

NORTHERN PALM BEACH COUNTY IMPROVEMENT DISTRICT
PUBLIC FACILITIES REPORT
UNIT OF DEVELOPMENT NO. 24

Section 1. Lands in Unit

Northern Palm Beach County Improvement District (Northern) Unit of Development No. 24 encompasses 353.5 acres, more or less, and is located in Sections 22 and 27, Township 42 South, Range 42 East, in the City of West Palm Beach. The [Exhibits A and B](#) show the general location of Unit No. 24 in relation to Northern's Boundaries and the northern region of Palm Beach County. To the north of Unit No. 24 is the Seaboard Coastline Railroad and Beeline Highway; the western boundary is the City of West Palm Beach Water Catchment Area, and the eastern boundary is approximately 2,000 feet west of the Florida Turnpike. Lands within Unit No. 24 have been developed as a Planned Unit of Development, known as Ironhorse, a single-family residential and golf course community.

Section 2. Water Management System

2.1 General

The stormwater management system for this Unit is divided into two sub-basins: a developed area that includes 6.52 acres of wetland marshes and 4.07 acres of wetland fringe around the lakes and a 53.5 acre preserve area.

The developed area encompasses approximately 300 acres. Runoff from these lands is directed via sheetflow, swales, and a stormwater pipe collection system to a series of interconnected lakes. The lakes discharge to a canal/ditch along Beeline Highway via a bleeder and/or a pump station (PS-1) to a canal/ditch along Beeline Highway that flows into the Florida Turnpike Canal that then connects to the EPB-9 Canal in Northern's Unit No. 7. The final receiving water is the South Florida Water Management District (SFWMD) C-17 Canal. Between lake elevations 15.0' NGVD and 15.4' NGVD, the lakes are controlled by the bleeder device. If lake elevations reach 15.4', the pump is activated and a gate closes the bleeder slot opening. These operations are automated and can be monitored remotely by a telemetry system.

An earthen berm, constructed with a synthetic plastic liner to minimize seepage, separates the preserve area from the developed area. Three shallow ponds within the preserve area are planted with wetland plants. The preserve area connects to the developed area via three (3) control structures (W-1, W-2, and W-3) that allow runoff from the preserve area into the lakes of the developed area. The weir

in each of the control structures has a crest elevation at 17.5' NGVD. Each of these structures has a 2' x 2' sluice gate that is operated according to the SFWMD Memorandum of Understanding (MOU). The western boundary of the preserve area abuts the City of West Palm Beach Water Catchment Area; however, they are separated by an earthen dike.

2.2 Pump Stations

The pump station consists of two 13,000 gpm (gallon per minute), 24-inch electric submersible axial flow pumps. Only one pump operates at a time; the second serves as a back-up. A stand-by generator provides emergency power to the facility in the event of an electrical power outage. The generator is powered by diesel fuel from an on-site fuel storage tank. The existing 1,000 gallon underground storage tank is currently being replaced with a 2,000 gallon above ground tank. Operation of the pump station is activated by a float control system when the water level within the pump station reaches an elevation of 15.4' NGVD. Pumping stops when the elevation of the water in the lake systems returns to the control elevation of 15.0' NGVD. Operation of both pumps during emergency storm events is under the Operations Pilot Project of SFWMD.

Section 3. Northern Facilities

Lands within Unit No. 24 that have been granted to Northern in fee simple are shown on [Exhibits 24 \(1\)](#) and [24 \(2\)](#). Easements, also shown on the Exhibit, have been provided for other Northern facilities. Facilities in this Unit owned and maintained by Northern are also shown on the Exhibits.

Northern's responsibilities in the Unit include operation, inspection, and maintenance of the facilities. Maintenance includes chemical and mechanical aquatic weed control in the lakes and canals, an exotic plant control program for the created wetlands and preservation areas, and the monitoring of the applesnail and Everglades kite population on the property.

The service/demand area for the Unit is approximately 353.5 acres.

Unit No. 24 lies entirely within the SFWMD's C-17 Drainage Basin, which has an allowable discharge rate restriction of 62.7 csm (cubic feet per second per square mile) for the 25-year/3-day storm event.

The SFWMD permit for Unit No. 24 (Ironhorse) (#50-01347-S) specifies the minimum building pad elevation and minimum road crown elevation for the developed area as 18.9' NGVD and 17.3' NGVD, respectively. These elevations were set based on drainage calculations submitted for peak stages for the 100-year/3-day storm event (building pad) and the 10-year/1-day storm event (road crown). Design information for the Unit is presented in Table No 24.

TABLE NO. 24: DESIGN INFORMATION	
10-Yr/1-Day Peak Stage	17.3' NGVD
25-Yr/3-Day Peak Stage	18.1' NGVD
25-Yr/3-Day Peak Discharge	29 CFS
100-Yr/3-Day Peak Stage	18.9' NGVD

Section 4. Five – Year Improvement Plan

There are no improvements anticipated within this Unit during the next five years.

Section 5. Ten – Year Replacement Plan

Periodic inspection of facilities will be conducted to determine the need for future replacements. No replacements are planned at this time.