

WORKFORCE DEVELOPMENT - BUILDING FUTURE LEADERS IN OPERATIONS AND MAINTENANCE

Richard Sykes
East Bay Municipal Utility District
375 11th Street
Oakland, CA 94607

ABSTRACT

In 2002, East Bay Municipal Utility District (EBMUD) completed a comprehensive workforce planning review which identified that up to 50% of EBMUD staff could change within a 5-year period. This huge potential workforce change prompted EBMUD to establish a workforce planning goal: *have ample talent to do the work of the District now and in the future*. To support this goal, EBMUD took the following steps:

- Identified likely near-future vacancies
- Analyzed current work requirements for these positions and the associated core competencies for success
- Identified changing workplace and business needs, and corresponding skills and staffing requirements to meet those needs
- Reviewed the existing talent pool within the agency
- Created specific workforce development programs to meet current and future skills and staffing needs.

This paper focuses on how EBMUD is addressing the most critical need identified in the 2002 review and plans to address the potential loss of 60-65% of first and second level supervisors in our operations, maintenance, and other field functions. These positions represent roughly 10% of the total workforce of over 1,900 employees. These positions are also directly responsible for ensuring quality of services, productivity of staff and maintaining a culture of high performance and excellent customer service. EBMUD believes it is essential to focus on developing the best possible internal candidate pool to fill the future vacancies.

Two workforce development programs were created: The LEAD Academy focuses on developing future first level supervisors; the Pathways Program focuses on developing future Superintendents and Assistant Superintendents. Both programs currently only focus on developing staff for operation and maintenance positions, but will ultimately be expanded to include similar level positions in other functional areas.

The development process for the LEAD Academy included creation of a “supervisory success profile” and identification of skills and behaviors necessary for achieving that success. Each Academy includes a 3-month long program of weekly courses for 20 participants selected through a competitive process. The participants take all courses together to build the sense of

team EBMUD believes is critical to its success. Each participant was also teamed with a mentor to provide ongoing guidance and support.

EBMUD has graduated three LEAD Academy classes. Graduates have already made an impact on the organization by filling a number of vacancies. Some of the key attributes of these new supervisors include: strong basis of shared leadership skills, good communication skills, and an appreciation for collaboration and teamwork.

The Pathways Program aims to develop the next level of leadership beyond first-line supervision. Like the LEAD Academy, this effort began with identification of a “success profile” and key skills and behaviors for the positions. Participants in the Pathways Program have highly varied education and experience backgrounds so the first program element involves a number of assessments to determine their current skill levels and leadership attributes. These assessments include writing and cognitive skill exercises, an in-basket exercise, and a 360-degree leadership and management assessment. Results from the various assessment tools are coupled with the participants’ career goals and EBMUD’s leadership success profile to create individual career development plans. Due to the number of vacancies at this level, the District is able to provide temporary promotional assignments for the majority of participants as part of the learning experience. Participants then work with a coach to complete their plan over a year-long period. The first Pathways Program was completed in December 2005.

These two workforce development efforts provide a strong foundation on which to build the new leadership team over the next several years. Ultimately, many of the participants in the LEAD Academy and the Pathways Program will likely move into management positions at EBMUD. This makes it critically important that both programs look as far into the future as possible, anticipating leadership challenges and building the skills to meet those challenges.

KEYWORDS

Workforce planning, workforce development, supervisory success profile, mentor, leadership attributes, operation and maintenance leaders.

INTRODUCTION

EBMUD is a public utility providing water supply and wastewater treatment services on the east side of San Francisco Bay in California. The water system serves a population of approximately 1.3 million in a service area of about 300 square miles. The wastewater system serves a population of approximately 600,000 in an 83 square mile service area. EBMUD has over 1,900 employees, nearly 900 of who are responsible for the operations and maintenance of the water and wastewater systems.

In 2002, EBMUD began a comprehensive review of its workforce. The results of this review were presented in a strategic planning document entitled *Building EBMUD’s Future*. The document presented the demographics of EBMUD’s employees and indicated the potential for dramatic near term changes. Key EBMUD workforce figures from the report showed:

- 76% of the workforce was over 40,
- average age of all employees was 47, and
- total turnover from 2004 to 2008 could be 50%.

To better understand where impacts of turnover would be greatest, EBMUD analyzed potential retirements by occupational categories as shown in Table 1.

Table 1 – Projected EBMUD Retirements by Occupational Groups

Occupational Category	Percentage of employees projected to retire between 2003 and 2008
Field Supervisors	65
Superintendents	60
Professionals	38
Managers	25
Engineers	23
Office support	22
Blue Collar	15

Table 1 clearly shows that the area of greatest impact was in the field supervisor and superintendent categories. These employees represented the first and second (and in some cases third) level of leadership for nearly 900 operations and maintenance staff.

To address the retirement challenge, EBMUD employed a number of strategies including:

- **Developing and Implementing Workforce Plans.** These plans evaluate how work could most cost effectively be performed, capitalizing on the use of new technology, automating, consolidating and/or eliminating some work activities.
- **Enhancing Recruitment.** This strategy focuses on ensuring EBMUD reaches the largest possible candidate pool for recruitment. It also aims to streamline the hiring process so hiring supervisors can take advantage of opportunities to bring in qualified staff.
- **Developing Employees.** This strategy aims to provide in-house staff with the opportunity to develop skills needed to be good candidates for future promotions. Programs under these strategies ranged from building excellent journey level staff to preparing employees for senior management.
- **Managing Performance.** The ongoing success of the organization and its employees rests in large part on the ability of supervisors to manage the performance of their staff. Key elements of this strategy include a formalized performance planning and appraisal system, training, and recognition programs.
- **Encouraging Retention.** The cornerstone of this strategy is to provide meaningful and challenging work in a safe and professional environment, while ensuring pay and benefits are competitive.

The focus of this paper is on two successful programs established under the Developing Employees strategy. These programs aim specifically to build skills in existing employees to fill the upcoming leadership void in field supervisors, Assistant Superintendents, and Superintendents

DISCUSSION

The LEAD Academy aims to build the skills of journey level staff to best prepare them for future promotion to first-line supervision. The Pathways Program is tailored specifically for the next level of supervision – Assistant Superintendents and Superintendents.

LEAD Academy

The LEAD Academy focuses on building future first level supervisors in the operations and maintenance functions. It was specifically designed to address the needs of EBMUD's Operations and Maintenance, and Wastewater Departments which together have over 100 first line supervisory staff out of about 900 total operations and maintenance positions.

Nine management staff from four departments comprised the LEAD Academy development team. They created the program over an 18-month period with a goal of instilling a consistent and basic foundation of skills for our potential future supervisors. The initial step in creating the program was identifying the success profile for these supervisors (Figure 1). The profile was developed to match what EBMUD believed supervisors would need to succeed in the face of current and future challenges.

The LEAD curriculum, developed to support the success profile, is shown in Table 2, and includes eleven subjects taught over a 13-week period. The curriculum particularly emphasizes the special difficulties of jumping from the peer/coworker relationship to the supervisory role, a jump many previous new supervisors had found very difficult. The curriculum also stresses communication and decision-making skills. The LEAD classes are scheduled for a full day each week. Participants are also assigned homework for some of the classes and are encouraged to apply what they learn as soon as possible. Classes are taught by a combination of outside trainers and in-house staff.

The LEAD development team recognized that EBMUD could only provide this level of training to about 20 participants at a time. The selection process therefore had to ensure that those most ready would be selected first and that the initial LEAD participants matched near-term potential supervisory vacancies. Approximately 70 employees applied for the first LEAD Academy. The 20 participants were selected based on their readiness as determined by basic math and writing tests and through interviews by selected managers. Participants were chosen to generally match several identified supervisory paths such as pipeline maintenance/construction, water treatment, water distribution, trades (electrical, mechanical, instrumentation), etc. Each participant was also assigned a mentor from a group of experienced supervisors and managers. Mentors provided ongoing support to the participants throughout the program.

Figure 1 – First-line Supervisor Success Profile

**First-line Supervisor
Success Profile**

Attributes, knowledge, skills and abilities needed to meet EBMUD's business needs:

- ☆ Has strong technical background. Understands the organizational objectives for his/her own job as well as the requirements of the jobs s/he supervises (even if s/he can't perform all elements well).
- ☆ Models a strong work-ethic, commitment to learning and willingness to improve.
- ☆ Demonstrates good interpersonal skills for supervision:
 - effectively communicates goals & performance expectations
 - listens for understanding
 - motivates employees
 - provides effective constructive feedback to address performance and behavior problems
 - is able to manage and resolve conflict
 - works effectively with a diverse workforce and cultivates teamwork
- ☆ Effectively organizes work to be done, deploys and manages resources, delegates.
- ☆ Is open to new ideas and engages in continuous improvement.
- ☆ Communicates orally and in writing in a direct, clear, and succinct fashion.
- ☆ Possesses good problem-solving & troubleshooting skills (does not refer every problem "up").
- ☆ Demonstrates initiative & motivation to take on additional responsibility.
- ☆ Demonstrates basic computer literacy
 - uses Outlook calendar & e-mail functions
- ☆ Relates in a positive and effective manner with internal and external customers.

Table 2 – LEAD Academy Training Curriculum

Course Description	Duration
<p>LEAD Academy Orientation Includes an overview of the LEAD Curriculum and goals, training for participants and mentors to support a successful partnership, and an introduction into behavioral and learning preferences.</p>	1 day
<p>The Big Picture An introduction to critical external issues that impact the water industry and how they affect EBMUD and the jobs leaders and employees perform.</p>	0.5 day
<p>Learning to Lead The fundamentals of supervision. This course introduces participants to the world of supervision including planning, organizing, delegating, controlling. Examines the challenges of the transition from buddy to boss.</p>	2 days
<p>Introduction to Project Management This course covers knowledge areas of project management appropriate for first line supervisors including planning, scheduling, allocating resources and process improvement tools.</p>	1.5 days
<p>Core Skills for Communication Provides skills for effective supervisory communication, focusing on ensuring clarity, conveying practical and operational needs, and giving feedback.</p>	0.5 day
<p>Business Writing Emphasis is on writing EBMUD-related communications: memos, reports, and other documents.</p>	2 days
<p>Decision, Cause and Plan Analysis Use of process improvement tools, approaches and methods for solving problems effectively. Includes diagnosis, resolution, contingency planning, assessing risks, and making decisions.</p>	1.5 days
<p>Valuing Differences Exploration of styles, abilities, and motivations and how valuing differences can help achieve results for a group or organization.</p>	0.5 day
<p>Working Through Conflict Five basic conflict handling modes. Exploration of preferred modes and choosing modes most effective to a situation.</p>	1 day
<p>Situational Self-Leadership Learning how to take the lead, setting goals, negotiating for direction, support, and resources, and managing relationships as a leader.</p>	2 days
<p>Employee Relations Overview of issues that impact employee relations and practical guidelines for addressing employee challenges.</p>	1 day

There were several significant hurdles to implementing and maintaining the LEAD Academy. The time investment in establishing the success profile, curriculum and logistics prior to the first class was substantial. Nine staff met weekly over an 18-month period to ensure that LEAD happened. Once the program kicked off, demand for it was far greater than the District could support and applicants who were not initially selected to participate were very disappointed. Some believed that they would not be viable candidates for promotion unless they went through LEAD. EBMUD addressed this challenge by conducting additional LEAD Academies and made this an ongoing program so that most applicants could eventually participate. Conversely, some employees believed that LEAD graduation automatically ensured a supervisory position. EBMUD had to make it clear to employees that LEAD was not a prerequisite for promotion to a supervisory position in operations or maintenance.

As of December 2005, EBMUD completed three LEAD Academies with 59 graduates. Nine of these graduates have already successfully competed for supervisory positions. LEAD has had other substantial benefits for participants and EBMUD. All participants have gained greater corporate perspective from the Academy through the coursework, mentoring, and working as a team in their particular graduating class. The Academy brought together painters, plumbers, electricians, operators, and others who normally do not work together but now have an appreciation for each other and the functions they perform on behalf of EBMUD. LEAD reinforces the motivation in already motivated staff and provides them with a better understanding of how to address current and future challenges. LEAD graduates generally have an increased appreciation for and commitment to EBMUD. Graduates have regularly attested to the immediate benefits of the program in resolving conflict and improving communication in their current jobs. Nearly all say the Academy was overwhelmingly worthwhile for them even if it never leads to promotion.

Pathways Program

The Pathways Program is designed to prepare existing employees to compete for future Superintendent and Assistant Superintendent vacancies. Employees in these middle-level supervisory positions generally oversee a group of 10 to 50 staff and manage through subordinate supervisors. There are over 30 of these positions at EBMUD and more than half are expected to be vacant due to retirements by 2008. These positions are in a range of areas including pipeline installation, paving, distribution system repair, wastewater plant maintenance, water plant maintenance, wastewater and water operations, and other areas. Several of these positions require high-level state licenses. Like the LEAD Program, a Pathways Leadership Success Profile (Figure 2) was created for these mid-level supervisory positions. The success profile was not geared towards the knowledge skills and abilities of specific positions – for example, a Superintendent of Water Treatment, but instead aimed to establish a solid general foundation necessary for success in leadership across a wide range of mid-level supervisory positions for those in operations, maintenance, and field activities.

Figure 2 – Pathways Program Leadership Success Profile

<p>Assistant Superintendent/Superintendent Success Profile</p> <p><i>Attributes, knowledge, skills and abilities needed to meet EBMUD's business needs:</i></p> <ul style="list-style-type: none">☆ Financial Management - including math, analytic skills, computer applications and knowledge of EBMUD business practices.☆ Work Planning and Project Management – planning for and organizing resources, prioritizing, teamwork, productivity analysis and quality management, knowledge of EBMUD work management systems.☆ Leadership and Personnel Management – decision-making, interpersonal skills, conflict management, change leadership, knowledge of EBMUD personnel policies and procedures.☆ Customer Service and Public Contact – knowledge of operations and business practices, customer conflict resolution, representing EBMUD to the public.☆ Communications – business writing, developing and delivering presentations, audience awareness.☆ Public Service Ethics
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Applicants for the Pathways Program have diverse backgrounds and skill levels. Most have previous supervisory experience and many have college degrees. The feeder pool for the Superintendent and Assistant Superintendent positions has ranged from trades foremen to engineers. Recognizing the diversity and range of skills and abilities among participants, the Pathways Program achieves its goals by developing and implementing a year-long individualized career development plan (ICDP) for each participant.

The first Pathways Program was initiated in January 2005 for 19 participants selected from a group of over 40 applicants. Participants were selected based on an assessment of their recent work performance, responses to the application questionnaires, performance on a writing exercise and in an interview, and a review of EBMUD operational impacts and needs.

At the beginning of the program, each Pathways participant underwent a detailed assessment of skill and ability levels in a number of areas. Assessment instruments included:

- a leadership profile survey completed by the participant, supervisor, peers and subordinates,
- self-surveys to understand leadership style and learning style,
- an in-basket exercise to assess prioritization ability and “juggling” skills, and
- a simulation exercise to evaluate emotional intelligence and conflict management.

The results of these surveys and exercises were discussed between the Pathways participant and an assigned representative in EBMUD's Human Resources Department. The participant's coach was also involved in the discussion. The participants then created their ICDPs to focus on areas identified for improvement as well as developing skills consistent with their career aims. For example, the ICDP of one participant who is interested in a Facility Superintendent position might include completing a certification program in Facilities Management through a local college, building work experience in budgeting, and attending a seminar in time management. A participant interested in promotion to a Water Distribution Superintendent might include courses necessary for a Grade 5 Water Distribution Operator's license, presentation skills courses, and workshops on delegation and water quality in their ICDP. All ICDPs were unique.

The one-year Pathways Program includes the activities in an ICDP as well as a curriculum of six courses all participants take as a group. These classes include ethical decision making, listening skills for leaders, business writing, situational leadership, and emotional intelligence. Several of these are similar to the classes for the LEAD Academy; however, the content assumes a higher initial skill level of the participants. Another important aspect of Pathways is that most participants were offered a 6-month job assignment at their target level. These job assignment opportunities came about because EBMUD experienced so many vacancies in these mid-level supervisory positions that we could offer the temporary assignments to most of the participants and still complete the program in a year.

EBMUD has just completed its first Pathways Program. Eighteen of the 19 participants graduated. One dropped out for personal reasons. One graduate recently received a promotion to the superintendent level and several are currently on hiring lists awaiting final interviews.

Pathways has been more challenging than the LEAD Academy for a number of reasons. The efforts of participants, coaches, and support staff for a year were more than could be comfortably sustained for a group of 19 participants. It was particularly difficult for many of the coaches to free up the time to commit to regular meetings, especially for those who coached two participants. The 6-month job assignments were beneficial to the participants but they were very disruptive to the organization. The temporary loss of the participants resulted in delays in some important work. Disruption also resulted from the attempt to temporarily backfill for those on assignments in Pathways. Several work units ended up with temporary staff at two supervisory levels. These temporary assignments also caused anxiety and concern for many of the line staff who experienced some dramatic changes in leadership for their units. Future Pathways Programs may be conducted with fewer temporary assignments.

Another Pathways challenge was managing the expectations and concerns of applicants, participants, and other employees who were concerned about the fairness of the program. Those not selected to participate could become demoralized – particularly when the next program could be a year or more away. Some participants who were already highly-qualified for promotion believed that they would not get a promotion unless they got into Pathways. They tended to be less enthusiastic participants and probably should not have been selected because other staff would benefit more from the program. Some employees believed that Pathways allowed less-qualified staff to get ahead of them in the promotion line. EBMUD tried to be sensitive to all of

these concerns by committing to future Pathways Programs and providing other means of self-development to employees who chose not to participate or weren't selected.

In spite of the challenges, Pathways was a successful program. It established a higher expectation for the performance of these key leaders. This was particularly important in the operations and maintenance functions where technical skill and experience had often been the foundation for hiring at the mid-level supervisory position. The program clearly emphasized leadership attributes and working as part of an EBMUD team. It brought high-performing staff together, improving their perspective on company priorities and activities. It also established new communication networks within the organization. The course curriculum and the temporary assignments exposed the participants to the management culture and gave them a very real grasp of the challenges and responsibilities faced by second and third-level supervisors.

CONCLUSION

Creating and implementing successful workforce development programs is a major undertaking but a very worthwhile corporate investment. EBMUD's LEAD Academy and Pathways Program required the commitment of top management to make this effort a priority and allow staff the time to carry out this work.

While the challenges of implementing these staff development programs are many, they must be a key part of workforce planning, particularly in an organization like EBMUD with so many upcoming leadership vacancies. When coordinated, the leadership development programs allow for making organization changes quickly and effectively, and lead to improved pools of high quality candidates for leadership vacancies.

At EBMUD, the corporate investment in staff has sent a signal to all employees that they are highly valued. It has reinforced the high level of performance expected of our leaders, beginning at the first level of supervision. It has prepared us well to meet future challenges such as improved efficiency and customer service.

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