A PDF copy of the document being appealed on a CD – for submitting to address 2 below
- C. The legal and factual questions you are appealing;
- D. A statement as to whether or not you raised each legal and factual issues during the permit application process;
- E. Suggested revised or alternative permit conditions;
- F. An estimate of the time required for the hearing;
- G. A request, if necessary, for a barrier-free hearing location for physically disabled persons;
- H. A clear indication of any willingness to negotiate a settlement with the Department prior to the Departments processing of your hearing request to the Office of Administrative Law;

Mail this form, completed, signed and dated with all of the information listed above, including attachment, to:

1. New Jersey Department of Environmental Protection
Office of Legal Affairs
Attention: Adjudicatory Hearing Requests
401 E. State Street, P.O. Box 402
Trenton, New Jersey 08625

2. Air Quality Permitting Element
Preconstruction Permits
New Jersey Department of Environmental Protection
401 E. State Street, 2nd Floor, P.O. Box 027
Trenton, New Jersey 08625
Phone: (609) 633-2829

Signature

Date

Administrative Hearing Request Checklist and Tracking Form

IV. If you are not the applicant but rather an interested person claiming to be aggrieved by the permit decision, please include the following information:

1. The date you or your agent received notice of the permit decision (include a copy of that permit decision with your hearing request);
2. Evidence that a copy of the request has been delivered to the applicant for the permit which is the subject of the permit decision;
3. A detailed statement of which findings of fact and/or conclusion of law you are challenging;
4. A description of your participation in any public hearings held in connection with the permit application and copies of any written comments you submitted;
5. Whether you claim a statutory or constitutional right to a hearing, and, if you claim such a right, a reference to the applicable statute or explanation of how your property interests are affected by the permit decision;
6. If the appeal request concerns a CAFRA permit decision, evidence that a copy of the request has been delivered to the clerks of the county and the municipality in which the project which is the subject of the permit decision is located;
7. Suggested revised or alternative permit conditions;
8. An estimate of the time required for the hearing;
9. A request, if necessary, for a barrier-free hearing location for physically disable persons;
10. A clear indication of any willingness to negotiate a settlement with the Department prior to the Department's transmittal of the hearing request to the Office of Administrative Law;

Mail this form, completed, signed and dated with all of the information listed above, including attachment, to:

New Jersey Department of Environmental Protection
Office of Legal Affairs
Attention: Adjudicatory Hearing Requests
401 East State Street, P.O. Box 402
Trenton, New Jersey 08625-0402

Air Quality Permitting Element
Preconstruction Permits
New Jersey Department of Environmental Protection
401 E. State Street, 2nd Floor, P.O. Box 027
Trenton, New Jersey 08625
Phone: (609) 633-2829

Signature

Date

AIR POLLUTION CONTROL PRECONSTRUCTION PERMIT EQUIVALENCY

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Facility ID No.: 08773

Permit Activity No.: PCP100001

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AIR POLLUTION CONTROL PRECONSTRUCTION PERMIT EQUIVALENCY

Section A

Facility Name: LPR PHASE 1 REMOVAL ACTION SITE

Facility ID No.: 08773

Permit Activity No.: PCP100001

AUTHORIZED SOURCE OPERATIONS

This Preconstruction Permit and the Certificate to Operate for the following equipment is issued pursuant to N.J.A.C. 7:27-8.

Description of Source Activity

Source Operation Type: Dredge sediment cleanup in the Phase 1 area of the Lower Passaic River located within the Harrison Reach at approximately River Mile 3.4 adjacent to Operable Unit 1 (OU-1) of the Diamond-Alkali Superfund Site between 80 and 120 Lister Avenue in Newark, New Jersey. The sediment removed from the Phase 1 area will be pumped as a slurry via a hydraulic pipeline to the Upland Processing Facility (UPF) located at about 1,400 feet downstream of the phase 1 area on Blanchard Street.

Source Operation Description: Up to 41,000 cubic yards of dredge sediment and debris are excavated from the riverbed inside an enclosure and loaded onto barges. Afterwards, sediment is screened and mixed with water inside a tank before it's pumped through a hydraulic pipeline to the UPF. At the UPF, the slurry will be de-sanded and carried through gravity thickeners. Supernatant/filtrate water is pumped to the water treatment system where the water is treated and subsequently discharged to the river. Sludge is dewatered in membrane filter presses and loaded in lined containers and then sealed before it's shipped off-site for disposal. The actual dredging processing time is scheduled to last no longer than 2136 hours.

Source Operation Details: The sources authorized by this permit shall be operated within the parameters specified in the Equipment, Control Device, and/or Emission Unit/Batch Process Operating Scenario Details of this permit. Operation of the authorized sources within these parameters is required in addition to compliance with the conditions specified in Section D- Facility Specific Requirements.

AIR POLLUTION CONTROL PRECONSTRUCTION PERMIT EQUIVALENCY

Section B

Facility Name: LPR PHASE 1 REMOVAL ACTION SITE

Facility ID No.: 08773

Permit Activity No.: PCP100001

ACRONYMS

| | |
|-----------------|---|
| BTS | Bureau of Technical Services |
| CEMS | Continuous Emissions Monitor System |
| CFR | Code of Federal Regulations |
| CO | Carbon Monoxide |
| COMS | Continuous Opacity Monitor System |
| EPA | United States Environmental Protection Agency |
| HAP | Hazardous Air Pollutant |
| N.J.A.C. | New Jersey Administrative Code |
| NJDEP | New Jersey Department of Environmental Protection |
| NO _x | Oxides of Nitrogen |
| PM-2.5 | All particulate matter having an aerodynamic diameter less than or equal to a nominal 2.5 microns |
| PM-10 | All particulate matter having an aerodynamic diameter less than or equal to a nominal 10 microns |
| PST | Performance Specification Test |
| REO | Regional Enforcement Office - NJDEP |
| SO ₂ | Sulfur Dioxide |
| TSP | Total Suspended Particulate Matter |
| VOC | Volatile Organic Compounds |

AIR POLLUTION CONTROL PRECONSTRUCTION PERMIT EQUIVALENCY

Section C

Facility Name: LPR PHASE 1 REMOVAL ACTION SITE

Facility ID No.: 08773

Permit Activity No.: PCP100001

GENERAL PROVISIONS AND AUTHORITIES

Preconstruction Permits

1. Notwithstanding compliance with other provisions of N.J.A.C. 7:27-1 et seq., no person shall cause, suffer, allow or permit to be emitted into the outdoor atmosphere substances in quantities which shall result in air pollution as defined at N.J.A.C. 7:27-5.1. [N.J.A.C. 7:27-5.2(a)]
2. The permittee shall not construct, reconstruct, install, or modify a significant source or control apparatus serving the significant source without first obtaining a preconstruction permit under N.J.A.C. 7:27-8. [N.J.A.C. 7:27-8.3(a)]
3. The permittee shall not operate (nor cause to be operated) a significant source or control apparatus serving the significant source without a valid operating certificate. [N.J.A.C. 7:27-8.3(b)]
4. Permit Revisions:

The permittee shall not take any action which requires a permit revision, compliance plan change, seven-day-notice change, amendment, or change to a batch plant permit, under any applicable provision at N.J.A.C. 7:27-8.17 through 8.23, without complying with that applicable provision.

The following summarize N.J.A.C. 7:27-8.18 through 8.21:

- a. The permittee shall file a permit revision request and receive approval from the Department prior to increasing any maximum allowable emission limit, increasing actual emissions, to a rate or concentration greater than a maximum allowable emission, causing the emissions of a new air contaminant, use a new raw material, reconstructing equipment, change the ground level concentration of an air contaminant in an area where the public has access, replace the permitted source, or constructing or installing a new significant source. [N.J.A.C. 7:27-8.18]
- b. The permittee shall file a compliance plan change request and receive approval from the Department prior to decreasing the frequency of testing, monitoring, recordkeeping, or reporting, changing the monitoring method, changing a level, rate, or limit of an operational parameter included in the conditions, or reducing a source's potential to emit. [N.J.A.C. 7:27-8.19]
- c. At least seven days prior to proceeding with a physical or operational change that is outside the scope of activities allowed by this permit, but will not increase emissions over the allowable emissions and will not alter the stack characteristics, the permittee shall file a seven-day-notice change. The permittee may proceed with the proposed changes seven days after such notice is filed with the Department. [N.J.A.C. 7:27-8.20]

- d. The permittee shall file an amendment within 120 days of making any change of the information contained within Section C of this permit (Facility Profile), changing the name, number or designation of any equipment or stack covered by this permit, changing the parameters of a stack in such a way to reduce the ground level concentration of an air contaminant, or correction of a typographical error that will not result in an increase of actual or allowable emissions. [N.J.A.C. 7:27-8.21]

The permittee shall review the provisions of N.J.A.C. 7:27-8.18 through 7:27-8.21 to determine the appropriate type of request to file.

5. The permittee shall make the preconstruction permit or certificate, together with any amendments, seven-day-notices, or other documents related to the permit and certificate, readily available for Department inspection on the operating premises. [N.J.A.C. 7:27-8.3(d)]
6. The permittee shall not use or cause to be used the equipment or control apparatus unless all components connected or attached to, or serving, the equipment or control apparatus, are functioning properly and are in compliance with the preconstruction permit and certificate and all conditions and provisions thereto. [N.J.A.C. 7:27-8.3(e)]
7. A preconstruction permit is not transferable either from the location authorized in the preconstruction permit to another location, or from any one piece of control apparatus or equipment to another piece of control apparatus or equipment. [N.J.A.C. 7:27-8.3(f)]
8. Once a permit or certificate is issued, the permittee is fully responsible for compliance with N.J.A.C. 8:27-8 and with the permit and certificate, including adequate design, construction, and operation of the source, even if employees, contractors, or others work on or operate the permitted source. If the Department issues any other requirement with the force of law, such as an order, which applies to the source, the permittee is also responsible for compliance with that requirement. [N.J.A.C. 7:27-8.3(g)]
9. Preconstruction permits and certificates do not any way relieve the permittee from the obligation to obtain necessary permits from other government agencies and to comply with all other applicable Federal, State, and local rules and regulations. [N.J.A.C. 7:27-8.3(h)]
10. The permittee shall not suffer, allow, or permit any air contaminant detectable by the sense of smell, to be present in the outdoor atmosphere in such quantity and duration which is, or tends to be, injurious to human health or welfare, animal or plant life or property, or would unreasonably interfere with the enjoyment of life or property. This shall not include an air contaminant which occurs only in areas over which the permittee has exclusive use or occupancy. In determining whether an odor unreasonably interferes with the enjoyment of life or property, the Department shall consider all of the relevant facts and circumstances, including, but not limited to, the character, severity, frequency, and duration of the odor, and the number of persons affected thereby. In considering these and other relevant facts and circumstances, no one factor shall be dispositive, but each shall be considered relevant in determining whether an odor interferes with the enjoyment of life or property, and, if so, whether such interference is unreasonable considering all of the circumstances. [N.J.A.C.7:27-8.3(j)]
11. The Department and its representatives have the right to enter and inspect any facility or property in accordance with N.J.A.C. 7:27-1.31. [N.J.A.C. 7:27-8.3(m)]

12. There shall be an affirmative defense to liability for penalties for a violation of a preconstruction permit or certificate occurring as a result of an equipment malfunction, an equipment start-up, an equipment shutdown, or during the performance of necessary maintenance. The affirmative defense shall be asserted and established as required pursuant to P.L. 1993. c.89 (adding N.J.S.A. 26:2C-19.1 through 2C-19.5) and any rules the Department promulgates thereunder, and shall meet all of the requirements thereof. There shall also be an affirmative defense to liabilities for penalties or other sanctions for noncompliance with any technology based emission limitation in this permit or certificate, if the noncompliance was due to an emergency as defined at N.J.A.C. 7:27-22.1, provided that the affirmative defense is asserted and established in compliance with 40 CFR 70.6(g) and meets all requirements thereof. [N.J.A.C. 7:27-8.3(n)]
13. The permittee shall not cause or use the equipment specified in a preconstruction permit in a manner that will result in the emission of any air contaminant not listed in the Facility Specific Requirements in this Preconstruction Permit at a rate equal to or higher than the applicable reporting threshold set forth at N.J.A.C. 7:27-8 Appendix I, Table A or B. [N.J.A.C. 7:27-8.4(k)1]
14. No air contaminant, or category of air contaminant, where accepted by the Department, shall be emitted other than those approved in the preconstruction permit. [N.J.A.C. 7:27-8.13(a)]
15. Any person to whom the Department has issued a preconstruction permit or certificate shall comply with all terms and conditions of any order related to the preconstruction permit or certificate. [N.J.A.C. 7:27-8.13(a)]
16. The permittee shall maintain all records required in the preconstruction permit for a period of five (5) calendar years from the calendar year within which the record was generated. [N.J.A.C. 7:27-8.13(a)]
17. The Department may change the conditions of approval of any approved certificate to operate at the time of renewal of a temporary operating certificate; at the time of approval or renewal of a five-year operating certificate; or at any time during the period a certificate is in effect, if the Department determines that such change is necessary to protect human health or welfare or the environment. [N.J.A.C. 7:27-8.13(b)]
18. Upon request of the Department, the permittee shall submit to the Department information relevant to the operation of equipment and control apparatus including all information specified at N.J.A.C. 7:27-8.13(c). [N.J.A.C. 7:27-8.13(c)]
19. If the conditions of a preconstruction permit or certificate to operate require the Department to incur any of the following charges, the permittee shall reimburse the Department for the full amount of these charges: (1) The charges billed by any phone company for the maintenance of a dedicated telephone line required by this permit or the certificate to operate for the electronic transmission of data; or (2) The charges billed by any laboratory for performing the analysis of audit samples collected pursuant to testing or monitoring required by this permit or the certificate to operate. [N.J.A.C. 7:27-8.13(g)]
20. Any exceedance of the operating requirements or emission concentrations specified in a preconstruction permit shall be reported within three (3) business days, by writing to the Regional Enforcement Office. [N.J.A.C. 7:27-8.13(h)]

21. The permittee shall, when requested by the Department, provide such testing facilities exclusive of instrumentation and sensing devices as may be necessary for the Department to determine the kind and amount of air contaminants emitted from the equipment or control apparatus. The testing facilities shall include the utilities, the structure to hold testing equipment and/or personnel, and any ports in stacks needed to carry out testing required by this permit. During testing by the Department, the equipment and control apparatus shall be operated under such conditions within their capacities as may be requested by the Department. The test facilities may be either permanent or temporary, at the discretion of the person responsible for their provision, and shall conform to all applicable laws, regulations, and rules concerning safe construction and safe practice. Testing facilities, which contain platforms and other means of personnel access, shall conform to OSHA standards. [N.J.A.C. 7:27-8.13(i)]
22. Upon request of the Department, the permittee shall submit to the Department any record relevant to any permit or certificate. Such records shall be submitted to the Department within thirty (30) days of the request by the Department or within a longer time period if approved in writing by the Department. [N.J.A.C. 7:27-8.15(a)]
23. The permittee shall submit any required report in a format and on a schedule approved by the Department. Such report shall be transmitted on paper, on computer disk, or electronically, at the discretion of the Department. [N.J.A.C. 7:27-8.15(b)]
24. Any report submitted to the Department, including but not limited to, a report submitted as an amendment of this permit or the certificate to operate pursuant to N.J.A.C. 7:27-8.3(c) shall include, as an integral part of the report, certifications complying with N.J.A.C. 7:27-1.39. [N.J.A.C. 7:27-8.15(c)]
25. Upon request of the Department, the permittee shall report on forms obtained from the Department the air contaminant actual emissions and information relevant thereto, of any air contaminant or category of air contaminant emitted by the equipment, control apparatus, or source operation. [N.J.A.C. 7:27-8.15(d)]
26. Any emission limit values in a preconstruction permit shall be interpreted to be followed by inherent trailing zeros (0) in the decimal portion of the limit to three significant figures (e.g. a printed limit of “1 lb/hr” means a limit of “1.00 lb/hr”).
27. This listing of requirements reflects the state rules and regulations that apply to a majority of sources. If a specific requirement in a rule or regulation that applies to a permittee is not included in this section or in the Facility Specific Requirements it does not relieve the permittee from the obligation to comply with that regulation.
28. Process monitors must be operated at all times when the associated process equipment is operating except during outage time allowed by Department guidelines/procedures or as outlined in Technical Manual 1005. The Permittee must keep a service log as required.

29. The following Department offices may be referenced in a preconstruction permit. Please use the following addresses when submitting any correspondence to these offices:

Bureau of Technical Services
P. O. Box 437
380 Scotch Road
West Trenton, NJ 08625

Central Regional Enforcement Office
P. O. Box 407
Trenton, NJ 08625-0407

Northern Regional Enforcement Office
7 Ridgedale Avenue
Cedar Knolls, NJ 07927

Southern Regional Enforcement Office
2 Riverside Drive – Suite 201
Camden, NJ 08102

30. In accordance with the Air Pollution Control Act at N.J.S.A. 26:2C-19(e), any operation of the equipment which may cause off-property effect, including odors, shall be immediately reported by calling the NJDEP Environmental Action Hotline at (877) 927-6337.
31. In accordance with N.J.A.C. 7:27-21, facilities are required to submit annual emission statements of their actual emissions if the Potential-to-emit for the entire facility exceeds the following thresholds (including all emissions from the facility, both permitted and unpermitted). Additional information about Emission Statement reports can be obtained by calling (609) 984-5483.

| <u>AIR CONTAMINANT</u> | <u>Threshold in Tons per Year</u> |
|--|--|
| VOC (Volatile Organic Compounds) | 10 |
| NO _x (Oxides of Nitrogen) | 25 |
| CO (Carbon Monoxide) | 100 |
| SO ₂ (Sulfur Dioxide) | 100 |
| TSP (Total Suspended Particulates) | 100 |
| PM _{2.5} (Particulate Matter ≤ 2.5 microns) | 100 |
| PM ₁₀ (Particulate Matter ≤ 10 microns) | 100 |
| NH ₃ (Ammonia) | 100 |
| Lead | 5 |

32. In accordance with N.J.A.C. 7:27-22, facilities are required to submit a Title V Operating Permit application, within one year, if the potential-to-emit for the entire facility exceeds any of the following thresholds (including all emissions from the facility, both permitted and unpermitted). Additional Information about Operating Permits can be obtained by calling the Operating Permit Hotline at (609) 633-8248.

| <u>AIR CONTAMINANT</u> | <u>Threshold in Tons per Year</u> |
|--|--|
| VOC (Volatile Organic Compounds) | 25 |
| NO _x (Oxides of Nitrogen) | 25 |
| CO (Carbon Monoxide) | 100 |
| SO ₂ (Sulfur Dioxide) | 100 |
| TSP (Total Suspended Particulates) | 100 |
| PM ₁₀ (Particulate Matter ≤ 10 microns) | 100 |
| Lead | 10 |
| Any HAP (Hazardous Air Pollutant) | 10 |
| All HAPs Collectively | 25 |
| Any other Air Contaminant | 100 |

AIR POLLUTION CONTROL PRECONSTRUCTION PERMIT EQUIVALENCY

Section D

Facility Name: LPR PHASE 1 REMOVAL ACTION SITE

Facility ID No.: 08773

Permit Activity No.: PCP100001

PERMIT INFORMATION

FACILITY SPECIFIC REQUIREMENTS INDEX

FACILITY SPECIFIC REQUIREMENTS

REASON FOR APPLICATION

FACILITY PROFILE (GENERAL)

EQUIPMENT INVENTORY

EMISSION POINT INVENTORY

EMISSION UNIT/BATCH PROCESS INVENTORY

ATTACHMENTS TO THE PERMIT

AIR POLLUTION CONTROL PRECONSTRUCTION PERMIT EQUIVALENCY

Section D

Facility Name: LPR PHASE 1 REMOVAL ACTION SITE

Facility ID No.: 08773

Permit Activity No.: PCP100001

FACILITY SPECIFIC REQUIREMENTS INDEX

PCP100001

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Emission Unit: U1 Sediment Processing Operations
Subject Item: E1 Slurry Make-Up Tank, E2 Size Separation Screen

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|--|--|------------------------------|
| 1 | The permittee shall maintain and operate the slurry make-up tank and size screening equipment always under wet conditions, where NO heating and NO forced aeration take place. [N.J.A.C. 7:27- 8.2(f)1] | Monitored by visual determination upon occurrence of event, based on an instantaneous determination . [N.J.A.C. 7:27- 8] | Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. The permittee shall maintain dredge sediment analytical data onsite or at the permittee's main office for at least five (5) years, readily made available to the Department or its representatives upon request. [N.J.A.C. 7:27- 8] | None. |

PCP100001

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Emission Unit: U1 Sediment Processing Operations
Subject Item: E3 Coarse Solids Container, E8 Filter Cake Container

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|---|---------------------------|------------------------------|
| 1 | The coarse solids containers and filter cake containers shall be covered and immediately sealed after being filled. [N.J.A.C. 7:27- 8] | Monitored by visual determination upon occurrence of event, based on an instantaneous determination. [N.J.A.C. 7:27- 8] | None. | None. |

PCP100001

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Emission Unit: U1 Sediment Processing Operations
Subject Item: E5 Coarse Solids Conveyor, E7 Filter Cake Conveyor

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|---|---------------------------|------------------------------|
| 1 | The conveyor shall have shrouds and covered as much as possible to minimize potential fugitive dust emissions. [N.J.A.C. 7:27- 8.13(h)] | Monitored by visual determination upon occurrence of event, based on an instantaneous determination. [N.J.A.C. 7:27- 8] | None. | None. |

PCP100001

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Emission Unit: U1 Sediment Processing Operations

E9 Gravity Thickener

Subject Item:

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|---|---------------------------|------------------------------|
| 1 | The gravity thickener shall be operated such that the sludge material inside the tank is always covered by at least 2 feet of water column. There shall be no visible emissions or any cause for odors coming from the thickener at all times. [N.J.A.C. 7:27- 8] | Monitored by visual determination upon occurrence of event, based on an instantaneous determination. [N.J.A.C. 7:27- 8] | None. | None. |

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**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Emission Unit: U1 Sediment Processing Operations

Subject Item: E10 Sludge Storage Tank 1, E11 Sludge Storage Tank 2, E12 Sludge Storage Tank 3

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|---|---------------------------|------------------------------|
| 1 | The open top of the thickened sludge storage tanks shall be covered at all times to minimize volatilization. [N.J.A.C. 7:27- 8] | Monitored by visual determination upon occurrence of event, based on an instantaneous determination. [N.J.A.C. 7:27- 8] | None. | None. |

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**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Emission Unit: U1 Sediment Processing Operations

E13 Shaker Screen Slurry Tank

Subject Item:

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|---|---------------------------|------------------------------|
| 1 | The shaker screen and shaker screen slurry tank shall be enclosed on all sides except at the end where plastic flaps allow coarse solids to fall onto the conveyor. Both units shall be configured into a single structure and embedded in order to minimize the surface area exposed to the atmosphere. [N.J.A.C. 7:27- 8] | Monitored by visual determination upon occurrence of event, based on an instantaneous determination. [N.J.A.C. 7:27- 8] | None. | None. |

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**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Emission Unit: U1 Sediment Processing Operations

E14 De-sanded Slurry Tank

Subject Item:

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|---|---------------------------|------------------------------|
| 1 | The permittee shall maintain and operate the de-sanded slurry tank always under wet conditions, where NO heating and NO forced aeration take place. [N.J.A.C. 7:27-8] | Monitored by visual determination upon occurrence of event, based on an instantaneous determination. [N.J.A.C. 7:27- 8] | None. | None. |

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**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Emission Unit: U1 Sediment Processing Operations

OS Summary

Operating Scenario:

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|--|---------------------------|------------------------------|
| 1 | <p>PHASE 1 AREA (PW1): The Phase I Work Area is located within the Harrison Reach of the Lower Passaic River at approximately River Mile 3.4 adjacent to Operable Unit 1 (OU-1) of the Diamond-Alkali Superfund Site between 80 and 120 Lister Avenue in Newark, New Jersey. The extracted sediment from the Phase I Work Area will be pumped as a slurry via a hydraulic pipeline to the Upland Processing Facility (UPF) located on Blanchard Street, about approximately 1,400 feet downstream from the PW1 area, for sediment handling and dewatering prior to be disposed off-site in sealed containers. [N.J.A.C. 7:27- 8]</p> | <p>Monitored by visual determination upon occurrence of event, based on an instantaneous determination. [N.J.A.C. 7:27- 8]</p> | None. | None. |
| 2 | <p>Sediment and Debris Barges (within PW1 area): Dredge sediment will be excavated from the riverbed and stored within the center compartment only of the sediment barges. An additional ten (10) percent of the remaining barge surface area may be covered with debris only. The remaining barge surface area shall not contain dredge sediment or debris at any time. The unloaded dredge sediment left on the barge that hasn't been processed through the grizzly or trommel screen shall be tarped during off-shift and overnight hours. Furthermore, the enclosure riverbed, should be covered and maintained by at least 4-feet of water column. [N.J.A.C. 7:27- 8]</p> | <p>Monitored by visual determination upon occurrence of event, based on an instantaneous determination. [N.J.A.C. 7:27- 8]</p> | None. | None. |

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| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|---|---|------------------------------|
| 3 | <p>UPLAND PROCESSING FACILITY (UPF): The sediment removed from the Phase I Work Area shall be pumped as a slurry via a hydraulic pipeline to the Upland Processing Facility (UPF) for sediment handling and dewatering prior to being disposed off-site. The UPF is located in Newark, New Jersey, approximately 1,400 feet downriver from the Phase I Work Area. [N.J.A.C. 7:27- 8]</p> | <p>Monitored by visual determination upon occurrence of event, based on an instantaneous determination. [N.J.A.C. 7:27- 8]</p> | <p>None.</p> | <p>None.</p> |
| 4 | <p>The permittee shall implement the following measures at both the PW1 area and UPF at all times:</p> <ol style="list-style-type: none"> 1. Maintain dredge sediment wet, covered with tarp or ponded (river) water. A water spray system equipped with odor control foam and/or masking/suppressants must be available on-site to be used on as needed basis. 2. The dredge sediment shall be slurried and pumped from PW1 area to the UPF via a hydraulic pipeline. 3. Coarse solids and filter cake shall be placed directly into containers and immediately sealed- covered instead of being stockpiled on-site. 4. Stockpiles of construction materials shall be covered with tarps or other typical covers. 5. Access roads or material stockpiles shall be kept wet. 6. The grizzly and trommel screens shall be sprayed with water continuously. 7. Slurry Make-Up Tank shall be enclosed or covered. 8. A 2-ft minimum freeboard shall be maintained over exposed dredge sediment in the barge. 9. Dry, dewatered or exposed dredge sediment and debris must be covered or enclosed during storage. [N.J.A.C. 7:27- 8] | <p>Monitored by visual determination continuously : At all times through visual monitoring and facility's operator logs. [N.J.A.C. 7:27- 8]</p> | <p>Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The permittee shall note the date and time when any of the applicable requirements have not been implemented. All records shall be kept on-site or at the permittee's main office for at least five (5) years, readily made available to the Department or its representatives upon request. [N.J.A.C. 7:27- 8]</p> | <p>None.</p> |

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Facility Specific Requirements**

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|--|---|--|
| 5 | The dredge sediment processing time in the PW1 Area <= 12 hours per day with additional four (4) hours for screening. Sediment may be loaded or unloaded on the barge and screened through the grizzly or trommel screens prior to be pumped through a hydraulic pipe to the UPF only during this processing time. Dredge that's not being processed must be kept tarped and wet. [N.J.A.C. 7:27- 8] | Monitored by hour/time monitor continuously. The permittee shall monitor the processing time of dredge sediment on a continuous basis. [N.J.A.C. 7:27- 8] | Recordkeeping by manual logging of parameter or storing data in a computer data system daily. The permittee shall record dredge sediment processing time at least daily. All records shall be kept on-site or at the permittee's main office for at least five (5) years, readily made available to the Department or its representatives upon request. [N.J.A.C. 7:27- 8] | None. |
| 6 | Amount of dredge sediment processed for the duration of the project <= 41,000 cubic yards (in situ). [N.J.A.C. 7:27- 8.13(a)] | Monitored by calculations at the approved frequency : Once, at the end of dredging operations. [N.J.A.C. 7:27- 8.13(a)] | Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency : The permittee shall record the total amount of dredge sediment processed during the whole dredging event. All monitoring records shall be kept on-site or at the permittee's office, for at least five (5) years, readily made available to the Department or its representatives upon request. [N.J.A.C. 7:27- 8.13(d)3] | None. |
| 7 | Hours of Operation <= 2,136 hours of dredge processing time. The permittee shall immediately stop processing dredge sediment at both the PW1 area and the UPF when the hours of operation are reached. [N.J.A.C. 7:27- 8] | Hours of Operation: Monitored by hour/time monitor continuously : The permittee shall monitor the hours of dredge processing time at both the PW1 area and the UPF. [N.J.A.C. 7:27- 8] | Hours of Operation: Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency : The permittee shall record dredge processing hours on a daily basis and the date and time when dredge total processing hours have been reached at both the PW1 area and UPF and the corresponding maximum days of operation. All records shall be kept on-site, or at the permittee's main office, for at least five (5) years, readily made available to the Department or its representatives upon request. [N.J.A.C. 7:27- 8] | Submit a report: Upon occurrence of event : The permittee shall notify the USEPA Region 2 field office, the NJDEP Northern Regional Enforcement Office (NREO) and the NJDEP Site Remediation Program, in writing when the total hours of dredge processing time established in this permit have been reached. [N.J.A.C. 7:27- 8] |

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Facility Specific Requirements**

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|--|---|--|
| 8 | Opacity <= 20 %. There shall be no visible emissions from the processing of dredge sediment (material) and from any of the process equipment at both the Phase 1 area (PW1) and upland processing facility (UPF) exclusive of condensed water vapor, except for a period of not longer than three (3) minutes in any consecutive thirty (30) minute period. No visible emissions are equivalent to less than five percent (5%) opacity as determined using New Jersey Air Test Method 2. [N.J.A.C. 7:27- 8] | Opacity: Monitored by visual determination daily, based on an instantaneous determination. For compliance with the opacity standard, the permittee shall conduct daily visual opacity inspections during daylight hours. Visual inspections shall consist of a visual survey to identify if dredging activities at the PW1 area and UPF has visible emissions, (other than condensed water vapor), greater than the prescribed standard. If visible emissions are observed, the permittee shall do the following: (1) Verify that the dredging activities at the PW1 area and/or the UPF that are causing visible emissions are performed in accordance with the permit compliance plan and all applicable conditions of approval. If not, the permittee shall take corrective action immediately to eliminate visible emissions. The permittee must report any permit violations to the Department. (2) If the corrective action taken in Step (1) does not correct the opacity problem within 24 hours, the permittee shall perform a check via a certified opacity reader, in accordance with New Jersey Air Test Method 2. Such test shall be conducted each day until corrective action successfully corrects the opacity problem. [N.J.A.C. 7:27- 8.13(d)] | Opacity: Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The permittee shall manually log in a permanently bound log book and retain the following records: (1) Date and time of visual inspection; (2) Emission Point number or location of visible emissions; (3) Operation status of process equipment; (4) Observed results and conclusions; (5) Description of corrective action taken, if needed; (6) Date and time a check via a certified opacity reader is performed; (7) Date and time opacity problem was solved (if applicable); (8) New Jersey Test Method 2 results, if conducted; and (9) Name of person(s) conducting the inspection. All records shall be kept on-site or at the permittee's main office for at least five (5) years, readily made available to the Department or its representatives upon request. [N.J.A.C. 7:27- 8.13(d)] | Submit a report: Upon occurrence of event over the allowable amount: The Permittee shall immediately take corrective measures to prevent visible emissions. If these measures fail, within 24-hours of observation, the permittee shall report the incident (time and date of occurrence, source or location of visible emissions and control measures taken in writing to the USEPA Region 2 field office, the NJDEP Northern Regional Enforcement Office (NREO) and the NJDEP Site Remediation Program, immediately. [N.J.A.C. 7:27- 8.13(d)4] |
| 9 | For the duration of the project, VOC (Total) <= 0.6 tons. [N.J.A.C. 7:27- 8] | VOC (Total): Monitored by calculations once initially : Calculations shall be based on average concentrations of Volatile organic compounds, VOC (total) in dredge sediment, after implementation of air emissions controls and best management practices. [N.J.A.C. 7:27- 8] | VOC (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. The permittee shall keep records of VOC (total) emissions and associated calculations, including the designation of the geographical location where dredge sediment is extracted and chemical composition of the dredge sediment, on-site, or at the permittee's main office, for at least five (5) years, readily made available to the Department or its representatives upon request. [N.J.A.C. 7:27- 8] | None. |

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Facility Specific Requirements**

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|--|--|--|
| 10 | For the duration of the project, Dioxins/Furans (Total) < 0.0015 lb. [N.J.A.C. 7:27- 8] | Dioxins/Furans (Total): Monitored by calculations once initially. Calculations shall be based on average concentrations of dioxins/furans in dredge sediment, after implementation of air emissions controls and best management practices. [N.J.A.C. 7:27- 8] | Dioxins/Furans (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system once initially : The permittee shall keep records of total dioxins and furans emissions and associated calculations, including the designation of the geographical location where dredge sediment is extracted and chemical composition of the dredge sediment, on-site, or at the permittee's main office, for at least five (5) years, readily made available to the Department or its representatives upon request. [N.J.A.C. 7:27- 8] | None. |
| 11 | For the duration of the project, Chlorobenzene <= 998 lb. [N.J.A.C. 7:27- 8] | Chlorobenzene: Monitored by calculations once initially. Calculations shall be based on average concentrations of chlorobenzene in dredge sediment, after implementation of air emissions controls and best management practices. [N.J.A.C. 7:27- 8] | Chlorobenzene: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially : The permittee shall keep records of Chlorobenzene emissions and associated calculations, including the designation of the geographical location where dredge sediment is extracted and chemical composition of the dredge sediment, on-site, or at the permittee's main office, for at least five (5) years, readily made available to the Department or its representatives upon request. [N.J.A.C. 7:27- 8] | None. |
| 12 | The permittee shall post the name together with the address and phone number of the contact person, on a permanent, legible sign in a conspicuous location at both the PW1 area and UPFof the dredge processing facility prior to beginning the work to be performed in accordance with this permit approval. [N.J.A.C. 7:27- 8] | None. | None. | None. |
| 13 | The permittee shall notify the NJDEP Northern Regional Enforcement Office in writing at least seven (7) business days prior to the start-up of dredge processing activities. [N.J.A.C. 7:27- 8] | None. | None. | Submit a report: As per the approved schedule to the USEPA Region 2 field office, the NJDEP Northern Regional Enforcement Office (NREO) and the NJDEP Site Remediation Program, seven (7) business days prior to startup of dredge processing activities. [N.J.A.C. 7:27- 8] |

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| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|--|--|---|
| 14 | The permittee shall identify and implement all actions necessary to keep the areas around the slurry makeup tank/slurry pump (PW1) and the areas around the shaker slurry/screen tank (UPF), gravity thickeners (UPF), sludge storage tanks (UPF), filter presses (UPF) and conveyors (UPF) clean of dredge sediment spills or debris. [N.J.A.C. 7:27- 8] | Monitored by visual determination upon occurrence of event, based on an instantaneous determination. Plant operators and staff shall be instructed to report any spill of dredge sediment on the ground or if they notice emissions from process equipment to the on-site Project Superintendent or management. [N.J.A.C. 7:27- 8] | Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The permittee shall keep records of any dredge sediment and/or debris spill on the ground or in and around process equipment in PW1 area and UPF, including subsequent correction measures taken, on-site or at the permittee's main office, for at least five (5) years, readily made available to the Department or its representatives upon request. [N.J.A.C. 7:27- 8] | None. |
| 15 | H2S <= 28 ug/m^3 . [N.J.A.C. 7:27- 8] | H2S: Monitored by other method (provide description) at the approved frequency : Twenty-four (24)-hour ambient air samples shall be collected at all monitoring stations on a continuous basis. The permittee may be required to use a portable H2S meter such as the Jerome 631-XE or equivalent to gather real-time data if there are odor complaints or upon request of the Department. Please refer to the attached "Perimeter Air Monitoring Plan" for maintaining typical H2S operations levels and for the mplementation of required actions and concentration levels, including the locations of the ambient air monitoring stations. [N.J.A.C. 7:27- 8] | H2S: Recordkeeping by manual logging of parameter or storing data in a computer data system each week during operation based on 24-hr ambient air sampling and monitoring with a required lab testing turn around time of up to 48-72 hours. The permittee shall also record the date and time when odor complaints were received, and the locations of ambient air monitoring station(s) where H2S 24-hr laboratory test results were exceeded including H2S periodic emission reading levels along with any odor mitigation measures taken by the facility. All records shall be kept on-site or at the permittee's main office for at least five (5) years readily made available to the Department or its representatives upon request. [N.J.A.C. 7:27- 8] | Other (provide description): As per the approved schedule : Refer to attached "Perimeter Air Monitoring Plan" for further details on the reporting/notification and submittal action requirements. [N.J.A.C. 7:27- 8] |

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| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|--|--|---|
| 16 | Chlorobenzene \leq 1,000 $\mu\text{g}/\text{m}^3$. [N.J.A.C. 7:27- 8] | Chlorobenzene: Monitored by other method (provide description) at the approved frequency : Twenty-four (24)-hour ambient air samples shall be collected at all monitoring stations on a continuous basis. Furthermore, the permittee shall collect ambient air samples to be analyzed for the full spectrum of VOC, SVOC and HAPs, i.e. TO14A et seq., if the six (6) day chlorobenzene reading average is greater than allowable limit. Refer to the attached "Perimeter Air Monitoring Plan" for maintaining typical chlorobenzene operations levels and for the mplementation of required actions and concentration levels, including the locations of the ambient air sampling and monitoring stations. [N.J.A.C. 7:27- 8] | Chlorobenzene: Recordkeeping by manual logging of parameter or storing data in a computer data system each week during operation based on 24-hr ambient air sampling and monitoring with a required lab testing turn-around time of up to 48-72 hours. The permittee shall also record the locations of ambient air monitoring station(s) where chlorobenzene 24-hr laboratory test results were exceeded including the lab results of the full spectrum analysis of VOC (total) as applicable. All records shall be kept on-site or at the permittee's main office for at least five (5) years readily made available to the Department or its representatives upon request. [N.J.A.C. 7:27- 8] | Other (provide description): As per the approved schedule : Refer to attached "Perimeter Air Monitoring Plan" for further details on the reporting/notification and submittal action requirements. [N.J.A.C. 7:27- 8] |
| 17 | DDT \leq 8.78 $\mu\text{g}/\text{m}^3$. [N.J.A.C. 7:27- 8] | Monitored by other method (provide description) at the approved frequency : Twenty-four (24)-hour ambient air samples shall be collected at all monitoring stations on a continuous basis. Refer to the attached "Perimeter Air Monitoring Plan" for maintaining typical DDT operations levels and for the mplementation of required actions and concentration levels corresponding to residential and nonresidential exposure scenarios, including the locations of the ambient air monitoring stations. [N.J.A.C. 7:27- 8] | Recordkeeping by manual logging of parameter or storing data in a computer data system each week during operation based on 24-hr ambient air sampling and monitoring with a required lab testing turn-around time of up to 48-72 hours. The permittee shall also record the locations of ambient air monitoring station(s) where DDT 24-hr laboratory test results were exceeded. All records shall be kept on-site or at the permittee's main office for at least five (5) years readily made available to the Department or its representatives upon request. [N.J.A.C. 7:27- 8] | Other (provide description): As per the approved schedule : Refer to attached "Perimeter Air Monitoring Plan" for further details on the reporting/notification and submittal action requirements. [N.J.A.C. 7:27- 8] |

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Facility Specific Requirements**

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|--|--|---|
| 18 | PCBs <= 8.52 ug/m ³ . [N.J.A.C. 7:27- 8] | PCBs: Monitored by other method (provide description) at the approved frequency : Twenty-four (24)-hour ambient air samples shall be collected at all monitoring stations on a continuous basis. Refer to the attached "Perimeter Air Monitoring Plan" for maintaining typical PCB operations levels and for the mplementation of required actions and concentration levels corresponding to residential and nonresidential exposure scenarios, including the locations of the ambient air monitoring stations. [N.J.A.C. 7:27- 8] | PCBs: Recordkeeping by manual logging of parameter or storing data in a computer data system each week during operation based on 24-hr ambient air sampling and monitoring with a required lab testing turn-around time of up to 48-72 hours. The permittee shall also record the date, time and locations of ambient air monitoring station(s) where PCB 24-hr laboratory test results were exceeded. All records shall be kept on-site or at the permittee's main office for at least five (5) years readily made available to the Department or its representatives upon request. [N.J.A.C. 7:27- 8] | Other (provide description): As per the approved schedule : Refer to attached "Perimeter Air Monitoring Plan" for further details on the reporting/notification and submittal action requirements. [N.J.A.C. 7:27- 8] |
| 19 | Dioxins/Furans (TEQ) <= 0.00004 ug/m ³ expressed as 2,3,7,8-tetrachlorodibenzo-p-dioxin TEQ). [N.J.A.C. 7:27- 8] | Dioxins/Furans (TEQ): Monitored by other method (provide description) at the approved frequency : Twenty-four (24)-hour ambient air samples shall be collected at all monitoring stations on a continuous basis. Refer to the attached "Perimeter Air Monitoring Plan" for maintaining typical dioxin/furan operations levels and for the mplementation of required actions and concentration levels, including the locations of the ambient air monitoring stations. [N.J.A.C. 7:27- 8] | Dioxins/Furans (TEQ): Recordkeeping by manual logging of parameter or storing data in a computer data system each week during operation based on 24-hr ambient air sampling and monitoring with a required lab testing turn-around time of up to 48-72 hours. The permittee shall also record the date, time and locations of ambient air monitoring station(s) where dioxin/furan 24-hr laboratory test results were exceeded. All records shall be kept on-site or at the permittee's main office for at least five (5) years readily made available to the Department or its representatives upon request. [N.J.A.C. 7:27- 8] | Other (provide description): As per the approved schedule : Refer to attached "Perimeter Air Monitoring Plan" for further details on the reporting/notification and submittal action requirements. [N.J.A.C. 7:27- 8] |
| 20 | VOC (Total) <= 1.83 lb/hr at PW1 area. [N.J.A.C. 7:27- 8] | VOC (Total): Monitored by calculations once initially based on maximum concentrations of total organic compounds in dredge sediment while it's carried through the dredge sediment and debris loading barge, grizzly and trommel screens and slurry makeup tank located in PW1 area, after implementation of air emissions controls and best management practices. [N.J.A.C. 7:27- 8] | VOC (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. All records shall be maintained on-site or at the permittee's main office for at least five (5) years, readily made available to the Department or its representatives upon request. [N.J.A.C. 7:27- 8] | None. |

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| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|---|---|--|
| 21 | VOC (Total) <= 3.31 lb/hr at UPF. [N.J.A.C. 7:27- 8] | VOC (Total): Monitored by calculations once initially based on maximum concentrations of VOC (total) in dredge sediment while it's carried through the shaker slurry screen tank, hydrocyclone, desanded slurry tank, gravity thickener, sludge storage tanks and sludge dewatering equipment before it's loaded into containers located in UPF, after implementation of air emissions controls and best management practices. [N.J.A.C. 7:27- 8] | VOC (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. All records shall be maintained on-site or at the permittee's main office for at least five (5) years, readily made available to the Department or its representatives upon request. [N.J.A.C. 7:27- 8] | None. |
| 22 | Odor <= 5 D/T at nearest receptor as determined according to ASTM E679-91 or ASTM E679-04 as referenced in the NJDEP Technical Manual 3001 entitled "Guidance Document for Odor Control at Municipal Wastewater/Sludge Handling & Treatment Facilities, or as supplemented or amended thereafter. [N.J.A.C. 7:27- 8.4(f)] | Odor: Monitored by odor threshold monitoring upon request of the Department, based on the averaging period as per Department approved test method. Odor threshold monitoring may be required upon request by the Department, based on citizen odor complaints verified by the Department or Department delegated agency, or observations of the Department or Department delegated agency. The odor threshold monitoring shall then be performed at the locations or areas designated by the Department, under typical dredging operating conditions corresponding to maximum equipment loading or throughputs. [N.J.A.C. 7:27- 8.13(d)1] | Odor: Recordkeeping by odor panel results upon request of the Department. All odor monitoring threshold records shall be kept on-site or at the permittee's main office for at least five (5) years, readily made available to the Department or its representatives upon request. [N.J.A.C. 7:27- 8.13(d)3] | Submit a report: Within 15 calendar days from detection based on citizen odor complaints verified by the USEPA Region 2 field office, the NJDEP Northern Regional Enforcement Office (NREO) and the NJDEP Site Remediation Program or their observations or delegated agencies. At that time, the permittee may be required to submit an odor modeling protocol with associated odor monitoring technologies and odor panel results to the USEPA Region 2 field office, the NJDEP Northern Regional Enforcement Office (NREO) or the NJDEP Site Remediation Program, for review, within fifteen (15) days from sampling. The odor sampling and analytical methodologies, including any odor monitoring devices, parameters and odor test methods to be used may be required to be submitted to the NJDEP, Bureau of Technical Services (B.T.S) for review and shall be approved by BTS prior to conducting odor sampling. [N.J.A.C. 7:27- 8.4(d)4] |

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| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|---|--|---|---|
| 23 | The operation of the process equipment specified in this permit shall not cause any air contaminant, including an air contaminant detectable by the sense of smell, to be present in the outdoor atmosphere in such quantity and duration which is, or tends to be, injurious to human health or welfare, animal or plant life or property, or would unreasonably interfere with the enjoyment of life or property, except in areas over which the owner or operator has exclusive use or occupancy. [N.J.A.C. 7:27- 5] | None. | None. | Notify by phone: Upon occurrence of event : Any operation of the process equipment which may cause a release of air contaminant in a quantity or concentration which poses a potential threat to the public health, welfare, or the environment or which might reasonably result in citizen complaints shall be reported by the permittee as required by the Air Pollution Control Act. The permittee shall notify the USEPA Region 2 field office at (212) 637-4396 or on-scene coordinator at (908) 420-4472 of any release immediately. [N.J.S.A. 26:2C-19(e)] |
| 24 | There shall be no dredge sediment stored in stockpiles. Dredge sediment shall only be stored in loading containers or in covered storage tanks anywhere at the facility, at any time. [N.J.A.C. 7:27- 8] | Monitored by visual determination upon occurrence of event, based on an instantaneous determination. [N.J.A.C. 7:27- 8] | None. | None. |
| 25 | Sulfur Content in Fuel \leq 0.0015 % by weight corresponding to Ultra Low Sulfur Diesel (ULSD) or containing less than or equal to 15 ppmw Sulfur in diesel fuel. [N.J.A.C. 7:27- 8] | Sulfur Content in Fuel: Monitored by other method (provide description) upon occurrence of event, based on the averaging period as per Department approved test method. For each liquid fuel delivery received, the Permittee shall review written documentation of the delivery to ensure the maximum allowable liquid fuel sulfur content is not being exceeded. Such written documentation can include, but is not limited to: i) Bill of Lading, ii) Delivery Invoice, and iii) Certificate of Analysis. [N.J.A.C. 7:27- 8] | Sulfur Content in Fuel: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially and per change of material. The Permittee shall keep records of diesel fuel sulfur content. Records for the current site shall be maintained on-site. All other records may be maintained at the Permittee's main offices. All records must be maintained for at least five (5) years, and be readily available to the Department or its representatives upon request. [N.J.A.C. 7:27- 8] | None. |
| 26 | The diesel fuel fired in each engine must also meet one of the following: i) Cetane index of 40 or higher OR ii) Aromatic content of 35%v or less [40 CFR 80.510]. [N.J.A.C. 7:27- 8] | None. | None. | None. |

PCP100001

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|-------|--|---|---------------------------|--|
| 27 | No person shall cause, suffer, allow or permit smoke the shade or appearance of which is darker than number 1 on the Ringelmann smoke chart or greater than 20 percent opacity, exclusive of visible condensed water vapor, to be emitted into the outdoor air from the combustion of fuel in any of the electric generating engines onsite for a period of more than 10 consecutive seconds. [N.J.A.C. 7:27- 3] | Monitored by visual determination daily, based on an instantaneous determination during operation. [N.J.A.C. 7:27- 8] | None. | Notify by phone: Upon occurrence of event , over the allowable amount. The Permittee shall immediately take corrective measures to prevent any visible emissions. If these measures fail, the Permittee shall notify the USEPA Region 2 field office [PLEASE PROVIDE PHONE NO.] of any visible emissions immediately. [N.J.A.C. 7:27- 8.13(d)4] |
| 28 | All stationary and non-road or portable engines including electric generating units shall meet 40 CFR Parts 9, 69, et al. "Control of Emissions of Air Pollution From Nonroad Diesel Engines and Fuel; Final Rule" (June 29, 2004 FR) or 40 CFR Parts 60, 85 et al. or Subpart IIII Standards of Performance for Stationary Compression Ignition Internal Combustion Engines; Final Rule" (June 11, 2006), whichever is applicable. [N.J.A.C. 7:27- 8] | None. | None. | None. |
| 29 | The permittee shall notify the NJDEP, Northern Regional Enforcement Office in writing within thirty (30) days of the completion of the dredge processing activities. [N.J.A.C. 7:27- 8] | None. | None. | Submit a report: As per the approved schedule : Upon request by the Department, the permittee shall submit a report to the USEPA Region 2 field office, the NJDEP Northern Regional Enforcement Office (NREO) and/or the NJDEP Site Remediation Program upon request, that includes the following: 1. Total amount of dredge sediment (wet basis) processed since start up; 2. Total amount of dredge sediment filter cake produced since start up; 3. Air laboratory sampling, testing & monitoring results. 4. Total hours and days of dredge sediment processing activities. [N.J.A.C. 7:27- 8] |

**New Jersey Department of Environmental Protection
Reason for Application**

Permit Being Modified

Permit Class: **Number:** 0

Description of Modifications: Tierra Solutions, Inc. (Tierra) is submitting this document for the air emission sources related to the Phase I Removal Action, CERCLA Non-Time-Critical Removal Action, Lower Passaic River Study Area. The Phase I Removal Action will be conducted under the Comprehensive, Response, Compensation, and Liability Act (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan as a Non-Time-Critical Removal Action. On June 23, 2008, the United States Environmental Protection Agency (USEPA) entered into an AOC with Occidental Chemical Corporation and Tierra Solutions, Inc. for the removal and disposal of approximately 40,000 cubic yards of contaminated material from within the Passaic River located adjacent to Operable Unit 1 of the Diamond Alkali Superfund Site, 80 and 120 Lister Avenue, Newark, New Jersey. In November 2008 Tierra submitted the Phase I Engineering Evaluation/Cost Analysis (Phase I EE/CA) to USEPA. The Phase I EE/CCA established Removal Action Objectives (RAOs) for the Phase I Removal Action which include:

- * RAO #1: Remove a portion of the most concentrated inventory of 2,3,7,8-tetrachlorodibenzo-p-dioxin, as well as other hazardous substances, to minimize the possibility of migration due to extreme weather events.
- * RAO #2: Prevent, to the extent practicable, the migration of re-suspended sediment during removal operations.
- * RAO #3: Prevent, to the extent practicable, the potential for spillage or leakage of sediment and contaminants during transport to the disposal facility.
- * RAO #4: Restore habitat.

New Jersey Department of Environmental Protection
Facility Profile (General)

Facility Name (AIMS): LPR Phase 1 Removal Action Site

Facility ID (AIMS): 08773

Street STATE-OWNED PROPERTY (PASSAIC
Address: RIVER)
ADJACENT TO 120 LISTER AVE
NEWARK, NJ 07105

Mailing TIERRA SOLUTIONS INC
Address: II TOWER CTR BLVD 10TH FLR
EAST BRUNSWICK, NJ 08816

County: Essex

Location
Description:

| |
|---|
| State Plane Coordinates: X-Coordinate: Y-Coordinate: Units: Datum: Source Org.: Source Type: |
|---|

| |
|---|
| Industry: Primary SIC: Secondary SIC: NAICS: |
|---|

**New Jersey Department of Environmental Protection
Facility Profile (General)**

Contact Type: BAQE - Engineering

Organization: N.J. Department of Environmental Protection

Org. Type: State

Name: Negib Harfouche, Ph.D.

NJ EIN:

Title: Environmental Engineer3

Phone: (609) 292-2137 x

Mailing Address: Bureau of Air Permits (DAQ)
401 East State Street-2nd Floor
Mailcode: 401-02-P.O.Box 420
Trenton, NJ 08625-0420

Fax: (609) 984-6369 x

Other: () - x

Type:

Email: nharfouc@dep.state.nj.us

Contact Type: General Contact

Organization: Tierra Solutions, Inc.

Org. Type: Corporation

Name: Paul J. Bluestein, P.E.

NJ EIN:

Title: Project Coordinator

Phone: (732) 246-3091 x

Mailing Address: II Tower Center Boulevard
10th Floor
East Brunswick, NJ 08816

Fax: () - x

Other: (732) 312-7547 x

Type: Mobile

Email: pjbluestein@tierra-inc.com

Contact Type: Responsible Official

Organization: Tierra Solutions, Inc.

Org. Type: Corporation

Name: Paul J. Bluestein, P.E.

NJ EIN:

Title: Project Coordinator

Phone: (732) 246-3091 x

Mailing Address: II Tower Center Boulevard
10th Floor
East Brunswick, NJ 08816

Fax: () - x

Other: (732) 312-7547 x

Type: Mobile

Email: pjbluestein@tierra-inc.com

**New Jersey Department of Environmental Protection
Equipment Inventory**

| Equip. NJID | Facility's Designation | Equipment Description | Equipment Type | Certificate Number | Install Date | Grand-Fathered | Last Mod. (Since 1968) | Equip. Set ID |
|--------------------|-------------------------------|---|--|---------------------------|---------------------|-----------------------|-------------------------------|----------------------|
| E1 | SlurryMakeUp | Slurry Make-Up Tank | Manufacturing and Materials Handling Equipment | | | No | | |
| E2 | SepScreen | Size Separation Screen | Manufacturing and Materials Handling Equipment | | | No | | |
| E3 | CoarseSolid1 | Coarse Solids Container | Storage Vessel | | | No | | |
| E5 | CoarseConv1 | Coarse Solids Conveyor | Manufacturing and Materials Handling Equipment | | | No | | |
| E7 | FilterConv | Filter Cake Conveyor | Manufacturing and Materials Handling Equipment | | | No | | |
| E8 | FilterCont | Filter Cake Container | Storage Vessel | | | No | | |
| E9 | GravityThick | Gravity Thickener | Manufacturing and Materials Handling Equipment | | | No | | |
| E10 | SludgeTank1 | Sludge Storage Tank 1 | Storage Vessel | | | No | | |
| E11 | SludgeTank2 | Sludge Storage Tank 2 | Storage Vessel | | | No | | |
| E12 | SludgeTank3 | Sludge Storage Tank 3 | Storage Vessel | | | No | | |
| E13 | ShakerSlurry | Shaker Screen Slurry Tank | Storage Vessel | | | No | | |
| E14 | DeSandTank | De-sanded Slurry Tank | Storage Vessel | | | No | | |
| E15 | Phase1Engine | Engine at Phase 1 Work Area | Stationary Reciprocating Engine | | | No | | |
| E16 | UPFEngine1 | Engine 1 at Upland Processing Facility - 500 kW | Stationary Reciprocating Engine | | | No | | |

PCP100001

**New Jersey Department of Environmental Protection
Equipment Inventory**

| Equip. NJID | Facility's Designation | Equipment Description | Equipment Type | Certificate Number | Install Date | Grand-Fathered | Last Mod. (Since 1968) | Equip. Set ID |
|--------------------|-------------------------------|---|---------------------------------|---------------------------|---------------------|-----------------------|-------------------------------|----------------------|
| E17 | UPFEngine2 | Engine 2 at Upland Processing Facility - 500 kW | Stationary Reciprocating Engine | | | No | | |
| E18 | UPFEngine3 | Engine 3 at Upland Processing Facility - 500 kW | Stationary Reciprocating Engine | | | No | | |
| E19 | UPFEngine4 | Engine 4 at Upland Processing Facility - 800 kW | Stationary Reciprocating Engine | | | No | | |

New Jersey Department of Environmental Protection
Emission Points Inventory

| PT NJID | Facility's Designation | Description | Config. | Equiv. Diam. (in.) | Height (ft.) | Dist. to Prop. Line (ft) | Exhaust Temp. (deg. F) | | | Exhaust Vol. (acfm) | | | Discharge Direction | PT Set ID |
|---------|------------------------|---|---------|--------------------|--------------|--------------------------|------------------------|------|---------|---------------------|------|---------|---------------------|-----------|
| | | | | | | | Avg. | Min. | Max. | Avg. | Min. | Max. | | |
| PT1 | SlurryMakeUp | Slurry Make-Up Tank | Surface | 236 | 5 | 165 | 70.0 | 0.0 | 100.0 | 5.0 | 0.0 | 10.0 | Up | |
| PT2 | SepScreen | Size Separation Screen | Surface | 74 | 10 | 540 | 70.0 | 0.0 | 100.0 | 5.0 | 0.0 | 10.0 | Up | |
| PT3 | CoarseSolid1 | Coarse Solids Container 1 | Surface | 243 | 7 | 540 | 70.0 | 0.0 | 100.0 | 5.0 | 0.0 | 10.0 | Up | |
| PT4 | CoarseSolid2 | Coarse Solids Container 2 | Surface | 243 | 7 | 540 | 70.0 | 0.0 | 100.0 | 5.0 | 0.0 | 10.0 | Up | |
| PT5 | CoarseConv1 | Coarse Solids Conveyor 1 | Surface | 88 | 4 | 540 | 70.0 | 0.0 | 100.0 | 5.0 | 0.0 | 10.0 | Up | |
| PT6 | CoarseConv2 | Coarse Solids Conveyor 2 | Surface | 88 | 4 | 540 | 70.0 | 0.0 | 100.0 | 5.0 | 0.0 | 10.0 | Up | |
| PT7 | FilterConv | Filter Cake Conveyor | Surface | 198 | 4 | 540 | 70.0 | 0.0 | 100.0 | 5.0 | 0.0 | 10.0 | Up | |
| PT8 | FilterCont | Filter Cake Container | Surface | 172 | 7 | 540 | 70.0 | 0.0 | 100.0 | 5.0 | 0.0 | 10.0 | Up | |
| PT9 | GravityThick | Gravity Thickener | Surface | 710 | 10 | 540 | 70.0 | 0.0 | 100.0 | 5.0 | 0.0 | 10.0 | Up | |
| PT10 | SludgeTank1 | Sludge Storage Tank 1 | Surface | 314 | 26 | 540 | 70.0 | 0.0 | 100.0 | 5.0 | 0.0 | 10.0 | Up | |
| PT11 | SludgeTank2 | Sludge Storage Tank 2 | Surface | 314 | 26 | 540 | 70.0 | 0.0 | 100.0 | 5.0 | 0.0 | 10.0 | Up | |
| PT12 | SludgeTank3 | Sludge Storage Tank 3 | Surface | 314 | 26 | 540 | 70.0 | 0.0 | 100.0 | 5.0 | 0.0 | 10.0 | Up | |
| PT13 | ShakerSlurry | Shaker Screen Slurry Tank | Surface | 166 | 8 | 540 | 70.0 | 0.0 | 100.0 | 5.0 | 0.0 | 10.0 | Up | |
| PT14 | DeSandTank | De-sanded Slurry Tank | Surface | 166 | 8 | 540 | 70.0 | 0.0 | 100.0 | 5.0 | 0.0 | 10.0 | Up | |
| PT15 | Phase1Engine | Engine at Phase 1 Work Area (engine model TBD, information based upon manuf. spec sheet for same size unit) | Round | 8 | 8 | 165 | 955.0 | 0.0 | 1,000.0 | 7,500.0 | 0.0 | 8,000.0 | Up | |
| PT16 | UPPEngine1 | Engine 1 at UPF - 500 kW (engine model TBD, information based upon manuf. spec sheet for same size unit) | Round | 8 | 8 | 540 | 935.0 | 0.0 | 1,000.0 | 4,300.0 | 0.0 | 5,000.0 | Up | |

New Jersey Department of Environmental Protection
 Emission Points Inventory

| PT NJID | Facility's Designation | Description | Config. | Equiv. Diam. (in.) | Height (ft.) | Dist. to Prop. Line (ft) | Exhaust Temp. (deg. F) | | | Exhaust Vol. (acfm) | | | Discharge Direction | PT Set ID |
|---------|------------------------|--|---------|--------------------|--------------|--------------------------|------------------------|------|---------|---------------------|------|---------|---------------------|-----------|
| | | | | | | | Avg. | Min. | Max. | Avg. | Min. | Max. | | |
| PT17 | UPFEngine2 | Engine 2 at UPF - 500 kW (engine model TBD, information based upon manuf. spec sheet for same size unit) | Round | 8 | 8 | 540 | 935.0 | 0.0 | 1,000.0 | 4,300.0 | 0.0 | 5,000.0 | Up | |
| PT18 | UPFEngine3 | Engine 3 at UPF - 500 kW (engine model TBD, information based upon manuf. spec sheet for same size unit) | Round | 8 | 8 | 540 | 935.0 | 0.0 | 1,000.0 | 4,300.0 | 0.0 | 5,000.0 | Up | |
| PT19 | UPFEngine4 | Engine 4 at UPF - 800 kW (engine model TBD, information based upon manuf. spec sheet for same size unit) | Round | 8 | 8 | 540 | 955.0 | 0.0 | 1,000.0 | 7,500.0 | 0.0 | 8,000.0 | Up | |

**LPR PHASE 1 REMOVAL ACTION SITE (08773)
PCP100001**

Date: 3/16/2012

**New Jersey Department of Environmental Protection
Emission Unit/Batch Process Inventory**

U 1 SedimentProc Sediment Processing Operations

| UOS NJID | Facility's Designation | UOS Description | Operation Type | Signif. Equip. | Control Device(s) | Emission Point(s) | SCC(s) | Annual Oper. Hours | | VOC Range | Flow (acfm) | | Temp. (deg F) | |
|-------------|---------------------------|---|--------------------------|-------------------|----------------------|----------------------|--------|-----------------------|---------|--------------|----------------|---------|------------------|---------|
| | | | | | | | | Min. | Max. | | Min. | Max. | Min. | Max. |
| OS1 | SlurryMakeUp | Slurry Make-Up Tank | Normal - Steady State | E1 | | PT1 | | 0.0 | 960.0 | B | 0.0 | 10.0 | 0.0 | 100.0 |
| OS2 | SepScreen | Size Separation Screen | Normal - Steady State | E2 | | PT2 | | 0.0 | 960.0 | B | 0.0 | 10.0 | 0.0 | 100.0 |
| OS3 | CoarseSolid1 | Coarse Solids Container 1 | Normal - Steady State | E3 | | PT3 | | 0.0 | 960.0 | | 0.0 | 10.0 | 0.0 | 100.0 |
| OS5 | CoarseConv1 | Coarse Solids Conveyor 1 | Normal - Steady State | E5 | | PT5 | | 0.0 | 800.0 | A | 0.0 | 10.0 | 0.0 | 100.0 |
| OS7 | FilterConv | Filter Cake Conveyor | Normal - Steady State | E7 | | PT7 | | 0.0 | 800.0 | B | 0.0 | 10.0 | 0.0 | 100.0 |
| OS8 | FilterCont | Filter Cake Container | Normal - Steady State | E8 | | PT8 | | 0.0 | 1,920.0 | | 0.0 | 10.0 | 0.0 | 100.0 |
| OS9 | GravityThick | Gravity Thickener | Normal - Steady State | E9 | | PT9 | | 0.0 | 1,920.0 | B | 0.0 | 10.0 | 0.0 | 100.0 |
| OS10 | SludgeTank1 | Sludge Storage Tank 1 | Normal - Steady State | E10 | | PT10 | | 0.0 | 1,920.0 | | 0.0 | 10.0 | 0.0 | 100.0 |
| OS11 | SludgeTank2 | Sludge Storage Tank 2 | Normal - Steady State | E11 | | PT11 | | 0.0 | 1,920.0 | | 0.0 | 10.0 | 0.0 | 100.0 |
| OS12 | SludgeTank3 | Sludge Storage Tank 3 | Normal - Steady State | E12 | | PT12 | | 0.0 | 1,920.0 | | 0.0 | 10.0 | 0.0 | 100.0 |
| OS13 | ShakerSlurry | Shaker Screen Slurry Tank | Normal - Steady State | E13 | | PT13 | | 0.0 | 960.0 | | 0.0 | 10.0 | 0.0 | 100.0 |
| OS14 | DeSandTank | De-sanded Slurry Tank | Normal - Steady State | E14 | | PT14 | | 0.0 | 960.0 | | 0.0 | 10.0 | 0.0 | 100.0 |
| OS15 | Phase1Engine | Engine at Phase 1 Work Area | Normal - Steady State | E15 | | PT15 | | 0.0 | 720.0 | | 0.0 | 8,000.0 | 0.0 | 1,000.0 |
| OS16 | UPFEngine1 | Engine 1 at Upland Processing Facility - 500 kW | Normal - Steady State | E16 | | PT16 | | 0.0 | 1,440.0 | | 0.0 | 5,000.0 | 0.0 | 1,000.0 |
| OS17 | UPFEngine2 | Engine 2 at Upland Processing Facility - 500 kW | Normal - Steady State | E17 | | PT17 | | 0.0 | 1,440.0 | | 0.0 | 5,000.0 | 0.0 | 1,000.0 |

**LPR PHASE 1 REMOVAL ACTION SITE (08773)
PCP100001**

Date: 3/16/2012

**New Jersey Department of Environmental Protection
Emission Unit/Batch Process Inventory**

U 1 SedimentProc Sediment Processing Operations

| UOS NJID | Facility's Designation | UOS Description | Operation Type | Signif. Equip. | Control Device(s) | Emission Point(s) | SCC(s) | Annual Oper. Hours | | VOC Range | Flow (acfm) | | Temp. (deg F) | |
|----------|------------------------|---|-----------------------|----------------|-------------------|-------------------|--------|--------------------|---------|-----------|-------------|---------|---------------|---------|
| | | | | | | | | Min. | Max. | | Min. | Max. | Min. | Max. |
| OS18 | UPFEngine3 | Engine 3 at Upland Processing Facility - 500 kW | Normal - Steady State | E18 | | PT18 | | 0.0 | 1,440.0 | | 0.0 | 5,000.0 | 0.0 | 1,000.0 |
| OS19 | UPFEngine4 | Engine 4 at Upland Processing Facility - 800 kW | Normal - Steady State | E19 | | PT19 | | 0.0 | 1,440.0 | | 0.0 | 8,000.0 | 0.0 | 1,000.0 |

Perimeter Air Monitoring Program for the Passaic River Phase I Removal Action

Purpose:

To develop an air monitoring program that protects the populace living and working on a permanent basis external to the perimeter of the proposed project from adverse health effects due to inhalation of project associated contaminants.

Conceptual Approach:

Health based Alert Levels for the designated receptors (residential and nonresidential exposure scenarios) will be established for the contaminants of concern. Because of the non-chronic duration of the project, the preferential choice will be the inhalation reference concentration (RfC). An inhalation unit risk value (URI) will be employed only when an RfC is not available. The URI, a chronic carcinogenic based value, will be adjusted for the non-chronic duration and the appropriate exposure scenario.

A conceptual site model will be employed to aid in designing the monitoring program as well as to help evaluate the collected data. Analysis of expected levels using current standardized air models will be one aspect of this. Measurement of the actual concentrations of the selected contaminants of concern via standard certified laboratory analytical methods will verify the conceptual site model and more importantly document the actual conditions at the chosen receptor locations. Measurements will initially be done continuously, but may be modified based on the results observed.

The goal is to select analytical methods which can achieve detection of the established health based values. Alternatively, practical quantitation limits (PQL) may need to be employed if this can not be accomplished. Another goal is the establishment of responses or corrective actions when critical values and conditions are exceeded. In making the determination that an exceedance of an Alert Level has occurred background and/or upwind conditions will also be considered. Modifications of the proposed corrective actions are also subject to approval by the US Environmental Protection Agency (USEPA)/New Jersey Department of Environmental Protection (Department).

Odor will be the initial basis to address non-discharge compounds such as hydrogen sulfide. Because the perimeter air monitoring is focused on health based values and after discussions with the USEPA, The Agency for Toxic Substances and Disease Registry (ATSDR) minimal risk level (MRL) for hydrogen sulfide will be employed as a basis for corrective action once an odor complaint is received.

It is expected that best management practices will be employed. Preventing visible dust emissions will allow the deletion of particulate monitoring (PM10 or PM2.5). Note the expectation that the material will be wet or damp which would then decrease the potential for particle dispersion is also part of this decision. Taking maximum operational

advantage of wind directions away from receptors will aid in reducing receptor exposures. Consideration of the effect that wind speed has and adjusting properly is another best management practice. Finally, consideration of the contaminant levels being processed needs to be done. Handling of highly concentrated material may require reducing the rate of sediment processing or other steps that result in a reduction of emissions until data are obtained that justify a return to higher processing rates.

This conceptual approach provided is site-specific for the Passaic River Phase 1 Removal Action. The approach described embodies the Department's current thinking on perimeter air monitoring, but the Department reserves the right to modify in the future the approach to reflect different conditions and priorities as well as new experiences and knowledge.

Contaminants of Concern to be Monitored:

The following Contaminants of Concern will be monitored: Dioxins/Furans (expressed as 2,3,7,8-tetrachlorodibenzo-p-dioxin TEQ), Total PCBs, Chlorobenzene, and DDT.

These contaminants will serve as indicators for all other discharged contaminants present. If data are obtained that justify it, the contaminant suite may be either increased or decreased with prior approval of the oversight agencies.

While not a discharged contaminant, hydrogen sulfide may become an issue due to the removal and processing of the contaminated sediments. As such, measurement of hydrogen sulfide may be added to the monitoring program, if necessary.

Sampling Requirements:

Establish an onsite weather station to collect, at a minimum, continuous information on air temperature, wind speed, wind direction, barometric pressure, and precipitation for all days of operation. This information is to be electronically logged on a continuous basis.

The two locations that are the focus of the monitoring are the Phase 1 Area (P1A) and the Upland Processing Facility (UPF).

Prior to initiating dredging work, establish background conditions by setting up and operating the designated monitoring stations to collect samples for laboratory analysis for the primary contaminants of concern listed above. The weather data concurrent with this sampling is to be collected as well. The suggested duration is two 24 hour periods without precipitation or atypical winds.

Samples for laboratory analysis of the primary contaminants of concern are to be collected at each monitoring station. The sampling is to be continuous for all days of operation unless otherwise approved by the USEPA/Department. The frequency of

measurement will be reviewed on a weekly basis to determine, after consultation with the USEPA and the Department, if changes are warranted.

It is recognized that contaminant distribution is variable. When processing higher contaminant concentrations for the first time, rigorous sampling is to be employed to ensure the public health is protected and to establish an expectation of contaminant emissions for future work.

Analysis Requirements:

In accordance with SOP No.6 Ambient Air Sampling, July 2011, of the Phase I Removal Action RAWP, samples for laboratory analysis shall be collected using the following methods:

Dioxins/Furans – USEPA T0-9A
PCBs/Pesticides. – USEPA T0-4A
Chlorobenzene – USEPA T0-15

Collect 24-hour samples for the above analyses on a daily basis from each monitoring station.

Initially, until a data base is established, laboratory analysis is to be done on an expedited basis, a turn-around time of 48 - 72 hours is required. Once a sufficient baseline and/or knowledge of emissions have been established, the USEPA/ Department may exercise the option to relax the laboratory analytical turn-around time. If the measured results merit it, increased turn-around time and reduced frequency should be considered assuming the emissions are expected to be relatively unchanged as a result of similar contaminant levels being encountered and similar work practices being in place. One exception is if sediments having higher contaminant concentrations are being dredged and/or processed for the first time. In those cases, it will be prudent to have the results sooner to properly assess the impact while minimizing the exposure to the receptors beyond the perimeter.

If hydrogen sulfide becomes an issue, the Jerome 631-XE, a portable meter capable of detecting down to approximately 4 micrograms of hydrogen sulfide per cubic meter, is recommended to collect data. While not a laboratory certified method, this instrument will provide real time response and flexibility in use.

Monitoring Stations:

The intent is to establish, at both the P1A and UPF and to the extent feasible, a network of monitoring stations oriented in all directions with the aim of protecting the nearest receptors.

Analysis of wind rose data indicates that winds from the west are expected to predominate, but the direction does vary. Aerial photographic analysis indicates residential sites are of limited distribution in the vicinity; are largely cross wind to the prevailing winds; and are relatively distant from the P1A and UPF. This reduces the number of residential receptors that need to be monitored. Nevertheless, a selection of the nearest residential receptors will be monitored to document that human health has been protected.

A major complication to the perimeter air monitoring is the presence of nonresidential sites immediately outside the fence line. In fact, a facility (Benjamin Moore) is believed to be operational and is directly between both the P1A and UPF. The proximity of these facilities minimizes the attenuation of the contaminants that would result from dilution over distance and means that the nonresidential health based values will be largely applied at the borders of the P1A and UPF.

The initial selection of monitoring stations is indicated in Figure 1. There are 7 nonresidential (or fence line) stations (yellow triangle), 2 residential stations (blue star), and 4 potential residential stations (magenta circle) that could be used if the primary residential stations are not available for sampling. The residential stations were selected to provide directional coverage as well as proximity. The selection of the nonresidential sites is more complicated. The concerns include:

1. Protect/document the nearest nonresidential receptors
2. Provide upwind and downwind orientations for a number of wind directions.
3. Be able to assess any discharge of the contaminant suite of interest for this project emanating from the Benjamin Moore facility which is located between the P1A and UPF.
4. Minimize information gathering to the north because there are no nearby receptors present

Preliminary analysis suggests dioxin will be the primary concern. If the observed data confirms this and the levels are below levels of concern, reduction or elimination of the testing of other contaminants may be possible. However, this assumes these data are not needed for the interpretation of other data.

Reporting Requirements:

Daily records are to be kept in an onsite air monitoring log and are to be available for inspection. Weekly summaries of the ambient air monitoring results are to be prepared and submitted to USEPA and Department in a timely manner. Exceedance of an Alert Level requires notification of the Project Manager at both the USEPA and the Department as per the Contingency Action section of this document. For other specific requirements, beyond reporting, the Corrective Action Tables in the Contingency Action section describes these as well

Health Based Values for Contaminants of Concern and Alert Levels:

Chlorobenzene: The RfC of 1,000 micrograms per cubic meter (ug/m³) used by the Technology Transfer Network Air Toxic Website (4/27/2010); the Division of Air Quality RfC List; and the California Office of Environmental Health Hazard Assessment.

DDT: The residential exposure scenario value of 2.93 ug/m³ calculated for a 90 day period using the inhalation unit risk established by the Integrated Risk Information System (IRIS) of 9.7 E-05 per ug/m³ since there was no RfC data available. The comparable nonresidential exposure scenario value would be 8.78 ug/m³.

Dioxin: The RfC of 4.0 E-05 ug/m³ established by the California Office of Environmental Health Hazard Assessment.

PCB: The residential exposure scenario value of 2.84 ug/m³ calculated for a 90 day period using the inhalation unit risk established by the Technology Transfer Network Air Toxics Website (4/27/2010) of 1.0 E-04 per ug/m³ since there was no RfC data available. The comparable nonresidential exposure scenario value would be 8.52 ug/m³.

Because of the proximity of nonresidential receptors offsite to the P1A and UPF, the nonresidential PCBs and DDT values will apply to all monitoring stations close to the P1A and the UPF. For PCBs and DDT, corresponding residential exposure scenario values will apply at the monitoring stations at the residential sites. RfCs for the other discharged contaminants will apply to both the nonresidential and residential monitoring stations. The RfC will not be modified to reflect a nonresidential exposure scenario.

Hydrogen Sulfide : The ATSDR MRL of 28 ug/m³ for intermediate duration exposure to hydrogen sulfide will be employed, if needed, to address an initial odor complaint at any location irrespective of exposure scenario. The basis of the ATSDR MRL is compatible with the expected exposure resulting from the proposed work. In addition, the ATSDR MRLs are accepted and well established values. This particular MRL falls within the central range of the other potential hydrogen sulfide criteria.

Contingency Actions: (describe process/steps to rectify the exceedance situation)

Evaluation of all laboratory results for contaminant concerns is to be done on a daily basis. Consideration of prevailing weather conditions is to be incorporated into this evaluation. Adjustments for background levels from the baseline study or the upwind condition are also part of this analysis. The relevant upwind or background concentrations may be deducted from the observed reading at a downwind monitoring station. If this corrected amount is greater than the appropriate Alert Level it is categorized an exceedance of the Alert Level. Any new or additional actions taken to reduce emissions because of requirements triggered by the corrected concentration are to be documented as well.

Tables of specific corrective actions for each contaminant follow. Note that a table has also been included for hydrogen sulfide in the event it becomes problematic:

Corrective Action for Dioxin for All Types of Monitoring Stations

| Action Level | Concentration Levels | Required Action | Reporting/Notification |
|--------------------------|---|---|---|
| Typical Operations Level | <p>24 hr Dioxin less than or equal to 80% of the Alert Level after subtracting out upwind or background levels</p> <ul style="list-style-type: none"> Less or equal to than $3.2 \times 10^{-5} \mu\text{g}/\text{m}^3$ for 24 hr samples | <ul style="list-style-type: none"> Continue with existing controls Monitoring with 48-72 hr laboratory turn-around | <ul style="list-style-type: none"> Weekly reporting of monitoring data to USEPA/Department |
| Concern Level | <p>24 hr Dioxin within 20% of the Alert Level, after subtracting out upwind or background levels</p> <ul style="list-style-type: none"> Greater than $3.2 \times 10^{-5} \mu\text{g}/\text{m}^3$ and less than or equal to $4.0 \times 10^{-5} \mu\text{g}/\text{m}^3$ for 24 hr samples | <ul style="list-style-type: none"> Identify cause of increased emissions Implement monitoring to confirm upwind or background levels Implement mitigation as in the air controls contingency plan | <ul style="list-style-type: none"> Notify USEPA/Department within 24 hrs of receipt of analytical results Weekly report to describe corrective actions |
| Exceedance Level | <p>24 hr Dioxin exceed Alert Level, after subtracting out upwind or background levels</p> <ul style="list-style-type: none"> Greater than $4.0 \times 10^{-5} \mu\text{g}/\text{m}^3$ for 24 hr samples | <ul style="list-style-type: none"> Identify cause of exceedance Establish additional monitoring stations, as needed, including upwind or background, to evaluate the cause of increased emissions Develop action plan and implement additional mitigation Continue monitoring to confirm compliance with standard | <ul style="list-style-type: none"> Notify USEPA/Department immediately Provide daily monitoring reports Within 3 days of discovery of exceedance, provide corrective action report describing causes of exceedance and mitigation implemented. |

| | | | |
|-----------------|---|--|---|
| Stop Work Level | <p>24 hr Dioxin exceed Alert Level, after subtracting out upwind or background levels and averaging for the entire weekly working period</p> <ul style="list-style-type: none"> Average is greater than $4.0 \times 10^{-5} \mu\text{g}/\text{m}^3$ for 24 hr samples for 6 days or all the available data for that weekly working period | <ul style="list-style-type: none"> Cease operations Develop action plan and additional mitigation Obtain USEPA and Department approval prior to restarting operations | <ul style="list-style-type: none"> Notify USEPA/Department immediately |
|-----------------|---|--|---|

Corrective Action Levels for PCBs

| Action Level | Concentration Levels | Required Action | Reporting/Notification |
|--------------------------|--|--|--|
| Typical Operations Level | <p>24 hr PCBs less than or equal to 80% of the Alert Level after subtracting out upwind or background levels</p> <ul style="list-style-type: none"> Residential Areas ($2.27 \mu\text{g}/\text{m}^3$ for 24 hr samples) Nonresidential Areas ($6.82 \mu\text{g}/\text{m}^3$ for 24 hr samples) | <ul style="list-style-type: none"> Continue with existing controls Monitoring with 48 – 72 hr laboratory turn-around | <ul style="list-style-type: none"> Weekly reporting of monitoring data to USEPA/Department |
| Concern Level | <p>24 hr PCBs within 20% of the Alert Level, after subtracting out upwind or background levels</p> <ul style="list-style-type: none"> Residential Areas (greater than $2.27 \mu\text{g}/\text{m}^3$ and equal to or less than $2.84 \mu\text{g}/\text{m}^3$ for 24 hr samples) Nonresidential Areas (greater than $6.82 \mu\text{g}/\text{m}^3$ and equal to or less than $8.52 \mu\text{g}/\text{m}^3$ for 24 hr samples) | <ul style="list-style-type: none"> Identify cause of increased emissions Implement monitoring to confirm upwind or background levels Implement mitigation as in the air controls contingency plan | <ul style="list-style-type: none"> Notify USEPA/Department within 24 hrs of receipt of analytical results Weekly report to describe corrective actions |
| Exceedance Level | <p>24 hr PCBs exceed Alert Level, after subtracting out background levels</p> <ul style="list-style-type: none"> Residential Areas (greater | <ul style="list-style-type: none"> Identify cause of exceedance Establish additional monitoring stations, as needed, including | <ul style="list-style-type: none"> Notify USEPA/Department immediately Provide daily monitoring reports |

| | | | |
|-----------------|---|--|--|
| | <p>than 2.84 $\mu\text{g}/\text{m}^3$ for 24 hr samples)</p> <ul style="list-style-type: none"> • Nonresidential Areas (greater than 8.52 $\mu\text{g}/\text{m}^3$ for 24 hr samples) | <p>upwind or background, to evaluate the cause of increased emissions</p> <ul style="list-style-type: none"> • Develop action plan and implement additional mitigation • Continue monitoring to confirm compliance with standard | <ul style="list-style-type: none"> • Within 3 days of discovery of exceedance, provide corrective action report describing causes of exceedance and mitigation implemented. |
| Stop Work Level | <p>24 hr PCBs exceed Alert Level, after subtracting out upwind or background levels and averaging for the entire weekly working period</p> <ul style="list-style-type: none"> • Average is greater than 2.84 $\mu\text{g}/\text{m}^3$ for 24 hr samples in residential areas for 6 days or all the available data for that weekly working period • Greater than 8.52 $\mu\text{g}/\text{m}^3$ for 24 hr samples in nonresidential areas for 6 days or all the available data for that weekly working period | <ul style="list-style-type: none"> • Cease operations • Develop action plan and additional mitigation • Obtain USEPA and Department approval prior to restarting operations | <ul style="list-style-type: none"> • Notify USEPA/Department immediately |

Corrective Action for DDT

| Action Level | Concentration Levels | Required Action | Reporting/Notification |
|--------------------------|---|--|---|
| Typical Operations Level | <p>24 hr DDT equal to or less than 80% of the Alert Level after subtracting out upwind or background levels</p> <ul style="list-style-type: none"> • Residential Areas (2.34 $\mu\text{g}/\text{m}^3$ for 24 hr samples) • Nonresidential Areas (7.02 $\mu\text{g}/\text{m}^3$ for 24 hr samples) | <ul style="list-style-type: none"> • Continue with existing controls • Monitoring with 48 - 72 hr laboratory turn-around | <ul style="list-style-type: none"> • Weekly reporting of monitoring data to USEPA/Department |
| Concern Level | <p>24 hr DDT within 20% of the Alert Level, after subtracting out upwind or background</p> | <ul style="list-style-type: none"> • Identify cause of increased emissions | <ul style="list-style-type: none"> • Notify USEPA/Department within 24 hrs of |

| | | | |
|------------------|--|---|---|
| | <p>levels</p> <ul style="list-style-type: none"> Residential Areas (greater than 2.34 $\mu\text{g}/\text{m}^3$ and equal to or less than 2.93 $\mu\text{g}/\text{m}^3$ for 24 hr samples) Nonresidential Areas (greater than 7.02 $\mu\text{g}/\text{m}^3$ and equal to or less than 8.78 $\mu\text{g}/\text{m}^3$ for 24 hr samples) | <ul style="list-style-type: none"> Implement monitoring to confirm upwind or background levels Implement mitigation as in the air controls contingency plan | <p>receipt of analytical results</p> <ul style="list-style-type: none"> Weekly report to describe corrective actions |
| Exceedance Level | <p>24 hr DDT exceed Alert Level, after subtracting out upwind or background levels</p> <ul style="list-style-type: none"> Residential Areas (greater than 2.93 $\mu\text{g}/\text{m}^3$ for 24 hr samples) Nonresidential Areas (greater than 8.78 $\mu\text{g}/\text{m}^3$ for 24 hr samples) | <ul style="list-style-type: none"> Identify cause of exceedance Establish additional monitoring stations, as needed, including upwind or background, to evaluate the cause of increased emissions Develop action plan and implement additional mitigation Continue monitoring to confirm compliance with standard | <ul style="list-style-type: none"> Notify USEPA/Department immediately Provide daily monitoring reports Within 3 days of discovery of exceedance, provide corrective action report describing causes of exceedance and mitigation implemented. |
| Stop Work Level | <p>24 hr DDT exceed Alert Level, after subtracting out upwind or background levels and averaging for the entire weekly working period</p> <ul style="list-style-type: none"> Average is greater than 2.93 $\mu\text{g}/\text{m}^3$ for 24 hr samples in residential areas for 6 days or all the available data for that weekly working period Greater than 8.78 $\mu\text{g}/\text{m}^3$ for 24 hr samples in nonresidential areas for 6 days or all the available data for that weekly working period | <ul style="list-style-type: none"> Cease operations Develop action plan and additional mitigation Obtain USEPA and Department approval prior to restarting operations | <ul style="list-style-type: none"> Notify USEPA/Department immediately |

Corrective Action for Chlorobenzene for All Monitoring Stations

| Action Level | Concentration Levels | Required Action | Reporting/Notification |
|--------------------------|---|---|---|
| Typical Operations Level | <p>24 hr Chlorobenzene equal to or less than 80% of the Alert Level after subtracting out upwind or background levels</p> <ul style="list-style-type: none"> All areas ($800 \mu\text{g}/\text{m}^3$ for 24 hr samples) | <ul style="list-style-type: none"> Continue with existing controls Monitoring with 48 - 72 hr laboratory turnaround | <ul style="list-style-type: none"> Weekly reporting of monitoring data to USEPA/Department |
| Concern Level | <p>24 hr Chlorobenzene within 20% of the Alert Level, after subtracting out upwind or background levels</p> <ul style="list-style-type: none"> All Areas (greater than $800 \mu\text{g}/\text{m}^3$ and equal or less than $1,000 \mu\text{g}/\text{m}^3$ for 24 hr samples) | <ul style="list-style-type: none"> Identify cause of increased emissions Implement monitoring to confirm upwind or background levels Implement mitigation as in the air controls contingency plan | <ul style="list-style-type: none"> Notify USEPA/Department within 24 hrs of receipt of analytical results Weekly report to describe corrective actions |
| Exceedance Level | <p>24 hr Chlorobenzene exceed Alert Level, after subtracting out upwind or background levels</p> <ul style="list-style-type: none"> All Areas (greater than $1,000 \mu\text{g}/\text{m}^3$ for 24 hr samples) | <ul style="list-style-type: none"> Identify cause of exceedance Establish additional monitoring stations, as needed, including upwind or background, to evaluate the cause of increased emissions Develop action plan and implement additional mitigation Continue monitoring to confirm compliance with standard | <ul style="list-style-type: none"> Notify USEPA/Department immediately Provide daily monitoring reports Within 3 days of discovery of exceedance, provide corrective action report describing causes of exceedance and mitigation implemented. |
| Stop Work Level | <p>24 hr chlorobenzene exceed Alert Level, after subtracting out upwind or background levels and averaging for the entire weekly working period</p> <ul style="list-style-type: none"> Average is greater than $1,000 \mu\text{g}/\text{m}^3$ for 24 hr samples for 6 days or all the available data for that weekly working period | <ul style="list-style-type: none"> Cease operations Develop action plan and additional mitigation Obtain USEPA and Department approval prior to restarting operations | <ul style="list-style-type: none"> Notify USEPA/Department immediately |

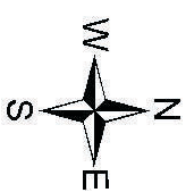
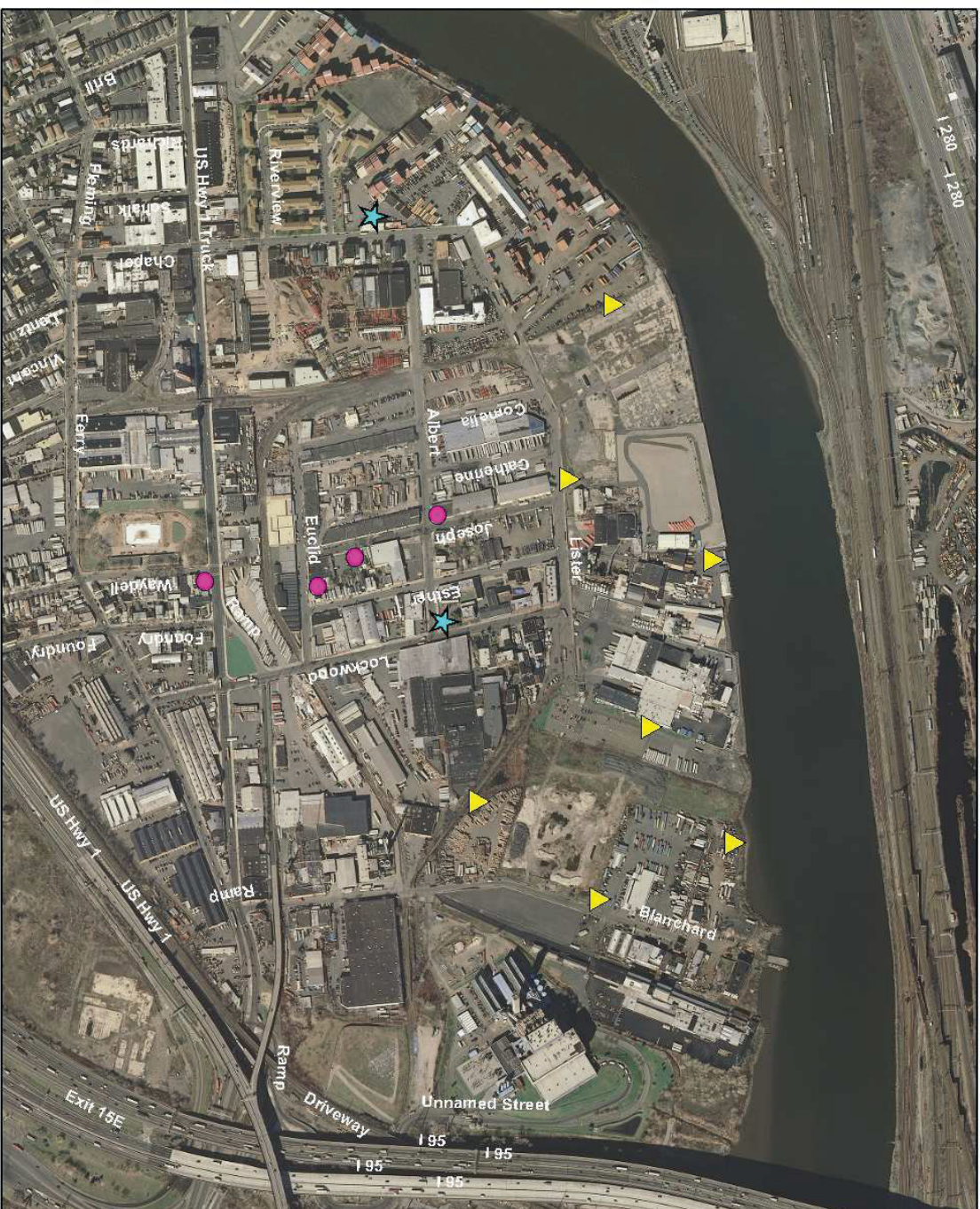
Corrective Action for Hydrogen Sulfide for All Monitoring Stations

| Action Level | Concentration Levels | Required Action | Reporting/Notification |
|--------------------------|--|---|---|
| Typical Operations Level | <ul style="list-style-type: none"> No odor complaints | <ul style="list-style-type: none"> Continue with existing controls | Weekly reporting of monitoring data to USEPA/Department |
| Concern Level | <ul style="list-style-type: none"> Odor complaint Within 20% of the Alert Level for Hydrogen Sulfide, after subtracting out upwind or background levels All Areas (the average over the 24 hr period is greater than 22 $\mu\text{g}/\text{m}^3$ and equal or less than 28 $\mu\text{g}/\text{m}^3$) | <ul style="list-style-type: none"> Identify cause of increased emissions Implement monitoring to confirm upwind or background levels Implement mitigation as in the air controls contingency plan | <ul style="list-style-type: none"> Notify USEPA/Department within 24 hrs Weekly report to describe corrective actions |
| Exceedance Level | <p>24 hr average for Hydrogen Sulfide exceeds Alert Level, after subtracting out upwind or background levels</p> <ul style="list-style-type: none"> All Areas (the average for the 24 hr period is greater than 28 $\mu\text{g}/\text{m}^3$) | <ul style="list-style-type: none"> Identify cause of exceedance Establish additional monitoring stations, as needed, including upwind or background, to evaluate the cause of increased emissions Develop action plan and implement additional mitigation Continue monitoring to confirm compliance with standard | <ul style="list-style-type: none"> Notify USEPA/Department immediately Provide daily monitoring reports Within 3 days of discovery of exceedance, provide corrective action report describing causes of exceedance and mitigation implemented. |
| Stop Work Level | <p>24 hr average for Hydrogen Sulfide exceeds Alert Level, after subtracting out upwind or background levels and averaging for the entire weekly working period</p> <ul style="list-style-type: none"> Average is greater than 28 $\mu\text{g}/\text{m}^3$ for the 6 days (24 hrs averages) in the weekly period or for all the available 24 hrs average data for that weekly working period | <ul style="list-style-type: none"> Cease operations Develop action plan and additional mitigation Obtain USEPA and Department approval prior to restarting operations | <ul style="list-style-type: none"> Notify USEPA/Department immediately |




Proposed Passaic River Phase I PAM Monitoring Stations

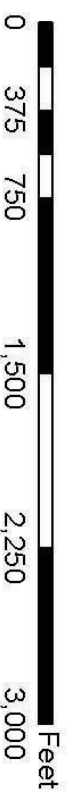
2007 Aerial Photographic Base Map

Figure 1



Location Legend

-  Residential Monitors
-  Nonresidential Monitors
-  Potential Residential Monitors



Version 2/7/2012

Denkenberger, Erika

From: Walker, Sarah
Sent: Tuesday, March 20, 2012 11:15 AM
To: Reed, Rob; Romagnoli, Bob; Spadaro, Philip
Cc: Berceli-Boyle, Tina; Denkenberger, Erika
Subject: FW: follow-ups

Follow Up Flag: Follow up
Flag Status: Flagged

Bob, Rob, and Philip,
Below is the response from Elizabeth regarding compliance with Land Use PE requirements.

Erika, could you upload this email trail to the PE submittals log?

Thanks,
Sarah

Sarah Walker
ARCADIS
sarah.walker@arcadis-us.com
Office: 978.322.4503; Cell: 781.715.5316

From: Elizabeth Butler [mailto:Butler.Elizabeth@epamail.epa.gov]
Sent: Monday, March 19, 2012 6:04 PM
To: Walker, Sarah
Cc: Moody, Chris; King, Coleman; Roster, Grace; Bowman, Matthew; Paul J. Bluestein; Berceli-Boyle, Tina
Subject: RE: follow-ups

I sent that approval letter along with all the waste profiles to DEP, including Dave Risilia. I haven't heard back from Dave so I'm hoping things are OK on his end. I did receive some follow-up questions from Mike Burlingame, which I just forwarded to Paul, so we'll have to figure out how to respond to those but I believe we should be OK, regarding the PE requirements.

From: "Walker, Sarah" <Sarah.Walker@arcadis-us.com>
To: Elizabeth Butler/R2/USEPA/US@EPA
Cc: "King, Coleman" <Coleman.King@arcadis-us.com>, "Roster, Grace" <Grace.Roster@arcadis-us.com>, "Bowman, Matthew" <Matthew.Bowman@arcadis-us.com>, "Paul J. Bluestein" <pjbluestein@tierra-inc.com>, "Berceli-Boyle, Tina" <Tina.Berceli-Boyle@arcadis-us.com>, "Moody, Chris" <Chris.Moody@arcadis-us.com>
Date: 03/19/2012 03:36 PM
Subject: RE: follow-ups

Hi Elizabeth,

I'm following up on the March 13th email from Chris that included a letter from Clean Harbors approving the waste profiles for the Phase I sediment removal action.

Is this letter sufficient for your submittal to NJDEP, re, the Land Use PE requirement to submit the letter of acceptance from entities receiving dredged material?

Thanks,

Sarah

Sarah Walker
ARCADIS
sarah.walker@arcadis-us.com
Office: 978.322.4503; Cell: 781.715.5316

From: Elizabeth Butler [<mailto:Butler.Elizabeth@epamail.epa.gov>]
Sent: Monday, March 12, 2012 5:47 PM
To: Moody, Chris
Cc: King, Coleman; Roster, Grace; Bowman, Matthew; Paul J. Bluestein; Walker, Sarah; Berceli-Boyle, Tina
Subject: RE: follow-ups

I looked at what you sent me - I haven't sent it to DEP yet - but I don't see anywhere on those forms any sort of sign off by the different facilities that those forms have been accepted. Do you have documentation with their approval/acceptance of those forms? I think that's what needs to be provided along with what you've already submitted. Any questions about that please let me know.

From: "Moody, Chris" <Chris.Moody@arcadis-us.com>
To: Elizabeth Butler/R2/USEPA/US@EPA
Cc: "Paul J. Bluestein" <pjbluestein@tierra-inc.com>, "King, Coleman" <Coleman.King@arcadis-us.com>, "Bowman, Matthew" <Matthew.Bowman@arcadis-us.com>, "Roster, Grace" <Grace.Roster@arcadis-us.com>, "Walker, Sarah" <Sarah.Walker@arcadis-us.com>, "Berceli-Boyle, Tina" <Tina.Berceli-Boyle@arcadis-us.com>
Date: 03/12/2012 03:50 PM
Subject: RE: follow-ups

Elizabeth,

Below is the requirement from NJDEP, Division of Land Use (reference: DEP #0714-10-0004.1; Activity #WFD 110001; FHA 110001) regarding dredging start:

Prior to the commencement of dredging activities, the permittee must provide the Department with a signed letter of acceptance from the entities receiving the subject dredged materials. The transfer and shipment of said dredged materials is subject to all terms and conditions stipulated by EPA and the respective States in which the receiving sites are located.

Do you think that what we've already supplied fulfills the requirement for the land use PE?

Thanks,

Chris

From: Moody, Chris
Sent: Wednesday, March 07, 2012 10:09 AM
To: Elizabeth Butler (Butler.Elizabeth@epamail.epa.gov)
Cc: 'Paul J. Bluestein'; King, Coleman; Bowman, Matthew; Roster, Grace (Grace.Roster@arcadis-us.com)
Subject: RE: follow-ups

Elizabeth,

Per your request below, the facilities asked that the data be included on the profiles themselves, so the attached profiles should include what DEP is looking for. These have all been approved by the facilities.

Let me know if you think this would satisfy DEP's request.

Thanks,

Chris

From: Paul J. Bluestein [<mailto:pjbluestein@tierra-inc.com>]
Sent: Wednesday, March 07, 2012 6:02 AM
To: Moody, Chris; Bowman, Matthew; King, Coleman
Subject: Fwd: follow-ups

Paul J. Bluestein, P.E.
Project Manager
Tierra Solutions, Inc.
2 Tower Center Boulevard, 10th Floor
East Brunswick, New Jersey 08816

Phone: 732 246 3091
Cell: 732 312 7547

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Sent From My iPad

Begin forwarded message:

From: Elizabeth Butler <Butler.Elizabeth@epamail.epa.gov>
Date: March 7, 2012 8:59:48 AM EST
To: "Paul J. Bluestein" <pjbluestein@tierra-inc.com>
Subject: follow-ups

Hi Paul.

Am trying to get caught up from yesterday and wanted to follow-up on a couple of things. Did you find out whether that off-site rule determination I sent you was applicable for the rail spur? I received notices of acceptability on all the rest of the locations. However, we still need to talk about the Canada location and go through those notes I forwarded you to figure out how to go about getting approval for that since that has to go through EPA HQ's. In addition to that, could you have ARCADIS put together an email compiling whatever concentration info you sent to the disposal facilities to get their OK to send the wastes to them. DEP's been asking for that for a while, so I intend to forward them the off-site rule determinations and would like to send them what you provided as well.

Did you monitor for PM in the background program? If not, do you know if it's a big deal to add that parameter, just out of curiosity? I forwarded Ana Baptista the perimeter plan and that was her one comment. We can chat more about this when I'm back in the office this afternoon.

Thanks,
Elizabeth

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State of New Jersey

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF DREDGING AND SEDIMENT TECHNOLOGY
P.O. BOX 028
TRENTON, NEW JERSEY 08625-0028
(609) 292-1250
FAX: (609) 777-1914

BOB MARTIN
Commissioner

July 21, 2011

Mr. Robert Romagnoli
Arcadis, U.S. Inc.
6723 Towpath Road
P.O. Box 66
Syracuse, New York 13214-0066

Re: Waterfront Development and Flood Hazard Area Permit Equivalency and
Water Quality Certification for
Passaic River Phase I Removal Action Enclosure Area
USEPA Directed CERCLA Action
Applicant: Tierra Solutions, Inc
DEP # 0714-10-0004.1; Activity # WFD 110001; FHA 110001

Dear Mr. Romagnoli:

The Office of Dredging and Sediment Technology (ODST) has reviewed your request of May 24, 2011 and supplemental information received July 8, 2011 for Section 401 Water Quality Certification pursuant to the Clean Water Act of 1972 and for Waterfront Development and Flood Hazard Area Permit Equivalencies pursuant to the Rules on Coastal Zone Management (N.J.A.C. 7:7E et. seq) and the Flood Hazard Area Control Act (N.J.A.C. 7:13) respectively.

Pursuant to the USEPA directed removal action the permittee is authorized to dredge and dispose approximately 40,000 cubic yards of contaminated sediment within the Passaic River consisting of the following specific activities:

Enclosure Site – Work at or Below the Mean High Water Line (MHWL)

1. Construct an approximate 2 acre steel sheet pile enclosure to be removed after completion of dredging and backfilling (approximately nine months). The enclosure is approximately 750 ft. in length by 135 ft. wide along the western terminus and 100 ft. wide along the eastern end. The landward (inshore) aspect of the enclosure shall consist of existing bulkheaded shoreline reinforced via installation of tie-backs. The exterior (channelward) perimeter of the enclosure area will receive various armor treatments including: mattress, geotextile and sand totaling approximately 3,000 cubic yards of material; and

2. Perform mechanical wet dredging of approximately 40,000 cubic yards of material /sediment to a project depth of -12 MLW except for the area proximate to the sediment core identified as PRRISEDV06 at which the dredging depth may be increased to remove highly contaminated sediments to be determined in the field based on direction provided by USEPA Region II and NJDEP/SRP. All dredging is limited to only within the enclosure area and be performed by way of a barge mounted dredge. Associated dredging work includes the removal of debris, loading of dredged materials into containers and slurring of the dredged material; and
3. Transfer slurried dredged materials to an off-site upland processing facility located approximately 1,000 feet east (downstream) via 1,400 linear feet of double wall hydraulic dredge pipeline which shall be floating and partially submerged and moored along the southerly shoreline of Passaic River.

Flood Hazard Area

This Permit Equivalency only authorizes activities at the enclosure area site. With respect to the enclosure construction and placement within the Passaic River floodway, the permittee has submitted hydraulic analyses intended to demonstrate that the presence of the enclosure would not result in additional flooding on neighboring properties or cause additional erosion hazards within the Passaic River. Based upon the materials submitted, the Department is not able to verify the validity of the hydraulic model with respect to the potential of additional flooding on neighboring properties and erosion hazards. Based upon the foregoing, the Department defers the review and findings of the submitted hydraulic analysis to the United States Environmental Protection Agency Region II Remedial Project Team, with ultimate responsibility resting with the permittee with respect to the findings of the hydrodynamic model.

Tidelands

The permittee has made application to the Bureau of Tidelands Management for a Tidelands New Dredging License. The application has been assigned docket number 0714-10-0004.1/TDI100003. By issuance of this permit, the State of New Jersey does not relinquish tidelands ownership or claim to any portion of the subject property or adjacent properties. The permittee shall allow an authorized Division representative the right to inspect the construction pursuant to N.J.A.C. 7:7E-1.5(b)4. This permit is approved subject to, and in accordance with, all applicable Tidelands conveyances issued for the subject property.

Coastal Zone Management

The Rules on Coastal Zone Management (N.J.A.C. 7:7E) constitute New Jersey's enforceable policies under its federally approved Coastal Zone Management Program. The subject project as been reviewed under the following Rules on Coastal Zone Management: Navigation Channels (7:7E-3.7), Ports (7:7E-3.11), Submerged Infrastructure Routes (7:7E-3.12), Special Hazards Areas (7:7E-3.41), New Dredging (7:7E-4.2(g)), Dredged Material Disposal on Land (7:7E-7.12), Marine Fish and Fisheries (7:7E-8.2) and Water Quality (7:7-8.4).

Based upon the foregoing I have conditionally determined that this project is consistent with the Rules on Coastal Zone Management and New Jersey's federally approved Coastal Management Program, In addition, I have also reviewed this activity for potential water quality impacts. Provided that the following conditions are met, I have determined that this project is not likely to cause a violation of New Jersey's Surface Water Quality Standards (N.J.A.C. 7:9B-1.1 et seq.). Therefore, this determination includes the State's Water Quality Certification pursuant to Section 401 of the federal Water Pollution Control Act (33 USC 1251 et seq.) subject to the conditions found in the conditions section of this document.

Authorized Plans/Drawings

The drawings hereby approved are as follows:

Phase I Work Area

Contract Drawings, Dated July 2011, entitled: "Tierra Solutions, Inc. – Lower Passaic River, Newark, NJ Phase I CERCLA Non-Time Critical Removal Action, specifically:

Sheets/ Titles

G4 / Existing Conditions and Limits of Work, Site Plan for Phase I Work Area

G5 / Phase I Work Area/OU-1 Site Stationing and Survey Control Plan

D14 / Enclosure Scour Protection Plans and Sections

G-11 / Aids to Navigation

S-1 through S-20 /Structural Detail Plans

Any changes to the plans referenced above must be approved by the Department prior to commencement of work activities.

General Conditions

1. This permit is revocable, or subject to modification or change at any time, pursuant to the applicable regulations, when in the judgment of the Department of Environmental Protection of the State of New Jersey such revocation, modification or change shall be necessary.
2. The issuance of the permit shall not be deemed to affect in any way, action by the Department of Environmental Protection of the State of New Jersey on any future application.
3. The works, facilities, and/or activities shown by plans and/or other engineering data, which are this day approved, subject to the conditions herewith established, shall be constructed and/or executed in conformity with such plans and/or engineering data and the said conditions.
4. No change in plans or specifications shall be made except with the prior written permission of the Department of Environmental Protection of the State of New Jersey.
5. The granting of this permit shall not be construed to in any way affect the title or ownership of property, and shall not make the Department of Environmental Protection or the State a party in any suit or question of ownership.
6. This permit does not waive the obtaining of Federal or other State or local government consent when necessary. This permit is not valid and no work shall be undertaken until such time as all other required approvals and permits have been obtained.
7. A copy of this permit shall be kept at the work site, and shall be exhibited upon request of any person.
8. In cases of conflict, the conditions of this permit shall supersede the plans and/or engineering data.
9. The Office of Dredging and Sediment Technology has not reviewed this application for consistency with the Areawide Water Quality Management Plan and the issuance of this permit shall not be construed as an approval of any wastewater management plan for this project or site. There shall be no construction of any

sewage generating structures unless and until the proposed development has been found to be consistent with the appropriate areawide water quality management plan.

Note: References to the term permit and approval shall also apply to Permit Equivalencies

Project Specific Conditions

Failure to comply with these conditions shall constitute a violation of the Rules on Coastal Zone Management (N.J.S.A 7:7E- et seq) and with the Flood Hazard Area Control Act (N.J.S.A. 58:16A).

Enclosure Area

10. Prior to commencement of dredging activities the permittee must provide the Department with a signed letter of acceptance from the entities receiving the subject dredged materials. The transfer and shipment of said dredged materials is subject all terms and conditions stipulated by EPA and the respective States in which the receiving sites are located.
11. Timing Restrictions – In water work activities are prohibited during the closed environmental window period of March 1 through June 30 of any year to protect anadromous fish with the exception of dredging work within the enclosure which is conditionally acceptable during March 1 through June 30 provided the permittee performs hydro-acoustic monitoring per the condition which follows.
12. Hydro Acoustic Monitoring – Hydro acoustic monitoring shall be conducted in accordance with the plan entitled “Underwater Sound Monitoring Plan – Lower Passaic River, Phase I Work Area” dated July 18, 2011 prepared by Arcadis.
13. Restoration of intertidal/subtidal areas – per section 4 of the response letter dated July 12, 2011, the permittee shall perform in-kind restoration via backfilling of approximately 71,400 sq. ft. intertidal and 92,000 sq. ft. subtidal shallow water habitats which will be temporarily disturbed as a result of remedial dredging activities. Within 30 days of completion of remedial dredging work said areas shall be returned to pre-disturbed elevations by application of uncontaminated clean material placed to mimic the pre-remedial river bottom depths and grades with a deviation of no greater that six inches. The permittee shall perform a post-restoration bathymetric survey within five days of backfill placement and again five days after removal of the sheet pile enclosure to document successful restoration of the disturbed shallow water habitat.
14. The authorized work activities are subject to all applicable air quality permitting requirements.
15. All terms and conditions of the NJDPES discharge to surface water permit equivalency must be met.

Acceptable Use Determination (AUD)

16. The processed dredged materials (PDM) shall be loaded into train cars and transported out of state for final incineration and /or disposal. The receiving sources have been identified as the Clean Harbors Environmental Services, Inc. (CHES) Lone Mountain Subtitle C landfill facility (Lone Mountain Facility) located in Waynoka, Oklahoma and the CHES Aragonite Hazardous Waster Incinerator Facility (Aragonite Incinerator) located in Tooele County, Utah. The transfer and shipment of said dredged materials is subject all terms and conditions stipulated by EPA and the respective States in which the receiving sites are located.

Flood Hazard Area Conditions

Standard Conditions:

Note: For Permit Equivalencies the entity referred to as the applicant shall be considered the permittee

17. Notice of Construction: You must notify the Department in writing at least 7 days before you begin any work approved by this permit. The Department's address and fax number are shown on the first page of this permit. Please direct your letter to the project manager shown on the first page.
18. Duty to comply: The permittee, its contractors and subcontractors shall comply with all conditions of the permit, supporting documents and approved drawings. Any noncompliance with a permit constitutes a violation of this chapter, and is grounds for enforcement action pursuant to N.J.A.C. 7:13-19, as well as suspension and/or termination of the permit
19. Duty to halt or reduce activity: It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.
20. Duty to minimize environmental impacts: The permittee shall take all reasonable steps to prevent, minimize or correct any adverse impact on the environment resulting from activities conducted pursuant to the permit, or from noncompliance with the permit.
21. Proper operation and maintenance: The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used to achieve compliance with the permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. The operation of back-up or auxiliary facilities or similar systems is only required when necessary to achieve compliance with the permit. The permittee must also properly execute any approved mitigation compensation and/or restoration proposal designed to mitigate losses caused by the permitted activity. The permittee shall maintain the authorized work areas in good condition and in accordance with the permit.
22. Proper oversight: The permittee shall ensure that all approved activities are undertaken using the best management practices available under the supervision and direction of an engineer at all points necessary to ensure compliance with all permit conditions.
23. Proper site maintenance: While the regulated activities are being undertaken, neither the permittee nor its agents shall cause or permit any unreasonable interference with the free flow of a regulated water by placing or dumping any materials, equipment, debris or structures within or adjacent to the channel. Upon completion or abandonment of the work, the permittee and/or its agents shall remove and dispose of in a lawful manner all excess materials, debris, equipment, silt fences and other temporary soil erosion and sediment control devices from all regulated areas.
24. Permit actions: A permit can be revised, suspended or terminated for cause. The filing of a request by the permittee for a revision, or a notification of planned changes or anticipated noncompliance does not stay any condition of a permit.

25. Property rights: A permit does not convey any property rights of any sort, or any exclusive privilege.
26. Duty to provide information: A copy of the general permit and other authorizing documents including all approved plans and drawings shall be maintained at the authorized site at all times and made available to Department representatives or their designated agents immediately upon request. The permittee shall also furnish to the Department within a reasonable time any information that the Department requests to determine compliance with a permit or to determine whether cause exists for suspension or termination of a permit. The permittee shall also furnish to the Department, upon request, copies of records required to be kept by the permit.
27. Inspection and entry: The permittee shall allow an authorized representative of the Department, at reasonable times and upon the presentation of credentials, to:
 - i. Enter upon the permittee's premises where a regulated activity is located or conducted, or where records must be kept under the conditions of the permit;
 - ii. Have access to and copy any records that must be kept under the conditions of the permit; and
 - iii. Inspect any facilities, equipment, practices or operations regulated or required under the permit. Failure to allow reasonable access under this section shall be considered a violation of this chapter and subject the permittee to enforcement action pursuant to N.J.A.C. 7:13-19.
28. Reporting requirements: The permittee shall provide reports to the Department as follows:
 - i. Planned changes: The permittee shall give notice to the Department prior to any planned physical alterations or additions to the permitted project or activity;
 - ii. Transfers: The permit is not transferable to any person unless the transfer is approved by the Department, pursuant to N.J.A.C. 7:13-14.1;
 - iii. Non-compliance: The permittee shall immediately report to the Department by telephone at (877) 927-6337 any noncompliance that may endanger health or the environment. The permittee shall report all other noncompliance to the Office of Dredging and Sediment Technology by telephone at (609) 292-1250 within two business days of the time the permittee becomes aware of the noncompliance, and in writing within five business days of the time the permittee becomes aware of the noncompliance. The written notice shall include: a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and, if the noncompliance has not been corrected, the anticipated length of time it is expected to continue; and steps taken or planned to reduce, eliminate and prevent recurrence of the noncompliance. Such notice shall not, however, serve as a defense to enforcement action if the project is found to be in violation of this chapter; and
 - iv. Other information: Where the permittee becomes aware that it failed to submit any relevant facts in an application, or submitted incorrect information in an application or in any report to the Department, it shall promptly submit such facts or information.
29. Other responsibilities: You must obtain all necessary local, Federal and other State approvals before you begin work. All work must be stabilized in accordance with the Standards for Soil Erosion and Sediment Control in New Jersey, and all fill material must be free of toxic pollutants in toxic amounts as defined in section 307 of the Federal Act.

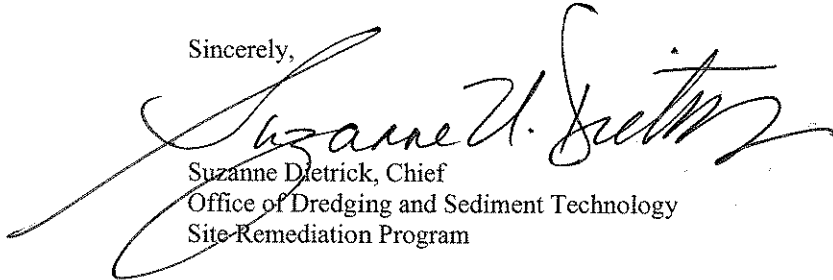
Site Specific Conditions

30. All excavated material and dredged materials shall be disposed of in a lawful manner. Unless specifically authorized otherwise, said materials must be placed outside of any flood hazard area, riparian zone, regulated water, freshwater wetland and adjacent transition area, and in such a way as to not interfere with the positive drainage of the receiving area.

This authorization is limited to the enclosure area work activities, however additional regulated activities are also proposed off-site at the upland processing facility (UPF) as part of the Phase I Removal Action. Upon receipt of complete application submission materials deemed compliant by Department, a letter of amendment will be issued by the Department addressing the related work activities at the UPF.

If you have any questions regarding this authorization, please contact David Q. Risilia of ODST staff at (609) 292-9342. Please reference the above file number.

Sincerely,



Suzanne Dietrick, Chief
Office of Dredging and Sediment Technology
Site Remediation Program

C: NJDEP/SRP Thomas Cozzi
NJDEP/SRP Michael Burlingame
USEPA Region II Raymond Basso
Municipal Construction Official
Municipal Clerk



HUDSON-ESSEX-PASSAIC SOIL CONSERVATION DISTRICT

15 BLOOMFIELD AVENUE
NORTH CALDWELL, NJ 07006
Telephone: (973) 364-0786
Fax: (973) 364-0784
Information@hepsc.org
www.hepsoilnj.org

August 31, 2011

RECEIVED

SEP 02 2011

Tierra Solutions

Ms. Elizabeth Butler
USEPA Region 2
290 Broadway
New York, NY 10007-1866

Re: **U.S. EPA Region 2 CERCLA Docket No. 02-2008-2020**
Phase 1 Removal Action Lower Passaic River Study Area
Block 2438 Lot 74
HEPSCD 251 ID Code: Not Applicable, Plan by Arcadis, dated: July 2011

Dear Ms. Butler:

The District has completed the review of the soil erosion and sediment control plan for the above referenced project and hereby reports that the plan meets the substantive requirements of the Clean Water Act as pertains to 42 U.S.C, Chapter 103; the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

Should the need arise to implement offsite activities, such as laydown areas or contractor storage yards, please contact the District to coordinate the submittal of a separate Soil Erosion and Sediment Control plan.

Yours truly,

Carl Quazza
Chairman

Cc: Planner, Municipality, County



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

Tierra Solutions
SEP 01 2011
RECEIVED

August 26, 2011

Glen Van Olden, Director
Hudson-Essex-Passaic Soil Conservation District
15 Bloomfield Avenue
No. Caldwell, NJ 07006

Re: Administrative Settlement Agreement and Order on Consent for Removal Action, U.S. EPA Region 2 CERCLA Docket No. 02-2008-2020 – Application Materials, Soil Erosion and Sediment Control Plan Certification – Phase I Removal Action, CERCLA Non-Time-Critical Removal Action – Lower Passaic River Study Area

Dear Mr. Van Olden:

On August 1, 2011, Tierra Solutions, Inc. submitted to your office the above-mentioned application. On August 22, 2011, you sent me recommendations/questions on that application via email. Per your direction, this letter formalizes our responses to those comments, so that we can complete the requirements for the substantive equivalent of an erosion control certification. The following are the comments in italics followed by our responses:

1. *Perhaps the utilization of Super-Silt Fence would be best installed for this work as it has better longevity for sites that may last more than 12 months of active construction. It is also more durable with a wire backing.*

Based on our most recent schedule it looks like active construction will be less than 12 months. However, based on your recommendation, we will evaluate the performance of the silt fence during weekly inspections and we will consider upgrading depending on how it is performing. Regular replacements/maintenance will be done as needed.

2. *A vehicle wash station might be utilized (when needed) in addition to the crushed stone anti-tracking pad at the site exit. This BMP is best used during extremely dry (dusty) or wet weather (muddy) conditions.*

In addition to what was detailed in the SWPPP, we have decided to construct a full lined decon pad that will facilitate vehicle wash down if needed during the excavation activities. Additionally, we included gravel haul routes to minimize tracking during operations once construction is complete.

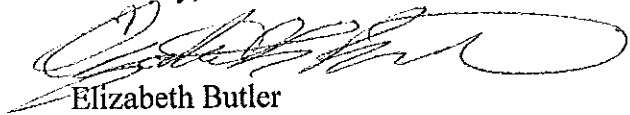
3. *Please describe the sequence of the final surface cover upon completion of all remediation activities (i.e., bituminous asphalt, crushed stone or vegetation?).*

Following remediation activities, the pavement, foundation slabs, and drainage structures will be removed and the site will be restored to pre-construction conditions (sand/gravel surface soils). It is anticipated that the Dense Graded Aggregate (DGA) placed to facilitate construction or original site soils will be graded to restore the pre-construction drainage directions. After we are

done with our project, the owner of the site has plans to perform an environmental cleanup and to redevelop the property, under the Brownfields program.

If you have any questions, please contact me at 212-637-4396. Thank you for your cooperation and assistance with this process.

Sincerely,

A handwritten signature in black ink, appearing to read "Elizabeth Butler", written over a horizontal line.

Elizabeth Butler
Remedial Project Manager
Emergency and Remedial Response Division

cc: P. Bluestein, TSI
P. Hick, EPA
R. Basso, EPA

From: Reed, Rob
Sent: Wednesday, June 08, 2011 5:36 AM
To: Walker, Sarah; Berceci-Boyle, Tina
Subject: FW: Lower Passaic River Notice to Mariners

FYI - this e-mail at least acknowledges Weeks' LNM request, although doesn't indicate approval or acceptance...

Rob

From: Jeff.M.Yunker@uscg.mil [mailto:Jeff.M.Yunker@uscg.mil]
Sent: Monday, May 16, 2011 4:34 PM
To: cldion@WeeksMarine.Com
Cc: Dave A. Vosseller; Bowman, Matthew; Molina, Joe; Reed, Rob; Dan L. Mowers
Subject: RE: Lower Passaic River Notice to Mariners

Mr. Dion,

Please contact Mr. Joe Arca, USCG Bridge Administration, to obtain the bridge owner and opening data. PH: 212.668.7069.
AIS Website is <http://www.marinetraffic.com/ais/>.
USACE Annual vessel transit data is at <http://www.ndc.iwr.usace.army.mil/wsc/wsc.htm>.
The Maritime Association of the Port of NY (MAPONY) may also have vessel transit data for the Passaic River. Please contact Mr. Ed Kelly at 212.425.5704 x 222 or at themaritimeassoc@erols.com.

Regards,
Jeff Yunker, Waterways Management Coordinator
USCG Sector New York
PH: 718.354.4195, FX: 718.354.4190
Jeff.M.Yunker@uscg.mil <http://homeport.uscg.mil/newyork>

From: cldion@weeksmarine.com [mailto:cldion@weeksmarine.com]
Sent: Friday, May 13, 2011 1:18 PM
To: Swanson, Mary; Yunker, Jeff
Cc: Dave A. Vosseller; Bowman, Matthew; Molina, Joe; Reed, Rob; Dan L. Mowers
Subject: Lower Passaic River Notice to Mariners

Mrs. Swanson & Mr. Yunker,

Please find attached for your review and comments the Notice to Mariners for the Lower Passaic River, Newark, NJ Project. Weeks has prepared a detail work plan that show all the necessary sequence of work to complete the project successfully.

At this time Weeks has not included the name of the vessel since it may changed slightly. The drawings show the location of each floating equipment and size. Upon completing of your review, Weeks will make the necessary correction to comply with the Inland Navigation Rules.

If you have any questions please do not hesitate to contact me.

Regards,

Claude Dion
Weeks Marine Inc.
4 Commerce Drive
Cranford, NJ 07016
Office: 908-272-4010
Cell.: 908-230-5279

To: Bowman, Matthew
Subject: RE: Lower Passaic River Pipeline Location

From: Claude Dion [mailto:cldion@WeeksMarine.Com]
Sent: Thursday, July 07, 2011 5:24 PM
To: Jeff.M.Yunker@uscg.mil
Cc: Bowman, Matthew; Dave A. Vosseller; Dan L. Mowers; Chris W. Fenton; Nick K. Katzenberger; Orchard, Barbara; King, Coleman
Subject: Lower Passaic River Pipeline Location

Jeff,

It was a pleasure to meet you today. As discussed, the only change to the Notice of Mariners is the new pipeline location. I have attached the revised drawing showing the new location.

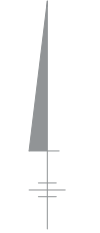
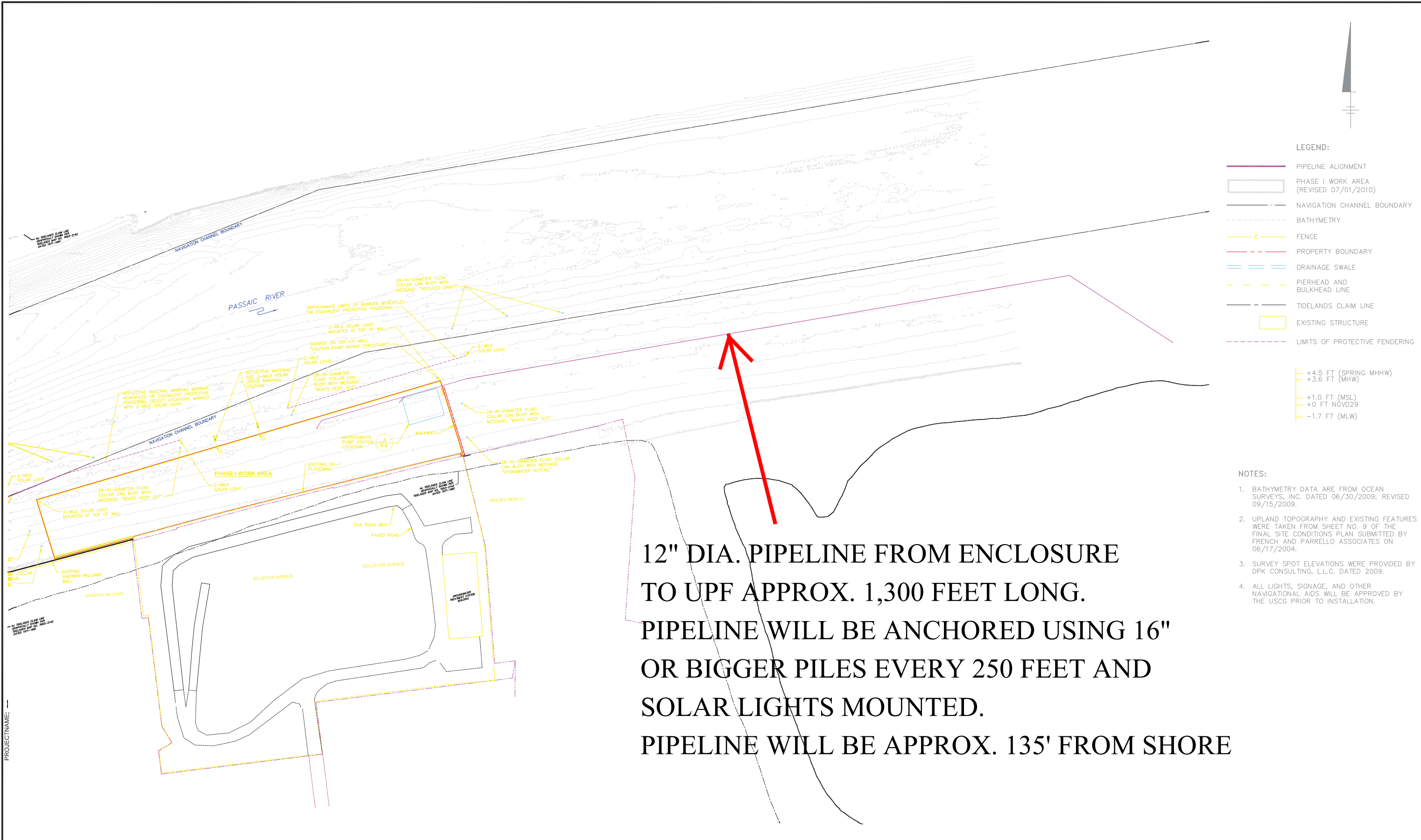
I will keep you inform of the work progress and any changes to the schedule.

If you have any questions please call.

Regards,

Claude Dion
Weeks Marine Inc.
4 Commerce Drive
Cranford, NJ 07016
Office: 908-272-4010
Cell.: 908-230-5279

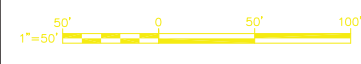
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- LEGEND:**
- PIPELINE ALIGNMENT
 - PHASE I WORK AREA (REVISED 07/01/2010)
 - NAVIGATION CHANNEL BOUNDARY
 - BATHYMETRY
 - FENCE
 - PROPERTY BOUNDARY
 - DRAINAGE SWALE
 - PIERHEAD AND BULKHEAD LINE
 - TIDELANDS CLAIM LINE
 - EXISTING STRUCTURE
 - LIMITS OF PROTECTIVE FENDERING
- ELEVATIONS:
+4.5 FT (SPRING MHHW)
+3.6 FT (MHW)
+1.0 FT (MSL)
+0 FT NGVD29
-1.7 FT (MLW)

- NOTES:**
- BATHYMETRY DATA ARE FROM OCEAN SURVEYS, INC. DATED 06/30/2009; REVISED 09/15/2009.
 - UPLAND TOPOGRAPHY AND EXISTING FEATURES WERE TAKEN FROM SHEET NO. 9 OF THE FINAL SITE CONDITIONS PLAN SUBMITTED BY FRENCH AND PARRELLO ASSOCIATES ON 06/17/2004.
 - SURVEY SPOT ELEVATIONS WERE PROVIDED BY DPK CONSULTING, L.L.C. DATED 2009.
 - ALL LIGHTS, SIGNAGE, AND OTHER NAVIGATIONAL AIDS WILL BE APPROVED BY THE USCG PRIOR TO INSTALLATION.

12" DIA. PIPELINE FROM ENCLOSURE TO UPF APPROX. 1,300 FEET LONG. PIPELINE WILL BE ANCHORED USING 16" OR BIGGER PILES EVERY 250 FEET AND SOLAR LIGHTS MOUNTED. PIPELINE WILL BE APPROX. 135' FROM SHORE



USE TO VERIFY FIGURE REPRODUCTION SCALE

| No. | Date | Revisions | By | Ckd |
|-----|------|-----------|----|-----|
| | | | | |
| | | | | |

THIS DRAWING IS THE PROPERTY OF THE ARCADIS ENTITY IDENTIFIED IN THE TITLE BLOCK AND MAY NOT BE REPRODUCED OR ALTERED IN WHOLE OR IN PART WITHOUT THE EXPRESS WRITTEN PERMISSION OF SAME.

| | | |
|---|-----------------|---------------------|
| Professional Engineer's Name ROBERT ROMAGNOLI | | |
| Professional Engineer's No. 24GE04659400 | | |
| State NJ | Date Signed | Project Mgr. RAR |
| Designed by APC | Drawn by BKD | Checked by JRB |

ARCADIS U.S., INC.
NEW JERSEY ENGINEERING CERTIFICATE OF AUTHORIZATION NUMBER 24GA27939600

TIERRA SOLUTIONS, INC. - LOWER PASSAIC RIVER, NEWARK, NJ
PHASE I CERCLA NON-TIME-CRITICAL REMOVAL ACTION

AIDS TO NAVIGATION

GENERAL

| |
|---|
| ARCADIS Project No. B0009964.0001 |
| Date JULY 2011 |
| ARCADIS 6723 TOWPATH ROAD BOX 66 SYRACUSE, NY 13214 TEL: 315.446.9120 |

G-11



Homeland
Security

U.S. COAST GUARD
First Coast Guard District



LNM INFORMATION FORM

DATE: May 13, 2011

NAME: CLAUDE DION

PHONE NUMBER: 908-230-5279

COMPANY NAME: WEEKS MARINE, INC

TYPE OF WORK: LOWER PASSAIC RIVER PHASE I CERCLA NON-TIME-
CRITICAL REMOVAL ACTION (Construction of Enclosure,
Removal and transfer of Sediment)

LOCATION WHERE WORK WILL BE DONE:

80 AND 120 LISTER AVENUE, NEWARK, NJ

LAT/LONG: N 40°.740787 W 74°.135828

BEGINNING/ENDING DATES: ENCLOSURE CONST.: JUNE 15, 2011 TO NOVEMBER 30,
2011

SHUTDOWN DECEMBER 1, 2012 TO MARCH 15, 2012
(ENCLOSURE REMAIN IN PLACE)

REMOVAL ACTION: MARCH 15, 2012 TO JUNE 15, 2012

BACKFILL INSIDE ENCLOSURE: JUNE TO JULY, 2011

ENCLOSURE REMOVAL: AUGUST, 2012 TO SEPT, 2012

ADDITIONAL INFORMATION ATTACHED (DRAWINGS AND NARRATIVE)

HOURS OF OPERATION: 7:00 TO 17:00 MONDAY TO SATURDAY

**NOTE: EQUIPMENT WILL BE IN POSITION 24 HOURS/7 DAYS/WEEKS DURING
CONSTRUCTION**

EQUIPMENT TO BE USED: CRANE BARGE, TUG BOAT, BARGES

RADIO FREQUENCY (IF USED) CHANNEL 65 VHF

DISPOSAL SITES (IF USED) N/A

PLEASE FAX FORM TO: Mary Swanson @ 617-223-8291

The LNM (Local Notice to Mariners) can be found on the following website:

<http://www.navcen.uscg.gov>



DREDGING – MARINE CONTRACTORS
STEVEDORING – EQUIPMENT RENTALS
TOWING – HEAVY LIFT - SALVAGE

4 COMMERCE DR., 3rd FLOOR, CRANFORD, NEW JERSEY 07016-3598 (908) 272-4010 FAX: (908) 272-8957

NOTICE TO MARINERS

NARRATIVE

Weeks Marine, Inc. will begin construction of a King/Sheet Piles enclosure on the Lower Passaic River on or after June 1, 2011 and will be completed on or before August 30, 2012 for Arcadis US. Inc. The project EPA Docket Number is 02-2008-2020. Construction sequence are as follow:

- Installation of a tie-back system on the existing concrete wall at 80 and 120 Lister Avenue, Newark. The work will be along the bulkhead. A small pontoon will be anchored against the bulkhead. The pontoon will not exceed into the navigable channel. This work will begin on or after June 1, 2011 and will be completed 30 days after its starting date.
- Installation of scour protection sand layer at the Phase I area will begin between June 15 to June 30, 2011. A sand layer of 4 to 6 inches thick will be place prior the installation of the King/Sheet Piles enclosure to act as a buffer, reducing re-suspension of sediment during installation of the enclosure. Attachment A shows the foot print of the scour protection sand layer, equipment to be used and location of the anchoring system in relation with the navigable channel. This operation will have a duration of approximately 8 days.
- Installation of the enclosure will begin after the installation of the scour protection sand layer. Work will begin along the Sherwin-William wall (West of the existing concrete bulkhead) going west for approximately 150 feet. The wall will make a 90 degree going toward the navigable channel for approximately 110 feet. The wall will end approximately 24 feet from the navigable channel. From there the wall will again turn 90 degree going east for approximately 751 feet. Finally, the wall will turn 90 degree toward to the existing concrete bulkhead for a distance of approximately 135 feet. Attachment B shows the foot print of the enclosure wall, equipment to be used and there location relative to the navigable channel. Note that the crane barge will be on spud and no anchoring system will be used for this operation. The duration of the enclosure construction is approximately 4 months. Prior completion of the enclosure dredge barges will be trap inside the enclosure. These barges will be used to dredge the sediment inside the enclosure. Note that the above sequence may be change from east to west for the construction of the enclosure.

- When the construction of the enclosure is completed Weeks will install the scour protection mattresses around the enclosure. The work will involve installation of approximately 130 armor concrete mattresses (40' x 8' x 4.75"). Work will begin west of the enclosure going east. Attachment C shows the foot print of the concrete mattresses, equipment to be used and there location relative to the navigable channel. The work will be completed prior to December 1, 2011.
- After or before installation of the scour protection concrete mattresses a 12 inch pipeline (HDPE) will be installed along the shore from the 120 Lister Avenue to the Upland Facility (UPF) approximately 1,300 feet east of the enclosure (See attachment D, map location). The pipeline will be secured using pipe pile at every 250 feet approximately. A small pontoon will be anchored approximately 30 feet from the shore at the UPF to provide access to the pipeline. The pipe piles will be driven using a crane barge. The driving operation will be 2 days. The pipeline will be in operation only during the sediment excavation.
- It is anticipated that during the month of December 2011 through March 15, 2012 no work will be performed. The enclosure will be monitor daily for any damages or movement.
- On March 15, 2012 sediment excavation inside the enclosure will begin. No equipment will be outside the enclosure for a period of 3 months at the exception of skiff boat to monitor the pipeline daily. The 12 inch pipeline will be in operation.
- After completion of the sediment removal a crane barge will be dock along the enclosure. The crane barge will unload sand scow (backfill material) into the enclosure. Please refer to attachment B for equipment location which will be similar to the driving operation. This operation will be completed within 1 month.
- At completion of the backfill operation the crane barge utilized to backfill will be demobilized and the driving crane barge, with material barges, will be mobilized to remove the pipeline, concrete mattresses and enclosure. The operation will be performed within 2 months.

Note:

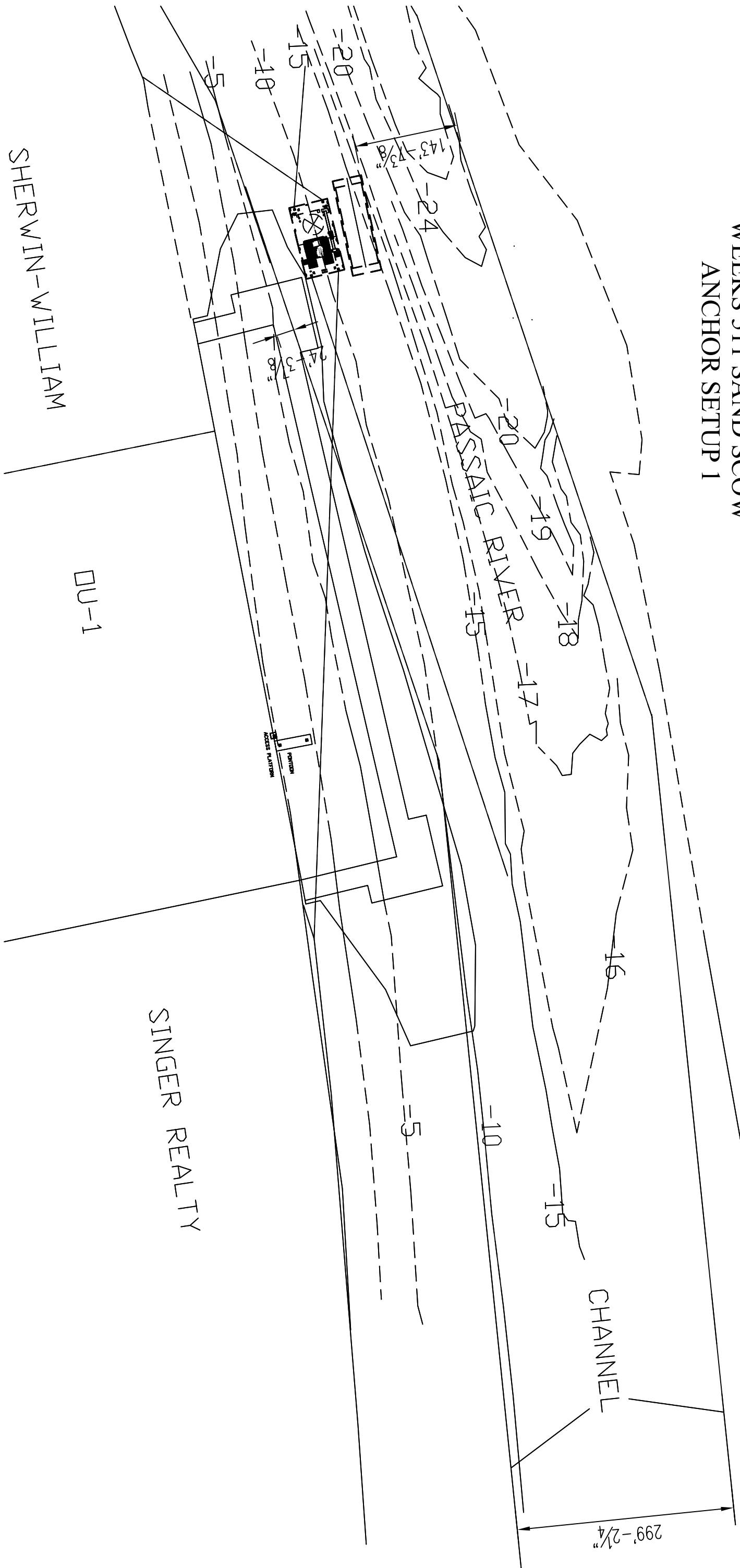
- Aids to navigation will be installed around the perimeter of the enclosure and long the pipeline (See attachment E).
- Equipment may change upon availability but location will remain.

Clarification:

- **Weeks would like to be informed 72 hours notice to move any equipment that may interfere with the navigation traffic.**

ATTACHMENT A

SCOUR PROTECTION SAND PLACEMENT
 WEEKS 511 SAND SCOW
 ANCHOR SETUP 1



MAIL JOB No: 2010-0148
 DWG. NO.:
 SHEET OF
 FILE NAME:



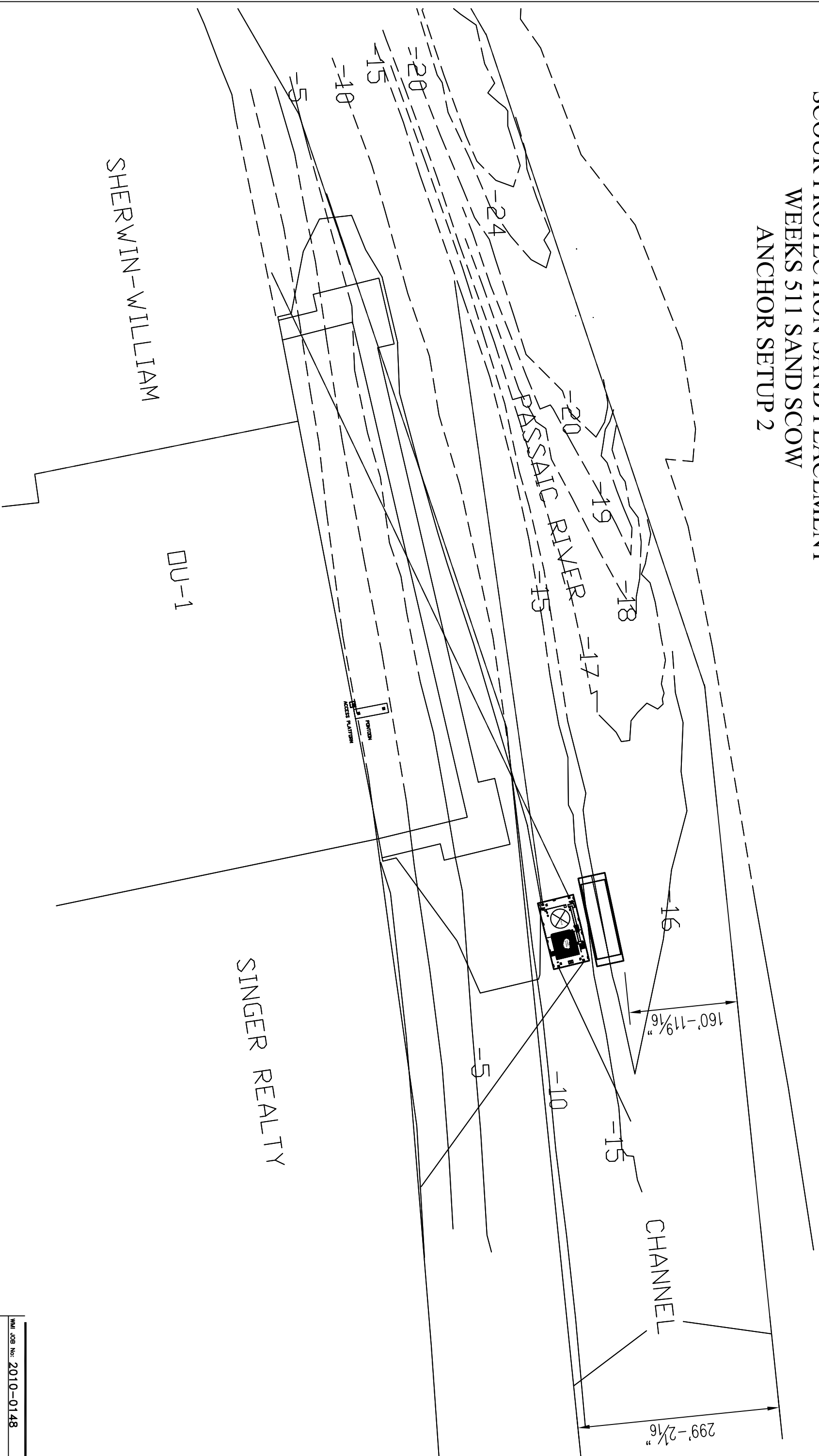
Passaic River
 Newark, NJ
 Lower Passaic River Study

DRAWN BY: C. Dion
 APPROVED BY:
 DATE: 1/25/2011 PAPER SIZE: B
 SCALE: N/A

| NO. | REFERENCE DWG NUMBER |
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| DATE | DESCRIPTION | BY |
|------|-------------|----|
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SCOUR PROTECTION SAND PLACEMENT
 WEEKS 511 SAND SCOW
 ANCHOR SETUP 2



SHERWIN-WILLIAM

DU-1

SINGER REALTY

PASSAIC RIVER

CHANNEL

ANCHOR
ACCESS PLATFORM

160'-11 9/16"

299'-2 1/16"

WMI JOB No: 2010-0148
 DWG. NO.:
 SHEET OF
 FILE NAME:



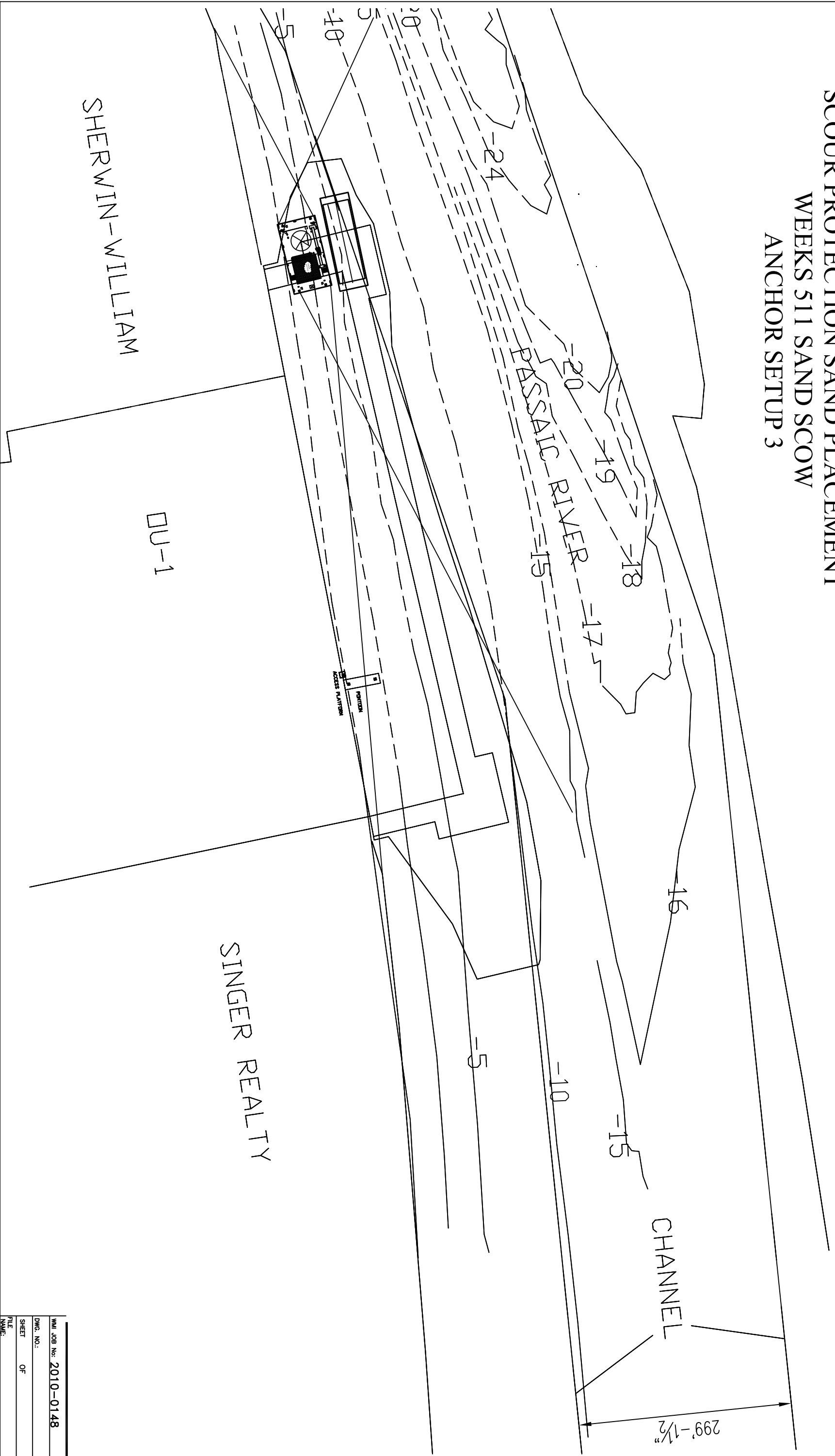
Passaic River
 Newark, NJ
 Lower Passaic River Study

DRAWN BY: C. Dion
 APPROVED BY:
 DATE: 1/25/2011 PAPER SIZE B
 SCALE: N/A

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SCOUR PROTECTION SAND PLACEMENT
 WEEKS 511 SAND SCOW
 ANCHOR SETUP 3



SHERWIN-WILLIAM

DU-1

SINGER REALTY

WMI JOB No: 2010-0148
 DWG. NO.:
 SHEET OF
 FILE NAME:



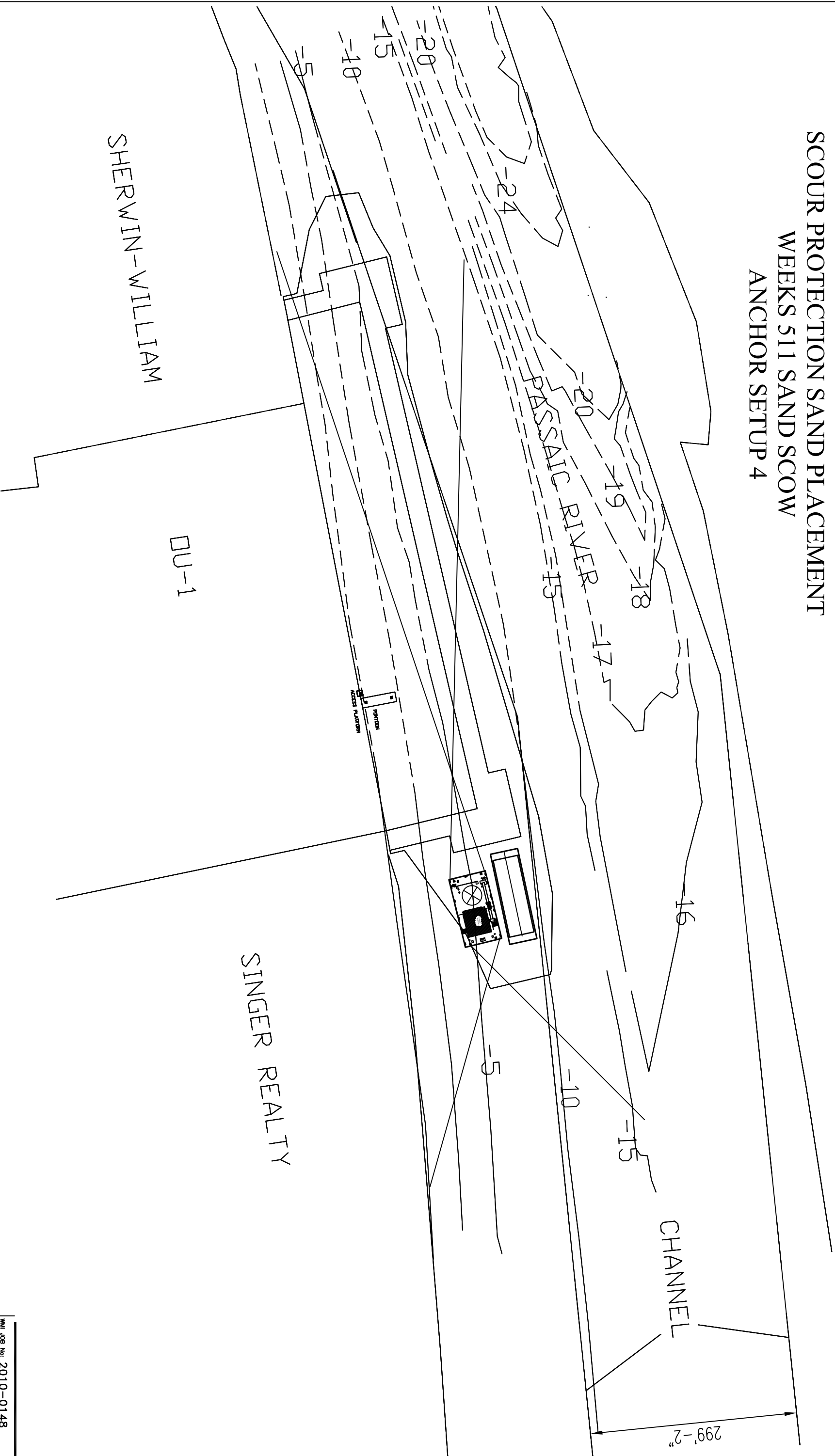
Passaic River
 Newark, NJ
 Lower Passaic River Study

DRAWN BY: C. Dion
 APPROVED BY:
 DATE: 1/25/2011 PAPER SIZE B
 SCALE: N/A

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SCOUR PROTECTION SAND PLACEMENT
 WEEKS 511 SAND SCOW
 ANCHOR SETUP 4



WMI JOB No: 2010-0148
 DWG. NO.:
 SHEET OF
 FILE NAME:



Passaic River
 Newark, NJ
 Lower Passaic River Study

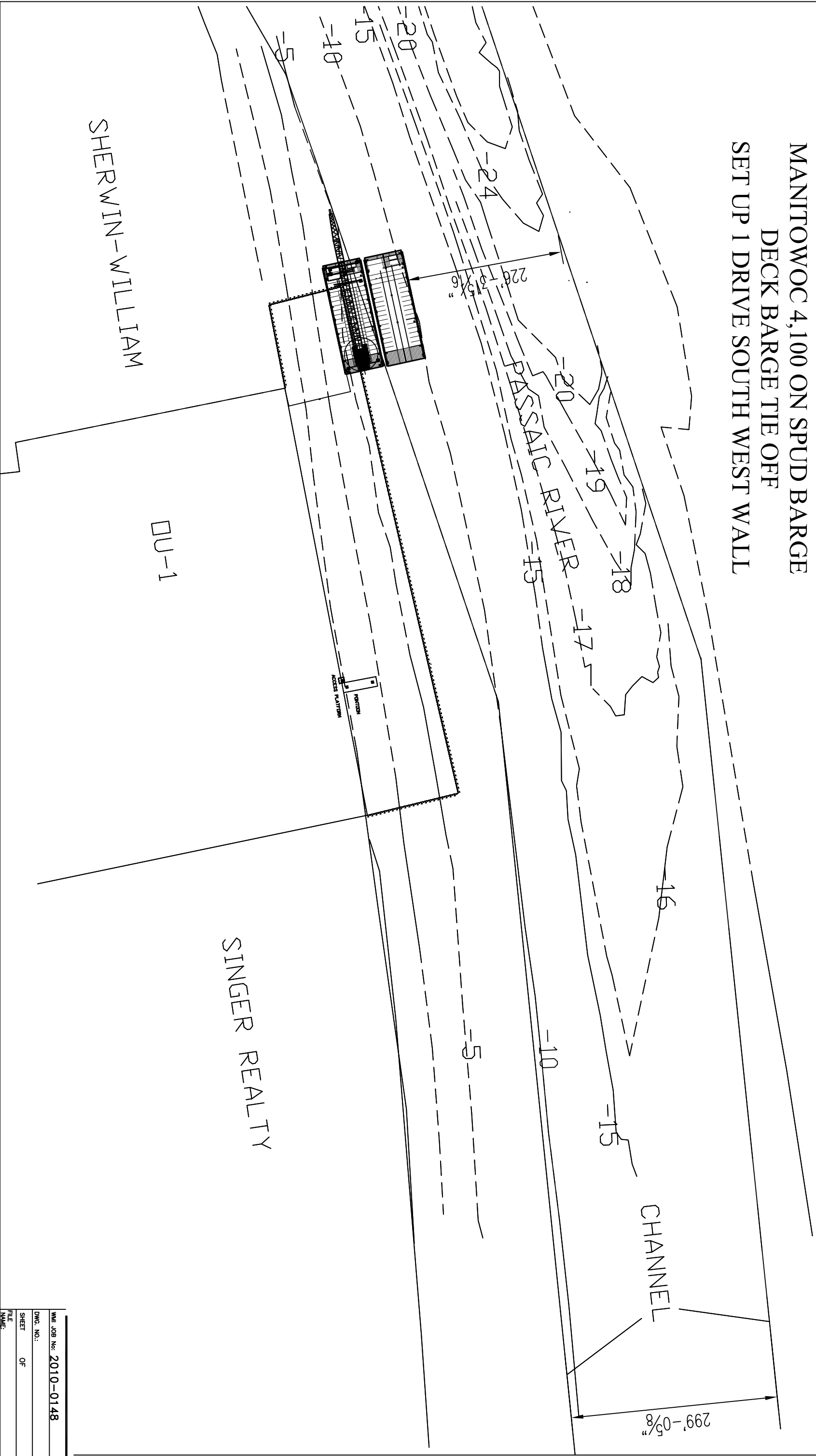
DRAWN BY: C. Dion
 APPROVED BY:
 DATE: 1/25/2011 PAPER SIZE: B
 SCALE: N/A

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ATTACHMENT B

MANITOWOC 4,100 ON SPUD BARGE
 DECK BARGE TIE OFF
 SET UP 1 DRIVE SOUTH WEST WALL



MAN JOB No: 2010-0148
 DWG. NO.:
 SHEET OF
 FILE NAME:



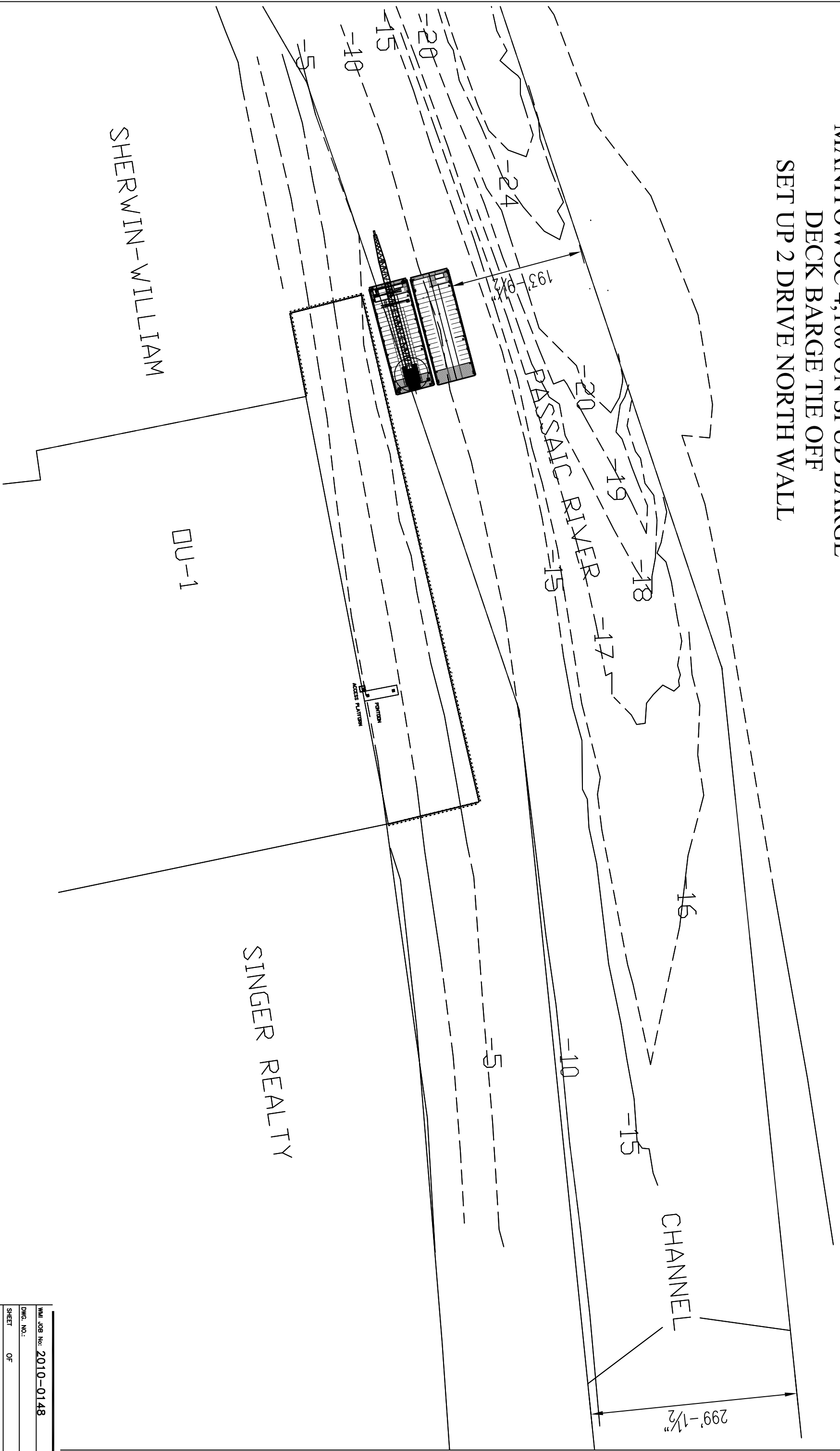
Passaic River
 Newark, NJ
 Lower Passaic River Study

DRAWN BY: C. Dion
 APPROVED BY:
 DATE: 1/25/2011 PAPER SIZE B
 SCALE: N/A

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| NO. | REFERENCE DWG NUMBER |

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MANTOWOC 4,100 ON SPUD BARGE
 DECK BARGE TIE OFF
 SET UP 2 DRIVE NORTH WALL



MAN JOB No: 2010-0148
 DWG. NO.:
 SHEET OF
 FILE NAME:



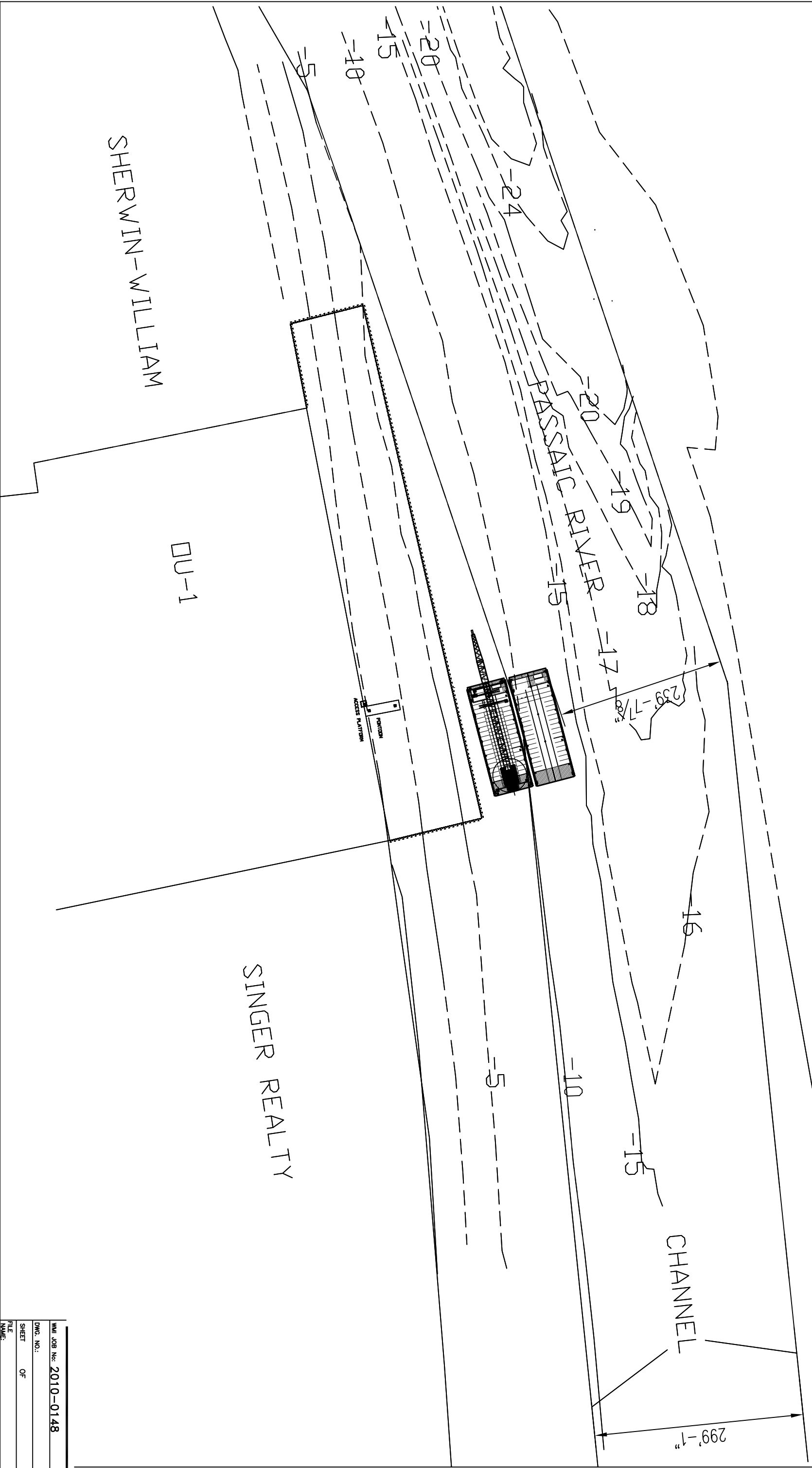
Passaic River
 Newark, NJ
 Lower Passaic River Study

DRAWN BY: C. Dion
 APPROVED BY:
 DATE: 1/25/2011 PAPER SIZE B
 SCALE: N/A

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MANITOWOC 4,100 ON SPUD BARGE
 DECK BARGE TIE OFF
 SET UP 3 DRIVE NORTH WALL



MAN JOB No: 2010-0148
 DWG. NO.:
 SHEET OF
 FILE NAME:



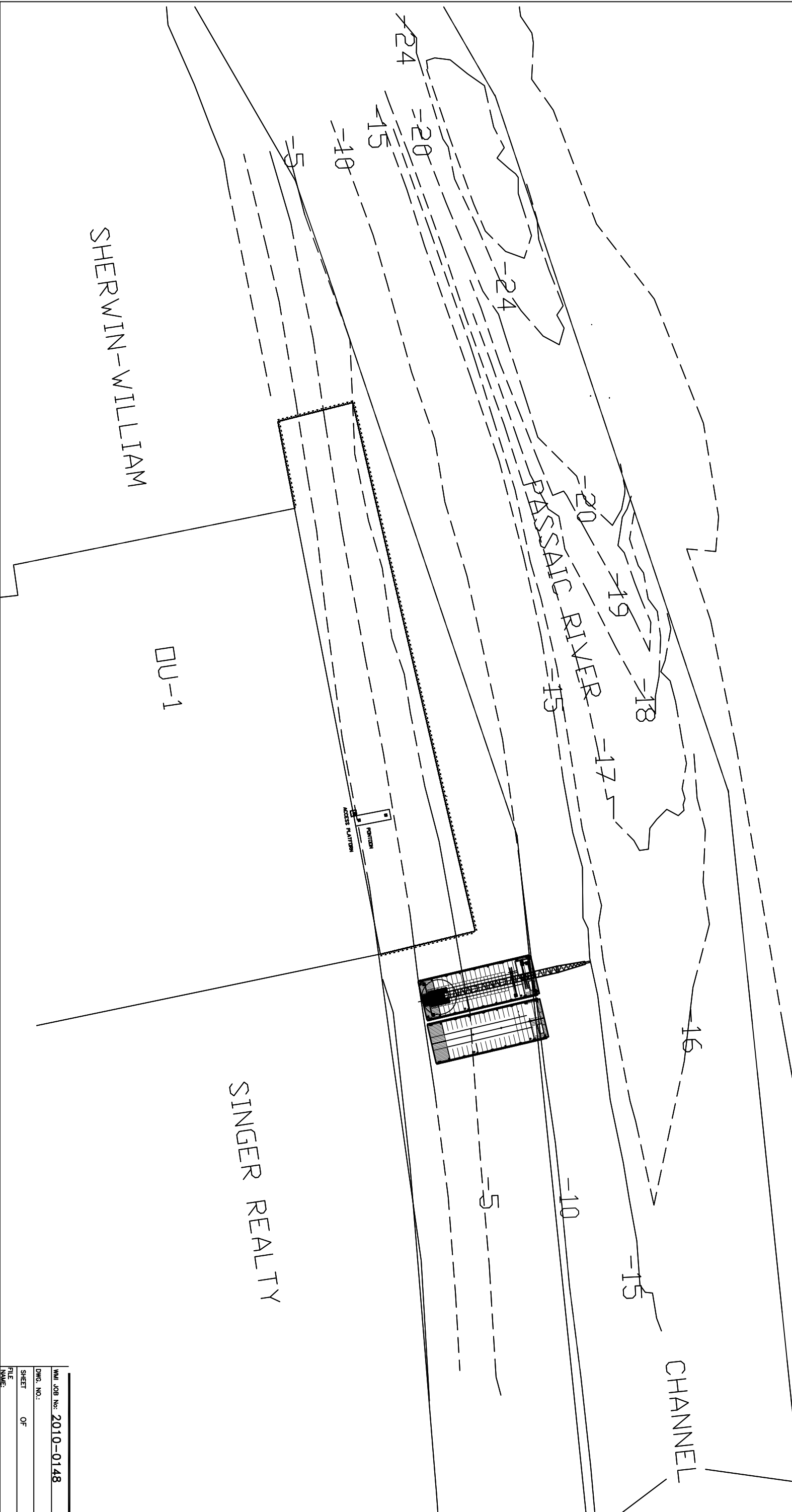
Passaic River
 Newark, NJ
 Lower Passaic River Study

DRAWN BY: C. Dion
 APPROVED BY:
 DATE: 1/25/2011 PAPER SIZE B
 SCALE: N/A

| NO. | REFERENCE DWG NUMBER |
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MANITOWOC 4,100 ON SPUD BARGE
 DECK BARGE TIE OFF
 SET UP 4 DRIVE SOUTH EAST WALL



MAN JOB No: 2010-0148
 DWG. NO.:
 SHEET OF
 FILE NAME:



Passaic River
 Newark, NJ
 Lower Passaic River Study

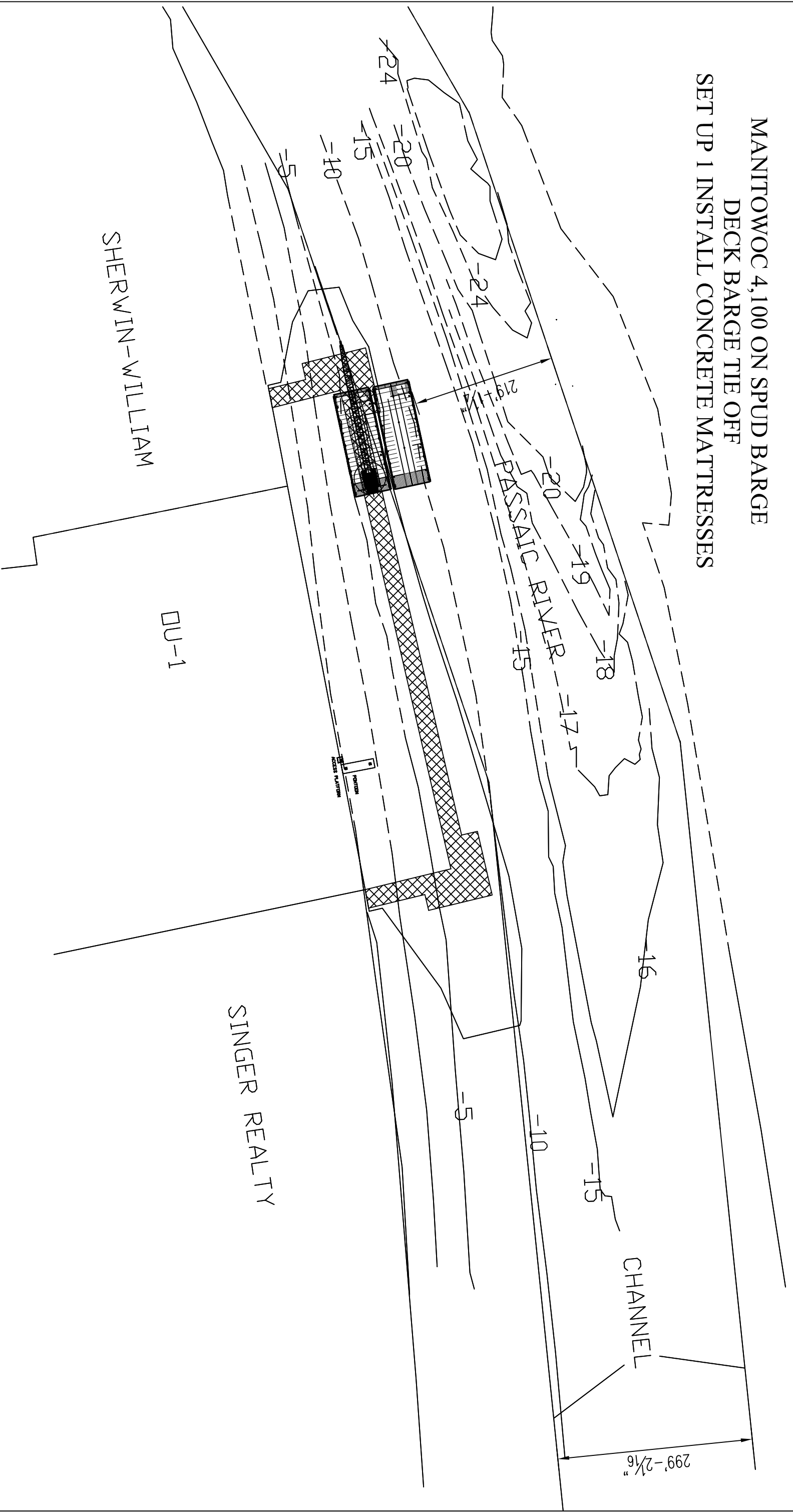
DRAWN BY: C. Dion
 APPROVED BY:
 DATE: 1/25/2011 PAPER SIZE B
 SCALE: N/A

| NO. | REFERENCE DWG NUMBER |
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ATTACHMENT C

MANITOWOC 4,100 ON SPUD BARGE
 DECK BARGE TIE OFF
 SET UP 1 INSTALL CONCRETE MATTRESSES



MAIL JOB No: 2010-0148
 DWG. NO.:
 SHEET OF
 FILE NAME:



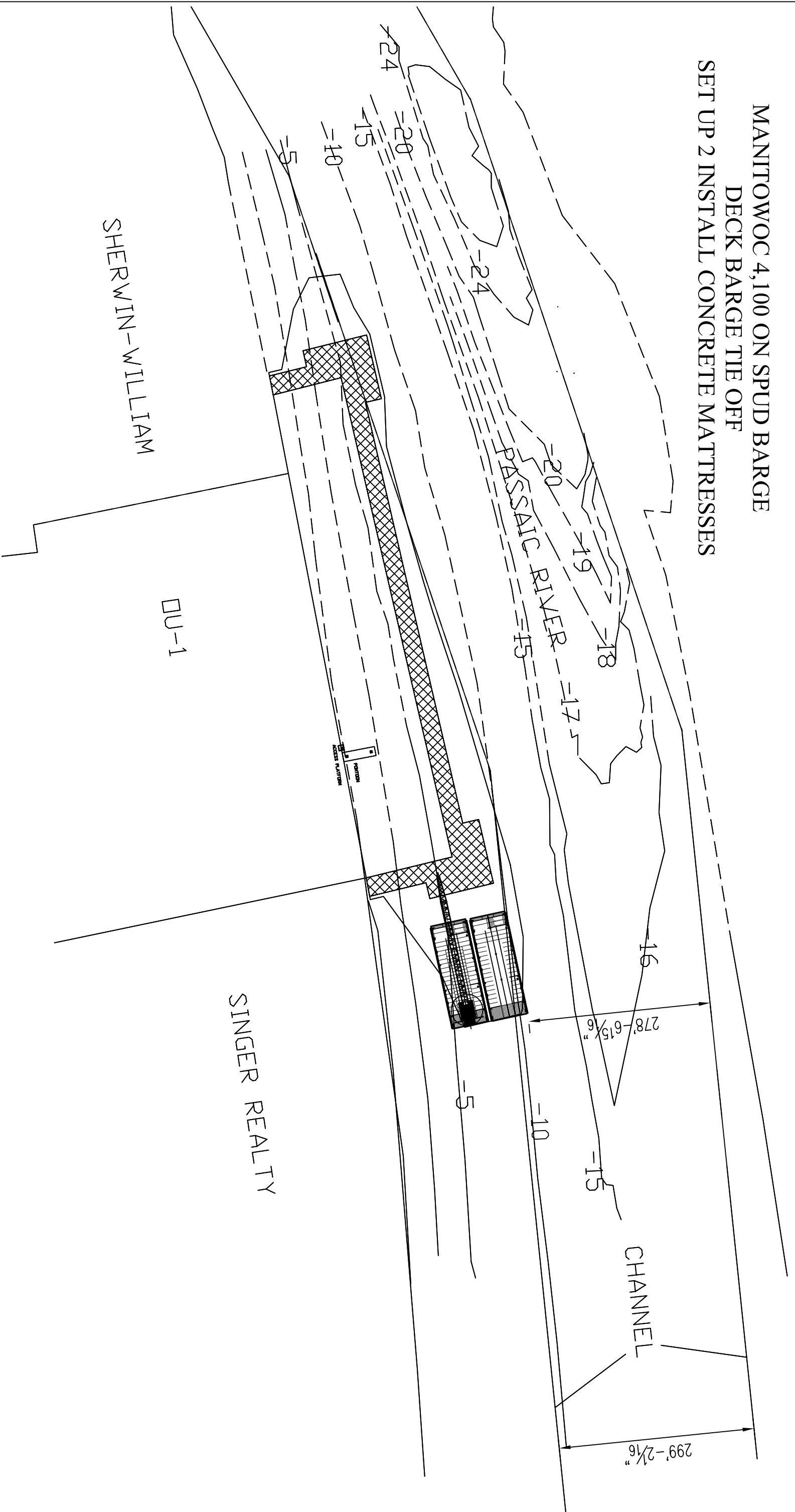
Passaic River
 Newark, NJ
 Lower Passaic River Study

DRAWN BY: C. Dion
 APPROVED BY:
 DATE: 1/25/2011 PAPER SIZE: B
 SCALE: N/A

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| NO. | REFERENCE DWG NUMBER |

| DATE | DESCRIPTION | BY |
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MANITOWOC 4,100 ON SPUD BARGE
 DECK BARGE TIE OFF
 SET UP 2 INSTALL CONCRETE MATTRESSES



MAIL JOB No: 2010-0148
 DWG. NO.:
 SHEET OF
 FILE NAME:



Passaic River
 Newark, NJ
 Lower Passaic River Study

DRAWN BY: C. Dion
 APPROVED BY:
 DATE: 1/25/2011 PAPER SIZE: B
 SCALE: N/A

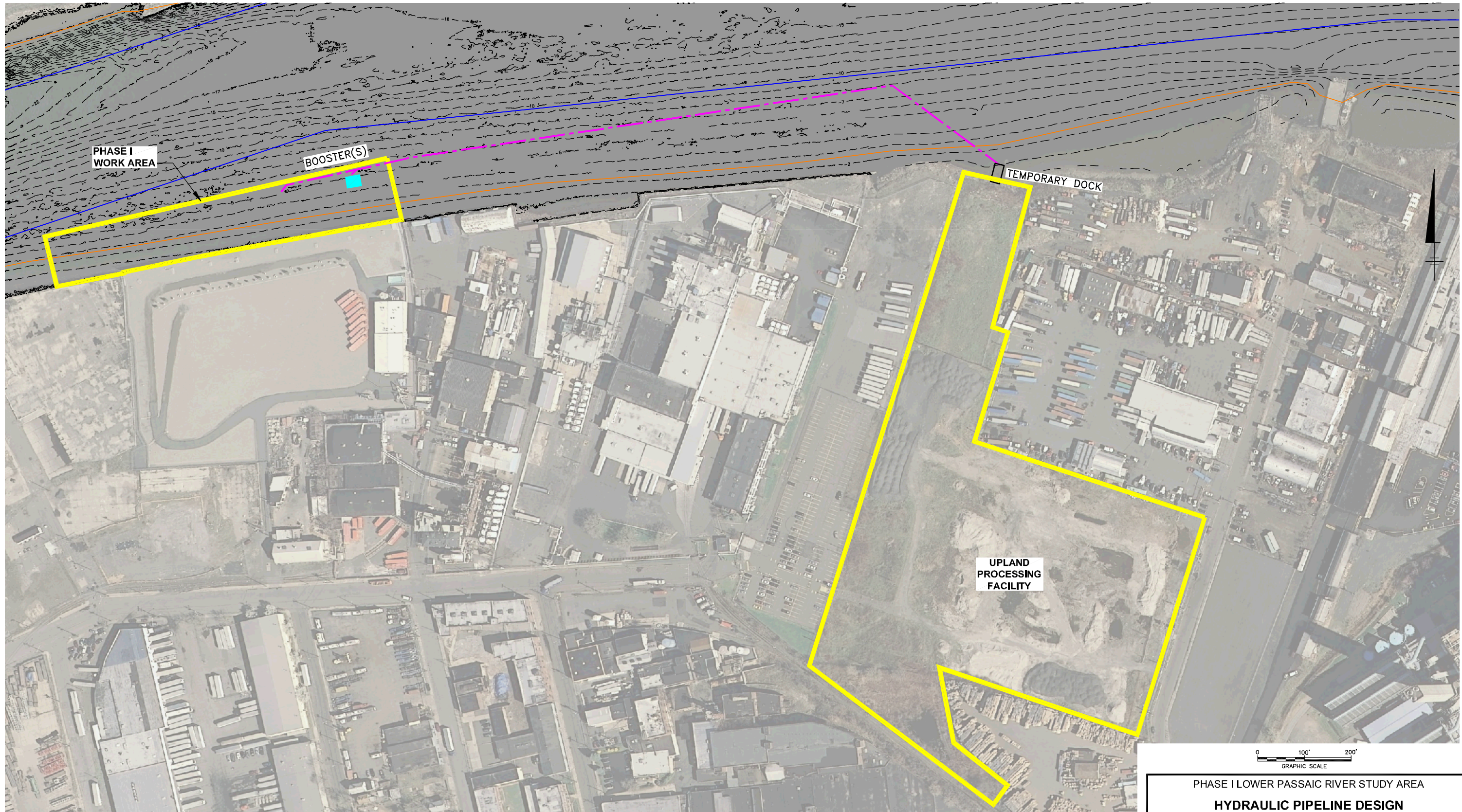
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| DATE | DESCRIPTION | BY |
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| | | |
| | | |
| | | |

ATTACHMENT D

PROJECT NAME: ---

IMAGES:
 R0C1\03.dwg
 R0C1\1.dwg
 R0C5\5.dwg
 R0C5\6.dwg
 R0C5\7.dwg
 R0C5\8.dwg
 R0C5\9.dwg



- LEGEND:**
- NAVIGATION CHANNEL
 - APPROXIMATE BOOSTER PUMP LOCATION
 - - - CONCEPTUAL PIPELINE ALIGNMENT;
APPROXIMATELY 5750 FEET
 - MEAN LOW WATER ELEVATION (-2.4 FT. NGVD29)

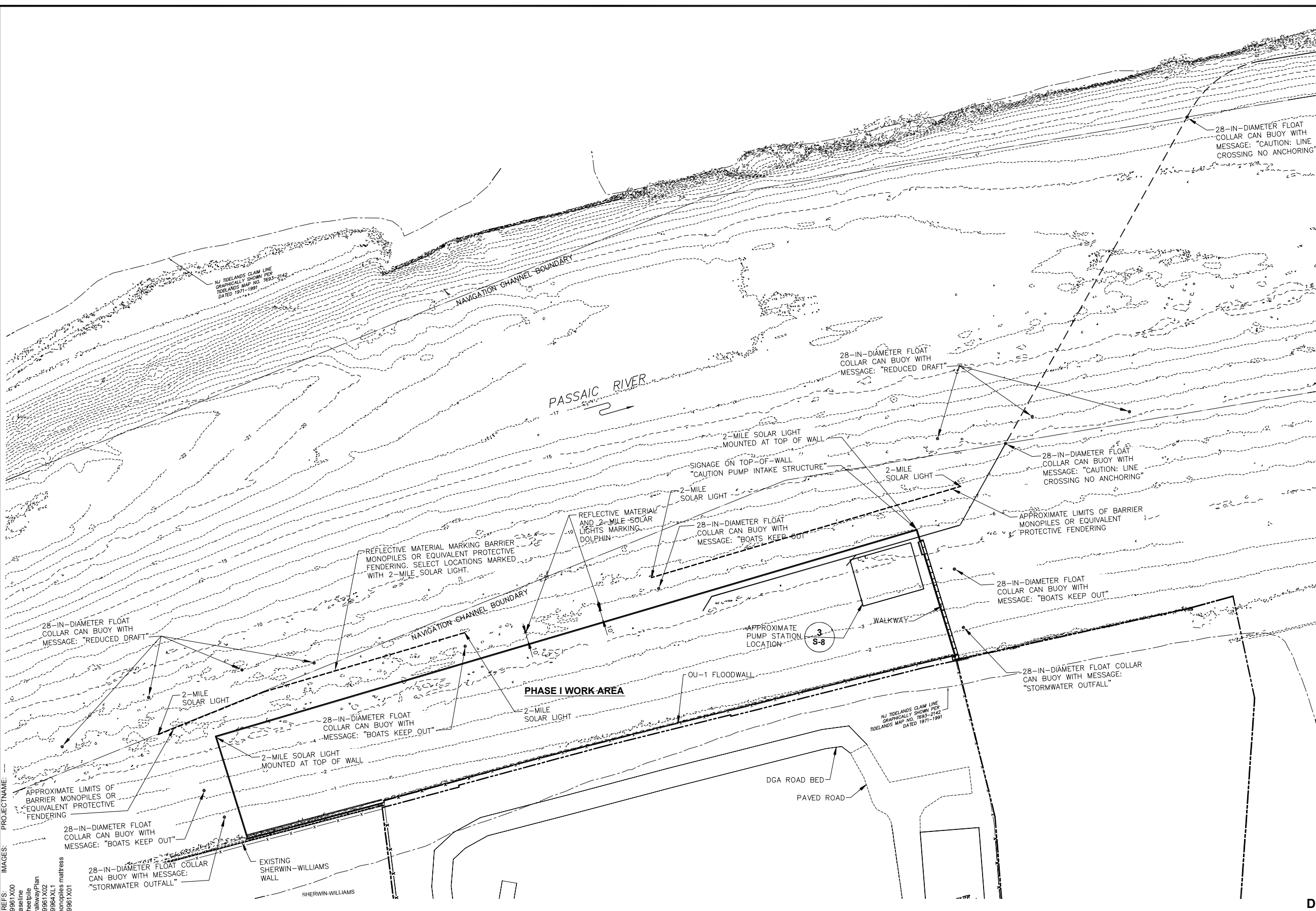
- NOTE:**
1. BATHYMETRIC CONTOURS ARE BASED ON BATHYMETRIC DATA COLLECTED BY GAHAGAN & BRYANT ASSOCIATES, INC. FOR ENSR FROM 05/04/2009 TO 05/07/2009, AND 2009 BATHYMETRIC SURVEY PERFORMED BY OCEAN SURVEYS, INC. ON 4-7 MAY, 2009.

DRAFT
 PRIVILEGED AND CONFIDENTIAL WORK PRODUCT
 PREPARED AT THE REQUEST OF LEGAL COUNSEL
 FOR OR IN ANTICIPATION OF LITIGATION
 AND IN CONNECTION WITH RENDERING LEGAL ADVICE

| | |
|---|-----------------------|
| PHASE I LOWER PASSAIC RIVER STUDY AREA | |
| HYDRAULIC PIPELINE DESIGN ANALYSIS MEMORANDUM | |
| PIPELINE LAYOUT AND BATHYMETRY FROM PHASE I WORK AREA TO UPF | |
| FEBRUARY 2011, REVISION 0 | FIGURE 2-1 |

ATTACHMENT E

CITY: SYRACUSE DIV/GROUP: 141 DB: GMS LD(OPT) PICR ROMAGNOLI PMR ROMAGNOLI TMR ROMAGNOLI LVR ONE OFF=REF
 G:\ENVCAD\SYRACUSE\PROJECT\B0009964\0001\0001\CONTRACT\09961\G12.dwg LAYOUT: G-12\$AVED: 11/19/2010 3:58 PM ACADVER: 18.05 (LMS TECH) PAGESSETUP: 600_11X17_PDF PLOTSTYLETABLE: PLTCONT1.CTB PLOTTED: 11/29/2010 2:31 PM BY: DECLERCO, BRIAN

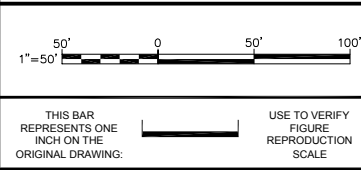


LEGEND:

- PIPELINE ALIGNMENT
- PIPELINE ALIGNMENT: SUBMERGED SECTION OF PIPELINE
- PHASE I WORK AREA (REVISED 07/01/2010)
- NAVIGATION CHANNEL BOUNDARY
- BATHYMETRY
- FENCE
- PROPERTY BOUNDARY
- DRAINAGE SWALE
- PIERHEAD AND BULKHEAD LINE
- TIDELANDS CLAIM LINE
- EXISTING STRUCTURE
- LIMITS OF PROTECTIVE FENDERING

+4.5 FT (SPRING MHHW)
 +3.6 FT (MHW)
 +1.0 FT (MSL)
 +0 FT NGVD29
 -1.7 FT (MLW)

- NOTES:**
1. BATHYMETRY DATA ARE FROM OCEAN SURVEYS, INC. DATED 06/30/2009; REVISED 09/15/2009.
 2. UPLAND TOPOGRAPHY AND EXISTING FEATURES WERE TAKEN FROM SHEET NO. 9 OF THE FINAL SITE CONDITIONS PLAN SUBMITTED BY FRENCH AND PARRELLO ASSOCIATES ON 06/17/2004.
 3. SURVEY SPOT ELEVATIONS WERE PROVIDED BY DPK CONSULTING, L.L.C. DATED 2009.
 4. ALL LIGHTS, SIGNAGE, AND OTHER NAVIGATIONAL AIDS WILL BE APPROVED BY THE USCG PRIOR TO INSTALLATION.



| No. | Date | Revisions | By | Ckd |
|-----|------|-----------|----|-----|
| | | | | |

Professional Engineer's Name
ROBERT ROMAGNOLI
 Professional Engineer's No.
 24GE04659400
 State: NJ Date Signed: Project Mgr.:
 Designed by: Drawn by: Checked by:

ARCADIS U.S., INC.
 NEW JERSEY ENGINEERING CERTIFICATE OF AUTHORIZATION NUMBER 24GA27939600

TIERRA SOLUTIONS, INC. • LOWER PASSAIC RIVER, NEWARK, NJ
 PHASE I CERCLA NON-TIME-CRITICAL REMOVAL ACTION
AIDS TO NAVIGATION
 WMI RECEIVE 2011-03-23

ARCADIS Project No.
 B0009964.0001
 Date
 DECEMBER 2010
 ARCADIS
 6723 TOWPATH ROAD
 BOX 66
 SYRACUSE, NY 13214
 TEL: 315.446.9120

G-12

DRAFT - NOT FOR CONSTRUCTION

SUBMISSION CONFIRMATION

The following was successfully submitted:

Submission: 191412: Submit Private Quarterly Monitoring Report
01/01/2012 - 03/31/2012 2603E EQP100001

The requested service completed successfully.



Transmitted Via Federal Express

February 23, 2012

Ms. Marsha McGowan, Health Officer
City of Newark Department of Health and Human Services
110 William Street
Newark, NJ 07102-1316

Re: Administrative Settlement Agreement and Order on Consent for Removal Action, USEPA Region 2
CERCLA Docket No. 02-2008-2020 – **Notification of Surface Water Diversion, 2603E Permit
Equivalency, Activity No. EQP100001**, *CERCLA Non-Time-Critical Removal Action – Lower Passaic
River Study Area*

Dear Ms. McGowan:

In compliance with the requirements of a Water Allocation Permit Equivalency (Program Interest ID: 2603E; Activity No. EQP100001) issued pursuant to the Water Supply Management Act (New Jersey Statutory Authority [N.J.S.A]. 58:1A-1 et seq.), Tierra Solutions, Inc. [funding and performing, on behalf of Occidental Chemical Corporation, the subject Administrative Order on Consent (Removal Action AOC)] is notifying the City of Newark Department of Health of Human Services of a surface water diversion from the Passaic River, City of Newark, Essex County.

The enclosed permit equivalency was granted by the New Jersey Department of Environmental Protection (NJDEP) for the surface water diversion, effective January 14, 2011 through December 31, 2020. The surface water diversion is anticipated to start February 24, 2012.

Should you have any questions about this notification, please contact Tina Berceli-Boyle at 978-322-4518 or tina.berceli-boyle@arcadis-us.com, or Bob Romagnoli at 315-671-9250 or bob.romagnoli@arcadis-us.com

Sincerely,

Tierra Solutions, Inc.

Paul J. Bluestein
Project Coordinator
On behalf of Occidental Chemical Corporation
(as successor to Diamond Shamrock Chemicals Company)

Enclosure:
NJDEP Water Allocation Permit Equivalency

Copies:

- 1c: U.S. Environmental Protection Agency, Region 2
290 Broadway, 19th Floor
New York, New York 10007-1866
Attn: Elizabeth Butler

- 1c: U.S. Environmental Protection Agency, Region 2
290 Broadway, 17th Floor
New York, New York 10007-1866
Attn: Ray Basso

- 1c: U.S. Environmental Protection Agency, Region 2
Office of Regional Counsel
290 Broadway, 17th Floor
New York, New York 10007-1866
Attn: Patricia Hick

- 1c: New Jersey Department of Environmental Protection
Site Remediation Program
401 E. State Street
P.O. Box 028
Trenton, New Jersey 08265-0028
Attn: Mike Burlingame

- 1c: New Jersey Department of Environmental Protection
Site Remediation Program
401 E. State Street
P.O. Box 028
Trenton, New Jersey 08265-0028
Attn: Janine MacGregor

- 1c: ARCADIS U.S., Inc.
6723 Towpath Road
P.O. Box 66
Syracuse, New York 13214-0066
Attn: Bob Romagnoli



RECEIVED

JAN 14 2011

Tierra Solutions

State of New Jersey

Department of Environmental Protection

CHRIS CHRISTIE
Governor

BOB MARTIN
Commissioner

KIM GUADAGNO
Lt. Governor

Mail Code 401-03
DIVISION OF WATER SUPPLY
WATER SUPPLY PERMITTING
BUREAU OF WATER ALLOCATION
P.O. BOX 420
TRENTON, NEW JERSEY 08625-0420
TEL.# 609-292-2957
FAX.# 609-633-1495

January 12, 2011

Tierra Solutions (Diamond Alkali Superfund)
2 Tower Center Boulevard
10th Floor
East Brunswick Township, NJ 08816
Attn: Paul J. Bluestein

Dear Mr. Bluestein:

Re: **Water Allocation Permit Equivalency - New
Program Interest ID: 2603E
Activity No. EQP100001**


Enclosed is a Permit Equivalency issued pursuant to the Water Supply Management Act, N.J.S.A. 58:1A-1 et seq. This Equivalency becomes effective on January 14, 2011 and is to divert water from one surface water intake(s) in the following Municipalities and Counties:

| MUNICIPALITY | COUNTY |
|--------------|--------|
| Newark City | Essex |

EQP100001 is your Permit Activity Number, and 2603E is now your Program interest ID and will appear on all forms and correspondence from the Bureau of Water Allocation. Please reference your Program Interest ID and Activity No. in all correspondence.

Please be advised that as you are responsible for complying with the terms and conditions of the enclosed equivalency and you should review them thoroughly. Failure to comply with any or all of the terms and conditions could result in penalties and/or revocation of the equivalency.

Very truly yours,



Diane E. Zalaskus, P.E.
Bureau Chief
Division of Water Supply

Enclosure

CERTIFIED MAIL NO. 7008 1140 0000 1261 8779

c: Bureau of Water Allocation
Michael Burlingame, Case Manager, SRP
Northern Bureau of Water Compliance & Enforcement Element
Chelsea Du Brul, BWA
Elizabeth Butler, USEPA



State of New Jersey
 Department of Environmental Protection
 Bureau of Water Allocation
 PO Box 426, Trenton, New Jersey 08625-0426



Permit Equivalency

The New Jersey Department of Environmental Protection grants this permit* in accordance with your application, attachments accompanying same application, and applicable laws and regulations. This permit is also subject to further conditions and stipulations enumerated in the supporting documents.

| | | | |
|--|----------------------------------|---|---------------------------------------|
| Program Interest ID: 2603E Permit Number: EQP100001 | Issuance Date: 01/12/2011 | Effective Date: 01/14/2011 | Expiration Date: 12/31/2020 |
| Name and Address of Applicant TIERRA SOLUTIONS (DIAMOND ALKALI SUPERFUND) 2 Tower Center Boulevard 10th Floor East Brunswick Township, NJ 08816 | | Location of Activity/Facility Newark City Essex | |
| | | Type of Permit Water Allocation Permit Equivalency - New | Statute(s) N.J.S.A. 58:1A-1 |

This permit grants permission to divert water from the approved sources in the attached permit inventory, in the following municipalities, for the following water uses:

| | | |
|------------------------------------|------------------------|--------------------------------------|
| MUNICIPALITY Newark City | COUNTY Essex | Water Uses: Pollution Control |
|------------------------------------|------------------------|--------------------------------------|

This permit is subject to the attached Conditions.

Approved by the authority of:
 Bob Martin, Commissioner
 Department of Environmental Protection

Diane E. Zalaskus 1/12/11
 Diane E. Zalaskus, P.E., Bureau Chief
 Bureau of Water Allocation
 Date

* Permit means Certification, Approval, Registration, Equivalency, etc.

TIERRA SOLUTIONS (DIAMOND ALKALI SUPERFUND)
2603E

Permit Equivalency : EQP100001

Permit Inventory

Water Diversion Sources - Water may be diverted under this permit from the following sources:

| Source Designation (Well Permit No. or Intake No.) | Description | Subject Item ID |
|---|-----------------------------------|-----------------|
| INTAKE 1 | PASSAIC RIVER (PHASE 1 WORK AREA) | WSIN0000939148 |

Group Subject Items - The following items are grouped sources for the purpose of setting permit requirements outlined in this document:

| Group Designation | Group Description | Group Subject Item ID | Group Members |
|--|--|-----------------------|---|
| TIERRA SOLUTION'S INC. (DIAMOND ALKALI SUPERFUND SITE) | 2603E PERMIT EQUIV - ALL DIVERSION SOURCES | WSWA0000939149 | INTAKE 1, PASSAIC RIVER (PHASE 1 WORK AREA) (WSIN939148) |

**TIERRA SOLUTIONS (DIAMOND ALKALI SUPERFUND)
2603E**

Permit Equivalency : EQP100001

Permit Requirements

Limit Requirements

The following limits apply and are the maximum permitted allocation:

Final Permit Phase from 01/14/2011 -

| Subject Item | Parameter | Limit |
|--|------------------------|---|
| TIERRA SOLUTION'S INC. (DIAMOND ALKALI SUPERFUND SITE), 2603E PERMIT EQUIV - ALL DIVERSION SOURCES (WSWA939149) | Maximum Diversion Rate | <= 1500 Gallons Per Minute. [N.J.A.C. 7:19- 2] |
| | Water Diverted | <= 56.3 Million Gallons Per Month. [N.J.A.C. 7:19- 2] |
| | | <= 177.1 Million Gallons Per Year. [N.J.A.C. 7:19- 2] |

Other Limit Requirements

Final Permit Phase from 01/14/2011 -

| Subject Item | Parameter | Limit |
|--|---------------------|--|
| INTAKE 1, PASSAIC RIVER (PHASE 1 WORK AREA) (WSIN939148) | Rated Pump Capacity | <= 1500 Gallons Per Minute. [N.J.A.C. 7:19- 2] |

Monitoring Requirements

Final Permit Phase from 01/14/2011 -

| Subject Item | Requirement | Frequency | Monitored Parameter | Monitoring Method |
|--|---|------------|---------------------|-------------------|
| INTAKE 1, PASSAIC RIVER (PHASE 1 WORK AREA) (WSIN939148) | The monthly diversion from each source indicated shall be monitored. [N.J.A.C. 7:19- 2] | Each Month | Water Diverted | Meter |

Submittal/Action Requirements

Final Permit Phase from 01/14/2011 -

| Applicable Subject Items | Submittal/Action Type | Requirement |
|--|---------------------------------|--|
| INTAKE 1, PASSAIC RIVER (PHASE 1 WORK AREA) (WSIN939148) | Submit Private Quarterly Report | The required monitoring results shall be recorded on the form provided by the Department. The completed form shall be submitted within 30 days after the end of each quarter. [N.J.A.C. 7:19- 2] |

**TIERRA SOLUTIONS (DIAMOND ALKALI SUPERFUND)
2603E**

Permit Equivalency : EQP100001

Submittal/Action Requirements

Final Permit Phase from 01/14/2011 -

| Applicable Subject Items | Submittal/Action Type | Requirement |
|---|----------------------------|---|
| TIERRA SOLUTION'S INC. (DIAMOND ALKALI SUPERFUND SITE), 2603E PERMIT EQUIV - ALL DIVERSION SOURCES (WSWA939149) | Submit Renewal Application | A renewal application must be submitted three months prior to the expiration date. [N.J.A.C. 7:19- 2] |

Text Requirements

All Phases

TIERRA SOLUTION'S INC. (DIAMOND ALKALI SUPERFUND SITE), 2603E PERMIT EQUIV - ALL DIVERSION SOURCES (WSWA939149)

1. All diversion sources shall be metered with a totalizing flow meter. [N.J.A.C. 7:19- 2]
2. At a minimum, each diversion source flow meter shall be calibrated at least once every five years. [N.J.A.C. 7:19- 2]
3. The permittee shall investigate to the Department's satisfaction complaints by users of wells or surface water supplies within the zone of influence of its diversion to determine what impact the diversion has had on such wells or surface water supplies. A report on these investigations shall be forwarded to the Bureau of Water Allocation. Any well or surface water supply which becomes damaged, dry, has reduced capacity, reduced water quality or is otherwise rendered unusable as a water source as a result of the permittee's diversions shall be repaired or replaced at the expense of the permittee. Work shall be in accordance with all State, County and Municipal construction standards for potable water. After reviewing all applicable investigational reports the Department of Environmental Protection, along with the USEPA, will make the final determination regarding the validity of such complaints, the scope or sufficiency of such investigations, and will determine how to resolve any problems resulting from the diversion. [N.J.A.C. 7:19- 2]
4. The operation of the water withdrawal project shall not cause long-term progressive lowering of groundwater levels, permanent loss of storage capacity or substantial impact on low flows of perennial streams or serve to spread the contamination. [N.J.A.C. 7:19- 2]
5. All well construction and decommissioning activity shall be conducted in accordance with N.J.A.C. 7:9D et seq. and applicable regulations. [N.J.A.C. 7:19- 2]
6. The local Health Department shall be notified of the proposed diversion within 30 days of the issuance date of this permit equivalency and prior to the start of pumping. [N.J.A.C. 7:19- 2]
7. All well owners within the estimated zone of influence of the diversion shall be notified within 30 days of the issuance date of this permit equivalency and prior to the start of pumping. [N.J.A.C. 7:19- 2]
8. The pumping equipment capacity may be increased and well locations may be changed provided that the maximum diversion rate and the water diverted monthly and annual allocation limits are not exceeded. The permittee must notify the Bureau of Water Allocation in writing 30 days prior to any such changes. [N.J.A.C. 7:19- 2]
9. The issuance of this permit shall not be deemed to affect in any way action by the Department of Environmental Protection of the State of New Jersey on any future application. [N.J.A.C. 7:19- 2]
10. No change in plans or specifications shall be made except with the prior written permission of the Department of Environmental Protection of the State of New Jersey. [N.J.A.C. 7:19- 2]
11. The granting of this permit shall not be construed to in any way affect the title or ownership of property, and shall not make the Department of Environmental Protection or the State a party in any suit or question of ownership of property. [N.J.A.C. 7:19- 2]
12. This permit does not waive the obtaining of Federal or other State or local government consent when necessary. This permit is not valid and no work shall be undertaken until such time as all other required approval's and permits have been obtained. [N.J.A.C. 7:19- 2]
13. A copy of this permit shall be kept at the facility site, and shall be exhibited upon request of any person. [N.J.A.C. 7:19- 2]

TIERRA SOLUTIONS (DIAMOND ALKALI SUPERFUND)
2603E

Permit Equivalency : EQP100001

Text Requirements

All Phases

TIERRA SOLUTION'S INC. (DIAMOND ALKALI SUPERFUND SITE), 2603E PERMIT EQUIV - ALL DIVERSION SOURCES (WSWA939149)

14. The Department has the right to enter and inspect any site, building, or equipment, or any portion thereof, owned or operated by the permittee, at any time, in order to ascertain compliance or noncompliance with N.J.S.A. 58:1A-1 et seq., 58:4A-4.1 et seq., 58:12A-1 et seq., these rules, or any other agreement or order issued or entered into pursuant thereto. Such right shall include, but not be limited to, the right to require the testing of any equipment at the facility, to sketch or photograph any portion of the site, building or equipment, to copy or photograph any document or records necessary to determine such compliance or noncompliance, and to interview any employees or representative of the owner, operator, or permittee. Such right shall be absolute and shall not be conditioned upon any action by the Department, except the presentation of appropriate credentials as requested and compliance with appropriate standard safety procedures. [N.J.A.C. 7:19- 2]
15. This permit may be transferred, with the consent of the Department, but only for the identical use of the waters. [N.J.A.C. 7:19- 2]
16. If the authorized diversion privileges are not currently diverted, subject to contract, or reasonably required for a demonstrated future need, they shall revert back to the State upon renewal or modification of the permit. [N.J.A.C. 7:19- 2]
17. The permittee shall protect each source from vandalism, tampering, and contamination at all times. [N.J.A.C. 7:19- 2]
18. This permit shall expire as indicated on the permit approval cover page; however, any action required pursuant to a critical area designation shall take precedence over this expiration date. [N.J.A.C. 7:19- 2]



NOW REQUIRED ON-LINE REPORTING



**NOTE: QUARTERLY WATER DIVERSION REPORTS
DUE BY JANUARY 30, APRIL 30, JULY 30 AND October 30 EACH YEAR**

LOG ON AND SUBMIT REPORTS BEFORE DUE DATES

Instructions for Completing Annual Water Use Reports for Water Use Registrations online
Steps 1-6 are only for Users without MyNewJersey Online and NJDEP Online Access

General Instructions:

Prior to using NJDEP Online, obtain a valid account with MyNewJersey (free)

1. Open an Internet browser and type www.njdeponline.com and select the button labeled 'NEW USERS Request Access to NJDEP Online', Fill in the following fields: 'Contact Name', 'Organization Name', 'Email Address', and 'Confirm E-Mail'.
2. Click on the 'Request' button, which takes you to a page where NJDEP Online and MyNewJersey will be linked.
3. If you already have a MyNewJersey Account: Fill out Section A with your MyNewJersey 'Login ID' and 'Password' and click 'Link NJDEP Online with My Account'. If you have a MyNewJersey Account but forget your Login ID or Password, Please see the information in Section C.
4. If you do not have a MyNewJersey account: Fill out Section B with your desired 'Log On ID', 'Password', 'Security Question' and answer to that security question, and click 'Create this new MyNewJersey Account and Link NJDEP Online To It.'

NOTE: Save your ID and Password for future use. Be sure to remember your challenge question and answer in case you forget your password. Passwords must be at least 6 characters long, chosen from at least two of these groups: lowercase letters, uppercase letters, digits, and other characters (except space, quotes and \).

5. You should now be at the NJDEP Online Contact Information Page. Ensure that the proper contact information (including the proper email address) is entered, and add at least one contact number (without spaces), and upon returning to the NJDEP Online Contact Information Page, click 'Continue'.
6. Request your Certification PIN by clicking 'Request PIN'. You will receive a Certification PIN via Email. You will only be required to use the Certification PIN if you plan to electronically certify a submittal using this account. If you do not need a Certification PIN, click 'Complete Setup'.

NOTE: Upon requesting a Certification PIN and clicking 'Continue' on the confirmation screen, your account setup will be complete.

7. Under the Water Supply Heading, select the Water Diversion, Water Utilization and Monitoring Service to add it to your workspace by clicking the checkbox next to Water Diversion, Water Utilization and Monitoring, and click the 'OK' button in the lower right corner.
8. Click 'Add Facilities'. Add your facility to your account by selecting Water Supply in the DEP Program Field. Enter your Facility ID (Program Interest ID) into the Facility ID field. Click 'Search'. Check your facility and click 'Add Selected Facility'. Click 'Complete Setup', then Click 'Done'.

**If you require additional assistance, contact the Bureau of Water Allocation at (609) 292-2957.
If you intend to report online, questions can be e-mailed to portalcomments@dep.state.nj.us.**

**Administrative Hearing Request Checklist
And Tracking Form for Permits**

1. Permit Being Appealed:

Title and Type of Permit

Issuance Date of Permit

Permit Number

2. Person Requesting Hearing:

Name/Company

Name of Attorney (if applicable)

Address

Address of Attorney

3. The following information must be included with the request:

- a. The date the permittee received the final permit;
- b. A copy of permit with a list of all permit conditions and issues contested;
- c. The legal and factual questions at issue;
- d. A statement as to whether or not the permittee raised each legal and factual issues during the public comment period of the permit;
- e. Suggested revised or alternative permit conditions;
- f. An estimate of the time required for the hearing;
- g. A request, if necessary, for a barrier-free hearing location for physically disabled persons;
- h. A clear indication of any willingness to negotiate a settlement with the Department prior to the Department's processing of the hearing request to the Office of Administrative Law; and
- i. This form, completed with all of the information listed above, signed, and dated, including attachments, to:

- i.
 - i. Office of Legal Affairs
ATTENTION: Adjudicatory Hearing Requests
Department of Environmental Protection
401 East State Street
P.O. Box 402
Trenton, New Jersey 08625-0402

- i.
 - ii. Diane E. Zalaskus, P.E.
Division of Water Supply
Bureau of Water Allocation
P.O. Box 426
Trenton, New Jersey 08625

- i.
 - iii. All co-permittees (w/attachments)

4. Signature: _____ Date: _____

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Version: 4.10 2603E
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MY WORKSPACE



Service Selection  

Note: Access to this electronic service selection and submittal area is granted by selecting facilities using the [user profile](#). Some services are accessible without selecting facilities as shown below.




Water Supply

[Water Diversion, Water Utilization and Monitoring Results Submittal](#)

[Configure Services](#)



My Facilities/Program Interests  

Note: You may add facilities by clicking the "Add Facilities" button below.

| Facility Name | Facility ID | Program | Access Type | Change Access | Manage Security | View | Remove |
|---|-------------|--------------|-------------|---|-----------------|---|---|
| TIERRA SOLUTIONS (DIAMOND ALKALI SUPERFUND) | 2603E | Water Supply | General |  | |  |  |



Clicking a column title will sort the table by that column.

[Add Facilities](#)



My Services - In Progress  

Note: To edit or resume working on an "In Progress" item, please click on the appropriate number in the ID column.

You do not have any "In Progress" Services.

My Services - Submitted  

Note: If the status of your service is "Submission Failed - Please contact DEP," please send an e-mail to Portalcomments@dep.state.nj.us for assistance. Please include the Service ID number of the failed submittal in the message.

| ID | Application Name | Facility Name | Description | Status | Created Date | Last Modified Date | View History Permit |
|--------|--|---|------------------------------|-----------------------|--------------|--------------------|---|
| 137721 | Submit Private Quarterly Monitoring Report 01/01/2011 - 03/31/2011 2603E | TIERRA SOLUTIONS (DIAMOND ALKALI SUPERFUND) | Monitoring Results Submittal | Submission Successful | 06/15/2011 | 06/15/2011 |   |

SUBMISSION CONFIRMATION

The following was successfully submitted:

Submission: 137721:Submit Private Quarterly Monitoring Report
01/01/2011 - 03/31/2011 2603E EQP100001

The requested service completed successfully.

[My Workspace](#)[User Profile](#)[Certifications](#)[Payments](#)[Documents and Forms](#)[Permit Folder](#)

Version: 4.11

2603E

Currently logged in: Sarah Walker (PHASEIREMOVALACTION)TIERRA SOLUTIONS (DIAMOND ALKALI SUPERFUND)[Help](#) | [Logout](#)**SERVICE SUMMARY**[Printer Friendly Version](#)**Section A: Facility Profile**

Facility ID: 2603E
Facility Name TIERRA SOLUTIONS (DIAMOND ALKALI SUPERFUND)
County: Essex
Facility Location: 80 LISTER AVE
 Newark, NJ 07105
Mailing Address: 2 TOWER CENTER BLVD
 10TH FLR
 East Brunswick Twp, NJ 08816

Section B: Certification

I certify under penalty of law in accordance with N.J.S.A. 58:1A-5(b) that the information submitted is accurate and complete.

General: Sarah Walker
Certification Date: 04/09/2012
User ID: 28517
Mailing Address:
Phone: 7815954626 (Work Phone Number)
E-Mail: sarah.walker@arcadis-us.com

Section C: Submission Name**Submission/Project Name:**

Submit Private Quarterly Monitoring Report 01/01/2012 - 03/31/2012 2603E EQP100001

Comments:

Water supply diversion at site started on March 9, 2012. This report is for a total of 22 days of water supply diversion.

Section D: Additional Information**Service ID:** 191412

Are you required to measure static water level?

No

How is your diversion measured?

Totalizing flow meters

Section E: Agricultural Information

N/A

Section F: Quarterly Monitoring Results

Monitoring Period: 01/01/2012 -
03/31/2012

Activity Code: EQP100001

NJDEP Preprint ID: 82815

| Subject Item | Parameter | Required Frequency | Report Value in Units of | January | | February | | March | | Row Comments |
|--|----------------|--------------------|--------------------------|-----------------|-------------|-----------------|-------------|-----------------|-------------|--------------|
| | | | | Quantity/Result | Sample Date | Quantity/Result | Sample Date | Quantity/Result | Sample Date | |
| WSIN939148 - INTAKE 1, PASSAIC RIVER (PHASE 1 WORK AREA) | Water Diverted | Each Month | Million Gallons | 0 | | 0 | | 8.268 | | |

Form Comments: A total of 8,268,000 gallons were diverted from 3/9/2012 through 3/31/2012.

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Currently logged in: Sarah Walker (PHASEIREMOVALACTION)

2603E

TIERRA SOLUTIONS (DIAMOND ALKALI SUPERFUND)

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No Errors

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Expand/Contract

Service Selection

Move Item up Move Item down

Note: Access to this electronic service selection and submittal area is granted by selecting facilities using the [user profile](#). Some services are accessible without selecting facilities as shown below.

Water Supply

[Water Diversion, Water Utilization and Monitoring Results Submittal](#)

Configure Services

Expand/Contract

My Facilities/Program Interests

Move Item up Move Item down

Note: You may add facilities by clicking the "Add Facilities" button below.

| Facility Name | Facility ID | Program | Access Type | Change Access | Manage Security | View | Remove |
|---|-------------|--------------|-------------|---|-----------------|---|--|
| TIERRA SOLUTIONS (DIAMOND ALKALI SUPERFUND) | 2603E | Water Supply | General | <input type="checkbox"/> Change Security Access | | <input type="checkbox"/> Facility Details | <input type="checkbox"/> Remove facility |

Clicking a column title will sort the table by that column.

Add Facilities

Expand/Contract

My Services - In Progress

Move Item up Move Item down

Note: To edit or resume working on an "In Progress" item, please click on the appropriate number in the ID column.

You do not have any "In Progress" Services.

Expand/Contract

My Services - Submitted

Move Item up Move Item down

Note: If the status of your service is "Submission Failed - Please contact DEP," please send an e-mail to Portalcomments@dep.state.nj.us for assistance. Please include the Service ID number of the failed submittal in the message.

| ID | Application Name | Facility Name | Description | Status | Created Date | Last Modified Date | View | History | Permit |
|--------|---|---|------------------------------|-----------------------|--------------|--------------------|-----------------|-----------------|--------|
| 144435 | Submit Private Quarterly Monitoring Report 04/01/2011 - 06/30/2011 2603E EQP100001 | TIERRA SOLUTIONS (DIAMOND ALKALI SUPERFUND) | Monitoring Results Submittal | Submission Successful | 07/25/2011 | 07/25/2011 | Service Details | Service History | |
| 137721 | Submit Private Quarterly Monitoring Report 01/01/2011 - 03/31/2011 2603E EQP100001 | TIERRA SOLUTIONS (DIAMOND ALKALI SUPERFUND) | Monitoring Results Submittal | Submission Successful | 06/15/2011 | 06/15/2011 | Service Details | Service History | |

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Last Updated: June 24, 2004

SUBMISSION CONFIRMATION

The following was successfully submitted:

Submission: 206486:Submit Private Quarterly Monitoring Report
04/01/2012 - 06/30/2012 2603E EQP100001

The requested service completed successfully.

SERVICE SUMMARY**Section A: Facility Profile**

Facility ID: 2603E
Facility Name TIERRA SOLUTIONS (DIAMOND ALKALI SUPERFUND)
County: Essex
Facility Location: 80 LISTER AVE
Newark, NJ 07105
Mailing Address: 2 TOWER CENTER BLVD
10TH FLR
East Brunswick Twp, NJ 08816

Section B: Certification

I certify under penalty of law in accordance with N.J.S.A. 58:1A-5(b) that the information submitted is accurate and complete.

General: Erika Denkenberger
Certification Date: 07/09/2012
User ID: 28517
Mailing Address:
Phone: 9783224503 (Work Phone Number)
E-Mail: erika.denkenberger@arcadis-us.com

Section C: Submission Name

Submission/Project Name:
Submit Private Quarterly Monitoring Report 04/01/2012 - 06/30/2012 2603E EQP100001
Comments:
Quarter 2, 2012: includes water supply diversion at site from April 1 through June 30, 2012

Section D: Additional Information

Service ID: 206486

Are you required to measure static water level?
No

How is your diversion measured?
Totalizing flow meters

Section E: Agricultural Information

N/A

| |
|--|
| Section F: Quarterly Monitoring Results |
|--|

Monitoring Period: 04/01/2012 - 06/30/2012 **Activity Code:** EQP100001 **NJDEP Preprint ID:** 83861

| | | | | April | | May | | June | | |
|--|-------------------|--------------------|--------------------------|-----------------|-------------|-----------------|-------------|-----------------|-------------|--------------|
| Subject Item | Parameter | Required Frequency | Report Value in Units of | Quantity/Result | Sample Date | Quantity/Result | Sample Date | Quantity/Result | Sample Date | Row Comments |
| WSIN939148 - INTAKE 1, PASSAIC RIVER (PHASE 1 WORK AREA) | Water Diverted | Each Month | Million Gallons | 9.597 | | 16.617 | | 11.118 | | |

Form Comments:

A total of 37,332,000 gallons were diverted from 4/01/2012 through 6/30/2012.

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2603E

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Service Selection



Note: Access to this electronic service selection and submittal area is granted by selecting facilities using the [user profile](#). Some services are accessible without selecting facilities as shown below.

Water Supply

[Water Diversion, Water Utilization and Monitoring Results Submittal](#)

[Configure Services](#)

My Facilities/Program Interests



Note: You may add facilities by clicking the "Add Facilities" button below.

| Facility Name | Facility ID | Program | Access Type | Change Access | Manage Security | View | Remove |
|---|-------------|--------------|-------------|---------------|-----------------|------|--------|
| TIERRA SOLUTIONS (DIAMOND ALKALI SUPERFUND) | 2603E | Water Supply | General | | | | |

Clicking a column title will sort the table by that column.

[Add Facilities](#)

My Services - In Progress



Note: To edit or resume working on an "In Progress" item, please click on the appropriate number in the ID column.





You do not have any "In Progress" Services.

My Services - Submitted



Note: If the status of your service is "Submission Failed - Please contact DEP," please send an e-mail to Portalcomments@dep.state.nj.us for assistance. Please include the Service ID number of the failed submittal in the message.

| ID | Application Name | Facility Name | Description | Status | Created Date | Last Modified Date | View History | Permit |
|--------|--|---|------------------------------|-----------------------|--------------|--------------------|--------------|--------|
| 164328 | Submit Private Quarterly Monitoring Report 07/01/2011 - 09/30/2011 2603E EQP100001 | TIERRA SOLUTIONS (DIAMOND ALKALI SUPERFUND) | Monitoring Results Submittal | Submission Successful | 10/28/2011 | 10/28/2011 | | |

| | | | | | | | | |
|--------|--|---|------------------------------|--------------------------|------------|------------|---|---|
| 144435 | Submit Private Quarterly Monitoring Report 04/01/2011 - 06/30/2011 2603E EQP100001 | TIERRA SOLUTIONS (DIAMOND ALKALI SUPERFUND) | Monitoring Results Submittal | Submission Successful | 07/25/2011 | 07/25/2011 |  |  |
| 137721 | Submit Private Quarterly Monitoring Report 01/01/2011 - 03/31/2011 2603E EQP100001 | TIERRA SOLUTIONS (DIAMOND ALKALI SUPERFUND) | Monitoring Results Submittal | Submission Successful | 06/15/2011 | 06/15/2011 |  |  |

Clicking a column title will sort the table by that column.

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Last Updated: June 24, 2004

SERVICE SUMMARY

Section A: Facility Profile

Facility ID: 2603E
Facility Name: TIERRA SOLUTIONS (DIAMOND ALKALI SUPERFUND)
County: Essex
Facility Location: 80 LISTER AVE
 Newark, NJ 07105
Mailing Address: 2 TOWER CENTER BLVD
 10TH FLR
 East Brunswick Twp, NJ 08816

Section B: Certification

Section C: Submission Name

Submission/Project Name:
 Submit Private Quarterly Monitoring Report 07/01/2012 - 09/30/2012 2603E EQP100001
Comments:
 Water supply diversion at the site started on March 9, 2012. This report is for a total of 67 days.
 Water supply diversion at the site ended on September 5, 2012.

Section D: Additional Information

Service ID: 234056
 Are you required to measure static water level?
 No
 How is your diversion measured?
 Totalizing flow meters

Section E: Agricultural Information

N/A

Section F: Quarterly Monitoring Results

Monitoring Period: 07/01/2012 - 09/30/2012
Activity Code: EQP100001
NJDEP Preprint ID: 86693

| Subject Item | Parameter | Required Frequency | Report Value in Units of | July | | August | | September | | Row Comments |
|--|----------------|--------------------|--------------------------|-----------------|-------------|-----------------|-------------|-----------------|-------------|--------------|
| | | | | Quantity/Result | Sample Date | Quantity/Result | Sample Date | Quantity/Result | Sample Date | |
| WSIN939148 - INTAKE 1, PASSAIC RIVER (PHASE 1 WORK AREA) | Water Diverted | Each Month | Million Gallons | 12.765 | | 6.031 | | 0.590 | | |

Form Comments:
 A total of 19,386,120 gallons were diverted from 7/01/2012 through 9/05/2012.

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2603E

TIERRA SOLUTIONS (DIAMOND ALKALI SUPERFUND)

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No Errors

No Messages

MY WORKSPACE

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Expand/Contract

Service Selection

Move Item up Move Item down

Note: Access to this electronic service selection and submittal area is granted by selecting facilities using the [user profile](#). Some services are accessible without selecting facilities as shown below.

Water Supply

[Water Diversion](#), [Water Utilization and Monitoring Results Submittal](#)

Configure Services

Expand/Contract

My Facilities/Program Interests

Move Item up Move Item down

Note: You may add facilities by clicking the "Add Facilities" button below.

| Facility Name | Facility ID | Program | Access Type | Change Access | Manage Security | View | Remove |
|---|-------------|--------------|-------------|---|-----------------|---|--|
| TIERRA SOLUTIONS (DIAMOND ALKALI SUPERFUND) | 2603E | Water Supply | General | <input type="checkbox"/> Change Security Access | | <input type="checkbox"/> Facility Details | <input type="checkbox"/> Remove facility |

Clicking a column title will sort the table by that column.

Add Facilities

Expand/Contract

My Services - In Progress

Move Item up Move Item down

Note: To edit or resume working on an "In Progress" item, please click on the appropriate number in the ID column.

You do not have any "In Progress" Services.

Expand/Contract

My Services - Submitted

Note: If the status of your service is "Submission Failed - Please contact DEP," please send an e-mail to Portalcomments@dep.state.nj.us for assistance. Please include the Service ID number of the failed submittal in the message.

| ID | Application Name | Facility Name | Description | Status | Created Date | Last Modified Date | View | History | Permit |
|--------|---|---|------------------------------|-----------------------|--------------|--------------------|--|--|--------|
| 179829 | Submit Private Quarterly Monitoring Report 07/01/2011 - 12/31/2011 2603E EQP100001 | TIERRA SOLUTIONS (DIAMOND ALKALI SUPERFUND) | Monitoring Results Submittal | Submission Successful | 01/30/2012 | 01/30/2012 | <input type="button" value="Service Details"/> | <input type="button" value="Service History"/> | |
| 164328 | Submit Private Quarterly Monitoring Report 07/01/2011 - 09/30/2011 2603E EQP100001 | TIERRA SOLUTIONS (DIAMOND ALKALI SUPERFUND) | Monitoring Results Submittal | Submission Successful | 10/28/2011 | 10/28/2011 | <input type="button" value="Service Details"/> | <input type="button" value="Service History"/> | |
| 144435 | Submit Private Quarterly Monitoring Report 04/01/2011 - 06/30/2011 2603E EQP100001 | TIERRA SOLUTIONS (DIAMOND ALKALI SUPERFUND) | Monitoring Results Submittal | Submission Successful | 07/25/2011 | 07/25/2011 | <input type="button" value="Service Details"/> | <input type="button" value="Service History"/> | |
| 137721 | Submit Private Quarterly Monitoring Report 01/01/2011 - 03/31/2011 2603E EQP100001 | TIERRA SOLUTIONS (DIAMOND ALKALI SUPERFUND) | Monitoring Results Submittal | Submission Successful | 06/15/2011 | 06/15/2011 | <input type="button" value="Service Details"/> | <input type="button" value="Service History"/> | |

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Last Updated: June 24, 2004



State of New Jersey

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Division of Water Quality
Bureau of Surface Water Permitting
P.O. Box 029 Trenton, NJ 08625-0029
Phone: (609) 292-4860
Fax: (609) 984-7938

BOB MARTIN
Acting Commissioner

TO: Bruce Venner, Chief
Bureau of Investigation Design and Construction

FROM: Pilar Patterson, Chief
Bureau of Surface Water Permitting

[Signature] 12-10-10 for Pilar Patterson

RE: Lower Passaic River - Phase I Removal Action
Newark, Essex County
Surface Water Discharge Permit Equivalent

Attached is a New Jersey Pollutant Discharge Elimination System (NJPDES) permit equivalent for the proposed maximum discharge rate of 720,000 Gallons Per Day (GPD) of treated wastewater at the above referenced site to the Passaic River, classified as SE1. This discharge will take place for approximately 8 months from the start of the project. This memo supercedes the September 7, 2010 memo.

Although this permit equivalent is being issued by the Department's Bureau of Surface Water Permitting, compliance with the conditions of the permit equivalent will be conducted by the Department's Site Remediation Program.

If you have any questions concerning this document, please contact Brian Salvo of my staff at (609) 292-4860.

C: Michael Burlingame, Project Manager
Attachment

RELEVANT STATUTES

Permit effluent limitations, monitoring requirements, and other conditions are authorized by the Federal Water Pollution Control Act, 33 U.S.C. 1251 et seq., also known as the Clean Water Act, and the State Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq. These statutes are implemented by the National Pollutant Discharge Elimination System (NPDES), 40 CFR Part 122, and the New Jersey Pollutant Discharge Elimination System (NJPDES), N.J.A.C. 7:14A-1 et seq., permit programs. On page 1,736 of the Response to Comments document of the May 5, 1997 New Jersey Register for the NJPDES Regulations at N.J.A.C. 7:14A-1 et seq., it is stated that discharges from CERCLA remediation projects are exempted from a NJPDES permit. In place of a NJPDES permit, this Permit Equivalency document has been established to set the necessary discharge limits and controls for the planned discharge to the Passaic River of sediment processing wastewater, generated during the Phase I Sediment Removal project.

BACKGROUND

On June 23, 2008, EPA Region 2, Occidental Chemical Corporation (OCC) and Tierra Solutions Inc. (Tierra) entered into an Administrative Order on Consent (AOC) for the removal of 200,000 cubic yards (cy) of contaminated sediment from the Harrison Reach of the Lower Passaic River. As outlined in the 2008 Administrative Settlement Agreement and Order on Consent (2008 AOC; U.S. Environmental Protection Agency [USEPA] 2008), the Phase I Removal Action involves the removal of approximately 40,000 cy of contaminated sediment with subsequent off-site treatment and disposal. The Phase I area is located in the Harrison Reach, at approximately River Mile 3.4, of the Passaic River adjacent to the Diamond Alkali Superfund site. Historical discharges from the Diamond Alkali Site are considered the primary source of dioxin to the Lower Passaic River. The Diamond Alkali Company operated from 1951 to 1969 at 80 Lister Avenue in Newark and manufactured herbicides and pesticides, of which dioxin (2,3,7,8-tetrachloro-dibenzo-p-dioxin (TCDD)) is a by-product.

FACILITY DESCRIPTION

Chemical data indicate that the highest levels of dioxins, metals, and other constituents are located within the Phase I work area. Due to the potential for these highly toxic sediments to become exposed during a storm event, EPA and NJDEP believe there is a significant risk to human health and the environment. Therefore, conditions at the site meet the criteria for a removal action under CERCLA.

As per the April 6, 2010 letter from Tierra Solutions, Inc. signed by Paul J. Bluestein, the Phase I removal action includes sediment and debris processing with an approximate maximum flow rate as high as 720,000 Gallons Per Day (GPD) of water generated during sediment processing and discharged to the Passaic River (classified as SE-3). Based on project data, the chemicals of concern in the water to be treated include but are not limited to Polychlorinated Dioxin and Furan Compounds (PCDDs/PCDFs), Metals, PAHs, PCBs, Herbicides, Pesticides, VOCs and SVOCs. The treated water discharge is estimated to occur over approximately 80 days for a continuous 24-hour period. With weekly shut down periods for maintenance, the overall time period in which a discharge may occur is expected to range from 3 to 4 months. Based on the nature of the discharge this document and the pages to follow shall set the standards and limits for the effluent being discharged to the surface water from the proposed Phase I water treatment system.

TREATABILITY STUDIES AND WATER TREATMENT DESIGN

As part of the treatability work conducted in the fall of 2009 under the USEPA-approved Treatability Studies-Phase I Removal Action-Quality Assurance Project Plan (QAPP 4), treatability testing was completed to determine the expected influent and effluent for the temporary water treatment system.

The hydraulic capacity of the temporary water treatment system will accommodate the sediment processing effluent, decontamination water and impacted stormwater from the upland processing facility. The preliminary

design treatment rate may be as high as 500 gallons per minute based on continuous operation of the temporary water treatment system. As per the February 24, 2010 submission, test data were presented for three individual tests:

- MPFILT- Membrane Press Filtrate (representative of influent to water treatment)
- PPFILT- Plate and Frame Press Filtrate (representative of influent to water treatment)
- INF- Effluent Elutriate Test (EET) after settling (actual influent for treatability tests, conservative representation of influent to water treatment)

The water treatment process design includes processes for solids removal and organics removal, with provisional process units for inorganics. Process units for solids removal include polymer-enhanced settling in a clarifier and multimedia filters (MMF). Process units for organics removal include granular activated carbon (GAC) units in series. The need for provisional process units for inorganics, such as activated alumina, will be evaluated during pre-final design based on the treatability testing results.

DATA REVIEW

The Department reviewed the following data: Membrane Press Filtrate; Plate and Frame Press Filtrate, and Effluent Elutriate Test after settling. Treatability test effluent data for the multimedia filter (MMF), granular-activated carbon (GAC) and activated alumina (AA) treatability tests were also reviewed. These data were evaluated to ascertain which pollutants could be present in the treated effluent. The Department conservatively applied requirements for any parameters present in the influent or effluent as noted later.

DESCRIPTION OF LIMITATIONS AND CONDITIONS SPECIFIC TO THIS PERMIT EQUIVALENT

Monitoring for **flow** is required pursuant to N.J.A.C. 7:14A-13.13 and 13.14. The monitoring frequency is **once per week** (based on operating days) with a **meter** sample type.

In order to evaluate treatment efficiency, monitoring for **turbidity** shall be required on a continuous basis where results shall be reported in NTUs as both a monthly average and a daily maximum. In addition, a **Total Suspended Solids (TSS)** daily maximum limitation of 20 mg/L is imposed as it is economically and technologically achievable. A monthly average limitation of 15 mg/L for TSS is also imposed. The initial monitoring frequency for TSS is **daily** where standard method 2540D shall be used. The monitoring frequency may be reduced to **once per week** if a correlation can be developed between metered turbidity monitoring data and laboratory TSS data. This would be determined by a least squares fit to a turbidity (NT Units) – TSS (mg/L) plot, having a coefficient of determination $r^2 > 0.95$. Once the TSS sampling frequency is reduced to weekly, TSS shall still be reported “daily” by means of the Turbidity correlation.

In order to maintain a reasonable treatment efficiency level and in order to protect against pollutants which may be present in various concentrations in the effluent but have not been assigned specific numerical limitations in this permit, the Department has imposed limitations for **Total Organic Carbon (TOC)**. A daily maximum limitation of 20 mg/L is applied. This limit has proven to be technologically and economically achievable based on a review of existing data from other discharges. The monitoring frequency is **once per week** with a **grab** sample type.

The **pH range** of 6.0 to 9.0 standard units is being imposed. This range is routinely imposed on all wastewater discharges in the state and is technologically and economically achievable. The monitoring frequency is **once per week** with a **grab** sample type.

The limitations and monitoring conditions for selected **Volatiles, Acid Compounds, Base/Neutral Compounds, Metals, Cyanide, Pesticides and PCBs** are listed on the effluent limits table with the exception of the parameters listed below. The limitations are in accordance with N.J.A.C. 7:14A-12, Appendix B-Effluent Standards for Site Remediation Projects. Following the review of the QAPP 4- Phase I Removal Treatability Studies and based on

the nature and extent of the contamination at the site, the parameters listed and limited on the effluent limitations table have been included at a **once per week** monitoring frequency with a **grab** sample type.

The limitations and monitoring conditions for **2, 4-D, 2,4-DB, Dinoseb (DNBP), Total Recoverable Antimony and Total Recoverable Beryllium** are listed on the effluent limits table. The limitations are carried forward from the previous permit equivalent dated May 2, 2000 regarding the Diamond Alkali Superfund Site. The sampling requirements and effluent limitations are based on the USEPA's Record of Decision (ROD) for the Diamond Alkali Site. The parameters are also included based on the review of the above referenced QAPP 4 data, and the nature and extent of the contamination at the site. The monitoring frequency is **once per week** with a **grab** sample type for these parameters.

Monitoring requirements for influent and effluent have been specified for **Total Congener PCBs, 2,4 DDD, 2,4 DDE, 2,4 DDT, 2,4,5-T, Delta BHC, 2,4,5 Trichlorophenol, 4,6 Dinitro-2-Methylphenol, 1,2,3 Trichlorobenzene, 2 Butanone** and **Total PCDDs/PCDFs**. These parameters were consistently detected and influent and effluent monitoring will allow the Department to evaluate the removal rates.

2,3,7, 8- Tetrachlorodibenzo-p-Dioxin

The limitations and monitoring conditions for **2,3,7, 8- Tetrachlorodibenzo-p-Dioxin** are consistent with the effluent limitation at N.J.A.C. 7:14A-12, Appendix B – Effluent Standards for Site Remediation Projects. The sampling frequency shall be **once per week** with a **grab** sample type.

Since 2,3,7, 8- Tetrachlorodibenzo-p-Dioxin is one of the primary contaminants of the site, more sensitive analytical methods have been required as outlined in footnotes 3 and 4 of the effluent limitations table. When the high resolution GC/MS methods for dioxin are used, the data should be reported on a TEQ (toxic equivalency) basis, using the World Health Organization (WHO) 2005 TEFs (toxic equivalency factors), found at www.who.int/ipcs/assessments/tef_update/en/print.html.

Justification for Reporting as a TEQ: Prior to 1987, environmental investigation for dioxin focused on the specific 2,3,7,8-tetrachloro-dibenzo-p-dioxin compound (2,3,7,8-TCDD), considered among the most toxic synthetic chemicals known to humankind. However, based on how this compound is formed and distributed in the environment, it is known to exist as part of a mixture of chlorinated dioxin and furan compounds, some of which exhibit similar toxic traits as 2,3,7,8-TCDD. For this reason, the USEPA in 1987 published "Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and Dibenzofurans (CDDs and CDFs)", March 1987. Although refinements and updates to application of this procedure have occurred, the basic premise has stayed the same and continues to be used internationally, by USEPA and by States for evaluating mixtures of chlorinated dioxin and furan compounds in the environment.

The most recent update to the Toxic Equivalency Factors used in the TEQ approach were issued by the World Health Organization in 2005 and are commonly referred to as the WHO 2005 TEFs and are found at www.who.int/ipcs/assessment/tef_update/en/print.html. In addition, application of the TEQ approach is included in the Draft Dioxin Reassessment process currently underway at the USEPA and expected to be finalized later this year.

Whenever dioxin contamination is of concern, environmental samples (water, soil, sediment) are collected and analyzed using High Resolution GC/MS methods (USEPA 1613b or SW-846 8290) which detect and present the 17 toxic dioxin and furan congeners for which TEFs are assigned. The data are then viewed in light of the presence of 2,3,7,8-TCDD alone and as a mixture by deriving the 2,3,7,8-TCDD toxic potency of the sample, expressed as Dioxin TEQ.

Some dioxin standards and criteria were initially established prior to the use of the TEQ approach, when environmental assessments involving dioxin contamination focused on 2,3,7,8-TCDD. However, it has become common practice for many years now to assess dioxin on a TEQ basis. Therefore it is appropriate to include this in the subject Permit Equivalency, for which dioxin is the primary contaminant of concern.

Recommendation for Reporting: Discharge samples shall be collected and analyzed using appropriate analytical methods as listed above. The data should be reported as 2,3,7,8-TCDD and Dioxin TEQ.

Each of the designated dioxin-like compounds have been assigned a TEF which relates its toxic potency to that of 2,3,7,8-TCDD. The toxicity of a mixture of dioxin-like compounds is expressed in terms of 2,3,7,8-TCDD TEQ. The TEFs generally represent an order of magnitude estimate of the toxicity of a congener category relative to the most toxic form of dioxin, the 2,3,7,8 - tetrachlorodibenzo- p-dioxin compound, which is assigned a value of 1. Because the dioxin-like chemicals produce similar toxic effects, the TEQ approach is used when evaluating the risks posed by exposure to media (soil, water, sediment, tissue) containing a mixture of these contaminants. Only the 2,3,7,8-substituted polychlorinated dioxin and furan compounds are factored into the summation for the sample TEQ (i.e., those listed by the laboratory as "other dioxins", per congener category, are not included in the TEQ). Using USEPA Method 8290 or 1613b (High Resolution GC/MS analytical methods), detection limits in water are generally in the low ppq (part per quadrillion, or pg/l, picograms per liter) range of less than 10 ppq. For calculating the sample-specific TEQ, the USEPA has recommended reviewing the data with both non-detectable values as "0" and non-detectable values as $\frac{1}{2}$ the reported detection limit. For situations in which the primary contaminant is 2,3,7,8 TCDD, and good analytical detection limits are achieved for all congeners, using either procedure usually results in similar outcomes for the calculated sample-specific TEQ. However, if elevated detection limits are reported, it is recommended that non-detectable values are factored in at $\frac{1}{2}$ the reported detection limit (and then adjusted based on the congener specific TEF) given the uncertainty due to the elevated detection limit. The derived sample-specific TEQs are then compared to designated environmental criteria. For the purposes of this Permit Equivalency document, the effluent limitation at N.J.A.C. 7:14A-12, Appendix B – Effluent Standards for Site Remediation Projects will be used.

Whole Effluent Toxicity (WET):

Section 101(a) of the Clean Water Act (CWA) establishes a national policy of restoring and maintaining the chemical, physical and biological integrity of the Nation's waters. In addition, section 101(a)(3) of the CWA and the State's Surface Water Quality Standards (SWQS) at N.J.A.C. 7:9B-1.5(a)3 state that the discharge of toxic pollutants in toxic amounts is prohibited. Further, 40 CFR 122.44(d) and N.J.A.C. 7:14A-13.6(a) require that where the Department determines that a discharge causes, shows a reasonable potential to cause, or contributes to an excursion above the SWQS, the permitting authority must establish effluent limits for WET. In order to satisfy the requirements of the CWA, the State's SWQS and the NJPDES Regulations, the need for a water quality based effluent limitation (WQBEL) for WET was evaluated for this discharge.

There are two types of WET tests, acute toxicity testing which measures only the lethal effects (mortality) of the effluent on the test organisms, and chronic toxicity testing which measures the lethal and sublethal effects (i.e. Growth and/or reproduction) of the effluent on the test organisms. The type of WET test required for a particular facility is determined by evaluating the mixing characteristics of the effluent (i.e. dilution factor) in the receiving water. The acute mixing zone and the chronic mixing zone are compared, and whichever results in a more stringent limit is used to regulate the discharge. While this is a permit equivalent, it is the Department's policy to include WET conditions for all discharge to surface water permits; therefore, a WET evaluation was conducted to ensure consistency.

The Department determines if a discharge causes, shows the reasonable potential to cause, or contributes to an excursion above the narrative criteria using the factors outlined in 40 CFR 122.44(d)(1)(ii). These factors are discussed in further detail in Chapter 3, Section 3.2 and 3.3 of the Technical Support Document for Water Quality-based Toxics Control (TSD), March 1991, United States Environmental Protection Agency. If this evaluation indicates that the discharge causes, shows the reasonable potential to cause, or contributes to an excursion above the narrative criteria, the permitting authority must establish a WET limit for the discharge in accordance with 40 CFR 122.44(d)(1)(iii).

Factors which the Department considered in making a determination regarding the reasonable potential for this discharge to violate water quality standards, and the need for a WET limit for the discharge are as follows:

- Chemical Specific Data: Following review of the submitted data as referenced above (data which was submitted on January 29, 2010, discussed during the February 18, 2010 follow-up call and also submitted in a correspondence document from Tierra Solutions, Inc. dated April 6, 2010), the presence of several toxicants is indicated in the proposed treated wastewater. The reported levels of several of these toxicants are above applicable water quality criteria. The presence of these pollutants at these levels, either alone or in combination, indicates the possible presence of toxicity in the discharge.
- Dilution: Toxic impact is directly related to available dilution for the effluent. The lower the available dilution, the higher the potential for toxic effect. As the discharge is going to a larger waterbody (Passaic River) there is greater dilution.

Given the above information and due to the relative short term discharge duration, even without site-specific whole effluent toxicity data, an acute WET requirement is governing.

Acute WET

The test species method to be used for acute testing shall be the *Mysidopsis bahia* 96 hour definitive test. Such selection is based on the saline characteristics of the receiving stream, N.J.A.C. 7:9B-1.5 and N.J.A.C. 7:18, the Regulations Governing the Certification of Laboratories and Environmental Measurements (N.J.A.C. 7:18).

In order to evaluate the discharge and based on the toxicity of pollutants, an initial monitoring frequency of **monthly** is applied for WET. Following 6 months of sampling, the Department may reduce the monitoring frequency to quarterly based on a review of the monitoring results. The results of the WET test will not be evaluated against any established compliance limits either now or in the future.

Effluent samples for WET testing are to be collected after the last treatment step consistent with the collection location for other parameters.

I. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR THE LOWER PASSAIC RIVER-PHASE I REMOVAL ACTION SITE

There shall be no discharge of floating solids or visible foam in other than trace amounts. There shall be no visible sheen.

Samples taken in compliance with the specified monitoring requirements shall be representative of the discharge and taken after the final treatment step, prior to discharge to the receiving stream. Effluent sampling shall be after final treatment prior to discharge into the Passaic River classified as SE-1.

| PARAMETER | DISCHARGE REQUIREMENT | | | | | MONITORING REQUIREMENT | |
|--|-----------------------|---------------|-----------------|---------------|--------------------|------------------------|----------------|
| | Units | Daily Minimum | Monthly Average | Daily Maximum | Sample Frequency | PQL or RQL (1) | Sample Type |
| Flow, In Conduit or Thru Treatment Plant | GPD | | Report | Report | 1 / Week | -- | Metered |
| pH | SU | 6.0 | | 9.0 | 1 / Week | -- | Grab |
| Total Suspended Solids | mg/l | | 15 (2) | 20 (2) | Daily / Weekly (2) | -- | Grab (2) |
| Turbidity | NTUs | | Report (2) | Report (2) | Continuous (2) | -- | Metered (2) |
| Calculated Total Suspended Solids (from Turbidity Correlation) | mg/l | | 15 (2) | 20 (2) | Continuous (2) | -- | Calculated (2) |
| Total Organic Carbon (TOC) | mg/l | | Report | 20 | 1 / Week | -- | Grab |
| Acute Whole Effluent Toxicity – <i>Mysidopsis bahia</i> | % Effl. | Report | | | 1/ Month (3) | -- | Grab |
| Volatile Compounds | | | | | | | |
| Benzene | µg/l | | 37 | 136 | 1 / Week | 7 | Grab |
| Chlorobenzene | µg/l | | 15 | 28 | 1 / Week | 6 | Grab |
| Chloroform | µg/l | | 21 | 46 | 1 / Week | 5 | Grab |
| 1,1-Dichloroethene | µg/l | | 16 | 25 | 1 / Week | 6 | Grab |
| Ethylbenzene | µg/l | | 32 | 108 | 1 / Week | 6 | Grab |
| Methylene Chloride | µg/l | | 40 | 89 | 1 / Week | 6 | Grab |
| Tetrachloroethylene | µg/l | | 22 | 56 | 1 / Week | 9 | Grab |
| Toluene | µg/l | | 26 | 80 | 1 / Week | 6 | Grab |
| Trichloroethylene | µg/l | | 21 | 54 | 1 / Week | 5 | Grab |
| Acid Compounds | | | | | | | |
| 2-Chlorophenol | µg/l | | 31 | 98 | 1 / Week | 20 | Grab |
| 2,4 Dichlorophenol | µg/l | | 39 | 112 | 1 / Week | 10 | Grab |
| 2,4 Dimethylphenol | µg/l | | 18 | 36 | 1 / Week | -- | Grab |
| Phenol | µg/l | | 15 | 26 | 1 / Week | 10 | Grab |
| 2,4,6 Trichlorophenol | µg/l | | Report | 20 | 1 / Week | 20 | Grab |
| Base/Neutral Compounds | | | | | | | |
| Anthracene | µg/l | | 22 | 59 | 1 / Week | 10 | Grab |
| Benzo (a) Anthracene | µg/l | | Report | 10 | 1 / Week | 10 | Grab |
| Benzo (a) Pyrene | µg/l | | Report | 20 | 1 / Week | 20 | Grab |
| Benzo (b) fluoranthene | µg/l | | Report | 10 | 1 / Week | 10 | Grab |
| Benzo (k) fluoranthene | µg/l | | Report | 20 | 1 / Week | 20 | Grab |
| Bis (2-Ethylhexyl)Phthalate | µg/l | | 59 | 118 | 1 / Week | 30 | Grab |
| Butyl Benzyl Phthalate | µg/l | | Report | 24 | 1 / Week | 20 | Grab |
| Chrysene | µg/l | | Report | 20 | 1 / Week | 20 | Grab |
| Dibenzo (a,h) Anthracene | µg/l | | Report | 20 | 1 / Week | 20 | Grab |
| 1,2 Dichlorobenzene | µg/l | | 77 | 163 | 1 / Week | 9 | Grab |
| 1,3 Dichlorobenzene | µg/l | | 31 | 44 | 1 / Week | 9 | Grab |
| 1,4 Dichlorobenzene | µg/l | | Report | 28 | 1 / Week | 20 | Grab |
| Di-N-Butyl Phthalate | µg/l | | 27 | 57 | 1 / Week | 20 | Grab |

| | Units | Daily Minimum | Monthly Average | Daily Maximum | Sample Frequency | PQL or RQL (1) | Sample Type |
|---|-------|---------------|-----------------|----------------|------------------|----------------|-------------|
| Fluoranthene | µg/l | | 25 | 68 | 1 / Week | 10 | Grab |
| Fluorene | µg/l | | 22 | 59 | 1 / Week | 10 | Grab |
| Hexachlorobenzene | µg/l | | Report | 10 | 1 / Week | 10 | Grab |
| Hexachlorobutadiene | µg/l | | 20 | 49 | 1 / Week | 10 | Grab |
| Indeno (1,2,3-cd) Pyrene | µg/l | | Report | 20 | 1 / Week | 20 | Grab |
| Naphthalene | µg/l | | 22 | 59 | 1 / Week | 8 | Grab |
| Phenanthrene | µg/l | | 22 | 59 | 1 / Week | 10 | Grab |
| Pentachlorophenol | µg/l | | Report | 30 | 1 / Week | 30 | Grab |
| Pyrene | µg/l | | 25 | 67 | 1 / Week | 20 | Grab |
| 1,2,4 Trichlorobenzene | µg/l | | 68 | 140 | 1 / Week | 10 | Grab |
| Metals and Cyanide | | | | | | | |
| Arsenic | µg/l | | 50 | 100 | 1 / Week | 8 | Grab |
| Cadmium | µg/l | | 50 | 100 | 1 / Week | 4 | Grab |
| Chromium | µg/l | | 50 | 100 | 1 / Week | 10 | Grab |
| Copper | µg/l | | 50 | 100 | 1 / Week | 10 | Grab |
| Lead | µg/l | | 50 | 100 | 1 / Week | 10 | Grab |
| Mercury | µg/l | | Report | 1 | 1 / Week | 1 | Grab |
| Nickel | µg/l | | 50 | 100 | 1 / Week | 10 | Grab |
| Selenium | µg/l | | 50 | 100 | 1 / Week | 10 | Grab |
| Silver | µg/l | | 25 | 50 | 1 / Week | 2 | Grab |
| Zinc | µg/l | | 100 | 200 | 1 / Week | 30 | Grab |
| Cyanide | µg/l | | 100 | 200 | 1 / Week | 40 | Grab |
| Pesticides, PCBs and Dioxin | | | | | | | |
| Aldrin | µg/l | | Report | 0.04 | 1 / Week | 0.05 | Grab |
| Alpha-BHC | µg/l | | Report | 0.02 | 1 / Week | 0.05 | Grab |
| Beta-BHC | µg/l | | 0.46 | 0.92 | 1 / Week | 0.04 | Grab |
| Gamma – BHC (Lindane) | µg/l | | Report | 0.03 | 1 / Week | 0.05 | Grab |
| Chlordane | µg/l | | Report | 0.2 | 1 / Week | 0.2 | Grab |
| 4,4 DDT | µg/l | | Report | 0.06 | 1 / Week | 0.1 | Grab |
| 4,4 DDE | µg/l | | Report | 0.04 | 1 / Week | 0.1 | Grab |
| 4,4 DDD | µg/l | | Report | 0.04 | 1 / Week | 0.1 | Grab |
| Dieldrin | µg/l | | Report | 0.03 | 1 / Week | 0.1 | Grab |
| Alpha-Endosulfan | µg/l | | Report | 0.02 | 1 / Week | -- | Grab |
| Beta-Endosulfan | µg/l | | Report | 0.04 | 1 / Week | -- | Grab |
| Endosulfan Sulfate | µg/l | | 2 | 4 | 1 / Week | 0.08 | Grab |
| Endrin | µg/l | | Report | 0.04 | 1 / Week | 0.1 | Grab |
| Endrin Aldehyde | µg/l | | 0.81 | 1.62 | 1 / Week | 0.1 | Grab |
| Heptachlor | µg/l | | Report | 0.02 | 1 / Week | 0.05 | Grab |
| Heptachlor Epoxide | µg/l | | Report | 0.4 | 1 / Week | 0.4 | Grab |
| PCBs 1242, 1254, 1260 | µg/l | | Report | 0.5 | 1 / Week | 1.0 | Grab |
| 2, 3, 7, 8- Tetrachlorodibenzo-p-Dioxin | pg/L | | NL | Report (4) (5) | 1 / Week | 10 pg/L | Grab |
| Dioxin TEQ | µg/l | | NL | 0.01 (4) (5) | 1 / Week | 10 pg/L | Grab |
| Additional Parameters | | | | | | | |
| 2,4-D | µg/l | | 1,500 | 3,300 | 1 / Week | -- | Grab |
| 2,4-DB | µg/l | | 14 | 25 | 1 / Week | -- | Grab |
| Dinoseb (DNBP) | µg/l | | 420 | 790 | 1 / Week | -- | Grab |
| Total Recoverable Antimony | µg/l | | 200 | 305 | 1 / Week | -- | Grab |
| Total Recoverable Beryllium | µg/l | | Report | 5.3 | 1 / Week | -- | Grab |

| | Units | Daily Minimum | Monthly Average | Daily Maximum | Sample Frequency | PQL or RQL (1) | Sample Type |
|---|-------|---------------|-----------------|---------------|-----------------------|----------------|-------------|
| Parameters with both Influent and Effluent | | | | | | | |
| Total Congener PCBs- Influent | µg/l | | Report | Report | Weekly / Biweekly (7) | -- | Grab |
| Total Congener PCBs- Effluent | µg/l | | Report | Report | Weekly / Biweekly (7) | -- | Grab |
| 2,4 DDD- Influent | µg/l | | Report | Report | Weekly / Biweekly (7) | -- | Grab |
| 2,4 DDD- Effluent | µg/l | | Report | Report | Weekly / Biweekly (7) | -- | Grab |
| 2,4 DDE- Influent | µg/l | | Report | Report | Weekly / Biweekly (7) | -- | Grab |
| 2,4 DDE- Effluent | µg/l | | Report | Report | Weekly / Biweekly (7) | -- | Grab |
| 2,4 DDT- Influent | µg/l | | Report | Report | Weekly / Biweekly (7) | -- | Grab |
| 2,4 DDT- Effluent | µg/l | | Report | Report | Weekly / Biweekly (7) | -- | Grab |
| 2,4,5-T- Influent | µg/l | | Report | Report | Weekly / Biweekly (7) | -- | Grab |
| 2,4,5-T- Effluent | µg/l | | Report | Report | Weekly / Biweekly (7) | -- | Grab |
| Delta BHC- Influent | µg/l | | Report | Report | Weekly / Biweekly (7) | -- | Grab |
| Delta BHC- Effluent | µg/l | | Report | Report | Weekly / Biweekly (7) | 0.05 | Grab |
| 2,4,5 Trichlorophenol- Influent | µg/l | | Report | Report | Weekly / Biweekly (7) | -- | Grab |
| 2,4,5 Trichlorophenol- Effluent | µg/l | | Report | Report | Weekly / Biweekly (7) | -- | Grab |
| 4, 6 dinitro-2-methylphenol- Influent | µg/l | | Report | Report | Weekly / Biweekly (7) | -- | Grab |
| 4, 6 dinitro-2-methylphenol- Effluent | µg/l | | Report | Report | Weekly / Biweekly (7) | -- | Grab |
| 1,2,3 Trichlorobenzene- Influent | µg/l | | Report | Report | Weekly / Biweekly (7) | -- | Grab |
| 1,2,3 Trichlorobenzene- Effluent | µg/l | | Report | Report | Weekly / Biweekly (7) | -- | Grab |
| 2 Butanone- Influent | µg/l | | Report | Report | Weekly / Biweekly (7) | -- | Grab |
| 2 Butanone- Effluent | µg/l | | Report | Report | Weekly / Biweekly (7) | -- | Grab |
| Total PCDDs/PCDFs- Influent | pg/l | | Report | Report | Weekly / Biweekly (7) | -- | Grab |
| Total PCDDs/PCDFs - Effluent | pg/l | | Report | Report | Weekly / Biweekly (7) | -- | Grab |

(1) The permittee shall ensure that analytical data achieves detection levels as sensitive as the Recommended Quantitation Levels (RQL's) or Practical Quantitation Levels (PQL's) for any of the above parameters limited in this individual permit equivalent. In addition, all laboratories used for the purposes of compliance with this permit equivalent shall be certified by NJDEP for the analytical methods used.

- (2) Upon commencement of discharge initial sampling for TSS shall be performed on a daily basis with Standard Method 2540 D. Turbidity monitoring shall also be conducted to ensure that a correlation is developed between metered turbidity monitoring data and laboratory TSS data. This correlation shall be determined by a least squares fit to a Turbidity (NT Units) - TSS (mg/L) plot, having a coefficient of determination, $r^2 > 0.95$. Once two weeks of turbidity and TSS data is obtained and can be correlated, analysis for TSS using SM 2540D can be reduced to weekly. Continuous TSS monitoring, as calculated from continuous turbidity monitoring shall then continue for the duration of the discharge.
- (3) In order to evaluate the discharge and based on the toxicity of pollutants, an initial monitoring frequency of **monthly** is applied for WET. Following 6 months of sampling, the Department may reduce the monitoring frequency to **quarterly** based on a review of the monitoring results.
- (4) The Daily Maximum Limit for dioxin is set equal to 0.01 ug/L which is equivalent to the daily maximum limitation at N.J.A.C. 7:14A-12, Appendix B – Effluent Standards for Site Remediation Projects.
- (5) The data generated by the High Resolution GC/MS analytical results for dioxin (either Method 1613b or Method 8290) are to be reported as: a) 2,3,7,8-TCDD and b) dioxin TEQ, which is the summation of all 2,3,7,8 chlorinated dioxin and furan homologues after adjustment by their assigned World Health Organization (WHO) 2005 Toxic Equivalency Factors (TEFs), found at www.who.int/ipcs/assessments/tef_update/en/print.html.
- (6) Paper and electronic (pdf) copies of the sample summary portions of the raw data, as reported in the laboratory analytical data packages, and generated for fulfilling the monitoring and reporting requirements of this permit equivalency document, shall be submitted to NJDEP. Paper copies of the full laboratory analytical packages will be provided, if determined necessary and requested, by NJDEP.
- (7) In order to evaluate the discharge and based on the toxicity of pollutants, an initial monitoring frequency of **weekly** is applied for Influent and Effluent Parameters. Following 1 month of sampling, the Department may reduce the monitoring frequency to **biweekly** based on a review of the monitoring results.

GPD - Gallons per day
pg/l - Picograms per liter

mg/l - Milligrams per liter.
NTUs – Nephelometric Turbidity Units

µg/l - Micrograms per liter

II. Monitoring and Reporting

All monitoring shall be conducted in accordance with the Department's current Field Sampling Procedures Manual, which is available from the Maps & Publications Office at (609) 777-1038.

All monitoring and test results shall be summarized and reported weekly, or for analytical data, as they become available but no later than 3 weeks after sampling. Results shall be submitted to the following address beginning with the commencement of discharge and every week thereafter until the discharge is permanently terminated:

New Jersey Department of Environmental Protection
Bureau of Investigation, Design & Construction, 6th floor ATTN: Michael Burlingame
P.O. Box 413
Trenton, NJ 08625-413

III. Suspension of Permit Equivalent

The USEPA approved design and Construction Quality Assurance Plan (CQAP) will detail non-compliance and corrective action measures.

IV. Specificity of Permit Equivalent

The conditions contained in this permit equivalent are tailored for this specific project including consideration of the contamination levels, project duration and treatment. However, provisions of this permit equivalent may be used for other similar projects if first determined applicable and appropriate by the NJDEP.



State of New Jersey

CHRIS CHRISTIE
Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Division of Land Use Regulation
Bureau of Tidelands Management
P.O. Box 420
Trenton, NJ 08625-0420
Tel. # 609-777-0454
Fax. # 609-633-6493

BOB MARTIN
Commissioner

KIM GUADAGNO
Lt. Governor

August 5, 2011

Mr. Jason Bundick, Esq.
Drinker Biddle & Reath LLP
105 College Road East, Suite 300
Princeton, NJ 08542

RE: DIAMOND SHAMROCK CHEM LAND HOLD INC, New Dredging License application,
Passaic River, Lot 57, 58, 59, Block 2438, 2438, Newark City, Essex County

FILE: #0714-10-0004.1 TDI100003

Dear Mr. Bundick:

Enclosed with this correspondence please find the license document for the above referenced dredging project.

The State of New Jersey may claim title to a portion of the property in shore of the licensed area, and the State does not waive this claim by approving and issuing this license document.

Sincerely,

Kenneth Ratzman
Acting Manager
Bureau of Tidelands Management

KR/mw

REVOCABLE DREDGING LICENSE
A Mineral Rights Agreement from the State of New Jersey

The Tidelands Resource Council in the Department of Environmental Protection, empowered under N.J.S.A. 13:1B-13 to approve licenses of lands owned by the State of New Jersey that are now or were formerly under tidewater, and having due regard for the public interest, has approved a license to **TIERRA SOLUTIONS, INC., DIAMOND SHAMROCK CHEM LAND HOLD INC**, hereafter referred to as the licensee(s).

The licensee(s) has applied for the right to dredge an area of land under tidewater in the Passaic River, out shore of 86-92 Lister Ave in Newark City, Essex County, New Jersey. The license area will be contained by constructing a cofferdam, which will be removed upon completion of the dredging.

This license allows for the dredging of approximately **40,000** Cubic Yards of material as shown on the plan entitled "Tierra Solutions, Inc.- Lower Passaic River, Newark, NJ Phase I CERCLA Non-Time Critical Removal Action," dated July 2011, prepared by Arcadis, and filed with the Bureau of Tidelands Management of the Department of Environmental Protection under file number 0714-10-0004.1 TDI100003.

N.J.S.A. 12:3-22 provides that The Tidelands Resource Council, with the approval of the Commissioner of the Department of Environmental Protection, may license "any person or corporation to dig, dredge or remove any deposits of sand or other material from lands of the State under tidewaters."

The license shall be in effect for one (1) year **from August 3, 2011 to August 3, 2012**. The license shall be issued at **no charge, as it is being issued as part of a federally mandated remediation and will be in effect for one (1) year**. The license may be renewed at the discretion of the Tidelands Resource Council for one (1) additional year if the licensee(s) applies for said renewal in advance of August 3, 2012.

This license may be revoked at any time and for any purpose deemed necessary and reasonable by the Tidelands Resource Council.

The licensee(s) may not further improve or develop the licensed area unless a permit, as per N.J.S.A. 12:5-3, and an additional riparian license pursuant to N.J.S.A. 12:3-23 are obtained for that purpose. The licensee(s) may not appropriate the licensed area for exclusive use.



Kenneth Ratzman, Acting Manager
Bureau of Tidelands Management
Division of Land Use Regulation
Department of Environmental Protection

August 5, 2001

Date



State of New Jersey

CHRIS CHRISTIE
Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF DREDGING AND SEDIMENT TECHNOLOGY
P.O. BOX 028
TRENTON, NEW JERSEY 08625-0028
(609) 292-1250
FAX: (609) 777-1914

BOB MARTIN
Commissioner

KIM GUADAGNO
Lt. Governor

August 5, 2011

Mr. Robert Romagnoli
Arcadis, U.S. Inc.
6723 Towpath Road
P.O. Box 66
Syracuse, New York 13214-0066

Re: Amendment to Waterfront Development and Flood Hazard Area Permit Equivalency and Water Quality Certification for Passaic River Phase I Removal Action Upland Processing Facility (UPF) USEPA Directed CERCLA Action
Applicant: Tierra Solutions, Inc
DEP # 0714-10-0004.1; Activity # WFD 110001; FHA 110001

Dear Mr. Romagnoli:

The Department has reviewed your request for additional authorizations to construct and operate an Upland Processing Facility (UPF) to process and transfer materials dredged from the enclosure area.

This letter shall serve to supplement the captioned permit equivalency issued by the Office of Dredging and Sediment Technology (ODST) on July 21, 2011.

Project

1. Construct a temporary UPF at the Blanchard Street Property consisting of an approximate 10.5 acre footprint within the parcel identified as Block 2438; Lots 74. UPF construction activities entail grading, paving, a stormwater collection system and the placement and operation of sediment processing equipment such that all devices are either watertight and/or located above the 100 year flood elevation (10.2 feet NGVD) and;
2. Locate temporary shaker screen units, four (4) sludge storage tanks, two (2) membrane presses conveyors, storage vessels, holding tanks and other various processing components; and
3. Dewater the processed dredged materials (PDM) in accordance with the NJPDES Permit Equivalency and load materials into EPIC sealed containers onto trucks; and

4. Transport the PDM to the Brills Yard facility located at 319 Avenue P, Newark, New Jersey in EPIC containers from incoming trucks and transfer said containers to rail cars for out of state shipment to final disposal/incernation site(s).

Flood Hazard Area Conditions:

5. All excavated material shall be disposed of in a lawful manner outside of any flood hazard area riparian zone, open water, freshwater wetland and adjacent transition area, and in such a way as to not interfere with the positive drainage of the receiving area.
6. All sediment barriers and other soil erosion control measures shall be installed prior to commencing any clearing, grading or construction onsite, and shall be maintained in proper working condition throughout the entire duration of the project.
7. The Department has determined that this project meets the requirements of the Stormwater Management rules at N.J.A.C. 7:8. Any future expansion or alteration of the approved site layout, which would affect water quality, increase the rate or volume of stormwater leaving the site, affect the infiltration capacity on the site, or alter the low impact site design, shall be reviewed and approved by the Department prior to construction.
8. Issuance of this permit includes approval of a hardship exception to allow the construction of a new facility that will process hazardous materials in the flood hazard area of the Passaic River. Associated with this facility is a floating delivery pipeline located in the floodway of the Passaic River.
9. All equipment to be stored on site, including tanks, presses, containerized units, and trailers shall be designed to resist uplift and lateral loads associated with hydrostatic pressure and hydrodynamic forces resulting from flooding to the design flood elevation of 10.2 feet NGVD.

Plans Reviewed:

Thirteen (13) sheets prepared by ARCADIS, dated August 2011, unrevised, unless otherwise noted, unless otherwise noted, entitled:

“TIERRA SOLUTIONS, INC. * LOWER PASSAIC RIVER, NEWARK, NJ, PHASE I CERCLA NON-TIME CRITICAL REMOVAL ACTION”

“CIVIL NOTES, ABBREVIATIONS, AND LEGEND”, Sheet C1

“UPLAND PROCESSING FACILITY, GENERAL LAYOUT”, Sheet C2,

“UPLAND PROCESSING FACILITY, SEDIMENT PROCESSING SITE PLAN”, Sheet C3,

“UPLAND PROCESSING FACILITY, WATER TREATMENT SITE PLAN”, Sheet C4,

“UPLAND PROCESSING FACILITY, PAVING AND GRADING DETAILS”, Sheet C5,

“UPLAND PROCESSING FACILITY, STORMWATER PUMPING STATION DETAILS”, Sheet C6,

“UPLAND PROCESSING FACILITY, EROSION AND SEDIMENTATION CONTROL PLAN”, sheet C7,

“UPLAND PROCESSING FACILITY, EROSION AND SEDIMENTATION CONTROL DETAILS”, Sheet C8,

“PHASE I LOWER PASSAIC RIVER STUDY AREA”

“SEDIMENT PROCESSING SITE PLAN”, Figure 1, dated June 2011,

“WATER TREATMENT PLAN”, Figure 2, dated June, 2011,

“SEDIMENT PROCESSING, ELEVATION VIEW”, Figure 3, dated June 2011,
“WATER TREATMENT ELEVATION VIEW”, Figure 4, dated June 2011, and
“UPF FOOTPRINT”, Figure 5, dated June 2011.


Remediation Standards Applicable to the UPF

10. A cleanup criteria of 240 parts per million (ppm) of hexavalent chromium is acceptable to be applied to the former Fairmount Chemical site in Newark. Soil that includes hexavalent chromium concentrations less than 240 ppm may be reinstalled on-site under an engineering control.
11. Excavated contaminated soils that exceed the New Jersey Site-Specific Impact to Ground Water Soil Remediation Standards for volatile organic compounds must be segregated and appropriately disposed off-site. All other excavated contaminated soils may be reinstalled on-site under an engineering control.
12. UPF site restoration – upon completion of UPF processing operations all new impervious surfaces and associated stormwater collection facilities shall be removed and/or decommissioned such that the site is returned to pre-disturbed conditions with respect to stormwater runoff.
13. The permittee is responsible to decontaminate all impervious paved areas underlying the processing area.

This authorization is supplemental to the companion Permit Equivalency authorizations issued by the Office of Dredging and Sediment Technology on July 21, 2011 for activities at enclosure area. All of the terms and conditions of the July 21, 2011, authorization remain in effect.

If you have any questions regarding this authorization, please contact David Q. Risilia of ODST staff at (609) 292-9342. Please reference the above file number.

Sincerely



Suzanne U. Dietrick, Chief
Office of Dredging and Sediment Technology
Site Remediation Program

C: NJDEP/SRP Thomas Cozzi
NJDEP/DLUR Pete DeMeo
NJDEP/SRP Michael Burlingame
USEPA Region II Raymond Basso
Municipal Construction Official
Municipal Clerk



RECEIVED

JAN 14 2011

Tierra Solutions

State of New Jersey

Department of Environmental Protection

CHRIS CHRISTIE
Governor

BOB MARTIN
Commissioner

KIM GUADAGNO
Lt. Governor

Mail Code 401-03
DIVISION OF WATER SUPPLY
WATER SUPPLY PERMITTING
BUREAU OF WATER ALLOCATION
P.O. BOX 420
TRENTON, NEW JERSEY 08625-0420
TEL.# 609-292-2957
FAX.# 609-633-1495

January 12, 2011

Tierra Solutions (Diamond Alkali Superfund)
2 Tower Center Boulevard
10th Floor
East Brunswick Township, NJ 08816
Attn: Paul J. Bluestein

Dear Mr. Bluestein:

Re: **Water Allocation Permit Equivalency - New
Program Interest ID: 2603E
Activity No. EQP100001**

Enclosed is a Permit Equivalency issued pursuant to the Water Supply Management Act, N.J.S.A. 58:1A-1 et seq. This Equivalency becomes effective on January 14, 2011 and is to divert water from one surface water intake(s) in the following Municipalities and Counties:

| MUNICIPALITY | COUNTY |
|--------------|--------|
| Newark City | Essex |

EQP100001 is your Permit Activity Number, and 2603E is now your Program interest ID and will appear on all forms and correspondence from the Bureau of Water Allocation. Please reference your Program Interest ID and Activity No. in all correspondence.

Please be advised that as you are responsible for complying with the terms and conditions of the enclosed equivalency and you should review them thoroughly. Failure to comply with any or all of the terms and conditions could result in penalties and/or revocation of the equivalency.

Very truly yours,



Diane E. Zalaskus, P.E.
Bureau Chief
Division of Water Supply

Enclosure

CERTIFIED MAIL NO. 7008 1140 0000 1261 8779

c: Bureau of Water Allocation
Michael Burlingame, Case Manager, SRP
Northern Bureau of Water Compliance & Enforcement Element
Chelsea Du Brul, BWA
Elizabeth Butler, USEPA



State of New Jersey
 Department of Environmental Protection
 Bureau of Water Allocation
 PO Box 426, Trenton, New Jersey 08625-0426



Permit Equivalency

The New Jersey Department of Environmental Protection grants this permit* in accordance with your application, attachments accompanying same application, and applicable laws and regulations. This permit is also subject to further conditions and stipulations enumerated in the supporting documents.

| | | | |
|--|---|---------------------------------------|------------------------------------|
| Program Interest ID: 2603E Permit Number: EQP100001 | Issuance Date: 01/12/2011 | Effective Date: 01/14/2011 | Expiration Date: 12/31/2020 |
| Name and Address of Applicant TIERRA SOLUTIONS (DIAMOND ALKALI SUPERFUND) 2 Tower Center Boulevard 10th Floor East Brunswick Township, NJ 08816 | Location of Activity/Facility Newark City Essex | | |
| | Type of Permit Water Allocation Permit Equivalency - New | Statute(s) N.J.S.A. 58:1A-1 | |

This permit grants permission to divert water from the approved sources in the attached permit inventory, in the following municipalities, for the following water uses:

| | | |
|------------------------------------|------------------------|--------------------------------------|
| MUNICIPALITY Newark City | COUNTY Essex | Water Uses: Pollution Control |
|------------------------------------|------------------------|--------------------------------------|

This permit is subject to the attached Conditions.

Approved by the authority of:
 Bob Martin, Commissioner
 Department of Environmental Protection

Diane E. Zalaskus 1/12/11
 Diane E. Zalaskus, P.E., Bureau Chief
 Bureau of Water Allocation
 Date

* Permit means Certification, Approval, Registration, Equivalency, etc.

TIERRA SOLUTIONS (DIAMOND ALKALI SUPERFUND)
2603E

Permit Equivalency : EQP100001

Permit Inventory

Water Diversion Sources - Water may be diverted under this permit from the following sources:

| Source Designation (Well Permit No. or Intake No.) | Description | Subject Item ID |
|---|-----------------------------------|-----------------|
| INTAKE 1 | PASSAIC RIVER (PHASE 1 WORK AREA) | WSIN0000939148 |

Group Subject Items - The following items are grouped sources for the purpose of setting permit requirements outlined in this document:

| Group Designation | Group Description | Group Subject Item ID | Group Members |
|--|--|-----------------------|---|
| TIERRA SOLUTION'S INC. (DIAMOND ALKALI SUPERFUND SITE) | 2603E PERMIT EQUIV - ALL DIVERSION SOURCES | WSWA0000939149 | INTAKE 1, PASSAIC RIVER (PHASE 1 WORK AREA) (WSIN939148) |

**TIERRA SOLUTIONS (DIAMOND ALKALI SUPERFUND)
2603E**

Permit Equivalency : EQP100001

Permit Requirements

Limit Requirements

The following limits apply and are the maximum permitted allocation:

Final Permit Phase from 01/14/2011 -

| Subject Item | Parameter | Limit |
|--|------------------------|---|
| TIERRA SOLUTION'S INC. (DIAMOND ALKALI SUPERFUND SITE), 2603E PERMIT EQUIV - ALL DIVERSION SOURCES (WSWA939149) | Maximum Diversion Rate | <= 1500 Gallons Per Minute. [N.J.A.C. 7:19- 2] |
| | Water Diverted | <= 56.3 Million Gallons Per Month. [N.J.A.C. 7:19- 2] |
| | | <= 177.1 Million Gallons Per Year. [N.J.A.C. 7:19- 2] |

Other Limit Requirements

Final Permit Phase from 01/14/2011 -

| Subject Item | Parameter | Limit |
|--|---------------------|--|
| INTAKE 1, PASSAIC RIVER (PHASE 1 WORK AREA) (WSIN939148) | Rated Pump Capacity | <= 1500 Gallons Per Minute. [N.J.A.C. 7:19- 2] |

Monitoring Requirements

Final Permit Phase from 01/14/2011 -

| Subject Item | Requirement | Frequency | Monitored Parameter | Monitoring Method |
|--|---|------------|---------------------|-------------------|
| INTAKE 1, PASSAIC RIVER (PHASE 1 WORK AREA) (WSIN939148) | The monthly diversion from each source indicated shall be monitored. [N.J.A.C. 7:19- 2] | Each Month | Water Diverted | Meter |

Submittal/Action Requirements

Final Permit Phase from 01/14/2011 -

| Applicable Subject Items | Submittal/Action Type | Requirement |
|--|---------------------------------|--|
| INTAKE 1, PASSAIC RIVER (PHASE 1 WORK AREA) (WSIN939148) | Submit Private Quarterly Report | The required monitoring results shall be recorded on the form provided by the Department. The completed form shall be submitted within 30 days after the end of each quarter. [N.J.A.C. 7:19- 2] |

**TIERRA SOLUTIONS (DIAMOND ALKALI SUPERFUND)
2603E**

Permit Equivalency : EQP100001

Submittal/Action Requirements

Final Permit Phase from 01/14/2011 -

| Applicable Subject Items | Submittal/Action Type | Requirement |
|---|----------------------------|---|
| TIERRA SOLUTION'S INC. (DIAMOND ALKALI SUPERFUND SITE), 2603E PERMIT EQUIV - ALL DIVERSION SOURCES (WSWA939149) | Submit Renewal Application | A renewal application must be submitted three months prior to the expiration date. [N.J.A.C. 7:19- 2] |

Text Requirements

All Phases

TIERRA SOLUTION'S INC. (DIAMOND ALKALI SUPERFUND SITE), 2603E PERMIT EQUIV - ALL DIVERSION SOURCES (WSWA939149)

1. All diversion sources shall be metered with a totalizing flow meter. [N.J.A.C. 7:19- 2]
2. At a minimum, each diversion source flow meter shall be calibrated at least once every five years. [N.J.A.C. 7:19- 2]
3. The permittee shall investigate to the Department's satisfaction complaints by users of wells or surface water supplies within the zone of influence of its diversion to determine what impact the diversion has had on such wells or surface water supplies. A report on these investigations shall be forwarded to the Bureau of Water Allocation. Any well or surface water supply which becomes damaged, dry, has reduced capacity, reduced water quality or is otherwise rendered unusable as a water source as a result of the permittee's diversions shall be repaired or replaced at the expense of the permittee. Work shall be in accordance with all State, County and Municipal construction standards for potable water. After reviewing all applicable investigational reports the Department of Environmental Protection, along with the USEPA, will make the final determination regarding the validity of such complaints, the scope or sufficiency of such investigations, and will determine how to resolve any problems resulting from the diversion. [N.J.A.C. 7:19- 2]
4. The operation of the water withdrawal project shall not cause long-term progressive lowering of groundwater levels, permanent loss of storage capacity or substantial impact on low flows of perennial streams or serve to spread the contamination. [N.J.A.C. 7:19- 2]
5. All well construction and decommissioning activity shall be conducted in accordance with N.J.A.C. 7:9D et seq. and applicable regulations. [N.J.A.C. 7:19- 2]
6. The local Health Department shall be notified of the proposed diversion within 30 days of the issuance date of this permit equivalency and prior to the start of pumping. [N.J.A.C. 7:19- 2]
7. All well owners within the estimated zone of influence of the diversion shall be notified within 30 days of the issuance date of this permit equivalency and prior to the start of pumping. [N.J.A.C. 7:19- 2]
8. The pumping equipment capacity may be increased and well locations may be changed provided that the maximum diversion rate and the water diverted monthly and annual allocation limits are not exceeded. The permittee must notify the Bureau of Water Allocation in writing 30 days prior to any such changes. [N.J.A.C. 7:19- 2]
9. The issuance of this permit shall not be deemed to affect in any way action by the Department of Environmental Protection of the State of New Jersey on any future application. [N.J.A.C. 7:19- 2]
10. No change in plans or specifications shall be made except with the prior written permission of the Department of Environmental Protection of the State of New Jersey. [N.J.A.C. 7:19- 2]
11. The granting of this permit shall not be construed to in any way affect the title or ownership of property, and shall not make the Department of Environmental Protection or the State a party in any suit or question of ownership of property. [N.J.A.C. 7:19- 2]
12. This permit does not waive the obtaining of Federal or other State or local government consent when necessary. This permit is not valid and no work shall be undertaken until such time as all other required approval's and permits have been obtained. [N.J.A.C. 7:19- 2]
13. A copy of this permit shall be kept at the facility site, and shall be exhibited upon request of any person. [N.J.A.C. 7:19- 2]

TIERRA SOLUTIONS (DIAMOND ALKALI SUPERFUND)
2603E

Permit Equivalency : EQP100001

Text Requirements

All Phases

TIERRA SOLUTION'S INC. (DIAMOND ALKALI SUPERFUND SITE), 2603E PERMIT EQUIV - ALL DIVERSION SOURCES (WSWA939149)

14. The Department has the right to enter and inspect any site, building, or equipment, or any portion thereof, owned or operated by the permittee, at any time, in order to ascertain compliance or noncompliance with N.J.S.A. 58:1A-1 et seq., 58:4A-4.1 et seq., 58:12A-1 et seq., these rules, or any other agreement or order issued or entered into pursuant thereto. Such right shall include, but not be limited to, the right to require the testing of any equipment at the facility, to sketch or photograph any portion of the site, building or equipment, to copy or photograph any document or records necessary to determine such compliance or noncompliance, and to interview any employees or representative of the owner, operator, or permittee. Such right shall be absolute and shall not be conditioned upon any action by the Department, except the presentation of appropriate credentials as requested and compliance with appropriate standard safety procedures. [N.J.A.C. 7:19- 2]
15. This permit may be transferred, with the consent of the Department, but only for the identical use of the waters. [N.J.A.C. 7:19- 2]
16. If the authorized diversion privileges are not currently diverted, subject to contract, or reasonably required for a demonstrated future need, they shall revert back to the State upon renewal or modification of the permit. [N.J.A.C. 7:19- 2]
17. The permittee shall protect each source from vandalism, tampering, and contamination at all times. [N.J.A.C. 7:19- 2]
18. This permit shall expire as indicated on the permit approval cover page; however, any action required pursuant to a critical area designation shall take precedence over this expiration date. [N.J.A.C. 7:19- 2]



NOW REQUIRED ON-LINE REPORTING



**NOTE: QUARTERLY WATER DIVERSION REPORTS
DUE BY JANUARY 30, APRIL 30, JULY 30 AND October 30 EACH YEAR**

LOG ON AND SUBMIT REPORTS BEFORE DUE DATES

Instructions for Completing Annual Water Use Reports for Water Use Registrations online
Steps 1-6 are only for Users without MyNewJersey Online and NJDEP Online Access

General Instructions:

Prior to using NJDEP Online, obtain a valid account with MyNewJersey (free)

1. Open an Internet browser and type www.njdeponline.com and select the button labeled 'NEW USERS Request Access to NJDEP Online', Fill in the following fields: 'Contact Name', 'Organization Name', 'Email Address', and 'Confirm E-Mail'.
2. Click on the 'Request' button, which takes you to a page where NJDEP Online and MyNewJersey will be linked.
3. If you already have a MyNewJersey Account: Fill out Section A with your MyNewJersey 'Login ID' and 'Password' and click 'Link NJDEP Online with My Account'. If you have a MyNewJersey Account but forget your Login ID or Password, Please see the information in Section C.
4. If you do not have a MyNewJersey account: Fill out Section B with your desired 'Log On ID', 'Password', 'Security Question' and answer to that security question, and click 'Create this new MyNewJersey Account and Link NJDEP Online To It.'

NOTE: Save your ID and Password for future use. Be sure to remember your challenge question and answer in case you forget your password. Passwords must be at least 6 characters long, chosen from at least two of these groups: lowercase letters, uppercase letters, digits, and other characters (except space, quotes and \).

5. You should now be at the NJDEP Online Contact Information Page. Ensure that the proper contact information (including the proper email address) is entered, and add at least one contact number (without spaces), and upon returning to the NJDEP Online Contact Information Page, click 'Continue'.
6. Request your Certification PIN by clicking 'Request PIN'. You will receive a Certification PIN via Email. You will only be required to use the Certification PIN if you plan to electronically certify a submittal using this account. If you do not need a Certification PIN, click 'Complete Setup'.

NOTE: Upon requesting a Certification PIN and clicking 'Continue' on the confirmation screen, your account setup will be complete.

7. Under the Water Supply Heading, select the Water Diversion, Water Utilization and Monitoring Service to add it to your workspace by clicking the checkbox next to Water Diversion, Water Utilization and Monitoring, and click the 'OK' button in the lower right corner.
8. Click 'Add Facilities'. Add your facility to your account by selecting Water Supply in the DEP Program Field. Enter your Facility ID (Program Interest ID) into the Facility ID field. Click 'Search'. Check your facility and click 'Add Selected Facility'. Click 'Complete Setup', then Click 'Done'.

If you require additional assistance, contact the Bureau of Water Allocation at (609) 292-2957.
If you intend to report online, questions can be e-mailed to portalcomments@dep.state.nj.us.

**Administrative Hearing Request Checklist
And Tracking Form for Permits**

1. Permit Being Appealed:

Title and Type of Permit

Issuance Date of Permit

Permit Number

2. Person Requesting Hearing:

Name/Company

Name of Attorney (if applicable)

Address

Address of Attorney

3. The following information must be included with the request:

- a. The date the permittee received the final permit;
- b. A copy of permit with a list of all permit conditions and issues contested;
- c. The legal and factual questions at issue;
- d. A statement as to whether or not the permittee raised each legal and factual issues during the public comment period of the permit;
- e. Suggested revised or alternative permit conditions;
- f. An estimate of the time required for the hearing;
- g. A request, if necessary, for a barrier-free hearing location for physically disabled persons;
- h. A clear indication of any willingness to negotiate a settlement with the Department prior to the Department's processing of the hearing request to the Office of Administrative Law; and
- i. This form, completed with all of the information listed above, signed, and dated, including attachments, to:

- i.
 - i. Office of Legal Affairs
ATTENTION: Adjudicatory Hearing Requests
Department of Environmental Protection
401 East State Street
P.O. Box 402
Trenton, New Jersey 08625-0402

- i.
 - ii. Diane E. Zalaskus, P.E.
Division of Water Supply
Bureau of Water Allocation
P.O. Box 426
Trenton, New Jersey 08625

- i.
 - iii. All co-permittees (w/attachments)

4. Signature: _____ Date: _____



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

CHRIS CHRISTIE
GOVERNOR

BOB MARTIN
COMMISSIONER

KIM GUADAGNO
LT. GOVERNOR

Mail Code 401-03
Division of Water Supply & Geoscience
New Jersey Geological and Water Survey Element
Bureau of Water Allocation & Well Permitting
401 E. State Street - P.O. Box 420
Trenton, New Jersey 08625-0420
Tel #: (609) 984-6831 - Fax #: (609) 633-1231
<http://www.nj.gov/dep/watersupply/>

RECEIVED
NOV 19 2012
Tierra Solutions

November 13, 2012

TIERRA SOLUTIONS (DIAMOND ALKALI SUPERFUND)
2 Tower Center Blvd
10th Floor
East Brunswick Twp, NJ 08816
Attn: Paul J. Bluestein

Re: CANCELLATION OF PERMIT EQUIVALENCY 2603E
Activity No. EQP100001
TIERRA SOLUTIONS (DIAMOND ALKALI SUPERFUND)

Dear Mr. Bluestein:

The department received a request to cancel your Permit Equivalency on November 9, 2012. Your Permit Equivalency has been cancelled.

Note that a diversion of water greater than 100,000 gallons per day without a valid Water Allocation permit is a violation of N.J.A.C. 7:19-1.7 and that the Department may take enforcement action if water is diverted without prior Department approval. If you seek to divert water you will be required to submit a Water Allocation permit application to the Bureau and obtain approval before you may divert.

Should you have any questions regarding this letter, contact me at (609) 984-6831 or carolyn.olynyk@dep.state.nj.us.

Sincerely,

Carolyn Olynyk
Environmental Specialist 4
Bureau of Water Allocation & Well Permitting

C: Northern Bureau of Water Compliance and Enforcement