

WORKSHOP ITEM SUMMARY SHEET
VILLAGE COUNCIL MEETING
December 5, 2018

Agenda Item:

Water Quality Summary

Description:

In response to Council request, staff is providing an overview of the drinking water provided to Estero by Bonita Springs Utilities and Lee County Utilities. This presentation will describe the service area boundaries, water sources, treatment processes and water quality. Staff will also describe potential future steps including continued review of water quality, review of raw water quality and supplemental monitoring.

Financial Impacts:

No financial impact

Attachments:

1. Presentation



Potable Water Quality

David Willems, P.E.

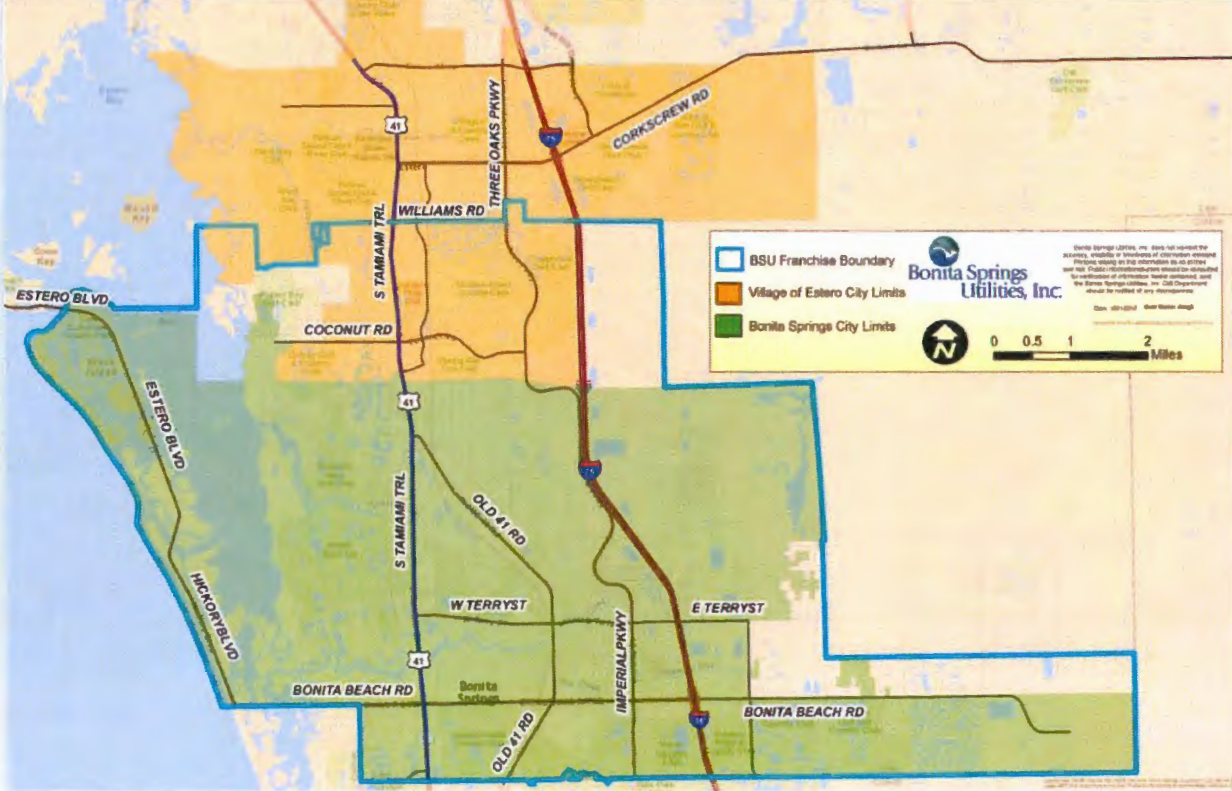
Outline

- Service Providers
- Treatment Plants
- Water Quality

Service Providers

- Bonita Springs Utilities
 - South of Williams Road
- Lee County Utilities
 - North of Williams Road

Service Area



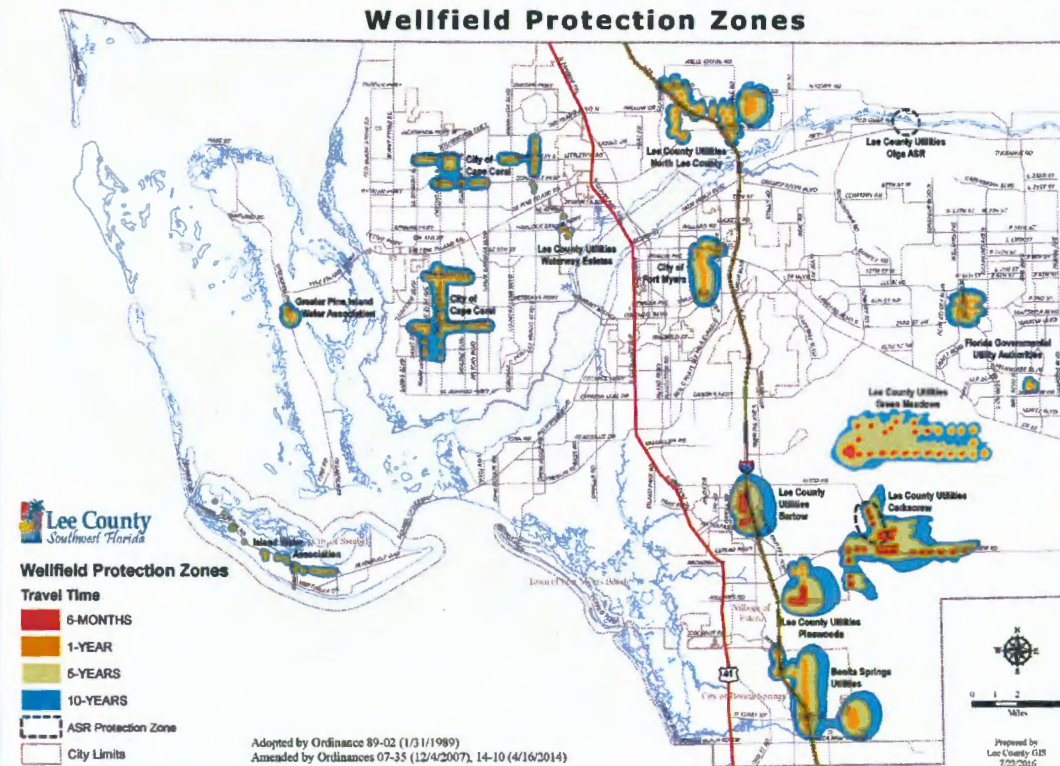
Bonita Springs Utilities

- Lower Tamiami Aquifer
 - 19 wells (avg. depth - 100 ft)
 - Lime-Softening Treatment
- Lower Hawthorne Aquifer
 - 11 wells (depths 800-1,000 ft)
 - Higher salinity
 - Reverse-Osmosis Treatment
- Both sources are blended before distribution

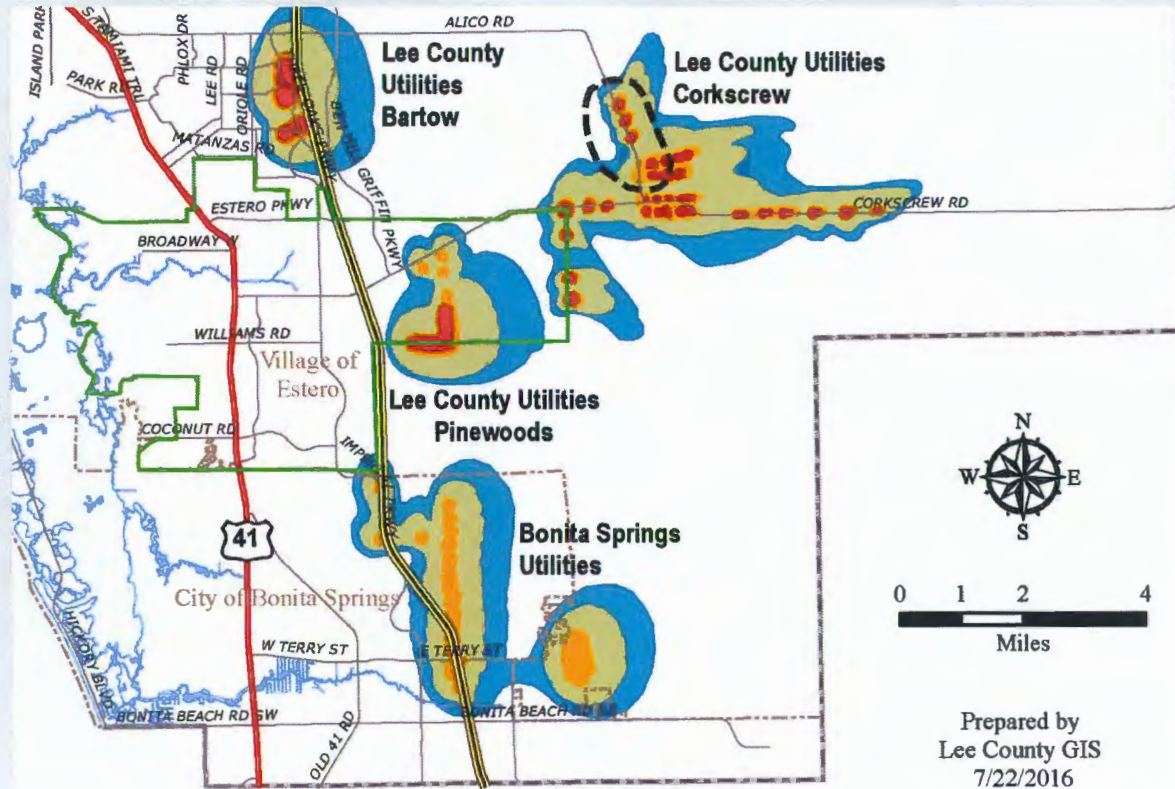
LCU – Pinewoods WTP

- Surficial Aquifer
 - 11 wells (depth 16-22 ft)
 - Nanofiltration
- Sandstone Aquifer
 - 8 wells (depth 94-96 ft)
 - Nanofiltration
- Lowe Hawthorn Aquifer
 - 5 wells (depth 572-651 ft)
 - Reverse-Osmosis
- All sources are blended before distribution

Lee County Wellfields



Wellfields



Water Quality

| Contaminant | BSU | LCU | MCLG | MCL |
|------------------------------|--------|-------|------|-----|
| Arsenic (ppb) | 0.61 | 0.61 | 0 | 10 |
| Barium (ppm) | 0.0033 | 0.002 | 2 | 2 |
| Fluoride (ppm) | 0.2 | 0.64 | 4 | 4 |
| Nitrate (ppm) | 0.07 | 0.032 | 10 | 10 |
| Nitrite (ppm) | 0.01 | | 1 | 1 |
| Selenium (ppb) | | 0.54 | 50 | 50 |
| Sodium (ppm) | 77.4 | 59.4 | | 160 |
| Chlorine & Chloramines (ppm) | 3.47 | 3.4 | 4.0 | 4.0 |
| Haloacetic Acids (*ppb) | 17 | 19.3 | | 60 |
| Total Trihalomethanes (ppb) | 24 | 28.1 | | 80 |
| Copper – tap water (ppm) | 0.14 | 0.05 | 1.3 | 1.3 |
| Lead – tap water (ppb) | 3.8 | 1.4 | 0 | 15 |

Slide 9

MCLG – Maximum Contaminant Level Goal

MCL – Maximum Contaminant Level

Next Steps

- Continue monitor water quality
- Work to obtain raw water data, if possible
- Supplement with additional data

Questions?
