

Public Meetings on the WaterSense® Draft Specification for Weather-Based Irrigation Controllers December 4 and December 16, 2009

Meeting Participants (68): December 4, 2009, 1:30-3:30 p.m. (CST), International Irrigation Association Show, San Antonio, TX

Russell Ackerman, City of Santa Monica

Diganta Adhikani, Center for Irrigation Technology (CIT)

Charles Alexanian, Alex-Tronix

Cynthia Amos, Irrigation Association (IA)

Paul Baker, Georgia Green Industry Association

Robin Barber, AllPro Landscaping

Michael Baron, The Toro Company

J.R. Bergantino, Rain Bird Corporation

Brad Bippus, Agassiz Landscape Group

Greg Boyer, Calsense

Rich Bradley, Superscape Landscape

Todd Bredbenner, SeaCon International, Inc.

Christen Brooker, Rain Bird Corporation

Larry Cammarata, Brickman Group

Rick Capitanio, Calsense

Peter Carlson, Hydropoint Data Systems

Todd Carlston, AllPro Landscaping

Don Clark, Rain Bird Corporation

Mike Clark, Clark Irrigation Design

Kenneth Cook, Acequia

Cynthia Cook, Acequia

Donald Cooper, Weathermatic

Mike Davidson, Spec Management Group

Bob Dobson, Middletown Sprinkler

Mike Donoghue, Rain Bird Corporation

Carl Dowse, The Bruce Company

Michael Dukes, University of Florida

Melody Emadiazar, City of Frisco

John Farner, IA

John Fordemwalt, Baseline Systems

Candy Garrett, Texas Commission on Environmental Quality (TCEQ)

1

David Gerken, Oklahoma State University

Warren Gorowitz, Ewing Irrigation Products

Mark Grewert, Tucor, Inc.

Karen Guz, San Antonio Water System (SAWS)

Randall Hall, Rain Bird Corporation

Gary Hartwell, City of Frisco

Jeffrey Heil, OHeil Irrigation Company

Justin Heil, OHeil Irrigation Company

Joanna Kind, Eastern Research Group (ERG), Inc.



Ed Klaas, Southern Sprinkler Systems

Avi Komorov, SeaCon International, Inc.

Cathie Lavis, Kansas State University

Amber Lefstead, U.S. Environmental Protection Agency (EPA) Headquarters

Brian Lennon, Irrometer Company, Inc.

Fred March, Spec Management Group

David Matthews, Simmons Landscape

Steven Moore, Irrisoft, Inc.

Tom Noonan, Ewing Irrigation Products

Tom O'Connor, Water Optimizer

Bob Olson, ET Water

Gerurdo Orzio, CIT

Brian Peck, Environmental Designs, Inc.

Eric Santos, Valley Crest Landscape Maintenance

Larry Sarver, Tucor, Inc.

Timothy Schaadt, Metropolitan Water District of Southern California

Diana Schulz, Cyber-Rain

Dominic Shows, Alex-Tronix

Andy Smith, IA

Stephen Smith, Aqua Engineering, Inc.

Gene Smith, Hunter Industries

Charlie Solomon, Innogation

Scott Sommerfeld, East Bay Municipal Utility District (EBMUD)

Steve Sparks, EnviRX Technology LLC

Charles Swanson, Texas AgriLife Research and Extension Urban Solutions Center

Stephanie Tanner, EPA Headquarters

Michael Van Bavel, Dynamax, Inc.

Brian Vinchesi, Irrigation Consulting

Robert Walters, Innogation

Lee Wheeler, Unaffiliated

Lvnda Wightman. Hunter Industries

Terry Williams, Ewing Irrigation Products

Ron Wolfarth, Rain Bird Corporation

Tom Zakrzewski, Tucor, Inc.

David Zodolske, CIT

Meeting Participants: December 16, 2009, 9:00-9:45 a.m. (EST), Webinar

Chris Abbott, Bermad Water Control Solutions

George Alexanian, Alex-Tronix

Jane Anderson, Unaffiliated

Troy Carson, The Toro Company

Stacia Davis, University of Florida

Michael Fournier, Unaffiliated

Ken Goodall. Reinke

James Gorton, Unaffiliated

David Gruener, Unaffiliated

Michael Gummeson, NDS Inc.

Andy Humphrey, Unaffiliated

2 April 29, 2010



Deirdre Irwin, St. Johns River Water Management District (SJRWMD)

Kevin Kennedy, Niagara Conservation Corp.

Joanna Kind, ERG

Geza Kisch, Green World Solutions

Amber Lefstead, EPA Headquarters

Dana Lonn, The Toro Company

Cary McElhinney, EPA Region 5

Sean O'Brien, City of Palmdale

Jeffrey Pico, Unaffiliated

Katherine Pordeli, SJRWMD

Sherrie Schulte, IA

Roy Sieber, ERG

Paddy South, Suffolk County Water Authority

Steve Sparks, EnviRX Technology LLC

Stephanie Tanner, EPA Headquarters

Lauren Wingo, ERG

Eric Zima, Unaffiliated

Meeting Participants: December 16, 2009, 1:00-3:00 p.m. (EST), Webinar

Cynthia Amos, IA

Darell Bagley, City of Frisco

Dan Beardsley, Unaffiliated

Steve Beckstrom, Tierra Verde Landscapes, Inc.

Judy Benson, Clear Water Products & Services, Inc.

Toby Bickmore, Unaffiliated

Daniel Biggs, Unaffiliated

Neal Billetdeaux, JJR

Doug Bishop, Unaffiliated

Eric Braun, Town of Gilbert

Connie Brown. City of Palmdale

Jeff Carowitz, Unaffiliated

Wallace Case, Bonestroo

Don Clark, Rain Bird Corporation

Emily Coll, Castle Pines Metropolitan District

Kenneth Cook, Acequia

Donald Cooper, Weathermatic

Susan Douglas, Southwest Florida Water Management District (SWFWMD)

Scott Duncan, Irrigation Management Solutions

Robert Erney, Department of Waterworks, City of Indianapolis

Kevin Farrer, City of San Diego Water Department

Andy Florendo, Solano County Water Agency

Gary Gelinas, Water2Save

Paige Gimbal, Unaffiliated

Thomas Glazener, Unaffiliated

William Granger, Otay Water District

Deborah Green, Water Media Services

Charles Gross, International Association of Plumbing and Mechanical Officials Research &

Testing (IAPMO R&T)

3 April 29, 2010



Dennis Grunstad, Grunstad's Landscape Architecture

Marilyn Hall, Athens-Clarke County Public Utilities Department

Richard Harris, EBMUD

Kevin Hartley, City of Greeley Water Department

Jeremy Hunt, Unaffiliated

Joanna Kind, ERG

JoEllen Jacoby, City of San Diego Water Department

Jerilynn Jenderseck, Unaffiliated

John Lamberink, Unaffiliated

David Layden, Unaffiliated

Brian Layman, Unaffiliated

Jeff Lee, Town of Gilbert

Virginia Lee, EPA Headquarters

Mike Leppert, The Corydon Group

Barry Lucas, Forsyth County Department of Water and Sewer

Douglas Macdonald, Unaffiliated

Shawn Martin, International Code Council (ICC)

Peter Mayer, Aquacraft, Inc.

Mary McCready, University of Florida

Holly Miller, City of Virginia Beach Department of Public Utilities

Dean Minchillo, Lower Colorado River Authority (LCRA)

Rick Moore, Rain Bird Corporation

Daniel Muir, Tacoma Water

Melissa Musicaro, SWFWMD

Kathy Nguyen, Cobb County Water System

Dan Nourian, NDS, Inc.

Ed Osann, Potomac Resources, Inc.

Donna Pacetti, City and County of Denver

David Pagano, D.D. Pagono

Thomas Palkon, Water Quality Association (WQA)

Steven Peacock. City of Dallas Water Utilities

Rhianna Pensa, Otay Water District

Dennis Pittenger, University of California, Riverside

Annette Poliwka, EPA Headquarters

Reza Pourzia, Cyber-Rain, Inc.

Judi Ranton, Portland Water Bureau

Lorrie Reeves, Texas AgriLife Research and Extension Urban Solutions Center

4

Gene Reid, Reid Irrigation, LLC

Jolene Rieck, Peaks to Plains Design

Philip Robisch, Unaffiliated

Jonah Schein, EPA Headquarters

Keith Schuemann, Wolverine Lawn Services

Ann Sever, Wallace Group

Tania Shammo, Water Quality Association

Matthew Shreves, Irrigation Association of Alabama, Inc.

Roy Sieber, ERG

Jenna Smith, Seattle Public Utilities

Walt Smyser, City of Lake Worth

Tim Stefanich, City of Sioux Falls



Charles Swanson, Texas AgriLife Research and Extension Urban Solutions Center Scott Swanson, Texas Commission on Environmental Quality (TCEQ) Tom Swihart, Florida Department of Environmental Protection Stephanie Tanner, EPA Headquarters Rodney Tilley, Unaffiliated David Turnage, Austin Water Utility Cameron Turner, Texas Water Development Board (TWDB) James White, Southern Nevada Water Authority (SNWA) Steve Williams, Rain Harvester Lauren Wingo, ERG

Meeting Summary

I. Introduction

WaterSense held three public meetings regarding the WaterSense weather-based irrigation controller specification. The same information was presented during each of the three meetings. Each meeting intended to answer questions so that participants could then submit useful and constructive comments on the draft specification. EPA encouraged meeting participants to submit their comments to WaterSense by e-mail: watersense-products@erg.com.

Stephanie Tanner from EPA and Joanna Kind from ERG, a contractor to EPA's WaterSense program, presented at each of the three sessions. Roy Sieber of ERG served as moderator for the December 16 morning and afternoon webinar sessions.

The following summary is a combination of all three public meetings, with question and answer sessions divided by date after each section of the presentation:

II. Introduction to WaterSense

Ms. Tanner provided background on the WaterSense program and weather-based irrigation controllers. WaterSense aims to promote water-efficient products available on a national level that can be effectively differentiated using the WaterSense label. Labeled products are approximately 20 percent more water-efficient than standard products. WaterSense has identified weather-based irrigation controllers as a water-efficient product and is currently in the process of developing a product specification. EPA released a draft specification for public comment on November 19, 2009.

WaterSense established working groups to evaluate important features of irrigation controllers after issuing a notification of intent to develop a specification in April 2007. Currently, there are no federal regulations or standards for weather-based irrigation controller performance, but the Irrigation Association's (IA's) Smart Water Application Technologies[™] (SWAT) committee has developed a test protocol for product performance. The University of Florida conducted a study on behalf of WaterSense to assess the repeatability of the SWAT protocol. Since then, EPA has adopted the SWAT protocol as part of the draft specification.



Currently, the draft specification does not include soil moisture sensors, but WaterSense plans to develop a draft specification for these products once the SWAT protocol for soil moisture sensors is finalized.

December 4 Meeting

There were no comments or questions from meeting participants on this portion of the presentation.

December 16 Morning Webinar

There were no comments or questions from meeting participants on this portion of the presentation.

December 16 Afternoon Webinar

Several meeting participants questioned WaterSense's decision to develop a specification for weather-based irrigation controllers. Dennis Pittenger (University of California, Riverside) asked why EPA chose controllers if they do not guarantee a 20 percent water savings. Rodney Tilley (unaffiliated) made a similar argument and noted that University of Florida studies have shown that soil moisture sensors can yield approximately 30 percent water savings. Ms. Tanner stated that controllers can save 20 percent compared to standard clock timers, with some products saving even more than that, but that proper installation and maintenance are important to ensure savings. Ms. Tanner also noted that there currently is not a SWAT protocol for soil moisture sensors but that a draft specification for these products could be developed if a test protocol is developed. Mr. Tilley is conducting a soil moisture sensor study and WaterSense is interested in the results of the study.

III. Weather-Based Irrigation Controller Background and Specification Development Process

Ms. Kind presented the details of the weather-based irrigation controller draft specification. The scope of the specification applies to weather-based irrigation controllers that use current climatological data and some form of evapotranspiration (ET) data. These technologies can be either standalone or add-on controllers. Products must be tested in accordance with the SWAT test protocol for climatologically based controllers, with an additional minimum runtime, and irrigation adequacy and irrigation excess levels. The draft specification also requires several supplementary features to ensure controller performance. The full draft specification can be found on EPA's WaterSense Web site at www.epa.gov/watersense/partners/controltech.html.

December 4 Meeting

Some participants asked for clarification on key requirements of the specification. Brian Vinchesi (Irrigation Consulting) asked if the irrigation adequacy and excess performance requirements should be clarified to be an average. Ms. Tanner and Ms. Kind both indicated that the language will be clarified. Mr. Vinchesi also asked if Section 4.4.6 requires that the controller have the capability to be shut off by a utility, or only shut off by the user. Ms. Kind clarified that Section 4.4.6 only requires that the controller can be shut off by the user, not that the utility must have control to do so.



Kenneth Cook (Acequia) asked if there was a cycle-soak requirement. Ms. Tanner and Ms. Kind both responded that a cycle-soak requirement is included in the specification.

Mike Van Bavel (Dynamax, Inc.) asked if there was a minimum performance specification for the sensors associated with the weather-based controllers and also if a rainfall requirement should be included in the specification. Ms. Kind responded that there are no standards for any sensors that are attached to a controller. She also noted that rainfall is accounted for in the SWAT testing protocol and therefore is also accounted for in the WaterSense specification. Gary Hartwell (City of Frisco) also commented on rainfall and recommended including effective rainfall in the specification. Mr. Hartwell argued that controllers using historical ET that do not account for rainfall are not smart controllers. Ms. Tanner responded by explaining that the draft specification requires controllers to have the capability to connect to a rain sensor.

A few participants asked for clarification on the three-minute minimum testing runtime requirement. Mr. Baron commented that the minimum testing runtime of three minutes will not take into account the varying precipitation needs of each area. Mr. Baron suggested that run times should reflect the size of the irrigation area, the sprinkler type, and the application rate. Mr. Cook and Mr. Hartwell also raised concerns over the three-minute runtime. Ms. Tanner and Ms. Kind both responded, stating that the three-minute runtime requirement is for testing only.

Several meeting participants commented on the ET-based controller requirement, as well as the inclusion of add-on controllers in the specification. One meeting participant noted that manufacturers use other data along with ET to provide irrigation scheduling. The commenter recommended that the specification should be more inclusive and refer to weather-based controllers, not just ET-based controllers. Another meeting participant, Dominic Shows (Alex-Tronix), stated that requiring controllers to be ET-based is limiting and would stifle innovation within the controller industry. Mr. Shows argued that other control technologies would be able to meet the performance requirements of the specification.

Alternatively, Ron Wolfarth (Rain Bird Corporation) recommended that the specification require ET-based controllers because ET allows the controller to track weather that is actually occurring.

Christen Brooker (Rain Bird Corporation) asked how add-on devices would meet the supplementary feature requirements of Section 4.0. Ms. Tanner clarified that add-on devices must meet all the same efficiency and performance requirements as stand-alone controllers. Additionally, Charles Alexanian (Alex-Tronix) expressed concern that high-performing add-on controllers using other technologies may not meet the specification requirements. Mr. Shows shared Mr. Alexanian's concern, asking if add-on controllers that don't meet all the requirements can still receive a WaterSense label. Ms. Tanner indicated that WaterSense could have developed a separate specification for add-on controllers and stand-alone controllers, but since they operate in the same marketplace, they should have the same requirements. Ms. Kind also stated that plug-in devices that accompany a specific controller can be tested and labeled with that controller.

Several meeting participants raised concerns over the station count limit. Bob Olson (ET Water) asked if controllers that manage more than 16 stations would be excluded from WaterSense labeling. Peter Carlson (Hydropoint Data Systems) asked a similar question. Mr. Olson



expressed concern that users requiring a greater station count will purchase two controllers of lower station count, which would not perform as well. Mr. Cook also shared this concern. Ms. Tanner explained that the 16-station limit was included to differentiate between residential/light commercial and heavy commercial applications. WaterSense specified this station count to assist the third-party laboratories in making this determination.

Mr. Baron suggested that the 16-zone limitation should remain in order to adhere to the SWAT protocol. Mr. Vinchesi noted that controllers with a larger station count would meet the WaterSense criteria but that light commercial controllers need to be distinguished from heavy commercial controllers. EPA chose the 16-zone cutoff based on discussions with manufacturers. Paul Baker (Georgia Green Industry Association) stated that station count is not the best way to distinguish between light commercial and heavy commercial applications. Mr. Dobson (Middletown Sprinkler) commented that many controllers are modular with different possible station counts (e.g., 4, 8, 16). Ms. Tanner encouraged all participants with concerns about the station count to submit their recommendations to WaterSense. Brian Peck (Environmental Designs, Inc.) recommended as an alternative that commercial applications be distinguished by coverage area or flow.

Many participants made comments or questions regarding the supplementary feature requirements of Section 4.0. Mr. Wolfarth was concerned that the supplementary feature requirements will stifle innovation and add complexity to the controllers. Ms. Tanner responded that WaterSense needs information on the tradeoffs and costs of using the features that have been specified in the draft specification. WaterSense included all features recommended by the workgroup, but intends to shorten the list of required features if appropriate. Peter Carlson (Hydropoint Data Systems) expressed concern that controllers will not operate properly if there are day-of-week watering restrictions. Ms. Tanner reiterated that the current supplementary feature requirements in the draft specification were inclusive of all recommendations from the workgroup and that WaterSense would like comments to help determine which features are most important. Tom O'Connor (Water Optimizer) was also concerned with the supplemental feature requirements. Mr. O'Connor asked to be able to comment on public comments once they have been posted.

Mr. Hartwell suggested exempting residential owners from adhering to drought restrictions if they use a smart controller. Karen Guz (SAWS) disagreed, indicating that controllers should have drought restriction requirements to limit water use during periods of low water supply.

One meeting participant was concerned that irrigation controllers may compensate for day-of-week watering restrictions by overwatering on the days they are allowed to irrigate. This participant suggested using deficit irrigation to achieve a reduction in water use rather than day-of-week restrictions. Melody Emadiazar (City of Frisco) also recommended using deficit irrigation instead of having a day-of-week restriction requirement.

Mr. Baron commented that the loss of the weather signal to the controller should not immediately result in the controller switching to an alternative program mode. Mr. Baron recommended having a grace period of a few days within which time the system can be allowed to switch back to using ET data if the signal is regained. Ms. Guz and Charlie Solomon (Innogation) also made comments relating to the requirement that controllers must return to default settings. Ms. Guz suggested that controllers should not irrigate to 100 percent ET on the default settings. Mr. Solomon asked why non-volatile memory is required instead of a capability



that the controller returns to default. Mr. Solomon suggested using the term "capability" instead of "feature."

Meeting participants expressed some concerns over the difficulty of programming irrigation controllers, which related to the potential complexity that supplementary feature requirements could add to the user interface. Mr. Hartwell indicated that many residential customers are unaware of how to properly operate smart controllers and that default settings tend to overwater. Mr. Peck, on the other hand, indicated that controllers that are difficult to program provide irrigation professionals with business. Mr. Alexanian stated that because most controllers are operated by homeowners, controllers should be easy to operate. Ms. Emadiazar indicated that users need guidance to properly program controllers. Ms. Tanner responded that WaterSense is developing outreach tools to raise consumer awareness on this matter.

Several participants offered recommendations for additions to the specification. Mr. Peck suggested features that would account for the watering needs of the different growth phases of plants. Mr. Alexanian suggested addressing the larger issue of plant selection and soil to achieve water savings as part of the WaterSense program. Steven Moore (Irrisoft, Inc.) encouraged WaterSense to incorporate the recommendations from the University of Florida into the specification. Mr. Moore was of the opinion that the current WaterSense specification is not a good measure of controller performance and recommended using a scoring system that allows controllers to irrigate as close to the deficit as they are able.

Mr. Vinchesi suggested that IA be mentioned in the specification along with Smart Water Application Technologies (SWAT) because SWAT is not yet as well recognized as IA. Mr. Vinchesi suggested specifying which SWAT testing protocol the specification refers to, instead of referring to the "most recent" protocol. Otherwise the specification would need to be updated when the SWAT protocol is revised.

Mike Davidson (Spec Management Group) encouraged WaterSense to measure current water use in order to effectively determine water savings. Mr. Davidson suggested specifying individual water meters for residential applications. Mr. Davidson later asked when WaterSense will evaluate the specification in terms of water savings. Ms. Tanner responded that WaterSense manufacturer partners will be required to submit annual sales reports and that WaterSense will be able to estimate water savings based on these numbers. Product specifications will be reevaluated every three years or sooner, depending on how innovation within the field evolves. A meeting participant asked if sales data reported to WaterSense will be made public. Ms. Tanner responded that it will not; sales data will remain confidential.

December 16 Morning Webinar

George Alexanian (Alex-Tronix) asked for clarification of the term "add-on controller." Mr. Alexanian asked if the supplementary feature requirements would be required for add-on controllers as well. Mr. Alexanian also requested that smart controllers not be limited to ET-based controllers, as there are alternative methods to calculate water needs. He indicated that the SWAT protocol definition of a controller does not match that of the draft specification.

Mr. Alexanian asked if the 5 percent excess was an average or a maximum excess per zone and recommended that the 5 percent excess should be an average and that perhaps an additional stipulation of a maximum of 8 percent excess should be required.



Geza Kisch (Green World Solutions) commented on the use of geographic information system (GIS) data as a feature of a smart controller. Mr. Kisch described the GIS technology and stated that the issue with many controllers is the inability to transmit spatial distribution data to the controller. Mr. Kisch stressed that the ability to accept a spatial database should be an important requirement for a controller.

December 16 Afternoon Webinar

Jeff Lee (Town of Gilbert) commented that environments that require irrigation year-round would need longer runtimes. Ms. Tanner clarified the minimum runtime criterion, stating that the runtime of three minutes is for product testing only and not required for use in the field.

Ed Osann (Potomac Resources, Inc.) asked why there was no reference to energy use in the draft specification and why ENERGY STAR was not involved. Ms. Tanner stated that ENERGY STAR is currently not interested in labeling irrigation controllers. Mr. Osann recommended studying the energy use of controllers.

Mr. Osann asked if Section 4.5, requiring the controller to be able to interface with a rain device, can be met with a soil moisture sensor rather than a rain shutoff device. Ms. Tanner responded that the specification also refers to interfacing with soil moisture sensors.

Mr. Osann also asked if the performance criteria of Section 2.0 discriminated among products and how difficult the requirement is to meet. Ms. Kind stated that WaterSense had not recently looked at SWAT testing results, but that most controllers previously tested met the 80 percent irrigation adequacy requirement, while not all met the 5 percent irrigation excess requirement. WaterSense aims to differentiate between products and currently not all irrigation controllers have been tested by SWAT, so EPA expects to see a more discernible difference between products. Mr. Sieber also offered clarification, stating that weather-based irrigation controllers, as a product category, save water compared to alternative irrigation approaches and that the specification aims to differentiate high-quality performance controllers from others. Mr. Osann additionally asked why 80 percent was used as the minimum irrigation adequacy and Ms. Tanner stated that this figure came from supporting data presented at the notification of intent meeting.

Dean Minchillo (LCRA) asked why EPA was requiring a rain sensor. Ms. Tanner responded that a rain sensor is not required as part of the draft specification. Only the capability to accept a rain sensor is required.

Several participants had questions regarding the drought scheduling features. Mr. Gelinas had raised a concern over why drought scheduling features are required in addition to weather-based scheduling features. Ms. Tanner stated that utilities either want to have the capability for drought scheduling or require it already. Steve Williams (Rain Harvester) asked if drought restrictions are automatically programmed into controllers. Ms. Tanner stated that users must manually enter in local drought restrictions and that WaterSense does not intend to set national drought restriction standards through a specification requirement. Ms. Tanner encouraged utilities to submit to WaterSense a list of the supplementary features that they consider most important.



Dan Nourian (NDS, Inc.) asked why WaterSense had removed the stipulation of onsite rainfall and temperature-based controllers that is included in the SWAT protocol. Ms. Kind responded, stating that WaterSense had not intended to remove that intent.

Judy Benson (Clear Water Products & Services, Inc.) expressed concern over the performance of weather-based irrigation controllers if the system loses signal and asked if products will be required to alert users if the system has lost signal. Ms. Tanner stated that this is not required as part of the specification, but that some products do have this feature.

Darell Bagley (City of Frisco) asked why the specification does not address effective rainfall credit. Ms. Tanner noted that the specification follows the SWAT test protocol coverage of effective rainfall credit.

IV. Certification and Labeling

Ms. Tanner reviewed the certification and labeling process for weather-based irrigation controllers. The WaterSense product certification process will be independent of the ongoing SWAT testing at the Center for Irrigation Technology (CIT). All products must be independently tested by a licensed certifying body. WaterSense intends to provide this testing by summer 2010. WaterSense acknowledges that there are many factors that impact water savings, such as proper installation, and intends to address those issues through marketing and outreach.

December 4 Meeting

Mr. Moore asked how certification bodies will test for the day-of-week watering restrictions, since the SWAT protocol does not account for this. Mr. Moore also asked how WaterSense will address comments on the specification. Ms. Tanner responded that the certification body will examine the product to determine if it has a day-of-week feature. Ms. Tanner clarified that comments are posted after the comment period ends but that WaterSense will continue to consult with industry professionals after the comment period closes.

A meeting participant asked if WaterSense had a written methodology for having products tested by the certifying bodies. Ms. Tanner indicated that WaterSense is currently working on a package for laboratories.

A meeting participant asked when the partnership agreement between controller manufacturers and WaterSense will be available. Ms. Tanner stated that the partnership agreement should be available before fall 2010. WaterSense has postponed when controller manufacturers can partner because it will be more than one year before products can be labeled. Once WaterSense receives comments on the draft specification, WaterSense will be able to better forecast when manufacturers will be able to partner.

December 16 Morning Webinar

Cary McElhinney (U.S. EPA Region 5) asked if the draft will go straight to a final specification after the comment period or if a second draft will be made. Ms. Tanner stated that EPA hopes to issue a final specification next and that a second draft is not usually published during the specification development process.



December 16 Afternoon Webinar

Gary Gelinas (Water2Save) asked how the certification process will be paid for and if the procedure will be the same as for the current SWAT testing. Ms. Tanner stated that manufacturers will be responsible for any costs associated with the testing process, which will be run through an accredited laboratory.

Jenna Smith (Seattle Public Utilities) suggested that product certification should note which add-on technologies have been tested with controllers so that users know which add-on technology should be used to ensure the controller operates at the tested performance level. Ms. Tanner explained that test results will not be posted publicly but that a list of features tested with the device could potentially be included as part of the certification process. Currently, the certification lists the model number of each product. Ms. Smith also asked a question in regards to the percent adjust setting, and was encouraged to submit a list to WaterSense of important capabilities.

Mr. Nourian asked why factory visits are required as part of the labeling process. Ms. Tanner clarified that this requirement is included to ensure that factories continue to produce high-quality products and that this is a regular part of quality control. This process is outlined on the WaterSense Web site.

Judi Ranton (Portland Water Bureau) asked if there was a specific time period used during testing to ensure that paging systems do not fail over time. Ms. Tanner responded that a 30-day time period would be used for testing.

Mr. Gelinas questioned the calculated payback period of 15 years outlined in the supporting statement. Mr. Gelinas argued that this payback period is not reasonable to expect and that consumers may not be interested in controller products because of the associated costs. Ms. Tanner noted that WaterSense targets a specific customer that would be interested in paying a higher price for a product that saves water. Mr. Gelinas also asked why the University of Florida study did not assess water savings. Ms. Tanner stated that the purpose of the study was to determine the repeatability and reproducibility of SWAT testing. The testing location was chosen due to the difference in climate between Florida and California.

Mr. Nourian asked if WaterSense would consider a tiered labeling system. Ms. Tanner indicated that manufacturers prefer a single-level system and that the WaterSense label should be easily identifiable and easy for consumers to understand.

Kathy Nguyen (Cobb County Water System) suggested that WaterSense provide ongoing consumer education and stressed that water savings of 20 percent will only be actualized if the irrigation system is properly installed and maintained. Ms. Nguyen also suggested consulting with stakeholders to ensure these savings. Ms. Tanner agreed with Ms. Nguyen's comments. WaterSense is considering developing a tool that utilities can use to help distribute information to consumers. At this point, WaterSense does not intend to specify how irrigation systems should be installed, so outreach programs are especially important. Several other participants also stressed the importance of proper installation, and one participant noted that water savings also depend on consumers' previous water use and behavior.



Mr. Nourian asked if commenters will receive feedback from WaterSense before a final specification is released. Ms. Tanner stated that WaterSense will follow up on certain comments if more information will be needed, but that WaterSense does not typically provide feedback on comments. A general response to comments document will be published with the final specification.

V. Next Steps

EPA encouraged all meeting participants to submit written comments to watersense-products@erg.com by January 18, 2010. A template for submitting comments can be found at www.epa.gov/watersense/partners/controltech.html#draft-spec. EPA will make the comments public and the final specification will be issued after comments are evaluated, with the final specification expected to be effective in fall 2010. Comment responses will be issued along with the final specification.

December 4 Meeting

Bob Dobson (Middletown Sprinkler) thanked WaterSense for attending the 2009 Irrigation Show and said that IA and the irrigation industry as a whole look forward to working with WaterSense on the development of the specification. IA also looked forward to the release of a viable water-efficient single-family new homes specification.

Ms. Tanner thanked meeting participants for attending the 2009 Irrigation Show meeting and asked those meeting participants registered for future webinar meetings to remove their name from the meeting lists to allow for others to join. Ms. Tanner also encouraged participants to submit their comments on the WaterSense draft specification for weather-based irrigation controllers.

December 16 Morning Webinar

There were no final comments or questions from meeting participants.

December 16 Afternoon Webinar

There were no final comments or questions from meeting participants.