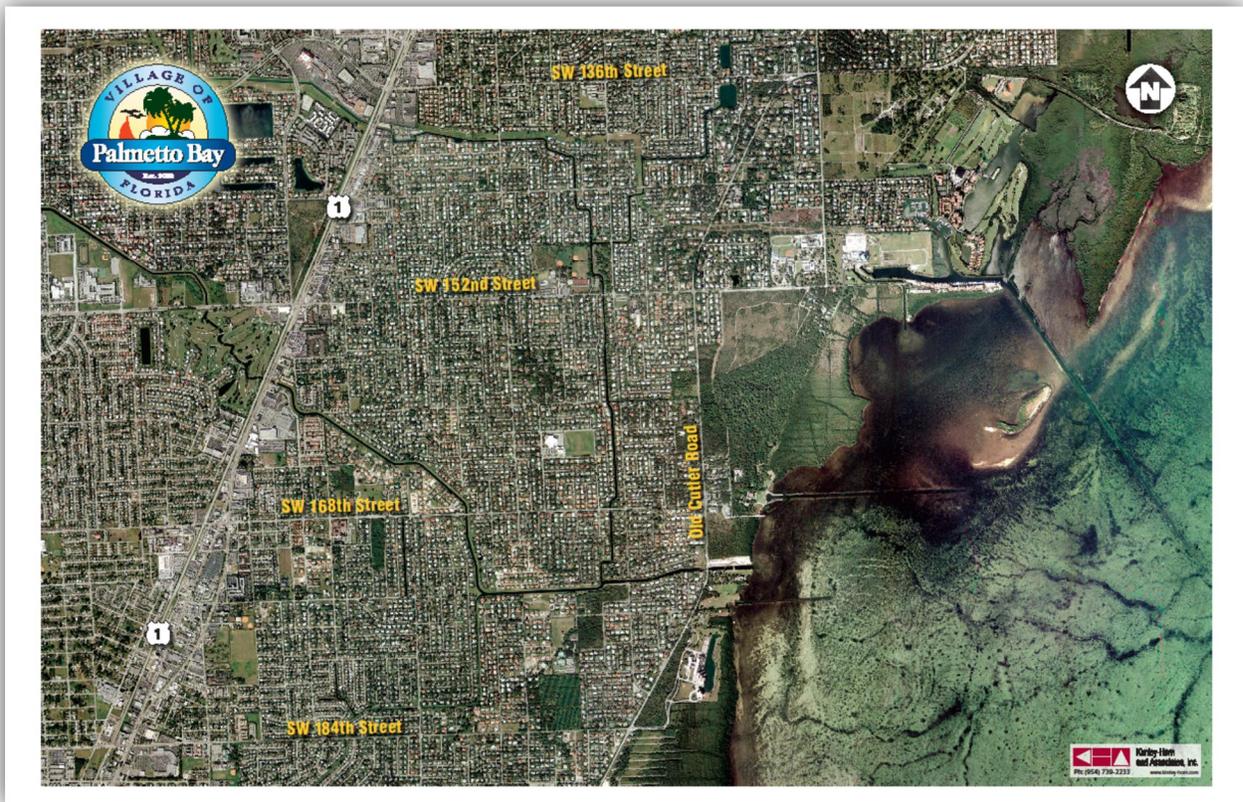


INTRODUCTION

The Village of Palmetto Bay is located in southeastern Miami-Dade County, Florida and was incorporated in 2002. Figure 1 illustrates the location of the Village of Palmetto Bay.

Figure 1: Village of Palmetto Bay Location Map



In December 2004, Kimley-Horn completed a Stormwater Master Plan for the Village of Palmetto Bay in preparation of the Village assuming responsibility for stormwater management within its boundaries. In May 2006, the Village adopted Ordinance 06-07 which established the Village's Stormwater Utility. In December 2014, Kimley-Horn completed a Stormwater Master Plan Update to enable the Village to examine the effectiveness of the ongoing Operation and Maintenance Program, to evaluate progress in implementing the Capital Improvement Program, and to identify additional capital improvement projects for future reduction of

flooding and to improve water quality within the Village of Palmetto Bay. This 2020 Stormwater Master Plan Update has allowed the Village to revisit the stormwater program since the 2014 Update and assess additional areas of the Village for stormwater programming and priorities.

The first sections of the 2004 and 2014 Stormwater Master Plans described existing conditions within the Village of Palmetto Bay. Existing information on stormwater management from various sources including the Miami-Dade County Department of Environmental Resource Management (DERM), the Miami-Dade County Department of Public Works, the South Florida Water Management District (SFWMD), the Federal Emergency Management Agency (FEMA), the Florida Department of Environmental Protection (FDEP), and the Village of Palmetto Bay was compiled in this section. In addition, the section included field information on the existing condition of Village drainage infrastructure and locations where street flooding was occurring.

The 2014 Stormwater Master Plan Update included a new section that discussed and illustrated priority sub-basin capital improvement projects as well as localized drainage improvement projects that had been completed since the 2004 plan. The localized drainage improvement projects were not part of the original 2004 Stormwater Master Plan, but were areas identified by the Village based on observed flooding, citizen complaints, and road conditions. The scopes of work associated with these localized drainage improvement projects were much less than the full capital improvement projects but required attention to address standing water, public health, and public safety issues. The summary allowed the Village to update the sub-basin prioritization list by removing completed projects from the active list as well as factor in the stormwater improvements associated with the completed localized projects when developing the new 2014 sub-basin prioritization list.

The second section of the 2004 and 2014 Stormwater Master Plans contained drainage analysis of sub-basins that were selected as priority areas for improvement as part of the Village-wide stormwater performance review. Seventeen sub-basins were selected as priority areas in the 2004 plan and ten sub-basins were selected as priority areas in the 2014 plan. Two of the ten

priority sub-basins in the 2014 plan were carried over from the 2004 plan. Drainage improvements for the priority sub-basins were recommended to meet performance goals associated with both reducing flooding and improving water quality.

The third section of the 2004 and 2014 Stormwater Master Plans outlined a Capital Improvement/Operations and Maintenance Program for the Village's Stormwater Utility.

In the sixteen years since the original 2004 Stormwater Master Plan was completed, the Village of Palmetto Bay has implemented the recommended Operations and Maintenance Program, constructed several of the drainage projects included in the Capital Improvement Program, and constructed several localized drainage improvement projects. At all times, the Village pursued grant funding to minimize financial impacts to the Village and then utilized revenue from the Stormwater Utility to meet grant funding "match" requirements or as required to complete the critical stormwater improvement projects.

This 2020 Stormwater Master Plan Update has allowed the Village to again examine the effectiveness of the ongoing Operation and Maintenance Program, to evaluate progress in implementing the Capital Improvement Program, and assess additional areas of the Village to further reduce flooding and continue to improve water quality. As part of the 2020 evaluation, it was determined that current stormwater issues throughout the Village are smaller, more scattered, and better addressed as localized drainage improvements. Aside from the existing priority sub-basins that have not yet been completed, addition priority sub-basins or larger capital improvement projects are no longer required. As a result, this 2020 Stormwater Master Plan Update includes updated evaluations of the priority sub-basins that have not been completed and new localized drainage improvement locations. In planning for the future, the updated priority sub-basin evaluations will include proposed impacts associated with estimated sea level rise.

In the Village's previous stormwater master plans, various goals were established to measure the performance of each priority sub-basin. Those goals are discussed later in the "Drainage

Sub-basin Analysis” section of the report. This 2020 Stormwater Master Plan Update again measures the performance for each of the eight priority sub-basins against those goals, but now includes proposed impacts associated with estimated sea level rise. Rising groundwater will reduce efficiencies of the storm water systems and therefore additional infrastructure will be required to provide similar protections. This report also includes updated or new conceptual stormwater system modifications resulting from the revised analysis and the costs associated with those improvements are the basis for the Capital Improvement Program.

