

Planning for the Future

Success Stories from New England Wastewater Management Programs

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Others - TBD



New England Interstate Water
Pollution Control Commission

NEWEA Annual Conference
January 27, 2015
Boston, Mass

Outline - Planning for the Future

- 💧 Identifying the Issue – Need for Future WWTF Managers
- 💧 Where it all Began
- 💧 How the Programs Evolved
- 💧 Lessons Learned
- 💧 Where We Are Today
- 💧 Panel Discussion – State Experiences
- 💧 Questions/Next Steps

Identifying the Issue

- 💧 High percentage of current WWTF managers nearing (past?) retirement age
- 💧 Need to retain historical knowledge
- 💧 Need for succession planning
- 💧 Many potential managers not trained in, or never planned to be managers
- 💧 No existing full training program in place

NEIWPCC's Role

- 💧 Been involved since first RI Boot Camp
- 💧 Play active coordination role such as Mass or Maine, or financial facilitator role (CT).
- 💧 Had access to federal funds that were used to subsidize (NH, RI).
- 💧 Provided a lot of the core training anyway
- 💧 Our interest is to make sure that this type of program is provided and to do what we can to insure its delivery and sustainability
- 💧 Received EPA Environmental Merit Award

Where it all Began

- Always Remember, the Ocean State was first!



Rhode Island Operator Boot Camp: A Succession Planning Tool

4 Years of Success and Counting!



RI Operator Boot Camp

- First started in 2007
- Build the knowledge base, confidence and contacts of potential future WWTF managers.
- A program of trainings on a variety of topics with homegrown industry experts.
- Year-long format, 1-day/month – various locations, instructors utilizing local experts and trainers

RI Operator Boot Camp

- Keep costs low or free
- Need to find good candidates
- Candidates named through management or self nomination, then selected by the RI operator association.
- A Trailblazer for Management Training Programs !!!

Boot Camp Course Topics

- Performance and Project Management
- Labor and Media relations
- Microscopic observation -- “Bio 101”
- Collection system CMOM
- Budgeting
- Narragansett Bay, water-quality and regulations
- Fundamentals of engineering & blueprint reading
- Tour of Deer Island Plant (Boston)

RI Management Boot Camp

Tour of Deer Island (Boston)



RI Operator Boot Camp

- In 2010, year 3 of program only had 11 people
- Reached Saturation point? Skipped a few years
- Ran program again in 2013/2014 for 13 individuals
- Loss of 104g funds impacted continuation
- Trying to keep program cost to \$ 0 was a lot of time and effort

RI Operator Boot Camp 08

First Class Graduation Day, NWPCA Clambake,
September 2008



Boot Camp Unexpected Benefits

- Professional pride soared
- Superintendents saw improved appreciation for management issues.
- Participants have strong ties with regulators and others in program.
- Participants advocate professionalism.
 - *“This is the first important thing I’ve achieved since high school.”*

RI Operator Boot Camp 09

Year 2 Class



RI Operator Boot Camp

- Model for other states to duplicate
- Write-up in July 2009 TPO magazine

IN MY WORDS

Advancement Planning

A 'BOOT CAMP' PROGRAM HELPS WASTEWATER TREATMENT OPERATORS IN RHODE ISLAND PREPARE TO MOVE UP AND REPLACE PLANT MANAGERS HEADED FOR RETIREMENT

By Ted J. Rulseh

While clean-water agencies worry about finding the next generation of treatment plant leaders, a group in Rhode Island has acted.

The New England Interstate Water Pollution Control Commission (NEIWPCC), the Narragansett Water Pollution Control Association (NWPCA), and the state Department of Environmental Management (DEM) have collaborated to organize a Wastewater Operator Management Boot Camp, now completing its second year.

The DEM operates the boot camp, which is designed to help promising treatment professionals build the diverse skills they need to thrive as plant superintendents or in other leadership roles.

Coordinating the program is Bill Patenaude, principal engineer in the DEM Office of Water Resources. Patenaude explained the program, its aims and its successes to date in an interview with *Treatment Plant Operator*.

TPO: What was the rationale for the boot camp?

Patenaude: For some time, I have been aware of the need for succession planning. When all the trained professionals retire, we need people more education and experience and help them build confidence, so that when they had to step up to the plate, they would know how to swing.

TPO: How did you go about organizing the boot camp?

Patenaude: We used to receive training grant funds from the federal government. We would transfer those funds to the NEIWPCC and work with them to develop our training plans, and they would administer the training for us. For a long time, we had classroom training, and some site-specific or problem-specific training programs.

Rhode Island doesn't have a requirement of retraining for certification renewal. As a result, we saw our training numbers go down. When the federal government began pulling back and eventually cut off the operator training money, we had to come up with another approach. We reached out to the NEIWPCC and worked with them to develop the boot camp.



Bill Patenaude

RI Operator Boot Camp Contact:

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Narragansett Water Pollution Control
Association (NWPCA)



MAINE



- 💧 Built off of Rhode Island success
- 💧 “Management Candidate School” - MCS
- 💧 Existing training network in place - JETCC
- 💧 Six Years Running !!!
- 💧 Joint Environmental Training Coordinating Committee – a contract training program administered by NEIWPCC

Maine's Management Candidate School (MCS) – Fall 2009 (Year 1)



Maine's MCS Program

- First year of program – began Fall 2009 with 17 candidates at \$500/student
- JETCC coordinates program
- Modeled from RI with changes – needed to be self sustaining
- Year 2 incorporated DW operators
- MWWCA (now MeWEA), MeDEP, MWUA, and Me DHHS sponsorship
- Increased to \$750 in 2012, \$850 in 2014

Maine's MCS Program

- MCS classed all held in one location
(2009 – Saco; 2010 – Bangor; 2011 – Portland,
2012 – Waterville, 2013 – Brunswick, 2014 –
Kennebunk/Wells)
- Held one day per month
- Approx. 72 training hours – hour req' t waived
for next renewal cycle by DEP
- Staff support (JETCC) paid for by course fees
- Meeting room fees, lunch, other expenses
- Instructor costs free for most part

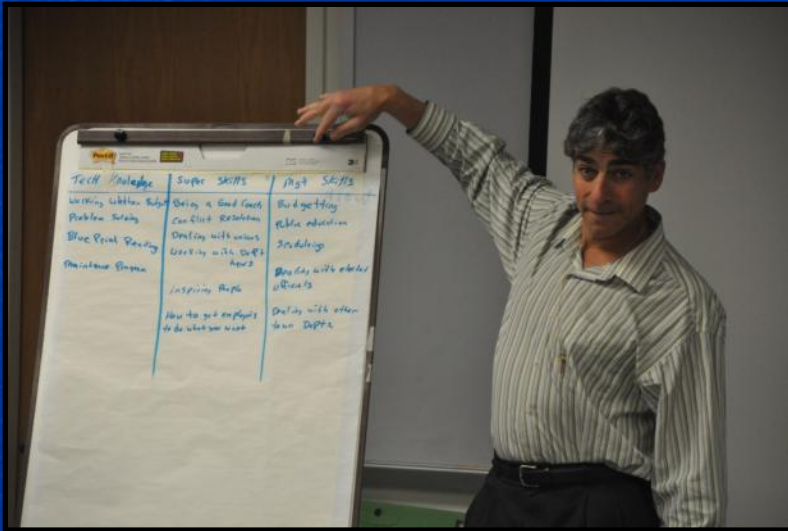
Maine's Management Candidate School (MCS) – Fall 2010 (Year 2)



MCS Schedule

- Introduction to Personnel Management (w/Sacramento book)
- Basic Aquatic Biology and the Permitting Process
- Asset Management/CMOM
- Best Management Practice Experiences for Your Management Toolbox
- Real-World Management & Leadership Skills
- Labor Relations in a Government Setting

Maine's Management Candidate School (MCS)



MCS Schedule

- **Effective Communication & Media Relations**
The Right: Method, Message & Meaning
- **Long Range Planning for your Overall System Needs**
- **Engineering Basics: Facilities Planning, Design and Blueprint Reading**
- **Overall WWTF Budgeting**
- **Operator Exchange**
- **Graduation – Fall MWWCA Convention**

Year 2 - 2011 MCS Graduation



MAINE Contact Info

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Massachusetts Wastewater Management Training Program



Year 1 – 2011 Mass. Program

- Limit to approximately 20 candidates
- Must be Grade 4 (active) Municipal operator
- Must commit to monthly 1-day trainings
- Nominated by superintendants or by self
- Selection committee reviewed all applicants
- No military name for program

Year 1 – 2011 Mass. Program

- Cost of \$500/student
- MWPCA sponsorship per member
- NEIWPCC fully coordinated logistics, training, etc.
- Approx. \$12,000 subsidy approved by MassDEP from NEIWPCC contract agreement for Mass Operator Cert program

Year 1 – 2011 Mass. Program

- Locations varied around state – mainly Millbury
- Certificate upon completion of 12 courses
- NEIWPCC staff did much of the training
- Some specialty instructors brought in
- No special incentives on certification renewal
- Kicked off and graduation at Fall MWPCA convention trade show

Year 1 - Massachusetts



Massachusetts Schedule

- 💧 Introduction to Management
- 💧 NPDES Permitting, State Regulations, and Reporting
- 💧 Performance Management
- 💧 Computer Use in Utilities
- 💧 QA/QC for Accurate NPDES Data
- 💧 Engineering Basics, Asset Management, and Energy Use

Massachusetts Schedule

- 💧 Finance and Budgeting
- 💧 Communications/Public Relations
- 💧 Advanced Process Control
- 💧 Collection Systems, Industrial Pretreatment and Emergency Planning
- 💧 Health & Safety, OSHA and State Regulations *
- 💧 Job Shadowing
- 💧 Graduation at fall trade show

Year 1 – Mass. Graduation Class



Year 2 - 2012 Mass. Program

- Limit to 20 candidates (received 17)
- Keep cost at \$500/student
- MWPCA sponsorship (\$200/member - 7)
- Planned for October 2011 start but delayed until February 2012 due to lack of applicants

Year 2 - 2012 Mass. Program

- February 2012 – December 2012
- Graduation held at 2013 NEWEA Annual Conference
- Opened up “select” courses to others to help subsidize income
- Provided additional income that program needed to break even
- Allows others the potential to self-pace

2012 Mass. Schedule – Open to Others

- 💧 NPDES Permitting, State Regulations, and Reporting
- 💧 Finance and Budgeting
- 💧 Communications/Public Relations
- 💧 Computer Use in Utilities
- 💧 Nutrient Removal
- 💧 Engineering Basics, Asset Management, and Energy Use

Massachusetts Contact

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Tom Bienkiewicz, MassDEP



Year 3 - Mass. Program

- Not enough interest to run another program
- Built an “a la carte” program for students to complete over three year period
- Students need to apply to the program
- Core courses offered regularly by NEIWPCCC in fall and spring – course discounts for those enrolled
- Other “electives” to take in order to complete required curricula
- 14 currently in the program

New Hampshire Wastewater Management Candidate School

- 💧 Coordinated through state wastewater association (NHWPCA)
- 💧 Same premise as RI, ME, and MA – monthly classes
- 💧 Yearlong program
- 💧 Cost = \$300/student (actual cost about \$500)
- 💧 NEIWPCCC serves as advisor

New Hampshire - 2011



New Hampshire Wastewater Management Candidate School

- 💧 Partnered with Bureau of Education and Training
- 💧 Every other year basis
- 💧 Second year delayed until March 2013
- 💧 Cost increased to \$500 pp
- 💧 9 Classes with graduation at Dec NHWPCA meeting
- 💧 Students earn 7 CEUs for class and shadowing
- 💧 30 graduated to date (1 DW operator)

NH Management Courses

- 💧 Public Speaking – Each student must give two presentations during the program
- 💧 Conflict Management
- 💧 Dealing with Unions
- 💧 Safety and Emergency Response
- 💧 Budgeting
- 💧 Employment Law
- 💧 Understanding the DES programs and outreach available to their facilities.

New Hampshire – Current Status

- 💧 Was looking to commence another program in Winter/Spring 2015
- 💧 Not enough interest generated
- 💧 Not running year long program in 2015
- 💧 Exploring options of partnering with Mass for a la carte version, possibly with Mass and NH locations

NH Contact Info

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NHWPCA

Connecticut Wastewater Management Leadership Program

- 💧 Coordinated through state wastewater association (CWPA).
- 💧 CTWPA organizing speakers & logistics.
- 💧 Same premise as others – monthly classes
- 💧 First Year: September 2012 – Fall 2013
- 💧 Graduation at NEIWPCC Managers Forum

Connecticut Program



Connecticut Wastewater Management Leadership Program

- 💧 NEIWPCC to handle the financial aspects
– income and pay expenses.
- 💧 Including student presentations
- 💧 Looking for 20 students/year
- 💧 Cost = \$550/student (\$500 for CWPAA)
- 💧 Completed year 2 of program in 2014
- 💧 Plans for 2015 class to start in Feb

Connecticut Leadership Program – Contact Info

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CWPAA

Lessons Learned

- 💧 Need a champion or sparkplug
- 💧 No two programs need to be alike – do what works best for your state and/or operators
- 💧 Cost per student can be inline with actual costs
- 💧 Expansion to include Drinking Water operators can bring more students and sustainability
- 💧 Be careful, inclusion of DW curricula can add costs to development and coordination
- 💧 Expect curveballs

Lessons Learned

- 💧 What happens in Boot Camp stays in Boot Camp
- 💧 Need Operator Association involvement
- 💧 Need Appropriate Superintendent involvement
- 💧 Use local experts whenever you can
- 💧 Work with your Certification Board for licensure incentives or rewards.
- 💧 Good idea to rotate locations of training

Lessons Learned

- 💧 Need partnering organizations/sponsors to make work and help program sustain
- 💧 Can't rely on sponsor funding or free training forever
- 💧 Most effort will be in year 1, but don't expect smooth sailing in years 2 or 3
- 💧 May reach saturation point – may not need to run a program every year
- 💧 Incentives for training hours helps might help

Lessons Learned

- 💧 Relationships and network built over the 12 months is invaluable
- 💧 Placement rate is very high – no formal numbers.
- 💧 Participant presentations requested and built into the programs added value
- 💧 Requirement of Sacramento Course – Manage for Success added expense/value to program.

Lessons Learned

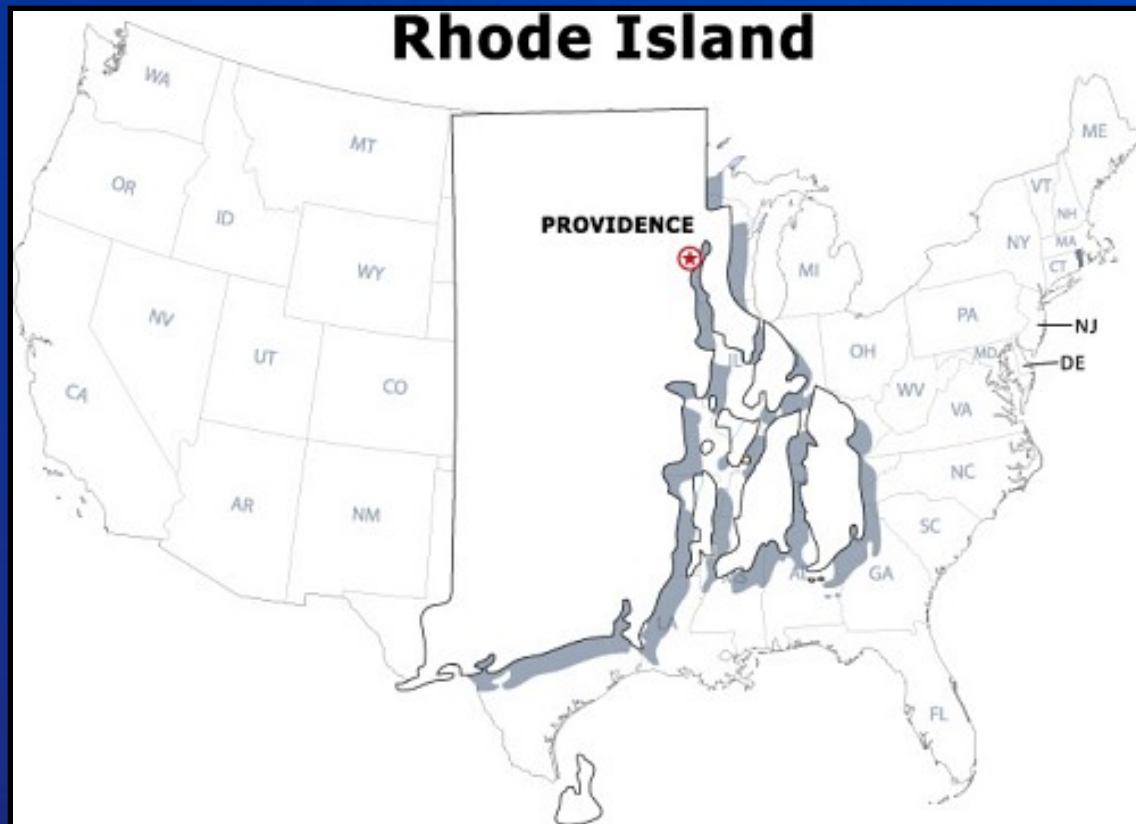
- 💧 Possible to open up classes to non Management program students. Helps with income, but takes away from camaraderie.
- 💧 How to handle those who don't attend all?
- 💧 Additional expense paying for graduation at association convention.
- 💧 Local sponsorships can help keep costs low
- 💧 Students/Supervisors ARE willing to pay for this type of training

Lessons Learned - Issues

- 💧 Federal EPA 104(g) funding helped lessen costs of the program, but funding is now gone.
- 💧 Guaranteeing repeat training performances (RI).
- 💧 Be careful about students getting too much pride
- 💧 Likewise, if no cost - too little investment
- 💧 Keeping program going at no cost
- 💧 Participants may hope for immediate gratification

Lessons Learned

- 💧 Remember, the Ocean State was first! (RI)



Where We Are Today

- 💧 ME, MA, & CT have current, active programs
- 💧 Approx. 200+ students thru program to date
- 💧 Vermont – GMWEA beginning plans for program in 2015/2016(?) to include WW and DW
- 💧 New York – NYWEA has a committee working on two tract program to be initiated in late 2015

Where We Are Today

- 💧 NEIWPCC continuously conducts survey of program participants 6+ months after
 - 💧 Are they actively working in a management position now?
 - 💧 How did the program help them obtain position?
 - 💧 Do they keep in contact with others from their graduation programs?
 - 💧 How would enhance/improve the curriculum?
 - 💧 Will they come back and speak?
- 💧 Presented at NEWEA Spring 2013 meeting

Panel Session

💧 **Rhode Island Experience**

💧 **Maine Experience**

💧 **Others?**

Rhode Island Advice

- 💧 **It is essential to pre-screen the candidates**
- 💧 **Know your trainers**
- 💧 **Provide Guidelines to your trainers**
- 💧 **Be at every session/event**
- 💧 **Incorporate professional development tips**

Rhode Island Advice

- 💧 **Have each participant give a professional 15- to 20-presentation**
- 💧 **Remember that the participants are more than simply “trainees**
- 💧 **Homework is not out of bounds**
- 💧 **Encourage group discussions, debates, etc. And manage the conversation!**
- 💧 **Help the participants see themselves as a community**

Slide loop

Questions ???





Developing Future WWTP Managers



RI Management Boot Camp

Performance Management



RI Management Boot Camp

Lab Management & Microbiology



RI Management Boot Camp

Collection System Management



Year 3 - 2012 MCS Kickoff



CT 2013



ME



ME



ME



ME



NH



NH

