SCHNITZER STEEL INDUSTRIES, INC.
25 Sandquist Street Concord, New Hampshire 03301-3558
Phone: (603) 225-2267 Fax: (603) 225-0656

January 20, 2015

Mr. Paul Gildersleeve, P.E.
Solid Waste Management Bureau
New Hampshire Department of Environmental Services
PO Box 95, 29 Hazen Drive
Concord, NH 03302-0095

Re: Response to Review Comments
Standard Permit Application
New England Metal Recycling LLC
Madbury, New Hampshire
WMD Log #2011610, 2011660, 2011730, 10779, 12731, 12977, 13049, 13125, 13177, and 13206

Dear Mr. Gildersleeve:

This letter presents our responses to comments provided in your January 24, 2014 letter regarding our application for a Standard Permit for our facility on Knox Marsh Road (Route 155) in Madbury. Comments from your letter are provided below in italics, followed by our response in standard type. We have attached the portions of the application documents that have been modified in response to the comments, with all master documents updated accordingly. Modified text is indicated in redline/strikeout mode to facilitate your review.

Operating Plan

Application

1. *Section 5.0, Facility Maintenance, Inspection and Monitoring Plan, does not mention the oil/water separator (OWS) at the facility. The last mention of the OWS in the Hazardous Waste Remediation Bureau files is in the 2009 Annual Summary Report, dated January 27, 2010 prepared by EOS Research, (Ltd.) (EOS). EOS refers to the OWS as follows "The OWS was replaced during 2009 with an engineered stormwater treatment system that includes particulate settling, oil/water separation, and constructed wetlands. Periodic Cleaning of the oil/water separator will continue to be performed during 2010." If the OWS is still functioning for its intended purpose, please identify its location, and provide the operation and maintenance procedures for the its inspection, pumping and reporting.*

Response:

There are two (2) 6,000-gallon oil water separators that were installed at as part of the engineered stormwater treatment system in 2009. A description of the stormwater treatment system and the operation and maintenance procedures have been added to Section 5.0 of the Operating Plan.

Site Report

1. *Section 4.3, Site Environmental Conditions, briefly provides a discussion of volatile-organic-compound (VOC) contamination at the site. The discussion mentions chlorinated and petroleum*

based compounds. However, the present on-going, short term extraction and treatment at monitoring well RDW-5, past efforts at RDW-7, and the present on-going investigation of tetrachloroethylene (PCE) contamination at RDW-6 were not mentioned in this section, either by reference or in detail. Please includes this additional information in this section.

Response:

The requested information has been added to Section 4.3 of the Site Report.

Plans

1. *The 100-year floodplain shown on Sheet 2 is different than the floodplain shown on Sheets 1 and 3. Please explain. Please insure the floodplain is the same on all full-size and half-size sheets, and that a reference to the source of this floodplain elevation is shown on these full-size and half-size sheets.*

Response:

The 100 year floodplain that was shown on Sheet 2 was based on an analysis of FEMA mapped floodplain elevations and site topography as previously described in our letter responding to DES's October 9, 2013 comment letter. The 100 year flood plain lines shown on Sheets 1 and 3 were digitized from the effective Flood Insurance Rate Map (FIRM). Attached to this response are revised drawings that show both the estimated 100 year floodplain limit based on the analysis of FEMA mapped floodplain elevations and site topography (shaded in blue) and the 100 year floodplain limit digitized from the FIRM on each sheet.

We believe these responses address your comments as indicated in your letter of January 24, 2014, however, if you should you have further questions or require additional information, please feel free to contact Keri Fitzpatrick at kfitzpatrick@schn.com or (781) 706-7003.

Sincerely,

Keri Fitzpatrick

Keri Fitzpatrick
Regional Environmental Manager

Sanborn, Head & Associates, Inc.

Digitally signed by Sanborn, Head & Associates, Inc.
DN: cn=Sanborn, Head & Associates, Inc., o, ou, email=lsmith@sanbornhead.com, c=US
Date: 2015.01.20 15:12:09 -05'00'

cc: Kitty Cornwell, Town of Madbury
J. Michael Joyal, City of Dover
S. Shillaber, PE, Sanborn Head & Associates
Barry Keith, B.H. Keith Associates
Payson Whitney, ESS Group, Inc.
Wayne Wheeler, PE, WMD-Solid Waste Bureau

REVISED SECTION 5.8 OF THE FACILITY OPERATING PLAN
AND
FIGURE 5.2 SHOWING LOCATIONS OF STORMWATER TREATMENT FEATURES

5.8 Leachate

There are no stormwater discharges associated with runoff from the site as defined under the Multi Sector General Permit (MSGP) for stormwater discharge associated with industrial activities. Current and proposed operating areas of the site consist of concrete and asphalt surfaces that significantly limit the infiltration of stormwater during storm events. The existing engineered stormwater system was installed in 2009 and consists of a concrete sedimentation basin, a sluice gate, two (2) 6,000-gallon oil water separators and a constructed wetland. Stormwater sheets flows to the concrete sedimentation basin via overland flow or concrete lined swales on the eastern and southeastern perimeters of the operating area. Flow from the sedimentation basin is controlled through the operation of a sluice gate. The sluice gate is closed during storm events to allow suspended solids to settle. After settling period, the sluice gate is manually opened and the stormwater flow is split to pass through one of two (2) 6,000-gallon oil water separators and then a constructed wetland.

The oil/water separators are designed to remove free oils and grease to no visible sheen. Each oil-water separator is made up of three chambers. The first chamber settles solids prior to passing through a baffle into the second chamber to an oil/floatables chamber. The third and last chamber is the outlet chamber. Each chamber can be accessed from the surface via a manhole cover. Each chamber has a manhole opening to allow for visual inspections and access to the inside of the oil/water separator.

The sedimentation basin and oil water separators are inspected monthly for the presence of floating solids and accumulated oil, and annually for the build–up of accumulated sediment. The structures are also inspected as soon as practical in the event of a spill of oil or hazardous material or after a storm event greater than 2.0 inches in a 24 hour period. The sedimentation basin is cleaned when there is greater than six inches, on average, of sediment. The oil water separators are skimmed and/or cleaned when there is greater than one inch of oil accumulated or one foot of accumulated sediment. Accumulated oil and sediment are removed using a licensed vacuum truck company. Floating solids are removed by hand or with a vacuum truck as needed.

Stormwater systems incorporated into the current and proposed operating areas of the site are/would be designed to appropriately support each area, minimizing related risks with managing stormwater from the associated operation.

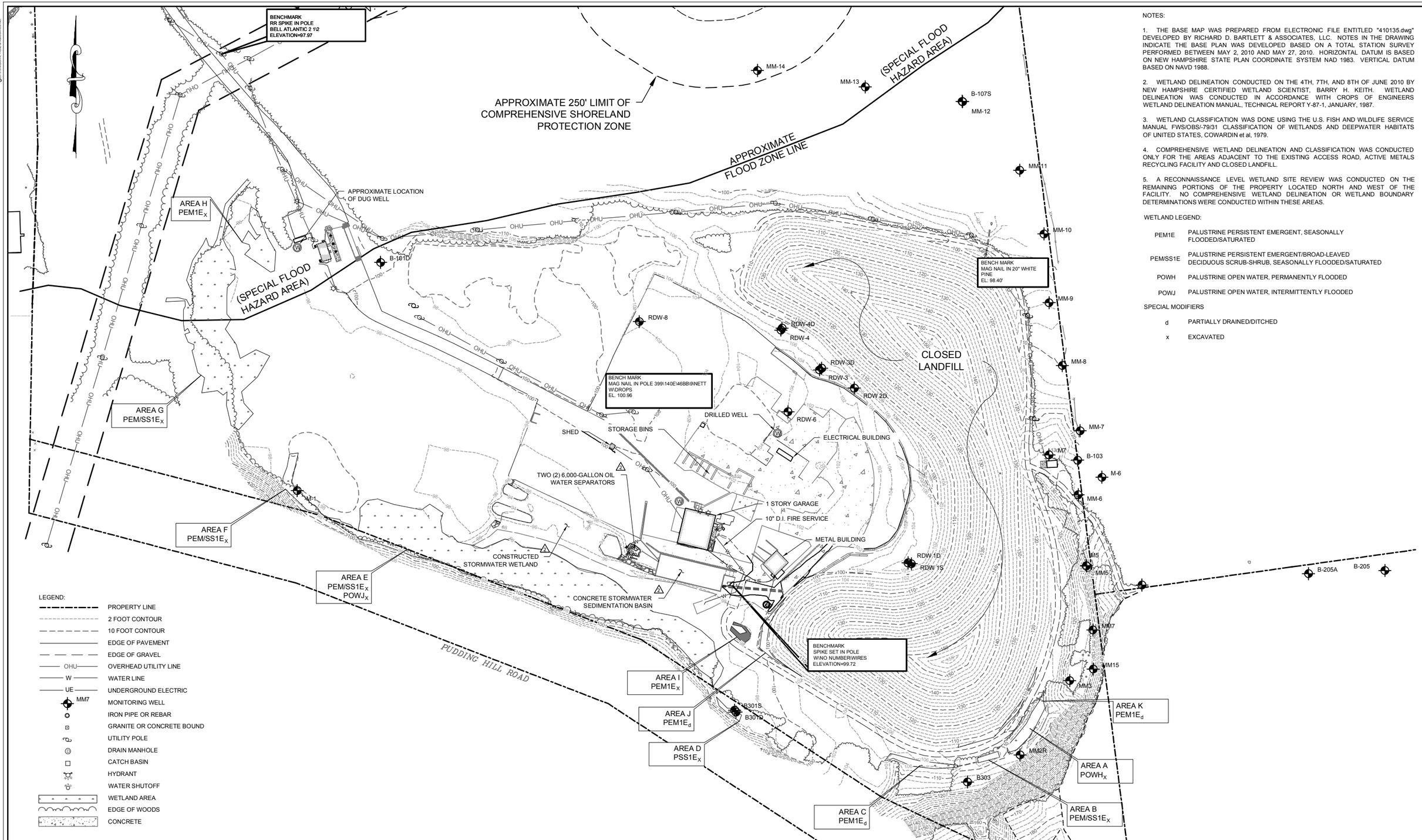
NEMR is proactive with the identification of potential sources of stormwater pollution and has the following programs to minimize the potential impact of these sources to nearby water bodies.

- Inbound Material Control Program

Refer to Section 3.3 and Scrap Acceptance Guidelines (Attachments 1 through 3).

- Outdoor Material and Product Stockpile Management

The storage of material and metal products is maintained on an impervious surface in bulk stockpiles or bulk storage bins placed on an impervious surface throughout the facility as indicated on the Site Layout plan, Drawing 1. Stormwater treatment is



NOTES:

1. THE BASE MAP WAS PREPARED FROM ELECTRONIC FILE ENTITLED "410135.dwg" DEVELOPED BY RICHARD D. BARTLETT & ASSOCIATES, LLC. NOTES IN THE DRAWING INDICATE THE BASE PLAN WAS DEVELOPED BASED ON A TOTAL STATION SURVEY PERFORMED BETWEEN MAY 2, 2010 AND MAY 27, 2010. HORIZONTAL DATUM IS BASED ON NEW HAMPSHIRE STATE PLAN COORDINATE SYSTEM NAD 1983. VERTICAL DATUM BASED ON NAVD 1988.

2. WETLAND DELINEATION CONDUCTED ON THE 4TH, 7TH, AND 8TH OF JUNE 2010 BY NEW HAMPSHIRE CERTIFIED WETLAND SCIENTIST, BARRY H. KEITH. WETLAND DELINEATION WAS CONDUCTED IN ACCORDANCE WITH CROPS OF ENGINEERS WETLAND DELINEATION MANUAL, TECHNICAL REPORT Y-87-1, JANUARY, 1987.

3. WETLAND CLASSIFICATION WAS DONE USING THE U.S. FISH AND WILDLIFE SERVICE MANUAL FWS/OBS/-79/31 CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF UNITED STATES, COWARDIN et al, 1979.

4. COMPREHENSIVE WETLAND DELINEATION AND CLASSIFICATION WAS CONDUCTED ONLY FOR THE AREAS ADJACENT TO THE EXISTING ACCESS ROAD, ACTIVE METALS RECYCLING FACILITY AND CLOSED LANDFILL.

5. A RECONNAISSANCE LEVEL WETLAND SITE REVIEW WAS CONDUCTED ON THE REMAINING PORTIONS OF THE PROPERTY LOCATED NORTH AND WEST OF THE FACILITY. NO COMPREHENSIVE WETLAND DELINEATION OR WETLAND BOUNDARY DETERMINATIONS WERE CONDUCTED WITHIN THESE AREAS.

WETLAND LEGEND:

PEM1E	PALUSTRINE PERSISTENT EMERGENT, SEASONALLY FLOODED/SATURATED
PEM/SS1E	PALUSTRINE PERSISTENT EMERGENT/BROAD-LEAVED DECIDUOUS SCRUB-SHRUB, SEASONALLY FLOODED/SATURATED
POWH	PALUSTRINE OPEN WATER, PERMANENTLY FLOODED
POWJ	PALUSTRINE OPEN WATER, INTERMITTENTLY FLOODED

SPECIAL MODIFIERS

d	PARTIALLY DRAINED/DITCHED
x	EXCAVATED

SANBORN HEAD

GRAPHICAL SCALE
100' 50' 0 100' 200'

NO.	DATE	DESCRIPTION	BY
2	01/16/15	Added callouts	DJD
1	06/13/11	Added callout for wetland Area D	KMA

DRAWN BY: E. Wright
DESIGNED BY: R. Shillaber
REVIEWED BY: P. Rydel
PROJECT MGR: R. Shillaber
PIC: R. Shillaber
DATE: January 2011

NEW ENGLAND METAL RECYCLING, LLC
MADBURY, NEW HAMPSHIRE

DETAILED SITE PLAN

PROJECT NUMBER: 3140.00

FIGURE NUMBER: 5.2

PAGES FROM REVISED SITE REPORT

holds a 100-foot wide power line easement in the west portion of the site. Facility operations are located sufficiently far from this easement such that the easement does not adversely affect NEMR's ability to operate in accordance with the requirements in the Solid Waste Rules.

Groundwater and Surface Waters (Env-Sw 1003.04)

The property on which the facility is located is bounded to the north by the Bellamy River. The Bellamy River is not a designated river pursuant to RSA 483.

The facility is located in the well head protection area for the Griffin well, a municipal water supply well for the City of Dover. Accordingly, groundwater beneath the site is classified as GAA per New Hampshire Revised Statutes Annotated (RSA) 485-C:5. Waste and scrap processing and storage are considered potential contamination sources. Operations at the facility commenced before passage of the legislation, which identifies classes of groundwater. Therefore, NHDES requires that the facility monitor groundwater under a Release Detection Permit (RDP). The facility received a RDP on February 9, 1999 (GWP-198705022-M-003). On March 26, 2009, NHDES combined the RDP for the facility with the Groundwater Management Permit for the unlined landfill to create a single permit for the site (No. GWP-19870522-M-005). The Permit was renewed by NHDES in 2014 and m~~M~~onitoring continues to be ~~is~~ performed as required by the Permit with~~and~~ the results ~~are~~ reported to the NHDES following each monitoring event.

Wetlands (Env-Sw 1003.05)

There are wetlands located at the site as indicated on Figure 5.1. Figure 5.2 shows more detail in the developed portion of the site including more information regarding the wetland areas. Proposed operations will not involve filling wetlands nor will construction of proposed site improvements (described in Section VI).

Shoreland Protection (Env-Sw 1003.06)

The limit of the 250-foot Shoreland Protection Zone for the Bellamy River is indicated on Figure 5.1. As can be seen, the operational area of the facility is located well outside the Shoreland Protection Zone.

Designated Rivers (Env-Sw 1003.07)

The Bellamy River is not a designated river pursuant to RSA 483.

2.4 Requirements in Env-Sw 1102

General Siting Requirements (Env-Sw 1102.01)

The facility is an existing facility operating under a temporary permit. As demonstrated in this application, applicable design, operating and closure requirements outlined in the Solid Waste Rules are satisfied.

- In 1994 a Temporary Solid Waste Permit (No. DES-SW-TP-94-001) was issued to Madbury Metals, Inc. for the metal processing and recycling operation.
- In May 1998 the Temporary Solid Waste Permit was transferred to New England Metal Recycling, LLC.
- In 2009, site improvements including construction of additional paved area, removal of stockpiled metal and enhancement to the stormwater management system were completed.

4.3 Site Environmental Conditions

There have been numerous phases of hydrogeologic study performed at the site dating back to the mid 1980s. Reports of these studies as well as routine water quality monitoring reports were provided to NHDES and are available in NHDES' files. Given the large volume of information in NHDES' files, a summary has been provided here.

The data from the hydrogeologic studies indicate that groundwater beneath the operations area and landfill flows generally eastward across the site. Groundwater from wells located downgradient of the landfill have historically exhibited low concentrations of volatile organic compounds (VOCs) including chlorinated compounds, benzene, toluene, xylene, and methyl tert butyl ether (MTBE). Dissolved metals have also been detected in ground water, including arsenic concentrations in excess of the ambient groundwater quality standards[2] (AGQS).

Water quality monitoring has been performed at the site since the mid 1980s. Monitoring has been performed in accordance with groundwater permits issued for the facility and the data have been provided to NHDES. In the early 1990s, a series of monitoring wells, referred to as "picket wells," were installed in locations downgradient of the landfill near the eastern property line. In response to the detection of VOCs in groundwater downgradient of the landfill, the landfill was closed with a geomembrane cover system and remedial activities including a program of extraction, treatment and reinjection of groundwater downgradient of the landfill was proposed and approved by NHDES. In 1998 NHDES granted permission to terminate operation of the groundwater treatment system as monitoring results indicated concentrations were below AGQSs. In that time period, an air stripping treatment system was provided for the Griffin well.

As indicated in Section 2.3, the facility received a RDP on February 9, 1999. On March 26, 2009, this permit was combined with the permit issued for the landfill to create a single permit for the site. Monitoring is performed as required by the permit and the results are reported to the NHDES following each monitoring event. Recent monitoring results indicate the presence of low concentrations of VOCs in groundwater downgradient of the landfill. These constituents are found at relatively low concentrations. However, ~~in the last two years~~ during the period 2005 - 2010 the VOCs methyl tert-butyl ether (MTBE) and 1,4-

[2] Ambient Groundwater Quality Standards are defined in Env-Or 602.02 and are maximum concentration levels for regulated contaminants in groundwater.

dioxane were detected from time to time at concentrations in excess of their respective AGQS.

In accordance with NHDES requirements, studies[3,4] were performed to assess conditions related to these constituents. With respect to 1,4-dioxane, the study generally concluded that the very limited low-level detections of 1,4-dioxane in the monitoring wells in the current processing area at the facility suggest that recent metal recycling activities have not served as a source for the introduction of this constituent to the subsurface. The study concluded that the 1,4-dioxane in groundwater downgradient of the site resulted from releases from the historic storage of shredder residue in large piles on the ground surface and/or solvent residuals in metals arriving onsite during operation by the former Madbury Metals. As of the end of 2014, samples from only one monitoring well (MM-11) contained a concentration of 1,4-dioxane that exceeded the AGQS.

The MTBE study concluded that dissolution of MTBE from impacted soils, small fuel releases, and activities related to removal of shredder residue resulted in short-lived impacts to ground water within the processing area. Concentrations are such that advective transport of MTBE from the NEMR operations area to the monitoring wells located along the property line downgradient of the landfill does not appear to be a plausible explanation for the increased concentrations of MTBE observed in the groundwater samples from those locations. The only wells that have had exceedances of the AGQS for MTBE in the past three years are MM-11 and B-205.

Both the MTBE and 1,4-dioxane studies conclude that it is likely that groundwater has come in contact with the material within the unlined landfill in recent years as a result of a significant rise in the water table during the 2000's due to several years of above-average precipitation. In any event, even if direct contact between groundwater and landfilled material has not occurred, these studies conclude that leachate generated by decomposition processes within the landfill may have been released to groundwater and thus present a contributory source.

Localized groundwater pump and treat systems have been operated on site to address VOC concentrations. A groundwater pump and treat system was installed at groundwater monitoring well RDW-5 to address the presence of tetrachloroethylene (PCE) above AGQS and operated intermittently from its installation in 2006 to 2013, when it was shut down after successfully reducing PCE concentrations in the vicinity of the well to below the AGQS. A similar system was installed at groundwater monitoring well RDW-7 to address the presence of PCE (and occasionally MTBE) at concentrations above the respective AGQS and operated from its installation in 2007 through the end of 2009. Concentrations of VOCs in samples from RDW-7 have remained below AGQS for the last three years.

[3] "Supplemental Site Investigation Report, Off-site 1,4 Dioxane Delineation, New England Metal Recycling, LLC, Madbury, New Hampshire," prepared by EOS Research , LTD (EOS), December 2009.

[4] "Final Report, Investigation of MTBE and TBA Occurrence, New England Metal Recycling, LLC, Madbury, New Hampshire," prepared by EOS, June 2008.

Recent investigations relative to the presence of PCE and trichloroethylene (TCE) in groundwater in the vicinity of RDW-6 suggest the impacts are limited to a narrow area of the facility, and are likely related to historical operations[5]. A localized groundwater extraction (pump and treat) system was installed in July 2014 to address these historical impacts. Additional soil delineation activities have been completed for source area characterization, and alternatives to potentially augment remediation of these constituents are currently under review.

5.0 POTENTIAL ENVIRONMENTAL RECEPTORS

5.1 Flood Hazard Zones

A Flood Insurance Rate Map (FIRM) for Madbury New Hampshire was not available through the Federal Emergency Management Agency (FEMA) map services. However, according to the Federal Insurance Administration (FIA) map, dated January 17, 1975, a portion of the northwest boundary of the property is located in a special flood hazard zone. The limit of the zone is indicated on Figure 5.1.

With the exception of activities at the scale house, limited storage of metal and storm water treatment, current operations take place outside the flood hazard zone. This zone is defined as Zone A – No Base Flood Elevation determined, and is an area that is mapped as subject to inundation by the 1% annual chance flood. As such, these areas are not expected to be adversely affected by infrequent flooding of limited duration.

Based on employee knowledge, there has only been one notable flood event in the last 31 years within the special flood hazard zone. Approximately nine years ago, after more than seven days of continuous rain, an estimated one foot of water ponded in the northwest portion of the site in the area immediately adjacent to Route 155 and the facility entrance drive. After roughly seven to ten days, the water dissipated and did not have any effect on the proposed operating areas.

5.2 Wetlands

Wetlands were delineated at the site by BH Keith Associates of Freedom, New Hampshire (BHK) on June 4, 7 and 8, 2010. The wetlands were delineated in accordance with the "Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1." Wetlands were classified using the U.S Fish and Wildlife Service Manual. Wetlands associated with the Bellamy River located along the northern property border east of the access road were also investigated but were not flagged. The locations of wetland areas delineated at the site are shown on Figure 5.2. BHK's report is provided in Appendix A.

All of the wetlands on site with the exception of those associated with the Bellamy River, are man induced as a result of previous activities associated with the extraction of sand and gravel from the site. The wetlands in the developed portion of the site likely formed when

[5] "2013 Groundwater Release Detection and Management Permit Summary Report", prepared by EOS, January 2014.

DRAWINGS

FACILITY SIGN (AT ENTRANCE)

PLAN INSET

SECONDARY GATE

APPROXIMATE PERIMETER SIGN LOCATION

STORMWATER TREATMENT AREA

LIMIT OF NEW CLEARING AND GRADING

MAP 9, LOT 5
NEW ENGLAND METAL RECYCLING LLC
LEGAL DEPT. 5200 NW YEON
PORTLAND, OR 97210
V. 3885 P. 482
AREA = 4,089,406± SQ. FT. OR 94.04± AC.

EARTHEN BERM FOR FLOOD PROTECTION (TYP.)

NON-FERROUS RAW STOCKPILE AREA (POSSIBLE EXPANSION)

STORMWATER TREATMENT AREA

APPROXIMATE FEMA MAPPED FLOOD ZONE LINE

ZONE A (SPECIAL FLOOD HAZARD AREA)

ZONE X

60' x 60' NON-FERROUS RAW STORAGE PAD

KEY CARD SECURITY GATE

LIVE PARKING

24' BY PASS LANE

24' x 60'

GATE AREA

FERROUS STOCKPILE AREA

SCALE BY-PASS

OFFICE BUILDING & EMPLOYEE LOCKER & BREAK ROOM

CONCRETE BARRIER (TYP.)

PEDDLER FERROUS AREA

N-F STOCKPILE AREA

OUTBOUND NF LOADING AREA

ZORBA COVERED BINS

ZORBA COVERED STORAGE BINS

CONTAINER LOADING AREA

CUSTOM STORAGE BINS

SCALE HOUSE

30' ENTRANCE DRIVE

30' DRIVE AISLE

30' HAUL ROAD

STORMWATER TREATMENT AREA

RDW-8

RDW-4D

FILL IN PIT & PAVE OVER

SPECIALTY SHREDDABLES BINS

RDW-3D

RDW-2D

RDW-6

PROPOSED SHREDDER (left-hand drive)

MOTOR HOUSE

CRANE 20' DIA.

CRANE 50' DIA.

RELOCATE BINS

IN-FEED STOCK AREA

50' CLEAR AREA

FERROUS PRODUCT

40'R

RETAIL RECEIVING

NON-FERROUS BUILDING (150' x 500')

PROCESSING

WHOLESALE RECEIVING DOCKS

STORAGE

LOADING DOCKS

STAGING & LOADING

LOADING DOCKS

584'

57'

40'

CONCRETE BARRIERS

PARKING FOR 11 TRAILERS

RDW-7 (Approx.)

75' x 150' Maintenance Bldg (3 Bays)

AST #4

NON-FERROUS BULK STORAGE BINS

"WET" CAR PROCESSING

RDW-1D

RDW-1S

AST #13, 14, & 15

"WET" CAR STAGING AREAS

RDW-5

"WET" CAR CRUSHER/ TIN LOGGER

SHREDDER MAINTENANCE & BREAK ROOM

STORMWATER TREATMENT AREA

MAP 9, LOT 5A
TOWN OF MADBURY
L3 TOWN HARDHAND
MADBURY, NH 03823
V. 457 P. 436

PUDDING HILL ROAD

B-301S

B-301D

B-303

B-205A

B-103

B-107S

B-101D

M1

M7

M6

MM-1 (Approx.)

MM-2 (Approx.)

MM-2R

MM-3

MM-4

MM-5

MM-6

MM-7

MM-8

MM-9

MM-10

MM-11

MM-12

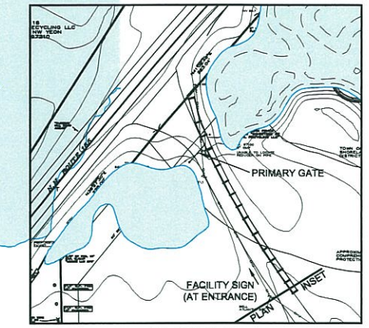
MM-13

MM-14

MM-15

APPROXIMATE PERIMETER SIGN LOCATION

STATE OF NEW HAMPSHIRE
PAYSON R. WHITNEY, III
No. 14163
CERTIFIED
PROFESSIONAL ENGINEER
1.27.14



PLAN INSET
Scale: 1"=100'

NOTES:

1. ENGINEER'S CERTIFICATION IS FOR PERMITTING PURPOSES ONLY.
2. MONITORING WELLS HAVE BEEN ESTABLISHED AT VARIOUS LOCATIONS AT THE SITE. CARE SHALL BE TAKEN TO PROTECT THE WELLS FROM DAMAGE. IN THE EVENT A WELL IS DAMAGED, THE FACILITY AND OPERATIONS MANAGER IS TO BE MADE AWARE, AN ASSESSMENT OF THE DAMAGE IS TO BE MADE AND REPORTED TO NHDES WITH RECOMMENDATIONS AS TO HOW THE WELL WILL BE REPAIRED OR REPLACED. NO ONE IS TO ATTEMPT TO REPAIR OR REPLACE ANY DAMAGED WELL OR INSTALL ANY NEW WELL WITHOUT FIRST CONTACTING NHDES FOR APPROVAL.

0 80 160
SCALE IN FEET

CONCEPTUAL PLAN

ESS Group, Inc.
Engineers
Scientists
Consultants

888 Worcester Street, Suite 240
Wellesley, Massachusetts 02482
p 781.431.0500
f 781.431.7434
www.essgroup.com

No.	REVISION	DATE	APP BY
4	RESPONSE TO NHDES COMMENTS	01/27/14	PRW
3	RESPONSE TO NHDES COMMENTS	12/19/13	PRW
2	RESPONSE TO NHDES COMMENTS	02/05/13	JCB
1	RESPONSE TO NHDES COMMENTS	06/16/11	JCB

DRAWN BY: CHECKED BY:
DESIGNED BY: APPROVED BY:

NE Metals Recycling, LLC
MADBURY, NH
SITE IMPROVEMENTS

SITE LAYOUT

PROJECT No.: 5432-000
DATE OF ISSUE: 1/26/11
SHEET No.:
SCALE: 1"=80'
DRAWING No. 1

LEGEND

- UNPREPARED PRODUCT
- PREPARED PRODUCT
- NON - FERROUS PRODUCT
- STORMWATER TREATMENT AREA
- AREA WITHIN 100 YEAR FLOOD PLAIN (BASED ON TOPOGRAPHY BELOW EL. 90')
- MM-13 MONITORING WELL
- CONCRETE BARRIERS

NOTE:

Source data of existing condition contours were compiled from:

1. Earth Systems Research Center, University of New Hampshire
   Publication Date: 20130531
   Title: Two Foot Contours - Bellamy River (010600030903) - raw
   Geospatial Data Presentation Form: vector digital data

2. Earth Systems Research Center, University of New Hampshire
   Publication Date: 20130531
   Title: Two Foot Contours - Oyster River (010600030902) - raw
   Geospatial Data Presentation Form: vector digital data

PRIMARY GATE

SECONDARY GATE

STORMWATER WETLANDS/POND SYSTEM 17,500 sf

RETAINING WALL TOP EL.=106

CONC. DET. CHANNEL 2,680 sf

EXISTING SWALE TO BE RELOCATED

STORMWATER WETLANDS/POND SYSTEM 6,995 sf

OIL / WATER SEPARATOR

EARTHEN BERM FOR FLOOD PROTECTION (TYP.)

STORMWATER WETLANDS/POND SYSTEM 8,815 sf

APPROXIMATE FEMA MAPPED FLOOD ZONE LINE

ZONE A (SPECIAL FLOOD HAZARD AREA)

ZONE X

VEGETATED BIO-SWALE

CONC. DET. BASIN 4,500 sf

CONCRETE SWALE

CONNECT TO EXISTING 24" PVC DRAIN

OIL / WATER SEPARATOR

CONC. DET. CHANNEL 877 sf

24" X 60'

ZONE A (SPECIAL FLOOD HAZARD AREA)

PAVED SWALE

OIL / WATER SEPARATOR

OUTBOUND NF LOADING AREA

ZORBA COVERED BINS

CONC. DET. BASIN 6,400 sf

CB

DMH

STORMWATER WETLANDS 9,574 sf

ADS WQU (OIL / WATER SEPARATOR)

RETAIL RECEIVING

ADS WQU (OIL / WATER SEPARATOR)

NON-FERROUS BUILDING (150' x 500')

PROCESSING

STORAGE

STAGING & LOADING

Madbury

PROPOSED SHREDDER (left-hand drive)

FERROUS PRODUCT

IN-FEED STOCK AREA

STORMWATER WETLANDS 2,406 sf

CONC. DET. BASIN 1,875 sf

ADS WQU (OIL / WATER SEPARATOR)

75' x 150' Maintenance Bldg (3 Bays)

CONC. DET. BASIN 1,800 sf

STORMWATER WETLANDS 3,940 sf

N

STATE OF NEW HAMPSHIRE
PAYSON R. WHITNEY, III
No. 14163
LICENSED PROFESSIONAL ENGINEER
1.27.14

NOTE:
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   Publication Date: 20130531
   Title: Two Foot Contours - Oyster River (010600030902) - raw
   Geospatial Data Presentation Form: vector digital data

NOTE: ENGINEER'S CERTIFICATION IS FOR PERMITTING PURPOSES ONLY.

0 80 160
SCALE IN FEET

LEGEND

- PROPOSED STORMWATER TREATMENT PRACTICE / STRUCTURE
- EXISTING STORMWATER TREATMENT PRACTICE / STRUCTURE
- WATERSHED AREA RECEIVING EXISTING STORMWATER TREATMENT
- WQU — WATER QUALITY UNIT (OIL / WATER SEPARATION)
- AREA WITHIN 100 YEAR FLOOD PLAIN (BASED ON TOPOGRAPHY BELOW EL. 90')

CONCEPTUAL PLAN

ESS Group, Inc.
Engineers
Scientists
Consultants

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No.	REVISION	DATE	APP BY
3	RESPONSE TO NHDES COMMENTS	01/27/14	PRW
2	RESPONSE TO NHDES COMMENTS	10/30/13	PRW
1	RESPONSE TO NHDES COMMENTS	02/05/13	JCB

DRAWN BY: CHECKED BY:
DESIGNED BY: APPROVED BY:

NE Metals Recycling, LLC
MADBURY, NH
SITE IMPROVEMENTS

CONCEPTUAL DRAINAGE PLAN

PROJECT No.: S432-000
DATE OF ISSUE: 1/26/11
SHEET No.:
SCALE: 1"=80'

DRAWING No. 2

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FACILITY SIGN (AT ENTRANCE)

PLAN INSET

SECONDARY GATE

EXISTING BUILDING TO BE REMOVED

MAP 9, LOT 5
NEW ENGLAND METAL RECYCLING LLC
LEGAL DEPT. 5300 SOUTHEON
PORTLAND, OR 97210
3985 SF
AREA = 4,099,140± SQ. FT. OR
94.10± AC.

ZONE A (SPECIAL FLOOD HAZARD AREA)
ZONE X

APPROXIMATE FEMA MAPPED FLOOD ZONE LINE

MAP 9, LOT 5
FRESH POND REALTY
PO BOX 540
WAKEFIELD, MA 01
BK. 1045, PG.

STORMWATER TREATMENT AREA

SCALE HOUSE

FERROUS STOCKPILE AREA

PATIO AREA

OFFICE BUILDING AND EMPLOYEE LOCKER & BREAK ROOM

NON - FERROUS STOCKPILE AREA

NON - FERROUS RAW STOCKPILE AREA (POSSIBLE EXPANSION)

NON - FERROUS RAW STORAGE PAD

PEDDLER FERROUS AREA

OUTBOUND N-F LOADING AREA

ZORBA COVERED STORAGE BINS

ZONE A (SPECIAL FLOOD HAZARD AREA)
ZONE X

CONTAINER LOADING AREA

RETAIL RECEIVING

NON - FERROUS BUILDING

PROCESSING

STORAGE

STAGING & LOADING

Cu / SS / OTHER STORAGE BINS

FERROUS PRODUCT

PROPOSED SHREDDER (LEFT HAND DRIVE)

EXISTING FUEL TANK TO BE REMOVED

EXISTING ELECTRICAL BUILDING TO BE REMOVED

SPECIALITY SHREDDABLES BINS

MOTOR HOUSE

IN-FEED STOCK AREA

SHREDDER MAINTENANCE & BREAK ROOM

MAINTENANCE BUILDING

NON - FERROUS BULK STORAGE BINS

"WET" CAR PROCESSING BUILDING

"WET" CAR STAGING AREAS

"WET" CAR CRUSHER/ TIN LOGGER

MAP 8, LOT 5A
LYNDON JACQUIAC
MADBURY, NH 03823
567 F 439

PUDDING HILL ROAD

MAP 9, LOT
PAUL MARTELLIN JR
DOVER, NH 03
BK. 1733, PG.

PRIMARY GATE

FACILITY SIGN (AT ENTRANCE)

PLAN INSET
Scale: 1"=100'

STATE OF NEW HAMPSHIRE
PAYSON R. WHITNEY, III
No. 14168
LICENSED
PROFESSIONAL ENGINEER
1-27-14

NOTE: ENGINEER'S CERTIFICATION IS FOR PERMITTING PURPOSES ONLY.

0 80 160
SCALE IN FEET

LEGEND

- EXISTING CONCRETE
- EXISTING ASPHALT PAVEMENT
- EXISTING BUILDING
- PROPOSED CONCRETE
- PROPOSED ASPHALT PAVEMENT
- PROPOSED PERMEABLE PAVEMENT
- PROPOSED BUILDING
- PROPOSED PERVIOUS AREA (GRASS)
- AREA WITHIN 100 YEAR FLOOD PLAIN (BASED ON TOPOGRAPHY BELOW EL. 90')

NOTE:

Source data of existing condition contours were compiled from:

1. Earth Systems Research Center, University of New Hampshire
   Publication Date: 20130531
   Title: Two Foot Contours - Bellamy River (010600030903) - raw
   Geospatial Data Presentation Form: vector digital data
2. Earth Systems Research Center, University of New Hampshire
   Publication Date: 20130531
   Title: Two Foot Contours - Oyster River (010600030902) - raw
   Geospatial Data Presentation Form: vector digital data

CONCEPTUAL PLAN

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3	RESPONSE TO NHDES COMMENTS	01/27/14	PRW
2	RESPONSE TO NHDES COMMENTS	12/19/13	PRW
1	RESPONSE TO NHDES COMMENTS	02/05/13	JCB

DRAWN BY: CHECKED BY:
DESIGNED BY: APPROVED BY:

NE Metals Recycling, LLC
MADBURY, NH
SITE IMPROVEMENTS

PROPOSED PAVEMENT AREAS PLAN

PROJECT No.: S432-000
DATE OF ISSUE: 1/26/11
SHEET No.:
SCALE: 1"=80'

DRAWING No. 3

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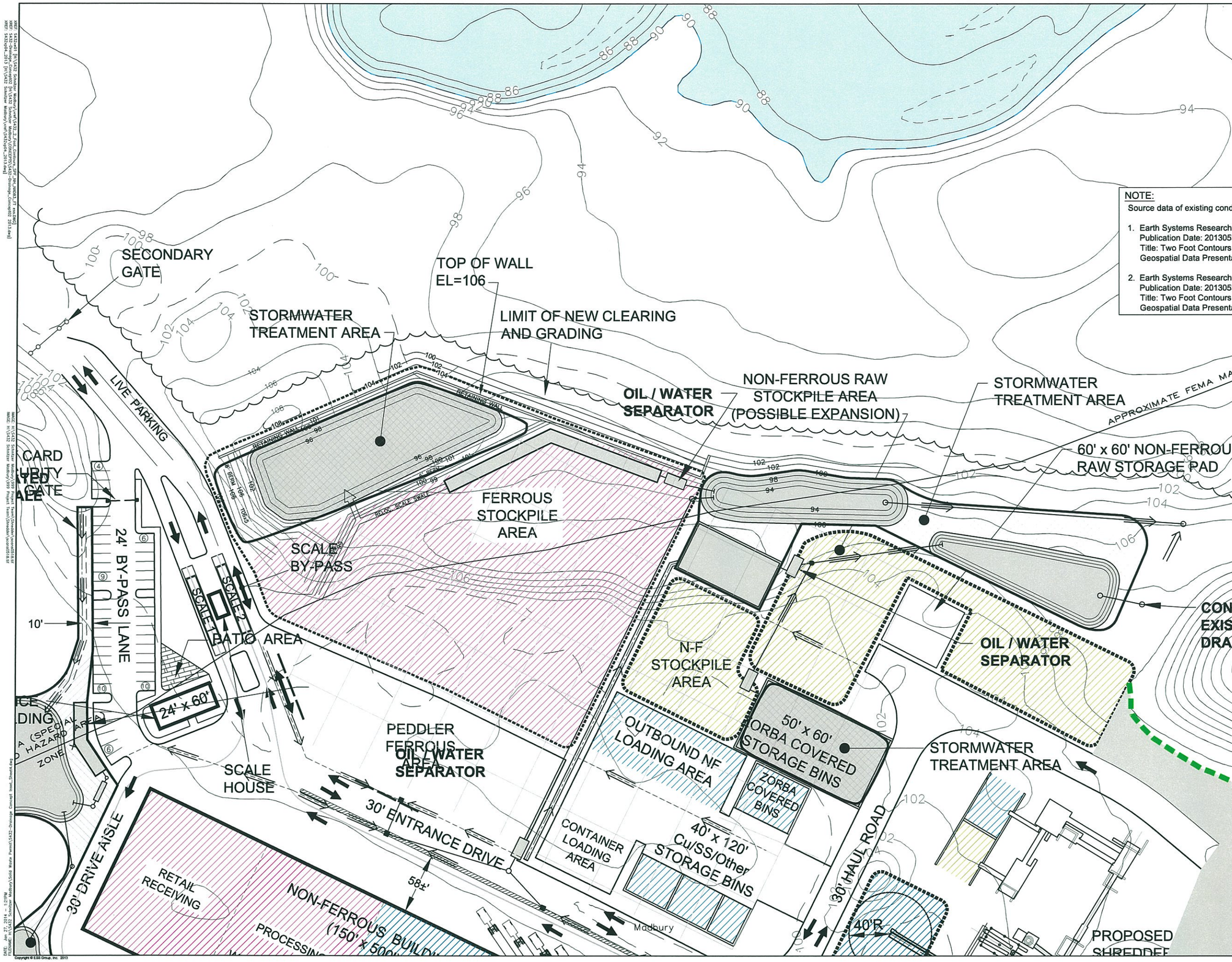

STATE OF NEW HAMPSHIRE
PAYSON R. WHITNEY, II
No. 14463
LICENSED
PROFESSIONAL ENGINEER
1.27.14

NOTE:

Source data of existing condition contours were compiled from:

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   Publication Date: 20130531
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   Publication Date: 20130531
   Title: Two Foot Contours - Oyster River (010600030902) - raw
   Geospatial Data Presentation Form: vector digital data

0 40 80
SCALE IN FEET

CONCEPTUAL PLAN

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No.	REVISION	DATE	APP BY
1	RESPONSE TO NHDES COMMENTS	01/27/14	PRW

DRAWN BY: CHECKED BY:
DESIGNED BY: APPROVED BY:

NE Metals Recycling, LLC
Madbury, NH
Site Improvements

CONCEPTUAL DRAINAGE PLAN INSET

PROJECT No.:
DATE OF ISSUE: 10/30/13
SHEET No.:
SCALE:
DRAWING No. **4**

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