

## TECHNICAL MEMORANDUM

December 7, 2010

TO: Interested Parties

THROUGH: Kenneth R. Herd, Water Supply Program Director, Resource Projects  
Department *KRH*

FROM: Kathy F. Scott, Senior Water Conservation Analyst, Conservation and Water Use  
Outreach Section, Resource Projects Department *KFS*

SUBJECT: 2010 Regional Water Supply Plan: Agricultural Water Demand Projections

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### Introduction

This memorandum is intended to replace the memorandum of the same title dated July 2009. The significant revisions to the memorandum are relative to the citrus acreage and demand projections. Such revisions are in response to stakeholder comments provided during the public review of the Draft 2010 Regional Water Supply Plan. Comments received suggested, particularly in the Heartland and Southern regions, that citrus projections were unrealistically low, and offered adequate reasoning to prompt staff's revisiting the projections. Except for corrections of a couple minor typos and inconsistencies, the other crop projections have not been adjusted.

### Purpose

This technical memorandum summarizes the methods, data and results of the irrigated agricultural acreage and water use demand projections for 12 crop categories and for 16 counties in the District.

### Background

The challenge for the District has historically been collecting accurate data relative to crop acreages. Hazen and Sawyer was selected in 2007 to assist with the agricultural demand projections; specifically the firm was tasked with verifying and, where necessary, revising the irrigated agricultural acreage projections of each county within the District's boundaries for the following crop categories:

- Citrus
- Cucumbers
- Field crops
- Melons
- Nurseries
- Other vegetables/row crops
- Pasture
- Potatoes
- Sod
- Strawberries
- Tomatoes
- Blueberries

Blueberries was added for the first time in an attempt to account for this relatively emergent crop within District boundaries; however, as the Hazen and Sawyer final report (October 2007) indicates, the crop is still a comparative novelty such that there is a lack of data upon which to project demands. It is recognized that blueberries could become a significant factor in agricultural water use, but without more than one year of collected data it is difficult to project the location and quantify the potential impact.

Hazen and Sawyer developed agricultural irrigated acreage projections based on a variety of available sources described in the final report, including the Florida Agricultural Statistics Service, the Florida Department of Agriculture and Consumer Services, county property appraiser offices, and water use permits. In the summer of 2007, 41 experts in crop production at the University of Florida Food and Resource Economics Department and at the Institute of Food and Agricultural Sciences Extension offices were asked to review the projections and eight responded with their opinions regarding the crop acreage projections and eight said they did not have the requisite knowledge at this time to comment on the projections. Two of the eight experts responding, Professor Tim Taylor and Professor Ed Hanlon of the University of Florida Institute of Food and Agricultural Sciences, said that the crop acreage projections appear to be reasonable at this time. The factors affecting agricultural production have not changed significantly since 2005 when the District's projections were developed. Other experts believed that for some crops and in some counties, the District's projections were either higher or lower than what the expert would expect. The District made revisions where appropriate.

Hazen and Sawyer provided their final report to the District in October 2007. In March 2009, a technical memorandum describing the agricultural demand projections was provided to members of the District's Agricultural Advisory Committee, and a presentation on the topic was provided to the group in May 2009. The committee members were requested to review and comment on the agricultural acreage and demand projections. Three provided comments during the subsequent months, which were addressed. When the full RWSP was provided for review in April 2010, additional comments on the citrus demands in particular prompted a reevaluation of that crop category.

### **Acreage Projections**

The acreage projections of all crops except for citrus are contained in the Hazen and Sawyer memorandum, "Irrigated Agricultural Acreage and Projections by County" (October 2007). While there are methods described for citrus acreage in the memorandum, those figures have been revised as described in the following paragraphs.

As a starting point, the 20-year historical trend of the number of acres by county was derived from the Florida Agricultural Statistics Service (FASS) reports, *Florida Commercial Citrus Inventory*, (1988 – 2008). A best-line fit was used to determine the rate of increase or decrease over the 20-year period in order to account for the variation in acreage within each county over time.

The 2006 acreage was used as a surrogate for the 2005 base year for planning purposes since 2006 better reflects the current acreage moving forward, versus the much higher acreage for the more distant 2004. It was not believed to be reasonable to assume that the trend during the past 20 years is representative of the trend for the future, for many counties. Judgment was applied based on knowledge of agricultural activities and trends by staff working in the agricultural community. In general, the consensus was that across the District, citrus may see a slight decline since the core is moving south, but not a significant one since activities are expected to pick up as the economy improves. Some of the trends indicated by 20-year historical FASS data include significant reduction in acres (a 61 percent decrease in Hillsborough County, or a 48 percent decrease in Polk County, as examples) that are not anticipated to occur over the planning horizon. Therefore, the trends were flattened for more rural counties, or counties where areas of citrus concentration will be among those more affected by urbanization, once development begins again. Related indicators such as the

industry's focus on resolving the greening issue, as well as the lack of other viable land uses for many existing citrus acres, appear to support staff's rationale. For most counties, decreases and increases still exist but at less aggressive rates.

## **Demand Projections**

Crop irrigation requirements were derived by multiplying projected irrigated acreage by the District's agricultural water use allocation program (AGMOD). Irrigation allocations were developed for each reporting category by using AGMOD and incorporating typical site-specific conditions for each crop, including location, climatology, soil type, irrigation system, and growing season(s). Planning level water use projections were developed through the year 2030 for average annual effective rainfall conditions and for a 2-in-10-drought year scenario. For those counties that are not located wholly within the District (*i.e.*, Levy, Lake, Marion, Charlotte, Highlands, and Polk), only the portion of the crop acreage located within the District was considered.

While a 1-in-10 (not a 2-in-10) scenario is required to be reported, a number of factors occurred that have precluded this from happening in time for this RWSP. The most significant is the unavailability of an appropriate version of AGMOD for water supply planning purposes, given recent rule changes. Staff is working on a more flexible and responsive solution in order to consistently fulfill reporting expectations.

Projected water uses associated with 'Miscellaneous' (*i.e.*, non- irrigated) agricultural operations include aquaculture, dairy, cattle, poultry, and others, and are not projected to neither increase nor decrease significantly. For planning purposes, the demands were held steady throughout the planning horizon.

For purposes of this analysis, the following assumptions were made with regard to crops included in the 'Vegetables, Melons, and Berries' category:

- All crops in the 'Vegetables, Melons, and Berries' category except for potatoes were assumed to be grown on plastic mulch. Although it is recognized that this is not entirely true for all operations in the planning regions (*e.g.*, some melon acreage), the impact of this assumption on the overall water use projections is not believed to be significant.
- Irrigation allocations for all crops grown on plastic mulch were calculated assuming zero effective rainfall. The result of this assumption is that projected water use needs for mulched crops are the same under both the 5-in-10 (average annual) and 1-in-10 drought year scenarios.
- Irrigation allocations for all crops grown on plastic mulch include quantities for crop establishment.

## **Tables and Figures**

Tables 1 and 2 summarize irrigated acreage and water demand projections, respectively, through the year 2030 by county for all crop-reporting categories in the RWSP 2010. Table 3 summarizes the non-irrigated water use projections through 2030. Tables 4 through 19, attached to this memorandum in a separate format, provide more detail at the county level. Differences may occur between the summary and detail tables due to rounding.

**Table 1. Irrigated Acreage Projections by County over the Planning Period**

County	Base Year 2005	Irrigated Acreage				
		2010	2015	2020	2025	2030
Charlotte	8,261	10,041	10,143	10,181	10,220	10,266
Citrus	359	329	324	321	318	312
DeSoto	68,773	73,153	72,786	72,480	72,391	72,369
Hardee	51,195	50,039	49,593	49,542	49,577	49,556
Hernando	1,693	1,684	1,733	1,761	1,789	1,811
Highlands	37,621	36,783	36,783	36,783	36,783	36,678
Hillsborough	48,073	52,135	51,812	53,205	54,559	56,858
Lake	1,591	1,447	1,354	1,260	1,166	1,073
Levy	5,585	5,709	5,697	5,753	5,753	5,763
Manatee	46,512	47,067	46,203	44,782	43,888	43,828
Marion	3,552	3,544	3,620	3,696	3,773	3,876
Pasco	12,112	11,897	11,861	11,824	11,788	11,752
Pinellas	153	135	116	98	80	67
Polk	86,097	84,196	83,841	83,841	83,841	83,841
Sarasota	6,509	6,339	6,287	6,235	6,182	6,132
Sumter	2,115	2,233	2,376	2,520	2,663	2,663
<b>Total</b>	<b>380,201</b>	<b>386,732</b>	<b>384,529</b>	<b>384,282</b>	<b>384,771</b>	<b>386,846</b>

**Table 2. Agricultural Demand Projections by County over the Planning Period (mgd)**

County	Base Year 2005		2010		2015		2020		2025		2030	
	Avg	2-10	Avg	2-10	Avg	2-10	Avg	2-10	Avg	2-10	Avg	2-10
Charlotte	11.2	14.6	13.0	17.4	13.1	17.6	13.2	17.6	13.2	17.7	13.2	17.8
Citrus	0.4	0.6	0.4	0.6	0.4	0.6	0.4	0.6	0.4	0.5	0.4	0.5
DeSoto	60.2	89.7	64.1	95.3	63.8	94.8	63.5	94.3	63.5	94.2	63.4	94.2
Hardee	62.5	84.2	61.5	82.5	61.0	81.8	60.9	81.8	61.0	81.8	61.0	81.8
Hernando	2.3	2.8	2.3	2.8	2.4	2.9	2.4	3.0	2.4	3.0	2.4	3.0
Highlands	50.2	62.4	49.0	61.1	49.0	61.1	49.0	61.1	49.0	61.1	48.9	60.9
Hillsborough	48.0	72.8	50.7	78.1	49.9	77.4	51.0	79.3	52.1	81.2	53.9	84.3
Lake	1.9	2.6	1.7	2.3	1.6	2.1	1.4	2.0	1.3	1.8	1.2	1.7
Levy	4.8	8.1	4.9	8.3	4.9	8.2	4.9	8.3	4.9	8.3	4.9	8.3
Manatee	40.1	54.4	40.6	55.1	39.9	54.1	38.7	52.4	37.9	51.3	37.9	51.3
Marion	3.0	5.1	3.0	5.1	3.0	5.2	3.1	5.3	3.2	5.4	3.3	5.5
Pasco	13.0	18.3	12.8	18.0	12.7	18.0	12.7	17.9	12.7	17.9	12.6	17.8
Pinellas	0.4	0.5	0.3	0.4	0.3	0.4	0.3	0.4	0.3	0.3	0.3	0.3
Polk	89.6	122.2	87.4	120.4	87.0	119.9	87.0	119.9	87.0	119.9	87.0	119.9
Sarasota	6.3	8.8	6.1	8.5	6.0	8.5	6.0	8.4	5.9	8.4	5.9	8.3
Sumter	6.6	6.9	7.2	7.6	7.9	8.3	8.5	9.1	9.2	9.8	9.2	10.8
<b>Total</b>	<b>400.5</b>	<b>554.0</b>	<b>405.0</b>	<b>563.5</b>	<b>402.9</b>	<b>560.9</b>	<b>403.2</b>	<b>561.3</b>	<b>404.0</b>	<b>562.7</b>	<b>405.6</b>	<b>566.5</b>

**Table 3. Summary of Non-irrigated Agricultural Water Use Projections over the Planning Horizon (mgd).**

County	Base Year 2005	2010	2015	2020	2025	2030
Charlotte	0.1	0.1	0.1	0.1	0.1	0.1
Citrus	0.0	0.0	0.0	0.0	0.0	0.0
DeSoto	0.0	0.0	0.0	0.0	0.0	0.0
Hardee	0.0	0.0	0.0	0.0	0.0	0.0
Hernando	0.5	0.5	0.5	0.5	0.5	0.5
Highlands	0.0	0.0	0.0	0.0	0.0	0.0
Hillsborough	5.0	5.0	5.0	5.0	5.0	5.0
Lake	0.0	0.0	0.0	0.0	0.0	0.0
Levy	0.1	0.1	0.1	0.1	0.1	0.1
Manatee	0.8	0.8	0.8	0.8	0.8	0.8
Marion	0.0	0.0	0.0	0.0	0.0	0.0
Pasco	0.8	0.8	0.8	0.8	0.8	0.8
Pinellas	0.2	0.2	0.2	0.2	0.2	0.2
Polk	2.0	2.0	2.0	2.0	2.0	2.0
Sarasota	0.2	0.2	0.2	0.2	0.2	0.2
Sumter	2.0	2.0	2.0	2.0	2.0	2.0
<b>Total</b>	<b>11.7</b>	<b>11.7</b>	<b>11.7</b>	<b>11.7</b>	<b>11.7</b>	<b>11.7</b>

**Attachments:** Tables 4 through 19

**References**

Florida Agricultural Statistics Service (FASS), *Florida Commercial Citrus Inventory*. 1988, 1990, 1992, 1994, 1996, 1998, 2000, 2002, 2004, 2006, 2008.

Johns, Grace M. "Update of Irrigated Agricultural Acreage and Projections by County." Memorandum. Hazen and Sawyer, October 9, 2007.

**Appendix 3-1**  
**Agricultural Data Tables**

**CHARLOTTE COUNTY**

**Table 4-1. Projected Irrigated Acreage in Charlotte County.**

Major Crop Categories	Irrigated Acreage					
	2005	2010	2015	2020	2025	2030
Citrus	18,548	18,379	18,210	18,042	17,873	17,704
Cucumbers	830	2,500	2,500	2,000	2,000	2,000
Field Crops	455	441	441	441	441	438
Melons	1,579	1,772	1,930	2,075	2,216	2,404
Nurseries	935	1,500	1,500	1,500	1,500	1,500
Other Veg./Row Crops	7,024	7,024	7,024	7,024	7,024	7,024
Pasture	1,450	1,450	1,450	1,450	1,450	1,450
Potatoes	2,630	2,305	2,305	2,305	2,305	2,229
Sod	4,000	4,000	4,000	4,000	4,000	4,000
Strawberries	500	500	500	500	500	500
Tomatoes	8,561	7,196	6,343	5,445	4,579	4,579
<b>Total</b>	<b>46,512</b>	<b>47,067</b>	<b>46,203</b>	<b>44,782</b>	<b>43,888</b>	<b>43,828</b>

**Table 4-2. Projected Average Water Demands (mgd) for Agriculture in Charlotte County.**

Major Crop Categories	Average Demands (mgd)					
	2005	2010	2015	2020	2025	2030
Citrus	16.14	15.99	15.84	15.70	15.55	15.40
Cucumbers	0.69	2.08	2.08	1.66	1.66	1.66
Field Crops	0.38	0.37	0.37	0.37	0.37	0.36
Melons	1.31	1.47	1.60	1.72	1.84	2.00
Nurseries	0.78	1.25	1.25	1.25	1.25	1.25
Other Veg./Row Crops	5.83	5.83	5.83	5.83	5.83	5.83
Pasture	1.20	1.20	1.20	1.20	1.20	1.20
Potatoes	2.18	1.91	1.91	1.91	1.91	1.85
Sod	3.32	3.32	3.32	3.32	3.32	3.32
Strawberries	0.42	0.42	0.42	0.42	0.42	0.42
Tomatoes	7.11	5.97	5.26	4.52	3.80	3.80
Miscellaneous	0.80	0.80	0.80	0.80	0.80	0.80
<b>Total</b>	<b>40.15</b>	<b>40.60</b>	<b>39.88</b>	<b>38.69</b>	<b>37.94</b>	<b>37.89</b>

**Table 4-3. Projected 2-in-10 Water Demands (mgd) for Agriculture in Charlotte County.**

Major Crop Categories	2-in-10 Demands (mgd)					
	2005	2010	2015	2020	2025	2030
Citrus	20.03	19.85	19.67	19.48	19.30	19.12
Cucumbers	1.00	3.00	3.00	2.40	2.40	2.40
Field Crops	0.55	0.53	0.53	0.53	0.53	0.53
Melons	1.89	2.13	2.32	2.49	2.66	2.88
Nurseries	1.12	1.80	1.80	1.80	1.80	1.80
Other Veg./Row Crops	8.43	8.43	8.43	8.43	8.43	8.43
Pasture	1.74	1.74	1.74	1.74	1.74	1.74
Potatoes	3.16	2.77	2.77	2.77	2.77	2.67
Sod	4.80	4.80	4.80	4.80	4.80	4.80
Strawberries	0.60	0.60	0.60	0.60	0.60	0.60
Tomatoes	10.27	8.64	7.61	6.53	5.49	5.49
Miscellaneous	0.80	0.80	0.80	0.80	0.80	0.80
<b>Total</b>	<b>54.39</b>	<b>55.08</b>	<b>54.06</b>	<b>52.37</b>	<b>51.32</b>	<b>51.27</b>

**CITRUS COUNTY**

**Table 5-1. Projected Irrigated Acreage in Citrus County.**

Major Crop Categories	Irrigated Acreage					
	2005	2010	2015	2020	2025	2030
Citrus	145	142	138	135	132	128
Cucumbers	0	0	0	0	0	0
Field Crops	0	0	0	0	0	0
Melons	40	33	33	33	33	31
Nurseries	21	1	0	0	0	0
Other Veg./Row Crops	100	100	100	100	100	100
Pasture	53	53	53	53	53	53
Potatoes	0	0	0	0	0	0
Sod	0	0	0	0	0	0
Strawberries	0	0	0	0	0	0
Tomatoes	0	0	0	0	0	0
<b>Total</b>	<b>359</b>	<b>329</b>	<b>324</b>	<b>321</b>	<b>318</b>	<b>312</b>

**Table 5-2. Projected Average Water Demands (mgd) for Agriculture in Citrus County.**

Major Crop Categories	Average Demands (mgd)					
	2005	2010	2015	2020	2025	2030
Citrus	0.16	0.16	0.15	0.15	0.15	0.14
Cucumbers	0.00	0.00	0.00	0.00	0.00	0.00
Field Crops	0.00	0.00	0.00	0.00	0.00	0.00
Melons	0.05	0.04	0.04	0.04	0.04	0.04
Nurseries	0.03	0.00	0.00	0.00	0.00	0.00
Other Veg./Row Crops	0.12	0.12	0.12	0.12	0.12	0.12
Pasture	0.07	0.07	0.07	0.07	0.07	0.07
Potatoes	0.00	0.00	0.00	0.00	0.00	0.00
Sod	0.00	0.00	0.00	0.00	0.00	0.00
Strawberries	0.00	0.00	0.00	0.00	0.00	0.00
Tomatoes	0.00	0.00	0.00	0.00	0.00	0.00
Miscellaneous	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>0.43</b>	<b>0.39</b>	<b>0.39</b>	<b>0.38</b>	<b>0.38</b>	<b>0.37</b>

**Table 5-3. Projected 2-in-10 Water Demands (mgd) for Agriculture in Citrus County.**

Major Crop Categories	2-in-10 Demands (mgd)					
	2005	2010	2015	2020	2025	2030
Citrus	0.22	0.21	0.21	0.20	0.20	0.19
Cucumbers	0.00	0.00	0.00	0.00	0.00	0.00
Field Crops	0.00	0.00	0.00	0.00	0.00	0.00
Melons	0.08	0.06	0.06	0.06	0.06	0.06
Nurseries	0.04	0.00	0.00	0.00	0.00	0.00
Other Veg./Row Crops	0.19	0.19	0.19	0.19	0.19	0.19
Pasture	0.10	0.10	0.10	0.10	0.10	0.10
Potatoes	0.00	0.00	0.00	0.00	0.00	0.00
Sod	0.00	0.00	0.00	0.00	0.00	0.00
Strawberries	0.00	0.00	0.00	0.00	0.00	0.00
Tomatoes	0.00	0.00	0.00	0.00	0.00	0.00
Miscellaneous	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>0.62</b>	<b>0.57</b>	<b>0.56</b>	<b>0.55</b>	<b>0.55</b>	<b>0.54</b>



**DE SOTO COUNTY**

**Table 6-1. Projected Irrigated Acreage in DeSoto County.**

Major Crop Categories	Irrigated Acreage					
	2005	2010	2015	2020	2025	2030
Citrus	61,083	66,034	66,034	66,034	66,034	66,034
Cucumbers	69	48	48	48	48	44
Field Crops	0.00	0.00	0.00	0.00	0.00	0.00
Melons	1,195	733	375	79	0.00	0.00
Nurseries	39	29	20	10	0.00	0.00
Other Veg./Row Crops	728	728	728	728	728	728
Pasture	1200	1200	1200	1200	1200	1200
Potatoes	252	221	221	221	221	214
Sod	3,660	3,660	3,660	3,660	3,660	3,660
Strawberries	100	100	100	100	100	100
Tomatoes	447	400	400	400	400	389
<b>Total</b>	<b>68,773</b>	<b>73,153</b>	<b>72,786</b>	<b>72,480</b>	<b>72,391</b>	<b>72,369</b>

**Table 6-2. Projected Average Water Demands (mgd) for Agriculture in DeSoto County.**

Major Crop Categories	Average Demands (mgd)					
	2005	2010	2015	2020	2025	2030
Citrus	53.75	58.11	58.11	58.11	58.11	58.11
Cucumbers	0.06	0.04	0.04	0.04	0.04	0.04
Field Crops	0.00	0.00	0.00	0.00	0.00	0.00
Melons	1.00	0.62	0.32	0.07	0.00	0.00
Nurseries	0.03	0.02	0.02	0.01	0.00	0.00
Other Veg./Row Crops	0.61	0.61	0.61	0.61	0.61	0.61
Pasture	1.01	1.01	1.01	1.01	1.01	1.01
Potatoes	0.21	0.19	0.19	0.19	0.19	0.18
Sod	3.07	3.07	3.07	3.07	3.07	3.07
Strawberries	0.08	0.08	0.08	0.08	0.08	0.08
Tomatoes	0.38	0.34	0.34	0.34	0.34	0.33
Miscellaneous	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>60.21</b>	<b>64.09</b>	<b>63.78</b>	<b>63.52</b>	<b>63.45</b>	<b>63.43</b>

**Table 6-3. Projected 2-in-10 Water Demands (mgd) for Agriculture in DeSoto County.**

Major Crop Categories	2-in-10 Demands (mgd)					
	2005	2010	2015	2020	2025	2030
Citrus	78.80	85.18	85.18	85.18	85.18	85.18
Cucumbers	0.10	0.07	0.07	0.07	0.07	0.06
Field Crops	0.00	0.00	0.00	0.00	0.00	0.00
Melons	1.70	1.04	0.53	0.11	0.00	0.00
Nurseries	0.06	0.04	0.03	0.01	0.00	0.00
Other Veg./Row Crops	1.03	1.03	1.03	1.03	1.03	1.03
Pasture	1.70	1.70	1.70	1.70	1.70	1.70
Potatoes	0.36	0.31	0.31	0.31	0.31	0.30
Sod	5.20	5.20	5.20	5.20	5.20	5.20
Strawberries	0.14	0.14	0.14	0.14	0.14	0.14
Tomatoes	0.63	0.57	0.57	0.57	0.57	0.55
Miscellaneous	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>89.72</b>	<b>95.29</b>	<b>94.77</b>	<b>94.34</b>	<b>94.21</b>	<b>94.18</b>

**HARDEE COUNTY**

**Table 7-1. Projected Irrigated Acreage in Hardee County.**

Major Crop Categories	Irrigated Acreage					
	2005	2010	2015	2020	2025	2030
Citrus	45,084	44,846	44,608	44,608	44,608	44,608
Cucumbers	692	479	479	479	479	435
Field Crops	634	614	614	614	614	609
Melons	993	330	86	0.00	0.00	0.00
Nurseries	405	440	476	511	546	587
Other Veg./Row Crops	2,100	2,100	2,100	2,100	2,100	2,100
Pasture	300	300	300	300	300	300
Potatoes	0.00	0.00	0.00	0.00	0.00	0.00
Sod	150	150	150	150	150	150
Strawberries	300	300	300	300	300	300
Tomatoes	537	480	480	480	480	467
<b>Total</b>	<b>51,195</b>	<b>50,039</b>	<b>49,593</b>	<b>49,542</b>	<b>49,577</b>	<b>49,556</b>

**Table 7-2. Projected Average Water Demands (mgd) for Agriculture in Hardee County.**

Major Crop Categories	Average Demands (mgd)					
	2005	2010	2015	2020	2025	2030
Citrus	57.71	57.40	57.10	57.10	57.10	57.10
Cucumbers	0.54	0.37	0.37	0.37	0.37	0.34
Field Crops	0.49	0.48	0.48	0.48	0.48	0.48
Melons	0.77	0.26	0.07	0.00	0.00	0.00
Nurseries	0.32	0.34	0.37	0.40	0.43	0.46
Other Veg./Row Crops	1.64	1.64	1.64	1.64	1.64	1.64
Pasture	0.23	0.23	0.23	0.23	0.23	0.23
Potatoes	0.00	0.00	0.00	0.00	0.00	0.00
Sod	0.12	0.12	0.12	0.12	0.12	0.12
Strawberries	0.23	0.23	0.23	0.23	0.23	0.23
Tomatoes	0.42	0.37	0.37	0.37	0.37	0.36
Miscellaneous	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>62.47</b>	<b>61.45</b>	<b>60.99</b>	<b>60.95</b>	<b>60.97</b>	<b>60.96</b>

**Table 7-3. Projected 2-in-10 Water Demands (mgd) for Agriculture in Hardee County.**

Major Crop Categories	2-in-10 Demands (mgd)					
	2005	2010	2015	2020	2025	2030
Citrus	74.84	74.44	74.05	74.05	74.05	74.05
Cucumbers	0.94	0.65	0.65	0.65	0.65	0.59
Field Crops	0.86	0.84	0.84	0.84	0.84	0.83
Melons	1.35	0.45	0.12	0.00	0.00	0.00
Nurseries	0.55	0.60	0.65	0.69	0.74	0.80
Other Veg./Row Crops	2.86	2.86	2.86	2.86	2.86	2.86
Pasture	0.41	0.41	0.41	0.41	0.41	0.41
Potatoes	0.00	0.00	0.00	0.00	0.00	0.00
Sod	0.20	0.20	0.20	0.20	0.20	0.20
Strawberries	0.41	0.41	0.41	0.41	0.41	0.41
Tomatoes	0.73	0.65	0.65	0.65	0.65	0.64
Miscellaneous	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>83.15</b>	<b>81.51</b>	<b>80.83</b>	<b>80.76</b>	<b>80.81</b>	<b>80.78</b>

**HERNANDO COUNTY**

**Table 8-1. Projected Irrigated Acreage in Hernando County.**

Major Crop Categories	Irrigated Acreage					
	2005	2010	2015	2020	2025	2030
Citrus	921	942	963	963	963	963
Cucumbers	17	12	12	12	12	11
Field Crops	131	127	127	127	127	126
Melons	101	81	81	81	81	77
Nurseries	176	203	231	259	287	322
Other Veg./Row Crops	24	24	24	24	24	24
Pasture	50	50	50	50	50	50
Potatoes	0	0	0	0	0	0
Sod	5	5	5	5	5	5
Strawberries	0	0	0	0	0	0
Tomatoes	268	240	240	240	240	233
<b>Total</b>	<b>1,693</b>	<b>1,684</b>	<b>1,733</b>	<b>1,761</b>	<b>1,789</b>	<b>1,811</b>

**Table 8-2. Projected Average Water Demands (mgd) for Agriculture in Hernando County.**

Major Crop Categories	Average Demands (mgd)					
	2005	2010	2015	2020	2025	2030
Citrus	0.94	0.96	0.98	0.98	0.98	0.98
Cucumbers	0.02	0.01	0.01	0.01	0.01	0.01
Field Crops	0.15	0.14	0.14	0.14	0.14	0.14
Melons	0.11	0.09	0.09	0.09	0.09	0.09
Nurseries	0.20	0.23	0.26	0.29	0.32	0.36
Other Veg./Row Crops	0.03	0.03	0.03	0.03	0.03	0.03
Pasture	0.06	0.06	0.06	0.06	0.06	0.06
Potatoes	0.00	0.00	0.00	0.00	0.00	0.00
Sod	0.01	0.01	0.01	0.01	0.01	0.01
Strawberries	0.00	0.00	0.00	0.00	0.00	0.00
Tomatoes	0.30	0.27	0.27	0.27	0.27	0.26
Miscellaneous	0.50	0.50	0.50	0.50	0.50	0.50
	<b>2.31</b>	<b>2.30</b>	<b>2.35</b>	<b>2.38</b>	<b>2.42</b>	<b>2.44</b>

**Table 8-3. Projected 2-in-10 Water Demands (mgd) for Agriculture in Hernando County.**

Major Crop Categories	2-in-10 Demands (mgd)					
	2005	2010	2015	2020	2025	2030
Citrus	1.37	1.40	1.44	1.44	1.44	1.44
Cucumbers	0.03	0.02	0.02	0.02	0.02	0.02
Field Crops	0.25	0.24	0.24	0.24	0.24	0.24
Melons	0.19	0.15	0.15	0.15	0.15	0.15
Nurseries	0.33	0.39	0.44	0.49	0.55	0.61
Other Veg./Row Crops	0.05	0.05	0.05	0.05	0.05	0.05
Pasture	0.10	0.10	0.10	0.10	0.10	0.10
Potatoes	0.00	0.00	0.00	0.00	0.00	0.00
Sod	0.01	0.01	0.01	0.01	0.01	0.01
Strawberries	0.00	0.00	0.00	0.00	0.00	0.00
Tomatoes	0.51	0.46	0.46	0.46	0.46	0.44
Miscellaneous	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>2.84</b>	<b>2.81</b>	<b>2.90</b>	<b>2.95</b>	<b>3.00</b>	<b>3.05</b>

**HIGHLANDS COUNTY**

**Table 9-1. Projected Irrigated Acreage in Highlands County.**

Major Crop Categories	Irrigated Acreage					
	2005	2010	2015	2020	2025	2030
Citrus	34,469	33,268	33,268	33,268	33,268	33,268
Cucumbers	0.00	0.00	0.00	0.00	0.00	0.00
Field Crops	53	52	52	52	52	52
Melons	222	179	179	179	179	169
Nurseries	1,537	1,944	1,944	1,944	1,944	2,058
Other Veg./Row Crops	34	34	34	34	34	34
Pasture	210	210	210	210	210	1
Potatoes	0.00	0.00	0.00	0.00	0.00	0.00
Sod	1,090	1,090	1,090	1,090	1,090	1,090
Strawberries	6	6	6	6	6	6
Tomatoes	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>37,621</b>	<b>36,783</b>	<b>36,783</b>	<b>36,783</b>	<b>36,783</b>	<b>36,678</b>

**Table 9-2. Projected Average Water Demands (mgd) for Agriculture in Highlands County.**

Major Crop Categories	Average Demands (mgd)					
	2005	2010	2015	2020	2025	2030
Citrus	46.19	44.58	44.58	44.58	44.58	44.58
Cucumbers	0.00	0.00	0.00	0.00	0.00	0.00
Field Crops	0.07	0.07	0.07	0.07	0.07	0.07
Melons	0.28	0.23	0.23	0.23	0.23	0.21
Nurseries	1.95	2.47	2.47	2.47	2.47	2.61
Other Veg./Row Crops	0.04	0.04	0.04	0.04	0.04	0.04
Pasture	0.27	0.27	0.27	0.27	0.27	0.00
Potatoes	0.00	0.00	0.00	0.00	0.00	0.00
Sod	1.38	1.38	1.38	1.38	1.38	1.38
Strawberries	0.01	0.01	0.01	0.01	0.01	0.01
Tomatoes	0.00	0.00	0.00	0.00	0.00	0.00
Miscellaneous	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>50.19</b>	<b>49.04</b>	<b>49.04</b>	<b>49.04</b>	<b>49.04</b>	<b>48.91</b>

**Table 9-3. Projected 2-in-10 Water Demands (mgd) for Agriculture in Highlands County.**

Major Crop Categories	2-in-10 Demands (mgd)					
	2005	2010	2015	2020	2025	2030
Citrus	56.87	54.89	54.89	54.89	54.89	54.89
Cucumbers	0.00	0.00	0.00	0.00	0.00	0.00
Field Crops	0.09	0.09	0.09	0.09	0.09	0.09
Melons	0.39	0.32	0.32	0.32	0.32	0.30
Nurseries	2.71	3.42	3.42	3.42	3.42	3.62
Other Veg./Row Crops	0.06	0.06	0.06	0.06	0.06	0.06
Pasture	0.37	0.37	0.37	0.37	0.37	0.00
Potatoes	0.00	0.00	0.00	0.00	0.00	0.00
Sod	1.92	1.92	1.92	1.92	1.92	1.92
Strawberries	0.01	0.01	0.01	0.01	0.01	0.01
Tomatoes	0.00	0.00	0.00	0.00	0.00	0.00
Miscellaneous	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>62.42</b>	<b>61.08</b>	<b>61.08</b>	<b>61.08</b>	<b>61.08</b>	<b>60.89</b>

**HILLSBOROUGH COUNTY**

**Table 10-1. Projected Irrigated Acreage in Hillsborough County**

Major Crop Categories	Irrigated Acreage					
	2005	2010	2015	2020	2025	2030
Citrus	14,783	12,957	11,131	11,131	11,131	11,131
Cucumbers	1,015	703	703	703	703	703
Field Crops	688	667	667	667	667	667
Melons	262	1,800	1,800	1,800	1,800	1,800
Nurseries	3,656	3,949	4,241	4,535	4,828	5,164
Other Veg./Row Crops	3,819	5,392	5,633	5,835	6,026	6,713
Pasture	2,111	2,111	2,111	2,111	2,111	2,111
Potatoes	0.00	0.00	0.00	0.00	0.00	0.00
Sod	4,672	4,672	4,672	4,672	4,672	4,672
Strawberries	10,360	11,850	11,850	11,850	11,850	11,850
Tomatoes	6,707	8,034	9,004	9,901	10,771	12,047
<b>Total</b>	<b>48,073</b>	<b>52,135</b>	<b>51,812</b>	<b>53,205</b>	<b>54,559</b>	<b>56,858</b>

**Table 10-2. Projected Average Water Demands (mgd) for Agriculture in Hillsborough County.**

Major Crop Categories	Average Demands (mgd)						
	2005	2010	2015	2020	2025	2030	
Citrus	16.41	14.38	12.36	12.36	12.36	12.36	12.36
Cucumbers	0.81	0.56	0.56	0.56	0.56	0.56	0.56
Field Crops	0.55	0.53	0.53	0.53	0.53	0.53	0.53
Melons	0.21	1.44	1.44	1.44	1.44	1.44	1.44
Nurseries	2.92	3.16	3.39	3.63	3.86	4.13	4.13
Other Veg./Row Crops	3.06	4.31	4.51	4.67	4.82	5.37	5.37
Pasture	1.69	1.69	1.69	1.69	1.69	1.69	1.69
Potatoes	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sod	3.74	3.74	3.74	3.74	3.74	3.74	3.74
Strawberries	8.29	9.48	9.48	9.48	9.48	9.48	9.48
Tomatoes	5.37	6.43	7.20	7.92	8.62	9.64	9.64
Miscellaneous	5.00	5.00	5.00	5.00	5.00	5.00	5.00
<b>Total</b>	<b>48.04</b>	<b>50.72</b>	<b>49.90</b>	<b>51.01</b>	<b>52.10</b>	<b>53.94</b>	<b>53.94</b>

**Table 10-3. Projected 2-in-10 Water Demands (mgd) for Agriculture in Hillsborough County.**

Major Crop Categories	2-in-10 Demands (mgd)					
	2005	2010	2015	2020	2025	2030
Citrus	22.17	19.44	16.70	16.70	16.70	16.70
Cucumbers	1.39	0.96	0.96	0.96	0.96	0.96
Field Crops	0.94	0.91	0.91	0.91	0.91	0.91
Melons	0.36	2.47	2.47	2.47	2.47	2.47
Nurseries	5.01	5.41	5.81	6.21	6.61	7.07
Other Veg./Row Crops	5.23	7.39	7.72	7.99	8.26	9.20
Pasture	2.89	2.89	2.89	2.89	2.89	2.89
Potatoes	0.00	0.00	0.00	0.00	0.00	0.00
Sod	6.40	6.40	6.40	6.40	6.40	6.40
Strawberries	14.19	16.23	16.23	16.23	16.23	16.23
Tomatoes	9.19	11.01	12.34	13.56	14.76	16.50
Miscellaneous	5.00	5.00	5.00	5.00	5.00	5.00
<b>Total</b>	<b>72.78</b>	<b>78.11</b>	<b>77.43</b>	<b>79.34</b>	<b>81.19</b>	<b>84.34</b>

**LAKE COUNTY**

**Table 11-1. Projected Irrigated Acreage in Lake County**

Major Crop Categories	Irrigated Acreage					
	2005	2010	2015	2020	2025	2030
Citrus	760	666	573	479	385	292
Cucumbers	0.00	0.00	0.00	0.00	0.00	0.00
Field Crops	92	89	89	89	89	89
Melons	242	195	195	195	195	195
Nurseries	0.00	0.00	0.00	0.00	0.00	0.00
Other Veg./Row Crops	30	30	30	30	30	30
Pasture	467	467	467	467	467	467
Potatoes	0.00	0.00	0.00	0.00	0.00	0.00
Sod	0.00	0.00	0.00	0.00	0.00	0.00
Strawberries	0.00	0.00	0.00	0.00	0.00	0.00
Tomatoes	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>1,591</b>	<b>1,447</b>	<b>1,354</b>	<b>1,260</b>	<b>1,166</b>	<b>1,073</b>

**Table 11-2. Projected Average Water Demands (mgd) for Agriculture in Lake County.**

Major Crop Categories	Average Demands (mgd)					
	2005	2010	2015	2020	2025	2030
Citrus	1.06	0.93	0.80	0.67	0.54	0.41
Cucumbers	0.00	0.00	0.00	0.00	0.00	0.00
Field Crops	0.09	0.09	0.09	0.09	0.09	0.09
Melons	0.23	0.19	0.19	0.19	0.19	0.19
Nurseries	0.00	0.00	0.00	0.00	0.00	0.00
Other Veg./Row Crops	0.03	0.03	0.03	0.03	0.03	0.03
Pasture	0.45	0.45	0.45	0.45	0.45	0.45
Potatoes	0.00	0.00	0.00	0.00	0.00	0.00
Sod	0.00	0.00	0.00	0.00	0.00	0.00
Strawberries	0.00	0.00	0.00	0.00	0.00	0.00
Tomatoes	0.00	0.00	0.00	0.00	0.00	0.00
Miscellaneous	0.00	0.00	0.00	0.00	0.00	0.00
	<b>1.86</b>	<b>1.68</b>	<b>1.55</b>	<b>1.42</b>	<b>1.29</b>	<b>1.16</b>

**Table 11-3. Projected 2-in-10 Water Demands (mgd) for Agriculture in Lake County.**

Major Crop Categories	2-in-10 Demands (mgd)					
	2005	2010	2015	2020	2025	2030
Citrus	1.25	1.10	0.94	0.79	0.64	0.48
Cucumbers	0.00	0.00	0.00	0.00	0.00	0.00
Field Crops	0.13	0.12	0.12	0.12	0.12	0.12
Melons	0.50	0.40	0.40	0.40	0.40	0.40
Nurseries	0.00	0.00	0.00	0.00	0.00	0.00
Other Veg./Row Crops	0.06	0.06	0.06	0.06	0.06	0.06
Pasture	0.62	0.62	0.62	0.62	0.62	0.62
Potatoes	0.00	0.00	0.00	0.00	0.00	0.00
Sod	0.00	0.00	0.00	0.00	0.00	0.00
Strawberries	0.00	0.00	0.00	0.00	0.00	0.00
Tomatoes	0.00	0.00	0.00	0.00	0.00	0.00
Miscellaneous	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>2.56</b>	<b>2.30</b>	<b>2.15</b>	<b>2.00</b>	<b>1.84</b>	<b>1.69</b>

LEVY COUNTY

Table 12-1. Projected Irrigated Acreage in Levy County

Major Crop Categories	Irrigated Acreage					
	2005	2010	2015	2020	2025	2030
Citrus	0	0	0	0	0	0
Cucumbers	75	52	52	52	52	52
Field Crops	4382	4256	4244	4244	4244	4210
Melons	325	500	500	500	500	500
Nurseries	37	37	37	37	37	37
Other Veg./Row Crops	142	142	142	142	142	142
Pasture	60	60	60	60	60	60
Potatoes	9	8	8	8	8	8
Sod	555	654	654	710	710	754
Strawberries	0	0	0	0	0	0
Tomatoes	0	0	0	0	0	0
<b>Total</b>	<b>5,585</b>	<b>5,709</b>	<b>5,697</b>	<b>5,753</b>	<b>5,753</b>	<b>5,763</b>

Table 12-2. Projected Average Water Demands (mgd) for Agriculture in Levy County.

Major Crop Categories	Average Demands (mgd)					
	2005	2010	2015	2020	2025	2030
Citrus	0.00	0.00	0.00	0.00	0.00	0.00
Cucumbers	0.06	0.04	0.04	0.04	0.04	0.04
Field Crops	3.68	3.58	3.56	3.56	3.56	3.54
Melons	0.27	0.42	0.42	0.42	0.42	0.42
Nurseries	0.03	0.03	0.03	0.03	0.03	0.03
Other Veg./Row Crops	0.12	0.12	0.12	0.12	0.12	0.12
Pasture	0.05	0.05	0.05	0.05	0.05	0.05
Potatoes	0.01	0.01	0.01	0.01	0.01	0.01
Sod	0.47	0.55	0.55	0.60	0.60	0.63
Strawberries	0.00	0.00	0.00	0.00	0.00	0.00
Tomatoes	0.00	0.00	0.00	0.00	0.00	0.00
Miscellaneous	0.10	0.10	0.10	0.10	0.10	0.10
	<b>4.79</b>	<b>4.90</b>	<b>4.89</b>	<b>4.93</b>	<b>4.93</b>	<b>4.94</b>

Table 12-3. Projected 2-in-10 Water Demands (mgd) for Agriculture in Levy County.

Major Crop Categories	2-in-10 Demands (mgd)					
	2005	2010	2015	2020	2025	2030
Citrus	0.00	0.00	0.00	0.00	0.00	0.00
Cucumbers	0.11	0.07	0.07	0.07	0.07	0.07
Field Crops	6.27	6.09	6.07	6.07	6.07	6.02
Melons	0.46	0.72	0.72	0.72	0.72	0.72
Nurseries	0.05	0.05	0.05	0.05	0.05	0.05
Other Veg./Row Crops	0.20	0.20	0.20	0.20	0.20	0.20
Pasture	0.09	0.09	0.09	0.09	0.09	0.09
Potatoes	0.01	0.01	0.01	0.01	0.01	0.01
Sod	0.79	0.94	0.94	1.02	1.02	1.08
Strawberries	0.00	0.00	0.00	0.00	0.00	0.00
Tomatoes	0.00	0.00	0.00	0.00	0.00	0.00
Miscellaneous	0.10	0.10	0.10	0.10	0.10	0.10
<b>Total</b>	<b>8.09</b>	<b>8.26</b>	<b>8.25</b>	<b>8.33</b>	<b>8.33</b>	<b>8.34</b>

**MANATEE COUNTY**

**Table 13-1. Projected Irrigated Acreage in Manatee County**

Major Crop Categories	Irrigated Acreage					
	2005	2010	2015	2020	2025	2030
Citrus	18,548	18,379	18,210	18,042	17,873	17,704
Cucumbers	830	2,500	2,500	2,000	2,000	2,000
Field Crops	455	441	441	441	441	438
Melons	1,579	1,772	1,930	2,075	2,216	2,404
Nurseries	935	1,500	1,500	1,500	1,500	1,500
Other Veg./Row Crops	7,024	7,024	7,024	7,024	7,024	7,024
Pasture	1,450	1,450	1,450	1,450	1,450	1,450
Potatoes	2,630	2,305	2,305	2,305	2,305	2,229
Sod	4,000	4,000	4,000	4,000	4,000	4,000
Strawberries	500	500	500	500	500	500
Tomatoes	8,561	7,196	6,343	5,445	4,579	4,579
<b>Total</b>	<b>46,512</b>	<b>47,067</b>	<b>46,203</b>	<b>44,782</b>	<b>43,888</b>	<b>43,828</b>

**Table 13-2. Projected Average Water Demands (mgd) for Agriculture in Manatee County.**

Major Crop Categories	Average Demands (mgd)					
	2005	2010	2015	2020	2025	2030
Citrus	16.14	15.99	15.84	15.70	15.55	15.40
Cucumbers	0.69	2.08	2.08	1.66	1.66	1.66
Field Crops	0.38	0.37	0.37	0.37	0.37	0.36
Melons	1.31	1.47	1.60	1.72	1.84	2.00
Nurseries	0.78	1.25	1.25	1.25	1.25	1.25
Other Veg./Row Crops	5.83	5.83	5.83	5.83	5.83	5.83
Pasture	1.20	1.20	1.20	1.20	1.20	1.20
Potatoes	2.18	1.91	1.91	1.91	1.91	1.85
Sod	3.32	3.32	3.32	3.32	3.32	3.32
Strawberries	0.42	0.42	0.42	0.42	0.42	0.42
Tomatoes	7.11	5.97	5.26	4.52	3.80	3.80
Miscellaneous	0.80	0.80	0.80	0.80	0.80	0.80
<b>Total</b>	<b>40.15</b>	<b>40.60</b>	<b>39.88</b>	<b>38.69</b>	<b>37.94</b>	<b>37.89</b>

**Table 13-3. Projected 2-in-10 Water Demands (mgd) for Agriculture in Manatee County.**

Major Crop Categories	2-in-10 Demands (mgd)					
	2005	2010	2015	2020	2025	2030
Citrus	20.03	19.85	19.67	19.48	19.30	19.12
Cucumbers	1.00	3.00	3.00	2.40	2.40	2.40
Field Crops	0.55	0.53	0.53	0.53	0.53	0.53
Melons	1.89	2.13	2.32	2.49	2.66	2.88
Nurseries	1.12	1.80	1.80	1.80	1.80	1.80
Other Veg./Row Crops	8.43	8.43	8.43	8.43	8.43	8.43
Pasture	1.74	1.74	1.74	1.74	1.74	1.74
Potatoes	3.16	2.77	2.77	2.77	2.77	2.67
Sod	4.80	4.80	4.80	4.80	4.80	4.80
Strawberries	0.60	0.60	0.60	0.60	0.60	0.60
Tomatoes	10.27	8.64	7.61	6.53	5.49	5.49
Miscellaneous	0.80	0.80	0.80	0.80	0.80	0.80
<b>Total</b>	<b>54.39</b>	<b>55.08</b>	<b>54.06</b>	<b>52.37</b>	<b>51.32</b>	<b>51.27</b>



**MARION COUNTY**

**Table 14-1. Projected Irrigated Acreage in Marion County**

Major Crop Categories	Irrigated Acreage					
	2005	2010	2015	2020	2025	2030
Citrus	0	0	0	0	0	0
Cucumbers	3	2	2	2	2	2
Field Crops	2,479	2,401	2,401	2,401	2,401	2,401
Melons	56	50	50	50	50	50
Nurseries	351	428	504	580	657	760
Other Veg./Row Crops	31	31	31	31	31	31
Pasture	472	472	472	472	472	472
Potatoes	0	0	0	0	0	0
Sod	160	160	160	160	160	160
Strawberries	0	0	0	0	0	0
Tomatoes	0	0	0	0	0	0
<b>Total</b>	<b>3,552</b>	<b>3,544</b>	<b>3,620</b>	<b>3,696</b>	<b>3,773</b>	<b>3,876</b>

**Table 14-2. Projected Average Water Demands (mgd) for Agriculture in Marion County.**

Major Crop Categories	Average Demands (mgd)					
	2005	2010	2015	2020	2025	2030
Citrus	0.00	0.00	0.00	0.00	0.00	0.00
Cucumbers	0.00	0.00	0.00	0.00	0.00	0.00
Field Crops	2.08	2.02	2.02	2.02	2.02	2.02
Melons	0.05	0.04	0.04	0.04	0.04	0.04
Nurseries	0.29	0.36	0.42	0.49	0.55	0.64
Other Veg./Row Crops	0.03	0.03	0.03	0.03	0.03	0.03
Pasture	0.40	0.40	0.40	0.40	0.40	0.40
Potatoes	0.00	0.00	0.00	0.00	0.00	0.00
Sod	0.13	0.13	0.13	0.13	0.13	0.13
Strawberries	0.00	0.00	0.00	0.00	0.00	0.00
Tomatoes	0.00	0.00	0.00	0.00	0.00	0.00
Miscellaneous	0.00	0.00	0.00	0.00	0.00	0.00
	<b>2.98</b>	<b>2.98</b>	<b>3.04</b>	<b>3.10</b>	<b>3.17</b>	<b>3.26</b>

**Table 14-3. Projected 2-in-10 Water Demands (mgd) for Agriculture in Marion County.**

Major Crop Categories	2-in-10 Demands (mgd)					
	2005	2010	2015	2020	2025	2030
Citrus	0.00	0.00	0.00	0.00	0.00	0.00
Cucumbers	0.00	0.00	0.00	0.00	0.00	0.00
Field Crops	3.54	3.43	3.43	3.43	3.43	3.43
Melons	0.08	0.07	0.07	0.07	0.07	0.07
Nurseries	0.50	0.61	0.72	0.83	0.94	1.09
Other Veg./Row Crops	0.04	0.04	0.04	0.04	0.04	0.04
Pasture	0.67	0.67	0.67	0.67	0.67	0.67
Potatoes	0.00	0.00	0.00	0.00	0.00	0.00
Sod	0.23	0.23	0.23	0.23	0.23	0.23
Strawberries	0.00	0.00	0.00	0.00	0.00	0.00
Tomatoes	0.00	0.00	0.00	0.00	0.00	0.00
Miscellaneous	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>5.08</b>	<b>5.07</b>	<b>5.18</b>	<b>5.29</b>	<b>5.40</b>	<b>5.54</b>

PASCO COUNTY

Table 15-1. Projected Irrigated Acreage in Pasco County

Major Crop Categories	Irrigated Acreage					
	2005	2010	2015	2020	2025	2030
Citrus	8,190	8,154	8,118	8,081	8,045	8,009
Cucumbers	0.00	0.00	0.00	0.00	0.00	0.00
Field Crops	0.00	0.00	0.00	0.00	0.00	0.00
Melons	81	65	65	65	65	65
Nurseries	279	163	163	163	163	163
Other Veg./Row Crops	208	208	208	208	208	208
Pasture	538	538	538	538	538	538
Potatoes	0.00	0.00	0.00	0.00	0.00	0.00
Sod	2169	2169	2169	2169	2169	2169
Strawberries	200	200	200	200	200	200
Tomatoes	447	400	400	400	400	400
<b>Total</b>	<b>12,112</b>	<b>11,897</b>	<b>11,861</b>	<b>11,824</b>	<b>11,788</b>	<b>11,752</b>

Table 15-2. Projected Average Water Demands (mgd) for Agriculture in Pasco County.

Major Crop Categories	Average Demands (mgd)					
	2005	2010	2015	2020	2025	2030
Citrus	8.35	8.32	8.28	8.24	8.21	8.17
Cucumbers	0.00	0.00	0.00	0.00	0.00	0.00
Field Crops	0.00	0.00	0.00	0.00	0.00	0.00
Melons	0.08	0.06	0.06	0.06	0.06	0.06
Nurseries	0.27	0.16	0.16	0.16	0.16	0.16
Other Veg./Row Crops	0.20	0.20	0.20	0.20	0.20	0.20
Pasture	0.53	0.53	0.53	0.53	0.53	0.53
Potatoes	0.00	0.00	0.00	0.00	0.00	0.00
Sod	2.13	2.13	2.13	2.13	2.13	2.13
Strawberries	0.20	0.20	0.20	0.20	0.20	0.20
Tomatoes	0.44	0.39	0.39	0.39	0.39	0.39
Miscellaneous	0.80	0.80	0.80	0.80	0.80	0.80
<b>Total</b>	<b>13.00</b>	<b>12.79</b>	<b>12.75</b>	<b>12.71</b>	<b>12.67</b>	<b>12.64</b>

Table 15-3. Projected 2-in-10 Water Demands (mgd) for Agriculture in Pasco County.

Major Crop Categories	2-in-10 Demands (mgd)					
	2005	2010	2015	2020	2025	2030
Citrus	11.47	11.42	11.36	11.31	11.26	11.21
Cucumbers	0.00	0.00	0.00	0.00	0.00	0.00
Field Crops	0.00	0.00	0.00	0.00	0.00	0.00
Melons	0.13	0.10	0.10	0.10	0.10	0.10
Nurseries	0.43	0.25	0.25	0.25	0.25	0.25
Other Veg./Row Crops	0.32	0.32	0.32	0.32	0.32	0.32
Pasture	0.83	0.83	0.83	0.83	0.83	0.83
Potatoes	0.00	0.00	0.00	0.00	0.00	0.00
Sod	3.36	3.36	3.36	3.36	3.36	3.36
Strawberries	0.31	0.31	0.31	0.31	0.31	0.31
Tomatoes	0.69	0.62	0.62	0.62	0.62	0.62
Miscellaneous	0.80	0.80	0.80	0.80	0.80	0.80
<b>Total</b>	<b>18.35</b>	<b>18.02</b>	<b>17.97</b>	<b>17.92</b>	<b>17.86</b>	<b>17.81</b>

**PINELLAS COUNTY**

**Table 16-1. Projected Irrigated Acreage in Pinellas County**

Major Crop Categories	Irrigated Acreage					
	2005	2010	2015	2020	2025	2030
Citrus	0	0	0	0	0	0
Cucumbers	0.00	0.00	0.00	0.00	0.00	0.00
Field Crops	0.00	0.00	0.00	0.00	0.00	0.00
Melons	0.00	0.00	0.00	0.00	0.00	0.00
Nurseries	153	135	116	98	80	67
Other Veg./Row Crops	0.00	0.00	0.00	0.00	0.00	0.00
Pasture	0.00	0.00	0.00	0.00	0.00	0.00
Potatoes	0.00	0.00	0.00	0.00	0.00	0.00
Sod	0.00	0.00	0.00	0.00	0.00	0.00
Strawberries	0.00	0.00	0.00	0.00	0.00	0.00
Tomatoes	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>153</b>	<b>135</b>	<b>116</b>	<b>98</b>	<b>80</b>	<b>67</b>

**Table 16-2. Projected Average Water Demands (mgd) for Agriculture in Pinellas County.**

Major Crop Categories	Average Demands (mgd)					
	2005	2010	2015	2020	2025	2030
Citrus	0.00	0.00	0.00	0.00	0.00	0.00
Cucumbers	0.00	0.00	0.00	0.00	0.00	0.00
Field Crops	0.00	0.00	0.00	0.00	0.00	0.00
Melons	0.00	0.00	0.00	0.00	0.00	0.00
Nurseries	0.17	0.15	0.13	0.11	0.09	0.07
Other Veg./Row Crops	0.00	0.00	0.00	0.00	0.00	0.00
Pasture	0.00	0.00	0.00	0.00	0.00	0.00
Potatoes	0.00	0.00	0.00	0.00	0.00	0.00
Sod	0.00	0.00	0.00	0.00	0.00	0.00
Strawberries	0.00	0.00	0.00	0.00	0.00	0.00
Tomatoes	0.00	0.00	0.00	0.00	0.00	0.00
Miscellaneous	0.20	0.20	0.20	0.20	0.20	0.20
<b>Total</b>	<b>0.37</b>	<b>0.35</b>	<b>0.33</b>	<b>0.31</b>	<b>0.29</b>	<b>0.27</b>

**Table 16-3. Projected 2-in-10 Water Demands (mgd) for Agriculture in Pinellas County.**

Major Crop Categories	2-in-10 Demands (mgd)					
	2005	2010	2015	2020	2025	2030
Citrus	0.00	0.00	0.00	0.00	0.00	0.00
Cucumbers	0.00	0.00	0.00	0.00	0.00	0.00
Field Crops	0.00	0.00	0.00	0.00	0.00	0.00
Melons	0.00	0.00	0.00	0.00	0.00	0.00
Nurseries	0.27	0.24	0.20	0.17	0.14	0.12
Other Veg./Row Crops	0.00	0.00	0.00	0.00	0.00	0.00
Pasture	0.00	0.00	0.00	0.00	0.00	0.00
Potatoes	0.00	0.00	0.00	0.00	0.00	0.00
Sod	0.00	0.00	0.00	0.00	0.00	0.00
Strawberries	0.00	0.00	0.00	0.00	0.00	0.00
Tomatoes	0.00	0.00	0.00	0.00	0.00	0.00
Miscellaneous	0.20	0.20	0.20	0.20	0.20	0.20
<b>Total</b>	<b>0.47</b>	<b>0.44</b>	<b>0.40</b>	<b>0.37</b>	<b>0.34</b>	<b>0.32</b>

**POLK COUNTY**

**Table 17-1. Projected Irrigated Acreage in Polk County**

Major Crop Categories	Irrigated Acreage					
	2005	2010	2015	2020	2025	2030
Citrus	82,078	74,156	74,156	74,156	74,156	74,156
Cucumbers	0.00	0.00	0.00	0.00	0.00	0.00
Field Crops	823	797	797	797	797	797
Melons	0.00	0.00	0.00	0.00	0.00	0.00
Nurseries	609	1,283	1,300	1,300	1,300	1,300
Other Veg./Row Crops	537	2,372	2,000	2,000	2,000	2,000
Pasture	200	200	200	200	200	200
Potatoes	0.00	0.00	0.00	0.00	0.00	0.00
Sod	1,452	5,000	5,000	5,000	5,000	5,000
Strawberries	300	300	300	300	300	300
Tomatoes	98	88	88	88	88	88
<b>Total</b>	<b>86,097</b>	<b>84,196</b>	<b>83,841</b>	<b>83,841</b>	<b>83,841</b>	<b>83,841</b>

**Table 17-2. Projected Average Water Demands (mgd) for Agriculture in Polk County.**

Major Crop Categories	Average Demands (mgd)						
	2005	2010	2015	2020	2025	2030	
Citrus	83.72	75.64	75.64	75.64	75.64	75.64	75.64
Cucumbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Field Crops	0.80	0.77	0.77	0.77	0.77	0.77	0.77
Melons	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nurseries	0.59	1.24	1.26	1.26	1.26	1.26	1.26
Other Veg./Row Crops	0.52	2.30	1.94	1.94	1.94	1.94	1.94
Pasture	0.19	0.19	0.19	0.19	0.19	0.19	0.19
Potatoes	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sod	1.41	4.85	4.85	4.85	4.85	4.85	4.85
Strawberries	0.29	0.29	0.29	0.29	0.29	0.29	0.29
Tomatoes	0.10	0.09	0.09	0.09	0.09	0.09	0.09
Miscellaneous	2.00	2.00	2.00	2.00	2.00	2.00	2.00
<b>Total</b>	<b>89.62</b>	<b>87.38</b>	<b>87.03</b>	<b>87.03</b>	<b>87.03</b>	<b>87.03</b>	<b>87.03</b>

**Table 17-3. Projected 2-in-10 Water Demands (mgd) for Agriculture in Polk County.**

Major Crop Categories	2-in-10 Demands (mgd)					
	2005	2010	2015	2020	2025	2030
Citrus	114.09	103.08	103.08	103.08	103.08	103.08
Cucumbers	0.00	0.00	0.00	0.00	0.00	0.00
Field Crops	1.26	1.22	1.22	1.22	1.22	1.22
Melons	0.00	0.00	0.00	0.00	0.00	0.00
Nurseries	0.93	1.96	1.99	1.99	1.99	1.99
Other Veg./Row Crops	0.82	3.63	3.06	3.06	3.06	3.06
Pasture	0.31	0.31	0.31	0.31	0.31	0.31
Potatoes	0.00	0.00	0.00	0.00	0.00	0.00
Sod	2.22	7.65	7.65	7.65	7.65	7.65
Strawberries	0.46	0.46	0.46	0.46	0.46	0.46
Tomatoes	0.15	0.13	0.13	0.13	0.13	0.13
Miscellaneous	2.00	2.00	2.00	2.00	2.00	2.00
<b>Total</b>	<b>122.24</b>	<b>120.44</b>	<b>119.89</b>	<b>119.89</b>	<b>119.89</b>	<b>119.89</b>

**SARASOTA COUNTY**

**Table 18-1. Projected Irrigated Acreage in Sarasota County.**

Major Crop Categories	Irrigated Acreage					
	2005	2010	2015	2020	2025	2030
Citrus	1,652	1,558	1,465	1,371	1,277	1,183
Cucumbers	86	60	60	60	60	60
Field Crops	678	656	656	656	656	651
Melons	121	98	98	98	98	98
Nurseries	397	439	480	522	563	612
Other Veg./Row Crops	573	573	573	573	573	573
Pasture	555	555	555	555	555	555
Potatoes	-	-	-	-	-	-
Sod	2,000	2,000	2,000	2,000	2,000	2,000
Strawberries	-	-	-	-	-	-
Tomatoes	447	400	400	400	400	400
<b>Total</b>	<b>6,509</b>	<b>6,339</b>	<b>6,287</b>	<b>6,235</b>	<b>6,182</b>	<b>6,132</b>

**Table 18-2. Projected Average Water Demands (mgd) for Agriculture in Sarasota County.**

Major Crop Categories	Average Demands (mgd)					
	2005	2010	2015	2020	2025	2030
Citrus	1.59	1.50	1.41	1.32	1.23	1.14
Cucumbers	0.08	0.06	0.06	0.06	0.06	0.06
Field Crops	0.62	0.60	0.60	0.60	0.60	0.60
Melons	0.11	0.09	0.09	0.09	0.09	0.09
Nurseries	0.37	0.40	0.44	0.48	0.52	0.56
Other Veg./Row Crops	0.53	0.53	0.53	0.53	0.53	0.53
Pasture	0.51	0.51	0.51	0.51	0.51	0.51
Potatoes	0.00	0.00	0.00	0.00	0.00	0.00
Sod	1.84	1.84	1.84	1.84	1.84	1.84
Strawberries	0.00	0.00	0.00	0.00	0.00	0.00
Tomatoes	0.41	0.37	0.37	0.37	0.37	0.37
Miscellaneous	0.20	0.20	0.20	0.20	0.20	0.20
<b>Total</b>	<b>6.25</b>	<b>6.09</b>	<b>6.04</b>	<b>5.99</b>	<b>5.94</b>	<b>5.89</b>

**Table 18-3. Projected 2-in-10 Water Demands (mgd) for Agriculture in Sarasota County.**

Major Crop Categories	2-in-10 Demands (mgd)					
	2005	2010	2015	2020	2025	2030
Citrus	2.00	1.89	1.77	1.66	1.55	1.43
Cucumbers	0.12	0.08	0.08	0.08	0.08	0.08
Field Crops	0.92	0.89	0.89	0.89	0.89	0.88
Melons	0.16	0.13	0.13	0.13	0.13	0.13
Nurseries	0.54	0.59	0.65	0.70	0.76	0.83
Other Veg./Row Crops	0.77	0.77	0.77	0.77	0.77	0.77
Pasture	0.75	0.75	0.75	0.75	0.75	0.75
Potatoes	0.00	0.00	0.00	0.00	0.00	0.00
Sod	2.70	2.70	2.70	2.70	2.70	2.70
Strawberries	0.00	0.00	0.00	0.00	0.00	0.00
Tomatoes	0.60	0.54	0.54	0.54	0.54	0.54
Miscellaneous	0.20	0.20	0.20	0.20	0.20	0.20
<b>Total</b>	<b>8.76</b>	<b>8.54</b>	<b>8.48</b>	<b>8.43</b>	<b>8.37</b>	<b>8.31</b>

**SUMTER COUNTY**

**Table 19-1. Projected Irrigated Acreage in Sumter County.**

Major Crop Categories	Irrigated Acreage					
	2005	2010	2015	2020	2025	2030
Citrus	0	0	0	0	0	0
Cucumbers	0.00	0.00	0.00	0.00	0.00	0.00
Field Crops	775	750	750	750	750	750
Melons	0.00	0.00	0.00	0.00	0.00	0.00
Nurseries	478	621	764	908	1051	1051
Other Veg./Row Crops	420	420	420	420	420	420
Pasture	312	312	312	312	312	312
Potatoes	0.00	0.00	0.00	0.00	0.00	0.00
Sod	130	130	130	130	130	130
Strawberries	0.00	0.00	0.00	0.00	0.00	0.00
Tomatoes	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>2,115</b>	<b>2,233</b>	<b>2,376</b>	<b>2,520</b>	<b>2,663</b>	<b>2,663</b>

**Table 19-2. Projected Average Water Demands (mgd) for Agriculture in Sumter County.**

Major Crop Categories	Average Demands (mgd)					
	2005	2010	2015	2020	2025	2030
Citrus	0.00	0.00	0.00	0.00	0.00	0.00
Cucumbers	0.00	0.00	0.00	0.00	0.00	0.00
Field Crops	0.92	0.89	0.89	0.89	0.89	0.89
Melons	0.00	0.00	0.00	0.00	0.00	0.00
Nurseries	2.23	2.90	3.57	4.24	4.91	4.91
Other Veg./Row Crops	0.75	0.75	0.75	0.75	0.75	0.75
Pasture	0.37	0.37	0.37	0.37	0.37	0.37
Potatoes	0.00	0.00	0.00	0.00	0.00	0.00
Sod	0.28	0.28	0.28	0.28	0.28	0.28
Strawberries	0.00	0.00	0.00	0.00	0.00	0.00
Tomatoes	0.00	0.00	0.00	0.00	0.00	0.00
Miscellaneous	2.00	2.00	2.00	2.00	2.00	2.00
	<b>6.55</b>	<b>7.19</b>	<b>7.86</b>	<b>8.53</b>	<b>9.20</b>	<b>9.20</b>

**Table 19-3. Projected 2-in-10 Water Demands (mgd) for Agriculture in Sumter County.**

Major Crop Categories	2-in-10 Demands (mgd)					
	2005	2010	2015	2020	2025	2030
Citrus	0.00	0.00	0.00	0.00	0.00	0.00
Cucumbers	0.00	0.00	0.00	0.00	0.00	1.00
Field Crops	1.02	0.99	0.99	0.99	0.99	0.99
Melons	0.00	0.00	0.00	0.00	0.00	0.00
Nurseries	2.44	3.17	3.90	4.64	5.37	5.37
Other Veg./Row Crops	0.75	0.75	0.75	0.75	0.75	0.75
Pasture	0.37	0.37	0.37	0.37	0.37	0.37
Potatoes	0.00	0.00	0.00	0.00	0.00	0.00
Sod	0.33	0.33	0.33	0.33	0.33	0.33
Strawberries	0.00	0.00	0.00	0.00	0.00	0.00
Tomatoes	0.00	0.00	0.00	0.00	0.00	0.00
Miscellaneous	2.00	2.00	2.00	2.00	2.00	2.00
<b>Total</b>	<b>6.91</b>	<b>7.61</b>	<b>8.34</b>	<b>9.07</b>	<b>9.80</b>	<b>10.80</b>