

**PENNTEC 2022 ANNUAL CONFERENCE |
UTILITY MANAGEMENT TECHNICAL PROGRAM**

**UTILITIES MANAGEMENT AND OPERATIONS FOR THE FUTURE
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UTILITIES MANAGEMENT AND OPERATIONS FOR THE FUTURE

What we're exploring today!

Professional staff and operators needed to run water and wastewater treatment facilities are a precious commodity. In 2015, almost two-thirds of the licensed operators in the Commonwealth were over 50 years old. As these administrators and employees leave the business, there will be a challenge to fill the positions with experienced and qualified personnel. Public and private owners of treatment systems will quickly need to implement plans to cope with a smaller talent pool of trained individuals for their staffs as well as key vendors. We'll review ideas to help you plan for the coming silver tsunami!

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Overview

- In the next 10 years, there may not be enough operators to properly monitor and control every public water/wastewater treatment system adequately
- Interest is low because public understanding of the job is poor
- Local wastewater and drinking water facilities are feeling the stress of their eroding workforces
- Officials should recognize the need to entice a younger generation to fill the need
- There will also be fewer experienced professional engineers and technicians to design and maintain treatment and collection system facilities

The Challenges

- A looming shortage of the highly trained workforce needed to operate, maintain, and renew U.S. water/wastewater systems
- Retiring workers taking with them the extensive institutional knowledge that takes decades to build
- Lack of public visibility
- Declines in career and technical education fields has reduced interest among the next generation of workers
- Ongoing and pervasive lack of gender and ethnic diversity in the water workforce



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The Goals

- Developing a new, diverse water sector workforce to ensure that we continue to enjoy safe, reliable water in the future
- Collaborate with diverse partners, and increase public awareness to bolster long-term, generational interest in water sector careers.

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Action Plan

- Assess existing and projected personnel needs
- Develop short and long term transition plans
- Identify internal and external resources needed to implement plans
- Identify leadership improvements to motivate and maintain staff
- Implement continuous human resource SWOT analysis

Personnel Needs Assessment

- Assess competencies and possible retirement timelines of existing staff
- Develop/update organization charts to reflect ideal number of staff positions and responsibilities
- Include allowances for cross-trained personnel and contracted work
- Understand budget implications for hiring of staff with increased skill levels

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Transition Plans

- Develop staff and leadership position descriptions
- Designate critical path positions
- Identify timing and potential sources for new hires:
 - Internal promotion(s)
 - Internal training programs
 - External advertisements
 - Contracted operations and maintenance services

Internal and External Resources for Staff

- Direct outreach to high school vocational programs
- Vocational schools with Certificate and Associates degrees
- Traditional 4 Year colleges with Water Resources programs
- PA DEP approved training programs through industry associations
- Self-study programs
- Shared staff with other organizations

Leadership Improvements

- Superior leadership is the key to every successful business!
- Ineffective leadership causes poor employee retention and morale
- Training is a continuous career process
- Establish formal programs for continuous improvement of the leadership team and identification of future leaders



Leadership Improvements

Top 5 Employee Motivation Factors:

- Appreciation of job performance
- Consistent leadership and discipline
- Job security and working conditions
- Wages
- Career advancement opportunities



Human Resource SWOT Analysis

SWOT – Strengths, Weaknesses, Opportunities, and Threats around your staff

- Fewer skilled professionals in the market creates wage pressure from increased competition
- Your best staff will be under constant “harassment” from your competitors
- Maintain and update critical action plans to address the sudden loss of key staff
- Provide proper cross training of staff to ensure uninterrupted operations

Vendor SWOT Analysis

- Your vendors – engineers, electricians, integrators, and industrial maintenance – will face the same staff challenges as you.
- Future relationships will not solely be price driven
- Mergers/acquisitions will be more common to address labor shortages amongst your vendors
- Maintain flexibility to adapt to changing vendor situations

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Wrap Up

- Certified operators are a precious commodity
- Estimates are that 50% of all operators in PA will retire within the next 15 -20 years.
- Lack of properly certified staff is a threat to your operation!
- Plan for the hiring, training, and transition of new staff to bolster your workforce!



QUESTIONS



Thanks for joining us!
Download the slides at ssmgroup.com

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