

The Official Publication of the Florida Irrigation Society

# PIPELINE

SUMMER 2015  
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**How Well Do You  
Know Pressure  
Regulators**

**The State of  
Florida Water**

**2015: The Year  
of mCrime**

**2015**

**FLORIDA  
WATER SUMMIT**

July 28-July 31, 2015 | Naples Beach Hotel and Golf Club, Naples, FL

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# PIPELINE

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Vol. 14/Issue 2/Summer 2015

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Hello everyone. I hope that you are enjoying a busy and profitable summer. Although the spring was dry, the heat and humidity of the summer has been turned on. The afternoon rains have made way for the morning sauna which is making for a very hot start to the day. As we head into summer and get busy, please remember that FIS continues to work on our behalf. Summer does not slow us down.

The Florida House Legislative bills that we were working on so diligently fell through when the state ended their session early because the legislature could not reach an agreement on the bills that were proposed. Due to the session closing early, many bills had to be put on hold until the next session. We will keep you updated on the progress of our bill on low voltage lighting once the legislature reconvenes, next year.

We are continuing to work with Alachua County (Gainesville) on their irrigation ordinance for more water efficient irrigation systems for new residential installations. We are hopeful that we will be able to gain regulations that will enforce proper contractor registration and/or licensing.

The Central Florida Water Initiative presented their planned infrastructure recommendations for use of storm water run-off for irrigation. In addition, they also spoke about their future water storage projects in the region which consists of the cooperation of the two water management districts in their area. They were pleased to know that FIS would be interested in working with them in the future on these projects.

License prep classes are continuing throughout the state and have been well attended. If we have not held a class in your area recently and you can get 10 people interested in attending, please contact the state FIS office to schedule. Some counties are pushing the state test in lieu of the local test now that they have had an opportunity to see it.

Commercial and residential developments are seeing an increase of property renovations. Keep your eyes open for dirt being turned over. We hope that our members will get a fair share of the work that is available. Our continued diligence in delivering excellent work will showcase the professionals that we are.

Thank you for your continued support of FIS. Please remember that we are the only organization in the state working to support and protect your future. Please welcome and mentor the new contractors and workers coming into the irrigation industry. We need as many people as possible on our team to help protect the water supplies for future generations. Protecting our water supply will insure that we will have business for years to come.

**Don't forget to register for the 2015 Florida Water Summit, July 28-31, 2015. ●**

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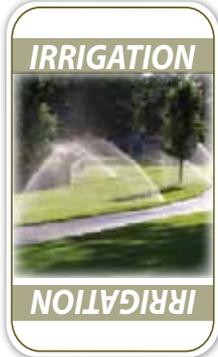
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By Diana Ferguson, Esq.  
Rutledge Ecenia, P.A.



Normally, the close of the legislative session is a time to rest, catch a breath, and take stock of what passed and what failed. However, this year has been anything but normal. While the end of session was scheduled for Friday, May 1, the House adjourned sine die on Tuesday, leaving the Senate with many significant pieces of legislation pending. The Senate continued to work through Wednesday, passing some bills, sending some back to the House to die, and letting others die on the Senate calendar. Their session expired on Friday. The discord relates back to a disagreement regarding the Low Income Pool (LIP) Program and Medicaid expansion.

Prior to this meltdown, both the House and Senate proposed comprehensive water and environmental policy legislation, although their approaches differed significantly. SB 918 focused heavily on springs and trails, while HB 7003 focused heavily on water supply issues. As the bills progressed, the Senate amended onto its bill provisions relating to the creation of a Florida Water Resources Advisory Council and an alternative water supply pilot project program for the largest three water management districts that were not included in the House bill. Among many other

tasks, the Council would have been tasked with ranking pilot projects that test the effectiveness of innovative or existing water conservation technologies and the Department of Environmental Protection would have been tasked with rulemaking to create the water conservation pilot project program. The Senate bill also would have provided that, in order to incentivize water conservation, allocations in permits for water use cannot be reduced merely due to water conservation efforts. This language was also contained in HB 714 by Senator Grimsley, HB 653 by Representative Pigman, and SB 1408 by Senator Evers. None of these bills passed.

Because SB 918 and HB 7003 were stalling, near the end of session the House amended some of the key provisions of its proposal onto HB 653, with some changes in an effort to compromise with the Senate. The amendments included provisions relating to state lands that were the substance of HB 7135 by the State Affairs Committee and Representative Caldwell and SB 7068 by the Senate Environmental Preservation and Conservation Committee. However, HB 653 ultimately stalled as well, and the House adjourned before final passage could occur on any major water or environmental legislation.

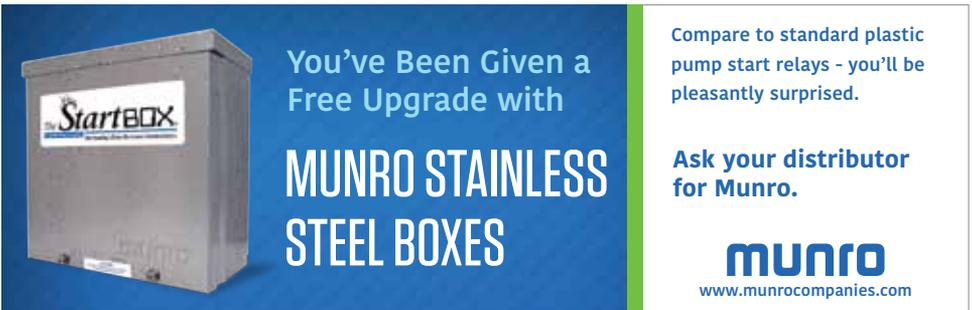
FIS worked with FNGLA on proposed revisions to s. 373.62, F.S., related to automatic sprinkler systems. However, this language was not included in the omnibus package. FIS will work with FNGLA to continue to hone our proposal and will submit it for consideration again next year.

HB 915 by Representative Eagle and SB 1232 by Senator Simpson contained the annual Building Codes legislation. The bills were amended in committee to include an exemption from licensure for the installation of low-voltage lighting that contains a plug and does not require wiring. FIS strongly supports this exemption. However, the bill was later amended to also include an exemption from licensure for certain apartment maintenance workers. FIS and other construction trade groups have concerns regarding this proposal.

HB 915 was amended on the House floor with language requiring ratification of certain portions of the building and fire codes, which was also quite controversial. These bills died following the House's early adjournment.

In addition to these major pieces of legislation failing, the differences between the House and Senate regarding LIP and Medicaid were so great that they were unable to craft a budget, their one constitutionally mandated duty. As such, the Legislature must return in special session to complete the budget, which must be in place by July 1 under the Florida Constitution. It remains to be seen whether the two chambers will agree to the terms of a special session or whether the Governor will reconvene the Legislature. ●

*As we went to press, the budget was scheduled to go to Governor Scott's desk.*



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### Chapter-Wide

#### In Memoriam - Jim Reichert

Jim Reichert, my business partner and best friend for over thirty years passed away early March 2015. For thirty years, Jim and I worked side-by-side building our Rep agency and raising our families.

Jim is survived by his wife Debbi, his 3 sons Clint, Adam and Beau, and grandchildren, Grace and AJ. He is also survived by his mother Beverly Reichert and sister Cathy Nevad.

Memorial services were held on March 21 at St. Paul's Episcopal Church in Winter Haven.

Chris Hart, Hart & Reichert Associates, Inc.

### Northeast Chapter

The NE Chapter installed a charity irrigation and landscape project with the help of the FNGLA chapter on April 18th at The Apple Project. The Apple Project provides dental care for the less fortunate. There were 13 volunteers from the two chapters. Members installed a two zone irrigation system, trees, shrubs and mulch. With the hard work of the volunteers, they were able to complete the project in less than 5 hours!! The chapter would like to thank John Deere Landscape for donating the irrigation materials and the FNGLA members who donated the landscape materials.

A date was set for our 2015 Creek Wars Fishing Tournament for October 10, 2015. The chapter is excited to have Firehouse Subs as their Title Sponsor again this year.

The Chapter meets the 3rd Tuesday of each month at various locations.

### Tampa Bay Chapter

The Tampa Bay chapter is meeting at a new location on the first Tuesday of the month at 6pm.

Hilton Garden Inn Tampa East/Brandon  
10309 Highland Manor Drive  
Tampa, FL 33610

Southwest Chapter

On May 15, 2015 the SWFL Chapter had its 8th annual golf tournament. This year we had over 20 teams with 100 plus in attendance to support our annual fund raiser. Our President, Rick Manley, addressed the group prior to the shotgun start and briefly updated them regarding the chapter's activity. The tournament was won by Team Juniper Landscape and 1st Runner up was Team Stahlman-England. During the luncheon, Chip Bridges was awarded the coveted "Steve Hall" award for going above and beyond to help make our chapter a success! Thank you to everyone who assisted in preparing and working the event. A special thank you goes out to Kevin O'Brien of Hunter Industries for championing the event each year! All proceeds will be used to promote our membership and make SWFL Chapter more efficient.



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# How Well Do You Know Pressure Regulators?

By Nicole Alvarez,  
Technical Writer for Senninger Irrigation



The Florida-Friendly Landscape Guidance Models states that irrigation professionals must include pressure regulating devices in their designs. The reason behind this requirement is twofold; it's done to protect against system failure during pressure surges and to avoid water waste if the system is ever operated beyond the established design criteria.

We all know pressure regulators are necessary and we know they are supposed to save water, but not everyone understands how they work and what happens when they don't work.

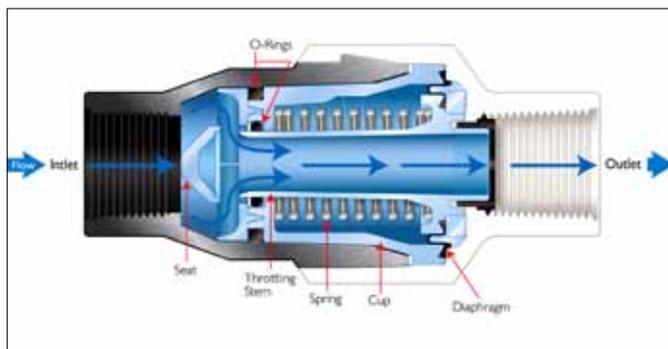
As the manufacturers of some of the most popular pressure regulators available, it is our job to educate consumers and help them understand the technology they use.

That's why we would like to share with you five common pressure regulation questions and our answers to these questions.

## 1. How Does a Pressure Regulator Work?

The basic function of a pressure regulator is to limit excessive and varying inlet (source) pressures to a constant outlet pressure. They accomplish this by automatically modulating their area of opening and keeping outlet pressure within acceptable limits.

A pressure regulator activates when water travels through the inlet end of the regulator and around the fixed seat into the flow area. Water enters a hollow cylinder called a throttling stem (or T-stem), which is attached to a larger diaphragm near the outlet end. There is a spring around the throttling stem that



holds the flow area open and lets water through. When water passes through at high pressures, the pressure acts on the diaphragm inside the regulator and tries to close the flow area. The area closes just enough to maintain a set pressure and flow.

## 2. Why Do I Need Pressure Regulators?

No matter what type of irrigation system you install –be it drip, pop-up sprinklers or micro sprinklers– correct system pressure is essential for optimum distribution uniformity and proper flow through the emitters.

Emitters are made to operate within a specific range of flows and pressures. This keeps their application patterns uniform and helps them produce the correct droplet size. If these conditions

are altered your clients may have to deal with soggy areas in their lawns (which kill grass and encourages fungus to grow) or emitters prone to misting and fogging. Misting, as most of us know, results in under irrigated areas.

Pressure regulators assure operating pressures do not exceed a manufacturer's recommended operating pressure range. They also help prevent fittings and emitters from blowing out of the tubing due to pressure surges. Overall, pressure regulators are recommended when an incoming flow rate varies is at least 10% higher than the system's design specifications.

(continued pg. 10)



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### 3. What Causes Pressure Fluctuations?

Every irrigation system will experience some sort of pressure fluctuation. The most common reasons for pressure fluctuations include pressure loss through pipefittings, zones cycling on and off, and field elevation changes.

### 4. How Do High Pressures Affect System Flow Rate?

The operating pressure of an irrigation system always affects the flow rate. Higher pressures increase flow along any pipe. As that flow increases, water velocity increases as well. However, this results in pressure decreasing downstream due to friction loss. When water is rushing through a pipe at high velocities, the interior walls of the pipe create friction against it, which causes pressure loss downstream. Fittings, valves and any obstructions to the water will also reduce system pressure.

Changes in pressure may not look like they would cause a lot of damage if you are working with high pressures around 80 psi. However, if a system designed to operate at 30 psi experiences a small 6 psi pressure variation, that will result in a 10% flow variation at each downstream emitter.

### 5. How Do I Know if a Pressure Regulator Is Bad?

Like sprinklers, pressure regulators do not last forever. Anyone with a pressure regulator is encouraged to check their regulators at least every three years.

The best way to know if the pressure regulator is working is to install a pressure gauge on each side of the regulator. Pressure should be at least 5 psi above the pressure regulator rating, so if the upstream gauge reads higher than the downstream gauge, then the pressure regulator is probably working.

Common signs of a bad pressure

regulator include leaking between the housings, misting, overwatering in some areas, and increased water and energy consumption. Factors that can

shorten a pressure

regulator's lifespan include unflushed chemicals in the pipeline, long operating hours and frequent water hammer. ●



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# THE STATE OF FLORIDA WATER

By Donna Hoover, LEED AP BD+C  
Hoover Pumping Systems,  
Pompano Beach/Fort Myers.



Have you noticed that the end of snowbird season no longer means a summer without slow drivers and traffic congestion? Growth continues and the stress of an increasing population reaches well beyond the traffic.

Florida's population grew by 1.2 million people from 2010 through 2014 to 19.9 million residents. According to the US Census Bureau, Florida's population surpassed that of New York, and is now the third most populous state. Projections indicate that Florida will become home for an additional 1.5 million people by 2020.



Florida's 2007 drought may have prepared the irrigation industry for the significant issue that water has become. The experience sharpened the industry's awareness, alarmed residents and increased efforts in best management practices and smart technology. Water management districts became more aggressive and most adopted year round restrictions of 2 times a week

watering. Reclaimed water use is common. Massive water shortages have caused an ongoing crisis in the western USA. Across the nation, we have become a society where adults and children alike know it is essential to protect water resources through conservation.

With Florida's renewed boom in construction

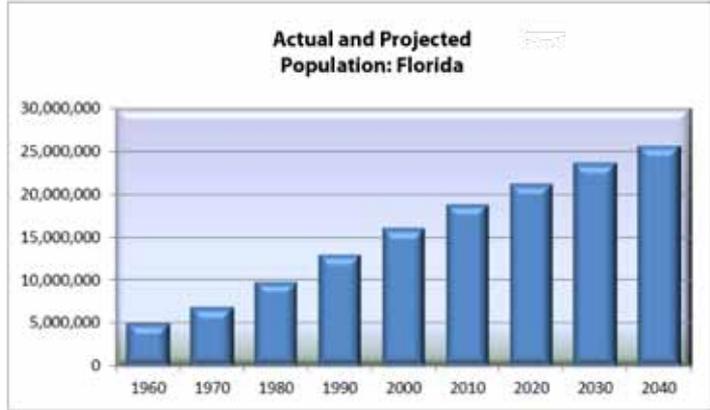


Source: South Florida Water Management District

and a growing population, we can expect future water supplies to be strictly managed, recycled and re-used over and over again as technology improves.

Irrigation professionals are wise to increase their awareness and knowledge about water supply choices and alternative water sources that will be more frequently mandated in the future. There has been and will continue to be a continuing competition among industry, agriculture and communities for water resources that once were so plentiful.

2015 was named the “Year of Water” for the Florida Legislature. The state of Florida’s water quantity and quality will continue to be negatively impacted by increasing population. Unless comprehensive actions are taken, water users will experience continual increasing costs and decreasing access to clean water. Florida’s natural springs, aquatic habitats, the rivers from Lake Okeechobee and many other regional



Source: University of Florida, Bureau of Economic and Business Research, Florida Population Studies, Bulletin 169, June 2014

streams and estuaries are in a state of decline. The 2015 legislative session was a chance to put into motion laws that would reverse the decline and improve protection of water and natural resources.

To follow is an overview of the tangled web of the current state of legislative affairs regarding Florida’s water and natural resources protective initiatives.

(continued pg. 14)

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## Florida Department of Environmental Protection and Alternative Water Supplies

In July 2014, Florida's Legislature passed SB 536, which requires the Florida Department of Environmental Protection (DEP) to conduct a comprehensive study and report on the expansion of use of reclaimed water, stormwater, and excess surface water throughout the state. The report will be submitted in December 2015. Public workshops were conducted in late 2014.

The study will identify measures that would lead to the efficient use of reclaimed water. Focus will be on locations where traditional water

*To follow this study and stay in the loop on alternative water source expansion, visit DEP's website.*

<http://www.dep.state.fl.us/>

supply sources are limited and the use of reclaimed water, stormwater, or excess surface water for irrigation or other purposes is necessary.

The report may recommend permit incentives, such as extending current authorization for long-term consumptive use permits for all entities that substitute reclaimed water for traditional water sources that become unavailable, or are otherwise cost prohibitive.

The feasibility, benefit, and cost estimate of the infrastructure needed to construct regional storage features for reclaimed water, stormwater, and excess surface water, including the collection and delivery mechanisms, will be part of the report.

## Voters Speak Up in November 2014 and Adopt Amendment 1

In November 2014 voting, 75% of Florida's voters approved the Florida Water and Land Conservation Constitutional Amendment 1. As you may remember, in 2008, the Governor and Legislature significantly

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reduced funding for *Florida Forever* and other Land Protection Programs, previously successful in earlier years of the 2000s.

Amendment 1 resets the Land Acquisition Trust Fund to acquire, restore, improve, and manage conservation lands including wetlands and forests; fish and wildlife habitat; lands protecting water resources and



drinking water sources, including the Everglades, and the water quality of rivers, lakes, and streams; beaches and shores; outdoor recreational lands; working farms and ranches; and historic or geologic sites.

Effective on July 1, 2015, and for a period of 20 years, the Land Acquisition Trust Fund shall receive 33 percent of net revenues from the existing excise tax on documents (documentary stamp tax) for 20 years. The state estimates that the first budget year would amount to \$757.7 million. To assure funds are dedicated to the stated purpose, the Amendment

prevents commingling of money in the Land Acquisition Trust Fund with the state's general revenue.

### Governor Proposes Funds for Florida's Water and Natural Resources

In January 2015, Governor Scott recommended nearly \$1.6 billion in funding to conserve and protect Florida's environment and water

resources while addressing the need to expand water supply. Whether and how the funds will be allocated is another story.

- **\$150 million for Everglades Restoration and associated South Florida Estuaries:** The Governor's proposed budget creates a dedicated source of revenue for Everglades restoration that will provide nearly \$670 million over the next four years and more than \$5 billion over the next 20 years.
- **\$50 million for Springs Protection and Restoration:** The current recommendation of \$50 million for springs protection and improvement is intended to assist efforts of Water Management Districts and local Governments to protect and improve Florida springs.
- **\$150 million for Land Acquisition and Management:** \$100 million

(continued pg. 17)

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(state of water, continued)

to support land acquisition through the **Florida Forever** program, \$20 million to restore the Kissimmee River and \$30 million for additional management dollars to ensure the land already owned by the state is properly cared for.

- **\$100 million for Water Supply Development and Keys Wastewater Treatment:** Includes \$50 million and will initiate a 10-year, \$500 million program to provide more than 250 million gallons of water a day to Floridians. The Governor's recommended budget includes \$50 million for improving wastewater treatment in the Florida Keys.

### A Job Not Done – Legislative Impasse and Abrupt Adjournment

April 28, 2015

Yes... The Legislators Went Home.

From January through April, the Florida Legislature attempted and failed to pass several bills related to the mandated Florida Water and Land Conservation Constitutional Amendment 1. The regular legislative session abruptly adjourned on April 28th due to disagreements regarding health care funding.



Tampa Bay Times

As word spread through the Florida Senate on April 28 that the Florida House had Sine Die for the 2015 session, Florida Senators huddle. Left to Right are Sens. Nancy Detert, Maria Sachs, Joe Negron, Bill Montford, and Jack Latvala

A special legislative session will be called to order on June 1 to finalize the work of the failed regular legislative session. Many bills relating to water and conservation of natural resources are at risk of being lost or delayed until 2016.

The fact remains that the 2015 proposed legislative budgets were far less than it will take to fulfill the stated intentions of 75% of Florida voters in November 2014. In light of abundant current documentary stamp revenue, it is imperative for the legislature to move and assure water is protected. This is key to our irrigation industry's growth in Florida's booming future.

To learn more, check out the websites of vocal conservation organizations such as the Florida Conservation Coalition, 1000 Friends of Florida, Audubon Florida and other groups who lead the battle to protect Florida's water and environment. ●

# You Don't Want to Miss This Year's Water Summit July 28-July 31, 2015

## CONFERENCE SCHEDULE

The Florida Water Summit returns to a beach venue at the Naples Beach Resort and Golf Club Naples, Florida. This year it offers irrigation contractors, technicians and related industry personnel opportunities for technical and management education including CEUs for licensure and certifications.

### CLIA Certification

Beginning Tuesday, July 28, the Summit starts by offering the Landscape Irrigation Auditor Certification Prep sessions with the exam scheduled for the morning of Wednesday, July 29. The Landscape Irrigation Auditor workshop teaches the fundamental water auditing techniques, water management skills and helps prepare you for the Irrigation Association's Certified Landscape Auditor exam.

### Water Star<sup>SM</sup> Certification

On Wednesday, the Florida Water Star<sup>SM</sup> Workshop commences. Water Star<sup>SM</sup> is a water conservation certification program for new and existing homes and commercial developments. The exam is offered Thursday, July 30. Earn 7 CEUs for State Irrigation Contractor License, including Miami-Dade.

Register online at [www.fisstate.org](http://www.fisstate.org) or call 727-209-1595. •

### Course offerings each day: THURSDAY, JULY 30

#### Technical

- Effective Drainage Techniques in Irrigation
- Advanced Landscape Lighting - New Colors New Connections
- Hitting the Water Conservation Target with Precision Irrigation
- Understanding the Water Use Permitting Process

#### Management

- Rules of the Road - FDOT Regulations for Contractors
- Don't Get Caught in the Unlicensed Activity Trap
- What You Don't Know About Wage and Hour Laws Can Cost You Big Time
- What is Appendix F of the Florida Building Code?
- Keeping You Safe From Insects, Reptiles and More

### FRIDAY, JULY 31

#### Technical

- Basics of Residential Lighting Tips and Techniques
- Advance Code - Backflow Requirements
- Selecting the Right Pump for the Job

#### Management

- Irrigation Research Update and Future Trends
- Integrated Building Water Management for Irrigation
- Reducing Worker's Compensation Fraud

2015

FLORIDA  
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July 28 - July 31, 2015



# REGISTRATION FORM



Registrant's Name: \_\_\_\_\_  
(Please use a separate form for each registrant)

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Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ St.: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ Email: \_\_\_\_\_  
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- Landscape Irrigation Auditor Certification Prep & Optional Exam - July 28-29 (book included / exam fee not included)  \$360  \$460
- Water Star<sub>®</sub> Workshop Only (Bonus Day and No fee if fully registered for Summit) - July 29  \$125  \$125
- Water Star<sub>®</sub> Workshop (Government Employees only) - July 29  FREE  FREE
- Water Star<sub>®</sub> Certification Exam Fee (Fee not included in Workshop fee) - July 30 AM  \$ 60  \$ 60
- Welcome Reception (included if fully registered for Summit) - July 29  \$ 15  \$ 25
- Exhibit Only Entry (meals not included) - July 29-30  FREE  \$ 15
- Exhibitor Luncheon (included if fully registered for Summit) - July 30  \$ 50  \$ 50
- Exhibitor Reception (included if fully registered for Summit) - July 30  \$ 35  \$ 35
- Annual Luncheon (included if fully registered for Summit) - July 31  \$ 50  \$ 50
- Welcome Reception (included if fully registered for Summit) - July 29  \$ 15  \$ 25

## HOTEL RESERVATION INFORMATION

Naples Beach Hotel and Golf Club, 851 Gulf Shore Blvd. N, Naples, FL 34102  
[Do Not Call the Hotel Directly for Reservations](#)

- Hotel accommodations are **NOT** required OR  Hotel accommodations **ARE** requested at the Naples Beach Hotel and Golf Club
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- # \_\_\_\_\_ Standard Room(s) at \$129/night through July 30. Rate increases to \$159/night plus tax July 31 through August 2.
- Please select:  1 king bed or  2 queens
- Additional adults (more than 2): # of adults \_\_\_\_\_ x \$10 each + tax per night = \_\_\_\_\_ (do not include children under 17)
- Please list any special needs for food or accessibility at the conference \_\_\_\_\_

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Please charge my credit card for my 2015 Florida Water Summit registration fees: \$ \_\_\_\_\_  Visa  MasterCard  Discover  AMEX



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# 2015: The Year of mCrime

## Cybercrime Goes Mobile Thanks To Insecure Mobile Banking, mCommerce and mWallet Apps

By Mark Laich, VP of Security Solutions, SnoopWall, Inc.

Millions of consumers no longer visit a bank to deposit checks or conduct financial transactions. Instead they rely on the convenience of using their mobile devices to send money, view account balances and bank online.

The same is true for how they spend their money - the shift from brick and mortar to e-commerce to m-commerce is already well underway. Think about it - how many times do you use your smartphone to research a product or purchase one?

Maybe you're going out to dinner tonight and you've already filled your Apple Pay, Google Wallet or other wallet technology with all of your credit-card information. Ever wonder if you could be pickpocketed wirelessly? Could an app you trust already be stealing your personally identifiable information (PII)? Sadly, the answer is yes.

Many financial institutions and retailers have launched mobile apps in the past 18 months to respond to demands from their customers who want the convenience of 24-hour, anytime/anywhere banking and shopping. Mobile banking apps help build customer loyalty, and mobile-banking transactions are significantly cheaper for banks compared with transactions that require employee interaction.

Mobile-retail apps capture consumers' buying impulse at the moment they occur, and allow for easy comparison shopping - the potential for finding an item cheaper is a quick tap away. Because more and more banks and retailers are making the investment to develop a mobile app, having one has gone from being a competitive differentiator to a "must have" to compete for consumers' business.



And once a bank has made that investment, there is a concerted effort to encourage customers to use their mobile-banking platform. The same holds true for retail. Amazon and others will do anything to get you to shop online from your smartphone or your tablet.



But the growth of mobile banking and retail apps also means that more people are at risk for identity theft and the hacking of sensitive personal and transaction data by cyber criminals who plan to commit fraud. These apps are used on devices that often aren't safeguarded from security holes. Most people have between 30 and 75 apps on their mobile device, and of course, when apps are installed on a device, users must grant multiple permissions for accessing a device's location, SMS capabilities, Wi-Fi, Bluetooth, camera and other device resources.

Some of these resources are used for the apps to do their intended task, but often apps demand resources that can open up a device to security vulnerabilities. Unfortunately, when consumers install an app on their mobile devices, few of them read all the permissions the app requests to make sure it isn't asking to use device resources that might be suspicious.

This issue is highlighted by a report from Gartner Inc., the technology research company, which concluded 75 percent of apps in the major app stores fail basic security tests. Gartner defines this as an app using mobile-device resources that have nothing to do with the intended function of the app. Rather they can be used to eavesdrop on other apps that are running concurrently to collect data about the consumer. The rationale is that the collected information can be used for data analytics to help with targeted mobile advertising.

However, this has given cyber criminals a rather large attack vector to commit ID Fraud by using malware that looks like trustworthy apps to steal PII and financial transaction data from mobile banking apps, or to steal your credit-card information from your retail apps that reside on the same mobile device. This type of

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malware disguised as “trusted” apps has hundreds of millions of downloads from the major app stores.

Worse yet, this new form of malware is undetected by anti-virus and able to circumvent encryption, biometrics, tokenization, sandboxes and authentication. The result is that using mobile-banking apps to conduct transactions is similar to using an ATM to withdraw cash in a dangerous area with criminals lurking around, or handing your credit card to a stranger, in public, who is using the old-fashioned carbon copy credit card imprinter to take your order.

Another popular technique for cyber criminals is spear-phishing attacks; which take the form of email and text messages that appear to be from an official source or someone you know, usually garnered via a social-networking site. These messages can then install monitoring software covertly on the mobile device. Monitoring software can access most mobile device activity and resources, thereby stealing consumer data just like the malware downloaded from an app store.

Most consumers are unaware of these types of threats, and even when they are aware, they don't take actions to protect their security and privacy until it is too late. On the other hand, financial institutions carry the liability associated with the fraud that results from data stolen from mobile banking and retail apps. In a U.S. landscape where almost 1 billion PII records have been compromised and there is identity fraud totaling \$24.7 billion in losses - according to statistics from Privacyrights.org and the Department of Justice - greater safeguards are needed to protect consumers' financial data.

At the same time, it is important not to intrude or detract from consumers' mobile banking or retail experiences. Financial institutions

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and retailers can't solely depend on consumer awareness and training, nor can they make it complicated for consumers to protect themselves.

For better or worse, the modern-day consumer has become enamored with using their mobile devices for apps such as social networks, location-based services, and games on the same device on which they want to do mobile banking and mobile commerce, thereby compromising their security and privacy. What financial institutions and retailers need is new, innovative security technologies



that deliver an optimal balance between protecting consumer data and being un-intrusive to consumers' total mobile-device experience.

In this way, their mobile banking and mCommerce apps can operate in a safe and trusted environment even when multiple applications are running concurrently. By working with companies that specialize in these types of

new security technologies designed to thwart zero-day threats and malicious eavesdropping apps, financial institutions and retailers will not only protect themselves from liabilities, they will also be successful at convincing more of their customers to use mobile banking and mobile commerce, thereby increasing the ROI of their mobile-app investment and their operating efficiency.

Finally, as we look forward to what many believe will be the rapid adoption of mWallets in 2015, you must understand that they are inherently insecure because they operate on already infected devices. It's time to take a completely radical, proactive approach to securing consumers' data as the financial, transaction-based world shifts onto our smartphones and tablets.

This year marks the beginning of a new wave of enablement, opportunity and mCrime. Where there is mobile banking, mCommerce and mWallet there will be mCrime. Assume it comes in the apps as innocent as that flashlight app you recently installed, because if you don't, you'll be left in the dark missing your identity and your wallet. ●



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