



TOWN OF LAKE HAMILTON
TOWN COUNCIL
BUDGET WORKSHOP FOLLOWED
BY SPECIAL MEETING AGENDA
5:00 PM

The Town Council of the Town of Lake Hamilton will hold a Budget Workshop followed by a Special Council Meeting on Tuesday, June 8, 2021, at 5:00 PM at the Lake Hamilton Town Council Chambers, located at 100 Smith Ave, Lake Hamilton, FL 33851.

- 1. CALL TO ORDER BY THE MAYOR**
- 2. INVOCATION**
- 3. PLEDGE OF ALLEGIANCE**
- 4. ROLL CALL OF COUNCIL MEMBERS BY THE CLERK**
- 5. OPEN BUDGET WORKSHOP**
 - a. Budget Workshop Business
- 6. CLOSE BUDGET WORKSHOP**
- 7. OPEN SPECIAL MEETING**
- 8. SPECIAL MEETING BUSINESS**
 - Open Public Hearing**
 - a. Second reading of Ordinance O-21-13 Moratorium Extension *pages 1-4*
 - Close Public Hearing**
 - b. Floridino Development Agreement Discussion *pages 5-6*
 - c. Future Planning
 - i. Alternative Water Supply Pennoni *pages 7-20*
 - ii. PER Update
- 9. ADJOURNMENT**

IF A PERSON DESIRES TO APPEAL ANY DECISION MADE BY THE TOWN COUNCIL WITH RESPECT TO ANY MATTER CONSIDERED AT ITS MEETING, HE OR SHE WILL NEED A RECORD OF THE PROCEEDINGS, AND THAT, FOR SUCH PURPOSE, AFFECTED PERSONS MAY NEED TO ENSURE THAT A VERBATIM RECORD OF THE PROCEEDINGS IS MADE, WHICH RECORD INCLUDES THE TESTIMONY AND EVIDENCE WHICH THE APPEALS IS TO BE BASED. (F.S. 286.26.105)

ORDINANCE O-21-13

AN ORDINANCE OF THE TOWN OF LAKE HAMILTON, FLORIDA, EXTENDING THE TEMPORARY MORATORIUM IN ORDER TO STUDY, REVIEW AND TO AMEND THE LAND DEVELOPMENT REGULATIONS FOR CERTAIN NON-RESIDENTIAL LAND USES AND COMMERCIAL AND INDUSTRIAL ZONING DISTRICTS; LOCATED ADJACENT TO THE STATE ROAD 17 AND U.S. HIGHWAY 27 TRANSPORTATION CORRIDORS; FOR A PERIOD OF AN ADDITIONAL SIX (6) MONTHS; PROVIDING FOR THE RESCISSION OR EXTENSION OF SAID MORATORIUM BY THE ADOPTION OF A SUBSEQUENT ORDINANCE, BY AN AMENDMENT TO THE TOWN'S LAND DEVELOPMENT REGULATIONS OR AS OTHERWISE MANDATED BY OPERATION OF LAW; PROVIDING FOR DEFINITIONS; PROVIDING FOR CONFLICTS; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, pursuant to Section 2(b), Article VIII of the Florida Constitution and Chapter 166 of the Florida Statutes, the Town of Lake Hamilton possesses the powers to enact ordinances to protect the health, safety, and welfare of the Town's citizens and residents; and

WHEREAS, the Town Council determines that it is in the best interest of its residents, businesses and visitors to enact sufficient regulations to protect the public health, safety and welfare; and

WHEREAS, the Town Council of the Town of Lake Hamilton has adopted and enforced ordinances that pertain to and regulate the location, character, design, and operation of commercial, industrial and all other non-residential land uses, but now finds that the rate of development requires a thorough review of the Land Development Code to preserve and protect the value and character of existing and future development in the two major transportation corridors of the Town: and

WHEREAS, a moratorium is needed in order to review, study, hold public hearings, and prepare and adopt an amendment or amendments to the Lake Hamilton Land Development Code, Chapter 16 of the Code of Ordinances; and

WHEREAS, the Town Council for the Town of Lake Hamilton, Florida finds and declares that this ordinance is in the best interest of the public health, safety and welfare of the citizens and residents of the Town of Lake Hamilton, Florida and that it advances a significant and important governmental interest.

WHEREAS, The Town Council determined that a temporary moratorium on certain non-residential land uses and commercial and industrial zoning districts; located adjacent to the State Road 17 and U.S. Highway 27 transportation corridors would allow the Town a sufficient period of time to determine what uses are best suited to particular zoning categories and how best to formulate land development regulations that appropriately govern the use of real property for these commercial and industrial zoning districts;. Based thereon, the Town adopted Ordinance O-21-05 at second reading on February 16, 2021 and imposed said six (6) month moratorium.

WHEREAS, the Town believes that it needs more time to evaluate the Consultant's recommendations in order to craft an ordinance that is consistent therewith.

NOW, THEREFORE, be it enacted by the people of the Town of Lake Hamilton, Florida that:

SECTION 1. Purpose

The purpose of this ordinance is to enable the Town of Lake Hamilton sufficient time to review, hold public hearings and adopt an amendment or amendments to the Town of Lake Hamilton Land Development Code and/or Code of Ordinances, relating to the location, design, and operation of commercial, industrial, and other non-residential land uses, including agriculture. Land included in the moratorium area is defined as land physically adjacent to the rights-of-way along the State Road 17 and U.S. Highway 27 transportation corridors and zoned C-1 Highway Commercial, C-2 Limited Commercial, M-1 Industrial, AG Agriculture, or PI Public Institutional. The Town will not approve any application or issue any permits for such land uses while the moratorium is in effect.

SECTION 2. Imposition of Temporary Moratorium

A temporary moratorium is hereby imposed to study, hold public hearings and amend the Land Development Code. No application for permit, authorization or any other official action

of the Town having the effect of permitting or processing of applications for the issuance of site plan approvals, conditional uses, building permits, development permits, or any other official action of the Town of Lake Hamilton permitting or having the effect of allowing commercial and industrial land development, and other non-residential land uses, including agriculture will be authorized during the term of the moratorium, except as may be required by applicable law.

SECTION 3. Term

The moratorium imposed by this ordinance is temporary and, unless repealed earlier by the Town, shall automatically dissolve in six (6) months from the effective date of this ordinance, unless extended in accordance with applicable law. This moratorium may be reasonably extended, if necessary, by ordinance of the Town Council.

SECTION 4. Early Termination

The moratorium imposed by this ordinance shall terminate prior to its six (6) month period upon the passage of ordinances regulating permitting or allowing the construction of commercial, industrial, and other non-residential land uses, provided that:

1. Specific language terminating the moratorium is contained within said enacted ordinance; or by
2. Passage of another ordinance providing for termination by the Town Council.

SECTION 5. Repeal of Laws in Conflict

All local laws and ordinances in conflict with any provision of this ordinance are hereby repealed to the extent of any conflict.

SECTION 6. Effective Date

This ordinance shall take effect immediately upon passage after second reading/public hearing.

INTRODUCED AND PASSED on First Reading this ____ day of _____, 2021.

PASSED AND DULY ADOPTED, on Second Reading with a quorum present and voting, by the Town Council, this the ____ day of _____, 2021.

TOWN OF LAKE HAMILTON, FLORIDA

Michael Kehoe, Mayor

Attest with Seal:

Brittney Sandovalsoto, Town Clerk

Approved as to Form:

Jeffrey S. Dawson, Town Attorney

| Record of Vote | Yes | No |
|----------------|-------|-------|
| Wagner | _____ | _____ |
| Roberson | _____ | _____ |
| Tomlinson | _____ | _____ |
| O'Neill | _____ | _____ |
| Kehoe | _____ | _____ |

From: [Town of Lake Hamilton](#)
To: [Brittney Sandovalsoto](#)
Subject: Floridino development agreement
Date: Friday, June 4, 2021 4:09:09 PM

Please add to the June 8 special meeting the discussion on the Floridino development agreement.

Thank You,
Michael Kehoe



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TELEPHONE (863) 439-1910

FAX (863) 439-1421

POST OFFICE BOX 126

LAKE HAMILTON, FL 33851

Town of Lake Hamilton

MEMORANDUM

June 4, 2021

To: Town Clerk

From: Community Development Director

Subj: Floridino's Development Agreement

1. Mike Floridino's new restaurant project is the subject of a Development Agreement with the Town dated May 20, 2020, to extend a 3-inch sewer line to the site. The estimate of probable cost of the project was \$50,000.00 with the understanding that the final cost might vary. The Development Agreement states that,

the "Town will pay all the costs of the project and the Developer (Floridino) will reimburse the Town his half of the total cost at the annual rate of \$5,000.00, more or less, beginning six (6) months after receiving a Certificate of Occupancy (CO) from the (Town)."

2. The past year has been a difficult one for many reasons. Specific to Mr. Floridino's project, the housing construction boom has increased the supply and cost of building materials, delivery of materials has been delayed, and contractors are very busy. As a result, the current and only bid for the project is from Odom Contracting for \$82,090.
3. Mr. Floridino is making efforts to secure additional bids but does not anticipate receiving any that will be much lower than the one he has. He requests that the Town Council consider extending its commitment to pay half the cost of the final, best bid for the extension of the sewer line.

May 25, 2021

Project No. LAKHA21002

Ms. Sara Irvine, Town Clerk
Town of Lake Hamilton
Post Office Box 126
Lake Hamilton, Florida 33851

RE: LETTER REPORT - PRELIMINARY WATER SUPPLY ALTERNATIVES STUDY

Dear Ms. Irvine:

We are pleased to submit the enclosed Letter Report for the referenced Project. The purpose of this Study was to provide preliminary guidance for the Town on potential water supply options and associated capital costs to meet the Town's future water supply needs. This information will supplement the Town's 5-year Water Use Permit (WUP) and water supply infrastructure planning efforts.

Please contact our office if you have any questions related to our findings. We sincerely appreciate the opportunity to assist the Town of Lake Hamilton with this important Project.

Sincerely

Pennoni



Steven L. Elias, P.E.
Municipal Division Manager



Roger L. Homann, P.E.
Project Manager

1.0 PROJECT BACKGROUND AND DESCRIPTION:

The Town of Lake Hamilton currently provides potable water service to its residents via the Church Street Water Treatment Plant (WTP), which includes a primary Upper Floridan Aquifer (UFA) water production well and a back-up UFA well that supplies approximately 300,000 gpd to meet the Town's 2021 potable water demands. The Town's current Water Use Permit (WUP) issued by the SouthWest Florida Water Management District (SWFWMD), which expires on August 19, 2021, allows for an annual average day withdrawal rate of 380,500 gpd. As part of WUP renewal efforts, the Town has concluded its 5-year water demand projections for the Town could be as high as 3.0 MGD thru August of 2026 based on a large number of proposed residential home developments.

As part of recent planning efforts associated with the Polk Regional Water Cooperative (PRWC), the Town previously defined additional 2045 water demands of 0.5 MGD for Lake Hamilton. However, the PRWC has advised the Town any potential water supplied by the PRWC's Southeast Wellfield project would not be available until after 2026 at a higher cost that has not yet been clearly defined. For comparison, the Town's 2021 monthly charge for residential water use is approximately \$6.78/1,000 gallons of use, while the preliminary estimated PRWC SE wellfield supply bulk rate charges for known costs would potentially be an additional \$5.63 to \$8.43/1,000 gallons (depending on grants and other variables not yet defined). As a result, the PRWC's potential 0.5 MGD water supply would not be able to help meet the Town's water supply needs thru 2026, and the Town will thus need to identify additional sources, obtain WUP approval, and build cost-effective water supply source(s) infrastructure to meet its projected 2026 demands.

Alternative water supply options that could be available to meet year 2026 demands from within the Town's utility service area and the associated costs have not been previously evaluated by the Town. Although future Town water supply sources could include UFA and Lower Floridan Aquifer (LFA) wells, WUP approval to implement these sources may not be authorized by the SWFWMD if excessive adverse environmental impacts are anticipated. However, developing preliminary technical and cost data for potential water supply options will help guide the Town's Capital Improvement Program and minimize cost impacts to its residents. To help with the Town's preliminary water supply planning and WUP renewal efforts, the Town engaged Pennoni in April 2021 to evaluate potential water supply alternatives, associated costs, and prepare a letter report to summarize our findings.

2.0 ASSUMPTIONS:

The scope of work for this Study included the following assumptions:

- The planning effort was conceptual in nature and was based on best available technical and cost data, studies prepared by others, interim PRWC planning/design documents and agreements that have been provided to the Town, and other best available data;
- As a result of PRWC guidance that the SE Wellfield water supply project will not likely be able to deliver water supply to the Town prior to 2026, the Town will need to develop its own water supply source(s) to meet water demands thru 2026;

- Based on input from Town staff, the three water supply source alternatives evaluated with this study included: 1) 100% utilization of Upper Floridan Aquifer (UFA) supply wells; 2) a combination of 67% UFA wells and 33% LFA “alternative water supply”; and 3) a combination of 50% UFA wells and 50% LFA “alternative water supply”;
- The technical feasibility of water supply alternatives was evaluated based on Town input, knowledge of local conditions, available studies by others, and best available data;
- Detailed groundwater modeling, hydraulic modeling, master planning, environmental impact analysis, and other detailed analyses were not performed under this assignment and will need to be subsequently further evaluated and implemented for the specific alternative(s) to be pursued; and
- Although preliminary technical and conceptual cost data will be developed as part of this effort, the ability to implement the identified supply options cannot be guaranteed and will require further evaluation (technical, cost, legal, political, etc.).

3.0 STUDY GOALS:

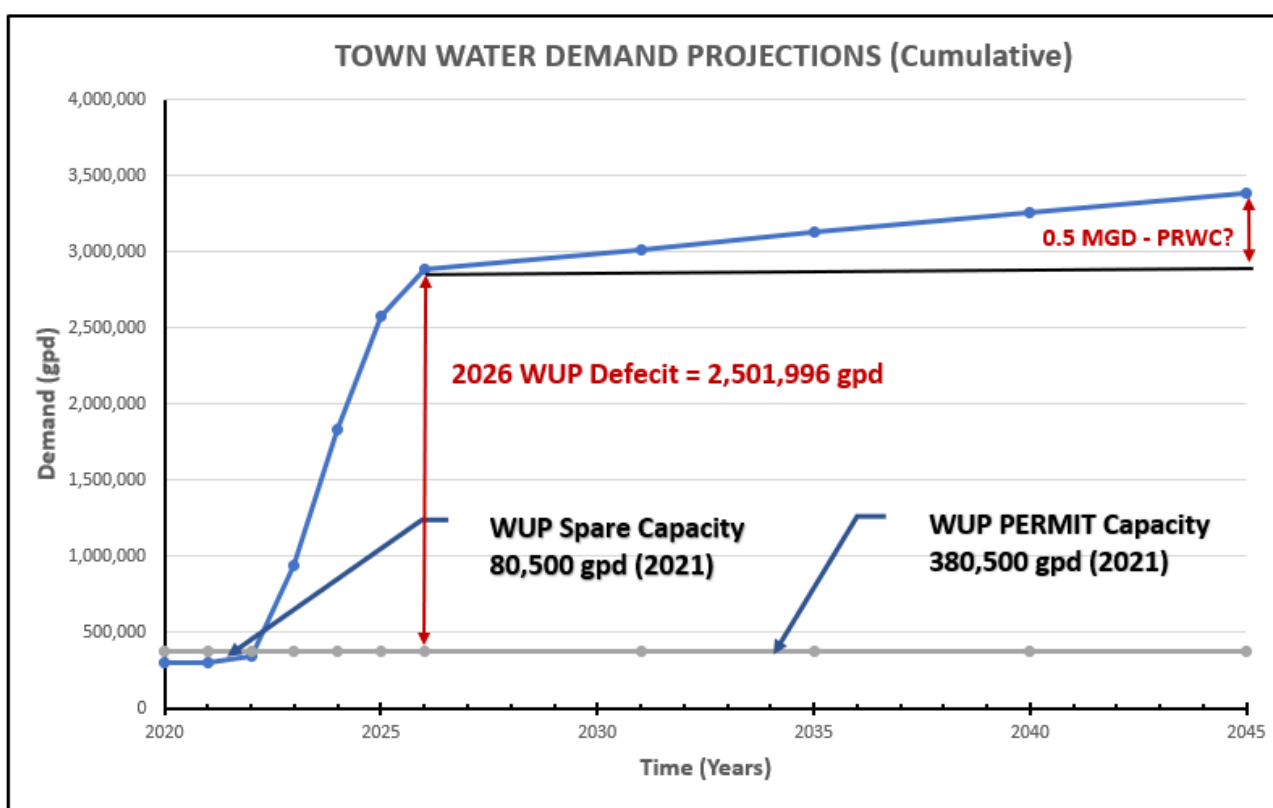
- Identify 5-year (2026) and long-range (2045) water supply demand projections based on current development trends;
- Identify three potential water supply strategy options to meet the Town’s water supply needs;
- Evaluate and provide technical and cost data for the three potential Town water supply options;
- Identify preliminary cost and planning considerations associated with the potential 0.5 MGD water supply from the PRWC for the Town after 2026; and
- Provide recommendations to assist the Town with near-term WUP renewal and water supply source planning efforts.

4.0 WATER SUPPLY DEMAND PROJECTIONS:

4.1 PRWC Demand Projections – The Town’s current (May 2021) average day water demands are approximately 300,000 gpd as compared to an authorized WUP water supply of 380,500 gpd through August of 2021 (Figure 4.1). After subtracting out 2021 demands, the Town has approximately 80,500 gpd of unutilized WUP capacity to serve future growth (approximately 223 residential homes/ERC’s). As part of the Town’s ongoing participation in the PRWC planning efforts, a 2045 water supply deficit of 0.5 MGD was defined in 2020 for PRWC water supply planning purposes. For Study purposes, this 0.5 MGD demand was assumed to apply between 2026 and 2045.

4.2 Updated Town Demand Projections – Due in part to increased population relocation trends in 2021 into the State of Florida in apparent response to the Covid-19 pandemic, generationally low mortgage interest rates, the plentiful supply of vacant parcels within and around the Town, and other factors, there is unprecedented demand to develop residential housing subdivisions in Lake Hamilton and along the Lake Wales Ridge area. As a result, the Town has been actively working with several developers who are planning and implementing a number of housing development projects to meet their water service needs.

Based on property acquisition records, annexations, land use/zoning modifications, and other data, the Town estimates approximately 7,360 residential units will be approved thru the August 2026 WUP planning period. Using a typical local water supply demand of 360 gpd per Equivalent Residential Connection (ERC), the resulting 2026 Town-wide average day water demand would be 2,882,496 gpd (300,000 gpd existing + 2,582,496 gpd growth = 2,882,496 gpd) (Figure 4.1). As depicted in Figure 4.1, the Town is anticipated to exceed its current WUP capacity of 380,500 by the end of 2022 and would have a WUP deficit of 2,501,996 gpd in 2026 if an WUP increase is not obtained. For utility planning purposes, a 3.0 MGD total average day 2026 demand has been assumed for WUP renewal and water supply planning purposes

FIGURE 4.1

5.0 WATER SUPPLY ALTERNATIVES:

Polk County's municipalities have been blessed over the years with a relatively plentiful and pristine (less than 400 mg/L Total Dissolved Solids (TDS)) raw water supply source from the UFA system. Nearly all local municipalities have utilized UFA wells that were constructed on the order of 200' to 500' below land surface for their potable water supply source. However, due to perceived UFA supply limitations, municipalities are now being encouraged to meet future demands with Alternative Water Supply (AWS) sources as defined by Florida Statute 373.019, such as the Lower Floridan Aquifer (LFA) system. LFA supply wells require installation to depths on the order of 1,300 to 2,000 feet below land surface (depending on location) and are brackish in nature having TDS concentrations on the order of 1,500 to 5,000 mg/L. Using the LFA as a supply is relatively costly as it requires more extensive

planning/testing, deeper wells, enhanced water treatment processes, and potential treatment waste concentrate disposal.

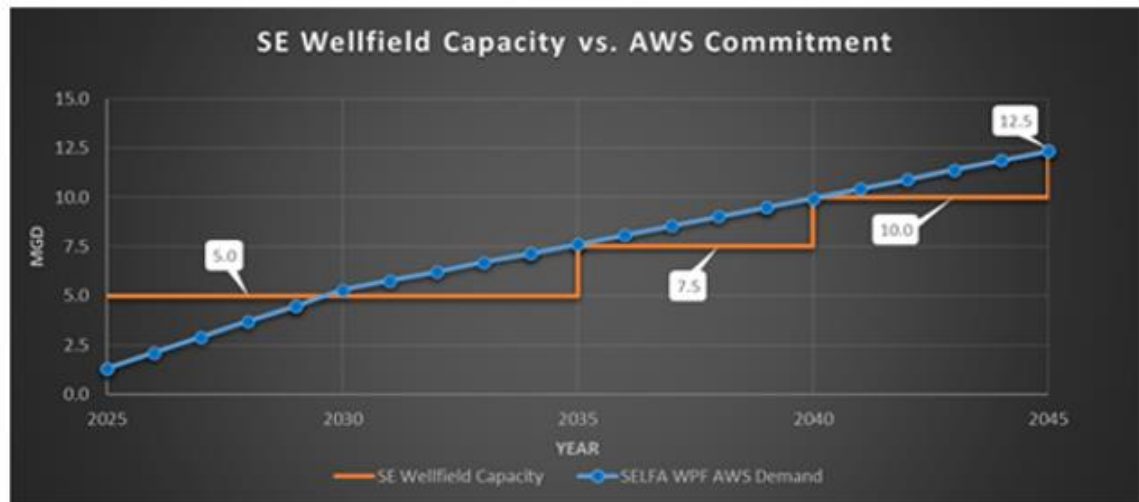
5.1 Existing Town Water Supply:

The Town of Lake Hamilton currently provides potable water service to its residents via the Church Street Water Treatment Plant (WTP) located approximately 1,200 feet northeast of the intersection of SR 17 and Kokomo Road. Major infrastructure components include a ground storage tank, disinfection facilities, hydrogen sulfide removal system, high service pumps, and two water supply wells. Raw water is supplied via two Upper Floridan Aquifer (UFA) water wells, each having a capacity (aquifer yield and groundwater pumps) of approximately 1,500 gpm. These wells were constructed in close proximity to each other and thus serve as a back-up in case one unit is out of service. As such, the average day flow that can be provided by the Town's existing UFA wells assuming adequate ground storage tank volume/high service pumping at the water treatment plant, is 1.1 MGD (average day) and 2.2 MGD (maximum day). However, the Town's WUP issued by the Southwest Florida Water Management District (SWFWMD) is limited to only 380,500 gpd on an annual basis thru August 19, 2021, based on previous environmental impact analyses and demand projections. Currently the Town's wells are only producing approximately 300,000 gpd (ADF) to meet 2021 demands.

5.2 Potential PRWC Water Supply: As part of inter-local agreement between Polk County's municipalities, the PRWC was created to provide a mechanism for innovative regional cooperation among Polk County's municipalities. The goal of the PRWC was to develop, store, and supply potable water in a manner that minimizes potential adverse environmental impacts from excessive UFA withdrawals. In the Spring of 2021, 30% planning efforts were completed for the top four water supply projects to better define the scope and associated buildout and operational costs of the projects.

The quantity of water being planned for Lake Hamilton by the PRWC thru April of 2021 was 0.5 MGD, which would be supplied by the proposed SE Wellfield and treatment facility project near Frostproof. As of April 2021, the PRWC was proposing to bring the initial facility online after 2026 at an initial capacity of 5.0 MGD, with a capacity of 12.5 MGD coming online in 2045 (Figure 5.1). The SE Wellfield project would utilize brackish water from the LFA and thus meets legal definition of an "alternative water supply" as defined by F.S. 373.019. This facility has a 40 year WUP approval from SWFWMD for 37.5 MGD of raw water supply, which could result in a 30 MGD supply after treatment. Following review of the draft Preliminary Design Report and best available data, in April 2021 seven local communities voted to participate as full voting participants in the SE Wellfield AWS project for a total of 7.93 MGD capacity. Lake Hamilton voted not to initially commit to supporting the project as a full "participant", and instead voted to participate as an "associate member" for a potential supply source after the year 2026.

FIGURE 5.1



Source: Figure 3.1 from Draft SE Wellfield – Carello 4-14-21

5.3 Town Supply Alternative 1 - UFA Wells (3 MGD):

In order to meet the Town's anticipated total 2026 demands of 2.9 MGD with UFA wells, the Town would likely need to utilize additional raw water supply wells (3 assumed) that are spatially disbursed within the Town's utility service area. For utility planning purposes, a 3 MGD 2026 average day demand has been assumed. This would require drilling new UFA wells to comply with current regulatory design standards. However, it may be possible to convert existing agricultural wells on parcels of land to be developed within the Town.

In addition to water supply wells, additional infrastructure would need to be constructed to transmit raw water to the Town's WTP and to treat and distribute the increased flows to customers. Raw water supply lines would need to be constructed to transmit raw water supply from the new off-site wells to the Church Street WTP for processing. It is reasonable to assume the Town's Church Street WTP site is large enough to be expanded to treat and hydraulically accommodate the projected total 5-year demand of 3.0 MGD. However, additional on-site storage tank(s), high service pumping, disinfection, and other facilities would be required including possible hydrogen sulfide removal facilities depending on the raw water quality of the new off-site wells.

5.4 Town Supply Alternative 2 - UFA Wells (2.0 MGD) and LFA Wells (1.0 MGD):

A second alternative to meet the Town's anticipated total 2026 demands of 3.0 MGD is a combination of 2.0 MGD of UFA supply wells and 1.0 MGD of supply from a LFA well. For this scenario, it has been assumed that two additional UFA water supply wells would be needed along with one new LFA supply well that are spatially disbursed within the Town's utility service area. It should be noted that utilizing a LFA well as a source with this alternative will require additional time, effort, and cost to conduct more extensive aquifer performance testing, water quality testing, and blending analyses. This would require drilling new UFA and LFA wells to comply with

current regulatory design standards. However, it may be possible to convert existing UFA agricultural wells that on parcels of land to be developed within the Town.

In addition to water supply wells, additional infrastructure would need to be constructed to transmit raw water to the Town's WTP and to treat and distribute the increased flows to customers. Raw water supply lines would need to be constructed to transmit raw water supply from the new off-site wells to the Church Street WTP for processing. It is reasonable to assume the Town's Church Street WTP site is large enough to be expanded to treat and hydraulically accommodate the projected total 5-year demand of 3.0 MGD. However, additional on-site storage and blending tank(s), membrane treatment, high service pumping, disinfection, and other facilities would be required including possible hydrogen sulfide removal facilities depending on the raw water quality of the new off-site wells.

5.5 Town Supply Alternative 3 - UFA Wells (1.5 MGD) and LFA wells (1.5 MGD):

Another option to meet the Town's anticipated total 2026 demands of 3.0 MGD is a combination of 1.50 MGD of UFA supply wells and 1.5 MGD of supply from a LFA well. For this scenario, it has been assumed that two additional UFA water supply wells would be needed along with two new LFA supply well that are spatially disbursed within the Town's utility service area. It should be noted that utilizing a LFA well as a source with this alternative will require additional time, effort, and cost to conduct more extensive aquifer performance testing, water quality testing, and blending analyses. This would require drilling new UFA and LFA wells to comply with current regulatory design standards. However, it may be possible to convert existing UFA agricultural wells on parcels of land to be developed within the Town.

In addition to water supply wells, additional infrastructure would need to be constructed to transmit raw water to the Town's WTP and to treat and distribute the increased flows to customers. Raw water supply lines would need to be constructed to transmit raw water supply from the new off-site wells to the Church Street WTP for processing. It is reasonable to assume the Town's Church Street WTP site is large enough to be expanded to treat and hydraulically accommodate the projected total 5-year demand of 3.0 MGD. However, additional on-site storage and blending tank(s), membrane treatment, high service pumping, disinfection, and other facilities would be required including possible hydrogen sulfide removal facilities depending on the raw water quality of the new off-site wells.

6.0 ANTICIPATED CAPITAL COSTS:

A summary of the overall capital costs (supply + treatment) for water supplies developed by the Town to meet a 3.0 MGD year 2026 demand range from \$14.7 million to \$25.9 million without grants as detailed in Table 6.1. The partial capital cost (for the PRWC to deliver bulk supply to a point of delivery, not including Town costs) to meet a 3.0 MGD year 2026 demand is approximately \$76.0 million (without grants) as summarized in Table 6.2. Further cost detail is provided in Tables 6.3 thru 6.8 below.

TABLE 6.1 – Town Water Supply Alternatives Capital Cost Summary

| Alternative No. | Description | Capital Cost (\$) | Capital Cost/gpd (\$/gpd) |
|-----------------|-----------------------------|-------------------|---------------------------|
| 1 | 3.0 MG UFA wells | \$14,735,175 | \$5.46 |
| 2 | 2.0 MG UFA/1.0 MG LFA wells | \$21,573,689 | \$7.99 |
| 3 | 1.5 MG UFA/1.5 MG LFA wells | \$25,862,746 | \$9.58 |

NOTE: 1) Debt service, potential grants, or O&M costs are not included in calculations.

TABLE 6.2 – Approximate PRWC Water Supply Capital Costs

| Alternative No. | Description | Capital Cost (\$) | Capital Cost/gpd (\$/gpd) |
|-----------------|-----------------------------------|-------------------|---------------------------|
| 1A | 3.0 MG LFA wells (without grants) | \$76,020,000 | \$25.34 |
| 1B | 3.0 MG LFA wells (with grants) | \$40,680,000 | \$13.56 |

NOTES: 1) Source: Approximated SEWF Costs table via PRWC 2-25-21 Presentation

2) Debt service and O&M costs not included in calculations.

3) As these capital costs only cover infrastructure cost to point of delivery, Town capital costs for distribution system and water treatment plant upgrades would need to be added to the above costs to be an equivalent “apples to apples” capital cost comparison.

6.1 Town Supply Alternative 1 - UFA Wells (3 MGD):

A detailed breakdown of the approximate Town capital costs associated with implementing water supply Alternative 1 is summarized in Table 6.3 (wellfield and piping) and Table 6.4 (treatment facilities). As detailed, Alternative 1 would have an associated capital cost of \$8.6 million for water supply infrastructure and \$6.2 million for water treatment facility infrastructure for a combined total of \$14.7 million. For comparison, this would result in an overall capital cost of \$5.46/gpd of water capacity.

TABLE 6.3 – Alternative 1 Water Supply Capital Costs

| Item | Description | Unit | Unit Cost | QTY | Total Cost |
|------|------------------------------------|------|-------------|------|-------------|
| 1 | Mobilization, bonds, general cond. | LS | \$234,500 | 1 | \$234,500 |
| 2 | Property/easements | ea | \$50,000 | 3 | \$150,000 |
| 3 | Site Improvements | ea | \$150,000 | 3 | \$450,000 |
| 4 | LFA Well drilling, testing, eqpt. | ea | \$1,200,000 | 0 | \$0 |
| 5 | UFA Well drilling, testing, eqpt. | ea | \$1,000,000 | 3 | \$3,000,000 |
| 6 | WUP Modification and model | LS | \$100,000 | 1 | \$100,000 |
| 7 | Aquifer performance test/obs well | LS | \$300,000 | 3 | \$900,000 |
| 8 | Raw Water Supply LFA lines | ft | \$95 | 0 | \$0 |
| 9 | Raw Water Supply UFA lines | ft | \$115 | 6000 | \$690,000 |

| | |
|--|--------------------|
| Subtotal Construction | \$5,524,500 |
| Construction Contingency (30%) | \$1,657,350 |
| Total Construction Cost | \$7,181,850 |
| Engineering/Hydrogeo/Construction(19%) | \$1,364,552 |
| SUBTOTAL | \$8,546,402 |

TABLE 6.4 – Alternative 1 Water Treatment Capital Costs

| Item | Description | Unit | Unit Cost | QTY | Total Cost |
|------|------------------------------------|------|-------------|-----|-------------|
| 1 | Mobilization, bonds, general cond. | LS | \$190,500 | 1 | \$190,500 |
| 2 | LFA Blending Pilot study and PDR | LS | \$400,000 | 0 | \$0 |
| 3 | Forced Draft Aeration expansion | LS | \$600,000 | 1 | \$600,000 |
| 4 | RO/NF Membrane Treatment | LS | \$2,500,000 | 0 | \$0 |
| 5 | Blending Facilities | LS | \$400,000 | 0 | \$0 |
| 6 | 1.5 MG GSR's | LS | \$900,000 | 1 | \$900,000 |
| 7 | 6 MGD HSP's | ea | \$120,000 | 3 | \$360,000 |
| 8 | 3 MGD jockey pumps | ea | \$100,000 | 2 | \$200,000 |
| 9 | Onsite Improvements | LS | \$1,250,000 | 1 | \$1,750,000 |

| | |
|--|--------------------|
| Subtotal Construction | \$4,000,500 |
| Construction Contingency (30%) | \$1,200,150 |
| Total Construction Cost | \$5,200,650 |
| Engineering/Hydrogeo/Construction(19%) | \$988,124 |
| SUBTOTAL | \$6,188,774 |

ALTERNATIVE 1 - GRAND TOTAL \$14,735,175**Capital Cost \$/MGD = \$5,457,472**

6.2 Town Supply Alternative 2 - UFA Wells (2.0 MGD) and LFA Wells (1.0 MGD):

A detailed breakdown of the approximate Town capital costs associated with implementing water supply Alternative 2 is summarized in Table 6.5 (wellfields and piping) and Table 6.6 (treatment facilities). As detailed, Alternative 2 would have an associated capital cost of \$9.4 million for water supply infrastructure and \$12.2 million for water treatment facility infrastructure for a combined total of \$21.6 million. For comparison, this would result in an overall capital cost of \$7.99/gpd of water capacity.

TABLE 6.5 – Alternative 2 Water Supply Capital Costs

| Item | Description | Unit | Unit Cost | QTY | Total Cost |
|------|------------------------------------|------|-------------|------|-------------|
| 1 | Mobilization, bonds, general cond. | LS | \$260,000 | 1 | \$260,000 |
| 2 | Property/easements | ea | \$50,000 | 3 | \$150,000 |
| 3 | Site Improvements | ea | \$150,000 | 3 | \$450,000 |
| 4 | LFA Well drilling, testing, eqpt. | ea | \$1,200,000 | 1 | \$1,200,000 |
| 5 | UFA Well drilling, testing, eqpt. | ea | \$1,000,000 | 2 | \$2,000,000 |
| 6 | WUP Modification and model | LS | \$150,000 | 1 | \$150,000 |
| 7 | Aquifer performance test/obs well | LS | \$300,000 | 4 | \$1,200,000 |
| 8 | Raw Water Supply LFA lines | ft | \$95 | 2000 | \$190,000 |
| 9 | Raw Water Supply UFA lines | ft | \$115 | 4000 | \$460,000 |

| | |
|--|--------------------|
| Subtotal Construction | \$6,060,000 |
| Construction Contingency (30%) | \$1,818,000 |
| Total Construction Cost | \$7,878,000 |
| Engineering/Hydrogeo/Construction(19%) | \$1,496,820 |
| SUBTOTAL | \$9,374,820 |

TABLE 6.6 – Alternative 2 Water Treatment Capital Costs

| Item | Description | Unit | Unit Cost | QTY | Total Cost |
|------|------------------------------------|------|-------------|-----|-------------|
| 1 | Mobilization, bonds, general cond. | LS | \$375,500 | 1 | \$375,500 |
| 2 | LFA Blending Pilot study and PDR | LS | \$350,000 | 1 | \$350,000 |
| 3 | Forced Draft Aeration expansion | LS | \$700,000 | 1 | \$700,000 |
| 4 | RO/NF Membrane Treatment | LS | \$2,500,000 | 1 | \$2,500,000 |
| 5 | Blending Facilities | LS | \$500,000 | 1 | \$500,000 |
| 6 | 1.5 MG GSR's | LS | \$900,000 | 1 | \$900,000 |
| 7 | 6 MGD HSP's | ea | \$120,000 | 3 | \$360,000 |
| 8 | 3 MGD jockey pumps | ea | \$100,000 | 2 | \$200,000 |
| 9 | Onsite Improvements | LS | \$1,500,000 | 1 | \$2,000,000 |

| | |
|--|---------------------|
| Subtotal Construction | \$7,885,500 |
| Construction Contingency (30%) | \$2,365,650 |
| Total Construction Cost | \$10,251,150 |
| Engineering/Hydrogeo/Construction(19%) | \$1,947,719 |
| SUBTOTAL | \$12,198,869 |

OPTION 2 - GRAND TOTAL \$21,573,689
Capital Cost \$/MGD = \$7,990,255

6.3 Town Supply Alternative 3: UFA Wells (1.5 MGD) and LFA wells (1.5 MGD)

A detailed breakdown of the approximate Town capital costs associated with implementing water supply Alternative 3 is summarized in Table 6.7 (wellfields and piping) and Table 6.8 (treatment facilities). As detailed, Alternative 1 would have an associated capital cost of \$12.6 million for water supply infrastructure and \$13.3 million for water treatment facility infrastructure for a combined total of \$25.9 million. For comparison, this would result in an overall capital cost of \$9.58/gpd of water capacity.

TABLE 6.7 – Alternative 3 Water Supply Capital Costs

| Item | Description | Unit | Unit Cost | QTY | Total Cost |
|--|------------------------------------|------|-------------|------|---------------------|
| 1 | Mobilization, bonds, general cond. | LS | \$350,000 | 1 | \$350,000 |
| 2 | Property/easements | ea | \$50,000 | 4 | \$200,000 |
| 3 | Site Improvements | ea | \$150,000 | 4 | \$600,000 |
| 4 | LFA Well drilling, testing, eqpt. | ea | \$1,200,000 | 2 | \$2,400,000 |
| 5 | UFA Well drilling, testing, eqpt. | ea | \$1,000,000 | 2 | \$2,000,000 |
| 6 | WUP Modification and model | LS | \$150,000 | 1 | \$150,000 |
| 7 | Aquifer performance test/obs well | LS | \$350,000 | 4 | \$1,400,000 |
| 8 | Raw Water Supply LFA lines | ft | \$95 | 5000 | \$475,000 |
| 9 | Raw Water Supply UFA lines | ft | \$115 | 5000 | \$575,000 |
| Subtotal Construction | | | | | \$8,150,000 |
| Construction Contingency (30%) | | | | | \$2,445,000 |
| Total Construction Cost | | | | | \$10,595,000 |
| Engineering/Hydrogeo/Construction(19%) | | | | | \$2,013,050 |
| SUBTOTAL | | | | | \$12,608,050 |

TABLE 6.8 – Alternative 3 Water Treatment Capital Cost

| Item | Description | Unit | Unit Cost | QTY | Total Cost |
|--|------------------------------------|------|-------------|-----|---------------------|
| 1 | Mobilization, bonds, general cond. | LS | \$408,000 | 1 | \$408,000 |
| 2 | LFA Blending Pilot study and PDR | LS | \$400,000 | 1 | \$400,000 |
| 3 | Forced Draft Aeration expansion | LS | \$800,000 | 1 | \$800,000 |
| 4 | RO/NF Membrane Treatment | LS | \$3,000,000 | 1 | \$3,000,000 |
| 5 | Blending Facilities | LS | \$500,000 | 1 | \$500,000 |
| 6 | 1.5 MG GSR's | LS | \$900,000 | 1 | \$900,000 |
| 7 | 6 MGD HSP's | ea | \$120,000 | 3 | \$360,000 |
| 8 | 3 MGD jockey pumps | ea | \$100,000 | 2 | \$200,000 |
| 9 | Onsite Improvements | LS | \$1,500,000 | 1 | \$2,000,000 |
| Subtotal Construction | | | | | \$8,568,000 |
| Construction Contingency (30%) | | | | | \$2,570,400 |
| Total Construction Cost | | | | | \$11,138,400 |
| Engineering/Hydrogeo/Construction(19%) | | | | | \$2,116,296 |
| SUBTOTAL | | | | | \$13,254,696 |

OPTION 3 - GRAND TOTAL \$25,862,746
 Capital Cost \$/MGD = **\$9,578,795**

6.4 Water Rates

Determining comprehensive future water rates associated with water supply alternatives 1-3 is beyond the scope of this Study; however, a cursory discussion is beneficial. Currently, the Town charges a \$23.50/month base charge plus a \$3.84/1,000 gallon user charge for a total of \$54.20/month/residential household (assuming 8,000 gallons/month usage per ERC). The combined 2021 cost per residential household equates to approximately \$6.78/1,000 gallon of use to cover Town costs (debt service, O&M, etc.). The Town's current practice is to charge impact fees from future customers to pay for capital expansion costs. If this practice continues to meet Town 2026 demands with needed wellfield/treatment system costs, water rates would likely only see a modest increase from the current \$6.78/1,000 gallons rate.

It is not practical at this time to fully evaluate comprehensive water rates (PRWC bulk rate + necessary Town charges) that would be applicable after 2026 if the Town were to receive supply from the PRWC's SE wellfield project due to a number of PRWC and Town cost factors that are not fully defined at this time. Interim PRWC bulk rate cost data has been provided to the Town but is not well defined (\$5.63 to \$8.43/1,000 gallons for Phase 1 supply after 2026 and \$3.22 to \$5.72/1,000 gallons after 2045 based on 4-14-21 interim guidance from PRWC consultants). PRWC supply cost factors such as, but not limited to, economy of scale with phasing, easement acquisition, treatment concentrate disposal, grant funding, O&M, debt service, and other factors may not be accounted for in the interim cost figures provided to the Town. Town costs to treat and deliver water to its customers after the "point of delivery" from the PRWC would need to be added to the PRWC's bulk rate to develop a full user cost.

7.0 **CONCLUSIONS:** Based on the information described herein, the following conclusions were derived:

- If the Town issues approvals for the projected 7,360 residential units that are anticipated to be built out thru the year 2026, potable water supply demand will increase from a historically stable level of approximately 300,000 gpd to approximately 2,882,496 gpd.
- Obtaining SWFWMD WUP approval to satisfy a 2026 water supply demand of approximately 3.0 MGD solely from UFA wells will be difficult due to permitting restrictions and associated adverse environmental impacts that may result.
- Meeting the Town's large projected water demand increase will likely require in part or fully obtaining water supply from "alternative water supply sources" such as but not limited to LFA wells (Town owned), LFA wells from others (PRWC, neighboring communities, etc.), treated public access reuse effluent from Town/other community wastewater treatment facilities, or other sources.

- **TOWN CAPITAL COSTS** associated with developing Town-owned water supply and treatment facilities to meet a 3 MGD demand in the year 2026 (\$5.46 to \$9.58/gpd without grants) will be relatively less than **PRWC CAPITAL COSTS** (\$25.34/gpd without grants) as summarized in the following tables:

TOWN CAPITAL COSTS (3.0 MGD SUPPLY)

| Alternative No. | Description | Capital Cost (\$) | Capital Cost/gpd (\$/gpd) |
|-----------------|-----------------------------|-------------------|---------------------------|
| 1 | 3.0 MG UFA wells | \$14,735,175 | \$5.46 |
| 2 | 2.0 MG UFA/1.0 MG LFA wells | \$21,573,689 | \$7.99 |
| 3 | 1.5 MG UFA/1.5 MG LFA wells | \$25,862,746 | \$9.58 |

PRWC CAPITAL COSTS (3.0 MGD SUPPLY)

| Alternative No. | Description | Capital Cost (\$) | Capital Cost/gpd (\$/gpd) |
|-----------------|-----------------------------------|-------------------|---------------------------|
| 1A | 3.0 MG LFA wells (without grants) | \$76,020,000 | \$25.34 |
| 1B | 3.0 MG LFA wells (with grants) | \$40,680,000 | \$13.56 |

- Although the Town has the potential to obtain a 0.5 MGD allocation of alternative water supply from the PRWC, this supply will reportedly not be available for delivery to the Town until approximately 2026 or beyond.
- The full bulk rate cost associated with water that can potentially be supplied by the PRWC is not currently well-defined by the PRWC (debt service costs, O&M costs, cost at various phases, etc.). Additionally, the Town has not determined the associated additional costs that would need to be added to a PRWC bulk rate (existing Town debt service, Town O&M, water plant upgrade costs, etc.) to derive a full cost for water service to Town customers.

8.0 RECOMMENDATIONS: Based on the findings and conclusions, the following action items are recommended for Town implementation:

- Because the Town's SWFWMD WUP expiring in August of 2021, the Town must quickly act to define and commit to the specific water demand it will pursue supplying thru 2026 (3 MGD, etc.) and determine the specific water supply source(s) (type and quantity) it will propose to SWFWMD prior to August 2021 to meet these demands.
- Conduct groundwater modeling and other analyses for the selected water supply sources in short order to evaluate the extent of potential adverse environmental impacts and help ensure it is reasonable to pursue these sources as part of the Town's 2021 WUP renewal effort.
- Immediately identify existing agricultural wells with active water use permits on parcels of land that are proposed to be developed into subdivisions, negotiate written agreements to transfer

ownership and use rights for the water use permits to the Town, and utilize these wells in the Town's SWFWMD WUP renewal and water supply planning strategy.

- Develop a funding plan, design, and construct the necessary water supply (wells, piping, etc) and Water Treatment Plant Improvements (advanced treatment facilities, ground storage tank(s), high service pumping, disinfection, etc.) to be in place to meet the anticipated water supply deficit starting in approximately December of 2022.
- As a second phase of water supply planning, simultaneously develop a strategy to meet the Town's water demands expected after August of 2026, which will need to be frequently re-evaluated due to the significant number of variables to be considered (WUP approval quantities, PRWC water availability and timing, a variety of cost considerations, etc.).
- Consider contracting with a water rate consultant, possibly as a joint effort with other communities considering participating in the PRWC SE wellfield project, to develop a comprehensive cost analysis to determine the full water rate charges per 1,000 gallons (PRWC + Town charges) that would be applicable to water customers if the Town obtains water supply from the PRWC.