



## **WSCAC Meeting**

Location: MWRA Facilities  
Southborough, MA  
May 15, 2018 – 10:00 A.M.

### **MEMBERS IN BOLD IN ATTENDANCE:**

**Michael Baram, Town of Belmont, Chair**  
Whitney Beals, NE Forestry Foundation  
Terry Connolly, Town of Ware  
**William Copithorne, Town of Arlington**  
**Andrea Donlon, CT River Conservancy**  
**Gerald Eves, PV Trout Unlimited**  
**Bill Fadden, OARS**  
**William Kiley, BWSC**

Paul Lauenstein, NepRWA  
**Jean McCluskey, Mission-Focused Alliance**  
Martha Morgan, Nashua River Watershed  
Martin Pillsbury, MAPC  
**Janet Rothrock, League of Women Voters**  
**Kurt Tramosch, Wayland Wells**  
**Roger Wrubel, WSCAC**

### **Non-Members in Attendance:**

Lexi Dewey, WSCAC staff  
Heidi Waugh, WSCAC staff  
Andreae Downs, WAC staff

Chris Pine, Irrigation Association  
Stephen Boksanski, BCB Government Relations

### **WSCAC BUSINESS AND UPDATES**

Michael Baram called the meeting to order. Lexi Dewey addressed the committee regarding the upcoming June meeting. The meeting will likely consist of a forestry tour, lunch, an early successional habitat site tour, and/or a boat ride. Lexi asked that members contact the office to indicate their preference between the latter two activities. Lexi then made an announcement regarding the MWRA Advisory Board's June 15th Climate Change Workshop; she asked that interested members RSVP directly to the Advisory Board.

Lexi informed members that she recently toured a portion of the MWRA Southern Extra High Redundancy Project in Dedham. She reminded members that if they are ever interested in looking at MWRA redundancy projects, she would be able to make arrangements.

Michael then addressed the committee. He informed members that Lexi and the Executive Committee need input regarding the FY2018 Annual Report. Michael also stated that members should either inform himself or Lexi if there are topics and/or speakers of interest—in planning the FY19 meeting schedule, such suggestions would be helpful. Finally, Michael addressed Governor Baker's legislative initiative regarding water infrastructure and public-private partnerships (PPPs). The bill targets eligible projects focusing on "water supply or treatment, stormwater treatment and disposal, wastewater treatment and disposal, or flood control." The bill is now under consideration. Michael explained that this concept is new in the United States, but it is very common overseas. Studies have shown that PPPs can have lots of problems. Michael thinks WSCAC members should keep their eyes on the bill as it advances. Kurt and Jean commented that PPPs, sometimes referred to as P3s, are problematic because they represent the privatization of public goods.

Michael then informed the committee that a number of federal courts have held, for the first time, that there is a legal connection between ground water contamination and surface water contamination. Courts have held that the connection serves as a basis for bringing an action under the Clean Water Act.

Lexi then informed members that the April 24th Meeting Summary required a vote for approval. With no discussion or questions, the members unanimously approved the meeting summary. Lexi then introduced Chris Pine and Steve Boksanski, the two guest speakers.

### **Efficient Landscape Irrigation**

#### **Chris Pine, Irrigation Association of New England**

Chris Pine began his presentation by addressing the challenges faced by the irrigation industry. One primary challenge is driving home the importance of water conservation and responsible irrigation when there isn't an apparent problem, such as a massive drought. In February, when there is snow on the ground, people are not cognizant of conservation. Nonetheless, in its entirety, the irrigation industry is committed to doing the right thing. Although there are many available tools, irrigation professionals are working with a complex equation. Chris emphasized the importance of taking a comprehensive, holistic approach in order to understand the multitude of factors at play, and ultimately, to achieve the end goal of irrigating efficiently and responsibly.

Chris then addressed the challenges faced by irrigation professionals. He explained that there is a lot of information and a great deal of learning to be done in order to be effective. Chris then discussed the distinct differences between the various regions of the country; in the northeast, generally speaking, we have enough water. This includes the supplementary water used to manage landscapes. However, Chris indicated, this region of the country uses more than 2.9% of its water for landscape maintenance. In terms of user groups, agriculture is the largest in the country. But here in the Commonwealth, small business owners and homeowners constitute the most problematic group because collectively, they do not manage irrigation efficiently and effectively. Although groups such as golf courses use a significant amount of water, they manage it in a resourceful way because it is in their best interest to do so. They are highly motivated to manage the water efficiently because they are a highly visible group due to the amount of water they use. Large commercial users—universities and colleges—manage their water resources fairly well.

Chris stated that the irrigation industry has come a long way. One of the most appropriate steps taken in the industry was the development of best management practices (BMPs). There is a living document that the Irrigation Association—the national organization that governs water policy for landscape/golf/agriculture and the trade in general—developed to document the industry's BMPs. The document was last thoroughly updated in 2014. Chris suggested that interested members visit [www.irrigation.org](http://www.irrigation.org) in order to review the document. The document discusses BMPs for irrigation design, installation, and system management.

Chris went on to explain that the biggest opportunity to make an impact is by managing existing systems. In this region, if an area is yet to be irrigated, it is unlikely that a new system will be put in place to do so. There are techniques and tools available to manage the existing systems. System Interruption Devices, for instance, have great potential to make an impact. Chris further explained technological advances in the industry, such as equipment designed to distribute water more uniformly.

In other words, sprinklers perform better than they used to and drip irrigation systems are more precise than they used to be. One of the biggest technological advances, however, relates to our ability to manage systems in response to weather or the amount of moisture in the soil. Additionally, increased accessibility to controllers is driving a great deal of change in the landscape industry—the change is happening so rapidly that the industry is struggling to harness it. For instance, the technology now exists for one individual—be it a land manager or landscape contractor—to remotely manage a number of systems at the same time. This ability is a game changer in the industry that has yet to be fully realized.

Kurt asked if during a drought, a water department could wirelessly shut off all of the meters connected to its outdoor irrigation system. Chris replied that the technology has that ability.

Janet asked if Chris foresees a time when people would subscribe to an agency that would turn on the water as needed for all the different subscribers, according to the weather and the watering restrictions in the respective towns. Chris replied, yes, he foresees the technology being used in this capacity.

Chris went on to discuss smart water technology. He explained that in the past ten to fifteen years, the technology has become more homogenous and vanilla—the designs are all fairly similar now. There are, however, two different camps. One camp is the weather-based control. The other camp is the soil moisture sensor device camp. Most people think the soil moisture sensing is the better camp. Chris stated that both approaches can be effective, and that one is not better than the other. There are limits to the technology and the simple ability of a soil moisture sensor because of the depth that it is placed at relative to the depth of the roots, turf, or any other plantings. The amount of time that it takes for water to move through the dirt to get to the sensor is also a factor that needs to be considered. Nonetheless, both the weather based system and the soil based system are better than doing nothing. Chris explained that there are pros and cons to each system, but ultimately, it is important to engage in some form of management.

Michael asked if the Irrigation Association provides industry standards. For instance, are there standards to be followed with respect to moisture sensing? Chris stated that it is on the horizon—the Irrigation Association has partnered with several international standards organizations and they are in the final stages of having standards developed for the products and practices in the industry. Michael asked if irrigation standards are showing up in building or zoning codes. Chris replied yes; a lot of that is lending itself towards green building codes, outdoor water use, and retrofit applications. Irrigation as a whole is starting to appear in more and more building codes.

Roger stated that he had two questions. The first was whether there is an inexpensive device that can be installed to turn the system off when it is raining. Chris replied yes, there is. The second was if there is any interest among professionals in the irrigation industry with respect to figuring out how to use non-potable water for irrigation. Chris replied yes. The whole concept of harvested water in general is something that has—in terms of interest and practicality—tended to decline. There are some large, inherent challenges with the practice. Cleaning costs and storage costs, for instance, are extremely prohibitive. Although the industry does not have a problem with the concept, it is ultimately not cost-effective at this time.

Kurt then commented that there is a problem with the LEED program. The LEED program encourages the use of native plants, less lawn—they give you points for having less lawn and using less water. Kurt asked if that is something that has come and gone also. Chris stated that LEED has ongoing

changes; with commercial buildings there is a certain amount of presence, appearance, and standard that they need to uphold. Chris reasoned that LEED does not do a great job of managing outdoor water use in general.

Chris continued by discussing Flo sensing. This technology is up and coming in the industry. These devices will indicate when water is moving, and can give information to the control systems to let them know that water is not supposed to be moving. In other words, it can identify potential leaks and the system can be shut down in response.

Michael asked if the Irrigation Association is active with respect to grey water—such as leech field specifications and preventing the use of chemicals and pesticides that could contaminate the grey water. While there is a lot of activity in the engineering field, the Irrigation Association is not particularly active on this front. Plumbing codes alone constitute a major obstruction to doing more in this realm across the country. There are many obstacles—on account of public safety—that justify the industry in its decision not to push hard in this area. Levels of interest and activity vary by state, but Massachusetts is not a highly active state in this arena.

Chris then discussed the simple technology behind the rain sensor. Rain sensors have been around for years and they work very well, as long as the sensor is actually outdoors and exposed to the rain. These devices require ongoing maintenance and testing. There is a possibility that the devices will wear out, so their functionality must be continually checked.

Lexi commented that even though the industry is equipped with all of the aforementioned tools, residential homeowners still create an obstacle in and of themselves. She expressed that the messaging, communication, and education between the irrigation contractor and the homeowner is key—you can have the best tools in the industry, but if the homeowner is not properly educated, the tools will be ineffective. Chris agreed with Lexi and discussed the complexity of reaching homeowners with the right message.

Janet commented that it would be appropriate to look at the type of plants that are planted. The need to irrigate, she said, could be significantly decreased if the soil was managed properly—meaning if there was enough organic matter to hold moisture—and if large trees were placed appropriately. Moreover, climate change will result in more frequent, heavier rain falls. It would be useful to have ways to direct the water so it doesn't cause erosion. The situation that the irrigation system addresses makes a significant difference. Janet commented that it does not appear as if there is much incentive in the irrigation industry to address this aspect of the equation. Chris agreed that a lot more can be done in many managed landscapes. The challenge comes in heavily urbanized environments—it is very hard to turn an urban area into a natural environment where plants will thrive naturally. In addition, athletic fields and commercial spaces, and their corresponding usage, pose problems. There are always going to be challenging landscapes, so Chris does not see the need for responsible irrigation management declining.

Lexi then asked Chris if he thinks Connecticut is—in comparison to Massachusetts—far advanced because it has chosen to certify all of its irrigation specialists. Chris replied that Connecticut chose to use a traditional apprentice type licensing program. Irrigators in Connecticut go through the same process as an electrician or plumber. Chris does not believe this is the best model because it has limited some of the growth in the industry.

The committee thanked Chris for his presentation.

### **Industry and Water Conservation Policy**

**Stephen A. Boksanski, Principal of BCB Government Relations, Inc.**

Stephen Boksanski introduced himself as an Executive and Legislative Agent (also known as a lobbyist) for the Green Industry Alliance. Stephen explained that lobbying is primarily about relationships—it is highly interpersonal and requires a great deal of communication. The key to achieving success, Stephen explained, is learning to work collaboratively and collectively with legislators. Although individuals in the process may disagree on the best approach, if there is a shared goal, success can be achieved through open communication and compromise.

Stephen then discussed the Green Industry Alliance. The Alliance consists of the following members: the Massachusetts Arborists Association, the Massachusetts Association of Landscape Professionals, the Massachusetts Association of Lawn Care Professionals, the Irrigation Association of New England, and the Golf Course Superintendents Association of New England. For these small trade organizations, water is a primary issue of concern.

Stephen explained that his primary focus today would be S.413—An Act Relative to Sustainable Water Conservation Practices. Stephen stated that the bill is straightforward: if you are in charge of designing, installing, and maintaining an irrigation system, you need to be registered with the state and meet certain education requirements. Stephen explained that there is a low barrier of entry; the exact cost has not been determined as that will be left up to the regulatory process upon passage of the legislation. Stephen explained that CA, TX, LA, RI, NJ, OR, and NC all require irrigation contractors to be licensed. His organization, BCB Government Relations, would like to see Massachusetts added to that list.

Kurt stated that he researched the talking points of the legislation online. One of the talking points was that the legislation will protect consumers from unprofessional and unscrupulous contractors. The legislation will improve the safety of water supplies for the public at large. Kurt noted that he noticed these points are not part of Stephen's talking points. Kurt questioned why that aspect—public safety—was not included. Stephen acknowledged that that is a talking point, but it has never been a primary talking point. Stephen does not see that being an effective argument, despite that there may be some validity to it. It is not the primary focus of the bill.

Jean noted that she thinks the language of the bill will create problems with professional engineers (PE). By law, engineers are responsible for public and private utility design and public health and safety. Therefore, Jean stated, if the word design is used, a PE will be required. Stephen explained that the bill defines irrigation system and irrigation contractor; BCB feels comfortable that the language is appropriate and will be effective. Nonetheless, when Stephen works with legislators, it is a joint effort to determine the appropriate language. Here, in this instance, BCB feels they have a good product and they are willing to hear input from other stakeholders.

Andrea asked if the bill is specific to irrigating grass, or if recreational marijuana irrigation would be included. Stephen explained that in the bill, there is a section that defines the scope of the legislation—it includes irrigating landscapes and dust control. Stephen stated that irrigating marijuana crops is not included. Andrea stated that the marijuana regulations specify that the industry does not fall under agriculture, so the industry is in a weird place as of now.

Lexi asked if Stephen is seeing support from legislators. Stephen replied that yes, he has seen decent support. The bill has been filed for four sessions—four two-year terms. Each time the bill gets out of the original committee—the Joint Committee on Environment, Natural Resources, and Agriculture—but then it gets hung up. The issue comes with getting the bill over the next hump. Stephen explained that there are a number of factors responsible. First, there isn't a real crisis—the situation isn't at the point where people are adamant that something must be done. Moreover, there is not a widespread set of allies for the bill. Stephen explained that it is all about education. The more people BBC talks to, the more people understand that this is a good idea. Nonetheless, each legislator has their own priorities and this is not a top priority for any one legislator.

Roger stated that the entire concept of creating standards and mandating licensing has its upside and its downside. One of the downsides, he stated, is that it can prevent innovation. When there are rules and regulations, someone who comes along with a new way of doing it is not allowed to progress because the state has a law that dictates how the project is to be done. Stephen replied that yes that is a concern; this bill, however, is not overly prescriptive. BCB is not stating that things must be done a certain way. The primary point is that in order to be registered, you need to be educated and certified with a national organization.

Janet asked if there is some way for a person to take a test to demonstrate that they have that knowledge without having to take a course. Stephen said that the only way to do it, at this time, is through the Irrigation Association; an individual can get certified at different levels, and that requires taking an exam. The cost of the exam is about \$300-\$400. Chris added that an individual will invest about \$1000 into obtaining a license.

Bill Kiley asked what the timetable is—how long does the license last? Stephen replied that it is an annual renewal. Bill asked why the licensing couldn't last for five years. Stephen explained that it could; if that is the right balance, they are open to adjustments.

Members expressed concern that education, certification, and licensing requirements could be a barrier for young people looking to break into the industry. Stephen acknowledged the members' concerns, and stated that is why the cost is not specified in the bill. It will be determined in the regulatory process.

Andrea asked why golf courses are exempt from the bill's provisions. Stephen stated that most golf courses run their own systems; they either have an agreement with a water supplier or they have their own water supply. They all have very sophisticated irrigation systems in place and in a sense, take care of themselves.

Moving forward, Stephen said the focus is bringing stakeholders together, talking about the legislation—how is it going to work, how will it be enforced, who will be doing what—and meeting with MassDEP to finalize the stakeholder process. Currently, the bill itself is in the Senate Committee on Ways and Means and it has until July 31st to move out of the committee.

After members thanked Stephen for his informative presentation, Michael adjourned the meeting.

**WSCAC's next meeting will be held on June 12, 2018 at the Blue Meadow Conference Center.  
Please visit the WSCAC [website](#) for more information.**