



October 17, 2013

VIA E-FILING

FILED OCT 18, 2013
DOCUMENT NO. 06313-13
FPSC - COMMISSION CLERK

Ann Cole, Commission Clerk
Office of Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399

RE: Docket No.: 130180-WS; Application of Sunlake Estates Utilities, L.L.C. for Original Water and Wastewater Certificates in Lake County, Florida
Our File No.: 46096.01

Dear Ms. Cole:

The staff has asked that we respond to the customer comments made at the October 10, 2013, customer meeting that related to Commission jurisdictional matters.

A number of customers questioned the calibration of the residential water meters. The Utility over the past year or so has undertaken a program to replace approximately eighty inoperable water meters, and will continue to replace residential water meters when they are shown to be inaccurate. This was also addressed in 2012 in response to an inquiry from the St. Johns River Water Management District ("SJRWMD"). A copy of the response is enclosed and is available on SJRWMD's website, as are all documents filed in connection with the Consumptive Use Permit ("CUP").

Customers also requested access to their meter readings so that they could evaluate the impact of the proposed new rates. Meter readings from December 2011 through June 2013 were filed with the Commission Clerk and provided to the attorney for the Homeowners' Association as a part of the response to the Staff's First Data Request. The CUP requires the implementation of a water conservation rate structure such as that proposed by the Utility in its Application.

Purported system leaks were also mentioned by several customers. In response to an inquiry from SJRWMD in 2012, and with the assistance of the Florida Rural Water Association, leak detection was performed on the water system. The Report included in the attached letter to the SJRWMD. The Utility will continue to take all reasonable steps to continue to address leaks within the system.

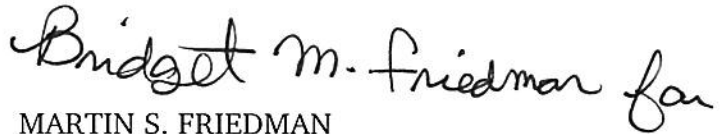
The golf course is irrigated from a non-potable well that is not connected to the potable water system, and has a separate water use allocation in the CUP. No expenses of the operation of the non-potable well and golf course irrigation system should be included in

Ann Cole, Commission Clerk
Office of Commission Clerk
Florida Public Service Commission
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the Utility's rate request, thus it would not be appropriate for the golf course irrigation system to be jurisdictional.

Should you or Staff have any questions concerning this filing, please do not hesitate to give me call.

Very truly yours,



MARTIN S. FRIEDMAN
For the Firm

MSF/der
Enclosures

cc: Ben Allen, Esquire (via e-mail)
Patti Daniel (via e-mail)
Julia E. Gilcher, Esquire (via e-mail)
Zach Broome, Esquire (via e-mail)
Stephen Reilly, Esquire (via e-mail)



20-069-2454-4-2006
RECEIVED
NOV 1 2012
MAITLAND

October 28, 2012

Emily Wakley
St. John's River Water Management District
Hydrologist/Maitland Service Center
601 South Lake Destiny Road Suite 200
Maitland, Florida 32751

RE: Sunlake Estates-CUP 20-069-2454-4
Compliance No. 1206631, 1156745

Dear Emily,

Thank you so much for the information that you sent via email. It was very helpful. We at this time are not able to charge for the water provided to our residents. There are stipulations in the "Prospectus" for our Community. If at any time we are able to turn our system over to another provider or change the manner in which water is provided to the Community, there at that time could be processes in place to bill the residents. With this being said you can now imagine how difficult enforcement is and has been. The following is in reply to the received Compliance Notice. Please review and advise if this meets approval.

Condition 22: Enclosed is a copy of the Flow Meter Accuracy Record from David Hanna at Florida Rural Water for the golf course well (station ID 26975). This was overlooked when he was here in August to do the master meter. A notation has been made to avoid this in three years when they are due once more.

Page (2)

Condition 29: The following is the plan/plans that have been implemented and on going regarding the unaccounted water overages.

- David Hanna from Florida Rural Water conducted an overnight flow test. The flow to the Community dropped at night to 19.7 gallons per minute. He feels that given the age of our system and the size of the Community that this related to possibly toilets, ice makers, dishwashers running and such. This has been completed.
- The model LD-12 leak detector (S/N FRWA 0392) was borrowed from Florida Rural Water and more than 5% of the individual meters were tested randomly. No issues were discovered. This has been completed (See Attached)
- We have had all of the water valves in the Community verified and exercised by Wayne's Diversified. This has been completed. (See attached)
- Currently undergoing a "Leak Detection Survey" that is being preformed by Utility Services Associates, LLC. Started 10/25/12. Testing anticipated to take 3-4 days and a report will follow to our Corporate Office in 15-20 days after. (Preparation for Service attached)
- Water consumption letters are sent to our residents that show high usage. On going procedure (Example attached)
- Education of new and existing residents is done with the literature from your department. A copy of this goes in every new home closing, is posted on our Community bulletin board and extras are available in our office. On going procedure (Example attached)

Page (3)

- Monthly discussions at the HOA Meetings regarding water usage and assistance is given to the residents on their irrigation timers by a couple volunteers. On going procedure.
- Individual meters are monitored and visually inspected monthly. Bad or inoperable meters have been budgeted for replacement. Anticipated to be approved in the 2013 budget year.
- Irrigation days and conservation tips are posted on our Community Channel. On going procedure.
- Security Guards that patrol at night provide notations of anyone irrigating on the incorrect days or times and the offenders are notified.

After your review, please let us know if this meets your approval and if there is anything further needed. Or other format required. Please let me know if you have any questions. Thank you again for your assistance.

Sincerely,

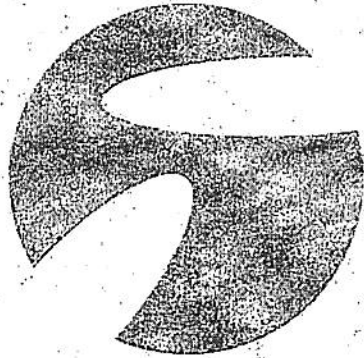


Wanda L. Kitchens
Community General Manager
(352) 350-1320 Office
(352) 669-6095 Fax
Wanda.kitchens@solsticecommunities.com

Cc: File
Tom Felton, General Utilities
Corporate

MODEL LD-12

“Professional’s Plus”
Water Leak Detector



OPERATING INSTRUCTIONS AND USER MANUAL

SubSurface Leak Detection, Inc.
Water Leak Correlators, Leak Detectors & Locators

4040 Moorpark Ave., Suite 104
San Jose, CA 95117
TEL: (408) 249-4673
FAX: (408) 249-9653

(408) 249-4673
Phone

(408) 249-9653
Fax

DAVID HANNA
State Water Circuit Rider
2970 WELINGTON CIRCLE WEST STE. 101
TALLAHASSEE, FL 32309-5965
PH: (850) 669-2746
FAX: (850) 603-4581
e-mail: David.Hanna@fwrwa.net

**FLORIDA RURAL
WATER ASSOCIATION**



20-069-2454-42006

RECEIVED

NOV 01 2012

MAITLAND SVC. CNTR.

FRWA
0392

Wayne's Diversified Services

P. O. Box 5177
Deltona, FL 32728
Phone 407-402-8300

INVOICE

INVOICE #102012-501
DATE: OCTOBER 25, 2012

TO:
SUNLAKE ESTATES
1045 GREAT LAKES BLVD.
GRAND ISLAND, FL. 32735

FOR:
VALVE MAINT.

DESCRIPTION	AMOUNT
LOCATE, CLEAN AND EXCERSIZE MAINLINE AND FIREHYDRANT VALVES AS PER PROPOSAL	\$ _____
TOTAL	\$ _____

Make all checks payable to Wayne's Diversified Services
Payment is due within 30 days. 10% DISCOUNT IF PAID WITHIN 10 DAYS OF INVOICE DATE
If you have any questions concerning this invoice, contact Wayne, 407-402-8300, waynesdiversified@hotmail.com

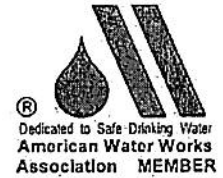
Thank you for your business!

Preparations for Service

USA

Utility Services Associates, LLC
919 SW 150th St, Suite B
Burien, WA 98166
206-244-0370

It is imperative that the preparation for service guidelines are adhered to so that we may complete this project for the specified amount and scheduled time as outlined in our proposal.



Preparation for Service (Comprehensive Leak Survey)

1. To provide an accurate, comprehensive leak survey, a relatively large contiguous area must be covered. Spot-checking is not recommended to effectively survey. The most common method of locating leaks is through the use of acoustic equipment. We utilize contact points to listen for leaks with sound amplification equipment. These contact points include: main line valves, hydrant valves, hydrants, shut-offs, etc. The more readily available these contact points are, the more effective we can be. This leak survey is also a good opportunity to implement a valve maintenance program. Please observe the following guidelines for making contact points accessible:
 - 1.1 **Main Line Valves** -- Main line valves are the most effective contact points, as leak sounds can be detected readily with a sound amplification device.
 - All main line valves in the area to be surveyed that are buried should be located and made accessible by hand.
 - All debris should be removed.
(This is a good time to bring your valve boxes to grade)
 - 1.2 **Hydrant Valves** -- Hydrant valves are also very useful in both the survey and pinpointing phases. Hydrant valves help to determine if the hydrant seat leaks or leaks between the valve and the hydrant.
 - All hydrant line valves in the area to be surveyed that are buried should be located and made accessible by hand.
 - All debris should be removed.
 - 1.3 **Service Shut-offs** -- Service shut-offs are used when frequent contact points are needed, such as areas where PVC mains, large diameter pipe and/or when mainline valves and hydrant valves do not provide adequate access to conduct a thorough survey.
 - We utilize shut-offs to determine which side of a service valve is leaking.
 - Services connected to STL, CI or AC main lines may not need to have shut-off lids exposed prior to our arrival, however it may be necessary to periodically expose them as the survey progresses.
 - All service shut-offs connected to PVC main lines should be exposed for easy access prior to our arrival.
2. Distance between contact points is very important to the success of a comprehensive acoustic leak survey and pinpointing project. Our Field Technicians use the most technologically advanced equipment available for surveying and pinpointing leaks. Our extensive experience and in-depth equipment knowledge allows us to cover greater distances with a higher degree of accuracy than any other company. Even with all our experience and sophisticated equipment, there are limitations. This

equipment must pick up a leak sound to pinpoint the location. Therefore, we try to find contact points at regular intervals whenever possible. USA has developed a procedure to determine the distance that even quiet leak type sounds travel in various pipe materials, pipe sizes and pressure zones in each area of your system. This is done in the following ways:

- 2.1 Turning on fire hydrants, hose bibs, etc. to create a simulated quiet leak sound.
- 2.2 Appurtenances are checked to see how far the simulated leak noise travels. This determines often USA will make contact with appurtenances.
3. Because PVC pipe leaks create less sound that does not travel far, we will survey all service shut-off's, hydrants and valves that are available unless otherwise agreed to.
4. When normal contact points are not available or can not be created within a reasonable distance, we will make an attempt to use a sonic ground listening device, making physical contact with the ground at intervals of no greater than 6 feet directly over the pipe. Excavating for contact points on an occasional basis may be necessary in the event that all other methods fail for pinpointing. If conditions do not allow this procedure, our Field Technician will advise you at the time of project and detail in the Final Report.

Please provide the Field Technician with the following to insure a thorough and comprehensive leak detection project:

- 4.1 A complete set of maps, if available, with line data on the system distribution system to be surveyed. These maps should show line size, type and location of mains, valves and fire hydrants. Note: Maps may need to be marked on. Maps should be to scale.
- 4.2 A helper who is familiar with system layout, pipe location, type, size & PSI. The helper should also have available equipment, such as flags, traffic cones, etc. as required to meet local, state and federal regulations in controlling vehicular traffic for man and equipment safety.
5. Because safety regulations do not allow USA personnel to access water lines located underneath mobile home units due to the risk of exposure to noxious gases, it is imperative that the skirting be removed from all mobile home units prior to the start of any leak detection project performed within mobile home parks.

NOTE:

In the event that Preparations for Service guidelines as outlined above have not been completed and the field technician must stand by waiting as a result of the client not being prepared, an extra charge may be added. This applies only when quoted a fixed priced based upon the length of line to be surveyed. The total contract amount will be charged if the contracted mileage cannot be completed due to the Client not being prepared.

PREPARATION FOR SERVICE GUIDELINES

Check List

- PREPARATION FOR SERVICE** guidelines have been read thoroughly.

- Client will **PROVIDE A HELPER** with system knowledge to assist USA in valve and water line location, valve and service cover removal and vehicular traffic control. (See Paragraph 4.2)

- Accurate **WATER LINE MAPS** will be available for USA to refer to and measure distances covered. (See Paragraph 4.1) Note: Maps may need to be marked on.

- Distance of water line with little or **NO CONTACT POINTS** has been discussed with USA as per proposal. (See Section 2)

- The skirting has been removed from all mobile home units to allow noxious gases to be released prior to the start of project. (See Section 5)

- All necessary **CONTACT POINTS** have been located and made accessible prior to our arrival. (See Section 1)



Date: _____

Lot # _____

Dear Resident,

As you know, we read the water meters the first week of each month. Per our readings, there has been an excessive amount of water being used at your home (reference the readings at the end of this letter).

Water consumption at this level is usually related to incorrect irrigation system settings; undetected leaks in the irrigation system or under the home; bad meter; or general excessive usage. Here are several solutions to reduce your consumption:

- Make sure your irrigation system is set properly.
 - o We go by **LOT #, not street address**. The reason for this is the way Sunlake is numbered. Even Lot #'s water on Thursday & Sunday; Odd Lot #'s water on Wednesday & Saturday. There is **No** watering on Sunday, or between 10am-4pm. Water for a maximum of 45 minutes per zone. Also if you are leasing your lot, please make sure watering is finished by 8am so it will not affect the mowing of your lawn.
 - o There is an exception on water use made for when you have installed new sod. You may water daily for 30 days, and then every other day for the next 30 days for a total of one 60-day period, provided that the irrigation is limited to the minimum amount necessary for establishment.
- Make sure your meter is working properly. Contact your plumber or one of the following suppliers. Remember you are responsible for the meter and the connection from there to the home.

Kiley & Sons	Utility Technicians
(352)753-5301	(352)669-5822 John Riggs
- Check for leaks. Have a landscaper and/or plumber check out your irrigation and home for any water issues or leaks and have them repaired.

The State of Florida has suffered significant water shortages in recent years and expects to experience continued shortages in the future. All residents have an ongoing responsibility to use water efficiently and to minimize personal water consumption. Additionally, we pull water from the St. John's River aquifer per a Consumptive Use Permit; and are required to take water use readings monthly and report this usage to various county, state and government agencies.

Thank you for your prompt attention to this matter.

Sincerely,

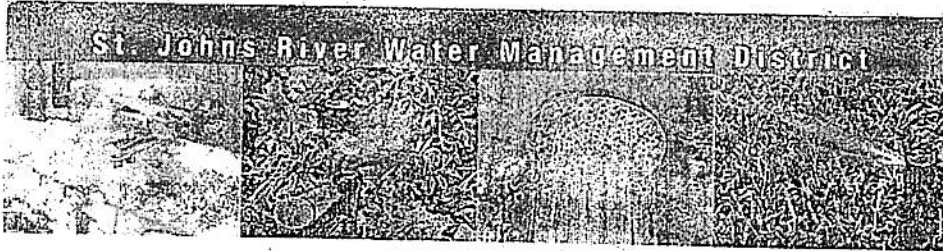
Wanda L. Kitchens
Community Manager

Month Reading

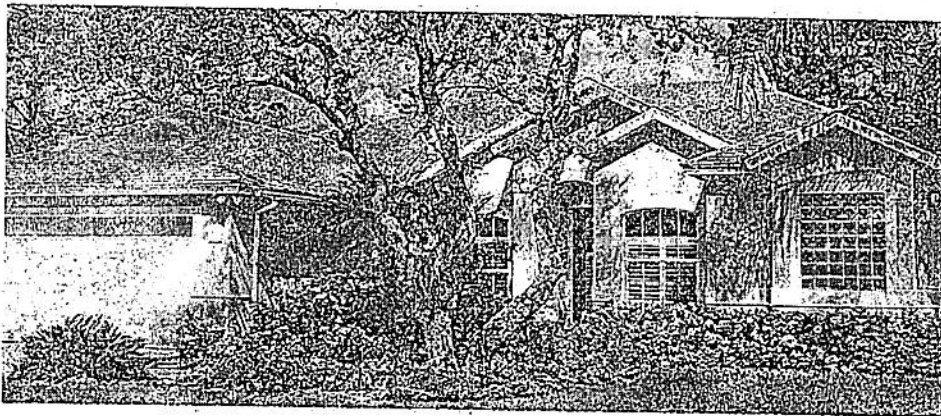
_____	_____
_____	_____
_____	_____

Month Reading

_____	_____
_____	_____
_____	_____



Home Water Use... A Family Survey



Water is a resource shared by all, and as Florida's population increases, so does the need for all of Florida's residents to conserve.

Conserving water is good for the environment and can help you save money on utility bills, and spend less time on home maintenance.

florida's water
it's worth saving



FLOW METER ACCURACY RECORD

FLORIDA RURAL WATER ASSOCIATION
2970 Wellington Circle West, Suite 101
Tallahassee, Florida 32308

CONSUMPTIVE USE PERMIT NUMBER: 2454

PERMITTEE NAME: SUNLAKE ESTATES

DATE OF PERMIT ISSUANCE: 1/1 PUMP NUMBER: GOLF COURSE IRRIGATION

PUMP CAPACITY: N/A GPM SERIAL NUMBER ON METER: 51949345

METER MODEL: SENSUS (STANOL IDA6975)

DISCHARGE PIPE DIAMETER: 2"

DATE OF LAST METER TEST: 1/1

DATE OF THIS TEST: 10/22/12

NAME OF PERSON PERFORMING TEST: David Hanna

METHOD OR EQUIPMENT USED FOR TEST: Fuji Ultrasonic Flow Tester

INITIAL METER READINGS AT START OF TEST: 36311200

FINAL METER READING AT END OF TEST: 36311300

READINGS ON EQUIPMENT USED FOR TEST:

START: 5 END: 107

(ATTACH FORMULAS USED TO MAKE CALCULATIONS)

PERCENT OF ERROR BETWEEN METER AND TEST EQUIPMENT READING: -2 %

NAME OF PERSON COMPLETING THIS FORM (PLEASE PRINT): David Hanna

COMPANY NAME: FLORIDA RURAL WATER ASSOCIATION

ADDRESS: 2970 Wellington Circle West, Suite 101

CITY, STATE, ZIP: Tallahassee, Florida 32308

DAYTIME TELEPHONE: (850) 668-2746

DATE: 10/22/12 SIGNATURE: David Hanna

90-069-2454-4-2006

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NOV 01 2012

MAITLAND SVC. CNTR.



November 20, 2012

Emily Wakley
St. John's River Management District
Hydrologist/Maitland Service Center
601 South Lake Destiny Road Suite 200
Maitland, Florida 32751

RE: Sunlake Estates- CUP 20-069-2454-4
Compliance No. 1206631, 1156745

Dear Emily,

In response to your email request of 11/19/2012; the following is attached to this email:

1. A copy of the graph that was provided from David Hanna, Florida Rural Water that shows the overnight flow test. This was the only paperwork received from FRW.
2. An electronic copy of the "Leak Detection" that was performed by Utility Services Associates. There were only two minor leaks discovered and were repaired at the time they were discovered.
3. The corrected "Courtesy Letter" to the residents which clarifies the days on which watering is allowed.

Also, in response to your other questions:

1. Bad or inoperable meters are determined when the readings are the same in several consecutive months. We know whether the resident is here or not there is some water usage for irrigating purposes. Simple testing is performed to see if the meter is registering usage or not.
2. During peak season there approx. 884 in residency. Off season, are approximately 660. There is about 70-73% of the Community in residency year round.

(2)

We would also like to find out what the process is for revisiting/increasing the amount of water in our current Consumptive Use Permit. Any information you can give us would be greatly appreciated.

Thanks you for your continued assistance. Please let us know if you need anything further.

Sincerely,

A handwritten signature in cursive script that reads "Wanda L. Kitchens". The signature is written in black ink and is positioned above the typed name.

Wanda L. Kitchens
Community General Manager
(352) 350-1320 Office
(352)669-2568
wanda.kitchens@solsticecommunities.com

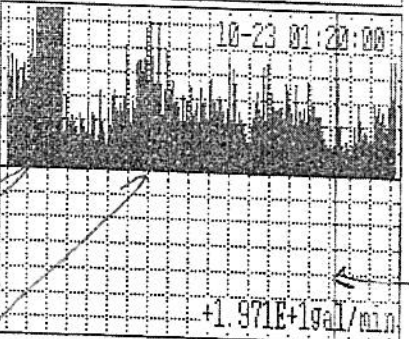
Cc: File
Corporate
Tom Felton, General Utilities

12-10-23 10:02

LOGNAME	SOWLAK
START →	10-22 11:45
END →	10-23 11:26
INTERVAL	00:05:00

Readings & 1624 5000

LOGGER



19.7 gallons/min
1:23 PM

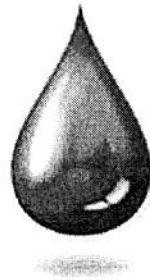
main saddle
Repair
Dimple time

SOURCE	FLOW RATE :gal/min
TIME/DIV	00d 00:50:00
DATA/DIV	2 E+1 gal/min
00:50	164
GRAPH PRINT OUT	

Sun Lake Estates Final Report



Water Line Leak Detection Project for: Community Sunlake Joint Venture



Project Dates:
10/25/2012 through 10/29/2012

 utility services associates
EVALUATE MANAGE CONSERVE

919 SW 150th St, Suite B
Burien, WA 98166

Phone: (877) 585-LEAK(5325)
Fax: (206) 244-0278
Email: info@leakdetectionservice.com

Web: www.leakdetectionservice.com

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COVER LETTER

November 7, 2012

Community Sunlake Joint Venture
c/o American Land Lease, Inc.
Attn: Scott Paige
380 Park Place Blvd, Suite 200
Clearwater, FL 33759

Re: **Sun Lake Estates Leak Detection Project**

Dear Mr. Paige:

Utility Services Associates, LLC, (USA) is pleased to submit the enclosed Final Report on leak detection services recently completed.

The information contained in this Final Report details the procedures and results specific to this project. When applicable, recommendations have been made concerning the best approach for the repair of leaks detected and preparation for future leak detection projects.

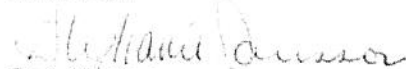
As you review this Final Report, please pay close attention to the Field Technician's remarks and field observations in the Project Observation section of this report. These may assist you in determining the best course of action regarding specific leaks.

At times specific individual Leak Reports may differ in the Final Report from those provided during the course of the project. These changes, usually insignificant, generally pertain to the manner in which we report leaks and do not alter the methods used or results of pinpointing.

We strongly suggest you contact us prior to excavating any leak that we have labeled with "CAUTION" for further explanation.

This leak detection project is productive since we pinpointed leakage that, when repaired, can reduce your water loss, saving Community Sunlake Joint Venture dollars now and in the future. We appreciate your confidence in USA. If you have any questions, call us at (877) 585-5325 or (206) 244-0370.

Sincerely,



for
Rob Meston
President

EXECUTIVE SUMMARY

LEAK DETECTION EXECUTIVE SUMMARY

From October 25, 2012 through October 29, 2012, USA completed a leak survey for **Community Sunlake Joint Venture of the Sun Lake Estates water distribution system**. Our Field Technicians, Scott Wicklund and Thomas Olson, used and appreciated the information provided by Rob Grantham to expedite and provide an accurate survey. The tables below detail the information gathered.

Time Spent on Project	
Surveying:	19.25 Hr
Pinpointing:	2 Hr
Other Time:	3.25 Hr
Total Time:	24.5 Hr

Total Areas Surveyed	
Total Distance in Miles	7
Total Distance in feet	36,960

The mileage was estimated by the technician and may not match maps.

Access Points Contacted	
Hydrants	36
Valves	68
Services	466
Other	4
Total	574

Leak Type Noises Detected	
Hydrants	1
Valves	1
Services	17
Other	0
Total	19

Leaks Pinpointed	
Main	0
Valve	0
Hydrant	0
Service Line	2
Service Connection	0
Curbstop	0
Meter	0
Total	2

Total Water Loss Identified	
Gallons Per Minute (GPM):	5.25
Gallons Per Day:	7,560
Gallons Per Month:	229,950
Gallons Per Year:	2,759,400

Unidentified Water Loss	
Faulty Meters	0
Unidentified Leaks	0
Possible Consumer Side Leaks	0

This project was divided into two phases; the survey phase and the pinpointing phase. The following pages outline exactly how those two phases progressed and the results of each. Any leaks pinpointed will be detailed in the attached Leak Reports.

PROJECT OBSERVATIONS

PROJECT OBSERVATIONS

(Water Distribution Lines)

GENERAL

On October 29, 2012 USA completed a 3-day leak detection survey of the *entire* Sun Lake Estates water distribution system for the Community Sunlake Joint Venture in Clearwater, FL. The notes below have been generated by our Field Technician and have been included as part of the Executive Summary.

SPECIFICS

The survey was broken down in two different phases:

1. Survey Phase – sounding of appurtenances and recording leak type noises that were detected.
2. Pinpointing Phase – pinpointing noises that were detected during the Survey Phase.

1. Survey Phase Information

We started this project one day earlier than the projected start date. Since Sun Lake Estates water system consisted entirely of PVC water mains with poly service lines, a point to point survey was completed. Sound carried above average for this type of system as witnessed by the fact that the sound from a service line leak that was located was carrying to several meters from the source.

Following are specific anomalies detected during the survey:

- 1385 Mackinaw Ct – During survey phase, we detected meter noise coming from this meter but the low flow indicator was not moving. Upon returning for the pinpointing phase, we contacted Wanda at the office because the property appeared vacant. Wanda informed us that this meter was already known to a defective “no read” meter
- Utilized ground microphone to survey line from valve 54 to Club House
- Utilized ground microphone to survey line from valve 13 to Club House
- The map supplied did not have a scale, therefore, the actual distance of the line surveyed was estimated using the distance proposed by Sun Lake Estates
- 1375 Mackinaw Ct – tree growing into meter box, could cause future leak
- 1560 Warmwood Dr – meter box broken, lid does not fit properly
- 1410 Warmwood Dr – badly broken meter box lid
- 2470 Grand Traverse CR – broken meter box lid
- 2637 Niagara Way – visible sprinkler head leak, meter running slowly
- Low frequency mechanical noise (rhythmic hum) on north corner of Niagara Way

There were several lines with limited access. Although unlikely, it is possible a quieter leak noise may have gone undetected in these areas, which include:

- Line running from Valve 13 to Club House – this is a PVC line and the exact location of the line is unknown, therefore estimated.
- Line running from Valve 54 to Club House – this is a PVC line and the exact location of the line is unknown, therefore estimated using line of site between the hydrant in the Club House parking lot and the valve itself.

2. Pinpointing Phase Information

As a result of our survey we were able to identify and pinpoint two (2) leaks. Information follows on each leak. For more information and a drawing of each leak location, please refer to the individual leak reports:

Leak Report #1- 2777 Niagara Way

This leak should be right on.

Leak Report #2 – 1020 Cayuga Dr.

This is a very small leak. We were able to stop it by shifting the meter slightly, however, it will need to be repaired to eliminate the chance for future problems.

RECOMMENDATIONS

If Sun Lake Estates continues to experience loss after repairs are made, we suggest that you extend the monitoring time of your flow analysis to four days and include a weekend during this testing. If while conducting this flow analysis, minimum night time flows show a continual loss, we recommend that you shut off valves 13 and 54. These valve that run to the Club House area and have the highest chance of leakage as access was not available. USA probed at 4' intervals over the top of these two lines, but we were uncertain of their exact location.

Please contact our main office if you have any specific questions regarding these recommendations.

CONCLUSION

Overall the areas surveyed were found in good condition; however we were able to locate and pinpoint leakage, indicating that leaks do not necessarily surface in the system.

Make note of any discrepancies in our estimates as they may have a substantial effect on non-revenue water calculations.

We would like to thank Rob Grantham for his field assistance, which proved invaluable. We look forward to being of service to Sun Lake Estates in the future.

Compiled from notes respectfully submitted by:

Scott Wicklund
Thomas Olson
Field Technicians

SURVEY PHASE REVIEW

SURVEY PHASE REVIEW (Water Distribution Lines)

The first step in our survey was to review the distribution maps of the system for familiarization of the pipe network and available appurtenances to be used for contact points.

Since the system is PVC, we then conducted a comprehensive survey by making physical contact with all available main line appurtenances (valves, hydrants, etc.) and necessary customer services. USA used a sonic leak detection amplification instrument designed for this purpose.

We then conducted a comprehensive survey by making physical contact with all available main line appurtenances (valves, hydrants, etc.) and necessary customer services. USA used a sonic leak detection amplification instrument designed for this purpose.

Appurtenances Surveyed

Hydrant	36
Valves	68
Services	466
Other	4
Total	574

When normal contact points were not available or could not be created within a reasonable distance, we made an attempt to use a sonic ground listening instrument to make physical ground contact at intervals no greater than 6 feet directly over the pipe. If conditions did not allow this procedure our Field Technician advised you at time of project and notes of such are included in the Project Observations. Ground listening devices are employed when ground cover is pavement, cement or similar hard surface.

When ground cover was not a hard surface and normal contact points were not available, we made an attempt to use probe rods or a specially designed sounding plate at 6-foot intervals. A sound amplification instrument with 3VG or greater transducer was employed in conjunction with this equipment, directly over the pipe. If conditions did not allow this procedure our Field Technician advised you at time of project and was detailed in the Project Observations section of this Final Report. Direct contact to the main line at intervals outlined in Preparation for Service resulted in the most thorough survey.

Areas Surveyed

Street	From	To
Lake Dr	Cayuga Dr	Sun Meadow Ln
Sun Lake Blvd	Lake Dr	Cayuga Dr
Geneva Way	Lake Dr	Cayuga Dr
Cayuga Dr	Lake Dr	Hudson Way
Sun Meadow Ln	Lake Dr	Hudson Way
Feedline	Club House	Sun Meadow Ln
St Lawrence Dr	1101 St Lawrence Dr	4th St
Warmwood Dr	St Lawrence Dr	Loop
Shady Ln	Warmwood Dr	St Lawrence Dr
McKinaw Ct	St Lawrence Dr	St Lawrence Dr
St Lawrence Dr	Warmwood Dr	4th St
Grand Traverse Cir	S Niagara Way	Chesapeake Pl
Wabash Ct	Grand Traverse Cir	End of cul de sac

Niagara Way	Grand Traverse Cir	Grand Travesese Cir	
Potomac Path	Niagara Way	Grand Travesese Cir	
Lower Red Lake Ln	Grand Traverse Cir	Grand Travesese Cir	
Chesapeake Pl	Grand Traverse Cir	End of cul de sac	
Susquehanna Cir	Upper Red Lake Ln	End of cul de sac	
Upper Red Lake Ln	Grand Traverse Rd	Lower Red Lake Ln	
Ontario Pl	Grand Traverse Rd	End of cul de sac	
Grand Traverse Cir	Chesapeake Pl	Niagara Way	
Total Area Surveyed in Feet			36,960
Total Area Surveyed in Miles			7

A detailed report of decibel levels at suspected leak sound locations and observations were compiled during the survey for reinvestigation and possible pinpointing at a later time. This reinvestigation increased the speed of the survey and eliminated correlating on most false leak sounds.

Leak Type Noises Detected

Contact Points	Noises Detected
Hydrant	1
Valves	1
Services	17
Other	0
Total	19

All indications of leaks found during the survey were verified a second time, after which, the leaks were pinpointed with a computer based sound correlator when possible. Pinpointing information can be found in the Pinpointing and Leak Reports Sections.

End of Section

PINPOINTING PHASE REVIEW

PINPOINTING PHASE REVIEW (Water Distribution Lines)

All indications of leaks found during the survey were verified a second time, after which, the leaks were pinpointed with a computer based sound correlator when possible. Pinpointing leak locations through interpretation of sound intensity, either by ear, decibel metering or other like methods was not used when contact points were available for use with the correlator. However, ground listening devices were used as a quick double check on pinpointed leaks.

The equipment used did not normally require valves to be operated during surveying and pinpointing. However, on occasion, services or valves were operated to eliminate service draw noises or to change velocity noise.

The correlator equipment used had the capability to prompt the operator to input the variables when different pipe sizes and/or pipe material were encountered in the same span to be investigated. This is necessary to insure accuracy of results based on the automatic computation of the correct leak sound velocity in leak pinpointing operations. Our correlators have the capability of correlating up to seven various pipe sizes and types at one time in a given space. To insure effective performance in all field environments encountered in the distribution system (i.e. traffic noise, draw, pump operation, industrial noise, etc.), the correlator equipment provides 16 auto filter options and/or infinite manual filter options.

We provided a copy of leak reports, when pinpointed, which included leak locations and estimated GPM loss.

Leaks Pinpointed

Number	Leak Type	Location	GPM
1	Service Line	277 Niagara Way	5.00
2	Service Line	1020 Cayuga Dr	0.25
Total			5.25

These leak reports, also included a leak repair priority classification. These classifications are as follows:

Class I Any leak which is hazardous in terms of potential undermining, possibly resulting in surface collapse, encroachment and/or damage to nearby utilities, commercial or private properties or leaks severe enough to warrant immediate repair.

Class II All leaks that display water losses significant enough to be monitored on a regular repair schedule.

Class III Relatively small leaks that should be repaired as workload permits.

Repair Priority

Number	Leak Type	Location	GPM
Total Class I			0.00

Number	Leak Type	Location	GPM
Total Class II			0.00

Number	Leak Type	Location	GPM
1	Service Line	277 Niagara Way	5.00
2	Service Line	1020 Cayuga Dr	0.25
Total Class III			5.25

Whenever any of the leaks detected by USA were repaired prior to completion of the field work, we gave Community Sunlake Joint Venture the option to have that section of the system re-surveyed to be sure no very quiet leaks were missed due to an over powering noisy leak sound.

Please note that leakage that was detected and pinpointed may be larger or smaller than estimated. Estimates are based on several variables including type and size of pipe, pressure and interpretation of correlation filter results.

End of Section

LEAK REPORTS

Leak Report

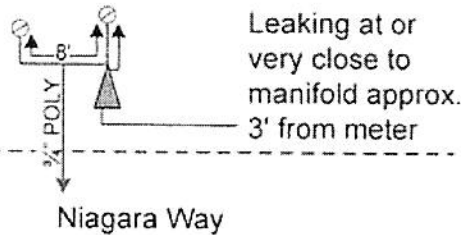
Utility Services Associates, LLC

Location: 2777 Niagara Way
 Remarks: Correlated to area in front of meters close to manifold. Pinpointed with ground mic. Heard rocks / sand hitting PVC pipe easily approximately 3' from meter. Verified meter was registering properly.
 Leak Type: Service Line
 Recommendations: Excavate & Repair

Map Not To Scale

2767

2777



Field Tech: TO
 Leak No: 1
 Leak Class: III
 Leak Rate: 5.0 GPM
 Cover Type: Soil
 Site Marked: No
 Date: 10/29/12
 Job No: 12187

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Equipment used: S-30 Portable Listening Device & LC-2500 Correlator
Probe Rod

Computer Correlation Results

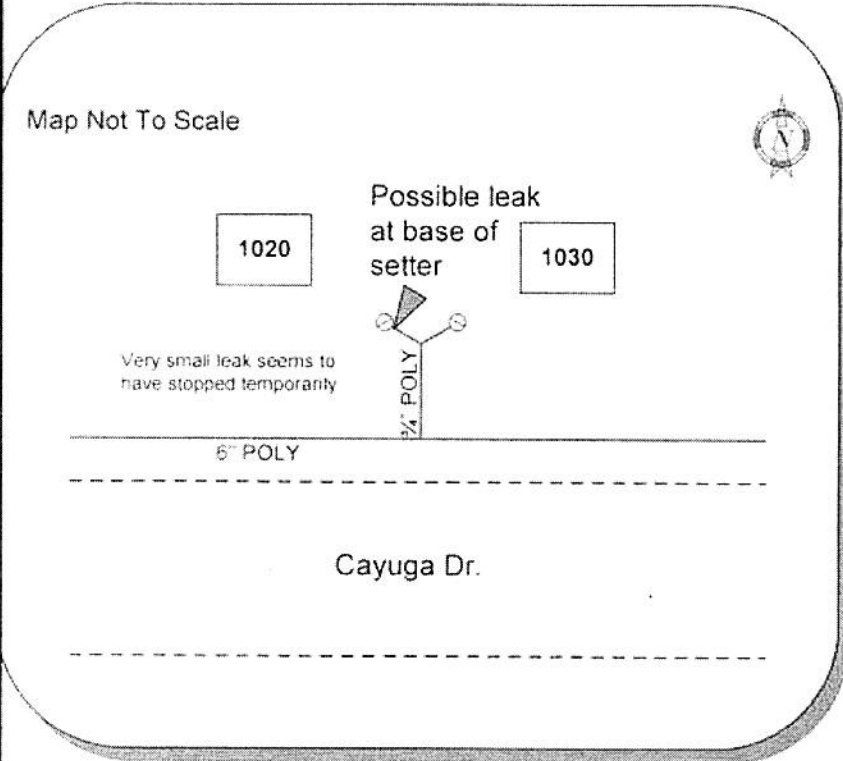
Scan Time	Grade	Dist "Red"	Dist "Blue"

Water Loss
(this leak, in gallons)
DAILY 7,200
WEEKLY 50,400
MONTHLY 201,600

Leak Report

Utility Services Associates, LLC

Location: 1020 Cayuga Dr.
 Remarks: High frequency noise heard on stop. When meter was shifted slightly noise dissipated. Very small, weeping leak seems to have stopped after we moved meter. Suggest monitoring this meter box for water as leak is likely to return. Recommend tightening setter at the base.
 Leak Type: Service Line
 Recommendations: Excavate & Repair



Field Tech: TO
 Leak No: 2
 Leak Class: III
 Leak Rate: .25 GPM
 Cover Type: Soil
 Site Marked: No
 Date: 10/29/12
 Job No: 12187

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Equipment used: LD-12 & S-30 Portable Listening Devices

Computer Correlation Results

Scan Time	Grade	Dist "Red"	Dist "Blue"

Water Loss
(this leak, in gallons)

DAILY 360
WEEKLY 2,520
MONTHLY 10,080

CONCLUSION

LEAK SURVEY CONCLUSION

Our thanks to Scott Paige and all persons involved with this project for their assistance in gathering all the necessary paperwork and personnel to create, with USA, a mutually beneficial leak detection project.

With this survey you have demonstrated concern for prudent water utilization and conservation.

Capitalizing on the most advanced leak detection technology available today, USA has successfully completed this Leak Detection Survey. The contents of this Final Report provide Community Sunlake Joint Venture with a permanent record of the activities performed to complete a Leak Survey along with the results achieved.

An important characteristic of this Leak Report is that the facts contained herein can be used in formulating a database for decision making regarding: the need for possible future meter programs, rehabilitation and pipe line replacement and/or the investigation of new water sources, etc. These types of decisions, regarding your utilization of water, now can be predicated more on facts rather than supposition or conjecture.

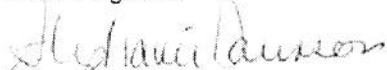
Prompt repair of any leaks reported provide an immediate benefit to Community Sunlake Joint Venture, which includes recovery of most water revenue and water conservation, etc.


Having achieved these results, we recommend that you continue to set up the infrastructure necessary to continue investigating leakage in the water distribution system. Implementation of any on-going leak survey program will ensure that leak losses are kept to a minimum, and the added enhancement of saving costs due to emergency call outs.

Utility Services Associates, LLC, is proud to have served Community Sunlake Joint Venture in this way and we wish to thank you for your substantial assistance and cooperation in this project.

If you or your staff has any questions regarding this Final Report, please feel free to call us at (877) 585-5325 or (206) 244-0370.

Best Regards,



 Rob Meston
President



Date: _____

Lot # _____

Dear Resident,

As you know, we read the water meters the first week of each month. Per our reading's, there has been an excessive amount of water being used at your home (reference the readings at the end of this letter).

Water consumption at this level is usually related to incorrect irrigation system settings; undetected leaks in the irrigation system or under the home; bad meter; or general excessive usage. Here are several solutions to reduce your consumption:

- Make sure your irrigation system is set properly.
 - o We go by **LOT #, not street address**. The reason for this is the way Sunlake is numbered. **Even Lot #'s** water on Thursday & Sunday; **Odd Lot #'s** water on Wednesday & Saturday. During mandated "one day a week" watering schedule, **Odd lots** water on Saturday only and **Even Lots** water on Sundays only. No watering between 10am-4pm. Water for a maximum of 45 minutes per zone. Also, if you are leasing your lot, please make sure watering is finished by 8am so it will not affect the mowing of your lawn.
 - o There is an exception on water use made for when you have installed new sod. You may water daily for 30 days, and then every other day for the next 30 days for a total of one 60-day period, provided that the irrigation is limited to the minimum amount necessary for establishment.
- Make sure your meter is working properly. Periodically check your meter readings.
- Check for leaks. Have a landscaper and/or plumber check out your irrigation and home for any water issues or leaks and have them repaired.

The State of Florida has suffered significant water shortages in recent years and expects to experience continued shortages in the future. All residents have an ongoing responsibility to use water efficiently and to minimize personal water consumption. Additionally, we pull water from the St. John's River aquifer per a Consumptive Use Permit; and are required to take water use readings monthly and report this usage to various county, state and government agencies.

Thank you for your prompt attention to this matter.

Sincerely,

Wanda L Kitchens
Community General Manager

Month	Reading	Month	Reading
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____