
JO DAVIESS
STEPHENSON
WINNEBAGO
BOONE
MC HENRY
LAKE
CARROLL
OGLE
DE KALB
KANE
COOK
WHITESIDE
LEE
DU PAGE
WILL
LA SALLE
BUREAU
KENDALL
GRUNDY
ROCK ISLAND
MERCER
HENRY
PUTNAM
KANKAKEE
KNOX
STARK
MARSHALL
LIVINGSTON
WARREN
PEORIA
IROQUOIS
29
HENDERSON
WOODFORD
MC LEAN
FULTON
HANCOCK
MC DONOUGH
FORD
TAZEWELL
VERMILION
MASON
CHAMPAIGN
SCHUYLER
LOGAN
DEWITT
ADAMS
BROWN
CASS
MENARD
PIATT
MACON
PIKE
MORGAN
DOUGLAS
EDGAR
SCOTT
MOULTRIE
CHRISTIAN
SHELBY
COLES
SANGAMON
GREENE
MACOUPIN
CLARK
CALHOUN
MONTGOMERY
CUMBERLAND
JERSEY
FAYETTE
EFFINGHAM
JASPER
CRAWFORD
MADISON
BOND
RICHLAND
LAWRENCE
MARION
CLINTON
CLAY
WAYNE
EDWARDS
WABASH
WASHINGTON
JEFFERSON
MONROE
ST. CLAIR
HAMILTON
WHITE
RANDOLPH
PERRY
FRANKLIN
JACKSON
SALINE
GALLATIN
WILLIAMSON
UNION
JOHNSON
POPE
HARDIN
ALEXANDER
PULASKI
MASSAC

GULFPORT **ISGS #29**
WETLAND COMPENSATION SITE
FAP 313
Henderson County, near Gulfport, Illinois
Primary Project Manager: Steven E. Benton
Secondary Project Manager: Keith W. Carr

SITE HISTORY

- September 1994: ISGS submitted an Initial Site Evaluation Report to IDOT.
- Fall 1997: IDOT completed excavation of the wetland basin.
- January 1998: ISGS began surface-water elevation monitoring at the site.
- April 1999: ISGS installed soil-zone wells for ground-water elevation monitoring at the site.
- April 2001: ISGS installed additional soil-zone wells for further definition of the extent of wetland hydrology.

WETLAND HYDROLOGY CALCULATION FOR 2005

We estimate that the total area that satisfied wetland hydrology criteria (Environmental Laboratory 1987) for greater than 5% of the 2005 growing season was 1.9 ha (4.7 ac) out of a site area of 4.3 ha (10.5 ac). In addition, the area that satisfied wetland hydrology criteria for greater than 12.5% of the growing season in 2005 was 1.8 ha (4.6 ac). These estimates are based on the following factors:

- According to the Midwestern Climate Center, the median date that the growing season begins in nearby Burlington, Iowa, is April 7 and the season lasts 206 days; 5% of the growing season is 10 days, and 12.5% of the growing season is 26 days.
- Total precipitation for the period September 2004 to August 2005 was 27.57 inches, which was 93% of normal. Precipitation in October 2004, November 2004, January 2005, February 2005, and April 2005 was at or above normal, although total precipitation from March 2005 to June 2005 was only 75% of normal.
- In 2005, water levels in wells 5S, 6VS, 10VS, 11VS, and 12VS satisfied wetland hydrology criteria for greater than 5% of the growing season. With the exception of well 11VS, these wells also satisfied the criteria for more than 12.5% of the growing season.
- Surface-water levels measured at RDS 1 reveal that inundation occurred at an elevation of 157.36 m (516.27 ft) for more than 5% of the growing season, and at 157.35 m (516.24 ft) for more than 12.5% of the growing season.
- Limitations of the wetland hydrology determination are as follows:
  - The base map used to determine the acreage of the wetland hydrology is an IDOT construction plan of the proposed wetland basin prior to construction. No as-built topographic survey of the site was provided by IDOT.

- The area of wetland hydrology was measured planimetrically on the construction plan. The construction plan was then overlain and adjusted to match the digital orthophotography to produce the figure shown in this report.

PLANNED FUTURE ACTIVITIES

- Post-construction monitoring has been performed for a total of eight years at this site. Monitoring will continue until no longer required by IDOT.

Gulfport Wetland Compensation Site

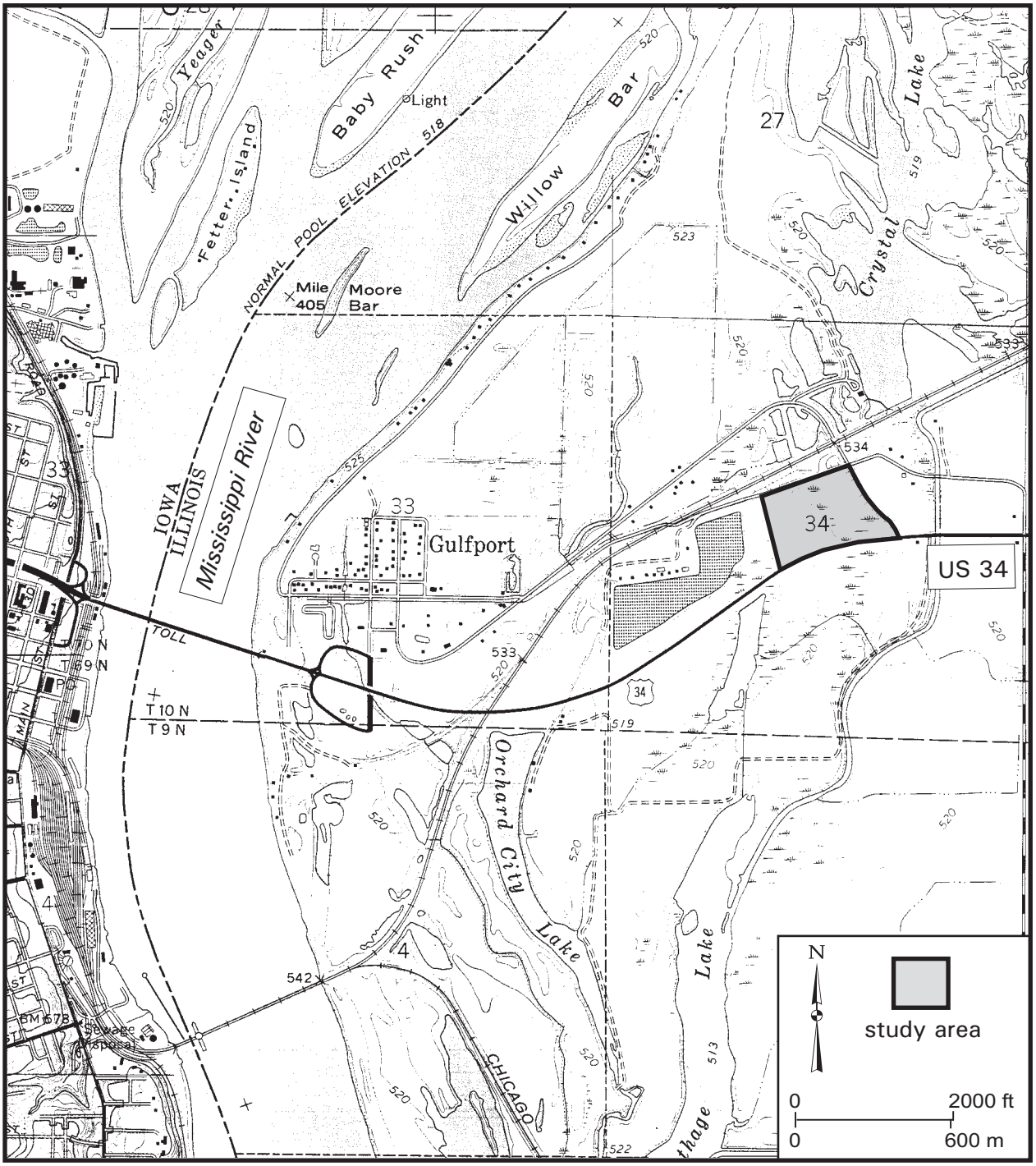
(FAP 313)

General Study Area and Vicinity

from the USGS Topographic Series, Burlington, IA-IL 7.5-minute Quadrangle

(USGS 1964, photorevised 1976)

contour interval is 10 feet



Gulfport Wetland Compensation Site
(FAP 313)
Estimated Areal Extent of 2005 Wetland Hydrology
based on data collected between September 1, 2004 and September 1, 2005

Map based on USGS digital orthophotograph, Burlington NW quarter quadrangle
produced from 04/14/1998 aerial photography (ISGS 1999)

soil-zone monitoring well

rain gauge

RDS data logger

IDOT construction limits

2005 Wetland Hydrology

>12.5% of growing season

>5% of growing season

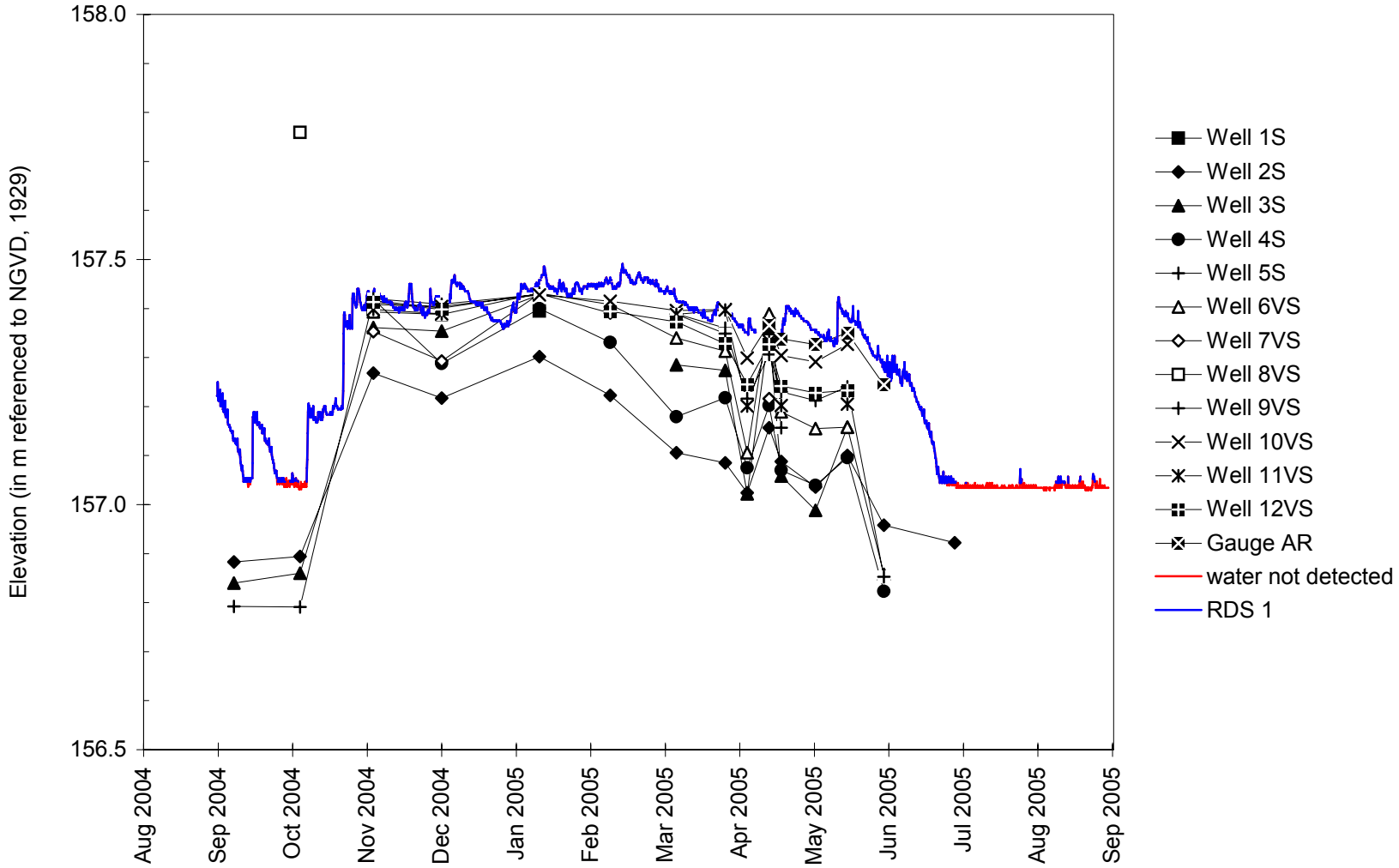
0 200 ft

0 50 m

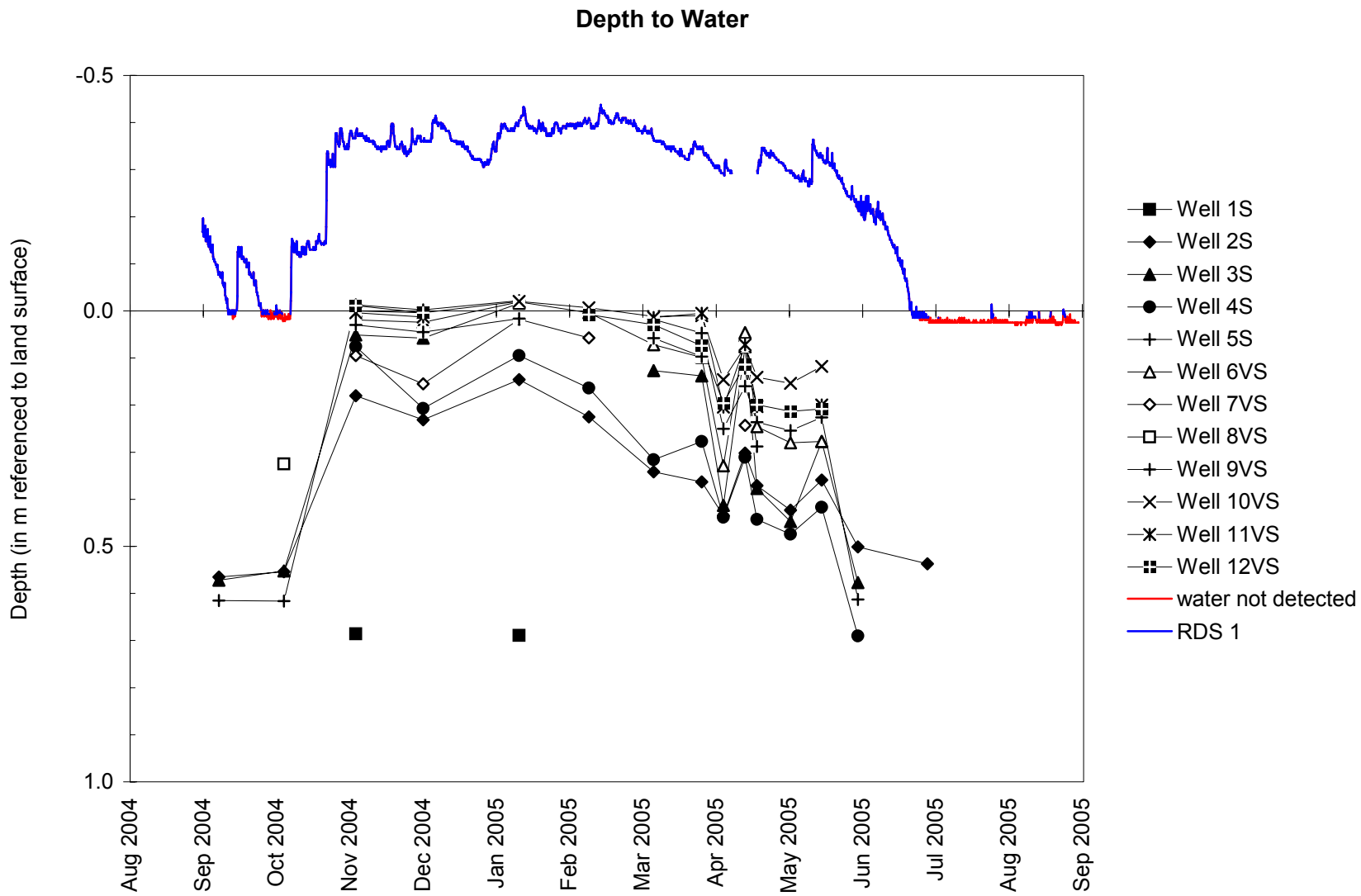
N

Gulfport Wetland Compensation Site
September 1, 2004 to September 1, 2005

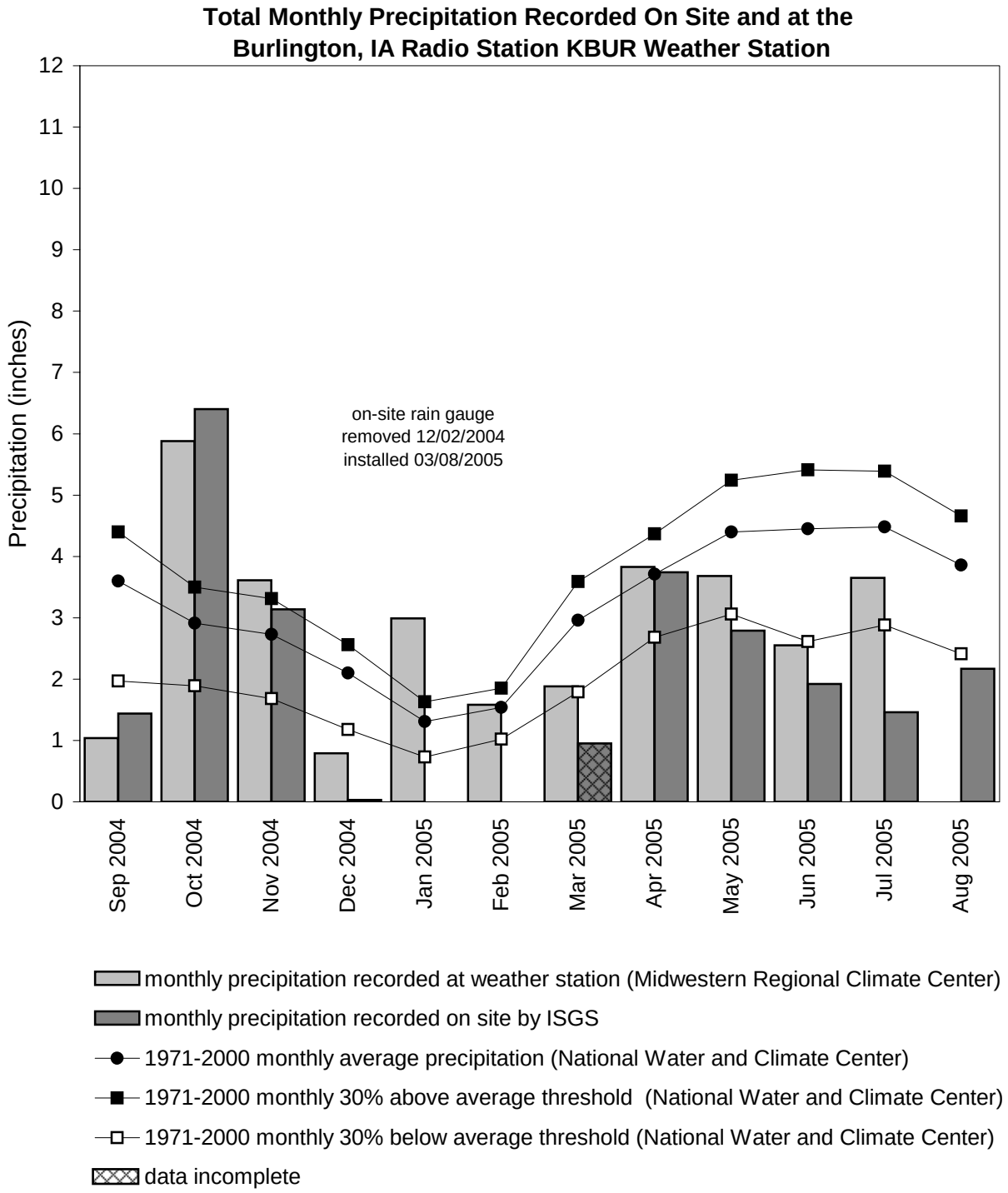
Water-Level Elevations



Gulfport Wetland Compensation Site
September 1, 2004 to September 1, 2005



Gulfport Wetland Compensation Site
September 2004 through August 2005



Graph last updated October 24, 2005