

INFRASTRUCTURE ELEMENT GOALS, OBJECTIVES AND POLICIES

GOAL 1.0 *Provide and maintain the public infrastructure for potable water, sanitary sewer, storm drainage and aquifer recharge in a manner that will ensure a high level of public health, safety and welfare and a high quality of life.*

Objective 1.1 The Village of Wellington has created a 10-year Water Supply Facilities Work Plan (Work Plan), to be included as a part of the Comprehensive Plan, as required by Chapter 163, Part II, F.S. The Work Plan is included as a sub-element of the Infrastructure Element. *All goals, objectives and policies contained within Wellington's Comprehensive Plan shall be consistent with the Work Plan.* The Work Plan is located as a sub-element of this element. The Work Plan identifies sources of traditional and alternative water supply projects and conservation and reuse programs as well as financial planning, facilities master planning, permitting and efforts in coordinating multi-jurisdictional projects. The work plan addresses the following guidelines, goals, objectives and policies:

- (1) Coordination of land uses and future land use changes with the availability of water supplies and water supply facilities.
- (2) Revision of potable water level-of-service standards for residential and non-residential users.
- (3) Provision for the protection of water quality in the traditional and new alternative water supply sources.
- (4) Revision of priorities for the replacement of facilities, correction of existing water supply and facility deficiencies, and provision for future water supply and facility needs.
- (5) Provision for conserving potable water resources, including the implementation of reuse programs and potable water conservation strategies and techniques.
- (6) Provisions for improved or additional coordination between a water supply provider and the recipient local government concerning the sharing and updating of information to meet ongoing water supply needs.
- (7) Coordination between local governments and the water supply provider in the implementation of alternative water supply projects, establishment of level-of-service standards and resources allocations, changes in service areas, and potential areas for annexation.

- (8) Coordination of land uses with available and projected fiscal resources and a financially feasible schedule of capital improvements for water supply and facility projects.
- (9) Additional revenue sources to fund water supply and facility projects.
- (10) Provisions for coordination with the regional water supply plan.
- (11) Provisions for concurrency requiring water supply at the building permit stage.

Objective 1.2 Drainage and Drainage Capacity:

Maintain the drainage systems throughout Wellington so as not to degrade ambient water quality, and to comply with federal, state and regional requirements for on-site drainage of the first one-inch of runoff and no more runoff after development than before development. The drainage systems shall comply with requirements of Best Management Practices, South Florida Water Management District, National Pollutant Discharge Elimination Systems, and shall be consistent with the Water Supply Facilities 10 Year Work Plan, contained as a sub-element of this Element.

Policy 1.2.1 Wellington shall enact and enforce land development code provisions that set water quality and quantity standards and at a minimum require: one inch of on-site drainage detention, post-development runoff equal to or less than pre-development runoff, erosion control, a minimum percentage of pervious open space, maintenance of swales, drainage level-of-service standards, and other environmentally sensitive land protection measures. These requirements shall be designed to help ensure full compliance with the specific standards set forth in Objective 1.2 above. Such provisions shall be consistent with this plan and with the applicable Florida statutory and administrative code requirements. They shall also be consistent with applicable standards promulgated by the South Florida Water Management District, the South Florida Regional Planning Council, the Florida Department of Environmental Protection, and/or other agencies with relevant jurisdiction and/or information. They shall also be consistent with the Water Supply Facilities 10 Year Work Plan, contained as a sub-element to this Element.

Policy 1.2.2 Wellington shall take steps to ensure water quality in Wellington's Basin B. Wellington shall regularly monitor water quality in Basin B and address water quality issues as detected.

Policy 1.2.3 Wellington shall ensure that annexed properties meet the standards contained herein or do not otherwise have a negative impact on Wellington's ability to meet stormwater quantity and quality requirements.

Policy 1.2.4 Wellington shall monitor and ensure compliance with "Best Management Practices" to address water quality and quantity issues in the community.

These regulations ensure the proper disposal of animal waste, the use of fertilizer and site design principles in order to minimize the negative impacts of development within the Basin B area on water quality. “Best Management Practices” shall be contained within Wellington’s Code of Ordinances.

Objective 1.3 Potable Water and Sanitary Sewer Capacity:

Wellington does not have any deficiencies in its capacity for potable water and sanitary sewer however, this objective and the accompanying policies will enhance the efficiency of the system and prevent deficiencies from arising at some point in the future. All future activity shall be consistent with the Water Supply Facilities 10 Year Work Plan (Work Plan) as contained in the sub-element of this section.

Policy 1.3.1 Wellington shall maintain and implement the established financing plan in its current form or in an appropriately revised form that will ensure adequate financing for all future potable water and sanitary sewer plant expansions. The financing plan shall utilize a capacity charge which is collected as each new meter is installed. Appropriate percentages of the capacity charge shall be allocated to potable water and sanitary sewer plant expansions. Implementation shall be monitored and revisions made, if necessary to ensure that revenue produced by the capacity charge together with funds presently on hand are sufficient to ensure that adequate funds will be available to construct future plant capacity when it is needed regardless of the rate of population growth.

Policy 1.3.2 Wellington shall maintain and implement a requirement that all new development pay a fee to reserve potable water and sanitary sewer capacity for future use. Each developer shall be required to fund a pro-rata share of connecting facilities and to totally fund on-site facilities.

Policy 1.3.3 Wellington shall strive to expand and promote the use of reclaimed water for irrigation purposes in accordance with the Work Plan, contained as a sub-element to this element.

Policy 1.3.4 Consistent with the Work Plan (contained as a sub-element of the Infrastructure Element), Wellington shall begin the design phase to expand water facility or increase design flow should Wellington experience a one day maximum daily flow exceeding 80% of the 12.8 million gallons daily (MGD). By the time a 90% maximum daily flow of the 12.8 MGD design capacity is reached, the additional facility must be under construction.

Policy 1.3.5 In accordance with the Work Plan Wellington shall coordinate appropriate aspects of its comprehensive plan with the Lower East Coast (LEC) regional water supply plan, [163.3177(4)(a), F.S.]

Policy 1.3.6 In accordance with the Work Plan, Wellington shall ensure that its future land use plan is based upon availability of adequate water supplies and public

facilities and services. Data and analysis demonstrating that adequate water supplies and associated public facilities will be available to meet projected growth demands must accompany all proposed Future Land Use Map amendments submitted to the Department of Community affairs for review. The submitted package shall also include an amendment to the Capital Improvements Element, if necessary, to demonstrate adequate public facilities will be available to serve the proposed Future Land Use Map modification.

Policy 1.3.7 In accordance with the Work Plan, Wellington shall ensure that adequate water supplies and facilities are available to serve new development no later than the date on which the local government anticipates issuing a certificate of occupancy and consult with the applicable water supplier prior to approving building permit, to determine whether adequate water supplies will be available to serve the development by the anticipated issuance date of the certificate of occupancy [s.163.3180 (2), F.S., effective July 1, 2005]. This “water supply concurrency” is now in effect, and local governments must comply with the requirement for all new development proposals. In addition, local governments should update their comprehensive plans and land development regulations as soon as possible to address these statutory requirements. The latest point at which the comprehensive plan must be revised to reflect the concurrency requirements is at the time the local government adopts plan amendments to implement the recommendations of the Evaluation and Appraisal Report (EAR).

Policy 1.3.8 In accordance with the Work Plan for local governments subject to a regional water supply plan, revise the General Sanitary Sewer, Solid Waste, Drainage, Potable Water and Natural Groundwater Aquifer Recharge Element (the “Infrastructure Element”), within 18 months after the water management district approves an updated regional water supply plan to:

- (1) Identify and incorporate the alternative water supply project(s) selected by the local government from projects identified in the updated regional water supply plan, or the alternative project proposed by the local government under s. 373.0361(7), F.S. [s. 163.3177(6)(c), F.S.];
- (2) Identify the traditional and alternative water supply projects, bulk sales agreements, and the conservation and reuse programs necessary to meet current and future water use demands within the local government’s jurisdiction [s. 163.3177(6)(c), F.S.]; and
- (3) Include a water supply facilities work plan for at least a 10-year planning period for constructing the public, private, and regional water supply facilities identified in the element as necessary to serve existing and new development. [s. 163.3177(6)(c), F.S.] Amendments to incorporate the water supply facilities work plan into the comprehensive plan are exempt from the twice-a-year amendment limitation. [s. 163.3177(6)(c), F.S.]

Policy 1.3.9 In accordance with the Work Plan, the EAR shall address the extent to which the local government has implemented the 10-year water supply facilities work plan, including the development of alternative water supplies, and determine whether the identified alternative water supply projects, traditional water supply projects, bulk sales agreements, and conservation and reuse programs are meeting local water use demands. [s.163.3191 (2), F.S.]

Objective 1.4 Solid Waste and Solid Waste Capacity:

Capacity for the disposal of solid waste is the responsibility of the Solid Waste Authority (SWA) of Palm Beach County. The SWA has indicated sufficient capacity is available to accommodate future development. Wellington provides a cost-effective solid waste collection system.

Policy 1.4.1 Wellington shall annually monitor the policies, plans and facilities of the Palm Beach County Solid Waste Authority in order to identify any action or inaction of the Authority which could lead to inadequate solid waste capacity for the Village of Wellington.

Policy 1.4.2 Wellington shall annually seek from the Palm Beach County Solid Waste Authority certification the Authority has disposal capacity available to accommodate the solid waste generation for the municipalities and unincorporated county for the coming year and the five and ten year planning periods.

Objective 1.5 Levels of Service:

Wellington's concurrency management system, based on adopted level of service standards, ensures that adequate facility capacity is available to serve new development. All Levels of Service shall be consistent with the Work Plan.

Policy 1.5.1 Wellington shall enforce the following level of service standards within the portion of the Acme Improvement District service area that is within the urban service boundary:

Potable: In accordance with the State of Florida's 2005 legislative requirement, Wellington has created a 10-year Water Supply Facilities Work Plan (Work Plan) to be included as a part of the Comprehensive Plan. The Work Plan is included as a sub-element of the Infrastructure Element. The Work Plan identifies sources of traditional and alternative water supply projects and conservation and reuse programs as well as financial planning, facilities master planning, permitting, and efforts in coordinating in multi-jurisdictional projects. Potable water level of service is detailed within the Work Plan. The Work Plan addresses the following guidelines, goals, objectives and policies:

- (1) Coordination of land uses and future land use changes with the availability of water and water supply facilities.

- (2) Revision of potable water level-of-service standards for residential and non-residential users.
- (3) Provision for the protection of water quality in the traditional and new alternative water supply sources.
- (4) Revision of priorities for the replacement of facilities, correction of existing water supply and facility deficiencies, and provision for future water supply and facility needs.
- (5) Provision for conserving potable water resources, including the implementation of reuse programs and potable water conservation strategies and techniques.
- (6) Provisions for improved or additional coordination between a water supply provider and the recipient local government concerning the sharing and updating of information to meet ongoing water supply needs.
- (7) Coordination between local governments and the water supply provider in the implementation of alternative water supply projects, establishment of level-of-service standards and resources allocations, changes in service areas and potential areas for annexation.
- (8) Coordination of land uses with available and projected fiscal resources and a financially feasible schedule of capital improvements for water supply and facility projects.
- (9) Additional revenue sources to fund water supply and facility projects.
- (10) Provisions for coordination with the regional water supply plan.
- (11) Provisions for concurrency requiring water supply at the building permit stage.

Policy 1.5.2 Wellington will continue to adopt and adhere to policies consistent with the goals and objectives of the Work Plan as it is completed and amended. This adherence will be carried out throughout each applicable element of the Comprehensive Plan in order to assure compatibility with the Work Plan in all areas.

Sanitary Sewer: The sanitary sewer system's rated capacity shall be at least 111 percent of "maximum day flow" of the preceding year. The sanitary sewer generation standard shall be 93 gallons per capita per day maximum 3 month daily average based on the total population served. The effluent standard shall be as required by governing state and federal authorities (Florida Department of Environmental Protection and Federal Environmental Protection Agency). State law requires that planning for capacity increase commence when the treatment facility capacity is projected to be reached in five years, the facility be in the design phase when the treatment facility capacity is projected to be reached in four years and the facility shall be in for permit when

the treatment facility capacity is projected to be reached in 3 years. The sludge standard shall be as required by governing state and local authorities (Florida Department of Environmental Protection and Palm Beach County Solid Waste Authority). [Scrivener's note: The per capita generation standard reported at page A-49 of the Palm Beach County EAR is 70 gallons per capita per day. However, the actual generation is about 71 gallons based on the Acme service area population as given in the 1994 Capacity Analysis Report prepared by Hazen and Sawyer, P.C.]

Drainage: All residential and nonresidential development and redevelopment shall adequately accommodate runoff to meet all federal, state and local requirements. Wellington hereby adopts the water quality standards included in Chapter 62 F.A.C. and shall ensure that stormwater shall be treated in accordance with the provisions of Chapter 62, F.A.C. in order to meet receiving water standards in Chapter 62 F.A.C. One inch of runoff shall be retained on site. Post-development runoff shall not exceed peak pre-development runoff.

Solid Waste: The solid waste disposal system shall maintain a minimum of five years capacity. For Wellington planning purposes, a generation rate of 7.1 pounds per person per calendar day shall be used. [Scrivener's note: This is the standard used by Palm Beach County as reported at page 40 of the Capital Improvements Element 1996 Evaluation and Appraisal Report.]

Policy 1.5.3 Wellington shall enforce the following level of service standards outside the urban service boundary and for those properties utilizing on-site potable water well and on-site septic system within the urban service boundary:

Potable Water: Potable water shall be provided in accordance with the standards in Policy 1.5.1 or from an on-site potable water well which meets all applicable federal, state and Palm Beach County standards and shall be consistent with the Work Plan, located as a sub-element of the Infrastructure Element.

Sanitary Sewer: Sanitary sewer service shall be provided in accordance with the standards in Policy 1.5.2 or by an on-site septic system or package treatment system which meets all applicable federal, state and Palm Beach County standards.

Drainage: All development and redevelopment shall adequately accommodate runoff to meet all federal, state and local requirements. At a minimum, stormwater shall be treated in accordance with the provisions of Chapter 62, F.A.C. in order to meet receiving water standards in Chapter 62 F.A.C. One inch of runoff shall be retained on site. Post-development runoff shall not exceed peak pre-development runoff.

Solid Waste: Same as in Policy 1.5.2 above.

Objective 1.6 Water Conservation:

Wellington has achieved past objectives of reducing water consumption. Wellington shall adhere to and implement water conservations programs, measures, strategies as detailed in the Water Supply Facilities 10 Year Work Plan.

Policy 1.6.1 Wellington shall regularly explore and adopt new methods, strategies and ideas for increasing water conservation.

Policy 1.6.2 Wellington shall continue to promote education programs for residential, commercial and other uses which will discourage waste and conserve potable water.

Objective 1.7 Managed Growth:

Wellington has adopted land development regulations that direct growth into areas served by urban services. Wellington shall continue to ensure that growth is of a quality equal to or better than the existing community, discourages urban sprawl, protects environmental and archeological resources, ensures the availability of suitable land for required utility services and the density and intensity are consistent with the other Goals, Objectives and Policies contained in this plan including the Work Plan. This objective shall be made measurable through implementation and monitoring of Goals, Objectives, and Policies within the Comprehensive Plan.

Policy 1.7.1 Wellington shall direct future growth to areas within Wellington's established Urban Service Area to maximize the use of existing and future infrastructure.

Policy 1.7.2 Wellington shall not pay for the extension of water and sewer service to areas outside of its Urban Service Boundary nor shall neighborhood parks be provided outside this boundary. Water service may be extended to areas outside of the Urban Service Area only at the expense of individual property owners and subject to availability as determined by the Village of Wellington and in a manner consistent with the Work Plan. These regulations shall be made part of Wellington's Land Development Regulations. Land development regulations shall be adopted and implemented consistent with the requirements of Chapter 163. F.S.

Sub-element to the Infrastructure Element:
Water Supply Facilities 10 Year Work Plan

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1.0 INTRODUCTION

In 2008, Wellington completed the Village of Wellington Water Supply Facilities 10 Year Work Plan 2008 (*Work Plan*). The *Work Plan* was part of legislation adopted by the State in 2005 for the purpose of strengthening coordination of water supply planning and local land use planning. The legislation required extensive evaluation of water supply facilities for at least a ten-year planning period. Wellington's *Work Plan* encompasses a twelve-year planning period from 2007 to 2020 an effort to match the planning period of the South Florida Water Management District (SFWMD)'s *Lower East Coast Water Supply Plan* (LEC) 2005-2006. The 2005-2006 LEC Plan Update is one of four, long-term comprehensive regional water supply plan updates the SFWMD has developed for its planning areas.

The purpose of Wellington's Work Plan is to identify and plan for the water supply sources and facilities needed to serve existing and new development within Water Utility Service Area. Chapter 163, Part II, F.S., requires local governments to prepare and adopt Work Plans into their comprehensive plans within 18 months after the water management district approves a regional water supply plan or its update. The regional water supply plan, the *Lower East Coast Water Supply Plan Update*, was approved by the South Florida Water Management District (SFWMD) on February 15, 2007.

According to state guidelines, the Work Plan and the associated comprehensive plan amendment, must address the development of traditional and alternative water supplies, bulk sales agreements and conservation and reuse programs that are necessary to serve existing and new development for at least a 10-year planning period. Wellington's Work Plan covers the period until 2020.

Wellington's Work Plan is divided into four sections:

Section 1 – Introduction

Section 2 – Background Information

Section 3 – Data and Analysis

Section 4 – Work Plan Projects/Capital Improvement Element/Schedule

The Work Plan is being incorporated within Wellington's Comprehensive Plan as a sub-element of the Infrastructure Element. Goals, policies and objectives pertaining to the Work Plan are contained within the Infrastructure Element and are also incorporated into other elements of the Comprehensive Plan as appropriate.

1.1 Statutory History

The Florida Legislature has enacted bills in the 2002, 2004, and 2005 sessions to address the state's water supply needs. These bills, especially Senate 444 (2005 legislative session), significantly changed Chapter 163 and 373 Florida Statutes (F.S.) by strengthening the statutory links between the regional water supply plans prepared by the water management districts and the comprehensive plans prepared by local

governments. In addition, these bills established the basis for improving coordination between the local land use planning and water supply planning.

1.2 Statutory Requirements

Each local government must comply with the following requirements:

- (1) Coordinate appropriate aspects of its comprehensive plan with the appropriate water management district's regional water supply plan, [163.3177(4)(a), F.S.]
- (2) Ensure that its future land use plan is based upon availability of adequate water supplies and public facilities and services [s.163.3177(6)(a), F.S., effective July 1, 2005]. Data and analysis demonstrating that adequate water supplies and associated public facilities will be available to meet projected growth demands must accompany all proposed Future Land Use Map amendments submitted to the Department for review. The submitted package must also include an amendment to the Capital Improvements Element, if necessary, to demonstrate that adequate public facilities will be available to serve the proposed Future Land Use Map modification.
- (3) Ensure that adequate water supplies and facilities are available to serve new development no later than the date on which the local government anticipates issuing a certificate of occupancy and consult with the applicable water supplier prior to approving building permit, to determine whether adequate water supplies will be available to serve the development by the anticipated issuance date of the certificate of occupancy [s.163.3180 (2)(a), F.S., effective July 1, 2005]. This "water supply concurrency" is now in effect, and local governments should be complying with the requirement for all new development proposals. In addition, local governments should update their comprehensive plans and land development regulations as soon as possible to address these statutory requirements. The latest point at which the comprehensive plan must be revised to reflect the concurrency requirements is at the time the local government adopts plan amendments to implement the recommendations of the Evaluation and Appraisal Report (EAR).
- (4) For local governments subject to a regional water supply plan, revise the General Sanitary Sewer, Solid Waste, Drainage, Potable Water, and Natural Groundwater Aquifer Recharge Element (the "Infrastructure Element"), within 18 months after the water management district approves an updated regional water supply plan, to:
 - a. Identify and incorporate the alternative water supply project(s) selected by the local government from projects identified in the updated regional water supply plan, or the alternative project proposed by the local government under s. 373.0361(7), F.S. [s. 163.3177(6)(c), F.S.];
 - b. Identify the traditional and alternative water supply projects, bulk sales agreements, and the conservation and reuse programs necessary to meet

current and future water use demands within the local government's jurisdiction [s. 163.3177(6)(c), F.S.]; and

- c. Include a water supply facilities work plan for at least a 10-year planning period for constructing the public, private, and regional water supply facilities identified in the element as necessary to serve existing and new development. [s. 163.3177(6)(c), F.S.] Amendments to incorporate the water supply facilities work plan into the comprehensive plan are exempt from the twice-a-year amendment limitation. [s. 163.3177(6)(c), F.S.]
- (5) Revise the Five-Year Schedule of Capital Improvements to include any water supply, reuse, and conservation projects and programs to be implemented during the five-year period.
- (6) To the extent necessary to maintain internal consistency after making changes described in Paragraph 1 through 5 above, revise the Conservation Element to assess projected water needs and sources for at least a 10-year planning period, considering the appropriate regional water supply plan, the applicable District Water Management Plan, as well as applicable consumptive use permit(s). [s.163.3177 (6)(d), F.S.]
 - a. If the established planning period of a comprehensive plan is greater than ten years, the plan must address the water supply sources necessary to meet and achieve the existing and projected water use demand for established planning period, considering the appropriate regional water supply plan. [s.163.3167 (13), F.S.]
- (7) To the extent necessary to maintain internal consistency after making changes described in Paragraphs 1 through 5 above, revise the Intergovernmental Coordination Element to ensure coordination of the comprehensive plan with applicable regional water supply plans and regional water supply authorities' plans. [s.163.3177(6)(h)1., F.S.]
- (8) Address in the EAR, the extent to which the local government has implemented the 10-year water supply facilities work plan, including the development of alternative water supplies, and determine whether the identified alternative water supply projects, traditional water supply projects, bulk sales agreements, and conservation and reuse programs are meeting local water use demands. [s.163.3191 (2)(1), F.S.]

2.0 BACKGROUND INFORMATION

2.1 Overview

The Village of Wellington, was incorporated in 1996, making it one of the newer municipalities established in Palm Beach County. At the time of incorporation, the Village of Wellington contained approximately 18,000 acres. Since that time, approximately 11,000 acres have been annexed and today Wellington encompasses an area of approximately 29,120 acres (45.5 square miles). Wellington has irregular

boundaries and is surrounded by The Village of Royal Palm, the Town of Loxahatchee Groves and numerous pockets of unincorporated Palm Beach County.

There are approximately 11,221 acres of vacant land in Wellington. Approximately 3,788 acres are suitable for development based on physical characteristics and availability of services. The developable vacant areas have good access and are available for development at this time. Utilities are readily available. Potable water, sanitary sewer, drainage, solid waste service, recreation, and transportation are generally provided by Wellington. With the exception of conservation land, the remaining vacant land is primarily in private ownership.

Wellington is approaching “built-out” condition. In 2007, Wellington’s Building Department records indicated that 136 permits were issued for new residential construction and 16 permits for new commercial construction. Wellington’s EAR projects declining population growth rates as we approach 2020.

VACANT LAND BY FUTURE LAND-USE DESIGNATION

Land Use Description	Land Use Category	Total Acres
Commercial	Commercial Recreation	59.39
Commercial	Community Commercial	15.41
Commercial	Conservation*	17.62
Commercial	Future Annex Area	61.53
Commercial	Industrial	3.82
Commercial	Institutional/Public Facilities/Utilities	122.21
Commercial	Major Water Bodies*	54.35
Commercial	Medical Commercial	26.91
Commercial	Mixed Use	91.66
Commercial	Neighborhood Commercial	5.30
Commercial	Office Commercial	17.20
Commercial	Regional Commercial/LSMU	104.98
Non-Residential	Commercial Recreation	168.06
Non-Residential	Conservation*	111.42
Non-Residential	Park	17.52
Non-Residential	Stormwater Treatment Area-1E* (Owned by South Florida Water Management District)	7,249.96
Residential	A 1 d.u./10 acres	1,738.20
Residential	B 0.1 d.u./acre	809.26
Residential	B 0.1 d.u./acre (no development order)	148.85
Residential	C 1.01 d.u./acre	15.22
Residential	C 1.01 d.u./acre (limited to 2 d.u./acre)	303.78
Residential	D 3.01 d.u./acre	28.15
Residential	E 5.01 d.u./acre	48.03
Residential	F 8.01 d.u./acre	2.83
	Total Vacant Acres	11,221.66
	Total Non-Developable Acres	7,433.35
	<i>Total Acres of Developable Lands:</i>	<i>3,788.31</i>
NOTE.		
*Indicates area is not subject to development.		

Source: Village of Wellington, 2009

A total of 3,777 acres of vacant land existed in 1999 when the Comprehensive Plan was adopted; therefore, vacant land has increased by approximately 7,445 acres. However, most of this land is used for water quality purposes and is owned by the South Florida Water Management District (SFWMD). These SFWMD lands are used as stormwater treatment areas (STA's) and comprise 7,250 acres and are located in the western portion of Wellington. Of the remaining vacant areas, the vacant land tends to be small parcels of generally 50 acres or less and is mostly clustered in the southern one-half of Wellington.

There are several lakes located in Wellington, but lakes only comprise about one percent of Wellington because of its relatively-large size of more than 40 square miles. Overall, land uses adjacent to the vacant areas are residential and some commercial. It is likely that these uses will eventually expand into the vacant areas.

In 2007, Wellington estimate a permanent (year-round) population of approximately 58,180 and a seasonal population of approximately 4,500 residents for a total estimated population of 62,680. Due to the difficulty of accurately assessing seasonal populations and corresponding water demands, aggregate water demands (daily per capita use) are based upon permanent population figures. Peaking factors, based upon historical data, are used to account for the impact of seasonal populations on water demand fluctuations and the corresponding sizing of water treatment and distribution facilities.

It is important to note that the permanent population within Wellington's corporate boundaries does not represent the population actually served by Wellington's Water Utility. Specifically, not all residents within corporate boundaries receive Wellington water service. Some residents use private potable wells and others are served by the Palm Beach County Water Utilities Department. Additionally, residents outside of Wellington corporate boundaries receive water service from-Wellington's Water Utility. So, the EAR population figures serve as the basis for the population served by the Wellington's Water Utility after adjusting for private well use, service by others utilities and service outside of Wellington's corporate boundaries.

The Village of Wellington, under its subsidiary Acme Improvement District, is the managing entity for water, drainage and related infrastructure within Wellington. The service boundary for water and sewer service is depicted in Map 1. Wellington provides potable water service, including fire protection, to residential and non-residential customers.

Wellington currently has adequate treatment and distribution capacity to serve its needs. In addition, Wellington's current Capital Improvement Plan (CIP) provides for sufficient water treatment capacity over the planning period, and plans to address its water resource needs using a combination of ground water and reuse water over the same period.

2.2 Relevant Regional Issues

Largely due to increases in population and Everglades Restoration Initiatives, a great deal of attention has been given to the use of water resources in Southeast Florida. Over the past several years, the South Florida Water Management District (SFWMD) and other State agencies have adopted measures to address mounting pressures on the water resources in Southeast Florida. As the state agency responsible for water supply in the Lower East Coast planning area, SFWMD plays a pivotal role in resource protection. As pressure has increased for protection of the Everglades ecosystem, the SFWMD Governing Board initiated rule making to limit increased allocations from water resources serving the Everglades system. As a result, the Regional Water Availability Rule was adopted by the SFWMD Governing Board on February 15, 2007 as part of the

SFWMD's water use permit program. This reduced reliance on the regional system for future water supply needs, mandated the development of alternative water supplies, and increased conservation and reuse.

In a measure of good faith and to comply with the objectives of this Rule, Wellington has coordinated with Palm Beach County Water Utilities Division and SFWMD during the preparation of this Work Plan, as well as, during the preparation of Palm Beach County's 20 Year Water Supply Work Plan.

3.0 DATA AND ANALYSIS

3.1 Population Information

Within its municipal boundaries, Wellington's permanent population, in 2007, was approximately 58,180 with a seasonal population of approximately 4,500. Population figures were derived from data from Wellington's Planning and Zoning Department and the Bureau of Business and Economic Research located within the University of Florida (BEER). Wellington's 2007 Evaluation and Appraisal Report population projects growth rates will gradually decrease as we approach 2020, at which point Wellington forecasts 62,875 permanent residents and approximately 5,000 seasonal residents.

This decreasing population growth is reflective of the fact that Wellington is substantially built-out, with future development potential and population growth limited by the scarcity of vacant and developable land. The potential expansion of Wellington's current boundaries through annexations is the only factor which might result in significant population increase during the planning period. At this time, Wellington has no plans to annex any areas of significant size.

As noted previously, the permanent population within Wellington's corporate boundaries does not represent the population actually served by Wellington's Water Utility. Specifically, not all residents within Wellington's corporate boundaries receive water service from Wellington. Some residents use private potable wells and others are served by the Palm Beach County Water Utilities Department. Further, Wellington also serves people outside of Wellington corporate limits. Adjusting the EAR population figure for these factors, Wellington Water Utility served a permanent population of approximately 55,125 in 2007. Of this total, approximately 48,285 were within Wellington's corporate boundaries and approximately 6,840 were outside the corporate boundaries. The 6,840 people outside Wellington reside within the corporate boundaries of the Village of Royal Palm Beach and Unincorporated Palm Beach County. These customers represent approximately 12 percent of the total population served. Table 1 summarizes population served both inside and outside Wellington's corporate boundaries. All water customers are billed directly by Wellington.

Table 1: Existing Potable Water Customers Served by Wellington Water Utilities - 2007

Within Village of Wellington Municipal Boundaries	Within Village of Royal Palm Beach Municipal Boundaries	Within Palm Beach County Unincorporated Boundaries	Total Population Served by Village of Wellington
48,285	2,670	4,170	55,125

Source: Village of Wellington Utilities Division, March 2009

Residents within Wellington's corporate boundaries, but not within Wellington's water Utility Service Area are adequately served by the Palm Beach County Water Utilities Department (PBCWUD). Intergovernmental Coordination Element Policy 1.8.1 is being added to Wellington's Comprehensive Plan to ensure Wellington coordinates regularly with PBCWUD to ensure future water resources are available to serve future demands. This policy states that Wellington shall continue to coordinate with Palm Beach County, the Village of Royal Palm Beach and the South Florida Water Management District to update the Work Plan as will be periodically necessary.

3.2 Current and Future Areas Served by Wellington's Water Utility

The Village of Wellington Water Service Area is located in central Palm Beach County and is completely surrounded by the water service area served exclusively by the Palm Beach County Water Utilities Department. Modification of these territories is not anticipated during the duration of the planning period.

(1) Operational Responsibility

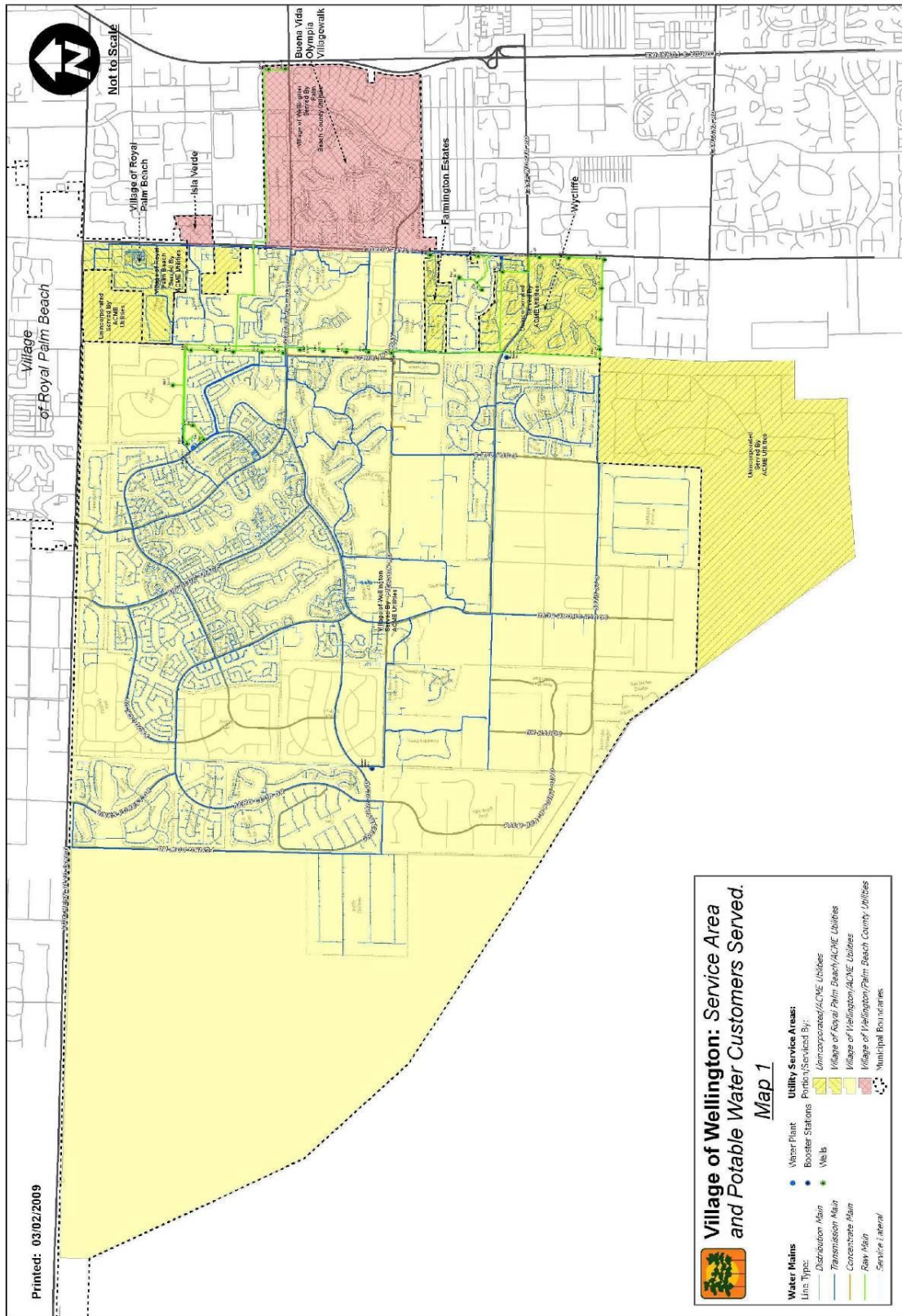
The Village of Wellington Utilities Department is responsible for the operations and maintenance of the central public water system within Wellington's service area.

b. Service Area

Wellington's water service area encompasses areas both inside and outside of municipal boundaries (Map 1). As of March 2007, Wellington's water utility services approximately 19,834 service connections (residential and commercial) serving approximately 55,125 people. The predominant users serviced by the central system are residential customers within Wellington limits. The central water system service area is identified on Map 1: "Service Area". Minimal growth to the water utility service area is anticipated.

Wellington's Water Utility service area is a mix of residential neighborhoods, large equestrian areas and commercial and light industrial uses. Most of the residential neighborhoods, commercial and light industrial uses are served by Wellington's potable water system. The equestrian areas largely are served by private potable wells. There

are no plans to extend water service lines into these areas at this time as these are primarily low-density single family homes and equestrian facilities; however Wellington should continue to research water service options that can be provided to individual neighborhood and communities upon request.



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c. Intergovernmental Cooperation

Wellington has added a policy to the Intergovernmental Element of its Comprehensive Plan to ensure the sharing and updating of information to meet ongoing water supply needs. Wellington shall continue to coordinate with Palm Beach County, Village of Royal Palm Beach and SFWMD to update the Work Plan as will be periodically necessary. Population projections, potential annexations and other related data shall be submitted to local governments within Wellington's Utility Service area for review.

Additional analysis detailing intergovernmental cooperation is located in Section 3.6.

3.3 Water Supply Provided by Local Government

a. Water Treatment Plants

Wellington owns and operates one water treatment plant. The Water Treatment Facility is located at 1100 Wellington Trace in the Village of Wellington, Florida. The facilities are relatively new and are in good condition. There are two treatment processes employed at the facility:

(1) A 6.3 MGD reverse osmosis (R/O) plant with 9 wells, 7 @ 830 GPM and 2 @ 415 GPM feeding the plant.

(2) A 4.7 MGD lime softening plant with 9 wells, 7 @ 750 GPM and 2 @ 1500 GPM.

The R/O facilities are easily expandable to 9.9 MGD, in 1.8 MGD increments, simply by adding additional treatment trains.

The R/O plant receives well water through a common header and delivers it to 6 treatment trains: 5 @ 900,000 GPD and 1 @ 1.8 million GPD. All trains have a high pressure pump used to increase the feed pressure as required. The product water (treated water) is delivered to degasifiers to remove the hydrogen sulfide before discharging into Storage Reservoirs #3 and #4.

The lime plant receives water through a cascade aerator atop the softening unit for removal of hydrogen sulfide and carbon dioxide. Lime is added to reduce the hardness, color and alkalinity. Polymer is added to enhance the process. The water flows through 5 rapid sand filters and into a clear well, it is then pumped into storage reservoirs #3 and #4 before being blended with the R/O product water.

Treated water is stored on site in 4 above-ground storage reservoirs, 1 @ 250,000, 2 @ 1.0 MG and 1 @ 2 MG.

Twelve (12) high service pumps with a “firm” rated capacity of 22.7 million gallons per day (MGD) are used to pump water into the distribution system. A summary of the pumps is provided in Table 2.

Table 2: Existing High Service Pumping Facilities

HSP	Design Output (GPM)	HP	Aux Power	Plant Operating Head
1	600	50	Yes	65 psi
2	440	40	Yes	65 psi
3	600	50	Yes	65 psi
4	200	25	Yes	65 psi
5	600	50	Yes	65 psi
6	600	50	Yes	65 psi
7	2800	125	Yes	65 psi
8	2800	125	Yes	65 psi
9	2800	125	Yes	65 psi
10	2800	125	Yes	65 psi
11	1500	100	Yes	65 psi
12	1500	100	Yes	65 psi
13	1500	100	Yes	65 psi

Source: Village of Wellington Utility Department

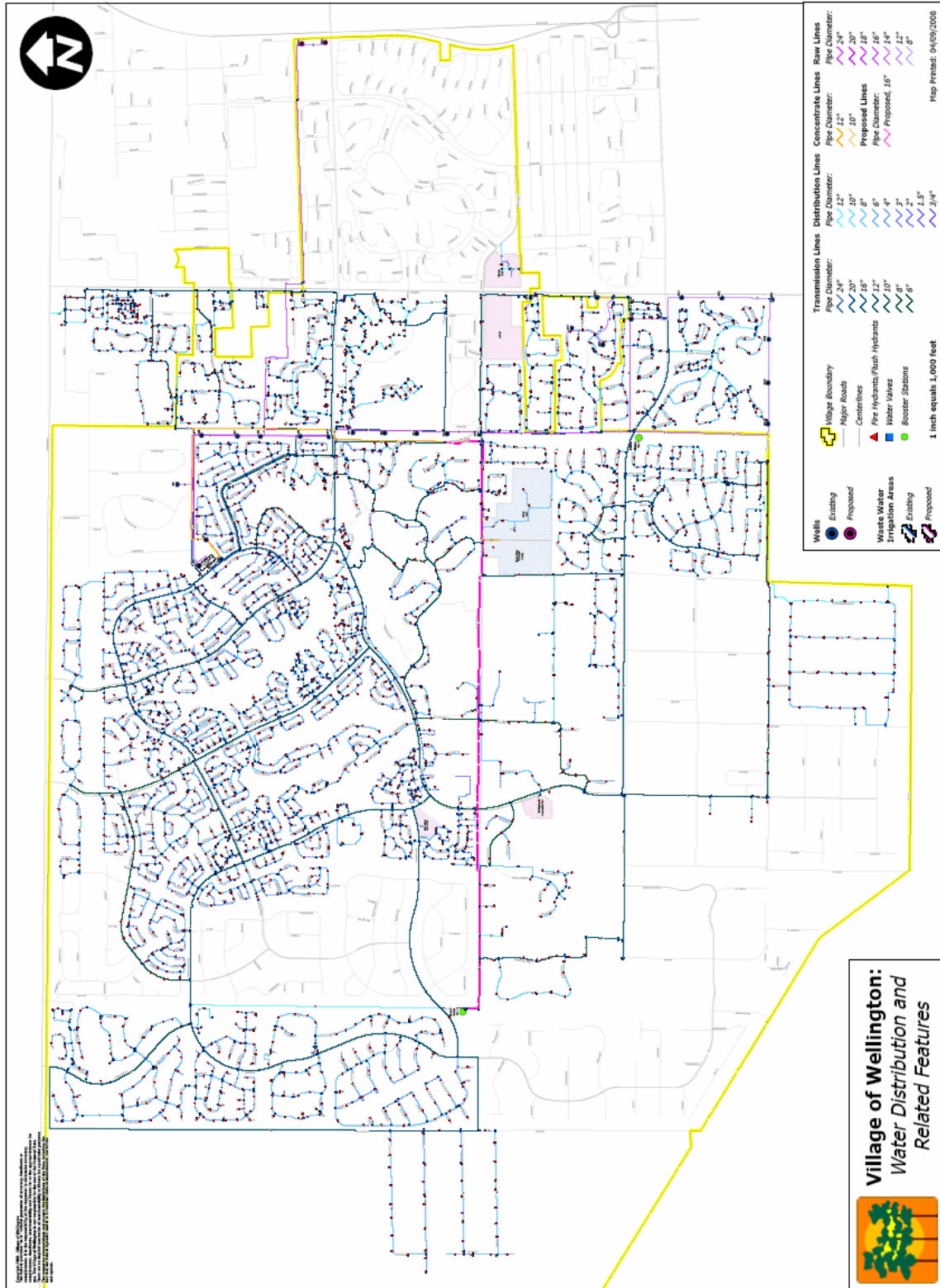
b. Water Quality

Wellington’s potable water quality complies with the standards for all currently regulated inorganic and organic contaminants and is of good quality (this is further detailed in Section 4.1.b of the Work Plan). The finished water quality produced by the facility meets all State and Federal regulations related to the production of safe drinking water.

c. Distribution System

The distribution and storage system consists of water distribution and transmission piping (PVC, Ductile Iron, HDPE). All service connections are metered. The distribution and storage facilities are in good condition. The distribution system is illustrated on the Water Line Distribution System (Map 2).

Map 2: Water Distribution within the Village of Wellington



d. Public Wells

Wellington currently obtains its water from surficial groundwater production wells. Wells depths are approximately 80 feet to 120 feet. A total of 18 potable water wells are used. The wells are adequately spaced (1,000 to 1,500 feet apart) in order to reduce possible interference between wells. Groundwater elevations are routinely monitored to identify seasonal trends and predict maintenance requirements.

Wellington has three (3) wells which are installed but not currently equipped with a pump. These can be used as replacement wells to the lime plant if required in the future. The current capacities for all wells are identified in Table 3.

Raw water quality generally is good and is characterized by moderate hardness, and relatively high levels of color, iron and organics. It is anticipated that these water resources, in combination with reuse water, will be used for future raw water demands.

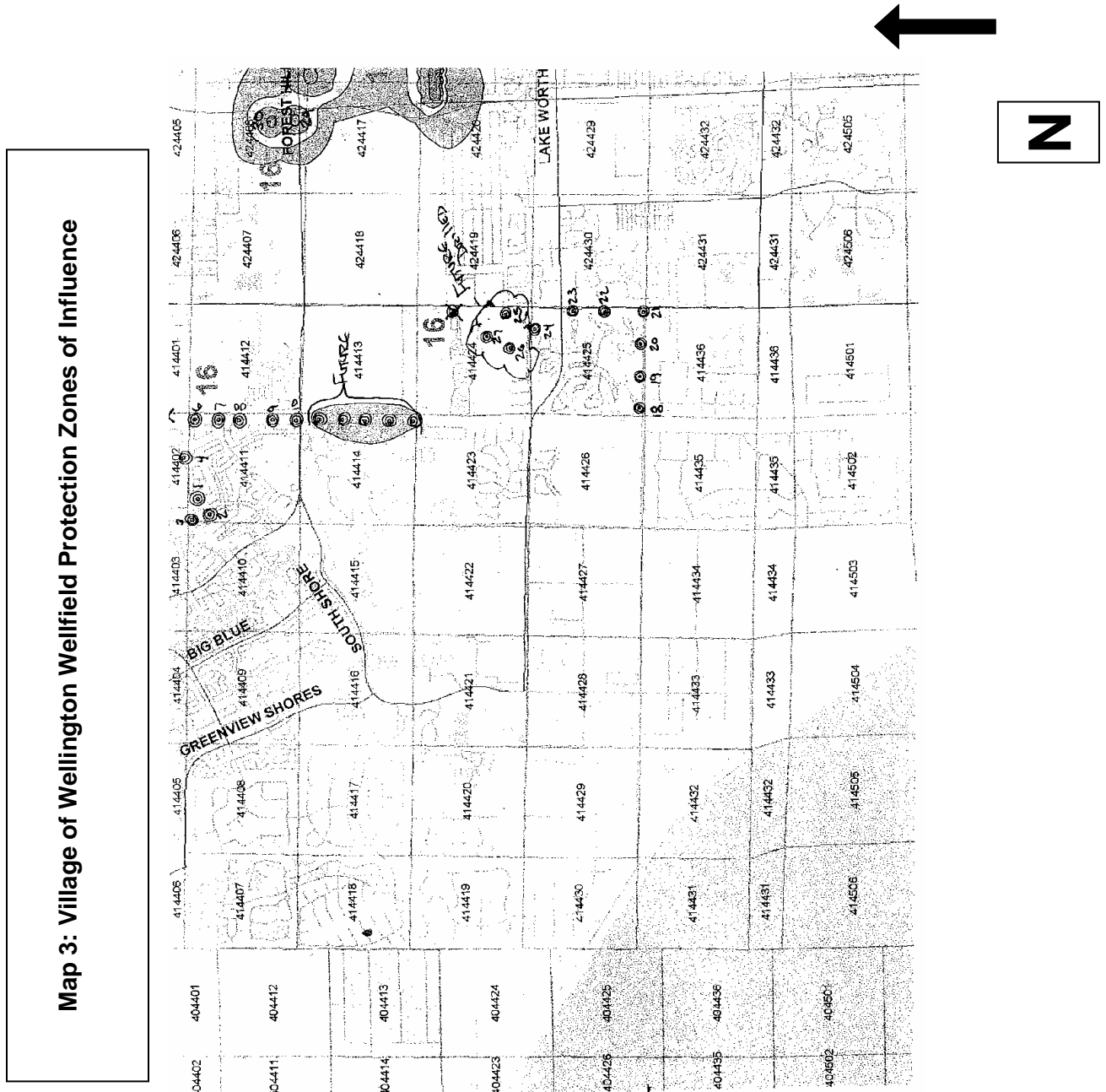
Table 3: Inventory of Existing and Proposed Wells

Well #	Well I.D. #	Well Location	Well Diameter	Well Pump Capacity GPM	Well Depth	Casing Depth	Active (operating under CUP # 50-00464-W)
18	23682	25	12	750	90	70	Yes
19	23683	25	12	750	90	70	Yes
20	23684	25	12	750	90	70	Yes
21	23685	25	12	750	118	68	Yes
22	23686	25	12	750	125	75	Yes
23	23687	25	12	750	125	75	Yes
24	23688	25	12	750	125	75	Yes
29	18413	8	16	1500	150	90	Yes
30	18414	8	16	1500	150	90	Yes
R-1	23692	11	24	415	120	70	Yes
R-2	23689	10	12	415	115	75	Yes
R-3	23690	2	12	830	125	75	Yes
R-4	23691	2	12	830	120	75	Yes
R-6	23693	11	12	830	120	70	Yes
R-7	23921	11	12	830	120	55	Yes
R-8	23522	11	12	830	118	55	Yes
R-9	23923	11	12	830	120	55	Yes
R-10	23924	11	12	830	120	55	Yes
25	23894	24	12	500	100	50	No
26	23895	24	12	500	100	50	No
27	23896	24	12	500	100	50	No
28	23897	24	12	500	100	50	No

Source: Village of Wellington Utility Department

Wellington adheres to the standards adopted for wellhead protection by the Palm Beach County Department of Environmental Resource Management (DERM) and the Florida

Department of Environmental Protection (FDEP), including restricting the type of development allowed in the vicinity of a wellhead and requiring a protection zone around each wellhead (Map 3).



Additionally, land use surrounding a water supply site is a major consideration in the selection and protection of well sites to avoid contamination. Wellington's Land Development Regulations (LDR) restricts the uses permitted within the "zone of influence". As part of Wellington's Wellhead Protection plan, Wellington consistently

works to identify all potential sources of contamination for existing wells. The direction of groundwater flow is to the southeast.

e. Potable Water Storage & Repump Facilities

Wellington has 2 ground storage tank/repump facilities in the distribution system and a third storage facility is planned to be constructed during the 10 year period of the Work Plan. The capacity of each storage tank and assorted pumps is identified in Table 4.

Table 4: Potable Water Storage Facilities

Location	Capacity (gallons)	Pump Capacity
#1 Booster Station at Osley Farm Road	2.0 mg	2 pumps @ 3100 gpm each, VFD (4.4 MGD "Firm" Pumping Capacity)
#2 Booster Station at Lake Worth Road	2.0 mg	2 pumps @ 2000 gpm, VFD 1 pump @ 1000 gpm, VFD (4.3 MGD "Firm" Pumping Capacity)

Source: Village of Wellington Utility Department

f. Consumptive Use Permit

Withdrawal of water from the Turnpike Aquifer and ground water is regulated by the SFWMD, by the issuance of a Consumptive Use Permit (CUP). Wellington submitted its CUP application to SFWMD in April of 2007 for renewal of its CUP (Permit # 50-00464-W). SFWMD review and approval of the permit application is ongoing. By SFWMD policy, operation under the existing CUP is permitted until a new CUP is approved.

3.4 Potable Water Level of Service Standard

Population and corresponding per capita water demand are the most important factors in determining the need for additional supply and treatment facilities. Wellington has a current treatment capacity of 11 million gallons per day (MGD), 8 millions gallons of storage capacity and approximately 30 MGD of "firm" pumping capacity for peak hourly flows. The current treatment capacity is sufficient to meet the maximum daily demand, as required by FAC. Additionally, current storage volumes are adequate to meet peak hourly demands in accordance with the regulations. Wellington will maintain this level of service as it approaches "built out" conditions by expanding its treatment and storage capacity and using alternative water supplies (Floridan wells) as needed.

As Wellington nears "build-out" condition the population growth rate is expected to gradually decrease with an estimated total served population of 61,512 people in 2020. This figure is based upon the Evaluation and Appraisal Report (EAR) population projections adjusted for population served outside Wellington municipal boundaries and populations within Wellington municipal boundaries served by other utilities.

3.5 Population and Potable Water Demand Projections by Each Local Government or Utility

a. Water Supply Concurrency

In order to ensure that water is available at time of development, a concurrency management procedure has been implemented. This procedure includes the participation of a representative from Wellington's Utility Department in the Development Review Committee (DRC) which reviews all new or expanded construction. This representative addresses availability of potable and reclaimed water to new development, thus ensuring that the approval of development orders is coordinated with the availability of a water supply.

Wellington's current treated water Level of Service (LOS) standard is 120 Gallons Per Capita per Day (GPCD). This LOS represents the average per capita per daily use for the five (5) year period prior to 2007, as required by the SFWMD consumptive use permitting process. The demand per capita for raw water is calculated by taking the volume of treated water pumped and dividing it by Wellington's served population. Wellington projects that the per capita treated water consumption will remain at this level over the planning period.

b. Future Demand Capacity for Service Area

The ability of Wellington's system to meet the consumptive demand of the service area largely is controlled by Wellington's ability to comply with new withdrawal limitations and regulatory requirements imposed by the South Florida Water Management District (SFWMD) and available funding to employ new and more expensive technologies needed to treat lower quality source water. Based upon demand projections, preliminary groundwater studies for the existing surficial aquifer system, future use of the Floridan aquifer for additional water and conservation, Wellington is projected have the volume of raw water needed to meet future demands during the planning period.

Future water demand was forecast based on Wellington population projections through 2020. Wellington has the capacity to meet all potable water demands, including all residential and commercial uses within Wellington service area through the projected planning period. Predominant existing commercial uses, total of 652 accounts, include retail, service, warehousing and light industrial in which water demand is relatively low. Future commercial development is expected to be similar to existing uses and is accounted for in Wellington's water facility planning. Further, future commercial development will be limited by the shortage of available, developable land: infill redevelopment of existing commercial areas will likely account for most future commercial development.

Tables 5, 6, 7 and 8 provide the served population figures for Wellington's Utility Department. Population figures are based upon approved EAR (2007) figures adjusted to account for populations served inside and outside Wellington corporate limits. Exhibit

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“A” contains an overall table of population data and provides the sources for the data included.

**Table 5: Projected Treated Water Demands - MGD
(Entire Wellington Water Service Area)**

	2007	2012	2017	2020
Population Served	55,125	59,194	60,646	61,512
Average Daily Flow	6.61	7.10	7.28	7.38
Max. Day	10.58	11.36	11.65	11.81
Peak Hour	21.28	22.86	23.44	23.76

Source: See Exhibit “A”

**Table 6: Projected Treated Water Demands - MGD
(Area within Village of Royal Palm Beach AND Within Wellington Water Service Area)**

	2007	2012	2017	2020
Population Served	2,670	2,900	3,275	3,500
Average Daily Flow	0.32	0.35	0.39	0.42
Max. Day	0.51	0.56	0.62	0.67
Peak Hour	1.03	1.13	1.26	1.35

Source: See Exhibit “A”

Table 7: Projected Treated Water Demands - MGD
(Area within Unincorporated Palm Beach County AND Within Wellington Water Service Area)

Year	2007	2012	2017	2020
Population Served	4,170	4,938	5,900	6,480
Average Daily Flow	0.5	0.59	0.71	0.78
Max. Day	0.80	0.94	1.14	1.25
Peak Hour	1.61	1.90	2.29	2.51

Source: See Exhibit "A"

Table 8: Projected Water Demands in MGD
(Areas within Wellington Municipal boundaries and within Wellington Water Service Area)

Year	2007	2012	2017	2020
Population Served	48,284	51,194	51,470	51,532
Average Daily Flow	5.79	6.16	6.18	6.18
Max. Day	9.27	9.86	9.89	9.90
Peak Hour	18.64	19.83	19.89	19.90

Source: See Exhibit "A"

Palm Beach County Fire Rescue provides fire protection for Wellington. In addition to domestic and commercial demand, Wellington has identified the need to rate the water system in terms of its ability to provide fire protection. To rate the water system in terms

of fire protection, Palm Beach County Fire Rescue has adopted the fire protection standards of the NFPA (National Fire Protection Association). Wellington's fire flow capabilities are based on fire flows were designed around 2,000 GPM for schools, 1,500 GPM for commercial and 750 GPM for residential.

As of 2008, it has been determined by Palm Beach County Fire Rescue Wellington does not have any fire protection deficiencies.

3.6 Water Supply Provided by/to Other Entities

Areas located within Wellington boundaries and outside of Wellington's Water Utility service area are served exclusively by the Palm Beach County Water Utilities Department (PBCWUD). PBCWUD supplied potable water to approximately 7,293 (2007) customers located within Wellington Boundaries. By Year 2020, it is projected that PBCWUD will serve approximately 9,735 customers within Wellington corporate limits. PBCWUD has indicated they have sufficient capacity to serve any remaining anticipated growth in these areas. Wellington and PBCWUD coordinated efforts in preparing their respective Work Plans.

For areas outside of Wellington's Municipal boundaries, but served by Wellington's Water Utility system, Wellington has adequate capacity to serve projected future water demand as listed in Tables 6 and 7. Wellington currently has no plans to expand its water service area beyond existing limits.

Wellington intends to negotiate a formal Interlocal Service Boundary Agreement (ISBA) between Wellington and PBCWUD/Village of Royal Palm Beach for the provision of water service to areas within Wellington but not within the area served by Wellington water Utility.

The successful negotiation of ISBA's has been incorporated as a policy in the Intergovernmental Coordination Element of Wellington's Comprehensive Plan.

3.7 Conservation

SFWMD is currently in the rulemaking process to amend Chapter 40E-24, F.A.C., Mandatory Year-Round Landscape Irrigation Measures for Lee, Collier and Charlotte Counties. The rulemaking process aims to amend the year-round landscape irrigation measures and to implement more comprehensive, conservation-driven, irrigation rules on a districtwide basis. The purpose of these mandatory measures is to provide a framework for consistent implementation, ensure the long-term sustainability of the water resources of the region, increase water use efficiency and prevent and curtail wasteful water use practices through the adoption of ordinances that would include these measures, variance and enforcement provisions. Some of the regional measures SFWMD has implemented to encourage regional water conservation include:

- (1) Mandatory water restrictions

- (2) Water Savings Incentive Program
- (3) Year-round Water Conservation
- (4) Alternative Water Supply Grant Program
- (5) Water Reuse
- (6) Regional Water Supply Plans

3.7.1 Countywide Conservation Issues

Based upon the statutory guidance and the delineation of feasibility factors found in the State Water Policy, Chapter 17-40, F.A.C., the Governing Board of the SFWMD has determined that, in those areas of the District which are not designated a Critical Water Supply Problem Area pursuant to Chapter 40E-23, (see figure III-3), when reclaimed water is readily available it must be used in place of higher quality water sources, unless it is demonstrated by the applicant that its use is either not environmentally, economically or technically feasible. In determining whether reclaimed water is readily available, SFWMD will consider the following factors:

- (1) Whether a suitable source of reclaimed water exists;
- (2) Whether the source is offered to or controlled by the Applicant; and
- (3) Whether the Applicant is capable of accessing the source through distribution lines.

In those areas of the District which are designated as Critical Water Supply Problem Areas pursuant to Chapter 40E-23, reclaimed water is required to be used, unless it is demonstrated by the applicant that its use is either not environmentally, economically or technically feasible.

Public water supply utilities that control, either directly or indirectly, a wastewater treatment plant, and which have determined, in accordance with Section 403.064, F.S., that use of reclaimed water is feasible, must provide the District with each of the following:

- (1) The existing reuse feasibility study or plan applicable to the utility's service area. Examples of such studies or plans include a reuse feasibility study prepared for the Department pursuant to Section 403.064, F.S., or a reuse project plan prepared for the Public Service Commission pursuant to Section 367.0817, F.S.

- (2) A copy of the schedule of implementation for reuse, including any available information regarding areas to be served, construction of reclaimed water distribution lines and associated capacities.
- (3) Documentation of the amount of presently uncommitted reclaimed water supply that is currently generated and is projected to be generated by the treatment plant over the duration of the permit.
- (4) Information regarding whether or not a local ordinance concerning use of reclaimed water has been enacted pursuant to either Chapter 125 or Chapter 180, F.S., which establishes a mandatory reclaimed water zone. Information should include a copy of the ordinance and applicable maps or legal description that delineates the zone.

Wellington has complied with the SFWMD requirements as Wellington's Wastewater Reuse Feasibility study was completed and submitted to SFWMD in 2006. Wellington shall continue to coordinate future water conservation efforts with the SFWMD. In addition, Wellington will continue to support and modify existing goals, objectives and policies in the comprehensive plan that promotes water conservation in a cost-effective and environmentally sensitive manner. Wellington will continue to actively support the SFWMD in the implementation of new regulations or programs that are designed to conserve water year round.

The Intergovernmental Coordination Element of Wellington's Comprehensive Plan, states that Wellington shall continue coordination with Palm Beach County, the Village of Royal Palm Beach and the SFWMD in order to update the Work Plan as will be periodically necessary.

Wellington is a member of the Intergovernmental Plan Amendment Review Committee (IPARC). This is a group consisting of representatives of local governments that meets regularly to discuss and address local, regional and statewide issues. IPARC provides a forum for Wellington to analyze, evaluate and share information that may further the goals of the Lower East Coast Water Supply Plan and Wellington's Work Plan.

3.7.2 Local Government Specific Actions, Programs, Regulations, or Opportunities

Wellington has instituted a number of initiatives promoting SFWMD measures and has been one of the most proactive municipalities in South Florida in addressing water conservation. Since 1999 Wellington has enforced ordinances limiting the hours for watering, adopted and enforced Florida Building Code low flow plumbing fixture standards, implemented the use of reclaimed water for irrigation, encouraged the use of native landscaping and implemented water conservation educational programs. By these actions Wellington has significantly reduced raw water demand.

Wellington currently is using reclaimed water for irrigation at Village Park and has begun Phase Two of the reuse plan by adding reclaimed water lines to irrigate road rights-of-way and recreational facilities within Wellington such as Village Park, Boys and Girls Club and Tiger Shark Cove Park. Wellington is currently saving approximately 500,000 gallons per day of raw water by using reclaimed water.

In addition, Wellington recently built a “constructed” wetland adjacent to its wastewater treatment facility. Approximately 80,000 gallons per day is pumped to the wetland serving to support wildlife and educational opportunities and simultaneously recharge the underlying aquifer.

The Conversation Element of Wellington’s Comprehensive Plan states that it shall be the policy of Wellington to encourage the use of non-potable water for irrigation purposes. In accordance with the Goals, Policies and Objectives of the Comprehensive Plan, Wellington is undertaking a number of initiatives that will help preserve the potable water supply through conservation and reuse. The following are some of the ways Wellington has been working towards these goals:

- (1) Enactment of Ordinance 99-08 which establishes permanent water conservation measures throughout Wellington.
- (2) Implementation of programs for water reuse: by 2011 there will be 100% reuse of treated sewage effluent within Wellington. Currently additional lines for further distribution of treated effluent are being installed throughout Wellington for irrigation purposes. The reuse water will be used to irrigate Wellington owned park sites and rights-of way and private golf courses and possibly polo fields. Once fully implemented, Wellington anticipates reducing its raw water consumption for irrigation purposes by approximately 4.5 MGD.
- (3) An aggressive policy of enforcement of the South Florida Water Management District mandated lawn watering restrictions has been undertaken by Wellington. This initiative has resulted in the issuance of over 2,800 citations in since spring of 2007.
- (4) Wellington provides free leak detector tablets to residents. This conserves water by detecting any leaks present in resident’s homes.
- (5) Using native vegetation on Wellington property as feasible and promoting their use within Wellington through the Land Development Regulations for existing and new projects.
- (6) Wellington’s Utilities Division maintains a budget for water conservation promotional material. Materials are distributed through inclusion with utility bills, at functions and to walk-in customers.
- (7) Wellington is proposing sales of reclaimed water to non-Wellington owned properties for irrigation purposes.

- (8) Wellington is considering rebates for low flow toilets, shower heads and washing machines.
- (9) Adoption of an increasing block water rate structure designed to promote conservation.
- (10) Installation of a remote meter reading system allowing for “real time” reading of meters and detection of leaks

Conservation programs can impact public perception and support of good stewardship of water resources. Their greater impact is a greater community awareness of the identity of the place in which they reside and how to better sustain it. The following summarizes key areas where Wellington can make improvements:

- (1) Land Development Regulations. Wellington’s Land Development Regulations will be revised to reflect best practices in water efficient landscaping and the use of native plant materials.
- (2) Water Conservation Education. Wellington’s website includes information on water conservation. Water conservation materials are currently displayed at the Utilities Department and are periodically sent to Wellington customers with utility bills.
- (3) Wellington will expand the reclaimed water facilities by 2011 from 1 MGD to 6.5 MGD. Wellington’s ultimate goal is to utilize all wastewater as reclaimed water - an estimated savings of over 4.5 million gallons of raw water used for irrigation each day.
- (4) Wellington will continue to implement examples of water efficient landscapes as models for the public.
- (5) Further use of native vegetation on Wellington property, and promoting their use within Wellington through the Land Development Regulations.
- (6) Expansion of reclaimed water lines to service a broader area.

Wellington will continue to explore innovative and effective measures to promote the conservation of water through research of new technology and methods.

3.8 Reuse

State law supports reuse efforts. Florida’s utilities, local governments, and water management districts have led the nation in implementing water reuse programs that increase the quantity of reclaimed water used and public acceptance of reuse programs. Section 373.250(1) F.S. provides that “water reuse programs designed and operated in compliance with Florida’s rules governing reuse are deemed protective of public health and environmental quality.” In addition, Section 403.064(1), F.S., provides

that “reuse is a critical component of meeting the State’s existing and future water supply needs while sustaining natural systems.”

3.8.1 Regional and Countywide Issues

Palm Beach County (PBC) currently has one of the largest reclaimed water systems in southeast Florida and has an aggressive plan to expand this program. For example, the PBC Board of County Commissions recently adopted an ordinance expanding the mandatory reclaimed water service area to ten square miles around Southern Region Water Reclamation Facility (SRWRF). New developments constructed within the mandatory reclaimed water service area are required to install and use reclaimed water for irrigation. PBC is proactively working towards providing a cost effective means for existing developments to convert to reclaimed water. Interest is expected to increase with time as implementation costs are reduced. Reclaimed water piping extensions are expected to continue annually over the next twenty years.

Wellington’s actions, programs, regulations and policies, detailed in the following section, are consistent and supportive of PBC policies to implement water reuse initiatives: as are the goals, objectives and policies that have been incorporated into various elements Wellington’s Comprehensive Plan in support of the Work Plan. Wellington will continue to support and promote SFWMD and PBC water reuse projects as well as the implementation of new regulations or programs designed to increase the volume of reclaimed water used and public acceptance of reclaimed water.

3.8.2 Local Government Specific Actions, Programs, Regulations, or Opportunities

There will be 100% reuse of treated sewage effluent within Wellington after the current plant expansion is completed in 2011. Currently additional lines for further distribution of treated effluent are being installed throughout Wellington for irrigation purposes. The reuse water will be used primarily to irrigate Wellington owned park sites and private golf courses and polo fields as reuse water comes available.

As discussed earlier in Section 3.7.2, Wellington currently is using reclaimed water for irrigation at Village Park and for recreational facilities such as the Boys and Girls Club and Tiger Shark Park. Wellington is currently saving approximately 500,000 gallons per day by using reclaimed water for irrigation.

4.0 CAPITAL IMPROVEMENTS

The Capital Improvements Schedule identifies projects scheduled to be completed within the next five (5) years to enable Wellington to meet its LOS for future potable water demands.

Major projects include: 1) Expansion of the Water Treatment Facility to 12.8 MGD, including new Floridan wells and the retrofit of existing treatment facilities to

accommodate Floridan water treatment as required; 2) New remote 1 million gallon ground storage tank and re-pump facility (approx. 2,500 gpm); 3) Expansion of the Waste Water Treatment Facility to 6.5 MGD, including Class AA Bio Solids processing facilities and a 6.5 MGD reclaimed water system (high level disinfection) and 4) New emergency water interconnect with the Palm Beach County Water Utilities Department. Improvements to the distribution and collection system also are scheduled, along with normal repair and replacement projects.

4.1 Work Plan Projects

a. Future Water Sources

Future water sources for Wellington include the existing surficial groundwater aquifer sources and new Floridan aquifer sources.

The existing surficial aquifer well fields will continue in use at the level-of-service production level corresponding to the average of the five (5) year period prior to 2007. As part of Wellington's plan, Wellington has identified eight (8) approved future well sites to replace existing wells in the event existing wells need to be taken out of service. Additional withdrawals from the existing surficial aquifer system above the existing level-of-service will be used only if groundwater impact studies indicate additional withdrawals are feasible. Specifically, Wellington will not withdrawal any additional water if adjacent uses or the regional water system is negatively impacted and mitigation is not feasible.

In the event additional withdrawal from the surficial aquifer proves unavailable, Wellington will use the Floridan aquifer system for its additional water needs. Wellington plans to install up to two (2) new Floridan wells and retrofit its existing RO facilities to accommodate this new source water.

Although not replacing potable water use, Wellington will reduce its use of the surficial aquifer system by adding reuse treatment facilities (high level disinfection) at its wastewater treatment facility. Installation of the 6.5MGD reuse facilities at Wellington's wastewater treatment facilities is scheduled to begin by August, 2009. Construction bids were received on March 17, 2009 and funding has been authorized by Wellington Council. Reclaimed water produced at the new reuse facilities will be used for irrigation of Wellington parks and rights-of-way and private property, such as local golf courses and polo fields. These locations currently use non-potable water from canals and/or groundwater wells.

The following Tables 8 & 9 summarize Wellington's projected raw water consumption data based on plant flow records from January 2001 to December 2006 and shows the

SFWMD's CUP data in comparison to anticipated demand. SFWMD is currently reviewing Wellington's 2007 CUP application.

Table 9: Projected Demand and Facility Capacity Conditions

Year	Population VOW Service Area	Average Annual Projected Treated Water Use (MGD)	Maximum Day Water Demand (MGD)	Water Treatment Capacity (MGD) (1)
2007	55,125	6.61	10.58	11
2012	59,194	7.10	11.36	12.8
2017	60,646	7.28	11.65	12.8
2020	61,512	7.38	11.81	12.8

Source: Village of Wellington Utility Department

(1) Plant capacity exceeds maximum daily flow

Table 10: Water Supply Needs and Sources

Year	Total Projected Raw Water Demand (MGD) (1)	Total Projected Supply Groundwater Sources (MGD)	Total Projected Supply From Alternative Water Source (MGD)	Maximum Potential Reclaimed Water (MGD)(2)	Conservation Program
2007	7.93	7.93	-	0.5	
2012	8.54	7.93	0.61	3.5	
2017	8.75	7.93	0.62	4	0.2
2020	8.88	7.93	0.65	4.5	0.3

Source: Village of Wellington Utility Department

(1) Assumes 70% RO Treatment with 25% loss and 30% Lime Softened Treatment with 5% loss.

(2) Reclaimed water will be used for irrigation and will replace current withdrawals from groundwater and surface water sources. Projected source water savings are projected at approximately 4 MGD when the Wellington reaches "built out" conditions.

b. Performance and Condition of Existing Facilities

Wellington's water facilities have consistently provided safe and reliable water service in compliance with all criteria established by the FDEP and the Florida Department of Health for drinking water.

The water treatment and distribution facilities continue to be maintained in good operating condition. Repairs and/or upgrades to the plant are performed as required maximizing the useful life of the facilities.

4.2 Capital Improvements Element/Schedule

Table 11 contains Wellington's Capital Improvements Element/Schedule which describes the projects associated with the Work Plan along with the anticipated funding sources and timeframe.

Table 11: Capital Improvements Element/Schedule

PROJECT	PROJECTED EXPENSE						TOTAL PROJECTED COST FY08/09 TO FY12/13
	FY08/09	FY09/10	FY10/11	FY11/12	FY12/13	FY13/14	
5.4 MGD RO Plant Including Injection Well (Phase 1) (New Membrane Facility, Refurbish Lime Plant)	\$1,045,128						\$1,045,128
Storage Reservoir & Repump Facility US441 (1MG Tank & 2,500 GPM +/- Repump)	\$575,000	\$1,400,000	\$600,000				\$2,575,000
System Transmission Lines	\$0						\$0
1.8 MGD WTF - FLORIDAN CONVERSION & LPRO UPGRADE	\$450,000			\$8,740,200			\$9,190,200
Wells 29 & 30 Pipe/Equip	\$22,813						\$22,813
System Transmission Phase III - Pierson to Storage #1	\$0						\$0
Raw Water Transmission & Appurtenances Well 25			\$1,250,000				\$1,250,000
Floridan Production Wells (Contingent On SFVMD CUP Requirements)				\$2,900,000			\$2,900,000
Emergency Interconnect PBCWUD	\$300,000	\$0					\$300,000
Forest Hill 16" AC Pipe Replacement	\$1,500,000						\$1,500,000
Backflow Prevention Program			\$281,250	\$281,250			\$562,500
TOTAL WATER CAPITAL FUND	\$3,892,941	\$1,400,000	\$2,131,250	\$11,921,450	\$0	\$0	\$19,345,641
WTF System Replace/Repair		\$0	\$0	\$297,917	\$297,917	\$312,813	\$595,833
Fire Hydrant Repair/Replacement		\$56,000	\$58,800	\$58,800	\$58,800	\$61,740	\$232,400
Meter Repair/Replacement	\$4,400,000	\$320,000	\$320,000	\$320,000	\$320,000	\$320,000	\$5,680,000
Distribution & Transmission Repair/Replacement		\$252,792	\$252,792	\$252,792	\$252,792	\$265,432	\$1,011,170
Storage/Repump Repair/Replacement	\$0	\$73,800	\$73,800	\$73,800	\$73,800	\$77,490	\$295,200
TOTAL WATER REPAIR & REPLAC	\$4,400,000	\$702,592	\$705,392	\$1,003,309	\$1,003,309	\$1,037,475	\$7,814,603
TOTAL WATER	\$8,292,941	\$2,102,592	\$2,836,642	\$12,924,759	\$1,003,309	\$1,037,475	\$27,160,244
1.75 WWTP Expansion & Reuse Facilities	\$2,175,000	\$17,800,000	\$2,640,890				\$22,615,890
Injection Well (IW1)							\$0
Wastewater K Park	\$28,450						\$28,450
Headworks Scrubber Replacement	\$91,700						\$91,700
Reuse Transmission/Distribution Lines	\$46,875	\$1,226,625	\$1,000,000	\$600,000			\$2,873,500
TOTAL SEWER CAPITAL FUND	\$2,342,025	\$19,026,625	\$3,640,890	\$600,000	\$0	\$0	\$25,609,540
WWTF Repair & Replacement	\$104,000	\$0	\$0	\$0	\$221,667	\$232,750	\$325,667
WW System Replace/Repair	\$0	\$268,580	\$268,580	\$268,580	\$268,580	\$282,009	\$1,074,321
REUSE System Repair & Replacement	\$0	\$0	\$0	\$0	\$20,000	\$20,000	\$20,000
Lift Station Repair & Replacement	\$500,000	\$707,655	\$743,038	\$743,038	\$743,038	\$780,190	\$3,436,768
TOTAL SEWER REPAIR & REPLAC	\$604,000	\$976,235	\$1,011,618	\$1,011,618	\$1,253,285	\$1,314,949	\$4,856,756
TOTAL SEWER	\$2,946,025	\$20,002,860	\$4,652,508	\$1,611,618	\$1,253,285	\$1,314,949	\$30,466,296
TOTAL ALL FUNDS	\$11,238,966	\$22,105,453	\$7,489,150	\$14,536,377	\$2,256,594	\$2,352,423	\$57,626,540

Exhibit “A”

Tabulation of population served by public Wellington water system

VILLAGE OF WELLINGTON, FLORIDA

UTILITY DEPARTMENT

TABULATION OF POPULATION SERVED BY WATER SYSTEM

6-Apr-09

HISTORICAL DATA

PERSONS PER DWELLING UNIT

2.95

A	B	C	D	E = B-C-D	F	G	H = F + G	I = E + H
	TOTAL POPULATION W/IN VOW CORPORATE BOUNDARIES	POPULATION W/IN VOW CORPORATE BOUNDARIES SERVED BY PRIVATE POTABLE WELLS	POPULATION W/IN VOW CORPORATE BOUNDARIES SERVED BY PALM BEACH COUNTY WATER UTILITY DEPT.	TOTAL ESTIMATED POPULATION W/IN VOW CORPORATE BOUNDARY SERVED BY VOW PUBLIC WATER SYSTEM	POPULATION W/IN VILLAGE OF ROYAL PALM BEACH SERVED BY VOW PUBLIC WATER SYSTEM	POPULATION W/IN UNINCORPORATED PALM BEACH COUNTY SERVED BY VOW PUBLIC WATER SYSTEM	TOTAL ESTIMATED POPULATION OUTSIDE VOW CORPORATE BOUNDARY SERVED BY VOW PUBLIC WATER SYSTEM	TOTAL ESTIMATED POPULATION SERVED BY VOW PUBLIC WATER SYSTEM
YEAR								
2001	41,200	1,623	41	39,536	0	3,086	3,086	42,622
2002	43,896	1,741	1,690	40,465	1,472	3,266	4,738	45,203
2003	46,864	1,829	3,761	41,274	1,672	3,447	5,119	46,393
2004	50,282	2,036	5,776	42,470	1,872	3,628	5,500	47,970
2005	53,294	2,360	6,079	44,855	2,072	3,809	5,881	50,736
2006	57,202	2,537	6,383	48,282	2,273	3,990	6,262	54,544
AVG.								

PROJECTED DATA

A	B	C	D	E = B-C-D	F	G	H = F + G	I = E + H
	TOTAL POPULATION W/IN VOW CORPORATE BOUNDARIES	POPULATION W/IN VOW CORPORATE BOUNDARIES SERVED BY PRIVATE POTABLE WELLS	POPULATION W/IN VOW CORPORATE BOUNDARIES SERVED BY PALM BEACH COUNTY WATER UTILITIES	TOTAL ESTIMATED POPULATION W/IN VOW CORPORATE BOUNDARY SERVED BY VOW PUBLIC WATER SYSTEM	POPULATION W/IN VILLAGE OF ROYAL PALM BEACH SERVED BY VOW PUBLIC WATER SYSTEM	POPULATION W/IN UNINCORPORATED PALM BEACH COUNTY SERVED BY VOW PUBLIC WATER SYSTEM	TOTAL ESTIMATED POPULATION OUTSIDE VOW CORPORATE BOUNDARY SERVED BY VOW PUBLIC WATER SYSTEM	TOTAL ESTIMATED POPULATION SERVED BY VOW PUBLIC WATER SYSTEM
YEAR								
2007	58,179	2,602	7,293	48,284	2,473	4,170	6,643	54,927
2008	59,083	2,610	7,665	48,808	2,673	4,351	7,024	55,832
2009	59,987	2,610	8,038	49,339	2,675	4,360	7,035	56,374
2010	60,891	2,610	8,410	49,871	2,750	4,553	7,303	57,174
2011	61,795	2,610	8,572	50,613	2,825	4,745	7,570	58,184
2012	62,699	2,610	8,733	51,356	2,900	4,938	7,838	59,194
2013	62,870	2,610	8,895	51,365	2,975	5,130	8,106	59,471
2014	63,040	2,610	9,056	51,374	3,051	5,323	8,373	59,747
2015	63,210	2,610	9,218	51,382	3,126	5,515	8,641	60,023
2016	63,357	2,610	9,321	51,426	3,201	5,708	8,909	60,335
2017	63,505	2,610	9,425	51,470	3,276	5,901	9,176	60,646
2018	63,652	2,610	9,528	51,514	3,351	6,093	9,444	60,958
2019	63,799	2,610	9,632	51,557	3,426	6,286	9,712	61,269
2020	63,877	2,610	9,735	51,532	3,501	6,478	9,980	61,512

NOTES:

HISTORICAL DATA

COLUMN B - HISTORICAL TOTAL POPULATION FIGURES TAKEN FROM VOW 2007 APPROVED EAR

COLUMN C - FROM VOW BUILDING DEPARTMENT RECORDS

COLUMN D - FROM VOW AND PALM BEACH COUNTY BUILDING DEPARTMENT RECORDS

COLUMN F - FROM VOW AND VILLAGE OF ROYAL PALM BEACH BUILDING DEPARTMENT RECORDS

COLUMN G - FROM VOW AND PALM BEACH COUNTY BUILDING DEPARTMENT RECORDS

PROJECTED DATA

COLUMN B - PROJECTED TOTAL POPULATION FIGURES TAKEN FROM VOW 2007 APPROVED EAR

COLUMN C - ASSUMES POPULATION SERVED BY PRIVATE WELLS REMAINS CONSTANT

COLUMN D - FROM VOW AND PALM BEACH COUNTY PROJECTIONS BASED ON APPROVED DEVELOPMENT PLANS

COLUMN F - FROM VILLAGE OF ROYAL PALM BEACH PROJECTIONS BASED ON APPROVED DEVELOPMENT PLANS

COLUMN G - FROM PALM BEACH COUNTY PROJECTIONS BASED ON APPROVED DEVELOPMENT PLANS