TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>3</td>
</tr>
<tr>
<td>Problem</td>
<td>3</td>
</tr>
<tr>
<td>Purpose</td>
<td>3</td>
</tr>
<tr>
<td>Barriers to Meeting Needs</td>
<td>4</td>
</tr>
<tr>
<td>Issues</td>
<td>5</td>
</tr>
<tr>
<td>Education and Succession Planning</td>
<td>5</td>
</tr>
<tr>
<td>Certification</td>
<td>7</td>
</tr>
<tr>
<td>Training</td>
<td>7</td>
</tr>
<tr>
<td>Leadership</td>
<td>8</td>
</tr>
<tr>
<td>Compensation</td>
<td>10</td>
</tr>
<tr>
<td>Outreach</td>
<td>12</td>
</tr>
<tr>
<td>Recruitment and Retention</td>
<td>13</td>
</tr>
<tr>
<td>Conclusion and Recommendations</td>
<td>16</td>
</tr>
</tbody>
</table>
Introduction

Many Publicly Owned Treatment Works (POTWs) recently have been experiencing a mass exodus of veteran employees with the aging of the Baby Boomers, and their impending retirement from public service. Their leadership, skills, years of experience, and vast amounts of institutional knowledge has departed with them, leaving a notable gap in many organizations. Finding and developing suitable replacements has proven to be a challenge to our industry that we must address.

Being such an affected organization, the New York Water Environment Association (NYWEA) is developing a comprehensive strategy to assist POTWs in their search for qualified personnel, and in their strategies for retaining existing valued employees. This paper can serve as a tool to guide the organization in identifying and developing new leaders to staff wastewater treatment and collection facilities, so to assure that we can continue to protect public health and enhance the water environment. This White Paper will state the problem, describe its purpose, identify barriers, discuss issues, propose solutions, and offer recommendations on how NYWEA might assist them in meeting these challenges. The NYWEA Board then must decide which actions should be pursued, if any.

Problem

For several reasons, including demographics and early retirement incentives, many POTWs have experienced the departure of a large number of veteran employees. Their loss has created voids in leadership, skills and technical experience. This pressing problem highlights the following issues that POTWs face:

- Loss of institutional knowledge
- Weak or non-existent Leadership Development Programs
- Heavy reliance on on-the-job training (OJT) rather than on formal training and development
- Complications in bargaining agreements
- Issues of employee retention, such as compensation and lack of advancement

Purpose

A comprehensive strategy is needed across the industry for addressing these issues. Here, NYWEA can play an important role by providing a platform and resources for developing solutions. Once the NYWEA Board is knowledgeable about the problem, needs and potential solutions, it will be better able to offer assistance on this matter to its membership.

The major pressing succession needs for municipalities are the following:

- Recruitment
  - Having a qualified, dependable and “ready” candidate pool.
• Retention
  ° Ensuring that good employees remain in the organization, specifically considering what the organization assumes in financial and time investments for their training and development, including sponsoring certifications and continuing education.

• Leadership Development
  ° Establishing a formal process to identify, select and develop employees to fill the benchmark roles in leadership, management and supervision.

• Knowledge Sharing and Capture
  ° Establishing a formal process to share the knowledge and experience reflected in all the positions and employees being lost through attrition. This is to assure no loss of best practices and to continue the rich history of success within the organization.

**Barriers to Meeting Needs**

There are many barriers to meeting these four needs. Some barriers are specific to the individual scenarios, but many barriers are common to more than one need and are interrelated.

The barriers include the following issues:

• Candidate pool issues
  ° Unqualified candidate pool
  ° Uninterested candidate pool
  ° Lack of or small candidate pool
  ° Dearth of qualified talent when needed

• Perception of the industry by candidates

• Civil service requirements

• Collective bargaining agreements

• Residency requirements

• Politics interfering with hiring the best candidates

• Career progression

• Compensation
  ° Salaries
  ° Benefits

• Job security
  ° Feeling valued and important

• Lack of developmental pathways for leadership and management

• Existence of a complacent culture/institution
  ° Employees not interested
  ° Employers not interested

• Education and training
  ° Hands-on needs versus classroom skills
  ° Time required to obtain certification
Meaningful progression for varying educational backgrounds and skill sets

Operator certification:
- Cost of training
- Length of time and expense of certification

Training issues:
- Lack of training
- Time away from work
- Cost
- Elected officials’/management’s perception that training is not important
- In-house versus academic training, compared with private institutional courses

- Lack of outreach/recruitment programs
- Dearth of workforce/succession/progression planning
- Absence of recruitment plans/strategies
- Paucity of institutional-knowledge transfer programs
- Lack of performance management system
- Scarcity of Human Resource metrics/effectiveness measurements

Issues

Several succession issues were identified during the original development of this Task Force. The following sections were written by different authors. The individual writing styles and overlap of some discussion items are unedited and are maintained throughout this section. There may be redundancy, but we decided to maintain the thoughts and voice of each author. The recommended points and actions are consolidated in the summary.

Education and Succession Planning

Job Breakdown:
- Management
- Engineers/Laboratory professionals
- Plant superintendents and operators
- Plant maintenance (electricians, millwrights, instrument technicians, etc.)
- Sewer system maintenance staff (e.g., inspectors, supervisors, equipment operators, sewer construction workers)
- Stockroom staff
- Clerical staff

Discussion:

1) Management – Generally, incumbents may be appointed to top positions, ideally where they have fully met job specifications. People taking any of these positions could and should be trained and promoted from within. Gaining degrees or licenses should be encouraged by the
municipality by paying for a portion of the training/education or for working out shift or during vacation schedules to accommodate classes.

2) Engineers/Laboratory Professionals – These positions typically pay enough money to attract applications from quality people. Such personnel should be encouraged to work their way up from within. One difficulty in hiring qualified individuals is the U.S. government residency requirements.

3) Plant Superintendents and Operators – This is an area in which it can be difficult to find quality applicants. Not many people take these professional tests because many do not qualify. Also, the process in obtaining certification may be lengthy, and can cause some candidates to lose interest. Some community colleges are willing, able and excited to start a water/wastewater curriculum. Indeed, with the promise of potential jobs waiting for successful graduates of these programs, students could well be attracted to those schools. This education strategy has the potential to be implemented across the state.

4) Plant Maintenance – Many companies like to train and promote from within, but are finding it harder to find people who qualify at the entry level. Persuading good trades people to switch to municipal employment can be a tough task. Highly skilled trades people, like machinists, are becoming scarcer to recruit by the day.

5) Sewer System Maintenance – In some places, this has not been a problem, in that some organizations start with laborers and train and promote them from within. Some companies also pay for Commercial Driver’s License training. Civil-service requirements should also be reviewed to assure that they do not shut out any potential workers. For instance, requirements at the open competitive level call for experience with a flusher/vactor; it is not easy to find qualified candidates in this. Therefore, a useful approach would be removing this particular requirement and giving the new appointees on-the-job training (OJT) on specialized equipment once they start working.

6) Clerical/Stockroom/Administrative – These positions typically have not been problem areas. Tests for clerical personnel generally attract a lot of candidates, generating a long list from which to choose.

Some feel the best way to obtain needed staff is to train and promote people from within the organization, if possible. Paying for all or part of their education/training is not only a great incentive for the employees, but is an excellent talking point for recruitment. Residency requirements for non-Americans, however, can be problematic in recruiting staff.

Many of our industry’s jobs can be filled from people working in similar jobs in the private sector or at other municipalities. The one exception is wastewater operators/professionals. Hence, we must find a way to establish a pipeline of these workers. Creating a teaching curriculum about which local educators are enthusiastic may be a potential resolution. Our industry needs to work together to standardize this curriculum (and others that we may come up with as a result of this exercise), so that all of us can draw from a common pool of qualified candidates. We need to provide
online courses for potential candidates in those areas where local colleges do not offer those courses required for qualification.

Finally, we need to continue to encourage this kind of local and statewide cooperation and pooling of resources to meet all of our labor demand problems.

Certification

Several issues are associated with obtaining certification:

- Amount of time required.
- Education and training needed
- Cost of both of the above
- Lack of math skills of job candidates
- Scarcity of DEC-approved college curricula, making it difficult to obtain education
- Demand for candidates with more technological capabilities

Training

Training, as it pertains to the water and wastewater industry, is a complex and epic topic. The types of training requirements vary for many reasons. There are vast differences in plant sizes, complexity, personal and financial resources, as well as differences in the individual types of processes used within each facility. From the collection system to solids handling and everything in between, virtually all utilities need some form of in-house training to address their own specific requirements. Just as no two snowflakes are alike, neither are any of New York’s complex water and wastewater infrastructures the same. The NYWEA’s approach to training must be diverse and comprehensive to meet the needs of New York State’s water and wastewater professionals.

Training issues to consider include the following:

- Mass retirement of employees (“brain drain”) – As older employees leave, they take their valuable knowledge with them, leaving voids in all aspects of daily business including operations, maintenance and management.
- Importance of recruitment and training future management – Retirement has caused many utilities to scramble in finding qualified technical personal and willing managers and executives to replace their predecessors.
- New technology and stricter regulations – Modern technologies and stricter regulations are coming faster than ever. The need for frequent training and retraining must be addressed constantly to keep pace.
- Need to fully inform local politicians and governments about this industry – Local governments need to know about our aging infrastructure, stricter regulations and today’s problems with succession planning, paramount among them is the importance of funding training for junior operators to fill future vacancies.
• Need to establish and maintain public education programs – An emphasis in educational programs from grade school through college should be toward environmental awareness and careers in public health. This approach may steer today’s youth into becoming tomorrow’s environmental leaders and water professionals.

NYWEA’s Role (State Level):
• Improve status as a leader in New York State for all matters concerning water and wastewater. Continue good communications (downhill) with current state chapters and individual members to assure that they are prepared for tomorrow’s training necessities.
• Develop a comprehensive management training program like that of the New England states via NEWIPCC. Suggest starting a task force for accomplishing this aim.
• Continue to offer quality training programs through NYWEA and the member education committee (MEC). Promote programs for smaller plants to develop in-house training, to make training more accessible and less expensive.

NYWEA’s (Local Level):
• Assure good comprehensive communication (up and downhill) with state level and local members about training needs. Offer pertinent training within local chapters.
• Encourage individuals to become NYWEA members and to participate in NYWEA functions, boards, committees and task forces.

Individual Plant’s Role:
• Heighten community awareness in public and local governments about problems in succession planning, including training costs and needs.
• Provide plant tours and workshops to grade school through college age students, as well as promote contests and scholarships to develop young environmentalists.
• Develop an in-house succession plan for your facility. Use in-house training and NYWEA’s resources to maintain an up-to-date workforce and be ready for potential personnel vacancies.

The needs are many with respect to training, but through good communication NYWEA and its resources can, and already do, meet many aspects of today’s demands. With continued involvement and foresight on issues of training, management and succession, we can fill future voids in New York State’s water and wastewater personnel.

Leadership

Historically, many utilities obtained new leaders by promoting subordinates as their predecessors departed. The newly promoted employee probably had some idea of how his or her boss did things, but then had to learn the rest “on the job.” More recently, the veteran workforce has departed en masse, leaving many utilities with a large void in management and leadership roles without ready,
willing and able successors prepared to step in. The old way of developing new leaders is no longer
good enough. A better, more efficient process to prepare new leaders is needed.

One approach in developing new leaders:

- Identify the critical positions and competencies needed for success in these roles. These would
  include those positions within an organization that are essential to its mission and core metrics.
- Identify future talent for leadership roles; this would likely be internal candidates, but could
  include external recruits.
- Develop a future leadership pipeline and utilize that career path to not only develop leaders but
  attract talent in a tight market.
- Select new leaders by establishing an internal process to select and install them at the right
times.

Ways that NYWEA can help are to:

- Assist with workforce planning so utilities better understand what their leadership needs are
  and when they will arise, to support advanced planning and recruitment activities.
- Employ a competency-based interviewing process for external recruitment that can:
  - Target the competencies and behaviors required for each role
  - Focus on hiring the right person for the role the first time
  - Create a development plan for new hires
- Develop/provide management and leadership training that can include:
  - Supporting NYWEA’s member education-sponsored programs statewide
  - Establishing NYWEA chapter programs
  - Coordinating external training from organizations, such as WEF, AWWA, NEIWPCC, NYS
    Rural Water, and Fred Pryor, specifically geared toward utility needs
  - Partnering with educational institutions to provide training
  - Using the existing NEIWPCC training program
  - Adopting the Water Leadership Institute program
- Set up Internal Learning Management System with online CEU- or PDH-qualified training

These programs would need to address a variety of issues including:

- Creating healthy, sustainable organizational practices.
- Answering the questions of “managing versus leading:”
  - What is the difference between them and why are both critical to success?
  - Can one person assume both roles?
- Developing new managers/leaders
  - Convincing good in-house candidates to become managers, bearing in mind that few want
    the responsibility and headaches
  - Developing the broad skill set needed, including what can be learned:
Supervising, communicating/PR, Human Resources, budgeting, planning/organizing, decision making, strategic thinking, coaching/mentoring, compliance, health and safety, personal/professional skills.

- Considering OJT versus formal training
  - Time available to train the candidate
  - Leading and managing in a multigenerational workforce
  - Role of new technology
  - Employees’ expectations
  - Retaining good employees

It is important to distinguish between managing and leading. In the preceding part of this section, the term “leader” is used in the general sense to mean someone who is responsible for supervising, managing and/or leading others. By definition, there is a distinct difference between managing and leading. Managers typically look inward in the organization. Leaders typically look outward. Managers have subordinates. Leaders have followers. However, managers also need to lead. Leaders also need to manage. Some utilities are facing issues with convincing staff employees to move into supervisory and managerial roles. The previous suggestions can help with that, but there should also be some focus on overall leadership of the utility.

Additional ways NYWEA can help with leadership/management:

- Survey utilities about their need for training staff to move into management/supervisory roles and then help coordinate programs in which they all can participate.
- Provide training and/or coordinate programs for overall management of the utility. A program like the EPA’s Effective Utility Management could be used as a starting point.
- Promote participation in the Utility Management Conference, co-sponsored by WEF and AWWA.
- Encourage participation in the program of the newly created Water Leadership Institute.
- Expand and enhance utility leader programs, such as NYWEA’s Utility Executives Roundtable.

**Compensation**

Our wastewater plants are in a critical period. Due to the accelerated hiring that took place after the enactment of the Clean Water Act in the 1970s, this industry finds itself in a time of accelerated loss to retirement of the most experienced operators. It takes time to train new operators. Along the way to certification, new trainees must take several prerequisite wastewater courses and pass their Operator Certification tests. Operational managers need help in justifying the need to pay attractive salaries so they can lure qualified replacements into their utilities. The Operator Certification tests can be challenging and, historically, the passing rate is very low. Since time is of the essence, it is important that the new hires are capable of learning the new technology and passing these tests. More highly educated individuals need much less hands-on plant experience time for eligibility, and
they have a much higher rate of passing the test. Foremost, managers need responsible candidates that they can entrust with each of their municipality’s largest capital investment, the operation of millions of dollars’ worth of equipment and, most importantly, the protection of public health and the preservation of our water resources.

Wastewater utilities must be operated under state and federal permits, and proper operation requires qualified, certified “Professional Operators.” Here, NYWEA can be a resource for managers who need help explaining the predicament they are in to budget-controlling officials, and justifying and prioritizing the important need to fill WWTP vacancies and pay higher rates to attract and hire qualified, competent individuals.

**Comprehensive Salary Survey Title Benchmark Database**

**Operator Trainee Standardized Title:**

A recommendation is made to conduct a salary survey to be aware of what others are paying (in respect to salary, benefits, responsibility level, plant flow and authority level). Often it is difficult to compare titles at different plants as they do not match up equally. Perhaps the titles should be rated similarly to how the DEC rates those of the WWTP – using a total point operator-level score for each title, based on total responsibility and authority. Knowing the area’s cost of living K-factor also may help. Obtaining input on developing standards for a universal State Operator Trainee title would be useful.

**Media Campaign & Literature:**

The suggestion is made to develop a media campaign to promote the Wastewater Utility as a public asset run by operators who are “Professional Employees” doing very important, rewarding work. They are the “caretakers” who protect our valuable water resources. The NYWEA needs to put more effort into promoting the service provided by operators and the need for improved operator compensation due to their present shortage. It needs to stress to the public that jobs are available at WWTPs to include operators and those in the laboratory, involving mechanical, instrument and electrical service work. All offer steady work and good benefits for valuable, rewarding service. Pollution control also is a “green” industry and NYWEA should take the lead in promoting that.

**Total Compensation Survey Database:**

An internal survey should be performed by NYWEA’s Utility Executives Group covering what others are offering, aside from pay, to entice and retain candidates. This should cover incentive practices, hiring bonuses, certification bonuses, certification renewal bonuses, and other generic suggestions for added benefits to entice and retain employees. The results of the survey should be shared with members of the Group.
**Examples of Training Retention Payback Clauses:**

A suggestion is made that there should be general examples to help guide municipalities on how to retain the training money spent on new hires. They could include examples of generic contracts that specify payback clauses to help deter newly trained candidates from jumping to another municipality.

**Intern & CO-OP Initiative:**

Assistance (monetary and otherwise) from NYWEA and Chapters related to Co-Operative and Intern candidates. Perhaps plants and schools together could broker a new “multi-plant” student program that could encompass scholarship bonuses. Fundraising for scholarships would be required. The students would rotate between municipalities during internships. Thus, if there were four plants, four students would be grouped rotationally. Time spent at the WWTPs would help speed up accumulation of time necessary for Operator Certification.

In addition, prospective employees should be informed about all of the many advantages of wastewater public service, including job security, benefits, the importance of the work, the “green” nature of the work, time off, progression and professional development, and the overall quality of life provided by public service.

**Outreach**

Outreach to potential candidates is an acute situation facing this industry. Many veteran employees, who were long a critical part of the workforce, are retiring. The first step to filling these positions with qualified candidates is reaching out to them.

Among the first issues that must be addressed when recruiting new candidates from outside the organization/industry is their perceptions of the industry. It is perceived as not being very attractive and the title, “wastewater treatment plant operator,” does not leave the best impression possible. The NY Rural Water Association recently made important strides in changing that perception, advocating the value of professional careers in water treatment by calling operators, “wastewater system operations specialists.” As part of setting up standardized titles for staff across the state, these new titles should be geared toward environmental protection rather than wastewater treatment.

Recruitment is a very broad issue covering many different levels. One level of recruitment is knowing simply where to look for candidates. Job fairs and local papers were utilized in the past, but with what is facing the industry now, increased effort needs to be placed here. For the most part, local facilities do not have experience in such recruitment, nor the means to do this. This effort should be addressed on a state-wide level. With NYWEA’s involvement, an effort can be made for better advertising beyond local efforts currently undertaken. Committees should be formed on a Chapter level to expand and enhance the local municipality’s ability to find candidates for open positions.
There are times when workers being recruited have the edge, such as when the entire nation’s job market is down and many people are seeking work. Our industry also provides employees with many benefits that are better than those of most industries; and, the one that should stand out above all is job security.

As an industry, we need to showcase what we can offer to our potential employees and expand the way we look for candidates.

**Recruitment and Retention**

Employee retention could be described solely on the principle of retaining current personnel resources. However, for the wastewater treatment industry, it needs to dig deeper in the process, identifying all the potential retention points that need evaluating. This starts with how municipalities recruit future employees, to how they keep them after they are licensed or trained. The issue of retention should be broken down into several categories. As will become evident, the issue of retention encompasses many issues already identified as POTW succession items.

**Recruitment**

The goal of retention can be enhanced when municipalities initially recruit strong well-qualified people into the positions. People entering the different wastewater fields without the necessary skill sets increases the likelihood that they will struggle to learn the job and fail, or worse, not fail and become ineffective. The opposite scenario is equally detrimental, as overqualified employees easily can become disgruntled if feeling under compensated for their level of education or expertise. Additionally, it is more likely that hiring overqualified people will create a higher turnover rate as they look for employment more in alignment with their education or skill set. Some people with specialized skills sets, such as instruments and controls, are difficult to find.

When municipalities talk about how recruitment aligns with retention, they should consider the following points:

- Better identification of the education levels and/or skill sets required for the various jobs in wastewater, and targeting people who meet those criteria.
- Standardizing and aligning the civil service tests with the actual job requirements.
- Encouraging educational institutions to seek NYSDEC acceptance (Approved Degree) for appropriate degree programs as a form of advertising to make interested students aware of the possible career opportunities in the wastewater field.
- Ensuring the largest and best candidate pool possible by reaching out to more sectors, such as former military personnel, colleges, high schools, trade schools and other potential pools that presently may be underutilized.
Evaluation

After municipalities recruit the “right employee,” the next logical step is deciding whether or not they want to retain that person. In most cases, evaluations on initial employment offer the only true opportunity to set the bar appropriately and retain the best workers.

For evaluating new hires, municipalities should consider the following:

- Assessing each new hire’s future potential (not just ascertaining that they meet the minimum for their current position)
- Offering standard (NYWEA generated) rubrics for common titles to help evaluators
- Affording transparency, so that new employees know what is expected of them

Training

Employees are a municipality’s greatest resource and require a tremendous investment and reinvestment. Even if the right person is recruited and successfully evaluated, he or she has to be maintained continually via professional development, or utilities risk the employee becoming ineffective or complacent and potentially losing him/her to another organization because there is no pathway for development and growth. It is important for the employee to see that the municipality is investing in him/her, so the individual feels supported and is more comfortable in the job.

As training relates to retention, some important actions to consider include the following:

- For new employees, offer specific training modules for non-operator positions (NYWEA’s training is one example, but many others can be accessed). If municipalities structure training for their maintenance and I&E employees similar to the way operators are trained, both the employee and employer benefits.
- Provide funding for recertification training. While many municipalities offer adequate funding, the ones that do not are less attractive to prospective employees. Furthermore, current employees are given another reason to look elsewhere.
- Investigate the potential of providing in-house training. Promote trainers with opportunities, thus enabling municipalities to reward good employees educationally and/or monetarily, while simultaneously providing site-specific training. These trainers represent your municipality, and that has a high comparative value.

Retention/Continual Employee Focus

After recruiting the right people, and training them, how do municipalities keep them? After all, we have by this point invested a great deal of resources in these employees. While salary is the low hanging fruit of retention efforts, municipalities should strive to identify other ways of maintaining and supporting their workforce.
Consider applying these suggestions:

- Establish clear, well-displayed career paths
- Create policies that recognize and reward certified employees and those actively pursuing their certifications. Policies giving preference for transfer or training opportunities show employees that their efforts are appreciated. This mode also could be applied to non-operations titles, using rubrics identifying accomplishments or successfully completed training within a particular field.
- Municipalities should consider paying for memberships to professional organizations. Along the same lines, NYWEA should promote small and large municipality (utility) memberships.
- There are many licenses and certifications from collection systems (voluntary) to Professional Engineers. By offering funding for licensing and recertification, municipalities can offer another benefit while continuing to show support.
- Employee recognition plays a role in retaining employees. Whether it is milestone based or simply recognizing outstanding effort, making sure employees know that they are valued can positively impact an organization’s retention rate. (The NYWEA has an extensive awards program in place that should be utilized fully.)
- Track recertification hours for operators. Municipalities should consider the benefits of becoming more involved in tracking the recertification hours of their certified operators, or as an alternative, NYWEA should continue the recertification process so that when an employee takes a course with an RTC number, the sponsor of the course should be required to send a copy of the attendees to NYWEA so that those hours are credited automatically. The NYWEA then issues cumulative RTC reports to operators annually.
- Participating in community events, such as Earth Day and Water Week, is another way to reinforce the importance of the work performed at the utility.

**Compensation/Salary**

Municipalities can do all the right things – recruit, hire, train and maintain their employees – but if they are not paying a competitive salary rate, they will push the employee to shop around elsewhere for those that do. Concerns about compensation need to extend beyond the starting rates as well, because most current systems fail to offer any reward for experience. With few exceptions, most municipal pay systems operate from the basis of the same job and same pay format, with employees making the same amount in the same title whether they have 5 or 15 years of service. From the standpoint of retention, that format fails to recognize senior employees’ job tenures, thereby encouraging them to look for better opportunities.

Consider acting on the following suggestions:

- Closely examine salary systems in municipalities. Consider ways to reward seniority whether by revamping the current salary systems, or returning to the old longevity systems that were once common or enhancing those still in existence.
• Review the current pay hierarchy within the municipality’s groups to ensure that there is adequate space between promotions. If a promotion with more responsibility is more of a lateral financially, it becomes an unattractive hard sell.

Retention efforts should focus on creating a favorable total employee package. From recruitment to retirement, municipalities need to establish and maintain systems that retain the best employees. Retention rates should be viewed as the metrics by which municipalities measure how they recruit, train, maintain and reward their employees.

Conclusion and Recommendations

Over the next two decades, 78 million baby-boomers will turn 65, the traditional retirement age. In 2005, workers over 55 represented 16 percent of the workforce; by 2020 that will rise to almost 25 percent. Although these numbers are staggering, they come as no surprise based on the mass exodus that the POTWs have been experiencing. This major exit from the workforce will take with it years of rich technical know-how, leadership skills, and detailed onsite experience. Often it will occur without a formalized succession planning program in place, thus leaving a gaping crevice in any affected organization that is all but impossible to fill! There also is some irony here, for as Mike Rowe, the Host of Discovery Channel’s “Dirty Jobs,” recently testified before Congress (in his presentation about the shortage of US skilled labor): “People can’t find jobs and yet good jobs can’t find qualified people. We’re surprised that high unemployment can exist at the same time as a skilled labor shortage.” This seems to characterize the present predicament experienced by our wastewater utilities.

This paper discussed a number of issues and barriers to adequate and timely succession planning, identifying further recommendations about what might be helpful. However, each utility has its own unique workplace needs and, thus, is affected differentially by each issue. Some utilities might like to hire or promote from within, while others might not. Some facilities might have separate positions for operators, maintenance personnel, and laboratory staff, while others might cross-train as part of “the way we do business.” Some might proactively have dealt with a specific issue, such as diversity, while others are just getting ready to tackle and format the same issue due to the unique context of their workplace. This is because each utility exists within its own community and political climate, and like the community it serves, each utility is unique and hence has different needs. Therefore, it is recommended that NYWEA consider focusing its primary efforts in areas known to be common to everyone.

Every utility has some things in common:
• Employees leave. They’re always leaving. Presently, they happen to be leaving at a faster pace than ever before in the industry’s history. As an industry, these utilities must have the following:
A detailed succession plan so they know not only when key employees are leaving, but also have a solid understanding of what skills and critical knowledge each employee holds so they can properly find and train new replacements with the necessary qualifications and competencies.

A suitable replacement candidate pool available, both for entering the organization and moving up into leadership roles.

- When veteran employees leave, they take with them both a unique understanding of effective leadership and incredible amounts of institutional knowledge, often encompassing undocumented information. Employers need to document and transfer this knowledge in a usable form to capture it for future users.

The NYWEA recognizes these issues and wants to create a comprehensive strategy to assist its members in developing intervention strategies that will address the impending talent losses, putting in place processes for sharing knowledge, and developing a pipeline of competent, ready leaders to transition into key positions in these organizations. As part of the next steps, NYWEA should consider developing a succession assistance strategy comprising the following five (5) components. The Board also may want to consider some other ideas identified in the body of this paper or others it develops on its own.

1. Succession Planning
2. Recruitment/Retention/Candidate Pool Development
3. Leadership Development
4. Knowledge Capture and Sharing
5. Low Cost Training and Certification Support

Discussion of Strategy Recommendations

1. Succession Planning

Every utility needs an adequate succession plan so it knows when it is likely to need to replace particular employees, what type of employee they will be replacing, and the core competencies those new individuals will need to be successful in each role. While there are many books, articles, training programs, organizations and consultants with expertise in developing succession plans, NYWEA is in a unique position to assist its membership by the following actions:

- Developing a comprehensive database of succession planning resources.
- Providing training in succession planning at its statewide and regional chapter meetings.
- Organizing focused workshops on succession planning from outside its own scope, perhaps in partnership with other organizations, such as those mentioned previously.
2. Recruitment/Retention/Candidate Pool Development

Ideally, utilities would have a continuous sufficiency of properly educated, well-trained candidates from which to select. Healthy, dynamic organizations seek to have a balance of candidates with aligned educational backgrounds, skill sets and leadership abilities in their resource network; so, the bigger and broader the pool is, the more likely it is to find good candidates. However, many utilities are finding it difficult, if not impossible, to identify a suitable pool of replacement candidates; thus, they find themselves in the position of needing to meet their own needs by actually developing their own replacement pool.

One strategy to accomplish this would be to undertake the following:

• Generate more occupational interest by changing the image of our industry and “rebranding” wastewater utility operations as “green” occupations by promoting the environmental stewardship and public health aspects of the business. The WEF’s “Water is Worth It” and AWWA’s “Water is Life” initiatives are good examples of the rebranding process, and it could prove a foundational element in this outreach process to a broader talent pool.

• Expand the pool of potential candidates by reaching out to a broader demographic base wherein people might have been unaware previously of these employment opportunities.

• “Grow Our Own” candidate pool by developing interest and recruiting potential future employees by partnering with educational institutions, including high schools, BOCES, trade schools and colleges. Such partnerships could involve the following:
  ° Educational institutions expanding or modifying curriculums to meet NYWEA’s certification (formerly the DEC’s) program criteria or pre-certification criteria.
  ° Educational institutions expanding or modifying curricula to provide industry-specific training in:
    ■ Mechanical operation/repair
    ■ Instruments and controls
    ■ Data/Information management
  ° Utilities offering opportunities for the future candidate pool to gain skills and the necessary operating experience toward certification through:
    ■ Internships for course credit
    ■ Paid co-ops
    ■ Summer employment
    ■ Eventual permanent employment

These initiatives and opportunities, in effect, would afford the industry a larger, more motivated candidate pool who are informed and aware of the opportunities within the utilities. They carry the added benefit of allowing the utilities in these partnerships to have an “engagement period” with potential candidates, so as to better understand their potential and commitment.
3. **Leadership Development**

Many retiring employees are de facto, by choice or expertise, in some type of leadership role. Yet replacement leaders need to be developed from both the technical and managerial areas of the business. While there are many books, articles, training programs, organizations and consultants with expertise in leadership development, it often is a mix of applied training and motivation. Therefore, it is important that NYWEA assist its membership in the following ways:

- Developing a comprehensive database of resources for leadership development
- Providing training in leadership development at NYWEA’s statewide and regional chapter meetings
- Organizing focused workshops on leadership development outside the scope of those meetings, perhaps in partnership with other organizations
- Tailoring a formalized Leadership Development Program (LDP) for our industry that focuses on several levels of leadership. This tiered approach to the LDP will ensure each level of management and leadership has the appropriate understanding of the competencies related to the roles and responsibilities of a specific position, yet focusing on the development and the evolution of jobs reflecting the advances caused by technology. Although NYWEA recognizes the importance of on-the-job training, formal programs, such as the LDP, broaden the learning scope for the employee offering a well-rounded perspective on being a successful leader and, in fact, validating leadership as a skill in our industry. This also can help operations staff feel empowered by their work to protect the environment and public health. Coaching and mentoring also plays a large part in the LDP process by pairing program participants with knowledgeable incumbents; thus, by initiating a formalized knowledge-sharing process, the experience of both parties is validated. That formal process is lacking at many utilities. Capturing this critical awareness of the utility’s history and the wealth of information from the incumbent cannot be replaced by learning from a book or classroom study, so accordingly, NYWEA must validate and support this practice whenever possible. It can be transferred only through dialogue and the sharing of experiences. By anticipating the need for bench strength and implementing a formal succession planning process, there will be a seamless transition of key positions when they are vacated.

4. **Institutional Knowledge**

Most retiring staff, whether or not they are in formal leadership roles, possess considerable amounts of general knowledge of the utility’s history, where things are, and how things work both internally and externally with vendors and partners. This information also must be formally transferred to new or remaining staff. The NYWEA can assist its membership in the following ways:

- Developing a comprehensive database of institutional knowledge transfer program resources, including collaborating with other organizations that offer this type of training.
- Providing an institutional knowledge-transfer program at the meetings of NYWEA’s statewide and regional chapters.
• Organizing focused workshops on institutional knowledge transfer program outside the scope of statewide and regional meetings, perhaps in partnership with other organizations

If the NYWEA Board selects to follow any of these recommendations, or develops their own from this reading, the Board should consider formulating a project mission statement and a corresponding action plan to ensure the viability and effective uptake of this process.

An example of a strong mission statement to consider on this topic should include language such as: “There are a multitude of processes behind this succession planning strategy to ensure its success, and NYWEA is ready and committed to implement all of them to assist the POTW in filling the void occurring due to loss of key talent. It is NYWEA’s strong desire to implement this comprehensive strategy to ensure the success of municipalities in protecting public health and enhancing the water environment with the best talent and leadership available.”

It is also important that NYWEA help convey details of the present problem and proposed solutions to the public and to decision makers (NYCOM, et al.) to gain their support, thereby ensuring that these ideas are turned into tenable actions before critical talent and knowledge forever is lost to our industry.

5. Training and Support

The NYWEA can assist membership by identifying the training and support most needed, and then helping to provide it in a convenient, economical manner.

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