



## Planning & Zoning Board Meeting

April 25, 2024 at 6:00 PM  
Howey-in the-Hills Town Hall  
101 N. Palm Ave.,  
Howey-in-the-Hills, FL 34737

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**Join Zoom Meeting:** <https://us06web.zoom.us/j/84145827024?pwd=oaqHpEg1p3OtSbC8J415qYy2BSk6oW.1>  
**Meeting ID:** 841 4582 7024 | **Passcode:** 914629

### AGENDA

#### **CALL TO ORDER ROLL CALL**

#### **CONSENT AGENDA**

*Routine items are placed on the Consent Agenda to expedite the meeting. If a Planning & Zoning Board Member wishes to discuss any item, the procedure is as follows: (1) Pull the item(s) from the Consent Agenda; (2) Vote on the remaining item(s); and (3) Discuss each pulled item and vote.*

- 1.** Consideration and Approval of the March 28, 2024, Planning and Zoning Board Meeting minutes.

#### **PUBLIC HEARING**

#### **OLD BUSINESS**

- 2.** Discussion: **Review of Chapter 02 - Comprehensive Plan (Transportation Element)**

#### **NEW BUSINESS**

- 3.** Discussion: **Review of Chapter 06 - Comprehensive Plan (Recreation and Open Space Element)**
- 4.** Discussion: **Review of Chapter 05 - Comprehensive Plan (Conservation Element)**
- 5.** Discussion: **Review of Chapter 04 - Comprehensive Plan (Public Facilities Element)**

#### **PUBLIC COMMENTS**

*Any person wishing to address the Planning and Zoning Board and who is not on the agenda is asked to speak their name and address. Three (3) minutes is allocated per speaker.*

#### **BOARD COMMENTS**

#### **ADJOURNMENT**

**To Comply with Title II of the Americans with Disabilities Act (ADA):**

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**NOTICE: ONE OR MORE COUNCILORS MAY BE PRESENT TO HEAR OR PARTICIPATE IN DISCUSSION REGARDING MATTERS WHICH MAY COME BEFORE TOWN COUNCIL FOR ACTION.**

**Howey Town Hall is inviting you to a scheduled Zoom meeting.**

**Topic: Planning & Zoning Board Meeting**

**Time: Apr 25, 2024 06:00 PM Eastern Time (US and Canada)**

Join Zoom Meeting

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Dial by your location

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Please Note: In accordance with F.S. 286.0105: Any person who desires to appeal any decision or recommendation at this meeting will need a record of the proceedings, and that for such purposes may need to ensure that a verbatim record of the proceedings is made, which includes the testimony and evidence upon which the appeal is based. The Town of Howey-in-the-Hills does not prepare or provide this verbatim record. Note: In accordance with the F.S. 286.26: Persons with disabilities needing assistance to participate in any of these proceedings should contact Town Hall, 101 N. Palm Avenue, Howey-in-the-Hills, FL 34737, (352) 324-2290 at least 48 business hours in advance of the meeting.



## Planning & Zoning Board Meeting

March 28, 2024 at 6:00 PM  
Howey-in the-Hills Town Hall  
101 N. Palm Ave.,  
Howey-in-the-Hills, FL 34737

### MINUTES

#### CALL TO ORDER ROLL CALL

#### MEMBERS PRESENT:

Board Member Alan Hayes | Board Member Richard Mulvany (via ZOOM) | Board Member Ellen Yarckin | Board Member Shawn Johnson | Board Member Frances Wagler | Chair Tina St. Clair

#### MEMBERS ABSENT:

Vice-Chair Ron Francis III

#### STAFF PRESENT:

Sean O’Keefe, Town Manager | John Brock, Town Clerk | Tom Harowski, Town Planner

**Motion made by Board Member Wagler to allow Board Member Mulvany to participate and vote remotely via Zoom; seconded by Board Member Yarckin. Motion approved unanimously by voice vote.**

#### Voting

**Yea:** Board Member Hayes, Board Member Mulvany, Board Member Yarckin, Board Member Johnson, Board Member Wagler, Chair St. Clair

**Nay:** None

#### CONSENT AGENDA

*Routine items are placed on the Consent Agenda to expedite the meeting. If a Planning & Zoning Board Member wishes to discuss any item, the procedure is as follows: (1) Pull the item(s) from the Consent Agenda; (2) Vote on the remaining item(s); and (3) Discuss each pulled item and vote.*

1. Consideration and Approval of the February 22, 2024, Planning and Zoning Board Meeting minutes.

**Motion made by Board Member Yarckin to approve the Consent Agenda; seconded by Board Member Hayes. Motion approved unanimously by voice vote.**

#### Voting

**Yea:** Board Member Hayes, Board Member Mulvany, Board Member Yarckin, Board Member Johnson, Board Member Wagler, Chair St. Clair

**Nay:** None

**PUBLIC HEARING**2. Consideration and Recommendation: **Lake Hills - Preliminary Subdivision Plan (PSP) Submittal**

Chair St. Clair asked Town Planner, Tom Harowski, to introduce and explain this item. Mr. Harowski reviewed his staff report with the Planning and Zoning Board. Mr. Harowski stated that the major conditions offered for consideration include:

1. The Town Council will need to approve the development of the paired lot units without the alley access currently required by the development agreement. Paragraph 14 of the development agreement allows the applicant to pursue this request.
2. The development agreement and conceptual land use plan identifies the public park location as being in POD 4 which is centrally located on the lake front. The applicant is requesting the public park be relocated to an area outside the gated portion of the community. Again, Paragraph 14 allows the request. According to the development agreement, the public park is not required until the building permit for 500th unit is issued. The Town may wish to ask that the public park be advanced to Phase 1 if the new location is approved.
3. Should the proposed location be approved; the Town Council needs to approve the placement of storm water retention for the access road within the public park.
4. Compliance with the minimum open space requirement for the overall project needs to be documented. The data submitted for the residential portion of the overall project notes that 10-acres of the required open space will come from other areas of the project. The property owner needs to document these sources.
5. Prior to approval of the final subdivision plan for the entire project or a phase of the project, the applicant needs to provide evidence that the access road from SR 19 to the residential phase of the project will be constructed.
6. The tree analysis for specimen trees needs to be provided.
7. The project covenants and restrictions need to include language that either prohibits individual swimming pools and other accessory structures or states that the owner waives his right to seek a variance to the setback requirements.
8. The applicant needs to calculate the “fair share” cost of its impact on the SR-19 and CR-48 intersection and provide the payment for use in intersection improvements. Design and construction will be coordinated with FDOT and Lake County.
9. The applicant needs to provide an adequate guarantee for improvements to the east entrance of the project from SR 19. This guarantee can be done in conjunction with the commercial development component. These improvements are solely project related and the funding contributions need to be assured if the intersection upgrades do not occur with the initial construction. The traffic study recommendations suggest signalization may not be warranted with the initial project phases.
10. The applicant will provide at its cost the access controls required by FDOT for SR19 and Lake County for CR-48 as part of their respective permitting process. These items will include turn lanes, deceleration lanes, and other access controls and, if necessary, right-of-way required by the permitting agencies.

Board Member Wagler expressed her concern about the high levels of traffic on SR 19. Mrs. Wagler stated that there had been a fatality on SR 19 during the previous week. Board Member Wagler was also concerned about why the developer, and not the Town, was going to make the first computation and recommendations a traffic fair share payment.

Chair St. Clair asked the applicant's team to come forward, introduce themselves, and give their presentation to the Board. The applicant's team consisted of Mark Watts (Land Use Attorney with the firm of Cobb Cole), Dean Barberree (CEO of Reader Communities), and David Stokes (Project Engineer and Vice President with Madden Moorehead & Stokes LLC).

Mr. Watts stated the proposed PSP was consistent with the Planned Unit Development (PUD)'s approved Development Agreement and the development team was requesting 2 waivers. The first waiver was for the location of the public park. Mr. Watts stated that the development team was requesting to move the location of the park so that the park would act as buffer between the commercial and residential components of the PUD. Mr. Watts explained that, if the Town was willing to allow the new location of the park, the development team was willing to build the park during phase 1 of the project (rather than just before the 500<sup>th</sup> unit was built, which is what the PUD currently required). Mr. Watts explained that the second waiver the development team was requesting was for the development of paired lot units without the alley access that was currently required in the PUD.

Chair St. Clair open Public Comment for this item only.

**Tim Everline, 1012 N. Lakeshore Blvd** – Mr. Everline gave the Planning and Zoning Board a short recap of the Town Council's actions in their most recent meeting. Mr. Everline warned the Board to be careful of fair share calculations. Mr. Everline wanted to make sure all Board Members had read the Development Agreement for this proposed development. Mr. Everline stated that this PSP was similar to a village from the Villages development. Mr. Everline warned Board Members that he believed that this proposed neighborhood could have rental units or Air BNB units in it if it were to be approved.

**Sandy Russ, 6813 Lake View Dr., Yalaha** – Mrs. Russ stated that she was opposed to this plan.

**Eric Gunesch, 448 Avila Pl** – Mr. Gunesch was opposed to this development.

Chair St. Clair closed Public Comment for this item.

**Board Member Wagler made a motion to move the building of the park to phase 1 of the project. This motion was seconded by Board Member Hays.**

**Board Member Wagler withdrew her motion.**

**Motion made by Board Member Johnson to recommend approval of the Lake Hills residential development's Preliminary Subdivision Plan, allowing for a waiver for the suggested location of the public park, as long as the park is built during phase 1 of the project, and allowing the development of the paired lot units without the alley access; seconded by Board Member Yarckin. Motion passed unanimously by roll-call vote.**

#### **Voting**

**Yea:** Board Member Hayes, Board Member Mulvany, Board Member Yarckin, Board Member Johnson, Board Member Wagler, Chair St. Clair

**Nay:** None

#### **OLD BUSINESS**

None

**NEW BUSINESS**3. Consideration and Recommendation: **Annual Selection of Board Chair and Vice-Chair**

**Motion made by Board Member Yarckin to recommend the appointment of Tina St. Clair as the Planning and Zoning Board's Chair; seconded by Board Member Wagler. Motion approved unanimously by roll-call vote.**

**Voting**

**Yea:** Board Member Hayes, Board Member Mulvany, Board Member Yarckin, Board Member Johnson, Board Member Wagler

**Nay:** None

**Motion made by Board Member Hayes recommend the appointment of Fran Wagler as the Planning and Zoning Board's Vice Chair; seconded, Seconded by Board Member Yarckin. Motion approved by roll-call vote.**

**Voting**

**Yea:** Board Member Hayes, Board Member Mulvany, Board Member Yarckin, Board Member Wagler, Chair St. Clair

**Nay:** Board Member Johnson

4. Presentation: **Sunshine Laws, Ethics, Public Record Laws Training**

Town Clerk, John Brock, presented a training on Sunshine Law, Ethics, and Public Record Laws to the Planning and Zoning Board.

5. Presentation: **The Town Code of Core Values for Civility and Ethics**

Town Clerk, John Brock gave a short presentation on the Town's Code of Core Values for Civility and Ethics to the Planning and Zoning Board. All Board Members that were present signed the attestation statement for the Town's Code of Core Values for Civility and Ethics.

6. Consideration and Recommendation: **Ordinance 2024-003 - Land Development Code (LDC) Amendment - Signs**

Town Planner, Tom Harowski explained that the Town Attorney had created this Ordinance, which would amend the portion of the Town's LDC on signs. This amendment to the LDC was due to the LDC sign requirements not conforming with a Supreme Court ruling.

**Motion made by Board Member Wagler to recommend approval of Ordinance 2024-003; seconded by Board Member Hayes. Motion approved unanimously by roll-call vote.**

**Voting**

**Yea:** Board Member Hayes, Board Member Mulvany, Board Member Yarckin, Board Member Johnson, Board Member Wagler, Chair St. Clair

**Nay:** None

7. Consideration and Recommendation: **Ordinance 2024-005 Capital Improvement Schedule FY2024**

Town Manager, Sean O’Keefe presented the proposed Capital Improvement Plan (CIP) to the Board. Mr. O’Keefe explained that the Town Council had already made several changes to the proposed CIP during previous workshop meetings.

**Motion made by Board Member Johnson to recommend approval of Ordinance 2024-005; seconded by Board Member Hayes. Motion approved unanimously by roll-call vote.**

**Voting**

**Yea:** Board Member Hayes, Board Member Mulvany, Board Member Yarckin, Board Member Johnson, Board Member Wagler, Chair St. Clair

**Nay:** None

8. Discussion: **Comprehensive Plan - Chapter 2 - Transportation Element**

**Motion made by Chair St. Clair to continue this item to the April 25,2024 Planning and Zoning Board's Meeting; seconded by Board Member Wagler. Motion approved unanimously by roll-call vote.**

**Voting**

**Yea:** Board Member Hayes, Board Member Mulvany, Board Member Yarckin, Board Member Johnson, Board Member Wagler, Chair St. Clair

**Nay:** None

**PUBLIC COMMENTS**

*Any person wishing to address the Planning and Zoning Board and who is not on the agenda is asked to speak their name and address. Three (3) minutes is allocated per speaker.*

None

**BOARD COMMENTS**

None

**ADJOURNMENT**

**There being no further business to discuss, a motion was made by Board Member Wagler to adjourn the meeting; Board Member Johnson seconded the motion. Motion was approved unanimously by voice vote.**

The Meeting adjourned at 9:15 p.m. | **Attendees: 26**

\_\_\_\_\_  
Tina St. Clair Chairperson

ATTEST:

\_\_\_\_\_  
John Brock, Town Clerk



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97 N. Saint Andrews Dr.  
Ormond Beach, FL 32174  
PH: 386.316.8426

## MEMORANDUM

**TO:** Howey-in-the-Hills Planning Board  
**CC:** J. Brock, Town Clerk  
**FROM:** Thomas Harowski, AICP, Planning Consultant  
**SUBJECT:** EAR Update Transportation Element  
**DATE:** February 6, 2024

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This submittal is the next item in our program to update the comprehensive plan as part of our required review. The review is required no more than every seven years, and our last update was in 2018. The Board reviewed the future land use and capital improvements elements in draft form last month, and this month the Transportation Element is presented for discussion. Key updates are as follows:

- The data base was updated to include new streets and sidewalks since the last update. These are shown on Table 1 and Table 3.
- The traffic count data was updated to 2022 which is the most current data. The updated traffic counts are then applied to set the current level of service for the arterial and collector network. See Table 2.
- SR-19 between Citrus Avenue and Florida Avenue has been stressed as a constrained facility. This means that the road should not be widened. This is important as the current SR-19 widening proposal includes 4-laning through the Town center.
- Discussion has been added regarding Number Two Road as impacted and needing improvement. (Page II-15)
- The currently planned road projects by FDOT have been updated with the current status. (Page II-15)
- In terms of needed projects (Page II-18) Number Two Road is again noted and the idea of a connector between SR-19 and US-27 south of town is suggested.
- Policy 1.5.4 regarding bicycle storage has been edited to show the correct status. This policy received several comments in the Town Council reviews.



- Policy 1.5.5 suggesting the designation of SR-19 as a “Backwoods” road has been deleted to better reflect current conditions.
- Policy 1.6.2 has been edited to remove the references to Rule 9J-5 which no longer exists. We did most of the 9-J-5 deletions with the last EAR update, but this one apparently got overlooked.

TRANSPORTATION ELEMENT



TOWN OF HOWEY-IN-THE-HILLS

LAKE COUNTY, FLORIDA

ADOPTED ON OCTOBER 11, 2010

AMENDED AUGUST 10, 2020

**TRANSPORTATION ELEMENT  
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## CHAPTER 2 TRANSPORTATION ELEMENT

### A. PURPOSE AND FORMAT

The purpose of the *Transportation Element* is to plan for future motorized and non-motorized transportation systems, pursuant to Chapter 163, Florida Statutes. An essential basis for planning transportation systems is the *Future Land Use Element*, specifically the *Future Land Use Map*. Clearly, the *Future Land Use Map* will direct where roadway facilities must be improved and where new roadway facilities may be needed. The criteria for determining the extent of facilities needed are the adopted level of service (LOS) standards.

Before a local government can responsibly plan for its future, it must assess the capability of its existing transportation system to serve current demand. It is, therefore, necessary to determine existing levels of service and to identify existing roadway deficiencies within the transportation system.

The content of this *Element* includes: (1) an introduction; (2) an inventory of the existing transportation system, including the *Existing Transportation Map*; (3) an analysis of existing roadway conditions within the transportation system; (4) an analysis of projected needs; (5) a discussion of issues and opportunities; (6) a listing of goals, objectives, and policies; and (7) the *Future Transportation Map*.

### B. INTRODUCTION

#### 1. Transportation System Overview

The Town of Howey-in-the-Hills, with a population of ~~1,106 (2015)~~ 1,643 (2020) is located in the central portion of Lake County adjacent to Little Lake Harris. Only three major roads provide access into Town: (1) County Road 48, (2) State Road 19, and CR 455. County Road 48 provides a direct connection to the City of Leesburg and US 27. State Road 19 provides direct access to the Florida Turnpike and the cities of Groveland (south) and Tavares (north). County Road 455 provides access into Town from the east, intersecting SR 19 just south of Town. Number Two Road is classified as a rural minor collector which provides access from the west to SR-19 via Central Avenue.

The historic downtown area of Howey-in-the-Hills is served by local streets in a more traditional grid system. All the streets in Howey-in-the-Hills are paved, although the pavement widths vary. Newer development in the Village Mixed Use areas typically applies a more curvilinear street design.

**C. INVENTORY OF THE EXISTING SYSTEMS**

**1. Present Town Limits**

The *Existing Transportation Map* provides a description of the Town’s current system. Table 1 lists the current streets within the Town.

As previously noted, County Road 48, State Road 19, and County Road 455 are the main routes that provide access to and from Howey-in-the-Hills. County Road 48 is a two-lane undivided collector that connects US 27 and SR 19. State Road 19 runs north and south from Groveland to Tavares at US 441. It is classified as a two-lane undivided arterial. State Road 19 is the primary north-south route through Town. County Road 455 is not in the Town limits but provides access to the south end of Town from the east.

There are a few other roads in Town that feed County Road 48 and State Road 19. County Road Number 2 connects with CR 48 west of Howey-in-the-Hills. A portion of CR No. 2 is in the Town’s Utility Service/Planning Area as it heads east towards Howey’s historic downtown area. In the Town limits, the road’s name changes to Grant/Central Avenue. Grant/Central Avenue connects with SR 19 in the Town Center and crosses SR 19 where it terminates at Lakeshore Boulevard. Florida Avenue is a local road in Town that connects Grant/Central Avenue with SR 19 on the south side of Town. And Lakeshore Boulevard/E. Revels Road connects the neighborhoods along Little Lake Harris to SR 19, again on the south side of Town.

**TABLE 1: STREETS WITHIN THE TOWN LIMITS**

Street Name	General Notes	Length in Miles
7th Avenue	Local road; intersects Revels Road	0.03
Amola Way	Local Road; Talichet	0.07
Avila Place	Local Road; Talichet	0.81
Bellisimo Place	Local road; Venezia South	0.64
Calabria Way	Local road; Venezia South	0.20
Camino Real Boulevard	Local road; adjacent to State Road 19	0.58
County Road 48	Major Collector road	0.67*
E. Camellia Way	Local road; connects to Lakeshore Dr. and N. Citrus Ave.	0.32
E. Cedar Street	Local road; connects to Lakeshore Dr. and State Road 19	0.21
E. Central Avenue	Local road; connects to Lakeshore Dr. and State Road 19	0.14
E. Croton Way	Local road; connects to Lakeshore Dr. and N. Citrus Ave.	0.32
E. Cypress Avenue	Local road; connects to Lakeshore Dr. and State Road 19	0.27
E. Gardenia Street	Local road; connects to Lakeshore Dr. and State Road 19	0.16

Street Name	General Notes	Length in Miles
E. Holly Street	Local road; connects to Lakeshore Dr. and State Road 19	0.15
E. Lakeview Avenue	Local road; connects to Lakeshore Dr. and State Road 19	0.15
E. Laurel Avenue	Local road; connects to Lakeshore Dr. and State Road 19	0.32
E. Magnolia Avenue	Local road; connects to Lakeshore Dr. and State Road 19	0.30
E. Mission Lane	Local road; connects to Lakeshore Dr. and N Valencia Ave.	0.22
E. Myrtle Street	Local road; connects to Lakeshore Dr. and State Road 19	0.16
E. Oak Street	Local road; connects to Lakeshore Dr. and State Road 19	0.17
E. Orchid Way	Local road; connects to N. Citrus Avenue and N. Tangerine Ave.	0.30
E. Palmetto Avenue	Local road; connects to Lakeshore Dr. and State Road 19	0.25
E. Pine Street	Local road; connects to Lakeshore Dr. and State Road 19	0.19
E. Revels Road	Minor Collector; connects to Lakeshore Dr. and State Road 19	0.95
Fifth Avenue	Local road; intersects with E. Revels Road	0.05
Island Drive	Local road; intersects with Lakeshore Dr.	0.25
Lido Loop	Local Road; Venezia South	0.41
Mare Avenue	Local road; intersects with W. Central Ave.	0.10
Marilyn Avenue	Local road; intersects with S. Marie Ave.	0.13
Messina Place	Local road; Venezia South	0.33
Murano Way	Local road; Venezia South	0.03
Napoli Way	Local road; Venezia South	0.04
N. Buckhill Road	Local road; intersects with Lakeshore Dr.	0.01
N. Citrus Avenue	Local road; connects to State Road 19 and E. Camellia Way	0.22
N. Dixie Drive	Local road; connects to W. Cypress Ave. and W. Central Ave.	0.39
N. Florida Avenue	Local road; connects to W. Cypress Ave., W. Dupont Cir., W. Oak Street, and W. Central Ave.	0.23
N. Georgia Avenue	Local road; connects to W. Cypress Ave. and W. Dupont Cir.	0.12
N. Hamlin Avenue	Local road; connects to E. Croton Way and E. Camellia Way	0.21
N. Lakeshore Boulevard	Local road: runs along Little lake Harris and connects to State Road 19	0.82
N. Tangerine Avenue	Local road; connects to Lakeshore Dr. and E. Mission Lane	0.27
N. Temple Avenue	Local road; connects to E. Cypress Ave. and E. Camellia Way	0.42
N. Valencia Avenue	Local road; connects to E. mission Lane and E. Croton Way	0.25
Number Two Road	Minor Collector; connects to S. Mare Ave. and W. Central Ave.	0.24*
Orange Blossom Road	Local road; connects to State Road 19	0.01
Palm Avenue	Local road; connects to Lakeshore Dr.	0.01
Revels Road	Local road; connects to State Road 19	0.74
San Luis Boulevard	Local road; connects to County Road 48	0.01

Street Name	General Notes	Length in Miles
Silverwood Lane	Local road	0.13
Sixth Avenue	Local road; intersects Lakeshore Dr.	0.15
S. Dixie Drive	Local road; connects to State Road 19 and W. Central Ave.	0.50
S. Florida Avenue	Local road; connects to State Road 19 and W. Central Ave.	0.53
S. Lakeshore Boulevard	Local road: runs along Little lake Harris and connects to E. Revels Road	0.97
S. Mare Avenue	Local road; connects to W. Central Ave.	0.31
State Road 19	Minor arterial; major road in Town	3.22*
Sunset Drive	Local road; intersects Lakeshore Dr.	0.01
Terracotta Terrace	Local road; Venezia South	0.30
Turn Lane	Local road; intersects State Road 19	0.02
Venezia Boulevard	Local Road; intersects SR 19 (Venezia South)	0.32
Via Bella Court	Local Road; Talichet	0.13
W. Central Avenue	Local road; connects to State Road 19	0.52
W. Cypress Avenue	Local road; connects to State Road 19 and N. Georgia Ave.	0.22
W. Dupont Circle	Local road; connects to N. Dixie Dr. and N. Georgia Ave.	0.24
W. Grant Street	Local road; intersects W. Central Ave.	0.03
W. Holly Street	Local road; connects to State Road 19 and S. Florida Ave.	0.14
W. Lakeview Avenue	Local road; connects to State Road 19 and S. Florida Ave.	0.14
W. Magnolia Avenue	Local road; connects to State Road 19 and W. Cypress St.	0.25
W. Myrtle Street	Local road; connects to State Road 19 and S. Florida Ave.	0.14
W. Oak Street	Local road; connects to State Road 19 and S. Florida Ave.	0.14
W. Oleander Avenue	Local road; connects to State Road 19 and S. Florida Ave.	0.14
W. Palmetto Avenue	Local road; connects to State Road 19 and N. Dixie Dr.	0.07
W. Pine Street	Local road; connects to State Road 19 and N. Dixie Dr.	0.07
<b>Total Miles</b>		<b>20.13</b>

\* This length represents that portion of the road within the current Town limits.

The above table indicates that there are currently a little over 20 miles of roads in Town.

Overall, there are about 11.5 miles combined of bicycle/pedestrian pathways in Town. A detailed inventory of the bicycle/pedestrian pathways is featured in the *Recreation and Open Space Element* as well as the Analysis of Existing Transportation System section of this *Element*.

No mass transit is currently available in the Town.



## 2. Levels of Service (LOS)

The concept of levels of service is defined as a qualitative measure describing operational conditions within a traffic stream, and their perception by motorists and/or passengers. A level-of-service definition generally describes these conditions in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. There are six levels of service, from A to F, with level-of-service A representing the best operating conditions and level-of-service F the worst.

Level-of-service definitions – In general, the various levels of service are defined as follows:

- Level-of-service A represents free flow. Individual users are virtually unaffected by the presence of others in the traffic stream. Freedom to select desired speeds and to maneuver within the traffic stream is extremely high. The general level of comfort and convenience provided to the motorist, passenger, or pedestrian is excellent.
- Level-of-Service B is in the range of stable flow, but the presence of other users in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver within the traffic stream from LOS A. The level of comfort and convenience provided is somewhat less than at LOS A, because the presence of others in the traffic stream begins to affect individual behavior.
- Level-of-service C is in the range of stable flow, but marks the beginning of the range of flow in which the operation of individual users becomes affected by the presence of others, and maneuvering within the traffic stream requires vigilance on the part of the user. The general level of comfort and convenience declines at this level.
- Level-of-service D represents high-density, but stable, flow. Speed and freedom to maneuver are restricted, and the driver or pedestrian experiences a generally poor level of comfort and convenience. Small increases in traffic flow will generally cause operational problems at this level.
- Level-of-service E represents operating conditions at or near the capacity level. All speeds are reduced to a low, but relatively uniform value. Freedom to maneuver within the traffic stream is difficult, and it is generally accomplished by forcing a vehicle or pedestrian to “give way” to accommodate such maneuvers. Comfort and convenience levels are poor, and driver or pedestrian frustration may be high.
- Level-of-service F exists wherever the amount of traffic approaching a point exceeds the amount which can traverse the point. Operations within the queue are characterized by stop-and-go waves, and they are unstable. Vehicles may progress at reasonable speeds for several hundred feet or more, then be required to stop in a cyclical fashion. The common term for this is “stop and go traffic” and it most always refers to heavy congestion.

### 3. Traffic Accidents

Traffic accidents within the Town are primarily concentrated along SR 19 with local hot spots being the intersections at CR 48, Citrus Avenue and Revels Road. Otherwise, accidents are dispersed throughout the Town and average between 20 and 30 accidents per year.

### 4. Public Transportation

No bus or rail service is provided to the Town. The Town will continue to work with the Lake-Sumter MPO to expand the public transportation opportunities throughout Lake County.

### 5. Rights-of-Way Acquisition and Protection

The acquisition and preservation of rights-of-way (ROW) for future road improvements is important in planning the future transportation system for Howey-in-the-Hills. The Town shall continue to coordinate with FDOT and Lake County regarding the preservation and acquisition of ROW for state and county roads within the Town limits. As developments are planned along SR 19, CR No. 2, and CR 48, Howey-in-the-Hills will work with FDOT and Lake County to determine if right of way is needed during the development approval process.

Howey-in-the-Hills is also planning for future Town roads within the Town limits. As proposed developments are reviewed, the Town is requiring additional connections between CR No. 2 and SR 19 on the south end of Town to better disperse traffic. To the extent possible, the Town will also require connections between developments to limit the amount of traffic on SR 19 and CR 48.

## D. ANALYSIS OF EXISTING TRANSPORTATION SYSTEM

### 1. Functional Classification

Functional classification is defined as the assignment of roads into systems according to the character of service they provide in relation to the total road network. The functional classification of public roads in this *Element* is based on FDOT criteria, which considers quantitative and qualitative factors such as jurisdiction, land access, route length, and trip lengths. A road hierarchy is used to identify relative importance of roads within the system, provide guidance for level-of-service and design standards, aid in establishing improvement priorities, identify maintenance responsibility, and assist in determining funding and financing policies. Based on the Roadway Functional Classifications, State Road 19 is the only Arterial, County Road 48 is the only Major Collector, and County Road Number 2 and E. Revels Rd are the only Minor Collectors currently within the Town limits. The remaining roads are classified as Local Roads.

~~In 2007, the Town entered into an Interlocal Agreement with the Lake-Sumter MPO, along with Lake County and all the other local governments in Lake County, to create and fund a Master Transportation Concurrency Management System Program. This approach was seen as the best way to ensure that levels of service are monitored and that necessary improvements are approached on a County-wide basis to make the best use of available funds.~~

Table 2 below represents the ~~Lake County Transportation Concurrency Management System~~ most recent traffic counts for the roads monitored in and around Howey-in-the-Hills. These counts were performed in in ~~2015~~ 2022.

**TABLE 2: ~~LAKE COUNTY TRANSPORTATION CONCURRENCY MANAGEMENT SYSTEM TRAFFIC COUNTS, 2015~~**  
**HOWEY-IN-THE-HILLS AREA TRAFFIC COUNTS**

Road Name	From	To	No. Lanes	Functional Classification	Adopted LOS	LOS Capacity	2009 2022		
							AADT	V/C	LOS
C.R. 48	Lime Avenue	SR 19	2	Major Collector	D	<del>13,680</del> <u>21,780</u>	<del>8,181</del> <u>9,982</u>	<del>0.60</del> <u>0.48</u>	B
SR 19	Lake Harris North End	CR 48	2	Uninterrupted	D	<del>15,100</del> <u>18,590</u>	<del>12,900</del> <u>15,980</u>	<del>0.85</del> <u>0.88</u>	C
SR 19	CR 48	Central Avenue	2	Arterial 1	D	<del>14,100</del> <u>14,160</u>	<del>8,700</del> <u>8,950</u>	<del>0.62</del> <u>0.63</u>	<del>B</del> <u>C</u>
SR 19	Central Avenue	CR 455	2	Uninterrupted	D	<del>15,100</del> <u>24,200</u>	<del>NA</del> <u>8,950</u>	<del>NA</del> <u>0.37</u>	B

As part of the interlocal agreement with the MPO, as new development is proposed in Howey-in-the-Hills (either land use amendments or subdivision or site plan submittals), the landowner is required to perform a Traffic Impact Study (TIS). All jurisdictions have agreed to use the same TIS methodology in order to assist the MPO staff with making it as easy as possible to administer the concurrency management system.

Any proposed development that will impact a road segment beyond the adopted level of service standards will need to follow the Town’s *Transportation Proportionate Fair Share Program*. As development is proposed, it will need to provide adequate analysis of its impact on the road segments in Town to determine if the adopted LOS will be maintained.

**2. Constrained Facilities**

FDOT requests that local governments identify constrained roadways in their Comprehensive Plans to ensure maintenance of the operating conditions, so that significant degradation in the level-of-service does not occur. A constrained roadway is one in which

adding more through lanes to meet current or future needs is not possible due to physical, environmental or policy barriers.

SR 19 is a constrained facility through the Howey-in-the-Hills historical town center between Citrus Avenue and Florida Avenue. The road is not only physically constrained by current development; it would also create irreversible harm to the Town’s historic downtown character to create a four-lane corridor. The majority of traffic on SR 19 in Howey-in-the-Hills is through traffic. Because of the constraints placed by all the lakes in the region, SR 19 is one of the few direct routes to get from South Lake County to North Lake County. The Town has explored a three-lane section design for SR 19 through the downtown area and ultimately rejected this design solution.

### **3. Evacuation Routes**

This section identifies the designated local and regional transportation facilities, critical to the evacuation of the coastal population prior to an impending natural disaster.

A regional evacuation transportation network that links existing county-level evacuation routes and any additional arterials/collectors in the region was provided by the East Central Florida Regional Planning Council. Based on the regional evacuation network, State Road 19 is the only road in Town categorized as evacuation route in the Statewide Regional Evacuation Study. Howey-in-the-Hills has not been subject to an evacuation order as a result of storm activity.

### **4. Parking System**

At this time, the Town does not have any significant public parking facilities other than the on-street parking at the Town Hall and Library along Central Avenue. The on-street parking serves as parking for the local commercial businesses and employees and visitors to the Town’s government buildings.

### **5. Intermodal Facilities**

Intermodal facilities are those transportation networks that accommodate and interconnect different modes of transportation and serve interstate, intrastate, and international movement of goods. Some facilities considered intermodal include ports, airports, bus stations, and train terminals. At this time, Howey-in-the-Hills does not have any intermodal facilities.

### **6. Pedestrian/Bicycle System**

The pedestrian pathways, such as sidewalks, are primarily located in the downtown area, along a few residential streets in the northern portion of Town, and along Lakeshore Drive.

There are about 4 miles of pedestrian pathways in Town in addition to the ~~Venezia Subdivision which is developing with sidewalks on both sides of all streets~~ the newer subdivisions including Venezia and Talichet where sidewalks are required on both sides of all local streets.

The bicycle pathways in Town are along State Road 19 and County Road 48. While there is no striping indicating that these are bicycle lanes, the shoulders are wide enough to classify them as bicycle lanes. There are about 8 miles of bicycle pathways in Town. A detailed inventory of these facilities is presented in the *Recreation and Open Space Element* of this *Comprehensive Plan*. The existing bicycle/pedestrian pathways in Town are featured on the *Existing and Future Transportation Maps*.

The Town has a history of support for pedestrian and bicycle planning extending back to the mid-2000's. At that time the Lake-Sumter MPO has developed a regional bike map to identify all the major bikeway facilities within Lake and Sumter County. State Route 19 and County Road No.2/Central Avenue were identified in the Lake County Regional Bike Map as regional bicycle corridors. Previously, the Town Council reviewed and approved the bike facility for S. Lakeshore Boulevard and East Revels Road as a future North/South bicycle corridor. In July 2007, the Town Council reviewed a draft bike route proposed for the regional Lake-Sumter MPO bike map. The draft map included the following streets as regional bicycle facilities:

1. State Route 19;
2. S. Lakeshore Blvd and E. Revels Road; and
3. County Road No.2.

In March of the next year, the Town Council supported the MPO bike map and endorsed the bike map for final approval by the Lake-Sumter MPO Board. In addition to the map, the Council also supported the need for future bicycle improvements. These enhancements included the following:

- widen and add pavement for bike lanes;
- bicycle signage and striping;
- bicycle racks and benches (rest areas);
- regional bike maps need to identify S. Lakeshore Blvd and East Revels Road; and
- apply for regional funding for these enhancements.

Subsequent to these actions Lake County adopted its initial multi-use trails plan in 2008. The plan, which is still in effect, proposes service to Howey-in-the-Hills through the Central Lake Trail. This trail has not moved forward in any more specific planning other than a general corridor alignment.

In 2019 the Town has moved forward with a pedestrian and bicycle facilities master plan as required by policies in the Transportation Element. This plan provides more detail on

specific sidewalk projects and examines the Central Lake Trail options including routes preferred by the Town. Amendments to several policies in the Transportation element have been made to initiate implementation of the master plan recommendations.

**TABLE 3**  
**2019 2023 SIDEWALK INVENTORY**  
**TOWN OF HOWEY-IN-THE-HILLS**

<b>EAST-WEST STREETS</b>				
<b>STREET</b>	<b>WIDTH</b>	<b>LENGTH (lf)</b>	<b>SIDE</b>	<b>CONDITION</b>
N. Citrus	5-feet	550	North	Good
E. Laurel	5-feet	1015	North	Good
	5-feet	850	South	Good
E. Magnolia	5-feet	680	North	Good
	5-feet	250	South	Good
E. Palmetto	4-feet	125	South	Fair
E. Central	5-feet	450	South	Fair
W. Central	5-feet	300	North	Excellent
	5-feet	300	South	Excellent
	5-feet	300	South	Fair
W. Oak	5-feet	300	South	Good
<b>NORTH-SOUTH STREETS</b>				
<b>STREET</b>	<b>WIDTH</b>	<b>LENGTH (lf)</b>	<b>SIDE</b>	<b>CONDITION</b>
N. Dixie	5-feet	250	East	Good
N. Lakeshore	6-feet	2350	East	Excellent
S. Lakeshore	6-feet	2550	East	Excellent
	4-feet	1700	West	Excellent
N. Palm (SR-19)	5-feet	2050	West	Good
	5-feet	2400	East	Good
S. Palm (SR-19)	5-feet	1900	West	Good
	5-feet	1225	East	Good
<b>VENEZIA SOUTH</b>				
<b>STREET</b>	<b>WIDTH</b>	<b>LENGTH (mi)</b>	<b>SIDE</b>	<b>CONDITION</b>
Bellissimo	4-feet	0.64	Both	Excellent
Calabria	4-feet	0.20	Both	Excellent

Messina	4-feet	0.33	Both	Excellent
Napoli	4-feet	0.04	Both	Excellent
Terracotta	4-feet	0.30	Both	Excellent
Venezia	4-feet	0.32	Both	Excellent
Lido Loop	5-feet	0.41	Both	Excellent
Murano Way	5-feet	0.03	Both	Excellent
<b>TALICHET</b>				
<b>STREET</b>	<b>WIDTH</b>	<b>LENGTH (mi)</b>	<b>SIDE</b>	<b>CONDITION</b>
Amola Way	5-feet	0.07	Both	Excellent
Avila Place	5-feet	0.81	Both	Excellent
Lido Loop	5-feet	0.41	Both	Excellent
Murano Way	5-feet	0.03	Both	Excellent

Source: TMH Consulting, Inc.

**TABLE 4  
 2019 BICYCLE FACILITY INVENTORY  
 TOWN OF HOWEY-IN-THE-HILLS**

Facility Type	General Description	Miles
Bicycle	SR 19 Right Shoulder from southern town limits to northern town limits	3.22
Bicycle	SR 19 Left Shoulder from southern town limits to northern town limits	3.22
Bicycle	CR 48 left shoulder from town limits to SR 19 intersection	0.67
Bicycle	CR 48 right shoulder from town limits to SR 19 intersection	0.67
	<b>TOTAL</b>	<b>11.53</b>

Source: Town of Howey-in-the-Hills Recreation and Open Space Element

**7. Deficiencies in Town**

Currently, there are no LOS deficiencies for roads in Town. Most of the roads have additional capacity to support growth. ~~The One of the~~ primary transportation issues in Howey-in-the-Hills ~~in is the future will be~~ SR 19. Although most of the traffic on SR 19 is through traffic that does not originate nor end in Howey-in-the-Hills, the Town understands the need to address this issue.

The Town has also addressed the issue of SR 19 with regards to new growth in the development review process. Two large planned unit developments that lie between SR

19 and County Road No. 2 were required to include collector roads within their developments that would connect SR 19 with County Road No. 2. These future roadways will allow for better distribution of traffic and prevent all trips from having to use SR 19 through the downtown area. As future growth is proposed in Howey-in-the-Hills, the Town will continue to ensure that the road network provides for the most efficient system and that alternative modes of transportation are encouraged. The Town’s emphasis on mixed use developments and the redevelopment of the Town Center to a live-work environment will also help to alleviate traffic on SR 19 and the road network overall.

A second transportation issue is improvements to Number 2 Road. The existing road is substandard but will be experiencing increased traffic. The Town has required any development accessing Number 2 road to provide additional right-of-way to meet Lake County standards and to include turn lanes and other improvements to bring the affected road section up to standard. The Town has agreed to support Lake County in working on solutions for the balance of Number 2 Road. One option to consider is a bypass that would create an alternate route to Number 2 Road.

The Town does not have its own road impact fee; ~~it collects road impact fees on behalf of Lake County.~~ Lake County has impact fee districts and each year, a 5-year program is approved by the County Commission that includes projects by district. Lake County does provide for input from the cities and towns in the County as to what projects receive funding; however, the final decision is made by the County Commission.

## 8. New Facilities or Expansion

The Lake-Sumter MPO has identified the regional need to improve the road network’s capacity as well as maintenance concerns such as the need to replace the Little Lake Harris Bridge. ~~The long-range plans are to widen both the bridge and County Road 48 for future capacity needs. Current plans call for widening SR 19 from Lane Park Road to CR 48 to four lanes and upgrading the intersection at CR 48 to a roundabout design. Current funding is only for the PD&E phase. Funding for the road and bridge widening still needs to be programmed, however, these improvements are in the Lake-Sumter MPO cost-feasible plan which gives them a funding priority.~~

FDOT also has an improvement project on SR 19 from Groveland to Oleander Avenue in Howey. This improvement is primarily a resurfacing project that will include sidewalk projects recommended by the Town’s bicycle and pedestrian plan. This project has been expanded to include sidewalk improvements north to Citrus Avenue which were also recommended by the Town’s bicycle and pedestrian plan.

In 2009, the Lake-Sumter MPO and FDOT District 5 completed a comprehensive Efficient Transportation Decision Making (ETDM) study to review and identify the regional corridors for future widening within Central Lake County. This study reviewed the following regional corridors: State Route 19, County Road 561 and County Road 48. State



Route 19 is currently identified as a constrained roadway through Howey-in-the-Hills. ~~Based on this constraint, SR 19 through the Town is identified in the adopted cost-feasible Transportation 2040 long-range transportation plan of the Lake Sumter MPO as a two-lane restricted arterial corridor.~~

The Town has identified several key intersections along State Road 19 which may eventually need traffic signals or roundabouts as developments receive approvals and put new traffic on the roads. ~~These intersections have been identified in a cumulative traffic study completed in 2007 for several large residential developments within the Town.~~ These intersections are the following:

- Central Avenue at SR 19 (existing flashing light);
- S. Florida Avenue/Venezia Development Entrance at SR 19; and
- E. Revels Road at SR 19.

The *Future Transportation Map* shows two proposed roads within proposed developments that will provide connection between County Road No. 2 and SR 19 south of the Howey-in-the-Hills downtown core. These future collector roads will enhance the road network by providing alternative routes thereby resulting in better distribution of traffic. ~~Although environmental constraints will limit alternative north-south connections, the Town will also encourage north-south routes to provide alternatives to SR 19 in the southern region of the Town's planning area.~~

**E. ANALYSIS OF PROJECTED NEEDS**

This section shows the methodology used for the transportation analysis of existing and future conditions for the Town of Howey-in-the-Hills Comprehensive Plan ~~2035~~ 2045 horizon. This analysis is drawn from the 2040 long-range plan prepared by the Lake-Sumter MPO. The 2040 long-range transportation plan is rooted in part in a travel demand model (CFRPM 6.0) to forecast travel demand patterns, but it also employs other factors such as economic growth needs, population distribution patterns based on County-wide forecasting rather than local government forecasts (about 7,500 new residents countywide each year), and other limiting factors such as constrained roadways. Howey-in-the-Hills has one of the constrained roadways in SR 19 south of CR 48 to CR 455.

For the short-term, the Town has adequate road capacity as evidenced by the traffic count data presented in Table 1 ~~2~~. Growth rates have been accelerating since 2014 as the local economy and housing development recover from the recession. Over the longer term the Town can expect increasing traffic impacts. Road improvements planned and programmed for Howey-in-the-Hills and the immediate environs are limited. ~~The replacement of the SR-19 bridge over Lake Harris is under way and is the only funded improvement.~~ Widening SR-19 from CR-561 to CR-48 is funded ~~for PD&E for right-of-way~~ but ~~design and~~ construction remains unfunded and outside of the cost feasible plan. Plans to widen CR-48 west of SR 19 are also unfunded.

**TABLE 5: 2016 LOS CAPACITY ANALYSIS**

Road Name	From	To	No. Lanes	Functional Classification	Adopted LOS	LOS Capacity	2016		
							AADT	V/C	LOS
CR 48	Lime Avenue	SR 19	2	Major Collector	D	13,680	8,181	0.60	B
						<u>21,780</u>	<u>9,982</u>	<u>0.48</u>	
SR 19	<del>Lake Harris North End Lane Park</del>	CR 48	2	Uninterrupted	€	15,100	12,900	0.85	C
					<u>D</u>	<u>18,590</u>	<u>15,980</u>	<u>0.88</u>	
SR 19	CR 48	Central Avenue	2	Arterial 1	€	14,100	8,700	0.62	B
					<u>D</u>	<u>14,160</u>	<u>8,950</u>	<u>0.63</u>	<u>C</u>
SR 19	Central Avenue	CR 455	2	Uninterrupted	€	15,100	NA	NA	B
					<u>D</u>	<u>24,200</u>	<u>8,950</u>	<u>0.37</u>	

As development of the Village Mixed Use projects moves forward, the limited slate of transportation improvements will result in increased levels of congestion as a necessary outcome of the constrained section of SR 19. The Town can expect travel patterns to shift to some degree as through traffic looks for alternate routes to avoid the restrictions on SR 19.

In addition to the slate of transportation improvements included in the long-range plan, the Town needs to push the MPO to include a connector between SR-19 and US-27 using an alignment south of Town. This routing can be developed jointly with Lake County and the City of Groveland. This routing will help reduce pressure on both SR 19 and Number Two Road. Secondly, consideration needs to be given to widening CR-48 between SR-19 and US 27 given the increasing residential development on both the east and west ends of this corridor. This is another potential improvement that can reduce pressure on Number Two Road. Thirdly, the Town needs to work with the MPO and Lake County to include the Central Lake Bike Trail through Howey.

**F. GOALS, OBJECTIVES AND IMPLEMENTING POLICIES**

**GOAL 1:** Provide a safe, convenient, efficient traffic circulation system for both motorized and non-motorized transportation modes.

**OBJECTIVE 1.1:** *Safe, Convenient, and Efficient Traffic Circulation System.*  
 Provide a safe, convenient, and energy efficient transportation system through the establishment of minimum level of service standards and the provision of multi-modal transportation facilities with proposed road improvements.

**POLICY 1.1.1:** *Minimum Level of Service Standards.* The Town hereby adopts the following level of service standards for the below listed roadway classifications:

Road Class	AADT Level of Service
Principal Arterials: None are present	C
Minor Arterials: State Road 19	D
Major Collectors: County Road 48	D
Road Class	Peak Hour Minimum Level of Service (*)
Minor Collectors: E. Revels Road and County Road No. 2	D
Local Roadways: All roadways not classified as collectors or arterials.	D

(\*) Level of service shall be predicated on the lowest quality design hour, which shall represent the thirtieth highest hour of traffic, as determined by FDOT.

**POLICY 1.1.2.:** *Review of Proposed Developments.* The Town shall review all proposed development for compliance and consistency with the adopted levels of service using its Concurrency Management System. No development shall be approved until the concurrency management system has been evaluated to determine that estimated impacts will not cause the level of service to decrease below the adopted minimum standard.

**POLICY 1.1.3:** *Transportation Impact Fees.* The Town will work with Lake County to propose impact fee projects in and around Howey-in-the-Hills. Any road impact fee-funded projects that Lake County includes in its 5-year Road Impact Fee Program will be included in the Town's *Capital Improvements Program* to denote future capacity enhancing improvements.

**POLICY 1.1.4:** *Bicycle and Pedestrian Transportation Facilities.* The Town adopts the sidewalk master plan map and the trails master plan map as the plans for sidewalks and bicycle facilities for the Town. The Town shall work with Lake County, developers, and other possible funding agencies to implement the improvements identified in the plan.

**POLICY 1.1.5:** *Functional Classification System.* The Town shall classify all roadways within its jurisdictional area according to the most current functional classification system established by the Florida Department of Transportation (FDOT).

**POLICY 1.1.6:** *Parking and Traffic Flow.* The Town shall require new development to submit a site plan that provides for adequate off-street parking and safe, convenient on-site and off-site traffic flow for motorized and non-motorized vehicles.

**POLICY 1.1.7:** *Transportation Facility Planning.* Planning for transportation facilities shall ensure:

- a. All streets/roads are constructed and certified to meet all Town standards;
- b. Residential street layouts avoid cul-de-sacs when possible;
- c. Residential areas are accessible to emergency vehicles;

- d. Residential streets shall have interconnections where possible to better distribute traffic;
- e. New subdivisions or developments shall address circulation, access control, off-street parking and landscaping of median strips and rights-of-way; and
- f. Design criteria for landscaping and signs along new streets/roads shall be enforced.

**POLICY 1.1.8:** *Plantings, Fencing, or Construction.* No plantings, fencing or construction shall be permitted on street/road rights-of-way except with the permission of the Town Council and based on a study and finding that no safety hazard will result. In addition, all streets will be examined for existing hazards which if discovered should be removed.

**OBJECTIVE 1.2:** *Future Land Use Compatibility.* The *Transportation Element* shall be consistent and compatible with proposed growth and development shown in the *Future Land Use Element* and *Future Land Use Map*.

**POLICY 1.2.1:** *Town Transportation Forecasting.* The Town shall utilize population, dwelling unit and employment projections obtained in the *Future Land Use Element* as data assumptions in forecasting future Town transportation needs.

**POLICY 1.2.2:** *Transportation System Improvements.* In areas designated for new growth, the Town shall determine the transportation system improvements needed prior to development approvals.

**POLICY 1.2.3:** *Consistency with Future Land Use Element and Map.* Decisions and actions the Town initiates or implements that will have an impact on the transportation system shall be consistent with the adopted *Future Land Use Map* and *Future Land Use* goals, objectives and policies of this *Plan*.

**POLICY 1.2.4:** *Future Transportation Map.* All transportation planning shall be consistent with the *Future Transportation Map* which is adopted with this *Plan* by the Town Council along with the *Future Land Use Map* and the *Capital Improvements Element*.

**POLICY 1.2.5:** *Conflicts with the Future Land Use Map.* Any changes to the transportation system shall be reviewed for conflicts with the *Future Land Use Map*. The *Future Transportation Map* and the *Capital Improvements Element* shall be coordinated and changed concurrently if necessary.

- POLICY 1.2.6:** *Statement of Findings.* Any proposed amendments to this *Element*, to include the *Future Transportation Map*, shall include a statement of findings supporting such proposals.
- POLICY 1.2.7:** *Cost/Benefit Studies.* Cost/benefit studies shall be prepared and adopted by the Town as a technical supplement to any transportation capital improvement program.
- POLICY 1.2.8:** *Energy Efficiency.* Energy efficiency shall be a consideration in any plans for improvements or expansion of the road network by the Town.
- POLICY 1.2.9:** *Coordinating Traffic Studies, Road Improvements, and Future Roadway Needs.* The Town, through the Lake-Sumter MPO's Concurrency Management System, shall coordinate traffic studies, road improvements, and future roadway needs with all the local jurisdictions in Lake County to ensure that the adopted levels of service are maintained.
- POLICY 1.2.10:** *Consistency with Adopted Levels of Service.* The Council shall review all proposed developments for consistency with this *Element* and the impact upon the adopted level of service standards.
- POLICY 1.2.11:** *Concurrency Management System.* The Town shall implement its Concurrency Management System to monitor impacts on the transportation system created by development and growth in Town. The Concurrency Management System shall also be used to assure integration of future land uses with available capacities on transportation corridors.
- OBJECTIVE 1.3:** *Right-of-way Preservation and Acquisition.* Provide for the protection and acquisition and preservation of existing and future rights-of-way.
- POLICY 1.3.1:** *Building Encroachments.* The Town shall continue to provide for protection of rights-of-way from building encroachments as well as providing for the acquisition and preservation of any existing and future rights-of-way.
- POLICY 1.3.2:** *Dedication of Needed Rights-of-way.* The Town shall continue requiring dedication of needed rights-of-way from new development, through subdivision regulations and applicable local ordinances.

**POLICY 1.3.3:** *Encroachment of Development.* The Town shall prohibit encroachment of development and required setbacks into established present and future rights-of-way and, within the law, require dedication of rights-of-way through development orders issued by the Town.

**OBJECTIVE 1.4:** *Future Roadway Improvements.* Provide transportation improvements to meet the projected needs of growth and development anticipated during the planning period.

**POLICY 1.4.1:** *Analyzing Transportation Plans and Programs.* The Town shall annually (during the Town’s annual concurrency assessment) analyze transportation plans and programs of FDOT, ECFRPC, and Lake County to establish consistency and compatibility to plans and policies set forth within the Town’s *Comprehensive Plan*. The Town shall likewise notify these three entities of all programs and improvements, amendments to the *Comprehensive Plan*, and status of the Concurrency Management System which pertain to transportation.

**POLICY 1.4.2:** *Monitoring the Transportation System.* The Town shall continue to monitor the available capacity of all roads identified in the Town’s Concurrency Management System. The Town shall use the most recent traffic count figures recorded by Lake County or FDOT to update roadway capacities. The Concurrency Management System shall include provisions requiring developers to perform, or pay fees for services in lieu thereof, a traffic impact study to measure proposed impacts on the current availability of road capacities as a requirement in the development review process. The Town will continue to work with the Lake Sumter MPO to coordinate the transportation concurrency management system as outlined in the interlocal agreement.

**OBJECTIVE 1.5:** *Bicycle and Pedestrian Ways and Scenic Roadways.* Promote a system of bicycle and pedestrian ways in planning for transportation facilities and analyze roadways for scenic designations.

**POLICY 1.5.1:** *Bicycle and Pedestrian Facilities Plan.* The Town shall implement sidewalk and bicycle facilities according to the adopted plan maps and include proposed projects in the Town’s capital improvements program as individual projects are presented for development.

- POLICY 1.5.2:** *Coordination with Lake County.* The Town shall coordinate with Lake County on the implementation of the Lake County Trails Master Plan which is hereby adopted by reference. The Town shall seek to advance the Central Lake Trail component of the plan..
- POLICY 1.5.3:** *Provision of Bicycle and Pedestrian Ways.* The Town shall enforce the provisions established in the Land Development Regulations regarding the development review process that requires applicants of PUDs, site plans, subdivisions, and replats to provide for the needs of bicycle and pedestrian facilities.
- POLICY 1.5.4:** *Bicycle Storage Facilities.* The Town shall ~~continue to provide bicycle storage facilities at existing and proposed Town parks and shall~~ analyze the need to provide such facilities at ~~other~~ Town public buildings ~~within the~~ as proposed in the bicycle and pedestrian plan. The Town shall enforce the guidelines established in the Land Development Regulations regarding the requirement of all new shopping centers, recreation areas, and other public uses to provide storage facilities for bicycles.
- POLICY 1.5.5:** ~~*Preservation of Scenic Route Designation.* The Town shall coordinate with the Florida Department of Transportation to preserve the State's designation of S.R. 19 as a "Backwoods Trail" to promote the roadway's unique scenic character.~~
- POLICY 1.5.6:** *Bicycle and Pedestrian Walkways Connection.* Bicycle and pedestrian walkways shall connect schools, the downtown area, parks and recreational areas and should include plans for bicycle parking.
- POLICY 1.5.7:** *Infill Development Sidewalk Policy.* In developed areas of the Town not served by a sidewalk network, infill residential development shall not be required to construct sidewalk unless the sidewalk will extend an existing sidewalk or where the development will include 80% or more of a block face..
- POLICY 1.5.8:** *Automobile Emission Pollution.* The Town shall enforce the guidelines and standards established in the Land Development Regulations regarding bicycle paths and pedestrian walkways to reduce the potential for automobile emission pollution and promote the use of bicycles and walking in the Town.



**OBJECTIVE 1.6:** *Coordination with Transportation Authorities.* The Town shall coordinate traffic improvements and transportation planning activities with adjacent towns, the Florida Department of Transportation, Lake County, the Lake-Sumter MPO, and other public transportation authorities or planning groups involved in the planning construction and operation of transportation facilities and services.

**POLICY 1.6.1:** *Coordinate Traffic Improvement Plans.* Prior to scheduling any improvements to State or County roads in the *Five-Year Schedule of Improvements*, the Town shall notify and coordinate such improvement plans with the jurisdictional authority for that road. The Town shall coordinate transportation plans and improvements with the Five-Year Transportation Improvements Programs or Schedule of Improvements adopted by the FDOT and Lake County.

**POLICY 1.6.2:** *Consistency in Level of Service Standards.* Level of service standards established for state or county roads shall be compatible with the respective state and county level of service standards to the maximum extent allowed under the Florida Highway System Plan, Section 187.201 (State Comprehensive Plan), Florida Statutes, and Chapter 163, Florida Statutes, ~~and Chapter 9J-5, Florida Administrative Code. In the event the adopted level of service is not compatible with the level of service standards established for roads under either the jurisdiction of the Florida Department of Transportation or Lake County, the Town shall provide a justification in the data inventory and analysis supporting document of the Comprehensive Plan.~~

**POLICY 1.6.3:** *Intergovernmental Coordination Element.* The *Intergovernmental Coordination Element* shall be used as a guide in establishing or enhancing communication or transportation planning and problems.

**POLICY 1.6.4:** *Future Transportation Map.* The Town shall share its *Future Transportation Map* and proposed changes thereto with neighboring cities, towns, and the County and review for compatibility the traffic plans of those agencies.

**POLICY 1.6.5:** *Median Landscaping and Road Beautification.* The Town shall continue to pursue grant opportunities for median landscaping and road beautification.

**POLICY 1.6.6:** *Transportation Demand Management.* The Town shall coordinate with the County and Lake-Sumter MPO on a Congestion/Mobility Management Program to identify Transportation Demand Management strategies to mitigate peak-hour congestion impacts.

Strategies may include: growth management and activity center strategies, telecommuting, transit information systems, alternative work hours, carpooling, vanpooling, guaranteed ride home program, parking management, addition of general purpose lanes, channelization, computerized signal systems, and intersection or midblock widenings.

**POLICY 1.6.7:** *Numerical Indicators.* The Town shall coordinate with the County and Lake-Sumter MPO in the establishment of numerical indicators against which the achievement of the mobility goals of the community can be measured, such as modal split, annual transit trips per capita, and automobile occupancy rates.

**POLICY 1.6.8:** *Assumptions and Policies in the Transportation Element.* The Town shall ensure that all assumptions and policies in the *Transportation Element* are consistent or coordinated with other Plan Elements, the Lake-Sumter MPO Long-range Transportation Plan, the FDOT adopted Five-year Work Program, the long-range and short-range elements of the Florida Transportation Plan, the East Central Florida Regional Planning Council Strategic Regional Policy Plan, and the Lake County Comprehensive Plan through establishment of formal coordination mechanisms and other informal coordination mechanisms.

**POLICY 1.6.9:** *Alternative Road Bypass Route(s).* The Town shall cooperate with the County, Lake-Sumter MPO, and FDOT to identify the future conditions and road improvements necessary to develop alternative road bypass route(s).

**POLICY 1.6.10:** *Coordination with Lake-Sumter MPO and FDOT.* The Town or designated transportation consultant shall work with the Lake-Sumter MPO and Lake County on the regional transportation forecast model to include the various urban collector roadways and key intersections within Town and Lake County to help distribute the traffic.

**OBJECTIVE 1.7:** *Future Transportation Map.* The Town shall exercise control over traffic planning and changes by maintaining a *Future Transportation Map*.

**POLICY 1.7.1:** *Future Transportation Map.* All traffic planning shall be consistent with the *Future Transportation Map* which is adopted with this *Plan* by the Town Council along with the *Future Land Use Map* and the *Capital Improvements Element*.

- POLICY 1.7.2:** *Conflicts with Future Land Use Map.* Any changes to the transportation system shall be reviewed for conflicts with the *Future Land Map*. The *Future Transportation Map* and the *Capital Improvements Element* shall be coordinated and changed concurrently if necessary.
- POLICY 1.7.3:** *Statement of Findings.* Any proposed amendments to this *Element*, to include the *Future Transportation Map*, shall include a statement of findings supporting such proposals.
- POLICY 1.7.4:** *Cost/Benefit Studies.* Cost/benefit studies shall be prepared and adopted by the Town as a technical supplement to any transportation capital improvement program.
- POLICY 1.7.5:** *Energy Efficiency.* Energy efficiency shall be a consideration in any plans for improvements or expansion of the road network by the Town.
- POLICY 1.7.6:** *Future Transportation Map Review.* The Town shall review its *Future Transportation Map* yearly in conjunction with the Monitoring and Evaluation Review.
- OBJECTIVE 1.8:** *Transportation Costs.* The Town shall establish mechanisms that will allow new growth to proportionally contribute to the cost of new transportation capital facilities.
- POLICY 1.8.1:** *Impacts on the Town’s Transportation Facilities.* The Town shall review all development proposals and require that they provide sufficient information to ascertain impacts on the Town’s transportation facilities.
- POLICY 1.8.2:** *Development Agreements.* Where feasible, the Town shall enter into development agreements with proposed land developments to establish how project impacts may be addressed through mechanisms such as right-of-way dedication, roadway construction, multimodal design (bicycle, pedestrian, golf cart), and impact fee payments and credits.
- POLICY 1.8.3:** *Proportionate Fair Share Ordinance.* The Town shall enforce its Proportionate Fair Share Ordinance to establish a method whereby the impacts of development on transportation facilities can be mitigated by the cooperative efforts of the public and private sectors.

**POLICY 1.8.4:** *Fair Share Payments.* The Town shall require all new developments to pay their fair share for the improvement or construction of needed transportation facilities to maintain adopted level of services standards. Fair share payments will be collected consistent with the adopted *Proportionate Fair Share Ordinance*.

**POLICY 1.8.5:** *Proportionate Share of Cost.* Land development shall bear proportionate share of the cost of the provision of the new or expanded road capital facilities or signalization required by such development.

**POLICY 1.8.6:** *Imposition of Impact Fees.* The imposition of impact fees is a preferred method of regulating land development in order to help ensure that it bears a proportionate share of the cost of road capital facilities necessary to accommodate that development.

**POLICY 1.8.7:** *Compensation for Administrative Expense.* After compensation for administrative expense, all remaining funds collected from road impact fees shall be used for the purpose of capital improvements for the expansion of transportation facilities associated with the arterial and collector road networks in Howey-in-the-Hills or the adjacent County network.

**POLICY 1.8.8:** *Capital Improvements Funding.* Transportation capital improvements that may be funded by impact fees include transportation planning, preliminary engineering, engineering design studies, land surveys, rights-of-way acquisition, engineering, permitting, and construction of all the necessary features for arterial and collector road construction projects of the type made necessary by the new development.

**OBJECTIVE 1.9:** *Access Points.* The Town shall continue to enforce its zoning regulations to control access points onto collector streets and roadways.

**POLICY 1.9.1:** Guidelines and standards for the location of access points on County Roads shall be coordinated with Lake County and on State Roads with the FDOT (the permitting authority) with the following guidelines addressed as a minimum:

- a. Access points to major streets/roads shall be limited in number.
- b. Where frontage roads are available, no additional access points shall be permitted between established intersections.

- c. In the design of new areas, frontage roads shall be provided, whenever right-of-way is available, to provide access to private property; and
- d. Distance from intersections, width and frontage requirements should be studied.

**OBJECTIVE 1.10: *Environmental Concern.*** The environment shall be a major concern in any expansion of the transportation system.

**POLICY 1.10.1: *Natural Environment Sensitivity.*** Planning for future transportation improvements shall recognize the sensitivity of the natural environment to protect the quality of existing and future neighborhoods.

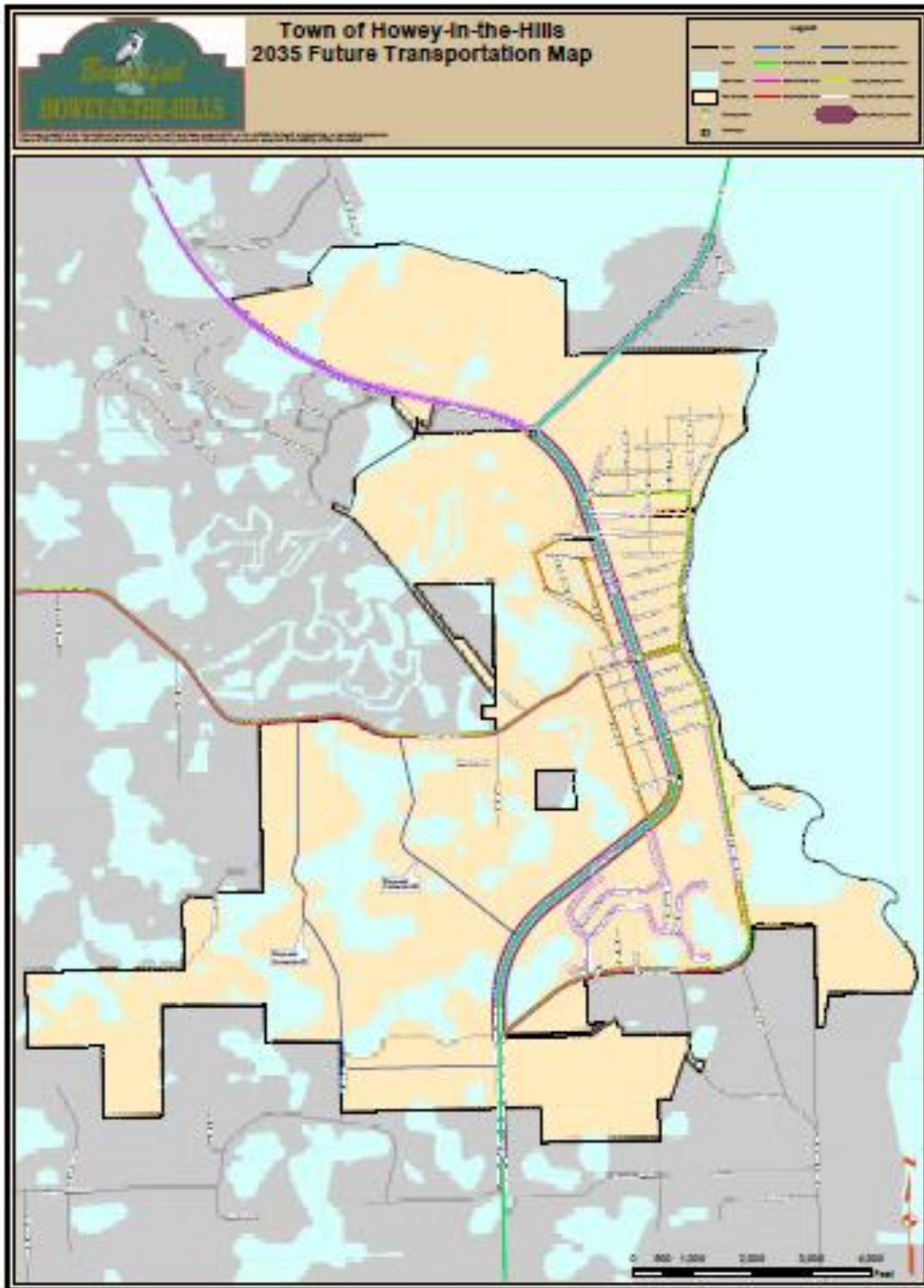
**POLICY 1.10.2: *Conservation Resource Areas.*** Transportation facilities shall not be placed in conservation resource areas or impact those places unless an overriding public need can be clearly demonstrated.

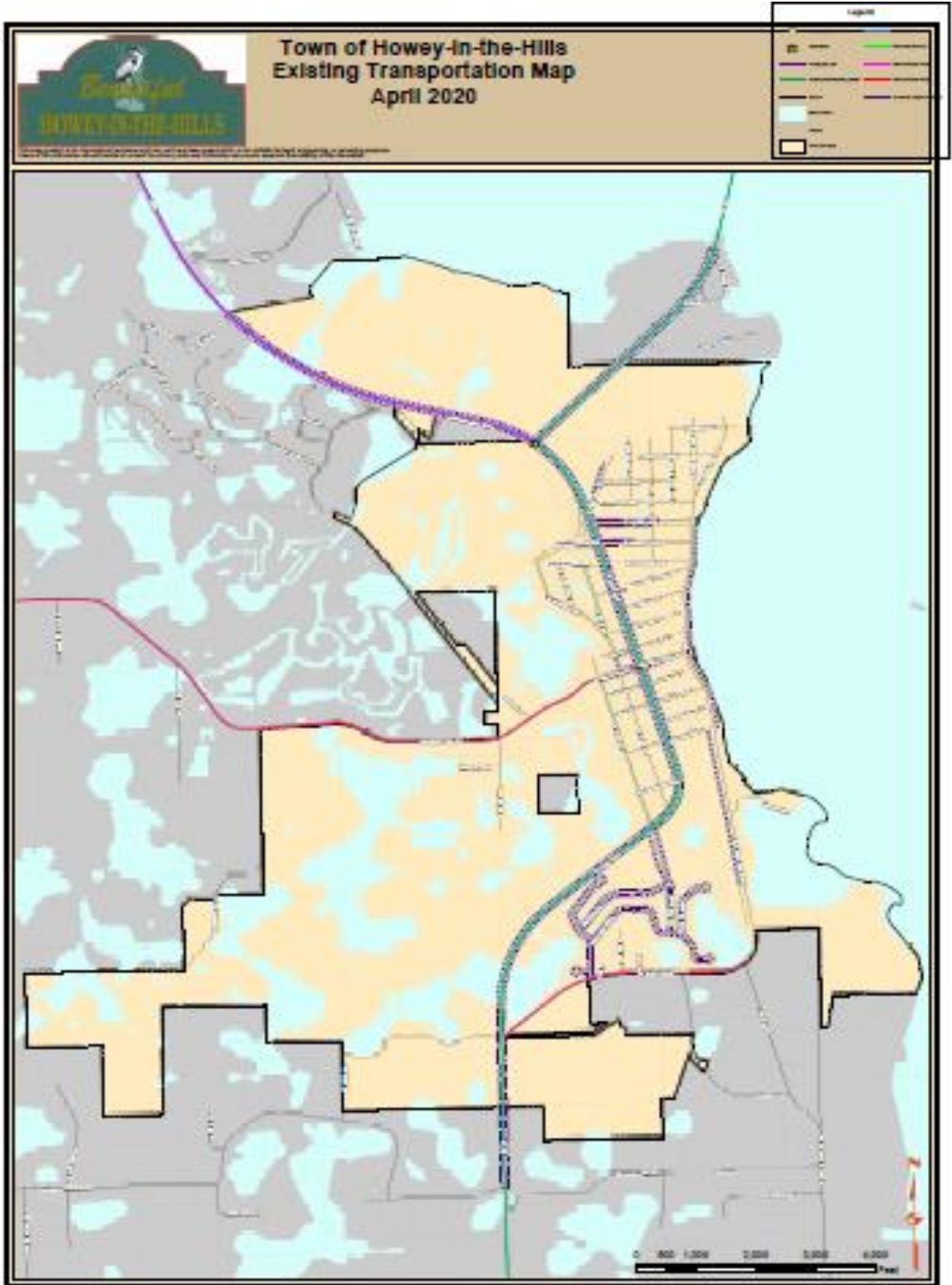
**POLICY 1.10.3: *Encouraging the State and County.*** The State and County shall be encouraged to monitor the environment before, during and after construction of traffic improvements.

**OBJECTIVE 1.11: *Public Transit.*** In the event that Lake County Express proposes any plans to establish a transit route in Howey-in-the-Hills, the Town shall work with Lake County Express to provide a safe and efficient public transit system.

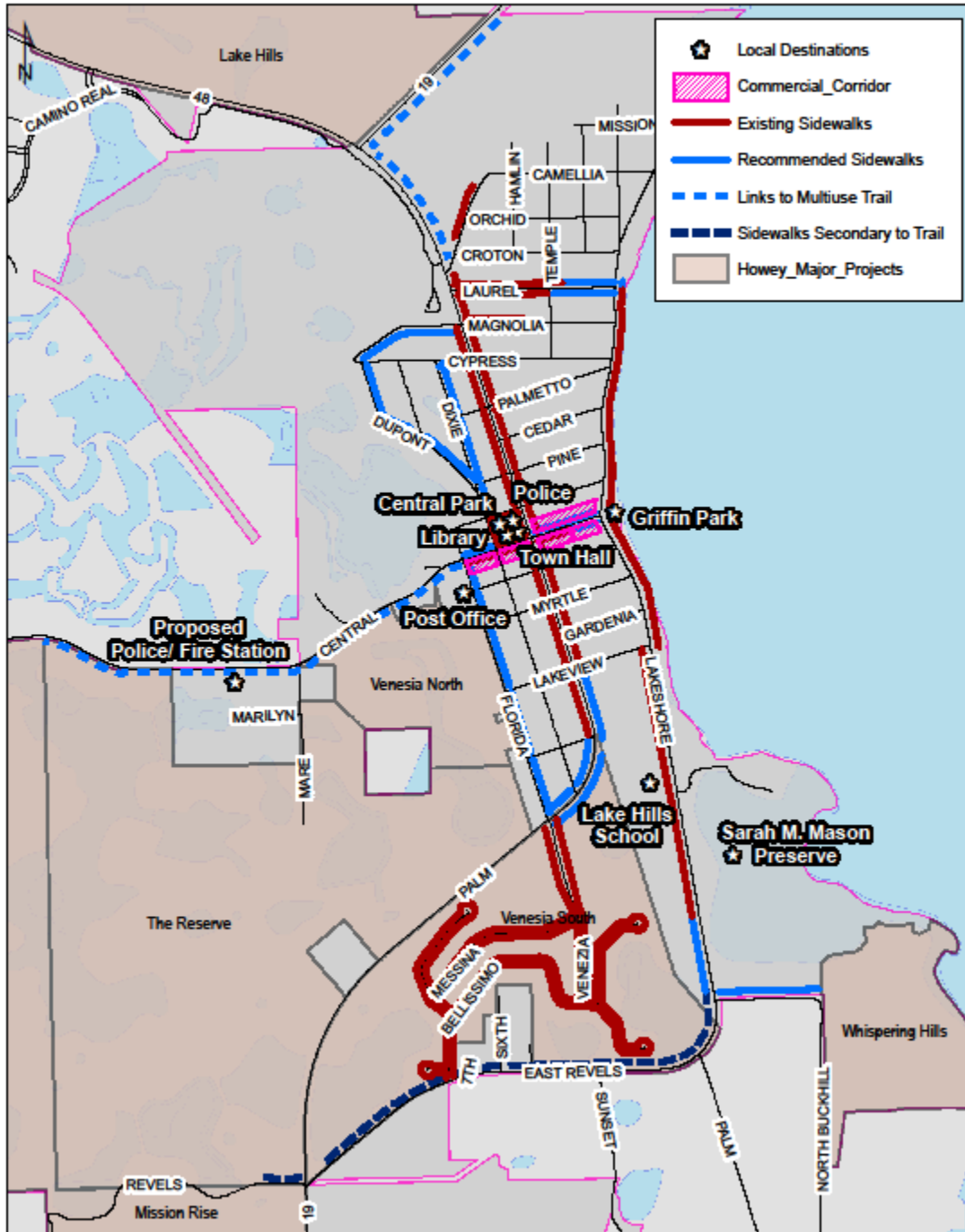
**POLICY 1.11.1:** Transit ridership shall be accommodated on certain Town roads. It is anticipated that if Lake County Express were to establish a route through Howey-in-the-Hills, it would most likely be taking residents to work, shopping, or other venues outside the Town. The Town shall encourage any such public transportation by:

- Working with Lake County Express to determine where a transit stop may be feasible.
- Requiring transit stops to meet ADA requirements; and
- Clearly delineated walkways from the building to the transit stop.



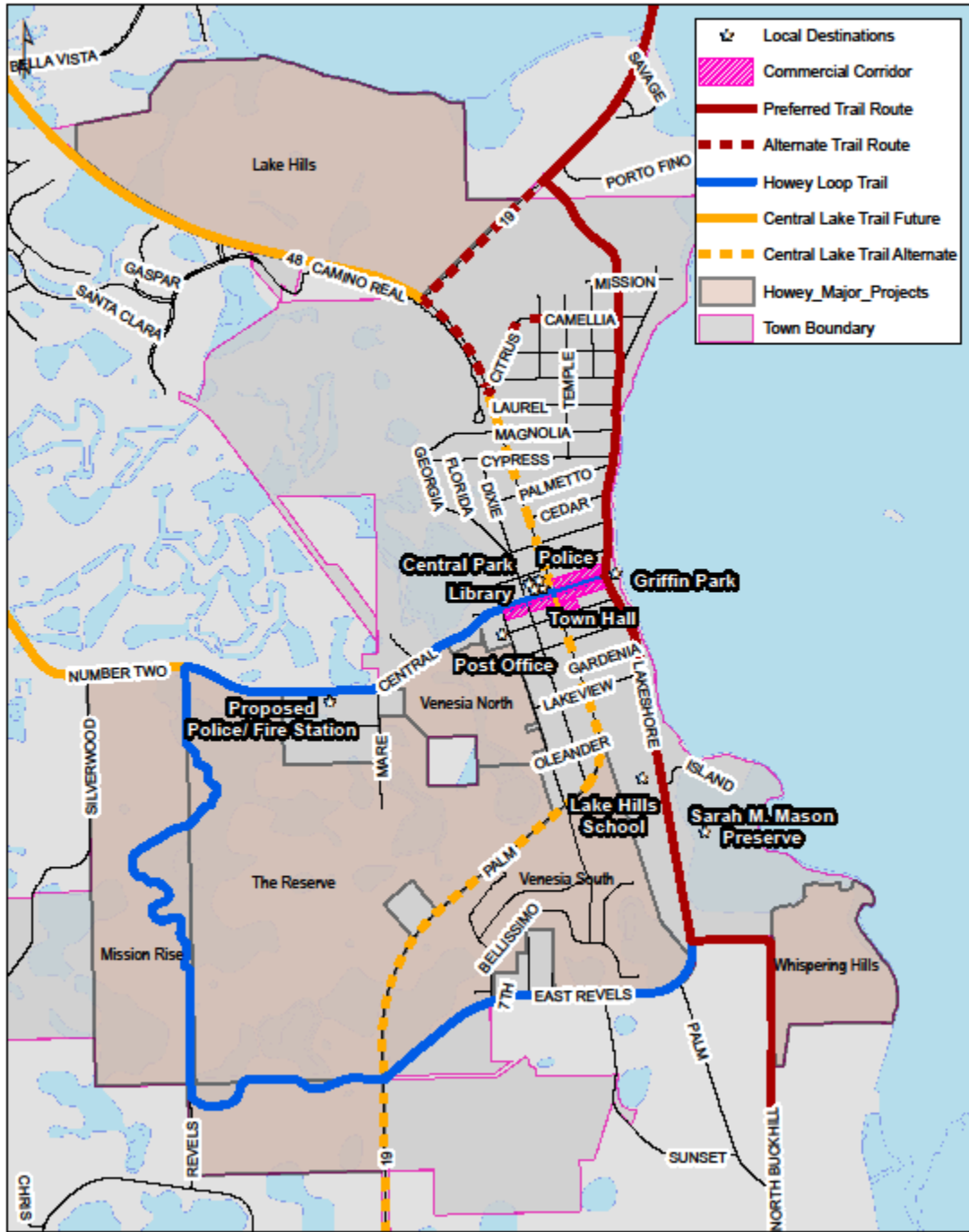


### Howey-in-the-Hills Sidewalk Master Plan Map





### Howey-in-the-Hills Trails Master Plan Map





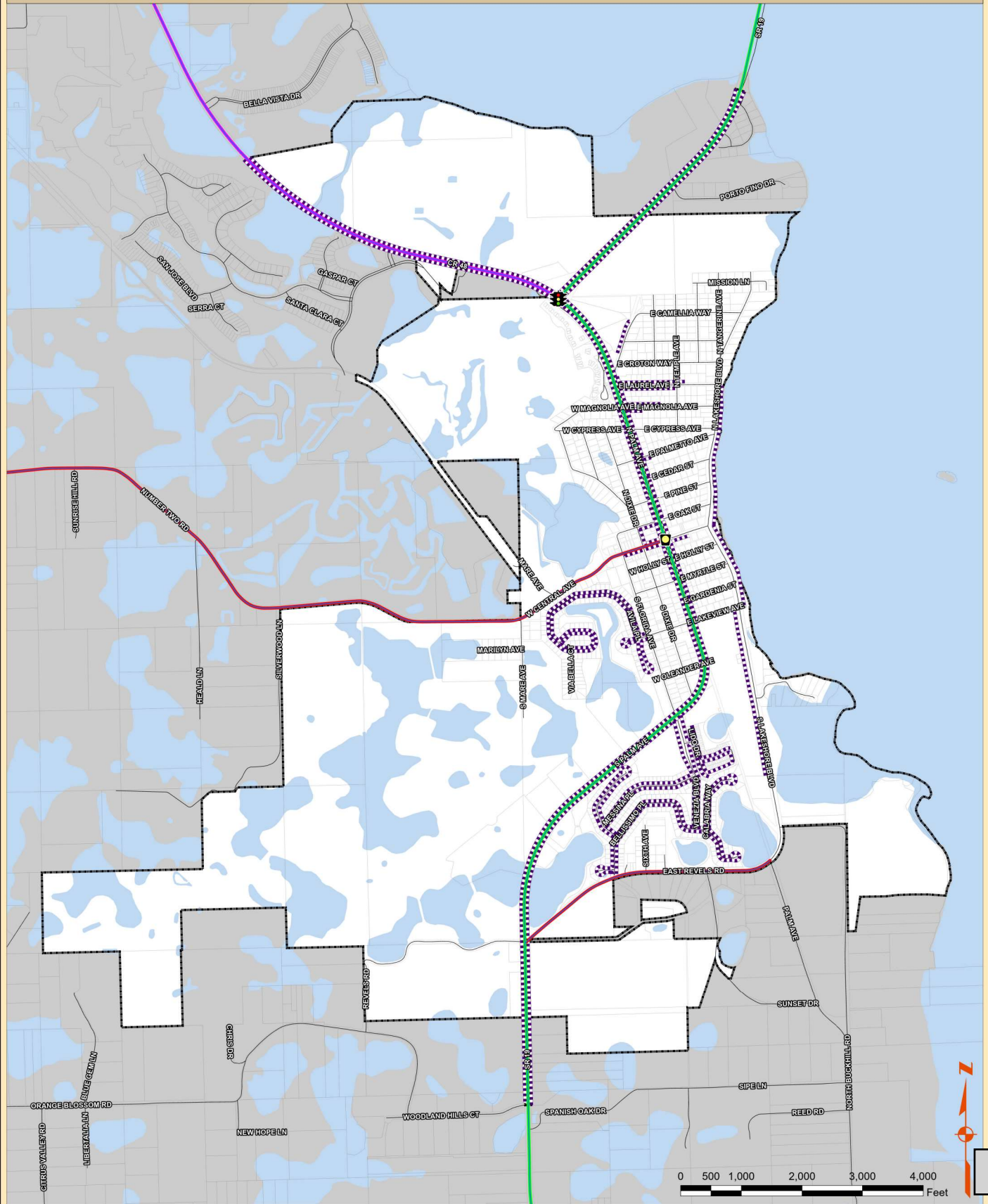
# Town of Howey-in-the-Hills Existing Transportation Map February 2024

## Legend

- Town Boundary
- Lakes
- Parcels
- Flashing Beacon
- Traffic Signal
- Streets
- Double Lane
- Minor Arterial Rural
- Minor Collector Rural
- Major Collector Rural
- Existing Pedestrian Bicycle Pathways

Item 2.

This map product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.







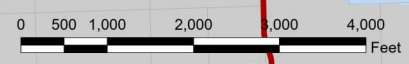
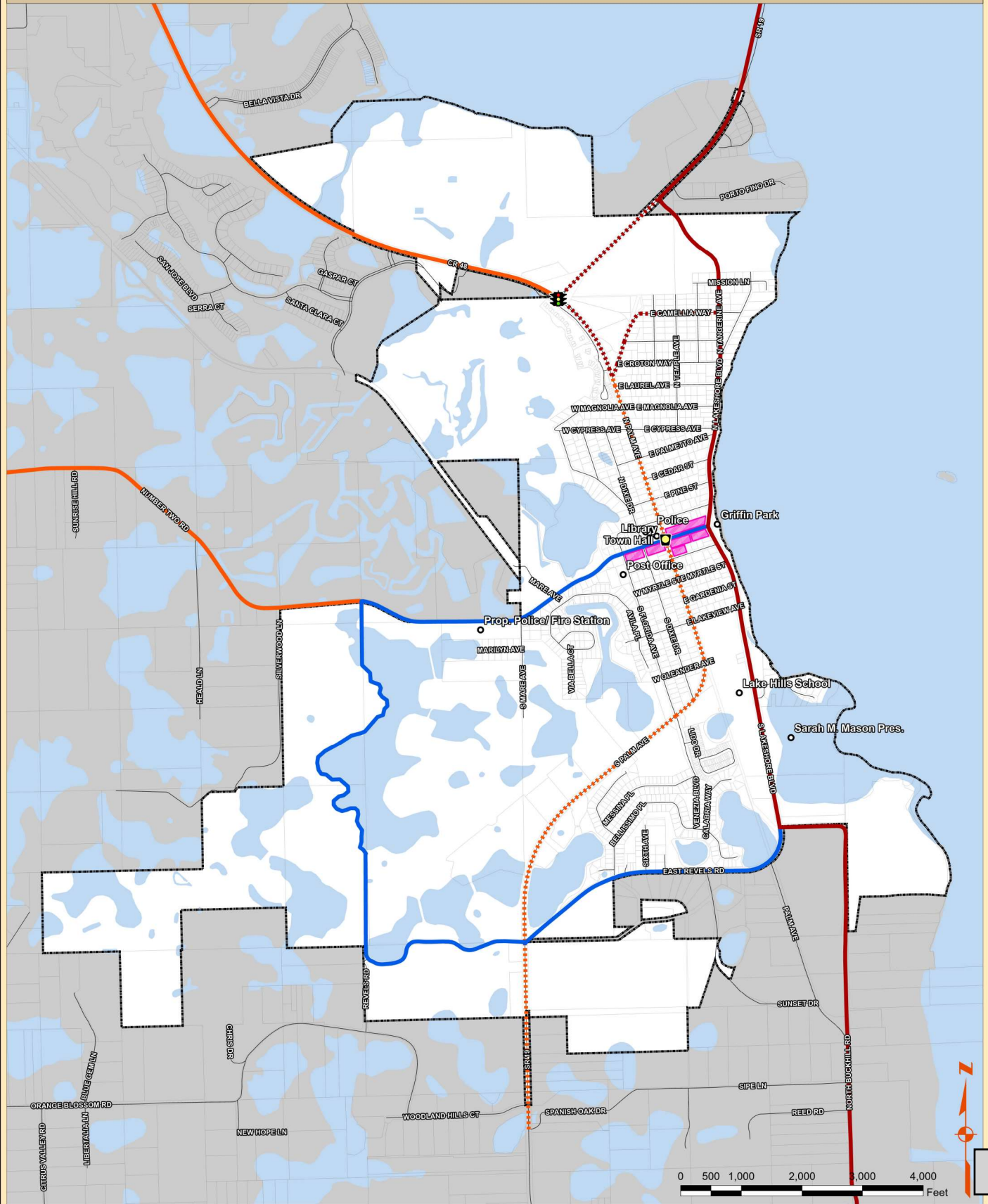
# Town of Howey-in-the-Hills Multiuse Trails Master Plan February 2024

Item 2.

**Legend**

- Commercial Corridor
- Town Boundary
- Local Destinations
- Parcels
- Lakes
- Flashing Beacon
- Traffic Signal
- Streets
- Proposed Howey Loop Trail
- Central Lake Trail Preferred Route
- CLT Preferred Alternate (Howey)
- CLT Alternate Route (Howey)
- CLT Alternative Routes (Future)

This map product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.





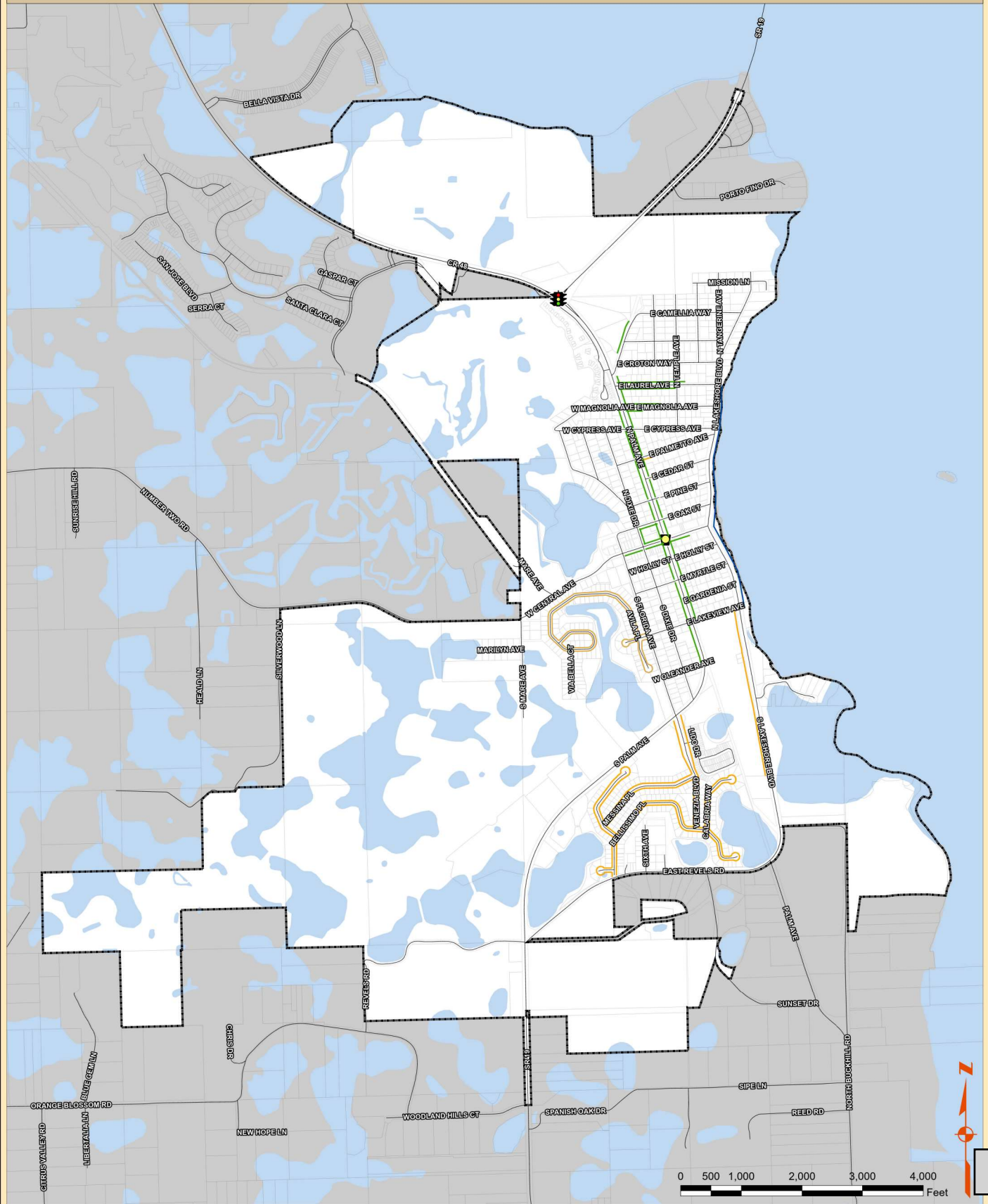
# Town of Howey-in-the-Hills Sidewalk Inventory Map February 2024

Item 2.

**Legend**

- Town Boundary
- Lakes
- Parcels
- Type**
- Flashing Beacon
- Traffic Signal
- Streets
- Sidewalk**
- 4 foot wide
- 5 foot wide
- 6 foot wide

This map product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.



Editor: Eric A. Kozinski for TDM Consulting Inc. Last Update: 02/15/2024



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## MEMORANDUM

**TO:** Howey-in-the-Hills Planning Board  
**CC:** J. Brock, Town Clerk  
**FROM:** Thomas Harowski, AICP, Planning Consultant  
**SUBJECT:** Recreation & Open Space Comprehensive Plan Element  
**DATE:** April 16, 2024

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As part of our ongoing effort to complete the periodic evaluation of the comprehensive plan (EAR), the accompanying update of the Recreation and Open Space Element has been prepared for review by the Planning Board. The draft updates were reviewed by the Town's Park and Recreation Advisory Board at their April 11, 2024, regular meeting. The Park and Recreation Board supported the proposed revisions. The changes proposed for consideration include the following items:

- There has been a general update of the data and analysis section of the element to bring the specific information on existing facilities and anticipated population impacts to a more current status.
- Table 4 (renumbered as Table 3) has been updated based on the current population projects to evaluate the impact of population increase on the adopted level of service for parks. While the Town's "reserve" of park capacity is reduced over time, there is still adequate capacity for the planning period. (Note: the Sara Maude Mason Park is not included in the Table 3 calculation.) This assessment does not include private recreation facilities that are part of many of the new subdivisions nor does it assume additions to the public park inventory.
- Some editorial revisions were made to the policies in the element.
- Policy 1.5.1 on open space is revised to reduce the percentage of wetlands that can count toward minimum open space requirements from 50% to 25%. This revision is consistent with changes in other plan elements.

## RECREATION AND OPEN SPACE ELEMENT



TOWN OF HOWEY-IN-THE-HILLS

LAKE COUNTY, FLORIDA

ADOPTED ON OCTOBER 11, 2010

AMENDED APRIL 22, 2020

**RECREATION AND OPEN SPACE ELEMENT  
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## CHAPTER 6 RECREATION AND OPEN SPACE ELEMENT

### A. INTRODUCTION

#### 1. Purpose

The purpose of the *Recreation and Open Space Element* is to plan for a comprehensive system of public and private recreation and open space sites which are available to the public, but which are not inappropriate for the size and physical constraints of the Town.

This *Element* of the *Comprehensive Plan* assesses current opportunities, analyzes future needs and contains goals, objectives and policies that shall be used by the Town to ensure public and private recreation and open space sites available to the public within the Town's boundaries are adequate for the needs of the Town and its citizens, but are not inappropriate for the size and physical constraints of the Town.

### B. EXISTING RECREATION SITES

Long-range recreation and parks systems planning is a vital component of community planning. In order to facilitate the accomplishment of a successful comprehensive parks plan, an inventory of existing recreational facilities and programs must be undertaken. Recreation and open space opportunities in Howey-in-the-Hills and its immediate vicinity are described below.

#### 1. PUBLIC FACILITIES

This section assesses the public facilities in Howey-in-the-Hills and its immediate vicinity.

##### a. Town Parks and Recreation

There are ~~22.93~~ 77.69 acres of parkland in Howey-in-the-Hills. The largest park in Town is the Sarah Maude Nature Preserve, which is about 54 acres of preserve and 17 acres of upland ~~(the Town only includes the upland acres in the overall parkland acres)~~ and the smallest Town park is Tangerine Point Park at 0.1 acres. Table 1 below features the list of Town parks with their corresponding acreage. There has been discussion about using the former Town landfill for parkland, but site development has not been undertaken yet. When completed the site will add approximately five acres to the park inventory.

**TABLE 1: HOWEY-IN-THE-HILLS PARKS, 2010**

Park	Acreage
Griffin Park	5.5 acres
Sarah Maude Nature Preserve	54.4 acres preserve 16.9 upland acres
Blevins Park	0.25 acres
<del>Market</del> Grove Square Park	0.11 acres
Tangerine Point Park	0.1 acres
Central Park	0.43 acres
<del>Pine Park</del>	<b>2.00 acres</b>
<b>TOTAL</b>	<b><del>23.29</del> 79.69 acres</b>

Source: Town of Howey-in-the-Hills Staff

The Town requires that level of service be met for park space. Table 2 below outlines the requirements for park space.

**TABLE 2: EXISTING LEVELS OF SERVICE FOR PARKS**

Land/Facility	LOS	Adopted LOS	Land/Facilities Needed Based on BEBR Pop. Of <del>1,106</del> <b>1,790</b> as of <del>2015</del> <b>2023</b>	Surplus or Deficiencies <del>2015-2023</del>
Park Space	<del>23.29</del> <b>25.29</b> acres	6.5 acres of park space per 1,000 residents	<del>7.2</del> <b>11.6</b> acres of park space	Surplus of <del>16.09</del> <b>13.69</b> acres

**b. School Board of Lake County**

There are currently three public school facilities located within the Town limits. Three separate schools use two of the facilities; Lake Hills School facility having two separate schools, one for the profoundly disabled children of Lake County and a second school for behaviorally challenged handicapped children. Lake Success Academy located in the old Howey Elementary School facility is used to serve another limited student population. In addition the old Howey Academy facility and a second facility across the street from the Howey Academy facility are used for back office staff functions of the school district. All functions located in Howey serve county-wide services.

The Lake County School District has purchased a 19-acre tract on CR 48 near SR-19 which is currently designated for an elementary school. No timetable has been set for construction of the school as it is not in the current five-year capital facilities plan.

~~Lake Hills School, which serves students with moderate to profound disabilities from Pre-K to the 12<sup>th</sup> grade, is the only public school located in Town.~~ Lake Hills School sits on approximately 17 acres of land along South Lakeshore Drive. The recreational and open space facilities at the school include playground areas and equipment for young school children and varied open spaces between such facilities. The Lake Hills School has sufficient space needed to accommodate ball fields on the site.

There are three Lake County public schools (Astatula Elementary School, Tavares Middle School and Lake Technical Center - Astatula) within 5 miles of Howey-in-the-Hills. Astatula Elementary and Tavares Middle have the typical recreational facilities provided onsite such as ball fields, gymnasiums, outdoor tracks, children playground areas, etc. All these schools can be easily accessed by the Town's residents.

**c. Libraries**

There is a library located in Howey-in-the-Hills, the Marianne Beck Memorial Library located on West Central Avenue next to the Town Hall building. The Town owns and operates the library. The Marianne Beck Memorial Library's card enables residents to tie directly to the Lake County Library System catalog.

There is also a public library in Tavares about 5 miles from Howey-in-the-Hills. It also provides library services to the residents of Howey-in-the-Hills. Although it is not within the Town limits, it is within easy access of all Town's residents.

**d. Lake County**

The County's Parks and Trails Division maintains parks, recreation sites and boat ramps, and natural public lands in the County. There are three dozen parks, preserves and boat ramps dispersed across the County.

The Hickory Point Recreational Waterfront Park, which is about 2 miles northeast of Town, is the closest County operated facility to the Town. Hickory Point premiered in February 1992. With 12 paved boat ramps, including two that can accommodate deep-draft vessels, and ample parking for vehicle and boat trailers, the park offers the basic amenities for all sort of anglers. Along with the boat ramps into Lake Harris, Hickory Point offers a day-use marina (no overnight mooring allowed) with an observation platform and two fishing piers. The park also features a swimming beach, volleyball courts, boardwalks, outdoor picnic areas with barbecue grills, open-field play areas, nature trail, playground, horseshoe pits and a sand volleyball court. The highlight of Hickory Point is its two-story, screened picnic pavilion with first-floor picnic tables and barbecue

grills. The second floor features two screened banquet rooms. The pavilion can accommodate small groups or large gatherings of up to 275 people.

The Lake Jem Park, which is about 8 miles northeast of Town in Tavares, is the second closest County operated facility to the Town. Lake Jem Park offers visitors the opportunity to launch a boat, canoe or kayak into the Beauclair Canal, hike the 1/2-mile nature trail, fish from the banks of the canal or have a family picnic while the children enjoy the playground shaded by huge Live Oaks.

**e. State of Florida**

The Division of Forestry of the Florida Department of Agriculture and Consumer Services does not administer any state forest lands in and/or adjacent to Howey-in-the-Hills.

**2. PRIVATE FACILITIES**

The private sector provides recreation and leisure opportunities that reduce demands for public recreation services. Through its site plan review process the Town can encourage developers to construct pedestrian and bicycle paths linking residential developments with off-site recreational facilities. Private recreation facilities are a requirement of the Village Mixed Use developments.

The Mission Inn Resort and Country Club, which is located partially within the Town, provides a world class golf course, tennis and a state-of-the-art fitness center for its members and guests.

Other for-profit sites in the Howey-in-the-Hills area may provide facilities for indoor activities, such as movie theaters, a bowling alley and game rooms.

**3. EXISTING OPEN SPACE**

The Town defines natural reservations and open spaces as land that is relatively free of manmade structural mass, and shall be provided for the aesthetic, health, environmental and economic benefits in any new development. Open space can provide buffering, assist in insuring privacy, provide a forum for growth of trees and animals, and provide recreational activity areas. Open space lands may be preserved, enhanced and restored in order to maintain or improve the natural, scenic, ecological, cultural, hydrological, or geological values of a given property.

~~There is 4.5 acres designated as Recreation lands on the Town's Future Land Use Map, almost all this land is considered to be open spaces.~~ The majority of these open spaces is are adjacent to the lakes in Town and lack the space needed to accommodate active-related facilities other than small recreational uses.

**4. EXISTING BICYCLE/PEDESTRIAN PATHWAYS**

While the Town has not adopted an official Bicycle/Pedestrian Master Plan, it has developed an inventory of the bicycle and pedestrian pathways in the Town. Overall, there are about 11.5 miles combined of bicycle/pedestrian pathways in Town (see Table 3 and the Town’s *Existing and Future Transportation Maps*). The residents and guests of Howey-in-the-Hills value the quality of life associated with the bicycle/pedestrian pathways in Town. Additionally, the bicycle/pedestrian pathways contribute to the unique hometown charm.

The pedestrian pathways are primary located in the downtown area, along a few residential streets in the northern portion of Town, and along Lakeshore Drive. ~~There are about 4 miles of pedestrian pathways in Town.~~ The new residential areas of Venezia and Talichet have sidewalks on both sides of all streets. A complete sidewalk inventory is provided in Table 3 of the Transportation Element.

The bicycle pathways in Town are along State Road 19 and County Road 48. While there is no striping indicating that these are bicycle lanes, the shoulders are wide enough to classify them as bicycle lanes. There are about 8 miles of bicycle pathways in Town. Table 4 of the Transportation Element provides a listing of these pathways. The Hilltop Groves subdivision is committed to providing a multi-use bicycle and pedestrian pathway through the project connecting SR-19 and Number Two Road. The Town has also designated the 2-acre Pine Park Tract as a trail head.

**TABLE 3: — EXISTING BICYCLE/PEDESTRIAN PATHWAYS, 2010**

<b>Facility Type</b>	<b>General Description</b>	<b>Miles</b>
Pedestrian	Lakeshore Dr. from E. Laurel Ave. to Lake Hills School	1.25
Pedestrian	SR-19 on left side heading north from W. Oleander Dr. to W. Magnolia Ave.	0.84
Pedestrian	SR-19 on Left heading south from N. Citrus Ave. to E. Lakeview Ave.	0.81
Pedestrian	E Laurel on north side from SR-19 to 2nd House from Lakeshore	0.26
Pedestrian	E Laurel on south side from SR-19 to 2nd House from Lakeshore	0.26
Pedestrian	E Magnolia on north side from SR-19 to 3rd house from Temple	0.12
Pedestrian	W. Central Ave. on north side from Library parking edge to SR-19	0.06
Pedestrian	W. Central Ave. on south side from Library parking edge to SR-19	0.06
Pedestrian	E Central Ave. on south side from SR-19 to 3rd building from N. Lakeshore Dr.	0.10
Bicycle	SR-19 Right Shoulder from southern town limits to northern town limits	3.22
Bicycle	SR-19 Left Shoulder from southern town limits to northern town limits	3.22
Bicycle	CR-48 left shoulder from town limits to SR-19 intersection	0.67
Bicycle	CR-48 right shoulder from town limits to SR-19 intersection	0.67

	<b>TOTAL</b>	<b>11.53</b>
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Source: Town of Howey-in-the-Hills and B&H Consultants, Inc.

## 5. Waterways

There are no rivers or streams that flow through the Town. Lake Illinois and several unnamed lakes are within the Town limits. Additionally, the Town is adjacent to Little Lake Harris. The majority of these lakes are maintained by the County. There are no lakes in Town classified as “A Florida Outstanding Water”. The lakes are used for boating, swimming, fishing and other water activities. Additionally, the Town has classified the land that is adjacent to Little Lake Harris or Lake Illinois as either conservation/open space or recreation lands on the *Existing* and *Future Land Use Maps*. The Town has adopted measures to ensure the conservation and protection of these lands from development.

## C. ANALYSIS

There are more than adequate passive recreational facilities and open spaces readily available and accessible to the residents and guests of Howey-in-the-Hills.

The Town shall continue to coordinate with the County on establishing measures to enhance the recreation and open space opportunities in Town. The Town will also continue to solicit grants from public and private agencies and donations of money to improve and enhance existing public recreational facilities.

There are no known problems regarding the accessibility of the Town’s parks or recreational facilities by the elderly, the handicapped or the economically disadvantaged.

The County operated parks in the area will serve populations well beyond the residents and guests of the Town. Access to these parks will be almost exclusively by car.

The existing road network is not severely congested and there is a significant opportunity for additional bicycle/pedestrian pathways in Town. The proposed bicycle pathways are presented on the Town’s *Future Transportation Map*.

Lakeshore Drive, which is considered a local scenic route, runs along Little Lake Harris. The existing residential structures, presence of environmentally sensitive areas, recreational paths and open spaces, and proximity to Little Lake Harris make it a valuable asset to the Town. As such, to preserve the quality of life for the residents and visitors of Howey-in-the-Hills, the Town has declared Lakeshore Drive as a constrained facility. A constrained roadway is one in which adding lanes to meet current or future needs is not possible due to physical, environmental or policy barriers.

Table 4.3 below outlines the requirements as well as the current and projected levels of service for park space. The Town does have the sufficient land needed to support the demand for park space and bicycle/pedestrian pathways during the planning period. As developments are considered, the Town will continue to ensure that park space and bicycle/pedestrian pathways will be required as part of those residential developments and that adopted level of service standards are met.

The Town shall continue to enforce the *Goals, Objectives, and Policies* of this *Element* to ensure the provision and maintenance of sufficient parks, recreation facilities, and open space areas are available to the residents and visitors of Howey-in-the-Hills.

**TABLE 4: HOWEY-IN-THE-HILLS' PROJECTED LEVELS OF SERVICE FOR PARKS, ~~2015-2035~~ 2023-2040**

Land/Facility	<del>2015</del> <del>2023</del> Park Area	Adopted LOS	Land/Facilities Needed to support <del>2020</del> <u>2023</u> population	<del>2020-2023</del> Surplus or Deficiencies	Land/Facilities Needed to support 2025 population	2025 Surplus or Deficiencies	Land/Facilities Needed to support 2030 population	2030 Surplus or Deficiencies	Land/Facilities Needed to support <del>2035</del> <u>2040</u> population	<del>2035</del> <u>2040</u> Surplus or Deficiencies
Park Space	<del>23.29</del> <u>25.29</u> acres	6.5 acres per 1,000 population	<del>11.47</del> <u>11.60</u> acres	Surplus of <del>11.82</del> <u>13.69</u> acres	<del>13.77</del> <u>12.87</u> acres	Surplus of <del>9.52</del> <u>12.42</u> acres	<del>15.14</del> <u>15.98</u> acres	Surplus of <del>8.15</del> <u>9.31</u> acres	<del>16.20</del> <u>22.98</u> acres	Surplus of <del>7.09</del> <u>2.31</u> acres



**D. GOALS, OBJECTIVES AND IMPLEMENTING POLICIES**

**GOAL 1:** Ensure maintenance and improvement of existing public parks, recreation facilities and open space areas to satisfy the health, safety, and welfare needs of the Town’s citizens and their guests, and enhance the total quality of life within the Town, in an efficient and appropriate manner.

**OBJECTIVE 1.1:** *Provision of Adequate Recreational Opportunities.* Assure the provision of adequate recreational opportunities for all residents and their guests to meet the Level of Service Standards during the short-range and long-range planning periods.

**POLICY 1.1.1:** *Level of Service Standards.* The Town hereby adopts the following minimum level of service through the year ~~2035~~ 2040.

<u>Facility</u>	<u>Level of Service</u>
Park Space	6.5 Acres per 1,000 residents

**POLICY 1.1.2:** *Size and Population Guidelines.* The Town hereby establishes the following size and population guidelines for recreational facilities and user-oriented parks:

**Population Guidelines for User-Oriented Outdoor Recreation Activities**

<b>Activity</b>	<b>Resource* Facility</b>	<b>Population Served</b>
Golf	9-hole golf course	25,000
Golf	18-hole golf course	50,000
Tennis	Tennis court	2,000
Baseball/softball	Baseball/softball field	3,000
Football/soccer	Football/soccer field	4,000
Handball/racquetball	Handball/racquetball court	10,000
Basketball	Basketball court	5,000
Swimming (Pool)	Swimming (Pool)*	8,700
Shuffleboard	Shuffleboard court	1,000
Freshwater fishing non-boat	800 feet of Fishing pier	5,000
Freshwater fishing power boating, water skiing, and sailing	Boat ramp lane	1,500

\* Based on a standard community swimming pool measuring 81 ft x 60 ft (4,860 ft).

**Size and Population Guidelines for User Oriented Park Sites:**

<b>District Park:</b>	5 acres per 1,000 population and a minimum park size of 5 acres
<b>Vest Pocket /Tot Lot Park</b>	0.5 acres per 1,000 population and a minimum park size of 1 acre or 0.25 acres for parks adjoining schools
<b>Community Park</b>	2 acres per 1,000 population and a minimum park size of 20 acres or 5 acres for parks adjoining schools
<b>Neighborhood Park</b>	2 acres per 1,000 population and a minimum park size of 5 acres or 2 acres for parks adjoining schools

Source: Florida Department of Environmental Protection – Division of Parks and Recreation, Outdoor Recreation in Florida – 2000: Florida’s Statewide Comprehensive Outdoor Recreation Plan, Tables 4.3, 4.4 and 4.5.

**Urban-District Park** - An urban-district park is designed to serve the recreation needs of several communities, a city, or a county, and usually provides some areas and facilities that are resource-based. Typical areas and facilities include natural areas, campgrounds and play apparatus. Additional facilities may include a zoo, a golf course or a botanical garden.

Driving periods of up to 30 to 40 minutes may be required to reach an urban-district park, which should, when possible, be located on the periphery of a large urban area. Such parks should serve an average population of 50,000, with a desirable space allowance of 5 acres per 1,000 people. While 100 acres may meet minimum requirements, a size range of 200 acres or more is desirable.

**Vest Pocket/Tot Lot Park** - Equipped play areas, or "tot lots" as they are often called, are open areas with play apparatus for preschool and school age children. It is recommended that an equipped play area serve neighborhoods of between 500 and 2,500 people on a minimum of 1/4-acre at a site adjoining an existing recreation facility or elementary school. Elsewhere, 1 acre is suggested. Recommended facilities include play apparatus, landscaping, benches and open space. Depending on local recreation needs, picnic tables may be included.

**Community Park** – A community park is a "ride to" park, located near major streets. It is designed to serve the needs of 4 to 6 neighborhoods. It serves an area with a radius of up to 3 miles, or a service population of up to 25,000. A minimum of 20 acres for each community park is recommended, with acreage needs based on a standard of 2 acres per 1,000 population. Typical facilities at a community park may include swimming pools, ball fields, tennis courts, play areas, picnic areas, multipurpose courts, recreation buildings, and sports fields.

Additional recreation facilities may be included to meet a particular recreation demand in the community. Two important elements of every community park are the use of landscaping and the provision of passive recreation activity areas.

**Neighborhood Park** – The neighborhood park is a "walk-to" park, generally located along streets where people can walk or bicycle without encountering heavy traffic. It serves the population of a neighborhood in a radius of up to one-half mile and should have at least 2 acres for each 1,000 population. Its size usually ranges from 5 to 10 acres, and it serves a population of up to 5,000.

Because the service areas of a neighborhood park and an elementary school often coincide, it is desirable for the neighborhood park to physically join the elementary school, when feasible. Typical facilities developed in the neighborhood park may include play apparatus, recreation buildings, multipurpose courts, sports fields, picnic areas and free play areas. Additional facilities may be added, depending on the recreation demands of the neighborhood.

- POLICY 1.1.3:** *Concurrency Management System.* Minimum land requirements needed to comply with the above adopted level of service standard shall be monitored and evaluated on an annual basis during the Town's Concurrency Management System annual update.
- POLICY 1.1.4:** *Planned Capital Improvements.* The Town shall include land acquisition for recreation space and facilities within the *Capital Improvement Schedule* if future demand and/or service improvements warrants additional recreation space.
- POLICY 1.1.5:** *Mandatory Dedication of Land.* The Town shall require new development to provide recreation space and/or facilities, or pay fees in lieu thereof, consistent with the *Park and Impact Fee Ordinance* minimum level of service acreage requirements as applied to anticipated population associated with said development.
- POLICY 1.1.6:** *Incentives to Developers.* The Town shall, ~~by December 2012, adopt incentives~~ minimum standards in the Land Development Regulations for developers to provide additional recreation facilities in their developments and recognize that private parks, open space and recreational areas within a development are an integral part of the recreational facilities provided to the Town's residents and guests.

**OBJECTIVE 1.2:** *Maximize Use of Existing Recreation Space.* Maximize the use of existing recreation space by promoting recreation activities.

**POLICY 1.2.1:** *Implementing Organized Recreation Activities.* The Town shall consider implementing organized recreational activities for the Town's residents.

**POLICY 1.2.2:** *Innovative Site Design.* The Town shall encourage the use of innovative site design and development techniques in order to maximize the provision of usable recreational facilities and open space areas at a minimum cost.

**POLICY 1.2.3:** *Maintenance of Existing Public Recreational Facilities.* The Town shall actively solicit grants from public and private agencies to improve and enhance existing public recreational facilities.

**OBJECTIVE 1.3:** *Efficient and Convenient Access.* Recreation sites and facilities shall be accessible to the public through efficient and convenient entry and through availability of parking where feasible.

**POLICY 1.3.1:** *Access to Recreation Sites.* Vehicular access ways leading to recreation sites shall meet all Town standards as outlined in the Land Development Regulations.

Access ways for bicycle and pedestrian traffic shall also be included, unless analysis of traffic circulation facilities indicates that such design lacks feasibility due to cost limitations, design constraints, or a threat to public safety.

**POLICY 1.3.2:** *Available Automobile Parking.* The Town shall require the provision of designated parking areas, either paved or unpaved, at all recreation sites according to parking requirements established within the Land Development Regulations.

**POLICY 1.3.3:** *Secure Storage Areas for Bicycles.* Bicycle storage areas shall be provided at all recreation sites. The type and quantity of such facilities shall be determined by the Town Council.

**POLICY 1.3.4:** *Access to Sites and Facilities for Transportation Disadvantaged.* The Town shall assure that all recreation sites are accessible to transportation disadvantaged (handicapped and elderly) citizens through the provision of designated handicapped parking areas, as required by State law, and through design consideration to recreation facilities that enable participation.

**OBJECTIVE 1.4:** *Access to Little Lake Harris and Lake Illinois.* Provide public access points to Little Lake Harris and Lake Illinois.

**POLICY 1.4.1:** *Acquire and Maintain Access Points to Lakefront Areas.* The Town shall emphasize recreation facilities, when a public demand has been identified, which promote access to Little Lake Harris.

**POLICY 1.4.2:** **Coordinate Public and Private Efforts.** The Town shall coordinate public and private efforts to provide, improve, and enhance public access points to Little Lake Harris ~~and Lake Illinois~~ to be used as recreational opportunities for the Town’s residents and guests.

**OBJECTIVE 1.5:** *Assure Provision of Open Space.* Assure provision of Open Space through land acquisition or dedications.

**POLICY 1.5.1:** *Open Space Definitions.* The Town hereby adopts the following definition for open space.

**Open Space:** Open space is ~~figured~~ calculated on the Gross Land Area. No greater than ~~50%~~ 25% of the open space requirement may be met with wetlands. Open space may include landscaped buffers and stormwater facilities if they are designed to be a park-like setting with pedestrian amenities and free form ponds. Open space may be passive or active. Open space may include public recreational components of developments. The majority of the open space shall be permeable; however, up to 10% may be impervious (plazas, recreational facilities, etc.). Wet ponds are not counted as part of that 10%.

	Minimum open space requirements
Rural Lifestyle	50%
Low Density Residential	2 dwelling units per acre
Medium Density Residential	25%
Town Center Mixed Use	25%
Village Mixed Use	25%
Neighborhood Commercial	0.50 floor area ratio; 70% max. impervious surface coverage

	<b>Minimum open space requirements</b>
Light Industrial	70% max. impervious surface coverage; .6 FAR
Institutional	25%
Recreation	Max. 30% impervious surface coverage
Conservation	No buildings except boardwalks, docks, observation decks, and similar facilities as allowed by the Town and all regulatory agencies.
Public/Utilities	0.25 FAR; max. impervious surface coverage of 50%

**OBJECTIVE 1.6:** *Coordinate Public and Private Recreation Resources.* Coordinate recreation planning activities with Local and State Governments to avoid duplication of services.

**POLICY 1.6.1:** *Public Access to School Facilities.* The Town shall coordinate with Lake County and the Lake County School Board to establish an interlocal agreement which allows public access to school recreation sites when school is not in session including the Lake Hills School along S. Lakeshore Drive and any proposed public schools in and/or adjacent to the Town .

**POLICY 1.6.2:** *Coordination with Lake County Park System.* The Town shall coordinate with the Lake County Parks and Recreation Division prior to the scheduling of recreation improvements in the Town’s *Capital Improvement Element* to assure that duplication of recreation services does not occur with Lake County parks and recreation facilities and that existing facilities are used to their maximum capacities. Coordination shall also include a review of the priority of County recreation improvements in order to incorporate Howey-in-the-Hills recreation interests and needs.

**POLICY 1.6.3:** *Coordination with Private Recreation Space and Facilities.* The Town shall coordinate with the private development sector to assure that new residential developments within Howey-in-the-Hills provide a fair and equitable share of recreation space and facilities demanded by their occupants. ~~This will be primarily accomplished through the Park Impact Fee Ordinance.~~



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## MEMORANDUM

**TO:** Howey-in-the-Hills Planning Board  
**CC:** J. Brock, Town Clerk  
**FROM:** Thomas Harowski, AICP, Planning Consultant  
**SUBJECT:** Conservation Element  
**DATE:** April 17, 2024

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The Conservation Element is another in the group of comprehensive plan elements that are being reviewed as part of the periodic update of the Town's comprehensive plan. As with the other elements submitted for review, the amended text is highlighted in red with additions underlined and deletions struck through. The proposed revisions to the Conservation Element are minor.

- Data and analysis text has been updated to reflect current conditions.
- Some minor deletions are proposed where policies require action that the Town is not doing and does not plan to undertake. Policy 1.3.5 C regarding low flow plumbing fixtures. This is covered by the Florida Building Code.
- Policy 1.3.1 is amended to delete the reference to mixed use planned unit developments.
- Policy 1.3.5 is amended to clarify the requirement that landscape irrigation use non-potable water sources.
- Policy 1.14.1 is amended to change the percentage of wetland that can be used to meet open space requirements from 50% to 25%.

CONSERVATION ELEMENT



TOWN OF HOWEY-IN-THE-HILLS

LAKE COUNTY, FLORIDA

ADOPTED ON OCTOBER 11, 2010

AMENDED APRIL 22, 2020



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## CHAPTER 5 CONSERVATION ELEMENT

### A. INTRODUCTION

#### 1. Purpose

The purpose of the *Conservation Element* is to provide a guide for the conservation, use, and protection of natural resources located within the Town. The *Element* is intended to protect and enhance the public health, safety, welfare and the quality of the environment.

In addition, the *Element* establishes a plan and policy direction concerning conservation of natural resources and will provide a basis for decision-making by Town officials. As growth occurs, the need for protection and management of the Town's natural resources will increase.

The Town's natural resources are identified and analyzed. A description of these resources and their significance is also presented. Policies to maintain and enhance these resources as well as shape growth patterns of the Town are included.

#### 2. Environmental Setting

The Town is situated in the Ocklawaha River watershed in the Howey Slough, Lake Harris and Eustis, Little Lake Harris, and Little Everglades drainage basins. The Ocklawaha River watershed covers 2,769 square miles from the Green Swamp in Polk County and Lake Apopka sub-basins north through the Rodman Reservoir to the river's discharge into the St. Johns River near the town of Welaka. Along the way the river receives water from Silver Springs via the Silver River and Orange Creek. It is the largest tributary watershed of the St. Johns River.

The Town lies on the Lake Wales Ridge, a physiographic high that has a high potential for aquifer recharge to the Florida Aquifer. There is little topographic relief within the Town (90 feet). The upper limit is approximately 150 feet above sea level and drops to near 60 feet at Little Lake Harris. Neither differential creates serious problems in the Town. ~~An extract of the U.S. Geological Survey topographical map is featured on the Town's Contour Map.~~

### B. INVENTORY OF CONSERVATION RESOURCES

#### 1. Rivers, bays, lakes, estuarine systems, natural reservations, etc.

There are no rivers or streams that flow through the Town. Lake Illinois and a few small unnamed lakes are within the Town limits. Additionally, the Town is adjacent to Little

Lake Harris. Most of these lakes are maintained by the County. There are no lakes in Town classified as “A Florida Outstanding Water”. The lakes are used for boating, swimming, fishing and other water activities. Overall, pollution comes from home fertilizations and road runoff. However, there are no major pollution and water quality issues with Little Lake Harris and the other lakes within the Town.

## 2. Floodplains

Floodplains are valuable resources which provide a rich diversity of vegetation and wildlife. These areas are sources for groundwater recharge that filters through soils during high water levels. The 100-year floodplains are also subject to inundation during a 100-year storm, causing potential loss of life and property, disruption of services, and economic loss. These areas cannot tolerate continued development which, in effect, retards their ability to absorb water and restrict the flow of water from adjacent higher elevation areas.

The County’s Geographic Information Systems (GIS) database shows that there are 100-year floodplains in the Town (see the Town’s *Floodplains Map*). The FEMA flood zone designations in Howey-in-the-Hills are as follows:

- Zone A – Areas with a 1% annual chance of flooding and a 26% chance of flooding over the life of a 30-year mortgage. Because detailed analyses are not performed for such areas, no depths or base flood elevations are shown within these zones.
- Zone AE - The base floodplain where base flood elevations are provided. AE Zones are now used on new format FIRMs instead of A1-A30 Zones.

Development within floodplains will continue to be closely scrutinized to ensure compliance with established regulations.

## 3. Groundwater Resources

The Floridan aquifer is the principal source of drinking water for all of Lake County. Currently almost all the ground water pumped in Lake County comes from the Upper Floridan but the potential for utilizing the lower Floridan aquifer is just beginning to be explored in Lake County.

Aquifer recharge is the process whereby rainfall percolates downward through the soil to reach the underlying aquifers. Recharge to the Floridan aquifer occurs in areas of the County where the elevation of the water table of the surficial aquifer is higher than the elevation of the potentiometric surface of the Floridan aquifer. In these areas, water moves from the surficial aquifer in a downward direction through the upper confining unit to the Floridan aquifer. The surficial aquifer system in the County is recharged by rainfall. Recharge is augmented locally by artificial recharge - wastewater or reuse water land application, rapid-infiltration basins, and septic systems.

Howey-in-the-Hills is in a recharge area with a recharge rate of 1 to 10 inches per year and a discharge rate of less than 1 inch per year.

The federal Safe Drinking Water Act, as amended in 1986, established a new program for the States to delineate and manage Wellhead Protection Areas for the protection of public ground water supplies. The Wellhead Protection Program is the first resource-based approach at the federal level for ensuring that ground water supplies are protected from a wide range of potential contaminating sources. The U.S. Environmental Protection Agency is the principal federal agency for implementing the Wellhead Protection Program with the states.

Wellhead protection areas are the surface and subsurface areas surrounding a water well or well field supplying a public water system, through which contaminants are reasonably likely to move toward and reach the water well or well field. Factors to consider in developing wellhead protection include:

- delineating protection areas around well fields.
- assessing the locations and threats to the well(s).
- developing management approaches and educational outreach programs; and
- regulatory or non-regulatory tools to reduce contamination threats.

The Town restricts development (except facilities related to the public water system) from occurring within a 150-foot radius of any existing or proposed public well (Primary Protection Zone). No septic tanks, sanitary sewer facilities, or solid waste or disposal facilities are permitted within a 200-foot radius of any existing or proposed public well (Secondary Protection Zone). The Town also has established a 500 foot in radius wellhead protection area within which manufacturing or light industrial uses are prohibited. The wellhead protection areas for the Town’s potable water supply wells are shown on the *Existing and Future Land Use Maps*.

#### **4. Commercial Valuable Mineral Sources**

There are three commercially valuable minerals utilized in Lake County: sand, clay and peat. A large amount of fill dirt is also removed.

The County has extensive deposits of clay and sand that cover the majority of Lake County and major deposits of peat located near lakes Apopka, Griffin and Minnehaha and the Okahumpka Marsh. These deposits were utilized as muck farms, but they have since been purchased for conservation or urban development. The County possesses two limestone deposits along its western border at Okahumpka and the Green Swamp Area of Critical State Concern. There are also substantial phosphate deposits in the far northern portion of Lake County along Lake George. However, the Ocala National Forest has land use policies that strictly forbid the mining of phosphates in the Forest.

Lake County requires that mining operations must follow certain procedures in order to obtain approval from the County before beginning operations. There are no mining operations in the Town.

**5. Areas with Soil Erosion Problems**

Soil erosion is not a significant issue in Lake County, except for where large areas are prematurely cleared for development. There are no areas in the Town with soil erosion problems.

Slopes of more than 10 percent are considered unsuitable for septic tank drain fields. These slopes generally correspond with the ridge and upland regions of the County, where the soils have some potential for erosion when denuded of vegetation and are usually classified as having low runoff potential. There are a variety of soil types in Howey-in-the-Hills (see the Town’s *Soils Map*). The general descriptions of the soils in the Town are found below in Table 1.

**TABLE 1: SOILS**

Map Unit Name	Hydric Soil	Drainage Class	Steel Corrosion	Concrete Corrosion	Acres
Anclote and Myakka Soils	Yes	Very Poorly Drained	High	Moderate	14.34
Apopka Sand, 0 to 5 Percent Slopes	No	Well Drained	Moderate	High	51.88
Apopka Sand, 5 to 12 Percent Slopes	No	Well Drained	Moderate	High	28.00
Arents	No	Somewhat Poorly Drained	Unranked	Unranked	141.21
Borrow Pits	Partially Hydric	Unranked	Unranked	Unranked	2.82
Candler Sand, 0 to 5 Percent Slopes	No	Excessively Drained	Low	High	760.47
Candler Sand, 12 to 40 Percent Slopes	No	Excessively Drained	Low	High	3.16
Candler Sand, 5 to 12 Percent Slopes	No	Excessively Drained	Low	High	299.71
Immokalee Sand	Partially Hydric	Poorly Drained	High	High	32.30
Kendrick Sand, 5 to 8 Percent Slopes	No	Well Drained	Moderate	High	6.24
Lake Sand, 0 to 5 Percent Slopes	No	Excessively Drained	Low	High	114.40
Lake Sand, 5 to 12 Percent Slopes	No	Excessively Drained	Low	High	12.98
Lochloosa Sand	No	Somewhat Poorly Drained	High	High	11.98

Map Unit Name	Hydric Soil	Drainage Class	Steel Corrosion	Concrete Corrosion	Acres
Myakka Sand	Partially Hydric	Poorly Drained	High	High	95.48
Ocoee Mucky Peat	Yes	Very Poorly Drained	High	High	4.11
Oklawaha Muck	Yes	Very Poorly Drained	High	Low	6.14
Paola Sand, 0 to 5 Percent Slopes	No	Excessively Drained	Low	High	1.97
Placid and Myakka Sands, Depressional	Yes	Very Poorly Drained	High	High	23.83
Pompano Sand	Partially Hydric	Poorly Drained	High	Moderate	13.86
Sparr Sand, 0 to 5 Percent Slopes	No	Somewhat Poorly Drained	Moderate	High	18.44
Swamp	Yes	Very Poorly Drained	Unranked	Unranked	55.94
Tavares Sand, 0 to 5 Percent Slopes	No	Moderately Well Drained	Low	High	309.40
Water	Unranked	Unranked	Unranked	Unranked	317.67
Wauchula Sand	Partially Hydric	Poorly Drained	High	High	19.59

Notes: Drainage Class - Identifies the natural drainage conditions of the soil and refers to the frequency and duration of wet periods.  
Concrete Corrosion - Susceptibility of concrete to corrosion when in contact with the soil.  
Steel Corrosion - Susceptibility of uncoated steel to corrosion when in contact with the soil.

Source: U.S. Department of Agriculture, Natural Resources Conservation Service’s Lake County Soils Geographic Information Systems database.

**6. Environmentally sensitive lands; fisheries; important habitat or corridors; marine habitats, rare or endangered ecosystems or wildlife; and vegetative communities including forests**

Howey-in-the-Hills has about ~~548~~ 530 acres of lands designated as Conservation on the *Future Land Use Map*. The Town identifies Conservation lands as all land used for wetlands, some forests, public managed lands, floodplains, flood prone areas, and other areas in which valuable natural resources are found. No buildings are allowed on conservation lands. The only permitted uses are boardwalks, docks, observation decks, and similar facilities as allowed by the Town and all regulatory agencies.

Wetlands by definition are transitional lands between terrestrial and aquatic systems where the water table is usually at or near the surface, or the land is covered with shallow waters. They provide habitat for many species of birds, fish, and animals, and contain Aquifer Recharge Zones that allow the groundwater to be replenished. Wetlands are protected by local, regional, state, and federal regulations because of the numerous benefits they provide.

Wetland functions are interconnected with the hydrology of the area. This connection determines the presence, extent, movement, and quality of water in the wetland. It is estimated that wetlands account for about 515 acres in the Town (see the Town's *Wetlands Map*). The Town has established guidelines and standards for wetland buffer zones in this *Plan* and in the Land Development Regulations.

There are no areas of critical state concern in the Town.

There are no first magnitude springs in the Howey-in-the-Hills area.

## 7. Air

Air quality is another example of a natural resource that impacts the Town's and surrounding areas quality of life. The Florida Department of Environmental Protection and the United States Environmental Protection Agency monitor air quality data in Lake County. Lake County does not have an established program dedicated to monitoring air quality. Overall, Lake County's air quality can be considered good. The County meets all Clean Air Act standards.

The Town requires that air pollutants, including smoke, particulate matter, odor and toxic matter be consistent with Florida Department of Environmental Protection's air pollution standards.

## 8. Water

The Town currently owns, operates and maintains a central potable water treatment and distribution system. The Town's potable water system provides water for both residential and non-residential purposes, including fire-fighting demands. The details of the water system are found in the Public Facilities Element.

The Town requires all new construction to connect to its potable water distribution system. A detailed analysis of the Town's potable water system is featured in the *Public Facilities Element* of this *Comprehensive Plan*.

## 9. Sinkholes

Sinkholes are a natural and common geologic feature in areas underlain by limestone and other rock types that are soluble in natural water. The term sinkhole is used for closed depressions in the land surface that are formed by surficial solution or by subsidence or collapse of surficial materials owing to the solution of near-surface limestone or other soluble rocks. One small sinkhole, which occurred in 1998, has been noted over the years in the Howey-in-the-Hills area (~~see the Town's Contour Map~~).



## 10. Vegetative and Land Cover Types

Data Documentation for Lake County prepared by the St. Johns River Water Management District (SJRWMD) in 2004 was examined with regard to the land cover within the Town. The SJRWMD identified 35 classes of vegetative and land cover types in Howey-in-the-Hills (see Table 2).

## 11. Topography

~~An examination of the Town's Contour Map indicates that the~~ The highest elevation in the Town is at 170 feet above sea level south of E. Revels Road, west of Sunset Drive, and east of State Road 19. Around this area, there is a difference of about 80 feet in elevation. Lakes and major wetland areas are shown at about 80 feet. Along Little Lake Harris, the difference in elevation is about 10 to 15 feet. There are no differential elevations that create serious problems in the Town.

## 12. Issues

The probability exists of pollution from many sources included, but not limited to:

- homes along the lakefronts (fertilizers, etc.).
- stormwater runoff from local streets; or
- malfunctioning septic tanks.

**TABLE 2: SJRWMD’S LAND USE AND LAND COVER FOR HOWEY-IN-THE-HILLS**

<b>FLUCCS*</b>	<b>Description</b>	<b>Acres</b>
1100	Residential, low density - less than 2 dwelling units/acre	75.09
1200	Residential, medium density - 2-5 dwelling units/acre	220.72
1290	Medium density under construction	0.21
1300	Residential, high density - 6 or more dwelling units/acre	12.41
1400	Commercial and services	15.47
1480	Cemeteries	6.71
1510	Food processing	26.49
1700	Institutional	39.99
1820	Golf courses	117.63
1860	Community recreational facilities	2.88
2110	Improved pastures (monoculture, planted forage crops)	128.39
2120	Unimproved pastures	170.32
2130	Woodland pastures	4.02
2150	Field Crops	13.67
2210	Citrus groves	568.74
2510	Horse Farms	0.00
3100	Herbaceous upland non-forested	55.64
3300	Mixed upland non-forested	0.59
4110	Pine Flatwoods	9.61
4340	Upland mixed coniferous/hardwood	56.95
4410	Coniferous pine	317.75
4430	Forest regeneration	19.72
5100	Streams and waterways	1.91
5200	Lakes	38.81
5250	Open water within a freshwater marsh / Marshy Lakes	69.85
5300	Reservoirs - pits, retention ponds, dams	30.08
6170	Mixed wetland hardwoods	4.71
6210	Cypress	2.23
6300	Wetland forested mixed	82.64
6410	Freshwater marshes	135.96
6430	Wet prairies	0.53
6440	Emergent aquatic vegetation	13.03
6460	Mixed scrub-shrub wetland	100.82
7400	Disturbed Land	0.08
8310	Electrical power facilities	0.72
<b>TOTAL</b>		<b>2,344.34</b>

Notes: \*FLUCCS = Florida Land Use, Cover and Forms Classification System  
Source: St. Johns River Water Management District’s GIS Land Use and Land Cover 2004-2005 District Wide Data.

## C. ANALYSIS

### 1. Rivers, bays and lakes

As previously mentioned, Lake Illinois and a few small unnamed lakes are within the Town limits. Additionally, the Town is adjacent to Little Lake Harris. While most of these lakes are maintained by the State and County agencies, the Town will continue efforts to inform lakefront property owners about water quality and protection measures in and/or adjacent to Howey-in-the-Hills. The Town will enforce appropriate codes on lakefront areas that are in the Town's jurisdiction.

To protect lakefronts from the encroachment of development, the Town has established a shoreline protection and lakefront littoral zone. Only passive recreational activities are permitted within the lakeshore protection zone. The Town will continue to ensure that no other construction activity will encroach into the lakeshore protection zone.

The residents of Howey-in-the-Hills see the lakes as a critical element of their quality of life and understand the importance of preserving and maintaining the lakes' water quality. The Town shall continue to support initiatives to improve and protect the lakes in the Howey-in-the-Hills area.

### 2. Floodplains

To protect the floodplain area, the Town requires applicants for development and redevelopment projects to position structures and impervious surfaces to areas outside of the flood zone to the extent possible. Manufacturing, commercial, and office land uses are prohibited from encroaching the uplands of the 100-year flood zone, with the exception to 100% permeable surface parking areas designed for seasonal or occasional overflow demands. The Town has additional flood plain protection measures established in the Land Development Regulations.

While there are areas with FEMA Flood Zone designations 'AE' and 'A', the Town knows of no flood prone (low lying areas) in the areas around the local lakes.

### 3. Minerals

As previously mentioned, there are three commercially valuable minerals utilized in Lake County: sand, clay and peat. A large amount of fill dirt is also removed. The Town anticipates that these commercially valuable minerals will continue to be extracted in various parts of the County during the short range and long-range planning period. In the event of mineral extraction within the Town, the Town will ensure that all Federal, State and County regulations shall be followed.

#### 4. Soil Erosion

There are no areas known to have soil erosion problems and no great elevation differences exist in Town. To prevent both soil erosion and sedimentation, the Town requires a soil erosion and sedimentation control plan whenever a development will involve any clearing, grading, or other form of distributing land by movement of earth, provided that any one of the following applies:

- Excavation, fill, or any combination thereof will exceed 500 cubic yards.
- Fill will exceed 3 feet in vertical depth at its deepest point as measured from the natural ground surface.
- Excavation will exceed 4 feet in vertical depth at its deepest point as measured from the natural ground surface.
- Excavation, fill, or any combination thereof will exceed an area of 1,000 square feet.
- Plant and/or tree cover is to be removed from an area exceeding 1,000 square feet on any parcel of land: or
- Whenever excavation or fill is proposed within 100 feet of a stream, stream channel, or body of water, a soil erosion and sedimentation control plan shall be provided.

In addition to the standards listed above, the Town has established additional erosion control measures in the Land Development Regulations.

5. **Environmentally sensitive lands, fisheries, wildlife, marine habitats and vegetative communities including forests. As previously stated, the Town has identified about ~~518~~ 530 acres of conservation lands on the *Future Land Use Map*. These are environmentally sensitive lands with natural resources that the Town shall continue to protect and conserve. In addition, the Town considers the lakes in the area as natural resources and as such, the Town shall use its full authority and the cooperation of other governmental agencies to protect, maintain, and enhance the water quality of these lakes.**

Species such as indigo, coral, and rattlesnakes; doves, quail, osprey, woodpeckers and other birds; squirrels, raccoons, rabbits, otters, pileated and other woodpeckers, and owls, are seen in the Town.

No attempt has been made to instigate identification of rare or unique plants and animals or vegetative communities. It is hoped that as a result of public participation in this *Plan*, that additional information and efforts will result.

~~No endangered, threatened species or those of special concern are known to be in the Town. One active eagles nest has been identified and buffer zones will be designated around the nest should any development proposals arise in that area.~~

The Town shall continue to require that no development other than water-related passive recreation or conservation facilities will be allowed in the wetland areas of Town.

## 6. Air

Overall, the air quality in Howey-in-the-Hills, a small community with no point source problems, is good. The Town will continue to review the air quality plans of Lake County on a regular basis to monitor the air quality standards in the Howey-in-the-Hills area.

## 7. Water

~~The most recent FDEP Community Public Water System Sanitary Survey Report identified no significant deficiencies at either of the Town's water plants. The three minor housekeeping issues identified were promptly corrected. The Town has no known issues with water quantity. The Town has experienced some issues related to water quality caused by dead end water lines, and the Town has initiated a program of hydrant flushing to address those issues. The Town is in the process of replacing the north water treatment plant with a new facility supported by two new production wells. When complete the new plant will provide adequate water to support planned development and stabilize water pressures in the northern portion of Town. Improvements to the south water treatment plant have also been made and the Town now has a capital improvements program for updating the water system.~~

## 8. Sinkholes

As previously stated, the Town is in an area with no major sinkhole problems; one small sinkhole occurred in 1998. When a sinkhole develops, the Town shall implement proper planning and engineering strategies to repair or alleviate damages needed to reduce adverse environmental impacts.

## 9. Wellfield Protection Areas

The Town shall continue to restrict development (except facilities related to the public water system) from occurring within a 150-foot radius of any public wells. No septic tanks, sanitary sewer facilities, or solid waste or disposal facilities shall be permitted within a 200-foot radius of any existing or proposed public well. The Town shall also maintain a 500-foot radius wellhead protection area within which manufacturing or light industrial uses are prohibited. Land use restrictions within the wellhead protection area are established in the Town's Land Development Regulations.

## 10. Hazardous Waste

Hazardous waste is discussed in the *Public Facilities Element*. Solid waste disposal is achieved through franchise agreements with ~~one~~the solid waste hauler. Hazardous waste

is regulated by State and local rules. The Town shall provide education to its residents and businesses on the importance of proper handling of hazardous wastes, especially in relation to protecting natural resources.

**11. Water requirements**

As previously mentioned, the Town’s potable water system provides water for both residential and non-residential purposes, including fire-fighting demands. The system has enough capacity to support the population demand during the planning period of this *Comprehensive Plan*. ~~However, there are significant reliability and redundancy issues that require upgrades to existing facilities and construction of additional facilities.~~

**12. Coordination**

The Town shall work independently and with Lake County to educate and enforce lakefront regulations in order to protect the water quality. Howey-in-the-Hills will also work independently as well as with Lake County to preserve some of the natural environment along the lakes as a habitat for native species.

**D. GOALS, OBJECTIVES AND IMPLEMENTING POLICIES**

**GOAL 1:** Conserve, protect and effectively manage natural resources within the Town of Howey-in-the-Hills, particularly environmentally sensitive lands that include Little Lake Harris, Lake Illinois, all wetlands, groundwater quality, and scarce vegetative communities.

**OBJECTIVE 1.1:** *Protect Air Quality.* Protect Air Quality within the Town of Howey-in-the-Hills by complying with or exceeding air standards established by the Florida Department of Environmental Protection and the United States Environmental Protection Agency.

**POLICY 1.1.1:** *Commercial and Industrial Land use Designations.* The Town shall promote land use activities which are conducive to maintaining existing air quality by defining permitted or non-permitted uses within commercial and industrial land use designations. ~~The Future Land Use Map shall not allocate any land for use by manufacturing activities.~~

**POLICY 1.1.2:** *Coordinate with Lake County and Neighboring Local Governments.* The Town shall coordinate with Lake County and other neighboring local governments to assure that land use controls applicable to adjacent areas promote land uses which shall not adversely impact air quality within the Town. The Town shall encourage these jurisdictions to consider the affects of prevailing wind directions on the location of manufacturing or commercial developments occurring adjacent to the Town, with emphasis to avoid locating any pollution-generating activities to the south, west, or north side of the Town.

**POLICY 1.1.3:** *Automobile Emission Pollution.* The Town shall continue to reduce the potential for automobile emission pollution by:

1. Requiring vegetative buffers strips, walls and/or berms between roadways and new developments.
2. Establishing additional bike paths/walkways to promote the reduction in use of automobiles; and
3. Promote Planned Unit Development/Mixed Use type of land use, where feasible.

**POLICY 1.1.4:** *Prohibition of New Industries.* The Town shall continue to prohibit new industries in the Town which might have adverse impacts on air quality. ~~(Wagler Recommends removing this policy.)~~

**POLICY 1.1.5:** *Open Burning.* The Town shall discourage open burning due to its adverse impacts on air quality.

**POLICY 1.1.6:** *Alternative Energy Resources.* The Town shall encourage the use of alternative energy resources that do not degrade air quality.

**OBJECTIVE 1.2:** *Protect Water Quality of Surface and Ground Waters.* Protect the quality of surface and ground water by controlling existing and potential sources of contaminants and by coordinating the Federal, State and County entities having jurisdictional authority over these water sources.

**POLICY 1.2.1:** *Restricting Manufacturing Uses.* The *Future Land Use Element* shall not allocate any Manufacturing land use activities adjacent to lake front areas or within high recharge groundwater aquifer areas that generate pollutants that may adversely impact the quality of surface and ground waters. The guidelines established in the Town's Land Development Regulations regarding manufacturing uses permitted within non-residential districts shall serve as a guide to monitor the type and intensity of such uses in the Town.

**POLICY 1.2.2:** *Proposed Commercial Developments.* During the development review process, the Town shall require applicants of proposed commercial developments to provide evidence that all appropriate operating permits have been issued by State regulatory agencies, particularly for commercial activities, such as gasoline stations, using on-site storage facilities for chemical or hazardous materials and wastes.

**POLICY 1.2.3:** *Shoreline Protection and Lakefront Littoral Zones.* Development occurring adjacent to lake shoreline or wetland areas shall prepare a design and management plan prior to the construction of the on-site improvements. This plan shall include and comply with the following guidelines:

- a. *Preserve Native Vegetation.* Only native vegetation shall be maintained within the shoreline and lakefront littorals zone.
- b. *Shoreline Management Plan.* Require a shoreline management plan that describes procedures to assure minimal impacts to water quality and shoreline erosion. Where deemed necessary, silt screening shall be implemented to retain alluvial sediments carried by runoff stormwater or wave action.



- c. **Protection of Littoral Zone.** Applicants of new development or redevelopment shall include the following with the site plan and development application:
1. Include typical cross sections of the surface water management system showing 100 Year Water Mark elevation and the 3-foot contour (i.e., below average elevation), which ever is greater.
  2. Specify what vegetation will be removed or planted in the littoral zone within the proposed development plan, including the extent, method, type and timing of any planting to be provided.
  3. Provide a description of any management procedures to be followed in order to assure the continued viability and health of the lakefront littoral zone. The lakefront littoral zone as established should consist entirely of native vegetation and should be maintained permanently as part of the water management system. As a minimum, 10 square feet of vegetated lakefront littoral zone per linear foot of lake shoreline is required as part of the surface water management system.
- d. **Limiting Development.** Limit development within the lakefront littoral zone to water-dependent structures such as docks and piers.
- e. **Class III Waters Protection.** Class III Waters (i.e., waterbodies which currently support recreation and foster maintenance of fish and aquatic wildlife). All lakes within or adjacent to the Town are Class III waters. These waters shall be protected through the following activities:
1. Dredging activities shall be limited to Florida Department of Environmental Protection (FDEP) approved dredging.
  2. Ensure good water quality by coordinating with the FDEP, Florida Department of Natural Resources (FDNR), and the St. Johns River Water Management District in monitoring the quality of stormwater run-off and all discharge. The Town shall notify the appropriate

agency with jurisdiction as potential issues or problems are identified by the Town.

3. Limit the use of Class III waters to water dependent activities that are not contrary to the public interest and satisfy a community need.
- f. **Require Wetland Buffer Zones.** In order to protect the quality and quantity of surface waters and provide habitat for semi-aquatic or water-dependent terrestrial species of wildlife, buffer zones shall be provided landward of all wetlands as outlined below.
1. No development of disturbance of area is permitted within 25 feet of a designated wetland area. These areas shall be marked with appropriate signage as conservation areas.
  2. No building or impervious surface area (except for wet retention areas) is permitted within 50 feet of a designated wetland area.

Uniform buffer area standards shall be consistent with criteria and requirements stipulated in Policy 1.2.6,

- g. **Shoreline Protection Zone.** To protect the lake front areas from the encroachment of development, a shoreline protection zone shall be delineated. There shall be no disturbance within 50 feet of the landward extent of wetlands as set forth in Rule 62-340, except for pilings for docks or piers. There shall be no buildings, pools, ponds, or other structures in this protection zone. There shall be no septic tanks within 75 feet of the landward extent of wetlands as set forth in Rule 62-340. All development shall be subject to the building setback requirements regarding the shoreline protection zone established in the Town's Land Development Regulations.

**POLICY 1.2.4:** *Designation of Wetlands.* The Town shall designate all wetlands within the Town as Conservation within the *Future Land Use Element* and on the *Future Land Use Map*.

**POLICY 1.2.5:** *Limiting Development within Wetland Areas.* The Town shall limit development within all wetland areas to land uses supporting conservation facilities and water-related passive recreation activities.

**POLICY 1.2.6:** *Sites under Construction Requirement.* To protect water quality within lakes, the Town shall require sites under construction to provide measures to retard, impede, and treat surface water runoff, consistent with water quality level of service standards established in the *Public Facilities Element*.

**OBJECTIVE 1.3:** *Protect the Quantity of Surface and Ground Water.* Protect the quantity of surface and ground water through preservation of permeable surface and through promotion of conservation activities affecting the consumption of potable water.

**POLICY 1.3.1:** *Avoid Reduction of Recharge Volumes Entering Ground Water Supplies.* The Town shall avoid reduction of recharge volumes entering ground water supplies through the following governmental actions:

- a. The *Future Land Use Element* and the *Future Land Use Map* shall promote land use activities and development densities which are compatible to high recharge potential percolation rates.
- b. The *Public Facilities Element* shall promote recharge and discourage runoff.
- c. Promote the application of permeable parking lot surfaces for commercial developments proposed within high recharge areas.

**POLICY 1.3.2:** *State Grant Funds for Infrastructure Needs.* The Town shall continue to research available State grant funds applicable for infrastructure needs/feasibility studies for local governments. In the event a wastewater system is installed, then the Town shall evaluate the merits of a wastewater reclamation program to reduce potable water consumption associated with lawn and landscaping irrigation.

**POLICY 1.3.3:** *Compliance with Water Management District Consumptive Use Permit.* The Town shall not exceed maximum allowable rates of water consumption issued by the St. Johns River Water Management District for ground water withdrawal from municipal wells. The Town shall comply with maximum allowable rates

specified within the Water Management District’s *Consumptive Use Permit*.

**POLICY 1.3.4:** *Cooperation with Water Management District Emergency Water Plan.* The Town shall cooperate with the St. Johns River Water Management District (SJRWMD) in the enforcement of the provisions of the Water Management District’s emergency water shortage plans, and in the implementation of the appropriate groundwater conservation and protection programs outlined in the Regional Water Supply Plan of the SJRWMD. [9J-5.013(2)(c)(4), F.A.C.]

**POLICY 1.3.5:** *Promote Conservation of Water.* To conserve potable ground water sources and to accomplish reasonable reductions in water consumption, the Town shall undertake the following activities:

- a. The Town shall notify the St. Johns River Water Management District of the presence of any abandoned free-following artesian wells identified within its municipal jurisdiction.
- b. The Town shall require new developments to use non-potable water for irrigation where such non-potable water sources are available.
- c. The Town shall require low volume plumbing fixtures in all new construction.
- d. The Town shall routinely evaluate the performance of its water distribution system to determine if excessive leakage is occurring. In addition, the well pump water meters shall be monitored on a quarterly basis to assure proper operation and recording. The Town shall schedule repairs to any identified damage or deficiency in the distribution system based on the extent of damage, urgency to correct the problem, and availability of necessary funds. Any improvement qualifying as a capital improvement and not deemed to represent an emergency shall be included within the *Capital Improvement Program*.
- e. The Town shall require new development to use and/or preserve native or drought-resistant vegetation for landscaping to the greatest reasonable extent.

**POLICY 1.3.6:** *Preservation of Permeable Surface.* The *Future Land Use Element* and the *Future Land Use Map* shall establish land use types and densities which are compatible to the preservation of permeable ground surface areas. Impervious surface ratios shall be based on open space requirements established by the Town, which in turn shall be consistent with hydrogeological and soil characteristics controlling development densities. The *Future Land Use Element* shall include open space requirements and impervious surface ratios for all land use categories consistent with the following guidelines:

	Minimum open space requirements
Rural Lifestyle	50%
Low Density Residential	2 dwelling units per acre
Medium Density Residential	25%
Town Center Mixed Use	25%
Village Mixed Use	25%
Neighborhood Commercial	0.50 floor area ratio; 70% max. impervious surface coverage
Light Industrial	70% max. impervious surface coverage; .6 FAR
Institutional	25%
Recreation	Max. 30% impervious surface coverage
Conservation	No buildings except boardwalks, docks, observation decks, and similar facilities as allowed by the Town and all regulatory agencies.
Public/Utilities	0.25 FAR; max. impervious surface coverage of 50%

The open space definition and standards established in Policy 1.14.1 of this *Element* shall also be enforced by the Town.

**POLICY 1.3.7:** *Water Supply Facilities Plan.* Howey-in-the-Hills’ *Water Supply Facilities Work Plan (Work Plan)* shall assess existing and projected water sources and needs for at least a 10-year planning period and consider the *Regional Water Supply Plan* of the St. Johns River Water Management District. The *Work Plan* will also identify traditional and alternative water supply sources, including water

conservation efforts, which the Town may use to reduce or satisfy existing and projected water demands.

**POLICY 1.3.8:** *Water Conservation and Work Plan.* The Town will continue to implement the water conservation efforts identified in the *Work Plan*. These efforts will include concentrating on outreach and education as well as irrigation system modifications and indoor plumbing retrofits.

**OBJECTIVE 1.4:** *Conserve and Protect Native Vegetative Communities.* To establish performance criteria designed to protect and retain major vegetative communities and aquatic habitats, including Sandhill communities, and Wetlands. To preserve sufficient natural upland habitat of each community type and wetlands to maintain viable populations of all native plant and animal species.

**POLICY 1.4.1:** *Alteration or Clearing of Native Habitat.* Activities which require the alteration or clearing of native habitat of designated species shall be surveyed for occurrences of designated species by qualified ecologists prior to the issuance of a development permit.

**POLICY 1.4.2:** *Management Plans and Land Dedication.* Development activities which have adverse effect upon a designated species shall require mitigation or shall not be permitted. Where viable habitat for designated species occur on a site, management plans and incentives to dedicate lands for conservation shall be encouraged.

**POLICY 1.4.3:** *Restriction of Development Activities.* All development activities shall be prohibited within the preservation areas established in Policy 1.4.2 except for recreational and educational uses. A sufficient number of preservation/conservation areas of appropriate size and location shall be identified and maintained by the Town or other entity to guarantee protection of viable populations of all native plant and animal species.

**POLICY 1.4.4:** *Priority of Preservation or Conservation Areas.* Priority for preservation/conservation areas shall be placed on the following areas:

- a. *Shoreline.* The area at the water line and landward at least 25 feet shall be preserved as natural areas for protection of plants, animals, and other wildlife as well as water quality.
- b. *Upland Vegetative Communities, Wildlife Habitats, and Protection of Endangered and Threatened Flora and Fauna*

**Species.** These natural resources and species shall be protected through the following activities:

1. Upland vegetative communities and wildlife habitats (particularly those identified as primary habitat for endangered or threatened species) for which the Town or State agency deems environmentally significant shall be protected from adverse impacts associated with development. Upland areas identified within the *Conservation Element* as essential breeding, feeding or habitat sites for endangered or threatened flora or fauna creatures shall be protected.

- i. **Conservation Designation.** Important upland habitat may be designated as conservation under the following circumstances:

1. The site is owned by a government body or agency:
2. The site is programmed for purchase by a government agency within the first three years of the *Five-Year Schedule of Capital Improvements*.
3. The site is designated as conservation through the development review process.

A habitat management plan will not be required unless proposed development within the site designated as conservation intends to remove or displace an active nesting or breeding area on an endangered or threatened specie or will remove or eradicate a living endangered or threatened plant.

- ii. **Undesignated Sites with Endangered or Threatened Species.** Any areas identified within the *Conservation Element* as refuge, breeding, feeding, or habitat areas of endangered or threatened species shall be subject to the following activities:

1. An applicant for development of any kind shall prepare a Critical Habitat Management Plan prepared by a professional biologist, ecologist, or other related professional. As a minimum

standard this Plan shall analyze the following issues:

- a. Affected Species.
- b. Land needs to support continued on-site presence of the species.
- c. Impacts of proposed development which will disturb the species.
- d. Recommended management plans and measures necessary to protect the subject species.
- e. Cost to implement the recommended management plan.

The Town reserves the right to have a State agency review the Critical Habitat Management Plan and provide a response. The adequacy of the study shall be determined by the Town. The final development plan shall conform to recommendations determined within the study.

- iii. **Tree Protection Ordinance.** The Town’s Tree and Native Vegetation Protection Ordinance shall be used in managing and protecting the impacts of development on major vegetative communities and aquatic habitats. These regulations shall mandate fair and equitable restoration and/or compensatory mitigative measures in order to compensate for loss of vegetation and to enhance stabilization of fragile slopes and/or lake shorelines.

**OBJECTIVE 1.5:** *Conserve, Appropriately Use and Protect Fisheries.* Conserve appropriately use and project fisheries indigenous to Little Lake Harris.

**POLICY 1.5.1:** *Manage Impacts of Development on Fisheries.* The Town shall promote land use activities within the *Future Land Use Element* and designated on the *Future Land Use Map* which are compatible with preservation of fisheries within Little Lake Harris. The Town shall prohibit any land use which shall detrimentally affect water quality or water temperature within Little Lake Harris.

**POLICY 1.5.2:** *Assist Federal and State Agencies in the Maintenance of Fish Populations.* The Town shall coordinate with and assist Federal and State environmental and wildlife preservation agencies to protect fish populations within Little Lake Harris and to promote



environmental management activities which enhance fish propagation through natural processes or by managed fish restocking.

**POLICY 1.5.3:** *Aquatic Weed Control.* The Town shall coordinate with the Lake County Water Authority to control any aquatic weed, algae blooms, or other aquatic plant proliferation occurring within Little Lake Harris.

**OBJECTIVE 1.6:** *Conserve Wildlife and Wildlife Habitats.* Conserve and Protect Wildlife and Wildlife Habitats through the management of growth and development within the Town, and through coordination with Lake County and State agencies involved in wildlife management.

**POLICY 1.6.1:** *Manage Impacts of Development on Wildlife Habitats.* The Town shall restrict development activities known to adversely impact endangered, threatened, or rare wildlife and wildlife habitats of special concern as defined by the Florida Fish and Wildlife Commission (FFWC) and/or Florida Department of Environmental Protection (FDEP).

**POLICY 1.6.2:** *Coordinate with the State and Regional Agencies to Promote Preservation of Wildlife and Wildlife Habitats.* The Town shall notify the Florida Department of Agriculture and Consumer Affairs to any significant clusters of endangered or threatened plant (fauna) species occurring within its jurisdiction. The Town shall notify the FFWC and/or FDEP in the presence of any roosting, nesting, or frequented habitat areas for endangered or threatened wildlife occurring within its jurisdiction.

**OBJECTIVE 1.7:** *Protection of Soils, Minerals, and Environmentally Sensitive Lands.* Conserve, appropriately use, and protect soils, minerals, environmentally sensitive lands and native vegetative communities.

**POLICY 1.7.1:** *Soil Erosion and Sedimentation Control.* To prevent both soil erosion and sedimentation, the Town shall require a soil erosion and sedimentation control plan whenever a development will involve any clearing, grading, or other form of distributing land by movement of earth, provided that any one of the following applies:

- Excavation, fill, or any combination thereof will exceed 500 cubic yards.
- Fill will exceed 3 feet in vertical depth at its deepest point as measured from the natural ground surface.

- Excavation will exceed 4 feet in vertical depth at its deepest point as measured from the natural ground surface.
- Excavation, fill, or any combination thereof will exceed an area of 1,000 square feet.
- Plant and/or tree cover is to be removed from an area exceeding 1,000 square feet on any parcel of land: or
- Whenever excavation or fill is proposed within 100 feet of a stream, stream channel, or body of water, a soil erosion and sedimentation control plan shall be provided.

In addition to the standards listed above, all development and redevelopment projects involving land clearing shall comply with additional erosion control measures set forth in the Land Development Regulations.

**POLICY 1.7.2:** *Tree and Native Vegetation Protection Ordinance.* The *Tree and Native Vegetation Protection Ordinance* shall be applicable to all clearing and grading activities in Town. Developers shall be required to take precautionary measures, where necessary, to avert destruction or damage to native vegetation and existing trees.

**POLICY 1.7.3:** *Coordination with the U.S. Soil Conservation District.* The Town shall notify the local office of the U.S. Soil Conservation Service of any soil erosion problems that may occur within the Town’s jurisdiction.

**POLICY 1.7.4:** *Regulation of Mining Activities.* No mining activities shall be permitted within the Town and discouraged in any neighboring area.

**OBJECTIVE 1.8:** *Protection of Conservation, Floodplain, and Wetland Areas.* The Town shall protect identified conservation, floodplains and wetland areas by implementing the following policies.

**POLICY 1.8.1:** *Designation of Environmentally Sensitive Areas.* The *Future Land Use Element* shall designate all wetlands, sink holes, floodplains, and surface waters as Conservation; the Town may designate significant high recharge areas, and undisturbed natural vegetative communities as Conservation depending on the necessity to protect such areas under this designation. The *Future Land Use Map Series* shall illustrate areas designated as Conservation. The precise delineation of each area must be through specific studies and field determination.

**POLICY 1.8.2:** *Permitted Buildings in Conservation Areas.* No buildings shall be permitted in areas designated for Conservation on the *Future Land Use Map* except for boardwalks, docks, observation decks, and similar facilities as allowed by the Town and all regulatory agencies.

**POLICY 1.8.3:** *Additional Wetlands Protection.* The Town shall continue to ensure that:

- a) development plans for new development identify the location and extent of wetlands located on the property;
- b) development plans provide measures to assure that predevelopment flows and quality of water will be provided to maintain wetlands after development; and,
- c) where alteration of wetlands is necessary in order to allow reasonable use of property it should be clearly in the public interest and there is no practical alternative which reduces or avoids impacts to wetlands. Mitigation shall only be a last resort action to be used only after other measures such as reconfiguring of the development to avoid sensitive areas, reduction of density, etc. have been considered and shown not to be feasible. There shall be no net loss of sensitive lands. Any mitigation shall avoid impact to ecologically valuable uplands.

**POLICY 1.8.4:** *Minimizing Fill within Floodplain.* The Town shall ensure that flood control measures for new development minimize fill within the floodplain area defined within the Town's *Floodplain Protection Ordinance*. Where no alternative fill exists, compensatory storage for such fill should be provided through excavation of a volume of uplands equivalent to the loss of storage within the defined floodplain caused by the placement of fill.

**POLICY 1.8.5:** *Floodplain Mitigation.* Development within the 100 Year Floodplain shall provide necessary mitigation to maintain the natural stormwater flow regime. The 100 Year Floodplain Zone shall be delineated within the *Future Land Use Map Series*. The boundary of the 100 Year Floodplain Zone shall be determined by the most recent Flood Insurance Maps prepared by the Federal Emergency Management Agency. Mitigation shall occur through the following activities:

- a. ***Prohibited Land Uses and Activities.*** Storing or processing materials that would, in the event of a 100 Year Storm, be buoyant, flammable, explosive, or potentially injurious to human, animal or plant life is prohibited. Material or equipment immune to substantial damage by flooding may be stored if securely anchored to prevent flotation or if readily removable from the area upon receipt of a flood warning. Manufacturing land uses shall be prohibited from encroaching the 100 Year Floodplain Zone.
- b. ***Minimum Floor Height Elevation.*** All new construction and substantial improvements of existing construction must have the first-floor elevation for all enclosed areas at eighteen inches above the 100 year flood elevation.
- c. ***Construction Materials and Methods.*** All new construction and substantial improvements of existing construction shall be constructed with materials and utility equipment resistant to flood damage and using methods and practices that will minimize flood damage and prevent the pollution of surface waters during a 100 year flood event.
- d. ***Service Facilities and Utilities.*** Electrical heating, ventilation, plumbing, air conditioning, and other service facilities shall be designed or located to prevent water from entering or accumulating within the components during a base flood. All new and replacement water supply and sanitary sewage systems shall be designed to minimize or eliminate both infiltration of flood water into the systems and discharges for the systems into flood waters.
- e. ***Residential Subdivision Plans and Design.*** Plans and designs for subdivisions shall minimize potential flood damage by locating recreation and conservation uses, if included in the plans, to areas within the Flood Zone, reserving as much land as possible outside the flood zone for other land uses. Flood zones shall be identified on all final development plans submitted to the Town.
- f. ***Stormwater Facilities.*** The Town shall require development to have drainage facilities in place and functioning concurrent with the impacts of development, as stipulated by deadlines established within the Concurrency Management System.

Such drainage facilities shall be designed to comply with the Town's established level of service standard. Developers shall be required to install all necessary drainage facilities necessary to maintain the natural flow regime of the 100-year floodplain, consistent with level of service standards.

**POLICY 1.8.6:** *Incompatible Land Uses.* The Town shall ensure that future land uses that are incompatible with the protection and conservation of wetlands are directed away from wetlands.

**POLICY 1.8.7:** *Legal Agreement.* Newly created mitigated areas, preservation or conservation areas as a part of a development shall be identified in a legal agreement which ensures their protection and maintenance in perpetuity. These areas shall be depicted on the *Future Land Use Map* as Conservation lands.

**OBJECTIVE 1.9:** *Hazardous Waste.* Manage the use and disposal of hazardous wastes to protect natural resources and public health and safety.

**POLICY 1.9.1:** *Collection and Disposal of Hazardous Waste.* The Town shall cooperate with the County, State and Federal Government in the collection and disposal of hazardous waste.

**POLICY 1.9.2:** *Protect Natural Ecological Systems and Resources.* The Town shall continue to enforce land development regulations which incorporate development restrictions directed toward preserving natural ecological systems and resources.

**POLICY 1.9.3:** *Assist Lake County Hazardous Waste Management Program.* The Town shall assist Lake County in the monitoring and management of hazardous waste generators within Howey-in-the-Hills by coordinating with the Lake County Department of Environmental Utilities to notify County staff about new commercial developments that may use or generate hazardous waste. The Town shall also notify the County of the presence of any disposed, buried, or stored wastes or material for which the volatility and chemical contents thereof are unknown.

**OBJECTIVE 1.10:** *Conservation of Historically Significant Sites.* Conserve historically significant sites to maintain the historical character of the Town.

**POLICY 1.10.1:** *Promote the Identification of Historically Significant Sites.* The Town shall coordinate with the State Division of Historic Resources in continuing to identify, protect, analyze, and explain the Town's

historically significant sites. Such efforts shall include determination of their worth and vulnerability, as well as determination of specific applicable preservation management policies.

**POLICY 1.10.2:** *Preservation of Historic, Archaeological, and Cultural Resources.*

The Town shall prohibit activities that depreciate or eliminate the historical value of sites registered on State or Federal historic files. Activities deemed adverse to the preservation of historic sites shall include:

- a. Demolition or alteration of all or part of such sites.
- b. Isolation from, or alteration of the associated environment.
- c. Placement of visual, audible, or atmospheric elements that foster discordance with the character of the property.
- d. Transfer or sale of a registered historical site without adequate contractual written agreement to maintain and preserve the historical character of the structure.
- e. Removal or placement of native vegetation shall be subject to restrictions and requirements stated within the Town's *Tree and Native Vegetation Protection Ordinance*.

**POLICY 1.10.3:** *Registration of Locally Historic Sites.* The Town shall promote and support local efforts, including those fostered by the Lake County Historical Society, to effectively pursue registration of historically significant sites under Federal and State certified historical master files.

**POLICY 1.10.4:** *Florida Master Site File.* The Town shall use the *Florida Master Site File* as a resource to identify archeological resources and historically significant structures.

**OBJECTIVE 1.11:** *Implementation and Evaluation of Conservation Activities.* Conservation activities shall be evaluated and implemented according to the following policies:

**POLICY 1.11.1:** *Conservation Activities and Capital Improvements.* Conservation activities involving the purchase of land or the expenditure of funds qualifying as a capital improvement as defined within the *Capital Improvement Element*, shall be scheduled and budgeted within the *Five-Year Capital Improvement Program and Schedule*.

**POLICY 1.11.2:** *Evaluating Conservation Activities.* The Town shall periodically review conservation goals, objectives and policies supported in the *Conservation Element* of this *Comprehensive Plan* to measure the effectiveness of the Town’s conservation activities. Deficiencies identified within the evaluation process shall be analyzed to determine ameliorative measures necessary for correction.

**OBJECTIVE 1.12:** *Intergovernmental Coordination Activities for the Conservation of Natural Resources.* Manage natural resources and conservation issues transcending the Town’s jurisdictional area or constituting an issue of regional nature through intergovernmental coordination.

**POLICY 1.12.1:** *Intergovernmental Coordination.* The Town shall coordinate with Federal, State, and Lake County agencies to manage natural resources and conservation activities and identify and regulate wetland areas, floodplains, environmentally sensitive lands, conservation areas, and unique native habitats in Town. Such management activities shall engage, but not be limited to participation in technical review activities; ensuring public facilities are readily available to serve proposed developments; or attending public meetings regarding environmental issues that will have a direct or adverse impact to the Town.

**POLICY 1.12.2:** *Coordination with the East Central Florida Regional Planning Council.* The Town shall coordinate with the East Central Florida Regional Planning Council in preparing amendments to the Town’s *Comprehensive Plan* and to review any development of regional impact (DRI) studies associated with any development within the Town, or for DRI projects impacting natural resources or conservation activities within Howey-in-the-Hills.

**OBJECTIVE 1.13:** *Reducing Energy Requirements.* Enhancing conservation and efficiency measures to reduce energy requirements shall be practiced.

**POLICY 1.13.1:** *Energy Conservation Measures.* The Town shall conduct energy audits, monitor energy use and implement cost-effective energy conservation measures in all public buildings.

**POLICY 1.13.2:** *Promote the Use of Energy Saving.* The Town shall continue to reduce levels of all air-conditioning, heating and lighting systems during non-business hours and promote the use of energy saving features in all government buildings.

**POLICY 1.13.3:** *Energy Efficient Construction and Operation.* Local codes and ordinances shall be structured to permit handicap implementation of energy efficient construction and operation.

**OBJECTIVE 1.14:** *Redefining Open Spaces.* To redefine and provide a more specific definition of open spaces and ensure that adequate uplands are preserved for the residents and guests of Howey-in-the-Hills to enjoy.

**POLICY 1.14.1:** *Definition of Open Space.* The Town hereby adopts the following definition for open spaces:

*Open Space:* Open space is figured on the Gross Land Area. No greater than ~~50%~~ 25% of the open space requirement may be met with wetlands. Open space may include landscaped buffers and stormwater facilities if they are designed to be a park-like setting with pedestrian amenities and free form ponds. Open space may be passive or active. Open space may include public recreational components of developments. The majority of the open space shall be permeable; however, up to 10% may be impervious (plazas, recreational facilities, etc.). Wet ponds are not counted as part of that 10%.

Densities shall be determined by the Net Land Area. The Net Land Area is figured by taking the Gross Land Area (total property less any lakes or water bodies), then subtracting from that any open space requirements, then subtracting from that any remaining unbuildable acreage (remaining wetlands).

**POLICY 1.14.2:** *Purchasing Environmentally Sensitive Lands and Uplands.* To ensure adequate uplands are preserved for the public to enjoy, the Town shall acquire additional open space by purchasing environmentally sensitive lands and lands adjacent to uplands as practical and feasible.





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## MEMORANDUM

**TO:** Howey-in-the-Hills Planning Board  
**CC:** J. Brock, Town Clerk  
**FROM:** Thomas Harowski, AICP, Planning Consultant  
**SUBJECT:** Public Facilities Element  
**DATE:** April 17, 2024

---

The draft amendments to the Public Facilities Element are provided as part of the ongoing review and update of the comprehensive plan. As with the other elements reviewed to date, changes are highlighted in red with additions underlined and deletions struck through. The majority of the revisions are updates to the data and analysis portions of the text. There have been substantial changes to the Town's status with regard to potable water service and sewage treatment, and there are other updates to solid waste management and drainage. The current status of the water and sewer services is fluid, and more changes can be expected while the review is under way.

- The requirement for the use of non-potable water for irrigation has been clarified both in the text and in the policies.
- Policy 1.6.1 regarding a deficiency in landfill capacity has been deleted, as there is sufficient capacity for the planning period.
- Policy 1.8.3 regarding minimum potable water storage capacity has been modified. Annual storage target volumes are not needed as the storage is set for the system as a whole.
- Policy 1.12.10 regarding metering all irrigation uses has been deleted as this is not current Town policy.
- Policy 1.13.3 has been edited as the Town is now in the process of updating its water supply plan.
- Updated maps have been provided to make them easier to read.

**PUBLIC FACILITIES ELEMENT**



**TOWN OF HOWEY-IN-THE-HILLS**

**LAKE COUNTY, FLORIDA**

**ADOPTED ON OCTOBER 11, 2010**

**AMENDED APRIL 22, 2020**

**PUBLIC FACILITIES ELEMENT  
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## CHAPTER 4 PUBLIC FACILITIES ELEMENT

### A. INTRODUCTION

#### 1. SCOPE OF THE ELEMENT

This *Element* has been prepared to meet the requirements of the Local Government Comprehensive Planning and Land Development Regulation Act, Chapter 163, Florida Statutes (F.S.). In relevant part, the Act requires comprehensive plans to describe:

- 1) sanitary sewer, solid waste, drainage, potable water, and aquifer recharge protection problems and needs;
- 2) ways to provide for future requirements; and
- 3) general facilities that will be required for solution of the problems and needs.

#### 2. ORGANIZATION OF THE ELEMENT

This *Element* is divided into sections containing:

- 1) the applicable support documents, which are the technical reports summarizing the data and analysis on which the Element is based; and
- 2) the goals, objectives, and policies for the Element, as adopted in the Comprehensive Plan for the Town.

The support documents are presented as sub-elements for the different types of facilities in the *Element*. Each sub-element includes:

- 1) background information about relevant terms, concepts and regulatory provisions;
- 2) a survey of existing conditions; and,
- 3) an assessment of existing and future needs and recommendations for meeting those needs.

Population estimates were derived from the *Future Land Use* and *Housing Elements* and are presented in Table 1 below.

**TABLE 1: POPULATION ESTIMATES AND PROJECTIONS 2010–2035**

<b>POPULATION PROJECTION</b>			
<b>HOWEY-IN-THE-HILLS, FLORIDA</b>			
<b>Year</b>	<b>Resident</b>	<b>Seasonal</b>	<b>Total</b>
2010	1098	110	1208
2015	1106	111	1217
2020	1604	160	1764
2025	1925	193	2118
2030	2118	212	2330
2035	2266	227	2493

**TABLE 1: POPULATION ESTIMATES AND PROJECTIONS 2010 -2045**

<b>POPULATION PROJECTION</b>			
<b>HOWEY-IN-THE-HILLS, FLORIDA</b>			
<b>Year</b>	<b>Resident</b>	<b>Seasonal</b>	<b>Total</b>
2010	1098	110	1208
2020	1643	160	1803
2025	1981	198	2179
2030	2459	221	2680
2035	2997	240	3237
2040	3535	283	3818
2045	4134	331	4465

Source: US Census, BEBR and TMH Consulting projections.

**B. SANITARY SEWER**

**1. INTRODUCTION**

This section of the *Infrastructure Element* assesses the availability, demands, and needs of sanitary sewer in Howey-in-the-Hills. This section also presents an analysis of the soils found in Howey-in-the-Hills as they correspond to the suitability to support the use of septic tanks in Town.

## 2. EXISTING CONDITIONS

The Town understands that future development and redevelopment will require the provision of wastewater ~~devices~~ service. Accordingly, Howey-in-the-Hills has adopted an interlocal agreement with neighboring local governments to provide wastewater treatment to future developments in the Town ~~The Town will own the collection system and development~~—within the Town’s Chapter 180 Utility Service Boundary ~~and will contract with neighboring local governments to provide wholesale wastewater treatment to designated areas. The Town understands these will need to be established prior to approving future development or redevelopment. Howey in the Hills has also established a wastewater impact fee to aid in the provision of this essential service.~~

It is important to note that the Central Lake Community Development District (CDD) currently provides wastewater treatment for the Lake Hills School in Howey-in-the-Hills, Talichet Subdivision, and the Venezia South residential development and will provide wastewater treatment for ~~three new~~ The Reserve development (~~the Mission Rise, The Reserve, and Venezia North Talichet~~) ~~that are currently in development review under construction~~. The Town ~~is also working on~~ has completed a program to retrofit Central Avenue with sanitary sewer serving the core commercial area of the Town. The Town will own and maintain the collection system (mains, lift stations, etc.) within the Town limits. ~~This provision of services was established through an interlocal agreement which is further described in the Intergovernmental Coordination Element. The CDD has stated that only limited treatment capacity is available in their current facility beyond the commitments already made unless the plant is expanded. Thus, the Town continues to explore other options for the provisions of sewer service ranging from the use of package treatment plants, to construction of a town-owned wastewater treatment plant, to contracting for service from nearby local governments and additional purchased service from the CDD.~~

~~Regarding sanitary sewer facilities, the only current demand on the Central Lakes CDD wastewater treatment facility is the Lake County public school in Howey and the Venezia South development. The existing level of service provided by the sanitary sewer facilities is estimated at 250 GPD/ERU as outlined in the agreement between the Town and the Central Lake CDD.~~

~~With regard to sanitary sewer capacity, the Central Lake CDD received capacity reservation fees from the three Planned Unit Developments in order to expand its treatment capacity to .87 MGD. The balance of the wastewater treatment capacity expansion remains as excess capacity in place for when the Howey planned unit developments require treatment capacity.~~

Septic tanks will provide sanitary sewer service to development locating on a lot not less than 15,000 square feet (i.e., ¼ of an acre) if the soils have been determined adequate for the use of septic tanks. The minimum size for septic tanks in Town is 750 gallons. Such

systems must provide service consistent with the adopted level of service standards and meet the guidelines established by the Lake County Health Department.

Effluent from septic tank systems is discharged to the drain field where it can percolate into the soil. Soil permeability and depth to the water table are limiting factors on septic tank performance.

The *Federal Water Pollution Control Act* (PL 92-500) is the controlling national legislation relating to the provision of sanitary sewer service. The goal of this *Act* is the restoration and/or maintenance of the chemical, physical and biological integrity of the nation's waters. The *Act* established the national policy of implementing area wide waste treatment and management programs to ensure adequate control of sources of pollutants.

The Florida Department of Health and Rehabilitation Services (DHRS) regulates septic tank and drain field installation within the state. These requirements have been adopted by rule in Chapter 10D-6, F.A.C.

The Lake County Health Department regulates and approves septic systems within the Town. A percolation test and studies of the soil are used to determine size, siting, and type of individual systems.

The Town ensures that the following guidelines regarding septic tank locations are enforced during the development review process:

- 200 feet from sewage disposal system to any public water well.
- 75 feet from any sewage disposal system to any private water well.
- 75 feet from the high water line of any lake, canal, stream, or other body of water. Lots created prior to 1972 require 50 feet from the high water line of any surface.
- 10 feet from any water main or service line installed below the ground.
- 5 feet from the property line and building foundations; and
- Septic tank inlet shall be within 15 feet of plumbing stub out.

Additionally, limitations are in effect relating to the size of the facilities to be constructed (i.e., number of bedrooms) including the projected volume of waste as compared to the size of the property upon which construction is to occur.

Currently, the Town does not have a systematic monitoring of septic systems. System checks are done on a compliance basis.

### 3. SOILS

Soils are an important aspect in land development. The physical and chemical properties of soils restrict the intensity of development through limitations on road construction, landfill siting, septic tank operation, and building placement.



There are a variety of soil types in Howey-in-the-Hills (~~see the Town's Soils Map~~). The general descriptions of the soils in the Town are found below in Table 2 ~~[9]-5.011(1)(f)(4), F.A.C.].~~ All upland soils are suitable for development and show little limitation for the use of septic tanks.

**TABLE 2: SOILS**

Map Unit Name	Hydric Soil	Drainage Class	Steel Corrosion	Concrete Corrosion	Acres
Anclote and Myakka Soils	Yes	Very Poorly Drained	High	Moderate	0.21
Apopka Sand	No	Well Drained	Moderate	High	31.28
Arents	No	Somewhat Poorly Drained	Unranked	Unranked	83.35
Borrow Pits	Partially Hydric	Unranked	Unranked	Unranked	2.78
Candler Sand, 0 to 5 Percent Slopes	No	Excessively Drained	Low	High	698.59
Candler Sand, 12 to 40 Percent Slopes	No	Excessively Drained	Low	High	3.16
Candler Sand, 5 to 12 Percent Slopes	No	Excessively Drained	Low	High	259.16
Immokalee Sand	Partially Hydric	Poorly Drained	High	High	7.31
Kendrick Sand, 5 to 8 Percent Slopes	No	Well Drained	Moderate	High	6.24
Lake Sand, 0 to 5 Percent Slopes	No	Excessively Drained	Low	High	114.40
Lake Sand, 5 to 12 Percent Slopes	No	Excessively Drained	Low	High	12.98
Lochloosa Sand	No	Somewhat Poorly Drained	High	High	5.20
Myakka Sand	Partially Hydric	Poorly Drained	High	High	85.87
Ocoee Mucky Peat	Yes	Very Poorly Drained	High	High	4.11
Oklawaha Muck	Yes	Very Poorly Drained	High	Low	6.14
Placid and Myakka Sands, Depressional	Yes	Very Poorly Drained	High	High	17.30
Pompano Sand	Partially Hydric	Poorly Drained	High	Moderate	8.62
Sparr Sand, 0 to 5 Percent Slopes	No	Somewhat Poorly Drained	Moderate	High	14.50
Swamp	Yes	Very Poorly Drained	Unranked	Unranked	53.97
Tavares Sand, 0 to 5 Percent Slopes	No	Moderately Well Drained	Low	High	278.99
Water	Unranked	Unranked	Unranked	Unranked	281.87

Notes: Drainage Class - Identifies the natural drainage conditions of the soil and refers to the frequency and duration of wet periods.  
Concrete Corrosion - Susceptibility of concrete to corrosion when in contact with the soil.  
Steel Corrosion - Susceptibility of uncoated steel to corrosion when in contact with the soil.

Source: U.S. Department of Agriculture, Natural Resources Conservation Service's Orange County Soils Geographic Information Systems database March 2010.

#### 4. ANALYSIS

As previously noted, there are agreements in place for wastewater treatment for certain properties in the ~~development review process~~ Town and discussions ~~with neighboring cities to enter interlocal agreements for future wastewater treatment provisions are ongoing regarding the treatment options aside from the Central Lake CDD.~~ The Central Lakes Community Development District ~~also currently~~ treats the wastewater from the one public school in Howey-in-the-Hills, ~~the Venezia and Talichet subdivisions, Central Avenue, and Boondocks restaurant complex.~~ The CDD is also committed to serve The Reserve development on south SR 19 and has extended an offer to treat wastewater from the Lake Hills residential project. The Town understands the need to continue to analyze the appropriateness and feasibility of wastewater treatment options for future growth

The soils in Town are overall suitable for septic tanks. The Town shall continue to prohibit septic tanks to be located in environmentally sensitive areas or within 200 feet of a public potable water well or within 75 feet of a private potable water well. The Town shall also continue to enforce the water and sewer concurrency standards

~~The Central Lake CDD has the capacity to treat the wastewater that will be generated by the three planned unit developments and the Lake County public school. The off site improvements for connection to the wastewater treatment facility have been designed and constructed. Each development will design and construct the collection systems for their developments and the Town will own and maintain the collection system. This will ensure capacity for these developments through the planning period~~

For future growth in the Town and in the Town's Utility Service Area for the long-range planning period, wastewater treatment will be provided ~~through interlocal agreements with surrounding local governments. Both the City of Groveland and the City of Leesburg have surplus capacity that is available. The current wastewater agreements provide the necessary treatment for the projected population over the long range planning period. The anticipated wastewater agreements to serve beyond the planning period will be in place prior to the approval of any final development orders for growth beyond the 1,528 residential units and 385,000 square feet of commercial development from a combination of sources including the CDD and options ranging from construction of a Town-owned treatment plant, to purchase of capacity from other local governments, to the use of package plants to meet interim needs.~~

### C. SOLID WASTE

#### 1. INTRODUCTION

Solid waste is defined as "any garbage, refuse, sludge...and any other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from residential, industrial, commercial, mining, and agricultural operation, and from

community activities". Hazardous waste is defined as "a solid waste, or combination of solid waste which because of its quantity, concentration, or physical, chemical, or infectious attributes, may:

- (a) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness, or
- (b) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed" (U.S.C. 6903 (5)).

This section of the *Public Facilities Element* assesses the Town’s needs for solid waste disposal and the adequacy of the existing disposal method.

## 2. EXISTING CONDITIONS

The Town provides twice weekly curbside garbage collection through a contract with a private hauler. In 2009, Lake County completed the construction of the landfill cells that are anticipated to handle the demand over the short term. Lake County also has planned expansions, permitted through FDEP that will provide sufficient capacity through the long term.

Lake County maintains and operates 5 residential drop-off (RDO) facilities throughout the County and a Citizen Convenience Center at the Astatula Landfill where residents can self-haul their solid, hazardous, recycling materials and special wastes. Special wastes consist of used motor oil, furniture, waste tires, white goods, and electronic wastes. Each RDO handles different amounts and types of waste depending on its size and location. Collectively, they receive on average 3,000 tons per year. The Citizen Convenience Center at the Astatula Landfill is the closest RDO to the Town.

~~The Town’s population in 2015 was 1,217 (BEBR) With 565 solid waste customers, that would equate to 2.15 persons per household. (The 2010 Census estimated the number of persons per household in Howey in the Hills was 2.42) Using the 2.15 persons per household, and the average of 4.14 pounds of solid waste per customer per day, each person in Town generated an average of 1.93 pounds per day. The Town’s adopted level of service for solid waste is a maximum of 6 pounds per person per day. So, the current LOS of 1.92 pounds per day meets the Town’s adopted concurrency standard.~~

~~The Town shall continue to cooperate with the County to comply with the latest State regulations regarding the disposal of solid waste. The Town Clerk is the Town liaison with the County.~~

### 3. ANALYSIS

As previously noted, the solid waste generated in Town is currently meeting the adopted level of service standard of 6 pounds per person per day. The Town has assessed the projected solid waste needs based on the ~~2035-~~ 2045 population projections.

The adopted solid waste level of service is 6 pounds per person per day. As such, the Town is expected to generate about ~~15,000~~ 27,000 pounds a day of garbage in ~~2035~~ 2045 (see Table 3). The Town shall continue to monitor the adopted LOS standards through the annual concurrency review and identify and address all deficiencies during the planning period.

~~TABLE 3: SOLID WASTE LEVEL OF SERVICE PROJECTIONS, 2020-2035~~

<del>Year</del>	<del>Population</del>	<del>Adopted LOS Standard</del>	<del>Pounds per Year</del>	<del>Pounds per Day</del>
<del>2020</del>	<del>1,764</del>	<del>6 pounds per person per day</del>	<del>3,863,160</del>	<del>10,584</del>
<del>2025</del>	<del>2,118</del>	<del>6 pounds per person per day</del>	<del>4,638,420</del>	<del>12708</del>
<del>2030</del>	<del>2,330</del>	<del>6 pounds per person per day</del>	<del>5,102,700</del>	<del>13,980</del>
<del>2035</del>	<del>2,493</del>	<del>6 pounds per person per day</del>	<del>5,459,670</del>	<del>14,958</del>

TABLE 3: SOLID WASTE LEVEL OF SERVICE PROJECTIONS, 2025-2045

<u>Year</u>	<u>Population</u>	<u>Adopted LOS Standard</u>	<u>Pounds per Year</u>	<u>Pounds per Day</u>
<u>2025</u>	<u>2179</u>	<u>6 pounds per person per day</u>	<u>4,772,000</u>	<u>13,074</u>
<u>2030</u>	<u>2680</u>	<u>6 pounds per person per day</u>	<u>5,869,200</u>	<u>16,080</u>
<u>2035</u>	<u>3237</u>	<u>6 pounds per person per day</u>	<u>7,089,000</u>	<u>19,422</u>
<u>2040</u>	<u>3818</u>	<u>6 pounds per person per day</u>	<u>8,361,400</u>	<u>22,908</u>
<u>2045</u>	<u>4465</u>	<u>6 pounds per person per day</u>	<u>9,778,400</u>	<u>26,790</u>

Sources: Town of Howey-in-the-Hills and TMH Consulting, Inc., March 2010.

~~Like all local governments in Lake County, Howey in the Hills uses the Lake County landfill for its solid waste needs. The Town’s waste hauler is responsible for arranging disposal, but currently uses the county landfill as the primary location.~~ At the current time, the Town has no plans to change its solid waste collection methods. The Town shall continue to cooperate with the County on recycling efforts. There is sufficient capacity to support the Town’s solid waste disposal needs through the end of the planning period.

Hazardous wastes are corrosive, toxic, flammable, or reactive substances that may harm public health and the environment. Some examples of hazardous wastes are motor oil, paints, pesticides, fluorescent light bulbs, and pool chemicals. Hazardous wastes are collected at the Household Chemical Collection Center, near the Phase II landfill, or at the residential drop-off facilities. The County also operates a mobile hazardous waste

disposal unit. The 302 Facilities in Town are presented in Table 4 below. A detailed inventory of the facilities with small quantity generators in and/or adjacent to the Town is available from the County.

**TABLE 4: 302 FACILITIES IN TOWN**

SERC ID	Facility Name
5817	Silver Springs Citrus
8283	Town of Howey-in-the-Hills – Well 2
8444	Bella Vista Golf and Yacht Club (Bishops Gate)
23119	Town of Howey-in-the-Hills – Well 2

Source: East Central Florida Local Emergency Planning Committee Hazardous Materials Emergency Response Plan 2008 Current Revision.

The Town has no hazardous waste landfill or any hazardous waste management personnel. No system for household collection of such waste has yet been established, however as County regulations are formulated, the Town will comply and citizens are urged to use County facilities and collection days.

**D. DRAINAGE**

**1. INTRODUCTION**

Drainage is the conveyance, treatment and attenuation of water generated from storm events. Drainage systems are designed to safely and efficiently manage stormwater to reduce the threat to human safety and property from flooding caused by stormwater. The adequacy and efficiency of a drainage system depends upon variables such as:

- system capacity,
- intensity and duration of a storm event,
- topography, and
- soil permeability, and level of the water table.

Drainage systems designed to accommodate stormwater from a rainfall event of average intensity and duration may be unable to accommodate stormwater generated by an exceptionally intense or long rainfall event. These variables, as well as physical limitations such as elevation and available land, and cost are considered in the planning of drainage systems.

This section addresses major natural drainage features, existing facilities and programs, and opportunities for stormwater management in Howey-in-the-Hills.

**2. EXISTING CONDITIONS**

The Town regulates and enforces stormwater drainage through its Land Development Regulations and the concurrency requirements of this *Comprehensive Plan*. The Town has established the minimum drainage level of service standard for water quality as:

Facility Type	Pollution Abatement Treatment
Retention with Percolation or Detention with filtration	Runoff from first inch of rainfall or one-half inch of runoff if it has less than 50% impervious surface and less than 100 acres, whichever is greater
Detention without filtration or wet detention	The first inch of runoff from the site or 2.5 inches times the site’s impervious surface, whichever is greater

In addition, the Town’s land development code requires that stormwater management systems be designed based on the 10-year, 24-hour storm at minimum, but must also address the effects of the 25-year, 24-hour storm.

Stormwater drainage within the Town is currently accommodated by both natural and man-made drainage features. ~~Although culverts and drainage pipes comprise a large portion of the stormwater system, the Town does not know where the underground pipes lead and where their outfalls are located. This system was installed decades ago and no engineering studies or plans for the drainage system are available to determine the design capacity of the system.~~ The Town system includes a network of culverts and drainage pipes that typically discharge to Little Lake Harris and other retention areas. In addition to these features, there are private retention/detention areas which were constructed to provide fill for the Mission Inn Complex. These ponds provide on-site retention/detention and a certain amount of percolation of runoff to the aquifer.

Increased development and land coverage could increase the need to construct additional drainage facilities to protect Little Lake Harris from nutrient runoff. Drainage problems do exist with stormwater runoff believed to be discharging directly into Little Lake Harris. The Town has ~~received one grant to install~~ constructed a baffle box near the boat ramp to collect materials and allows for sediment removal before the water gets to the lake. ~~The Town intends to apply for similar grants in the future. Most of this runoff is a result of the construction of State Road 19 through Howey in the Hills years ago. There are no major flooding problems associated with stormwater runoff. The Town has obtained additional grant funds to supplement Town funds in addressing other localized water quality and drainage improvements.~~

Level of service standards established in the *Comprehensive Plan* will continue to remain consistent with State statutes pertaining to the performance of drainage systems. The

Town ensures the provision of adequate stormwater drainage systems through the development review process. Permits are also required from all applicable State, Federal, and local agencies with regard to stormwater. No development is approved or is allowed to begin construction until all such permits are received by the Town.

The guidelines established in the Town’s Land Development Regulations are consistent with the applicable stormwater drainage requirements of the County, State, and Federal agencies. The Town’s drainage facilities are operated (maintained) by Town staff or by Homeowners’ Associations.

The Town is situated in the Ocklawaha River watershed in the Howey Slough, Lake Harris and Eustis, Little Lake Harris, and Little Everglades drainage basins. The Ocklawaha River watershed covers 2,769 square miles from the Green Swamp in Polk County and Lake Apopka sub-basins north through the Rodman Reservoir to the river's discharge into the St. Johns River near the town of Welaka. Along the way the river receives water from Silver Springs via Silver River and Orange Creek. It is the largest tributary watershed of the St. Johns River.

The Town lies on the Lake Wales Ridge, a physiographic high that has a high potential for aquifer recharge to the Floridan Aquifer. There is little topographic relief within the Town (90 feet). The upper limit is approximately 150 feet above sea level and drops to near 60 feet at Little Lake Harris. Neither differential creates serious problems in the Town. An extract of the U.S. Geological Survey topographical map is featured on the Town’s *Contour Map*.

Palm Avenue (State Road 19) has storm sewers along both sides of the street with sewer openings approximately every 200 feet. The concrete pipe carrying stormwater measures 15” inside diameter. Additional stormwater openings are located at the following intersections with Lakeshore Drive:

- East Croton Way
- East Laurel Avenue
- East Magnolia Avenue
- East Pine Street
- East Oak Street
- East Central Avenue
- East Myrtle Street
- East Lakeview Avenue

Stormwater enters these sewer openings and is believed to exit directly into Little Lake Harris further down the slope to the east. The remaining stormwater percolates into the soil or runs over the surface to the lowest point, Little Lake Harris. These systems were constructed several decades ago, and the Town does not have access to those construction plans. As such, information on the design capacity of the system is unknown.

There is a 4’x 25’x100’ retention basin behind the post office located on West Central Avenue. This system was designed to capture the stormwater runoff from the impervious surfaced parking lot in front of the building.

There has been no backup of the system from Palm Avenue down toward Lakeshore Blvd. during precipitation events in the past 25 years. There has also been no flooding in Town.

### 3. ANALYSIS

The Town requires that all new development provide evidence to show that level of service (LOS) ratings in stormwater conveyances serving the new development will not be degraded to an LOS lower than currently exists as a result of the new development's construction and stormwater runoff contribution.

The Town is concerned about the stormwater runoff into Little Lake Harris. As stated earlier, the Town was awarded a grant to address this issue and plans to install additional improvements as funds become available. Howey-in-the-Hills shall also work with Lake County in an educational and enforcement program regarding measures to conserve and protect the water quality of Little Lake Harris.

Due to the terrain which slopes towards Little Lake Harris, run-off in the eastern areas of Town quickly enter the lake. As such, Lakeshore Blvd. is subject to heavy silting after storms. To preserve and restore the water quality of Lake Little Harris, a berm and swale drainage facility parallel to the shoreline would retard flow and catch soils and contaminants carried by runoff.

~~A Stormwater Master Plan for the Downtown area is currently underway. This Plan will address current and future stormwater needs as development and redevelopment occurs along Central Avenue and State Road 19 and down to Little Lake Harris.~~

The Town shall continue to enforce the stormwater standards established in the Town's Land Development Regulations and this *Comprehensive Plan*. Once the *Downtown Stormwater Master Plan* is completed, projects will be included in the Town's *Capital Improvements Program* as funds become available.

## E. POTABLE WATER

### 1. INTRODUCTION

The source of Howey-in-the-Hills's potable water is the Floridan Aquifer. The Town's potable water system provides water for both residential and non-residential purposes, including fire-fighting demands.

This section presents the existing conditions and capacity of the water treatment, storage, and distribution components in the system, calculates the current level of service, and uses it to determine future growth demand on the potable water system.



## 2. EXISTING CONDITIONS

The Town’s water system consists of two water plants located approximately one mile apart with a total of three active wells, one out-of-service well, one 500,000-gallon ground storage tank and one 15,000-gallon hydropneumatic tank. The elevated storage tank remains in place but is not active.

The oldest water plant is located on Central Avenue west of State Road 19 in the central part of town. The roughly triangular-shaped parcel upon which this plant is located is bounded on the east by Grant Street, on the south by West Central Avenue and on the north by Lake Illinois.

The second water plant is located in the north part of town at the intersection of State Road 19 and County Road 48 and is referred to as the “North plant”. The North plant is in the process of being replaced with two new wells, treatment capacity and storage at a site adjacent to the current north plant.

~~Florida Department of Environmental Protection records indicate that the design capacities for two plants are 1.8 million gallons per day (mgd) 0.72 mgd respectively, for a combined design capacity of 2.52 mgd. In 2017 the system pumped 314,000 gallons on the average day and the peak day in March was 792,400 gallons. The Town holds a current consumptive use permit for 10 MGD and is the process of amending its CUP as the Town current supplies volumes in excess of this level with consumption reaching 12 MGD.~~

The Central Avenue Plant includes wells 1, 2 and 4 with a capacity of 1.8 mgd and pumps about 310,000 gallons on an average day. This plant includes a 500,000-gallon ground storage tank. Well 1 is not currently active. The north plant includes well three with a capacity of 0.72 mgd and pumps about 120,000 gallons per day. Both plants draw from the upper Floridan Aquifer. The new north plant will include wells 5 and 6 and draw from the lower Floridan Aquifer. The new plant will have a capacity approximately the same as the Central Avenue Plant including an additional 500,000-gallon ground storage tank. The Town’s consumptive use permit (CUP) allows the Town to draw up to 328.5 million gallons annually or about 900,000 gallons per day. Current usage per day is about 48% of the maximum daily use allowed by the CUP.

The Town’s Public Works Department is responsible for ensuring the minimum line pressure is maintained or exceeded. Digital electronic pressure recording devices monitor and record pressure readings. In addition to these measures, electronic pressure monitors that display the distribution pressure 24-hours-per-day are located at the water production facilities. The Town is currently meeting the ~~20~~ 40 pounds per inch adopted level of service standard.

The Town provides water for all residential and non-residential uses within the Town limits as well as within its Utility Service Area (see the Town's *Utility Service Area Map*). There are no private water treatment plants in Town. There are 2 private wells for the Mission Inn complex located in the unincorporated enclave surrounded by the Town along County Road 48. The one well is used for irrigating the golf course and the other well is for drinking water. The Town has enacted an ordinance to prohibit the installation of any new private wells for drinking ~~or watering vegetation~~. The Town requires all new subdivision developments to tie into the Town's water system. There are no records indicating the number of private wells in the Town since no permits were required if wells were less than 4 inches in size. A large percentage of the private wells are under this size. Those private, commercial, or agricultural wells that may exist and may be in use are not connected to, nor are they intended or allowed to be connected to the Town's water distribution system.

The Town has periodically made improvements to the potable water system and is now in the process of replacing the north wells and treatment plant. ~~doing a comprehensive evaluation and master plan update including full modeling. The plan update is expected to be completed in late 2018 and will provide recommendations for system improvements. Once complete, this study will be used to identify prioritized projects for inclusion in the capital improvements program.~~

### 3. ANALYSIS

The Town will continue to be the supplier of potable water within the Town limits as well as within the Town's Utility Service Area. The Town will also continue to monitor and maintain the potable water services provided in the Town's Utility Service Area during the planning period.

The Town shall continue to enforce the guidelines established in the Town's Cone of Influence and Wellhead Protection Areas. The Town's Wellhead Protection Areas are featured on the Town's *Existing Land Use Map* and *Future Land Use Map*.

The Town shall continue to promote the following principles of xeriscape landscaping to be used for new developments or for new houses in older portions of the Town:

- appropriate planning and design.
- use of soil amendments.
- efficient irrigation.
- practical turf areas.
- use of drought tolerant plants.
- use of mulches; and
- appropriate maintenance.

The Town shall continue to work with Lake County and the St Johns River Water Management District to encourage water conservation through a combined program of public education and plumbing and irrigation system retrofits and refinements.

The Town shall continue to enforce the standards established in the adopted *Water Conservation Ordinance* and *Landscaping Ordinance* as strategies to conserve water in the Town’s Utility Service Area. ~~Additionally, the Town has adopted an inclined block rate structure in order to provide a financial incentive to its customers to conserve water. The Town no longer permits the use of treated water for irrigation purposes. All new developments are required to include an irrigation system to accommodate re-use water, and when re-use water is not available, the development is required to provide an alternate source of water for irrigation use.~~

In order to meet long-term needs, the Town will need to make adjustments to the water supply and distribution system as well as increase its consumptive use permit. The ongoing potable water master plan will provide the specific guidance on improvements necessary to meet future demands.

**F. NATURAL GROUNDWATER AQUIFER RECHARGE**

**1. INTRODUCTION**

Recharge is a process whereby rainfall percolates downward through the soil to reach the underlying aquifers. Indicators which help to identify recharge areas are soil type, texture, slope, and land use. Water percolates more efficiently through soils with coarse texture than through clay and organic textured soils.

The slope and land use affect the length of time that water is retained. Therefore, these factors affect how much water will percolate or run off the surface. If land is covered by impervious surfaces such as buildings, parking lots and roads, then little recharge can occur. Lateral seepage must occur under these areas for any recharge function to exist. Recharge can be preserved either through land use intensity controls or design requirements for maintaining or improving recharge.

The geology in Lake County is similar to other areas in Central Florida. At the surface are deposits of sands. These sands grade to finer materials and contain more silts and clays with depth. These surficial deposits range in thickness from a few feet to hundreds of feet. Underlying the sands in most areas of the County is a confining bed of clay. These clays are generally considered a part of the Hawthorn formation. Below the clay are thick sequences of carbonate rocks -- limestone, dolomitic limestones, and dolomite.

The St Johns River Water Management District has designated a large portion of Lake County as a “Priority Water Resource Caution Areas”. These are areas where existing

and reasonably anticipated sources of water and conservation efforts may not be adequate (1) to supply water for all existing legal uses and reasonably anticipated future needs and (2) to sustain the water resources and related natural systems.

The Floridan aquifer is the principal source of drinking water for Lake County. Most of the water in the Floridan aquifer is derived from the County's average annual rainfall of approximately 48 inches. The County's annual recharge rate to the Floridan aquifer averages about 7 inches per year (in/yr). Recharge rates range from as high as 20-30 in/yr or greater on the Lake Wales and Mount Dora Ridges to 0 in/yr in the area along the St. Johns River and the Ocala National Forest. Additional recharge also occurs through drainage wells drilled into the Floridan aquifer to dispose of excess surface water in Ocala and western Orange County. Recharge to the surficial aquifer system, and consequently to the FAS, is augmented locally by artificial recharge - wastewater land application, rapid-infiltration basins, and septic systems. The recharge rate in Howey-in-the-Hills and the surrounding area is 1 to 10 inches per year and the discharge rate is less than 1 inch per year.

## 2. Analysis

The Town enforces recharge provisions through the guidelines and standards established in this *Comprehensive Plan*.

The Town shall continue to protect the groundwater and aquifer recharge by enforcing the standards established in the Town's Cone of Influence and Wellhead Protection Areas. The Town shall also continue to protect and conserve the groundwater by restricting development on environmentally sensitive lands.

The Town's well drained sandy soils, lakes and ponds, wooded areas, and grassy yards contribute to water recharge. The larger residential lots also contribute to the water recharge in the area. The Town's stormwater regulations have been identified and discussed earlier and contribute to recharge.

There are no known groundwater recharge problems in Howey-in-the-Hills. The Town shall continue to protect the quality of groundwater recharge through enforcing the Town's Land Development Regulations. The quality of groundwater recharge shall also be protected by ensuring that all stormwater conveyances serving new development does not degrade the LOS lower than currently exists as a result of the new development's construction and stormwater runoff contribution.

The Town's Land Development Regulations and the *Goals, Objectives and Policies* in this *Comprehensive Plan* are adequate measures focused on the protection of the ground water and aquifer recharge in the Howey-in-the-Hills area.



## G. GOALS, OBJECTIVES AND IMPLEMENTING POLICIES

### GENERAL APPLICATIONS

**GOAL 1:** Assure provision of sanitary sewer, solid waste, potable water, and drainage facilities and services that efficiently maximize capacity of existing facilities, promote managed growth, protect public health and safety, and maintain environmental quality, with consideration to limited financial resources.

**OBJECTIVE 1.1:** *Implement a Capital Improvement Schedule.* The Town's *Five-Year Capital Improvement Schedule* established within the *Capital Improvements Element* shall adequately time improvement needs with available funding and location of development. This *Improvement Schedule* shall be consistent with public facility improvement needs identified within this *Comprehensive Plan*.

**POLICY 1.1.1:** *Evaluation of Capital Improvement Schedule.* The Town shall annually evaluate ~~(during the annual concurrency review established in the Capital Improvements Element)~~ the implementation of capital improvements proposed within the *Capital Improvement Program* and rank improvements according to priority of need.

**POLICY 1.1.2:** *Criteria for Ranking and Evaluating Capital Improvements.* Proposed Capital Improvement Projects shall be evaluated and ranked according to the following priority level guidelines:

- 1.) **Indicated Need:** Implementation is needed to:
  - Protect public health, safety, and environmentally sensitive natural resources;
  - Comply with State or Federal requirements to provide facilities and services;
  - Preserve or maximize the use of existing facilities; and
  - Improve efficiency of existing facilities.
  
- 2.) **Additional Facility Needs:** Implementation is needed to:
  - Eliminate facility or capacity deficiencies for service provided to existing developed areas; and
  - Extend facilities and expand capacities in a manner consistent with the Future Land Use Element goals, objectives, and policies and the Future Land Use Map.

- 3.) ***Adequate Funding:*** Adequate Funding for a project shall be available prior to its commencement, and project cost shall not cause accrued debt obligation to exceed beyond the limits of the Town’s debt capacity.

**POLICY 1.1.3:** ***Deficiencies of Capital Improvements.*** In the event deficiencies should develop in the provision of public facilities, the Town shall grant existing deficiencies priority among capital improvements scheduled within the *Capital Improvement Program*. The Town shall issue no development permits for new development that will result in an increase in demand on deficient facilities.

## SANITARY SEWER FACILITIES

**OBJECTIVE 1.2:** ***Assure Availability of Capacity.*** Assure that adequate sanitary sewer capacity is available to support demands generated by existing and new development during the planning period concurrent with the issuance of a development permit or at the time service will be demanded.

**POLICY 1.2.1:** ***Level of Service Standards.*** The Town hereby adopts the following level of service standard for sanitary sewer by which development shall be evaluated for demand generation:

Dwelling Unit - 120 gallons per day, per resident

**POLICY 1.2.2:** ***Minimum Design Capacity of On-Site Septic Tank Systems.*** The Town shall allow septic tanks that are designed in accordance with the criteria established and enforced by the Lake County Health Department.

**POLICY 1.2.3:** ***Compliance with Levels of Service.*** During the development review process, the Town shall require new development and redevelopment projects to provide written evidence of compliance with the sanitary sewer level of service standards and with the minimum design capacity for on-site septic tank systems.

**POLICY 1.2.4:** ***Compliance with State and County Regulations.*** During the development review process, the Town shall require applicants for development orders or permits to demonstrate compliance with applicable State permit requirements for on-site septic tanks, as administered by the Florida Department of Health and Rehabilitative Services in conjunction with the Lake County Health Department.

**POLICY 1.2.5:** *Concurrency Management System: Wastewater.* The Town’s *Concurrency Management System* shall be used as a measure to monitor the sanitary sewer system, evaluate compliance with the adopted level of service standards, and ensure consistency with the *Future Land Use Element* and *Future Land Use Map* in order to assure that septic tank systems, as well as any other sanitary sewer system which may be installed, comply with goals, objectives, and policies set forth herein. The *Concurrency Management System* shall be reviewed and updated to indicate current capacity conditions during the annual concurrency review.

**POLICY 1.2.6:** *Provision of Wastewater Treatment.* The Town shall maintain its agreement with the Central Lake Community Development District for the provision of sanitary sewer treatment services and coordinate with the Central Lake CDD on system capacities and connections. The Town shall consider other options for the provision of wastewater treatment in addition to honoring the CDD commitments.

**POLICY 1.2.7:** *Wholesale Wastewater Treatments.* The Town shall continue to monitor and enforce the guidelines provided in the wholesale wastewater treatment agreements established with the Central Lake Community Development District. The Town shall also provide coordination with any future wastewater treatment providers established within the Town’s Utility Service Area Boundary.

**OBJECTIVE 1.3:** *Deficiencies in Sanitary Sewer and Septic Tank Services.* Identify and correct any deficiencies in the operation of sanitary sewer/septic tank systems.

**POLICY 1.3.1:** *Identify and Correct Existing Deficiencies.* The Town shall notify the Lake County Health Department of any complaints registered by citizens or businesses pertaining to any septic tanks not functioning properly. The Town shall request that the Lake County Health Department notify them of any septic tanks found not to be performing properly.

**OBJECTIVE 1.4:** *Meet Future Demands.* Provide additional facilities and capacities to meet demands generated by future development during the planning period.

**POLICY 1.4.1:** *Establishing Interlocal Agreements with Wastewater Treatment Providers.* The Town shall maintain its agreement with the Central Lake Community Development District for the provision of sanitary sewer treatment services and coordinate with the Central Lake CDD on system capacities and connections. The



Town shall own and maintain the collection system of such wastewater treatment facilities. The Town ~~may~~ shall also investigate the option of establishing its own wastewater treatment plant.

**POLICY 1.4.2:** *Provision of Facilities.* All development shall be required to have on-site sanitary sewer or septic tank services operating prior to the issuance of a certificate of occupancy.

**POLICY 1.4.3:** *State Grant Funds.* The Town shall continue to research available State grant funds applicable for infrastructure needs/feasibility studies for local governments.

## SOLID WASTE

**OBJECTIVE 1.5:** *Assure Availability of Capacity.* Assure that adequate solid waste collection and disposal capacities are available to support demands generated by existing and new development concurrent with the issuance of a development permit or at the time service will be demanded.

**POLICY 1.5.1:** *Level of Service Standards.* The Town hereby adopts a minimum level of service standard for solid waste collection services of 6 pounds per day per resident.

**POLICY 1.5.2:** *Collection of Solid Waste.* The Town shall annually evaluate the performance of services provided by commercial solid waste collection businesses which hold an established franchise agreement to provide such services to customers in Howey-in-the-Hills.

**POLICY 1.5.3:** *Disposal of Solid Waste.* The Town shall ~~continue to use Lake County landfills and the trash burning facility, or other County disposal facilities, through year 2025 for final disposal of solid waste~~ contract for the disposal of solid waste through the services of the Town's waste management provider.

~~**POLICY 1.5.4:** *Coordinate Solid Waste Programs with Lake County.* The Town shall coordinate with Lake County on an annual basis to:~~

- ~~a.) assure that Howey in the Hills is allocated a proportional share of capacity in County operated land fills, or other disposal facilities;~~
- ~~b.) reduce solid waste disposal levels through recycling programs administered by Lake County;~~

~~e.) offer assistance to Lake County in the management of hazardous waste as pursuant to State regulations (403.7265, F.S.).~~

**POLICY 1.5.5:** *Concurrency Management System: Solid Waste.* The Town shall monitor performance of solid waste collection services, available capacities, and compliance with levels of service through its *Concurrency Management System*.

**OBJECTIVE 1.6:** *Deficiencies in the Solid Waste Services.* Identify and correct any deficiencies in the provision of solid waste collection and disposal facilities and services.

~~**POLICY 1.6.1:** *Existing Landfill Deficiencies.* The Town shall coordinate with Lake County to confirm the County's progress relating to alternative disposal facilities needed to replace the Astatula landfill.~~

**POLICY 1.6.2:** *Coordinate with Lake County Hazardous Waste Management.* The Town shall coordinate with Lake County Environmental Utilities Department regarding hazardous waste management to reduce potential threat to public health and safety, and to environmental quality.

**OBJECTIVE 1.7:** *Maximize Use of Existing Facilities.* Prevent the formation of unauthorized dumping sites within the Town to maximize use of existing facilities and to protect public health and safety.

**POLICY 1.7.1:** *Removal of Unauthorized Dumping Sites.* The Town shall remove, or require landowners to remove, any unauthorized dumping sites that may gather on private property. The Town shall remove any unauthorized dump sites on public property.

## POTABLE WATER

**OBJECTIVE 1.8:** *Assure Availability of Capacity.* Assure that adequate potable water capacities are available to support demands generated by new development concurrent with the issuance of a development permit or at the time service will be demanded.

**POLICY 1.8.1:** *Level of Service Standards.* The Town hereby adopts the following overall potable water level of service standards by which development shall be evaluated for demand on the water system capacity and for demands generated by development:

Overall System Demand - 242.0 gallons per day per capita  
 Residential Uses: 150.8 gallons per day per resident

**POLICY 1.8.3:** *Minimum Storage Capacity.* ~~Minimum storage capacity of the Town water system shall provide the following gallons: The Town shall maintain adequate storage capacity to support the designated level of service for potable water and to meet the needs for fire flow and other system demands.~~

Year	Gallons
2010	500,000
2015	520,000
2020	530,000
2025	530,000

**POLICY 1.8.4:** *Minimum Line Pressure.* The Town potable water distribution system shall provide a minimum pressure of ~~20~~ 40 pounds per square inch (p.s.i.) to provide adequate service for potable water demands and to meet fire flow pressure requirements. Maximum pressure will not exceed 100 p.s.i.

**POLICY 1.8.5:** *Compliance with Minimum Level of Service, Storage Capacity, and Line Pressure.* The Town shall issue development orders or permits predicated on demonstrated compliance with the potable water level of service standards, minimum line pressure standards, and available storage capacity. All development or redevelopment projects, with regards to potable water, shall comply with all relevant federal, state, and local permit requirements.

**POLICY 1.8.6:** *Concurrency Management System: Potable Water.* The Town shall enforce the guidelines established in its *Concurrency Management System* regarding potable water facilities and services provided to the Town of Howey-in-the-Hills.

**OBJECTIVE 1.9:** *Deficiencies in the Water System.* Identify and correct any deficiencies in the water system, including storage and distribution facilities.

**POLICY 1.9.1:** *Identify and Correct Existing Deficiencies.* The Town shall evaluate available capacity and performance of the water system on an annual basis, during the Town’s *Concurrency Management System* review.

**OBJECTIVE 1.10: *Meet Future Potable Water Demands.*** Provide additional facilities and capacities to meet water demands generated by future development during the short-range (~~2011-2015~~) and long-range (~~2025~~) planning period.

**POLICY 1.10.1:** *Mandatory Connection to System.* The Town shall require all new development to connect to the Town’s Water System.

**POLICY 1.10.2:** *Available Capacity Prior to Development.* The Town shall assure adequate water capacity is available prior to the issuance of a development order or permit. The evaluation of adequate water capacity shall be based on procedures established within the Town’s *Concurrency Management System*.

**POLICY 1.10.3:** *Developing Cost-effective and Technically Feasible Water Resources.* The Town shall coordinate with the St. Johns River Water Management District, Lake County, and other local governments or private utility providers to develop cost-effective and technically feasible water resources that will satisfy and supplement future demands without causing adverse impacts to water quality and quantity, wetlands, aquatic systems, or the environment.

**OBJECTIVE 1.11: *Maximize Use of Existing Facilities and Minimize Urban Sprawl.*** Direct growth to areas currently serviced by the water system to maximize use of existing facilities and to minimize urban sprawl.

**POLICY 1.11.1:** *Coordination with the Future Land Use Map.* The extension of potable water services shall be consistent with land use allocations delineated on the *Future Land Use Map*; with goals, objectives, and policies established in the *Future Land Use Element* of the Town’s *Comprehensive Plan*; and with the plans and policies of the St. Johns River Water Management District.

**POLICY 1.11.2:** *Availability of Adequate Water Supplies to Serve Development.* The Town shall issue no development orders or development permits without first consulting with the utility service provider (Town of Howey in the Hills Public Works Department) to determine whether adequate water supplies to serve the development will be available no later than the anticipated date of issuance by the Town of a certificate of occupancy or its functional equivalent. The Town will also ensure that adequate water supplies and facilities are available and in place prior to issuing a certificate of occupancy or its functional equivalent.

**OBJECTIVE 1.12: Conservation of Potable Water Supplies.** The Town shall promote the conservation and responsible use of its potable water resources.

**POLICY1.12.1: Conservation of Potable Water Supplies.** The Town shall conserve its potable water supplies through the implementation of water conservation techniques and programs. Such techniques and programs may include, but are not limited to:

1. Requiring installation of water conserving plumbing fixtures in new and renovated buildings which are, at minimum, consistent with the requirements of the State Water Conservation Act (s. 553.14, F.S.). The development review process shall include a review of development applications to assure such fixtures will be installed. No certificate of occupancy shall be issued unless such fixtures are in place concurrent with deadlines established for water facilities within the Town's Concurrency Management System.
2. Implementing a soil moisture monitoring and rain sensor device distribution program.
3. Promoting native and drought tolerant landscaping that incorporates the principles of design, appropriate plant selection, soil improvement, efficient irrigation, mulching, turf concentration, and proper maintenance.
4. Promoting water reuse and/or reclamation, where appropriate, for landscape and farm irrigation, and other appropriate applications.
5. Distribute educational materials provided by the St. Johns River Water Management District to residents and businesses through water bill mailings which describe sources of water consumption and opportunities for conservation.
6. Implementation of a leak detection program in order to discover and curtail wasteful losses of potable water from the public water supply delivery network.
7. Check the performance of water meters connected to the Town's well system on a regular basis to assure proper functioning. Replace malfunctioning system meters.

8. Encouraging residents to use sensors and controls such as rain shutoff sensors, soil moisture sensors, or evapotranspiration controllers for in-ground irrigation systems.

**POLICY 1.12.2:** *Protection and Conservation of Water Supplies and Future Demand.* The Town shall continue to implement development regulations to further the protection and conservation of potable water supplies and delay the future demand for alternative water supplies. Such strategies shall include, at minimum, the following programs or standards:

- Water wise principles and site design standards.
- Appropriate plant selection and location standards.
- Encouraging new residential, commercial, and mixed-use developments to incorporate programs such as Florida Water Star<sup>SM</sup>, ENERGY STAR, the Florida Green Building Coalition’s Green Home and Development Standards, Florida Yards and Neighborhood Program, and the U.S. Green Building Council’s LEED program that encourages water efficiency in household appliances, plumbing fixtures, irrigation systems, and landscapes;
- Promotion of Low Impact Development standards.
- Irrigation design and installation standards; and
- Establishing incentives for developments that incorporate strategies that promote the reduction in the use of water and the protection of the environment and natural resources.
- Prohibit the additional use of potable water for irrigation purposes.

**POLICY 1.12.3:** *Alternative Water Supply Efforts.* To further reduce the demand for potable water, the Town shall explore all financially feasible alternative water supply efforts that can be implemented by the Town.

**POLICY 1.12.4:** *Coordination with Appropriate Agencies.* The Town shall coordinate with appropriate agencies regarding the identification and implementation of alternative water supply projects, resource allocations, and changes in the Town’s Utility Service Area.

**POLICY 1.12.5:** *Potable Water Service Connection Meters.* The Town shall ensure that all potable water service connections are metered.

- POLICY 1.12.6:** *Water Conservation Plan.* The Town shall implement all features established in the Water Conservation Plan submitted to the St. Johns River Water Management District as part of the Consumptive Use Permit process.
- POLICY 1.12.7:** *Leak Detection and Repair Program.* The Town shall conduct an annual water audit of the Town’s water system and implement a leak detection and repair program if the system losses and unaccounted for water utility uses exceed 10 percent.
- POLICY 1.12.8:** *Maintaining an Overall Water Conservation Program.* The Town shall maintain an overall water conservation program that includes an educational program, periodic revisions to the Town’s Water Conservation and Landscape Ordinances, and other innovative measures.
- POLICY 1.12.9:** *Maintaining a Progressive Water Rate Schedule.* The Town shall maintain a progressive water rate structure to encourage the conservation of potable water. The Town will implement the water rate structure consisting of a base rate and six increasing rate blocks as adopted in Resolution #2007-001. This rate structure will be reviewed periodically and revised as needed to continue to serve as a financial incentive to conserve water.
- ~~**POLICY 1.12.10:** *Metering all Irrigation Water Uses.* The Town shall establish a program to meter all irrigation water uses, regardless of source.~~
- POLICY 1.12.11:** *Sub-metering of Large Water Customers.* The Town will continue to require sub-metering of all large water customers such as shopping centers and apartment complexes. Large meters will not be allowed for multiple-unit developments.
- POLICY 1.12.12:** *Including Specific Data on Monthly Water Bills.* The Town will continue to include on monthly water bills, information showing previous usage and current usage, and will print water conservation tips on the water bills on a quarterly basis.
- POLICY 1.12.13:** *Supporting Water Shortage and Conservation Plans and Monitoring Irrigation Use.* The Town will continue to support District-promulgated water shortage and water conservation plans. The Town will continue to monitor irrigation use and will notify users of irrigation systems when improper watering practices are observed.

**POLICY 1.12.14:** *Providing Potable Water Interconnection for Emergency Purposes.* The Town shall continue to provide potable water interconnection with the Central Lake Community Development District, the Mission Inn, and adjacent municipalities for emergency purposes.

**POLICY 1.12.15:** *Coordinating with Adjacent Utility Service Providers.* The Town shall coordinate with adjacent utility service providers to establish interlocal agreements for the supply of non potable water within the Town's Utility Service Area.

**OBJECTIVE 1.13:** *Consistency of Town's Water Supply Plan.* Ensure consistency with the Town's adopted *Water Supply Facilities Work Plan*, the *Comprehensive Plan*, and the St. Johns River Water Management District's *Water Supply Facilities Plan*.

**POLICY 1.13.1:** *Adoption of Water Supply Work Plan.* The Town hereby adopts by reference the goals, objectives, and policies in the Town's *10-year Water Supply Facilities Work Plan (2010-2020)* to ensure that the adopted *Comprehensive Plan* is consistent with and compatible with the adopted *Work Plan*.

**POLICY 1.13.2:** *Assessing SJRWMD's Water Supply Facilities Work Plan.* The Town of Howey-in-the-Hills' *Water Supply Facilities Work Plan (Work Plan)*, shall assess existing and projected water sources and needs for at least a 10-year planning period and consider the *Regional Water Supply Plan* of the St. Johns River Water Management District. The *Work Plan* shall identify traditional and alternative water supply sources that the Town may use to meet existing and projected water demands. The alternative water supply projects in the *Work Plan* will be selected from the applicable District's *Regional Water Supply Plans* or otherwise proposed by the Town.

**POLICY 1.13.3:** *Update of the Town's Water Supply Facilities Work Plan.* Howey-in-the-Hills shall coordinate with the St. Johns River Water Management District during updates to their *Regional Water Supply Plan*, to identify potentially feasible alternative water supply projects in the Town and to ensure that alternative water supply options for the Town are included. ~~in the forthcoming District Water Supply Plan 2010. Within 18 months of the adoption of the St. Johns River Water Management District's Water Supply Plan, the Town shall complete updates of the appropriate elements and adopt related plan amendments in order~~



~~to address all of the 10-year water facilities supply work plan components of Chapter 163, F.S.~~ The Town shall also update its *Water Supply Facilities Work Plan* every five years, within 18 months of the adoption of the South Florida Water Management District *Regional Water Supply Plan*.

**POLICY 1.13.4:** *Development, Support, and Priority of the Regional Water Supply Plan.* The Town will continue to participate in the development of the St. Johns River Water Management District’s *Regional Water Supply Plan (RWSP)*, support the recommendations of the *RWSP*, and prioritize projects identified in the *RWSP* that are within the Town’s limits.

**DRAINAGE**

**GOAL 2:** Assure adequate drainage capacity to protect public health and safety, and investment in property against flood conditions and to prevent deterioration of ground and surface water quality.

**OBJECTIVE 2.1:** *Assure Available Drainage Capacity.* Assure that available natural and man-made drainage features provide adequate capacity to receive, retain, detain, and release stormwater in a timely manner.

**POLICY 2.1.1: *Minimum Drainage Level of Service – Water Quantity.*** The Town hereby adopts, for existing as well as new development, the following minimum stormwater drainage level of service standards for retention volume and design storm:

- a. Retention Volume – Complete retention of the post-development minus the pre-development run off occurring at the established design storm.
- b. Design Storm – The following interim level of service standards will be used until the *Comprehensive Plan* is amended to incorporate findings and recommendations of the *Storm Water Master Plan* update:

Facility Type	Design Storm
Canals, ditches, roadside swales, or culverts for stormwater external to the development	25 Year

Canals, ditches, roadside swales, or culverts for stormwater internal to the development	10 Year
Crossdrains	25 Year
Storm sewers	10 Year
Major Detention/Retention Structures <sup>1</sup>	For the Probable Maximum Precipitation as required by SJRWMD
Minor Detention/Retention Structures <sup>1</sup>	25 Year
Development occurring in the 100-year Flood Zone must elevate the first floor 18” above the 100-year Flood Elevation	

<sup>1</sup> Major/Minor Detention/Retention Structures are based on Hazard Classification for Dams and Impoundments as defined by the SJRWMD.

**POLICY 2.1.2:** *Minimum Drainage Level of Service – Water Quality.* The Town hereby adopts, for existing as well as new development, the following minimum stormwater drainage level of service standards for pollution abatement treatment:

Facility Type	Pollution Abatement Treatment <sup>2</sup>
Retention with percolation or Detention with filtration	Runoff from first inch of rainfall or one-half inch of runoff if it has less than 50% impervious surface and less than 100 acres, whichever is greater.
Detention without filtration or wet detention	The first inch of runoff from the site or 2.5 inches times the site’s impervious surface, whichever is greater.

<sup>2</sup> If the site’s runoff directly discharges to Class I, Class II, or Outstanding Florida Waters (OFW), then the Pollution Abatement Treatment Requirements shall be increased an additional fifty percent (50%) more than described, an off-line retention or off-line detention with filtration of the first inch of runoff shall be required. The Town shall discourage the use of detention with filtration pollution abatement systems due to their high failure rate and costly maintenance; thus, the Town shall allow detention with filtration only if detention without filtration cannot be used.

**POLICY 2.1.3:** *Erosion and Sediment Controls.* The provisions in the Land Development Regulations regarding erosion and sediment controls for construction occurring in all areas and soils throughout the Town, particularly areas adjacent to surface waters and natural drainage ways shall be enforced by the Town.

**OBJECTIVE 2.2:** *Existing Drainage Deficiencies.* Identify and correct any deficiencies in the natural and man-made drainage features.

**POLICY 2.2.1:** *Correct Identified Drainage Deficiencies.* Upon completion of the Town's *Town Center Stormwater Master Plan*, the Town shall amend the *Comprehensive Plan* to include any recommended drainage improvements or deficiencies. Recommended improvements shall be added to the Town's *5-year Schedule of Capital Improvements* as funds become available.

**POLICY 2.2.2:** *Use of Retention Ponds in Stormwater Management.* The Town shall utilize retention ponds, or other methods as recommended by the Town's *Stormwater Management Master Plan*, to abate the flow of untreated stormwater run-off.

**OBJECTIVE 2.3:** *Control Impacts of Future Stormwater Runoff.* Control impacts of future stormwater runoff and associated impacts to water quality.

**POLICY 2.3.1:** *Protect Natural Drainage Ways.* The Town shall protect natural drainage ways by managing development with the following requirements:

- a. *Shoreline Protection Zone.* To protect the lakefront from the encroachment of development, the Town shall establish a shoreline protection zone for Little Lake Harris and Lake Illinois. Development within the shoreline protection zone, as described in Policy 1.2.3 of the *Conservation Element*, shall be limited to recreation, conservation, or other open space land uses.
- b. *Protection of Floodplain.* The Town shall restrict future development within the 100-year flood zones to recreation and conservation land uses. The Town shall also restrict alteration of floodplain and major drainage ways, the establishment of conditions on existing undeveloped, platted, and subdivided land uses within such areas.

- c. ***Open Space Requirements.*** The *Future Land Use Element* and the *Future Land Use Map* shall establish land use types and densities which are compatible to the preservation of permeable ground surface areas. Impervious surface ratios and open space requirements shall be established by the Town, which in turn shall be consistent with hydrogeological and soil characteristics controlling development densities. The *Future Land Use Element* shall include open space and impervious surface ratios for all land use categories.
- d. ***Promote On-Site Retention and Natural Percolation of Surface Water to Groundwater Aquifers.*** The Town shall require developments to install on-site retention structures that promote percolation of surface water to the groundwater aquifer.

**POLICY 2.3.2:** ***Coordinate Watershed Management with Federal, State, and Local Agencies.*** Assure coordination of watershed management plans and policies with the Lake County, St. Johns River Water Management District, East Central Regional Planning Council, Florida Department of Environmental Protection, Florida Department of Agriculture, and the U.S. Corp. of Engineers, and other appropriate agencies.

**OBJECTIVE 2.4:** ***Integration of Natural Drainage Features.*** Maximize the integration of existing natural drainage ways and retention ponds to assist in the management of stormwater runoff.

**POLICY 2.4.1:** ***Wetlands for On-Site Stormwater Storage and Natural Drainage.*** Wetlands serve as natural collectors of stormwater and as natural filters of sediments and contaminants carried in such waters. The Town shall review proposed developments for the best applicable integration of natural drainage features and wetland storage areas as contributing components to on-site stormwater management. Primary on-site stormwater management will consist of constructed facilities.

## **GROUNDWATER AQUIFER RECHARGE**

**GOAL 3:** Protect and maintain groundwater aquifer high recharge areas.

**OBJECTIVE 3.1:** ***High Recharge of Stormwater to Groundwater Aquifers.*** Promote high recharge of stormwater to groundwater aquifers with consideration to retention time to reduce potential for downward percolation of contaminants into groundwater supplies.

**POLICY 3.1.1:** *Preserving Permeable Surface Area.* The *Future Land Use Element* and the *Future Land Use Map* shall establish land use types and densities which are compatible to the preservation of permeable ground surface areas. Impervious surface ratios and minimum open space requirements are discussed in Policy 1.1.2 in the *Future Land Use Element*.

**POLICY 3.1.2:** *On-Site Stormwater Retention.* On-site retention structures for new development shall be designed for net retention and infiltration of pre-development recharge to groundwater aquifers. Chapter 40C-42, FAC calls for retention of the first one (1) inch of rainfall.

**POLICY 3.1.3:** *Compatible Land Use for Preservation of Ground Water Quality.* To protect against potential contamination of ground water supplies, the *Future Land Use Element* shall not permit heavy industrial uses.

**POLICY 3.1.4:** *Wellfield Protection.* In order to protect the quality and quantity of Howey-in-the-Hills potable water supply, a wellfield protection zone shall be established within a radius distance of one-hundred and fifty, two hundred, and five hundred feet from potable water wells. The following land uses are prohibited within these zones.

- No new development (except facilities related to the public water system) shall be permitted within one-hundred and fifty feet from a well.
- Within a two-hundred-foot radius distance, septic tanks, sanitary sewer facilities, or solid waste disposal facilities shall be prohibited.
- Within a five-hundred-foot radius of a well, manufacturing, or light industrial uses shall be prohibited, including activities that require the storage, use, handling, production, or transportation of restricted substances on the Florida Substance List, and agricultural chemicals, petroleum products, hazardous/toxic wastes, industrial chemicals, etc. In addition, wastewater treatment plants, percolation ponds, mining activities and similar activities are prohibited. Low density single family, commercial, retail and office land uses shall be allowed within the 500-foot zone for potable water wells.

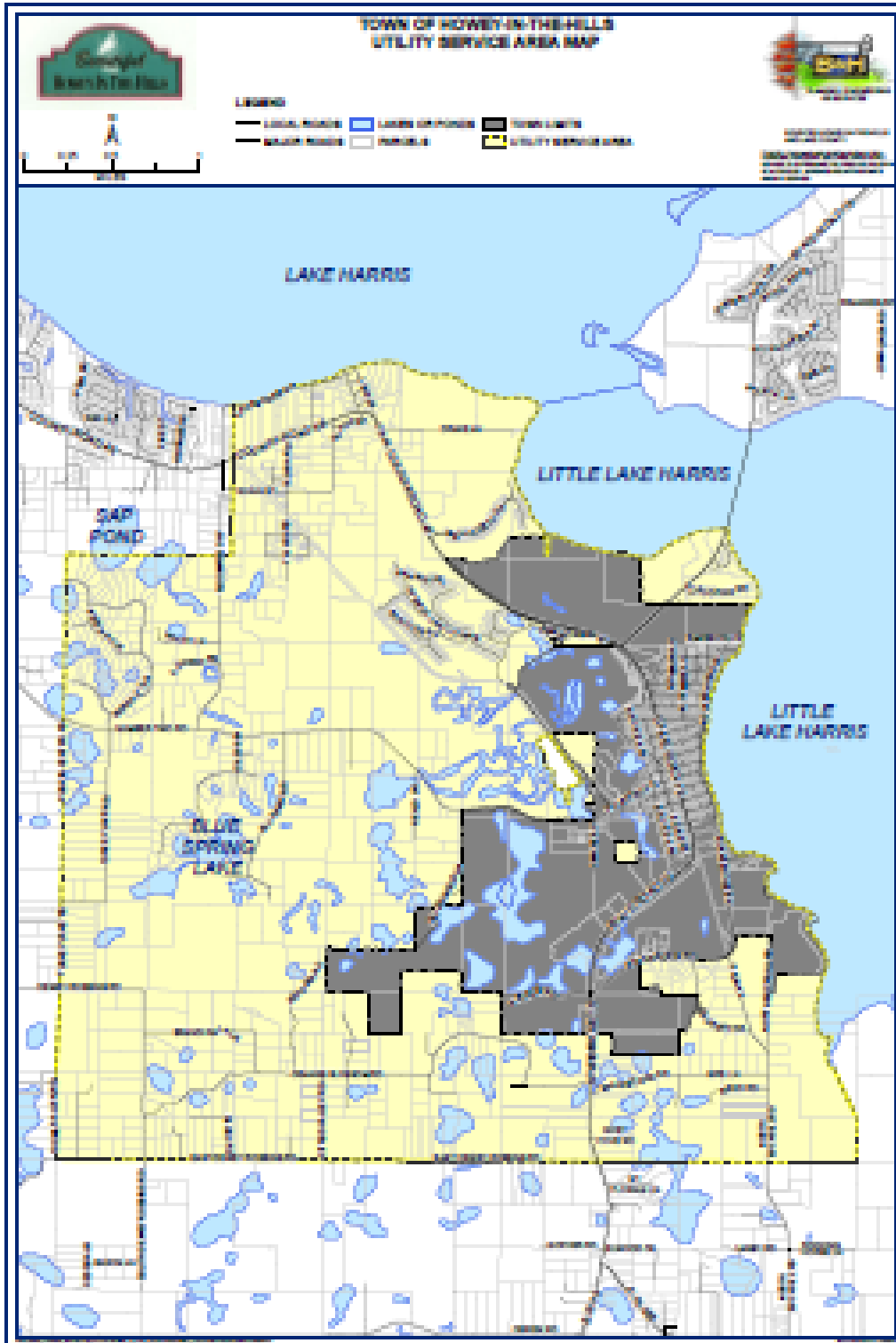
- All wells and wellhead protection zones shall be delineated on the Town's *Existing* and *Future Land Use Maps*.

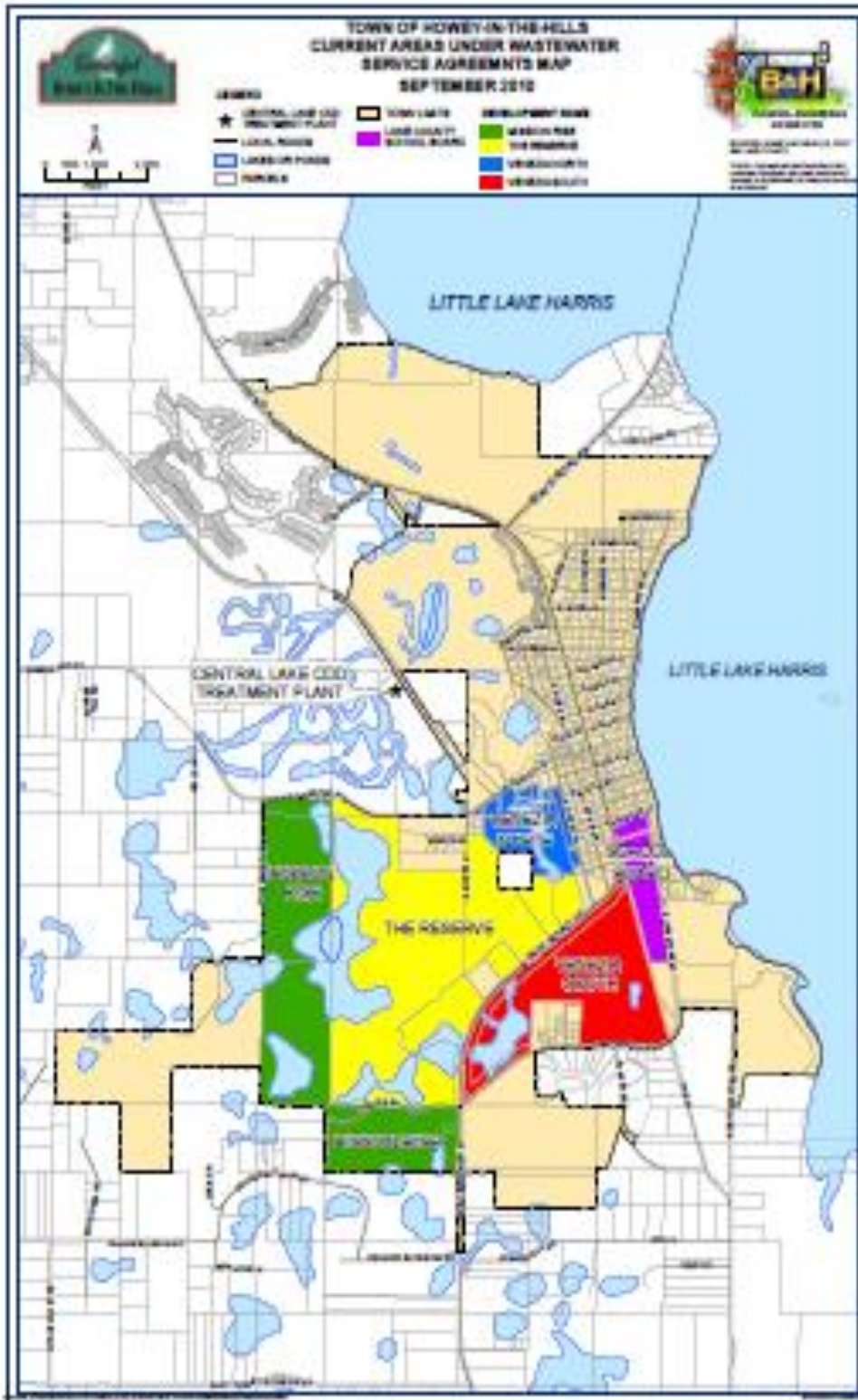
## UTILITY SERVICE AREA BOUNDARY

**GOAL 4:** Maintain and protect the Town's Utility Service Area Boundary.

**OBJECTIVE 4.1:** *Ensuring Consistency with the Utility Service Area Boundary.*  
Provide a utility service area boundary that is consistent with the utility service boundaries of adjacent local governments.

**POLICY 4.1.1:** *Local Government Coordination and Overlapping of Utility Service Area Boundaries.* The Town shall continue to ensure that the overlapping of utility service area boundaries with adjacent local governments is avoided by coordinating with the adjacent local governments and maintaining and abiding by the established interlocal agreements for municipal services.







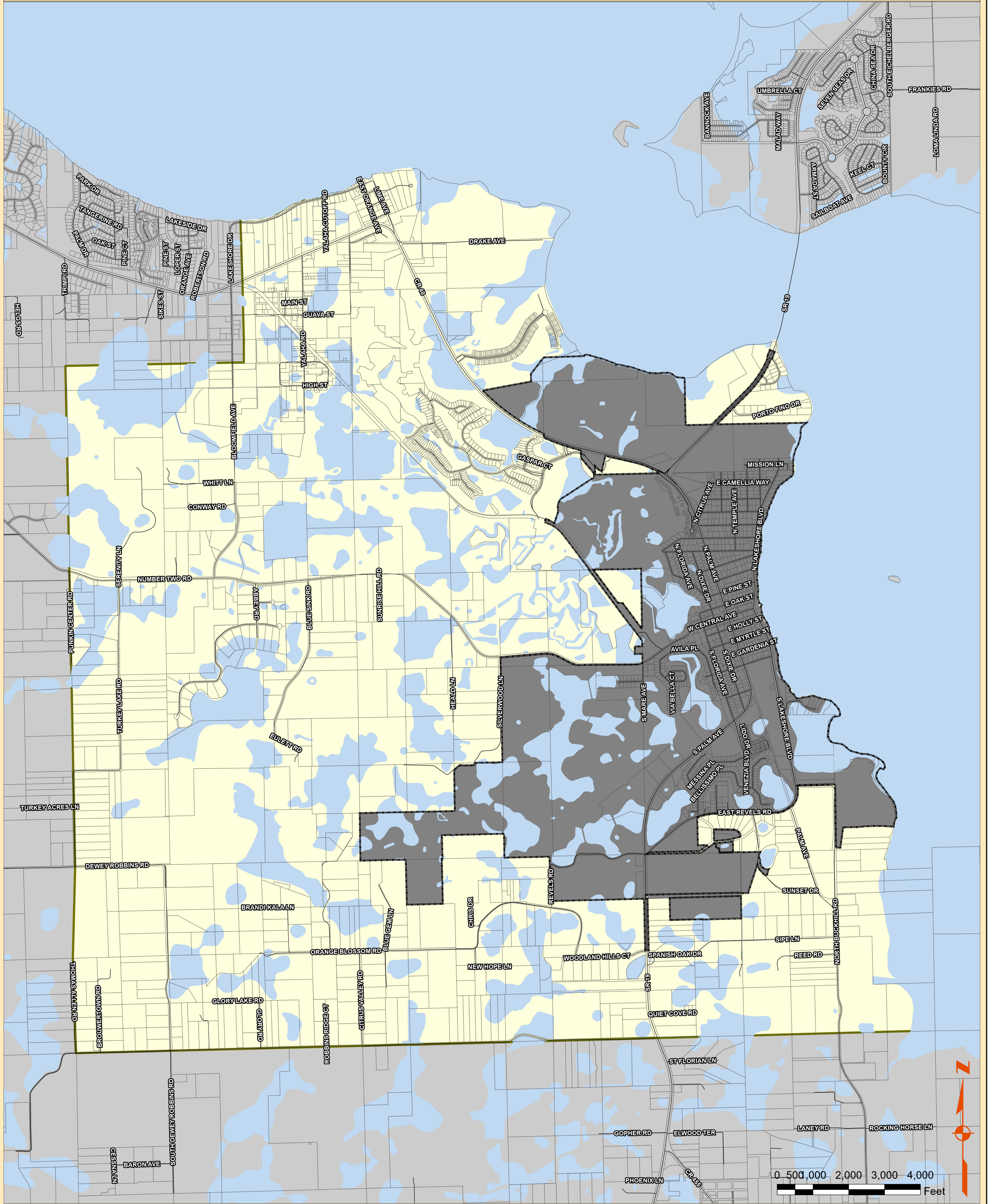


# Town of Howey-in-the-Hills Utility Service Area Map April 2024

### Legend

- Town Boundary
- Water Bodies
- Streets
- Parcels
- Utility Service Area

This map product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.





# Town of Howey-in-the-Hills Current Wastewater Service Agreement Areas Map April 2024

## Legend

Wastewater Service Agreements

Talichet PH 1

Talichet PH 2

The Reserve

Venesia South

Venesia Townhomes

School Board

★ Treatment Plant

— Streets

▭ Parcels

▭ Water Bodies

▭ Town Boundary

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