

NORTHERN PALM BEACH COUNTY IMPROVEMENT DISTRICT
PUBLIC FACILITIES REPORT
UNIT OF DEVELOPMENT NO. 31

Section 1. Lands in Unit

Northern Palm Beach County Improvement District (Northern) Unit of Development No. 31 encompasses 1,320 acres, more or less, and is located in the City of Palm Beach Gardens. [Exhibits A](#) and [B](#) show the general location of Unit No. 31 in relation to Northern's boundaries and the northern region of Palm Beach County. The Unit is bounded on the north by PGA Boulevard, on the south by Northlake Boulevard, on the east by Military Trail, and on the west by the Florida Turnpike. Unit No. 31 lands are located in Sections 11, 12, 13, and 14, Township 42 South, Range 42 East. The Unit No. 31 site known as Ballen Isles Country Club of JDM is a Planned Unit Development consisting of single and multi-family housing, park areas, and golf courses. A majority of lands within Unit of Development No. 12 are also included in Unit No. 31.

Section 2. Water Management System

2.1 General

Stormwater runoff from land within the Unit is routed through swales and stormwater culverts to a system of interconnected lakes. The Unit is divided into 12 drainage basins. [Exhibit C](#) shows the basin delineations. Basin 1 and Basins 4A through 4C discharge to the Thompson Canal. Positive outfall for the rest of the basins is achieved by controlled discharge to the Merrill Canal. Both of these canals flow to the east where they join together before joining the South Florida Water Management District (SFWMD) C-17 Canal. Several control structures within the stormwater management system maintain varying control elevations among the basins.

2.2 Off-site lands

Unit No. 31 accepts the stormwater drainage from approximately 295 acres of Unit of Development No. 12 to the south, 22.2 acres from Northlake Boulevard to the south, and 48.4 acres from lands to the east.

Section 3. Northern Facilities

Lands within Unit No. 31 that have been granted to Northern in fee simple are shown on [Exhibit 31](#). Easements, also shown on the [Exhibit 31](#), have been provided for other

Northern facilities. Northern’s responsibilities in the Unit include operation, inspection, and maintenance of the facilities.

The service/demand area for Unit No. 31 is approximately 1,686 acres.

Unit No. 31 lies entirely within 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 Ballen Isles, permit number 50-01923-S specifies the minimum building pad elevation and minimum road crown elevation for various basins within the development. 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 stages and the permit minimum elevations for sub-basins within the Unit are presented in Table No. 31. The sub-basin delineations are shown on [Exhibit D](#).

TABLE NO. 31: DESIGN AND PERMIT INFORMATION								
SUB – BASIN NO.	1	2(2-A)	2(2-B)	2(2-C)	2(2-D)	2(2-E)	2(2-F)	2(2-G)
Minimum Floor (Ft., NGVD)	17.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
Minimum Road (Ft., NGVD)	14.4	15.0	15.0	15.0	15.0	15.0	15.0	15.0
10-Yr/1-Day Peak Stage (ft., NGVD)	14.4	14.9	14.9	14.9	14.9	14.9	14.9	14.9
25-Yr/3-Day Peak Stage (ft., NGVD)	15.6	16.0	16.0	16.0	15.9	14.9	16.0	16.0
25-Yr/3-Day Peak Discharge (CFS)	6.1	21	6	1	28	7	18	14
100-Yr/3-Day Peak Stage (ft., NGVD)	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0

TABLE NO. 31: DESIGN AND PERMIT INFORMATION								
BASIN NO.	2(2-H)	2(2-I)	3A(9)	3A(10)	3A(11)	3A(15)	3A(16)	3A(12)
Minimum Floor (Ft., NGVD)	18.0	18.0	17.7	17.7	17.7	17.7	17.7	17.0
Minimum Road (Ft., NGVD)	15.0	15.0	15.5	15.5	15.5	15.5	15.5	15.2
10-Yr/1-Day Peak Stage (ft., NGVD)	14.9	14.9	15.9	15.5	15.5	16.2	16.1	15.1
25-Yr/3-Day Peak Stage (ft., NGVD)	15.9	15.9	16.4	16.2	16.2	16.6	16.6	16.0
25-Yr/3-Day Peak Discharge (CFS)	10	12	9	60	1	58	22	5
100-Yr/3-Day Peak Stage (ft., NGVD)	17.0	17.0	17.6	17.6	17.6	17.6	17.6	16.3

TABLE NO. 31: DESIGN AND PERMIT INFORMATION								
SUB-BASIN NO.	3B(13)	3C(1)	3C(2)	3C(7)	3C(8)	3C(14)	3C(6A)	3D(3)
Minimum Floor (Ft., NGVD)	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
Minimum Road (Ft., NGVD)	15.2	15.0	15.0	15.0	15.0	15.0	15.0	15.0
10-Yr/1-Day Peak Stage (ft., NGVD)	15.1	14.8	14.8	14.8	14.8	15.2	15.2	14.7
25-Yr/3-Day Peak Stage (ft., NGVD)	16.0	15.8	15.7	15.8	15.9	15.9	16.5	15.5
25-Yr/3-Day Peak Discharge (CFS)	28	3	48	45	21	11	31	124
100-Yr/3-Day Peak Stage (ft., NGVD)	16.3	16.8	16.8	16.8	16.8	16.8	16.8	16.3

TABLE NO. 31: DESIGN AND PERMIT INFORMATION								
SUB-BASIN NO.	3D(6B)	3E(4)	3E(5)	3F	4A	4B	4C	4D
Minimum Floor (Ft., NGVD)	17.0	17.0	17.0	16.7	18.0	18.6	16.6	16.0
Minimum Road (Ft., NGVD)	15.0	14.5	14.5	14.1	14.0	14.0	14.0	12.96
10-Yr/1-Day Peak Stage (ft., NGVD)	14.8	14.5	14.4	15.1	13.6	13.5	13.8	12.2
25-Yr/3-Day Peak Stage (ft., NGVD)	15.7	15.2	15.0	16.0	15.6	16.9	15.6	13.3
25-Yr/3-Day Peak Discharge (CFS)	2	126	137	9	5.3	11.5	9	364
100-Yr/3-Day Peak Stage (ft., NGVD)	16.3	16.3	16.3	16.3	17.6	18.6	16.6	15.8

The two (2) surface water quality sampling stations and one (1) monitoring well in Unit No. 31 are shown on [Exhibit 31](#). All records are maintained at Northern's office. The parameters are as follows:

Quarterly Parameters – Surface Water

- Alkalinity (total and phenyl)
- Calcium
- Chloride
- Coliform Bacteria (total and fecal)
- Copper
- Conductivity, Specific
- Ammonia (unionized)
- Nitrate
- Nitrite
- Total Kjeldahl Nitrogen
- pH (laboratory or field)
- Dissolved Oxygen
- Phosphate (ortho and total)
- Suspended Solids Total

Sodium
Turbidity (NTU)
Temperature
Hardness

Quarterly Parameters – Monitoring Well

Phosphate (ortho and total)
Nitrate
Nitrite
Ammonia (unionized)
Total Kjeldahl
Coliform (total and fecal)

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 Northern's facilities will be conducted to determine the need for future replacements. None are planned at this time.