

NORTHERN PALM BEACH COUNTY IMPROVEMENT DISTRICT  
PUBLIC FACILITIES REPORT  
UNIT OF DEVELOPMENT NO. 5B

**Section 1. Lands in Unit**

The Northern Palm Beach County Improvement District (Northern), Unit of Development No. 5B encompasses 602 acres, more or less, and is located in the City of West Palm Beach. [Exhibits A](#) and [B](#) show the general location of Unit No. 5B in relation to Unit No. 5 boundaries and the northern region of Palm Beach County. The Unit is located west of Unit No. 5D (Andros Isle) and north of Okeechobee Boulevard in a portion of Sections 19, Township 43 South, Range 42 East. The land within the Unit is developed as a residential planned development known as Baywinds.

**Section 2. Water Management System**

2.1 General

The Unit No. 5B surface water management system is divided into two major drainage basins – the developed basin and the preserve area. Runoff from developed lands is directed via inlets and culverts to the on-site lakes for water quality treatment and attenuation. Stormwater is then pumped into the preserve area by the on-site pump station (PS-1). The preserve area is contiguous with the preserve area of Unit No. 5D (to the east). A pump station (PS-2), which is owned and maintained by the City of West Palm Beach in Unit No. 5D allows pumping from the preserve area into the West Palm Beach Water Catchment Area (WCA), also known as Grassy Waters Preserve, immediately to the north of the Unit No. 5B preserve area, when the stages in the WCA can accommodate it. When the stages in the WCA prohibit inflow from the pump station, a control structure (CS-1) within Unit No. 5D allows pass-through of the runoff from Unit No. 5B. Discharge flows through Unit Nos. 5C and 5A before discharging to the CPB-22 Canal and ultimate outfall to the South Florida Water Management District (SFWMD) C-51 Canal.

2.2 Pump Station PS-1

The developed area pump station (PS-1) consists of 1,250 gpm (gallon per minute) duty pump and two 17,200 gpm primary pumps. One primary pump serves as a backup to the other. The duty pump turns on at 16.6' and off at 16.5' NGVD. The primary pump turns on at 17.1' NGVD and off at 16.5' NGVD.

### 2.3 Pump Station PS-2

The preserve area pump station, maintained by the City of West Palm Beach, (PS-2) consists of three 13,000 gpm pumps. Pump 1 turns on at 17.6' NGVD and off at 17.5' NGVD. Pump 2 turns on at 18.1' NGVD and off at 17.5' NGVD. Pump 3 serves as a backup to the other two.

## **Section 3. Northern Facilities**

Lands within Unit No. 5B that have been granted to Northern in fee simple are shown on [Exhibit 5B](#). 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 Exhibit.

Northern's responsibilities in the Unit include operation, inspection, and maintenance of the Development Basin Pump Station (PS-1) facilities.

The service/demand area for the Unit is approximately 602 acres.

Unit No. 5B lies within the SFWMD's C-51 Drainage Basin, which has an allowable discharge rate restriction of 27 csm (cubic feet per second per square mile) for the 10-year/3-day storm event.

The SFWMD permit for Baywinds, permit number 50-03926-P, specifies the minimum building pad elevation and minimum road crown elevation at 20.5' NGVD and 19.0' NGVD, respectively. These elevations were set based on drainage calculations submitted for peak stage for the 100-year/3-day storm event (building pad) and the 10-year/1-day storm event (road crown). Design stages and discharge are presented in Table No. 5B.

TABLE NO. 5B: DESIGN INFORMATION		
	Developed Area	Preserve Area
10-Yr/1-Day Peak Stage	19.0' NGVD	17.93' NGVD
10-Yr/3-Day Peak Stage	19.22' NGVD	18.15' NGVD
10-Yr/3-Day Peak Discharge	41.1 CFS	50.5 CFS
100-Yr/3-Day Peak Stage	20.49' NGVD	18.86' NGVD

## **Section 4. Five – Year Improvement Plan**

At this time there are no improvements to the facilities within the next five years.

## **Section 5. Ten – Year Replacement Plan**

Periodic inspections of these facilities will be conducted to determine the need for future replacements. None are planned at this time.