



de maximis, inc.

135 Beaver Street
Fourth Floor
Waltham, MA 02452
(781) 642-8775
FAX (781) 642-1078

July 2, 2014

VIA US MAIL

Massachusetts Department of Environmental Protection
Wetlands and Waterways Program
Northeast Regional Office
205B Lowell Street
Wilmington, MA 01887

**RE: DEP Transmittal No. X254090
DEP Wetlands File No. 61-0633**

Dear Sir:

On behalf of KHB Venture, LLC, and in accordance with Condition No. 6 of the Water Quality Certification dated June 4, 2013, attached is a summary of the tide gate elevation data from the Oak Island RAM Mitigation Project in Revere, Massachusetts.

Per Condition 17 of the Water Quality Certification, a copy is being provided to the City of Revere Conservation Commission.

Please do not hesitate to call me at 781-642-8775 should you have any questions.

Sincerely,

de maximis, inc.

Thor Helgason

Attachment

Cc: (Via Electronic Transmittal):

Paul Sneeringer – USACE
Eric Hutchins – NOAA
Ed Reiner – USEPA
Georgeann Keer – MADEP
Frank Stringi – City of Revere

Andrew DeSantis - City of Revere Conservation
Commission
Jeffrey Holden – ARCADIS
KHB Venture, LLC



ARCADIS U.S., Inc.
200 Harvard Mills Square
Suite 430
Wakefield
Massachusetts 01880
Tel 781 224 4488
Fax 781 224 3033

MEMO

To:
Thor Helgason
de maximis, inc.
135 Beaver Street
Waltham, MA 02452

Copies:
Jeffrey S. Holden, P.E., LSP

From:
Irina Calante

Date:
July 3, 2014

ARCADIS Project No.:
B0038878.0000

Subject:
Oak Island Tide Gauge Water Level Measurements: January 7 through June 6, 2014

The Release Abatement Measure (RAM) Mitigation portion of the Oak Island Salt Marsh Restoration project in Revere, Massachusetts was implemented between October 9 and December 6, 2013. Per the requirements of the Condition 6 of the Water Quality Certification (WQC), water-level monitoring was performed during the construction project and will continue to be performed for a period of one year following the completion of the RAM Mitigation project. Condition 6 requires the submittal of a monitoring report to the MassDEP, USACE and Conservation Commission to summarize water surface elevation data for the RAM Mitigation Project construction period through one-month post-construction and subsequent reporting in six-month increments. A memorandum summarizing the gauging data during construction and the initial one-month post-construction period (i.e., through January 6, 2014) was provided on January 16, 2014. This memorandum summarizes data for the period of January 7 through June 6, 2014 (i.e., the remainder of the initial six-month post-construction period).

Data Collection Method

The equipment used to measure surface water levels included the same two electronic data loggers (Solinst Gold 3001) that were used for the previous water elevation monitoring performed during RAM construction and one month post-construction from October 2013 through January 6, 2014. A levellogger recorded water pressure and temperature, and a barologger recorded barometric pressure and ambient temperature.

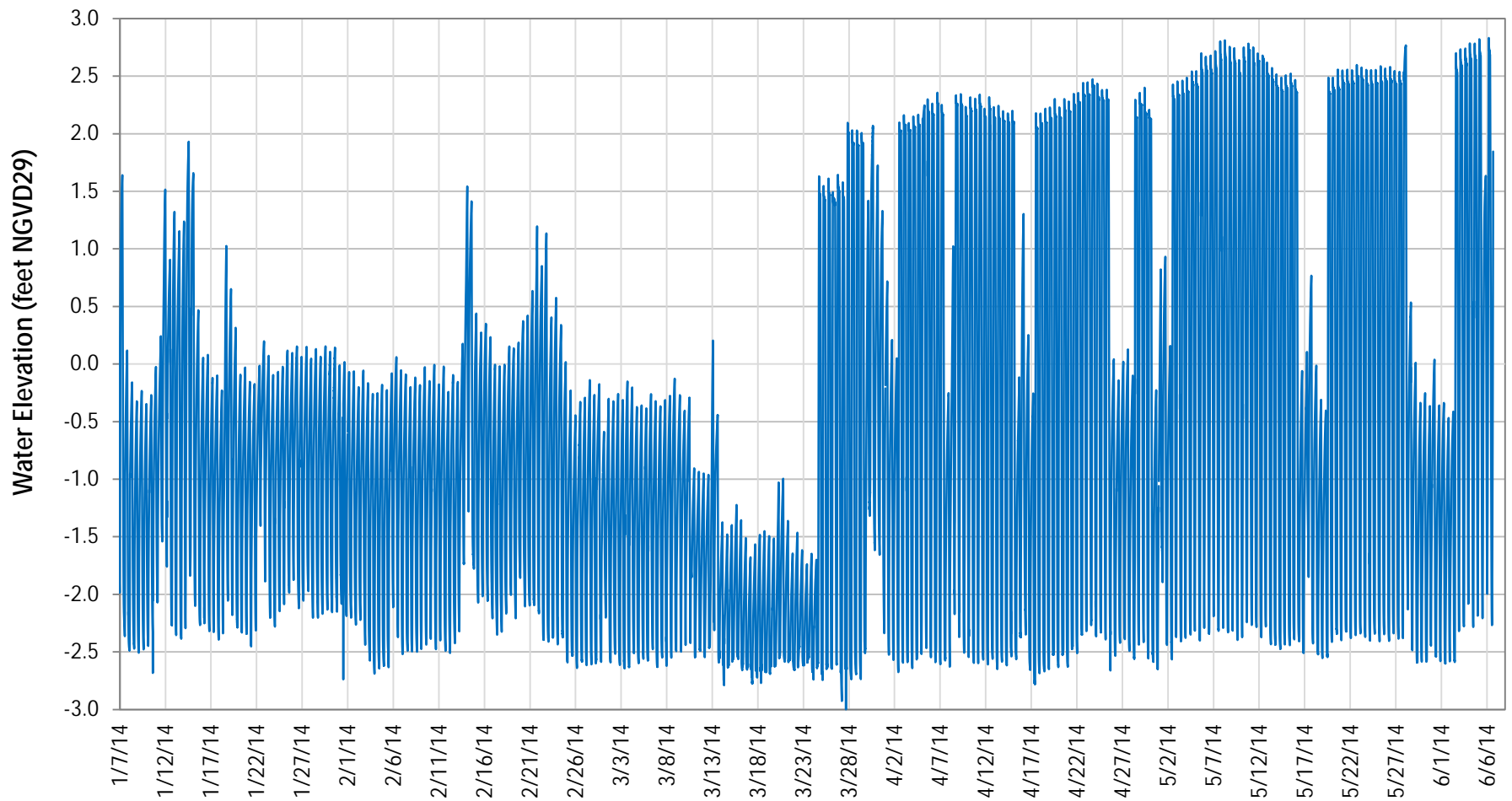
Recorded data stored on the individual loggers was periodically retrieved by connecting the loggers to a computer cable connection and downloading using Solinst software. Downloaded levellogger water level data were corrected for ambient barometric pressure using the barologger pressure readings, and adjusted for NGVD29 elevations. Readings from the data logger were also adjusted to reflect periodic manual measurements of water-levels relative to the established benchmark at the gauge location. Both loggers were synchronized to continuously take a reading every five minutes.

Water Levels Results Summary

Recorded water elevation levels for the period of January 7 through June 6, 2014 are shown on Figure 1. Water elevation levels are also summarized on a monthly basis and shown on Figures 2 through 6 for January, February, March, April and May-June, respectively.

The tide gate is operated by the City of Revere. During the winter months of January through March, the tide gate setting was lowered such that high tide recorded in this time frame was around 0 NGVD29, with the exception of some days with higher recorded elevations apparently resulting from precipitation and/or runoff. The tide gate setting was adjusted in late March, resulting in high tide water elevations consistently exceeding 2.0 feet NGVD29 through the remainder of the monitoring period. The data for April and May/June also indicate short durations where the tide gate was either obstructed or temporarily adjusted resulting in somewhat lower maximum tide elevations at the gauge location.

The next report will cover the remaining six months of the one-year post-construction monitoring period (i.e., June 7 through December 6, 2014).



Legend:

— Water level at Railroad Culvert

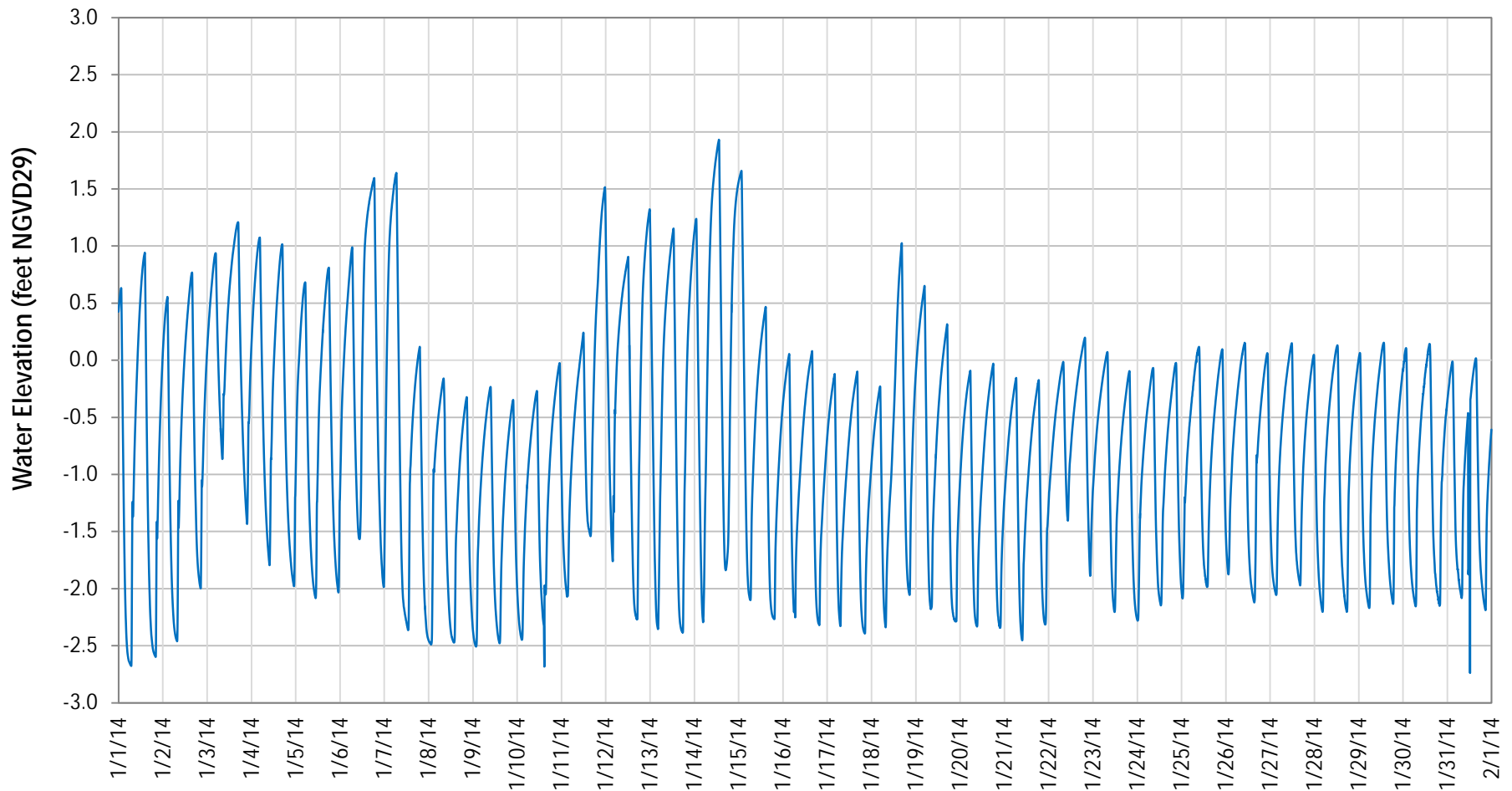
OAK ISLAND SALT MARSH RESTORATION
 REVERE, MASSACHUSETTS
 RAM MITIGATION - POST-CONSTRUCTION

WATER LEVEL MEASUREMENTS
January 7 - June 6, 2014



FIGURE

1



Legend:

— Water level at Railroad Culvert

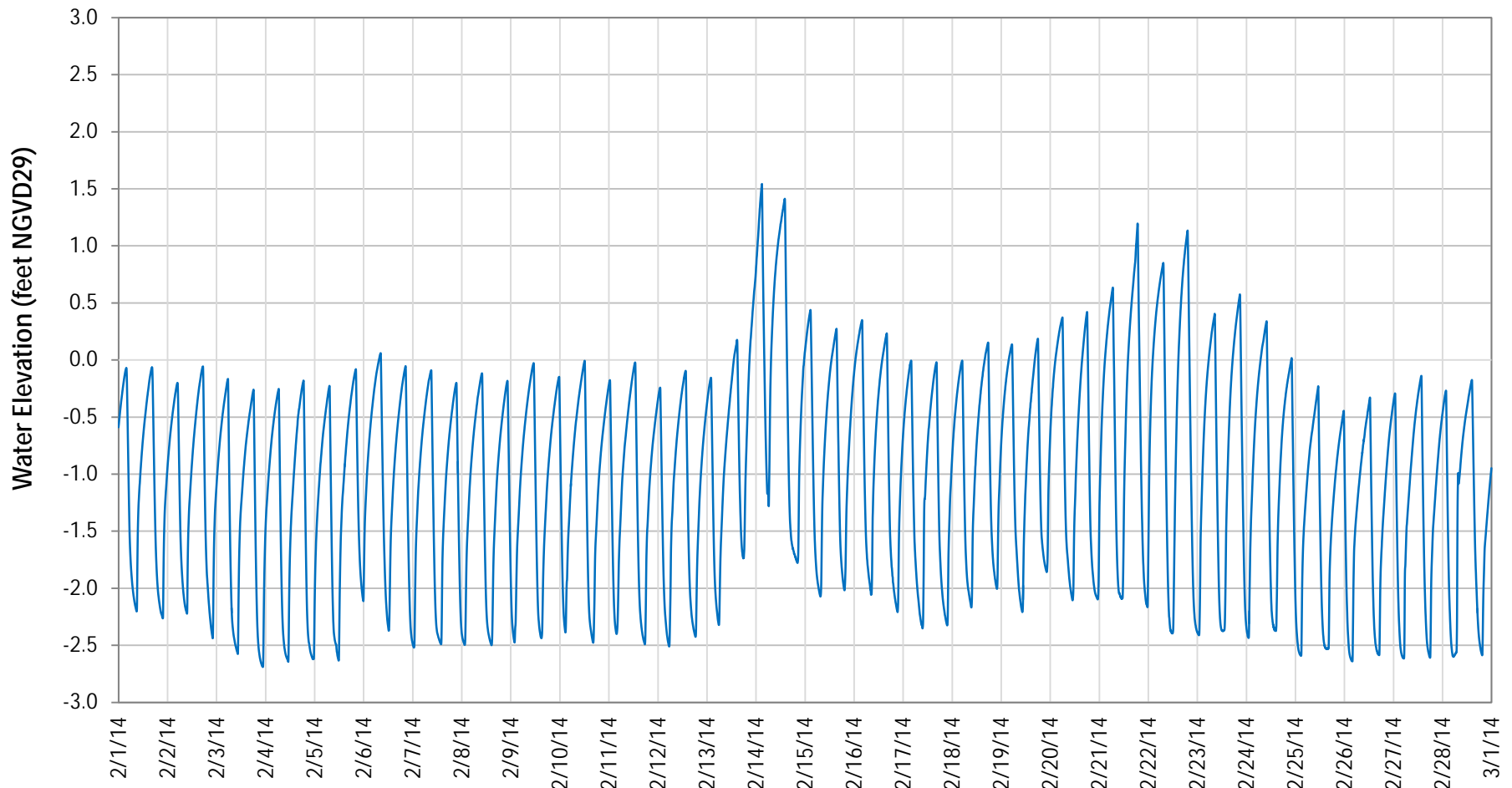
OAK ISLAND SALT MARSH RESTORATION
 REVERE, MASSACHUSETTS
 RAM MITIGATION - POST-CONSTRUCTION

WATER LEVEL MEASUREMENTS
January 1 - 31, 2014



FIGURE

2



Legend:

— Water level at Railroad Culvert

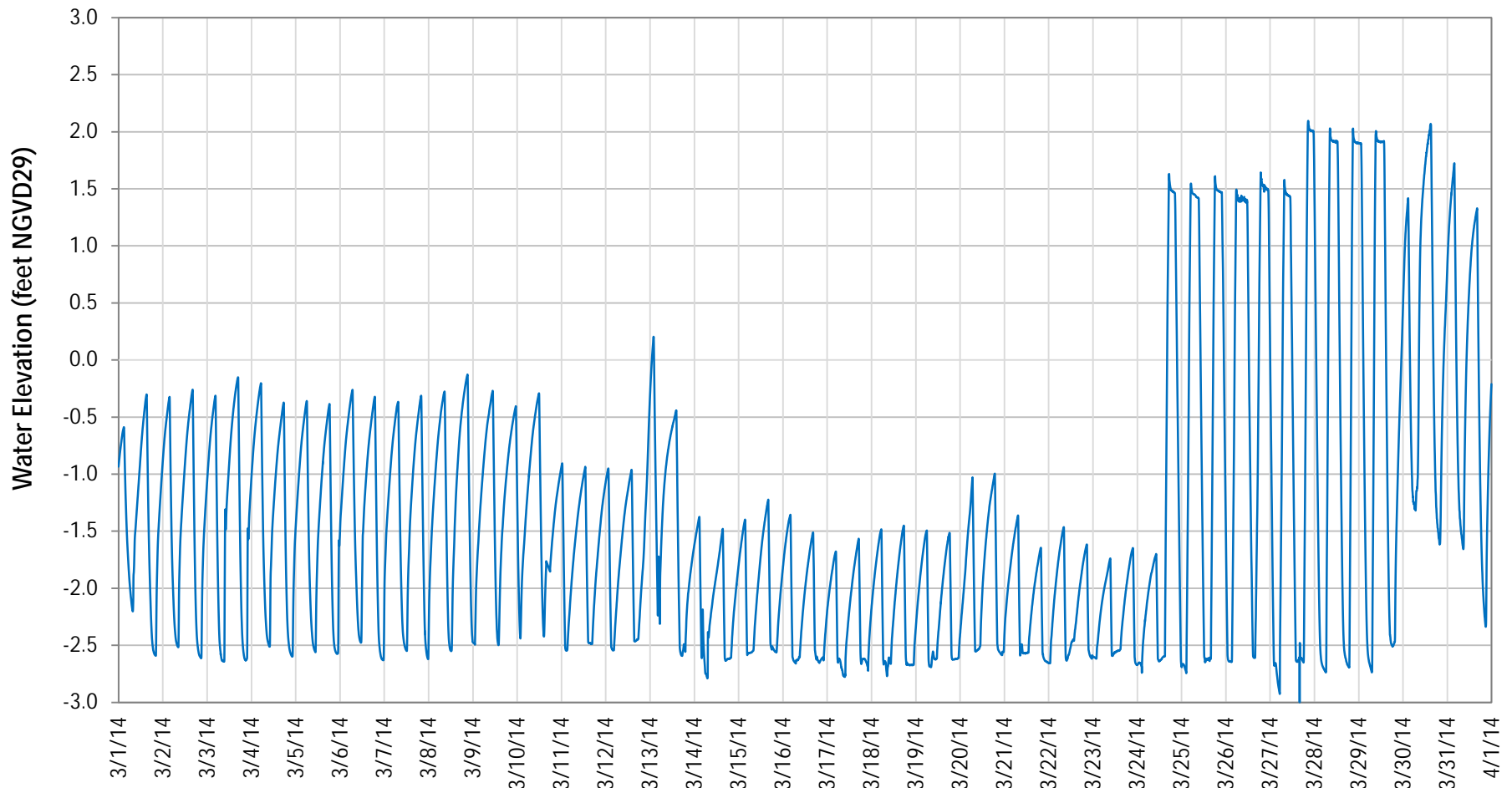
OAK ISLAND SALT MARSH RESTORATION
 REVERE, MASSACHUSETTS
 RAM MITIGATION - POST-CONSTRUCTION

WATER LEVEL MEASUREMENTS
February 1 - 28, 2014



FIGURE

3



Legend:

— Water level at Railroad Culvert

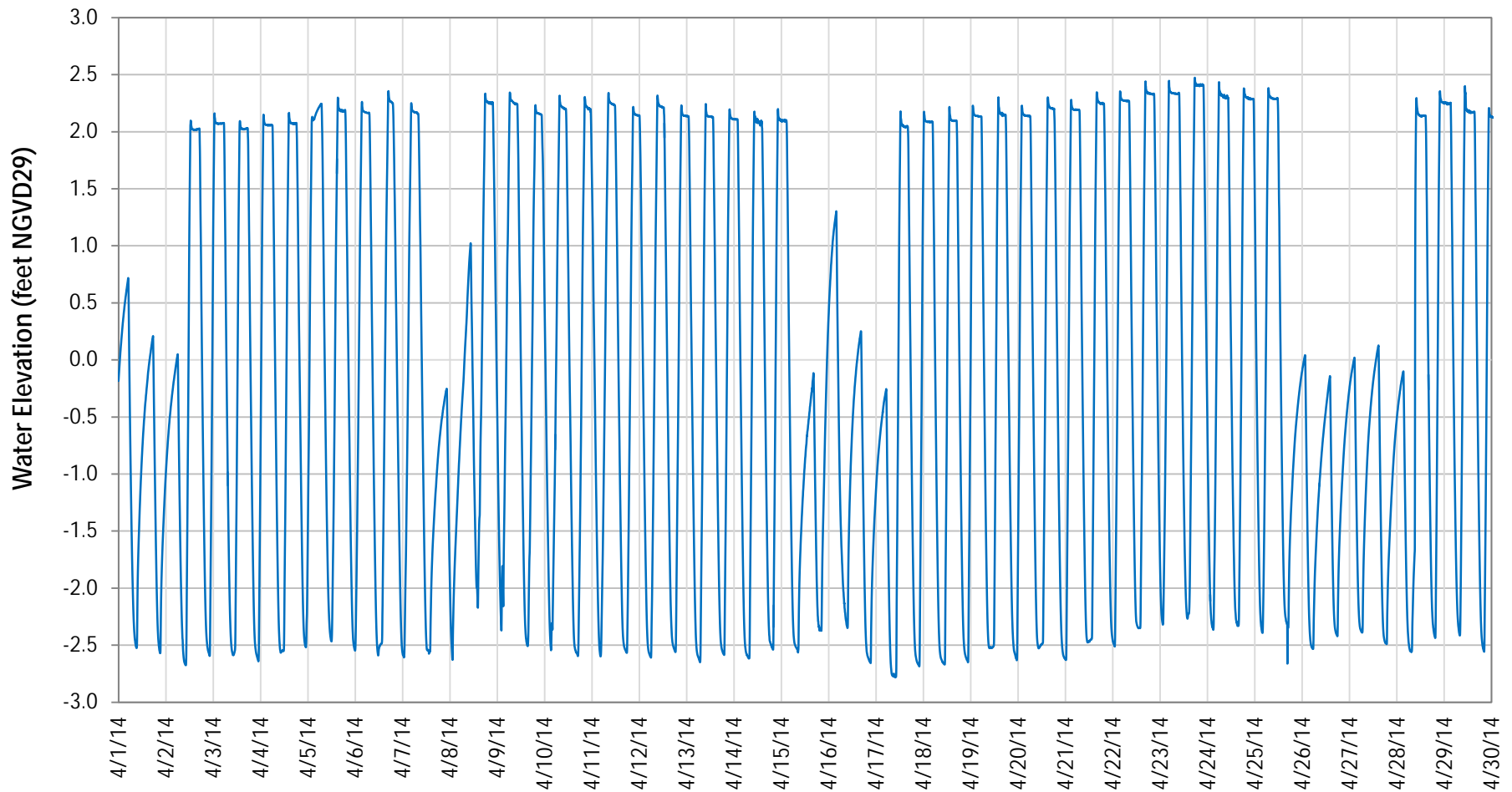
OAK ISLAND SALT MARSH RESTORATION
 REVERE, MASSACHUSETTS
 RAM MITIGATION - POST-CONSTRUCTION

WATER LEVEL MEASUREMENTS
March 1 - 31, 2014



FIGURE

4



Legend:

— Water level at Railroad Culvert

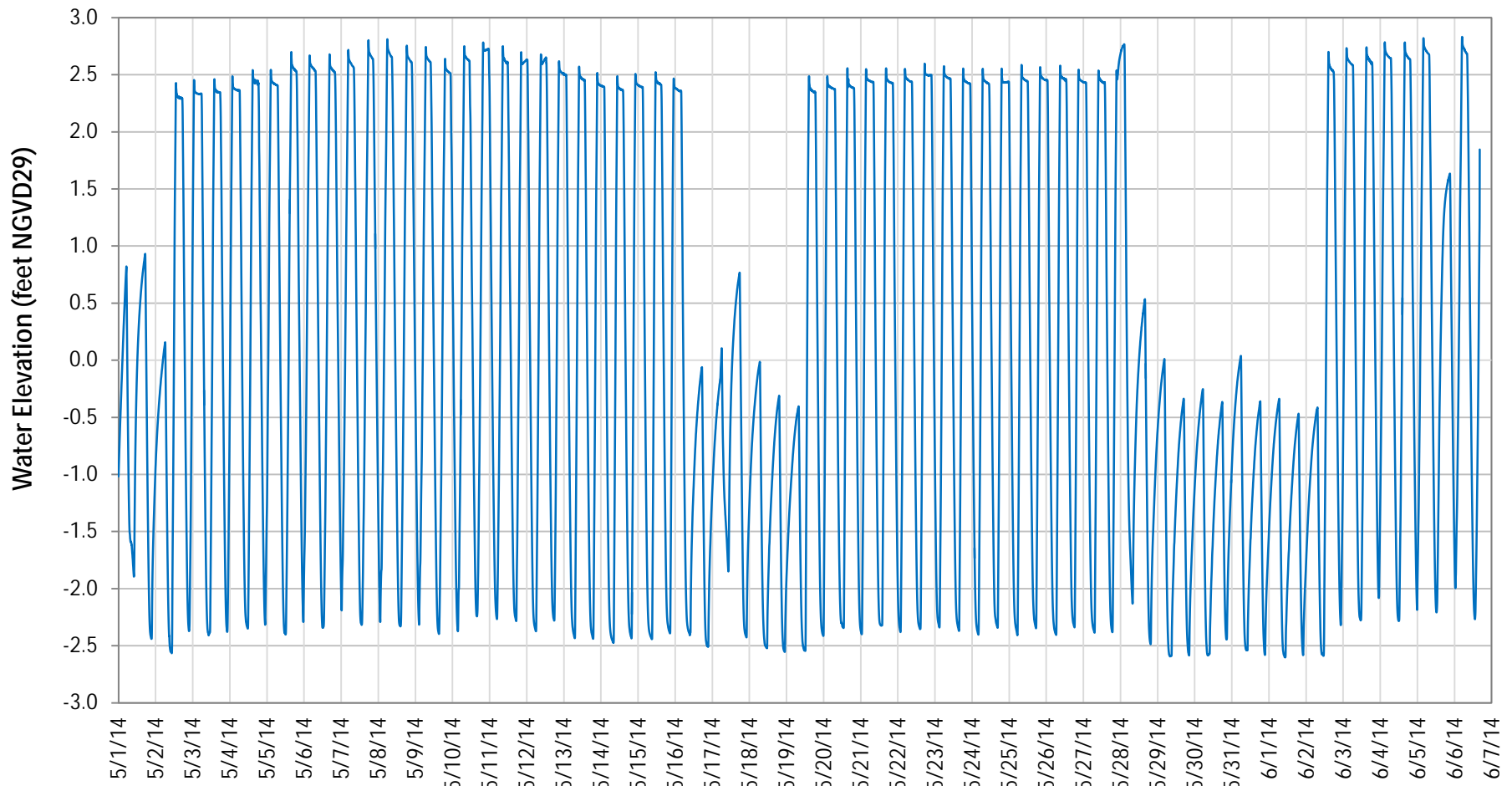
OAK ISLAND SALT MARSH RESTORATION
 REVERE, MASSACHUSETTS
 RAM MITIGATION - POST-CONSTRUCTION

WATER LEVEL MEASUREMENTS
 April 1 - 30, 2014



FIGURE

5



Legend:

— Water level at Railroad Culvert

OAK ISLAND SALT MARSH RESTORATION
 REVERE, MASSACHUSETTS
 RAM MITIGATION - POST-CONSTRUCTION

WATER LEVEL MEASUREMENTS
May 1 - June 6, 2014



FIGURE

6