Detroit Water and Sewerage Department

Wastewater Master Plan

DWSD Project No. CS-1314

Human Resources Plan

Technical Memorandum
Original Date: March 3, 2003
Revision Date: May 31, 2003
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Human Resources Plan

Executive Summary

The DWSD Wastewater Master Plan makes a number of recommendations for capital projects and management projects. Both types of projects are impacted by the people of DWSD. The knowledge, skills, and, most importantly, the attitude of DWSD's workforce will affect the development and implementation of the projects. Moreover, they will affect DWSD's ability to manage, operate, and maintain the infrastructure, equipment, and O & M practices recommended in the Master Plan. As a result CDM has included a section of the Master Plan that assesses and recommends human resource strategies that, over the course of the Master Plan, will serve to optimize the performance of the recommended projects.

The Process

First, prior documents were reviewed, multiple management interviews were conducted and several small group meetings were facilitated to develop an understanding of current and potential issues, which could affect the performance of the projects identified in the Master Plan. Many of those issues are categorized in appendix A of this technical memorandum.

Next the results of the review were compared with the model for integrating people, projects and processes. 'Gaps' or potential areas where a new or improved HR strategy could contribute to Master Plan project performance were identified. Finally, a broad set of strategies was identified, which, if pursued, will help maximize the expected benefits of the Master Plan's recommendations.

The HR Recommendations

Performance Management

For a number of compelling reasons the DWSD organization will face increasing demands for cost and process performance improvement. Historically, a focus on performance, particularly cost performance, has not been a high priority. The new administration (and, most likely, succeeding administrations) brings a sharpened focus on results. Support mechanisms will need to be improved and new ones created to enable a change to an increasingly performance oriented culture. Recommendations in these areas include:

- Build commitment to the 'Service Improvement' performance review process
- Develop unit performance scorecards
- Strengthen progressive/ positive discipline procedures
- Improve legal and management support for dealing with substandard performance
- Develop new recognition-reward processes and/ or group incentive programs
- Strengthen organization development section of internal HR
- Encourage focused business and work process re-engineering projects.

Staff Development

An obvious yet very important element of successful capital project performance is the competence of those charged with managing, operating and maintaining the processes or equipment provided by the project. Competence is a result of having the right people (see Recruitment Selection Process below), the relevant knowledge and skills, and the right work attitude. Willingness and commitment go a long way toward minimizing skill deficiency. Recommendations in this arena include:

- Substantially strengthening the existing training and development function
- Building on existing certification initiatives
- Exploring a pay for skill system
- Creating smart user involvement strategies as capital projects are designed and implemented.

Labor- Management Strategy

The labor-management environment that exists upon completion of Master Plan capital projects may well have as much impact on the ultimate performance and success of those projects as the physical or technical systems themselves. The cultivation and development, over the long term, of a favorable labor-management climate is critical to DWSD's success. Recommendations include:

- The development of a long-term management strategy for productive labor-management relations incorporating the following elements:
- The development of a joint labor-management long-term vision statement
- Labor involvement in competitive assessment
- Intentional development of progressive labor-management leadership
- Development of a 'meet and confer' process
- The expansion of interest-based negotiating skills and methods
- Development of a job classification 'broad banding' strategy.

HR Support - Human Resources Information Systems

The old adage, 'you can't manage what you can't measure', applies here. DWSD simply does not have adequate information on very important HR measures. Contemporary Human Resources Information Systems (HRIS) are essential to improving organization performance. HRIS functions particularly important to DWSD include staffing planning, development planning, and succession planning. Recommendations include the following steps to procure an effective HRIS system.

- Developing with City HR DWSD requirements and priorities
  - Staff planning
  - Development planning
  - Succession Planning
- Competitive selection and procurement
- DWSD-specific implementation.

HR Support - Staffing/Workforce Planning

In addition to the skill needs noted in the development section above, DWSD will require the ability to deploy skills and human resources where needed, as well as the ability to selectively staff those areas requiring skills which are unavailable internally. To meet that requirement, DWSD must develop an effective staffing planning process which will enable management to see where skills exist and how they can cost effectively staff those skills in areas requiring additional resources. It would likely include a skills inventory system that enables DWSD to perform a gap analysis to address the differences between needs and resources.

As noted above the key tool for developing an effective workforce planning solution is a sound HRIS system. Using that system, HR can create a continuous planning process that informs (with good data) recruitment, promotions, training, deployment, and succession. Recommendations include:

- Development of an accurate skills-resource inventory
- Conducting an annual organizational requirements status, gap identification
- Developing appropriate acquisition and deployment strategies to fill identified gaps
- Developing and implementing an on-going formal succession planning system.

HR Support - Recruitment Selection Process

As organizational performance increases, the workforce does more with the same or fewer numbers. The existing staff, however, becomes more critical to the operation. It will be vital to DWSD, as the Master Plan unfolds, to recruit and hire those critical skills necessary for managing, operating or maintaining more sophisticated, complex technologies. A complete re-engineering of the recruitment-selection business process is recommended. The re-engineering should be DWSD focused but include at least stakeholders from city HR, city management, DWSD management, technology experts, and DWSD HR.

- Identify current practices and performance
- Develop desired performance goals
- Apply public sector redesign 'Rules-of-Thumb'
- Identify implementation obstacles
- Implement new process
- Monitor new performance-versus-goals and adjust as appropriate.

HR Support - Compensation

Compensation will continue to be a challenge for DWSD and the city. The pressure for enhanced productivity and competitive performance will undoubtedly increase. Where workforce redundancy decreases, the importance of existing jobs increases.

High technology skills, of course, will be difficult to acquire and retain. Key process skills, experience and specialization will also command a premium. Salary compression, especially in high demand skills areas will continue to require attention Current activities in the compensation arena will need to be supported. Recommendations include:

- Build on a fundamentally sound current approach to compensation
- Use a sophisticated workforce planning system (see above) to plan and identify critical human resource needs
- Expand on and 'target' salary survey activity to those areas identified as critical for DWSD
- Develop targeted strategies for competitive salary adjustments or longer term strategies in those critical arenas
- Work to 'broadband' (eliminate multiple title/ ranges) in other non-critical positions
- Consider group incentive goal-sharing plans contingent on specific DWSD performance targets.

1. Introduction

Public Sector Capital Projects are built for a wide variety of reasons. A few generalities may be useful, however. Broadly, the private sector tends to focus on financial return while the public sector does not. On the private side, projects are discussed and approved on the basis of payback. Return on Invested Capital (ROIC) is generally the key criteria. The public sector, on the other hand, has historically tended to invest in projects that resolve growth, compliance, or rehabilitation issues. Cost issues have often been a 'poor cousin' to regulatory or capacity driven requirements. If costs have been considered, they have been purchase costs or costs of design/ construction. Project goals expressed in terms of return on investment have been, from a public agency standpoint, rather rare. For project managers, therefore, operating or life cycle cost considerations were often an intriguing but abstract concept.

Looking toward the future, public sector demands are changing. Fiscal austerity is the watchword. Re-inventing and re-engineering government initiatives are popular. The desire for the public sector to operate more like a business is pervasive. Outsourcing solutions are seen as means to increased efficiency. Public-private partnerships are hailed for their innovative methods.

The common thread through all these initiatives is the desire to control escalating public costs. Taxes and rate structures are caught in the squeeze between service needs and resources. As the kinds of initiatives noted above run their course, policy makers and public officials look for more options. One of those options is clearly the intelligent use of capital.
If the public sector is to be 'run like a business', public officials are increasingly aware that capital investment should result in some form of financial return. Capital projects should not only resolve capacity or regulatory issues; they should provide a financial return as well. In short, they should *perform*.

A return on capital for the public

Capital projects can provide a financial return by saving or holding the line on annual consumable, energy, maintenance, or labor costs. The lowest capital cost alternative, of course, does not always provide the best return. The 'catch' is that very few of these improvements are achieved by simply building the project. Most successful projects are not 'plug and play.' In fact, how a project is managed, operated, and maintained after substantial completion, is often the *real* determinate of the project's success. The recent evolution of Asset Management as an organizational discipline can be seen as a reflection of that truth. A project's success cannot be judged unless it operates effectively over a period of time and achieves the expected financial result. At the risk of being repetitive, the project must *perform*.

The keys to performance

Performance is a blend. It is a blend of technology, work process, and people. Consultants, utility managers, and engineers are well acquainted with technology and technical processes. It is when they address work process and people that they are often on shaky ground.

For the sake of simplicity, technology and technical processes are referred to as the 'hard' side of capital projects. Work processes and people are referred to as the 'soft' side of capital projects. Most of the Master Plan focuses on the technical, and technical process issues. This section focuses on the more elusive soft side.

Work Process

Much has been written on the importance of altering work practices. Re-engineering business processes has become a larger-than-cottage industry. Many capital projects cannot perform and many others do not perform optimally without new or altered work practices. Word processing, to use a new technology example, replaced dictation and displaced the typing pool. Hordes of managers and professionals are now doing their own typing. Without the change in work practice, the potential of word processing is not realized. Similarly, the potential of a new Process Control system is not fully realized if it is unaccompanied by relevant changes in operating and maintenance practices.

Managing People

Beyond work practices, even more has been written on the challenges of managing people. At the risk of oversimplification, this is simplified. To support new technology and enhanced technical or business processes, people need relevant knowledge, applicable skills, and an appropriate attitude. Capital project plans, as noted above, often provide for training and development that supports the use of a new technology or process. It is not the lack of training, however, that frequently derails projects. It is the lack of desire. Attitude, in most instances, affects more projects than ability.

Ability vs. Attitude

The lack of ability is readily observed and the fix is straightforward; stated loosely it is, "train 'em." Attitude is not so easily addressed. Robert Mager put his finger on it when he sub-titled one of his classic training texts, "You Really Oughta Wanna". Too often that is precisely the approach taken by those who design and build capital projects. 'We know what's good for you and if you know what's good for you, you'll go along with it.' When that *does not* happen and disaster strikes it is usually cast as unavoidable or unforeseeable. Also, it is always someone else's fault.

> ***A large Midwestern Wastewater Facility needed a new process for dewatering its sludge. A new centrifuge based process would reduce a number of costs and enhance plant safety. It also impacted the number of plant jobs. A new centrifuge was ordered for test purposes. On the morning of the day the centrifuge was delivered, the construction crew arrived to find the business manager for the operators union chained to the centrifuge piping. Needless to say, the project suffered.***
>
> ***More often resistance is passive. Another Midwest utility purchased and installed a large, expensive CMMS. The system was up and running and the staff received training. Within two months the project was terminated and the system scrapped. The resistance was not active; no one had chained himself anywhere.***

> ***Staff simply took the trouble to point at every fault in the system. Complaints were received daily about the increase, not decrease, of time required to use the system. Union trades 'worked to rule' and use of the system degraded. Passive resistance effectively killed the project.***

Most often, however, projects are not killed by attitude, they just are not optimized. Ambivalence, though not as destructive, can prevent a project from achieving the performance level, which was expected.

It does not have to be this way. People issues, including attitudes, can be anticipated and addressed at the inception of a capital project. Capital projects, in fact, can become powerful catalysts for changes in the work culture. There are strategies available for consultants, engineers and utility management to use to leverage the 'soft side' of capital projects.

2. Background Review

CDM reviewed the current and past situation by obtaining existing data and the results from several previous studies. Operating statistics from the annual operating statistics report were reviewed from 1998 to the current year. The HR handbook provided by the HR department was reviewed. The Deloite Touche compensation study and the Organizational and Operational Review Update Management Study prepared by Economic and Engineering Services, Inc. were reviewed. The Training Vision report provided to the Detroit Wastewater Partners and the Detroit Wastewater Plant by the Emdicum Group was also reviewed.

CDM conducted twenty-nine management interviews at multiple management levels and a variety of sites to develop an insight and perspective into the issues that might affect the performance of the Master Plan's projects.

The results of the interviews are summarized and categorized in appendix A of this technical memorandum.

3. People and Projects Model

Five Key Strategies

CDM uses a five-part model as a checklist for dealing with dealing with the intersection of People and Capital Projects. Simply stated, an agency needs the right people with the right skills committed to effectively manage, operate and maintain the systems proposed in the Master Plan. To get there, people need knowledge, skills and attitude.

Five Strategies to Develop Workplace Skills and Workforce Commitment

There are hundreds, if not thousands, of varying concepts, offered over the years, that relate to managing the people side of an enterprise. Five broad strategies, however, encompass key themes from that body of work and apply particularly well to capital projects.

Managers of capital projects who wish to fully realize the potential of these projects would be well advised to address the strategies early, in their project plans. Anything less increases the risk that the project will not deliver on its purpose.

Development
The need for training and development in conjunction with many capital projects is evident. People require new knowledge and skills to operate and maintain new equipment or processes. Development requires careful planning and integration with improved or altered work practices. Most importantly the importance of development for successful project performance should not be minimized. Because training and development often occur near the close of the construction phase of a project, it tends to loose its priority. When operations success is defined early, as part of project performance, training intentions are more likely to be achieved.

Involvement
Perhaps more has been written about the wisdom of involvement, in one form or another, than about any other people-management concept. From McGregor's theory Y, through empowerment, to teams and autonomous work groups, the evidence for the efficacy of involvement is overwhelming. And there is good reason for it. The concept works. It works for a variety of reasons and it serves multiple goals. For these purposes, moreover, it can again be simplified. People who are affected by the introduction of new technology or technical systems should be involved in decisions regarding their implementation. Involvement cannot be casual or careless, however. Clear ground-rules need to be developed and expectations clarified at all organization levels or involvement can become counterproductive.

Alignment
Organization and political issues often derail projects. When members of management do not share the same understanding of the need for the project or the goals of the project, problems quickly ensue. Time spent early in the project's life cycle building understanding and consensus among key managers is time very well spent. A relatively neutral third party from within or without the organization can test the level of consensus. Various forms of organizational readiness assessments can uncover misalignment as well as other potential roadblocks to the project's success. Plans can then be made and actions taken to deal with organizational or misalignment issues.

Accountability and Incentive
Where performance is paramount, accountability is essential. The key to O&M performance is a few important, agreed-upon unit performance targets. These targets need to be SMART targets; Sensible, Measurable, Attainable, Realistic and Time-bound. New capital projects offer an ideal opportunity to develop those targets. Simply developing targets is not enough, however. Using the targets wisely and publicly is helpful. Providing incentives and consequences is essential. Again, the basic concept is simple – reward target achievement, deal with target failure. These issues are among the most difficult for public agencies, but they should not be avoided.

As in other endeavors, strategies requiring greater effort offer greater reward. The best incentive programs may require legislative changes to be workable. There is public precedent to draw on, however. Moreover, good accountability programs, often under the banner of performance management, require legal support and may require labor-management contractual changes. Again, there is public precedent to draw on.

Communication
Change strategies, whether connected to capital projects or not, often suffer from a lack of coordination and misunderstanding. Communication is the glue that binds these strategies into a coordinated whole. Organization staff needs to understand the need for projects, the goals for projects, the implications for their work lives, and 'what's in it for me.' The understanding should, as much as practical, be achieved through two-way dialogue. As with involvement, smart strategies can be developed for optimal communication that does not bog the project down. New visually based communications strategies coupled with new technology offer much promise.

Build 'Soft' Side Plans into Projects
Every capital project should address the five strategies in the project plan. Agencies may choose not to, but the failure to plan for and deal with soft side issues, risks project performance and the project's ultimate success. Given the costs involved with major capital projects, it makes sense to put a relatively small investment in comprehensive 'soft side' planning.

4. Gap Analysis/Primary Issues

Wastewater Master Plan Projects versus Potential Workforce Impact - Some Examples

	New Tasks, Procedures, Practices	Development Needs	Workforce Attitude/ Commitment Needs
Sewer Infrastructure Programs	More advanced inspection techniques Improved inspection strategy Improved Maintenance Planning Improved Corrective and Preventive Maintenance Tasks	New SOP Training New Inspection Technology Training Maintenance Skills Training Maintenance Planning and Scheduling Training	Involvement in SOP development Accountability/Incentive improvement Organized labor awareness Optimized staff deployment (the right resources where needed) Readily available information and two-way communication
CSO and SSO Control Program	New sampling Tasks Improved inspection strategy Improved Maintenance Planning Improved Corrective and Preventive Maintenance Tasks	New SOP Training Maintenance Skills Training Maintenance Planning and Scheduling Training	Involvement in SOP development Accountability/Incentive improvement Organized labor awareness Optimized staff deployment (the right resources where needed) Readily available information and two-way communication
System Control and Wastewater Treatment Programs	Improved Operating Practices & Processes New O&M SOP's New SCADA Practices Improved Maintenance Planning Improved Corrective and Preventive Maintenance Tasks Improved Materials Management practices	O&M SOP Training Maintenance Skills Training Maintenance Planning and Scheduling Training New Materials Management Practice Training SCADA Training	Involvement in SOP development Accountability/Incentive improvement Organized labor awareness Optimized staff deployment (the right resources where needed) Readily available information and two-way communication
Environmental Protection Program	New Testing and Monitoring SOP's	New Testing Monitoring SOP Training	Involvement in SOP development

	New Tasks, Procedures, Practices	Development Needs	Workforce Attitude/ Commitment Needs
	New Data Management SOP's Improved Corrective and Preventive Maintenance Tasks	Data Management and IS Training Maintenance Skills Training	Accountability/Incentive improvement Organized labor awareness Optimized staff deployment (the right resources where needed) Readily available information and two-way communication
Customer Service Program	New Work Group and Committee SOP's New Information Management SOP's	Customer Service Training Group Management and Facilitation Skills Training Information Systems Training	Involvement in SOP development Accountability/Incentive improvement Organized labor awareness Optimized staff deployment (the right resources where needed) Readily available information and two-way communication

Primary Issues
The people and task needs identified in the table above were part of the information gathered in the background review. Issues were identified by comparing all information gathered in that review with the 'People and Projects Model' outlined in the previous section. Gaps between DWSD's current situation as understood from the review and the 'People and Projects Model', were identified as Primary Issues. They represent potential high payoff areas for improvement in the organization's ability to manage operate and maintain the projects identified in the Master Plan.

Support for Performance Initiatives
The DWSD efforts toward improved overall performance will be well served by a future focus on creating people management strategies that specifically support performance initiatives. Current support for accountability and organization alignment can be enhanced.

Staff Development
The needs for new knowledge and skill are apparent. As automation, new equipment and new processes evolve, the need escalates. DWSD has created a training vision for its treatment plant. It is a strong first step that needs to be expanded, enhanced, and wisely implemented.

Labor Strategy
The labor environment of DWSD's future will impact its ability to manage, operate, and maintain the projects recommended in the Master Plan.

As noted in the earlier sections, workforce attitudes affect performance. Proactive efforts in this arena can pay dividends down the road.

HR Support

The issues identified above require a close collaboration between line management and the human resources group. The issues noted below fall more within the purview of the HR group and can be undertaken as internal initiatives.

HRIS

The old adage, 'you can't manage what you can't measure' applies here. DWSD simply does not have good data on very important HR measures. It needs a modern comprehensive HRIS system.

Staff Planning

There is not good data on existing staff skills, experience, or need. Staff numbers are difficult to come by. To deal with future development and redeployment needs a more proactive and less reactive approach is needed.

Recruitment Strategy

Hiring and recruitment was frequently cited as an important problem area. Though staff numbers will not likely increase in future years, the aging workforce will require replacement. Remaining positions will be more critical, and competition for technical talent will be intense. An improved process is needed.

5. Recommended Strategies

5.1 Performance Management

The current performance review process is an excellent start to a sound performance management system that supports the performance initiatives being undertaken at DWSD. Modifications should be considered, however, to ensure compatibility with the performance measures that are being developed. Further, DWSD should consider, over the long term, the goal of negotiating a consistent agreed performance review process as a formal part of each labor agreement. Performance reviews are a key step to begin differentiating performance issues from conduct issues on the job.

Consideration should also be given to developing unit performance scorecards in conjunction with unit measures or targets. Progress towards the performance targets can begin to foster a sense of healthy internal competition as well as pride in performance. Targets should be publicly visible and introduced in a carefully planned phased manner beginning with units expected to offer the most cooperation.

In conjunction with the performance measures initiatives, a positive discipline program should be considered. Eventually, the progressive procedure should become part of the labor agreements in support of an enhanced review process. Such discipline procedures are constructed in a manner that deals with conduct and performance. (see below)

Provide support, both legal and management for dealing with substandard performance (failure to meet performance targets) not just substandard conduct (absence, drugs, alcohol etc.). Engage the city's legal resources to look for ways to make the process more effective and less time intensive. Train managers to follow the legal, ethical, and fairness standards established. Provide support for managers who take the time and effort to deal with performance issues.

Introduce a routine recognition/ reward process for *measurable* above standard performance. It is important that the performance is measurable by standards that peers consider reasonable. Consider recognition lunches and internal communications coverage. Hats, jackets and dinner coupons for employees and spouses have been effective elsewhere, especially when coupled with recognition. Make these programs frequent, visible, and routine. These programs should be introduced in parallel with the performance targets initiatives noted above.

Consider group incentive programs. As unit performance targets are initiated, the private sector often uses goal sharing or gain sharing initiatives to achieve targeted performance. The public sector has been slower in adopting these techniques but must consider them, if it is to be competitive with the private sector over time. Public legislation sometimes must be changed, which has been done elsewhere. Group incentive programs can be the 'quid pro quo' necessary to gain labor acceptance of some of the measures noted above.

Strengthen the organization development section of the internal HR group. Effective OD groups can marshal resources and support for the improvement efforts undertaken by management. OD groups understand change management, help to deal with workforce resistance, and can undertake or sponsor business process re-engineering. Competent internal OD groups are often well equipped to judge the potential of outside organization consultants to support management's change initiatives.

With or without the support of an internal OD group, undertake focused business and work process re-engineering projects. Projects should target specific functions or cross-functional processes deemed by management to be critical to the organization's performance improvement. Private industry has had great success in achieving efficiencies through re-engineering. Public agencies have had less experience but can benefit similarly. Consultants offering these services should have deep public sector experience owing to the difference between the public and private sectors.

5.2 Staff Development

It is important that DWSD recognize the importance of developing the knowledge and skill of its future workforce. The skill level within DWSD will become more critical as processes and practices are improved. A number of anticipated new or different skill requirements are noted below:

More instrument tech skills
Operators with more computer skills

New Process Knowledge
UV, Ozone,
Greater process knowledge
Greater need for analytical skills/lab knowledge
More microbial knowledge needed
More chemical knowledge in the water business
More engineering knowledge/skills in management
Engineers will need to acquire more operating familiarity
More growth opportunities for those with potential

The list is not exhaustive. Skills assessment and skills inventories will become increasingly important for successful workforce deployment. Staffing and workforce planning will be an important ingredient. An effective Human Resource Information System (HRIS) will be the most important tool available to the HR department. Staffing planning and HRIS are covered in sections that follow.

Training and Development strategies will be equally important, however. Development of these new and different skill sets within the existing workforce will be crucial to maintaining performance at DWSD. Fortunately a good first step has been taken in the creation of a training vision document. It is recommended that DWSD build on the Training Vision (dated September 27, 2001) prepared for the Detroit Wastewater Partners and the Detroit Wastewater Treatment Plant in the following manner:

- Apply the vision to the whole of DWSD not just the treatment plant and recognize that it may take some time
- Hold training group management accountable for developing measurable standards, which reflect the recommendations in the vision document
- Hold training group management accountable for achieving the measures they develop
- Hold line management accountable for ensuring that employees have reasonable development plans and that they are implementing them
- Consider elevating the function to report directly to the director or an assistant director level position.
- Add a job rotation component to the training vision through the succession planning system recommended below.
- Explore pay for skill initiatives, especially in areas identified as critical strategic areas (see Staffing/ Workforce Planning Section).
- Employ a variety of staff involvement strategies, especially in the development of new Standard Operating Procedures (SOP's) and/ or new work practices. The goal of these involvement strategies will be to increase staff ownership of and commitment to the new practices and increase the likelihood of successful use of new skills.

Elements of Training Vision that will have particular value to DWSD's future are noted below. They are more fully developed in the Training Vision document. They include:

Training Development Planning

- Needs Analysis
- Individual development Plans

Variety of Instructional Methods focusing on the hands-on & SOP training

- E Learning
- CD & other individualized instructional alternatives
- OJT
- Rotation
- Structured Experiential Learning
- Small Group instruction
- Train-the-Trainer Strategies

Supervisory-Management Training
Safety Training
Policy Training
HRIS 'training-tracking' system
Certification Alternatives
Organizational Issues
Benchmarking

5.4 Labor Strategy

As mentioned in the Primary Issues section, the DWSD labor environment will impact DWSD's ability to manage, operate, and maintain the projects recommended in the Master Plan. As a result, A proactive, long-term plan to create a productive labor-management relationship that will serve both parties' interests is recommended. The following are elements of that plan.

- Collaboratively create a 10 to 20 year vision of where DWSD wants labor-management relations to go. Contrast Dearborn and Flint UAW models
- Involve labor in visits to privately operated facilities. Capitalize on the idea that reasonable people, confronted early enough with the same information, will come to similar conclusions
- Create a private management strategy that deals with how management can cultivate (or at least keep from deterring) progressive labor-management leadership within both DWSD labor and DWSD management ranks. Communicate that strategy to key management members

- Develop a meet and confer process to be used between negotiating periods to deal with interim issues and invite the union to confer on traditional management rights issues. The goal is to strengthen labor management relations over the long term, develop progressive labor and management leadership, and facilitate enhanced negotiations

- Drive the interest-based negotiating model into the heart of both formal negotiations as well as informal meet and confer processes

- Continuously focus both negotiations and meet and confer efforts on 'Broad-banding' to reduce multiple classifications at DWSD.

5.5 HR Support

Implement a few key improvements in the HR group's core functions that will enable DWSD to have the right people (qualifications) in the right jobs to manage, operate and maintain the Master Plan projects.

HRIS

There are many Human Resource Information Systems (HRIS) available in the marketplace. DWSD will need to develop a set of specifications to use in evaluating and selecting a HRIS. There are many City legacy systems and data files that a new HRIS would have to integrate and / or replace. All of these would need to be defined. Quick research via the Society of Human Resource Managers (SHRM) shows over 200 software packages available that address one or more components of the required HRIS. Further documentation can be provided on a selected set of HRIS packages that would address the basic functions needed by DWSD. Once these functions are defined, the research can be completed.

Staffing/ Workforce Planning

The implementation of the Master plan will bring a number of changes and challenges for the DWSD workforce. The following illustrates the types of changes anticipated.

More automation, instrumentation

- **PLC's**
- **Piecemeal automation next 5 yrs**

More focus on water quality goals

Source goals
Process goals
Increased regulatory environment
Dist system as well as plants (e.g. flushing)
New processes, more complex processes (e.g. combined UV-ozone, advanced disinfect ion processes)

Organization more process focused

For example, Perhaps a disinfect ion superintendent across all plants or for an entire geographical area.

- Instrument techs for multiple plants, etc.
- More contract operations options for specific processes will be offered by technology vendors

More and more complicated mechanical equipment to maintain
- New processes- membrane, ozone, UV
- More contract maintenance of specialty equipment
- More focus on PM's not CM's
- Smaller plant & equipment footprints

Tighter Security Requirements & costs

More growth opportunities for those with potential

More accomplished with fewer people
- More continuous training
- More employee flexibility
- Fewer people, higher skills, higher pay
- More people in a few places (i.e. Distribution to deal w/ new requirement such as flushing)

Increased competitive environment
- Private sector will become increasingly well capitalized
- Private sector will increasingly penetrate market
- Private sector will find novel ways expand success from smaller facilities to larger entities

Increased cost pressure from rate payers
- More replacement vs. repair
- More PM vs. CM
    - Long term asset focus vs. short term contingencies

In addition to the skill needs noted in the development section above, DWSD will require the ability to deploy the workforce thoughtfully, as well as the ability to selectively staff those areas requiring skills which are unavailable internally. To meet that requirement, DWSD must develop an effective staffing planning process which will enable management to see where skills exist and how they can cost effectively staff or deploy those skills to areas requiring additional resources. It would likely include a skills inventory system that enables DWSD to perform a gap analysis to address the differences between needs and resources.

As noted above the key tool for developing an effective workforce planning solution is a sound HRIS system. Using that system, HR can create a continuous planning process that informs (with good data) recruitment, promotion, training, deployment, and succession.

A successful workforce planning system may require some changed roles within the HR section as well. For example, HR professionals may increasingly be viewed as staff planning consultants, not just recruiters. Their responsibilities would lie in the development and implementation of a successful staff planning system, which works closely in support of the senior management team.

Recruitment Process

It is recognized that in spite of the best internal development and staff planning/ deployment systems, DWSD will be required to recruit and hire from the outside. Key skills are, and will continue to b, very competitive commodities. DWSD will be forced to acquire and retain those skills competitively. To do that the external recruitment-hiring process must be significantly improved.

To improve that effort, it is recommend that DWSD, in conjunction with the city, implement a business process redesign, focusing on the recruitment/ hiring process. Such a redesign project would involve multiple stakeholders from city and DWSD management and HR groups. It should create honest current state measures to begin the effort. And develop a system to track improvements from the current state.

Business process redesign efforts have been successfully conducted at a number of government agencies for a wide variety of business processes. Such an effort is ideally suited to the recruitment hiring process at DWSD. The effort would include developing clear redesign goals, including expected cycle time and candidate perception, at the outset. Goals would be benchmarked against competitive organizations in the area (those with whom DWSD competes for talent). The re-engineering should be DWSD focused but include at least stakeholders from city HR, city management, DWSD management, technology experts, and DWSD HR.

Compensation

Compensation issues will continue to be a challenge for DWSD and the city. The pressure for enhanced productivity and competitive performance will undoubtedly increase. Where workforce redundancy decreases, the importance of existing jobs increases. High technology skills, of course, will be difficult to acquire and retain. Key process skills, experience and specialization will also command a premium. Salary compression, especially in high demand skills areas will continue to require attention. Current activities in the compensation arena will need to be supported. Recommendations include:

Build on a fundamentally sound current approach to compensation

DWSD, through the city, has a fundamentally sound, rational, performance based compensation system. It will need to be supported and expanded to meet future requirements. Salary survey will activity will need to be expanded and tailored to specific needs. Strategies for competitive skill need will have to be developed. More specificity will be needed in some areas, focusing on specific DWSD needs versus overall city needs.

In other areas, such as those with multiple, minimally-differentiated positions, less specificity will be required. In sum, the compensation system will become more flexible and responsive to strategic, often changing, needs.

Use a sophisticated workforce planning system (see above) to plan and identify critical human resource needs.

In general, the compensation system will need to become more integrated with other HR and management endeavors. As the workforce planning system is developed as outlined above, it will be more possible to identify those areas with the greatest potential need for adjustment. Those decisions will not be made simply on the basis of competitive salary positions, but rather on the *combination* of competitive position and DWSD strategic business need. The highest need areas can be dealt with on a priority basis. Non-strategic areas will be important areas for concentrating 'broadbanding' efforts. All of theses efforts, again as noted above, will need to be integrated especially with the overall labor relations strategy.

Expand on and 'target' salary survey activity to those areas identified as critical for DWSD

As areas are identified as strategically important and lacking in appropriate resources or suffering salary based turnover, they will become the basis for narrower, targeted surveys looking across the nation, perhaps, at similar situations. More effort can be focused in these 'tailored surveys if 'broadbanding' successfully frees up resources from other parts of the compensation effort.

Develop targeted strategies for competitive salary adjustments or longer term strategies in those critical arenas

Specific customized solutions are possible and justifiable when more information is available. A good workforce planning system will help differentiate critical specific skill sets and/ or work areas one from another. That information combined with a solid understanding (based on specific surveys) of how the 'outside' world deals with similar situations can enable and justify creative exceptions needed to support DWSD's goals.

Work to 'broadband' (eliminate multiple titles/ranges) in other non-critical positions.

Broadbanding is the popular current term for flattening the job titles and or job categories within an organization. Modern organizations, both public and private, faced with mounting competitive pressures find it necessary to increase the flexibility of their workforces. Broader jobs, entailing multiple skill sets and tasks are needed to enable quick response to changing needs and efficient deployment to resource deficient work areas.

The public sector also finds broadbanding an effective way to decrease bureaucracy in both management and labor ranks. As with all compensation issues, integration with labor-management strategy is essential.

Consider group incentive goal-sharing plans contingent on specific DWSD performance targets

As DWSD seeks to become more competitive, it will need to employ methods common to the private sector. Group incentive plans are routinely employed by contract operators in the water and wastewater industries to reward the achievement of specific unit performance targets. The public sector has begun to employ these approaches in a number of locales. Where public law has prevented such approaches, statutory changes have been made in recognition of the need to 'level the playing field' with the private sector. As long as such approaches are tied to performance they offer the opportunity for a win-win situation between the utility, the public, and organized labor. When considered as a part of an overall labor-management strategy, group incentives can offer a creative means to instituting a progressive positive labor-management client which serves the long term interests of all concerned.

Appendix A
DWSD Issue Summary

(Will be inserted as a PDF)

from 27518/taskE/del/cdm/humanresources/dwsdissuessummary

Issue Category	Issue Description
Grand Total	
More with less	
Staffing/Vacancies	
Turnover Total	
Turnover	Vacancies have left water division with shortage of operators. Failure of apprenticeship program.
	Central Svcs rarely sends special trades staff to learn requirements of a single plant when skilled
	Engineering has gone from DOING to REVIEWING due to staff shortages
	Once hired, staff tend to stay a long time. Turnover is low in higher ranks.
	Need retention strategy for younger employees. Issue is employment package: pay doesn't matc
	for growth are limited, employment practices are poor.
	Manage vacancies through cross training, reducing staffing needs.
Hiring Total	
Hiring	Hiring process very slow (6-12 mo), constricted by HR, City, civil service. People are there to recı
	Very big gap in the number of junior staff working at Water Plants that serve as source for filling v
	With delays in hiring, dept is losing chance to train others to take on duties and responsibilities as
	Informal in-house training program being developed at Lake Huron as an internal goal of plant sta
	Recruiting is difficult, glamour is out of utility professions. Solutions: hire back retirees, cover coll
	Have aging workforce. Recruiting must focus on broader job titles requiring skills, trng, and exper
	Job notices employ city-wide job titles and are not specific to DWSD needs.
	Consider giving hiring responsibility to plant mgrs and offer incentives to employees (trng, career
Promotions Total	
Promotions	Promotions work but create holes that have to be filled.
	Snr Chemists (union title) are reluctant to advance to supervisory position because they are exem
	Staff are frustrated with promotions that don't get granted after 2 plus years because of problems
	Promotions process takes 6-7 months at a minimum.
	For lower level staff, process works fine. At mgmt/admin levels, people aren't prepared properly t
	Difficult to grow mgmt level staff internally. New blood needed from outside the org.
Training Total	
Training	Training good for engineers but could be improved.
	Can't afford to let people go for trng or work stops. Not enough staff to do cross training.
	Training needs significant attention for water division.
	Junior colleges give good background training, but inadequate for providing real life plant operatic
	Mentoring/OJT is only source of training for Water employees since in-house training is so inadeq
	Wastewater Division has good training program due to federal consent decree and adequate staff
	On and off Apprenticeship program for WPO's takes 3-years to complete.
	Snr mgrs do not support reorganizing to establish standardized structure for trng new employees
	Pilot plant at Water Works Plant should be used as trng ctr for Chemists and Operators.
	Need to revamp trng programs to make formal. Union contracts identify training but are not imple
	Don't give mgrs enough financial skills: CIP needs a diet because of no planning, need to control
	Introducing new technology just adds to the learning and training complications because of being
	Trng is to focused on internal trng options. Need to utilize regional seminars/workshops. Mgrs to

	Real need for internal trng progs that transition to additional external trng progs as interest rises w
	More trng dollars needed for mgmt and employees with emphasis on mgrs. Can't offer internal trr
	Trng to increase trust in Dept's SCADA system still needs work. Optr's are not showing confidenc
	Currently lab training does not reflect what job entails. However, meets state requirements.
	In future, trng will help to broaden job skills because there is no expectation that more staff will be
	More trng needs to be done with new employees so they can think and understand their job and b
	Chemists hired right off street with no familiarity of how water plants function. Inadequate OJT. F
	Training programs at Water and Wastewater are separate programs.
Contractors/Temp Help Total	
Contractors/temporary help	Sets a bad example since contractors make a lot of money compared to City staff.
	In-house can't offer skilled trades training so rely on outside contractors for these services.
	Contractors provide more flexibility and many specialized personnel the Dept. needs but can't hire
	As-needed engineering svcs contract allows contractors to prepare project specifications due to s
	Problem with contractors is that they are project specific and don't understand the organization. F
	More should be done to contract unique svcs (grass cutting; snow plowing, payroll, clng svcs) Sta
	Don't like bringing in contract labor when staff need trng especially if union staff could do work if th
Succession Planning Total	
Succession Planning	Engineering provides PM trng to everyone so that staff can be diversified, improve writing skills, s
	Number of vacancies and potential number of eligible retirees is alarming. 40% in next few years
	Staff retention is difficult in that once operators are trained, private sector sources hire them away
	Offers a procedure to monitor and highlight mgmt eligible staff from technical oriented staff.
	No succession planning being done to capture the historical experience and knowledge that exists
	Individuals retire and get hired back under contract for something to do. Opportunity for mentorin
	Need to build workforce that can understand, operate and maintain more and more complex syste
	With exodus of mgrs in next four years, lower level mgrs not trained or really capable. Issue is mg trained as mgrs. Trng is provided but slim and classes are not mandatory.
City Services	
Human Resources Total	
Human Resources	Need significant improvement in management and administration of HR duties. To much red tape
	Need ability to hire and fire quickly. Current system coddles poor performers.
	Each division works with HR Business Partner but they have been ineffective and largely ignored.
Procurement Total	
Procurement	Requisition limits are to low for plant managers, division directors and Director.
	Access thru new Procurement Card is good. Standards for utilization are not the norm for industr which holds managers more accountable.
	Scope creep is biggest challenge and delays projects.
	Construction projs cost 30% to 300% more than they should because of procurement requirement
	Cost to prepare contract docs for bid averages $250,000. Hands touching contract need to be rec
	Due to long lead time to purchase materials, PM's are forced to purchase items through contracto
	Allow procurement direct from manufacturer to avoid state sales tax.
	Purchasing treats chemicals as inventory item which requires a PO through EMPAC system. Nor
	Mgrs should be given authorization to purchase and should be held accountable for excesses and
Legal Total	
Legal	DWSD's legal team was transferred to City Legal Dept which has slowed contract review significa
Civil Service Total	
Civil Service	Disciplinary actions are not enforced, requires to much energy and the problem employees are ne

	Guidelines allow for bumping rights based on seniority. Not unusual to get a non-utility employee
New Entity/Independence Total	
New Entity/Independence	Need to create new independent agency.
	Would be best development for organization to attract new staff, establish an appropriate payroll s
	State is pushing the idea of regionalizing the department and its operations.
	Issue is a two-edge sword: (i) City loses control, (ii) Suburbs like to blame City for rates & may in
	Would like DWSD to be as competitive as electric power utility. Better pay, better trained, no thre
	Believes employees feel secure and shouldn't be. Programs could be contracted out if its easier t
Culture	
Control Issues Total	
Control Issues	Plant mgrs would like more control over formation of project specifications currently prepared by e
	There are to many procedures meant to control people which leaves everyone hamstrung.
	Believes dept design groups are working on project proposals one at a time and not multiple prop
	short staffing and snr mgrs drawn into technical review normally done by mid-level mgrs.
Decisionmaking Total	
Decisionmaking	"Make the decision and learn from your mistakes." Too many afraid to make decisions.
	Don't run organization like a business.
	Satisfied with support to push decision-making down to lowest staff level. This is not universal.
	Chemists at Wplants don't understand how water treatment process works. Water quality is their
	only group or employee class eligible to become a WTP Mgr and licensed operator.
	City is too involved w/ checking, balancing, trying to be fair, making it less productive. City should
	Decisions not being made nor can they be made quickly. Mgmt is consumed by politics.
	Crucial decisions may involve 15 to 20 people. Weak links in mgmt chain delay decisions. Need t
	Decisionmakers/mgmt structure is fragmented. Div's don't operate together and Dir's lost in detail
	Dept paying a lot of overtime while vacancies go unfilled. Employees now expect extra income.
	Supervisors authorized to allow overtime should not be eligible for overtime.
Mgmt/Leadership Total	
Management Style/leadership	Need strong Director. Someone with vision.
	Director position has gotten way to politicized. As a result, DD has represented real authority in p
	Need major sea-change in how org looks at CIP. Each proj looked at as discreet activity rather th
	Job starts is not a clear indication of workload, whereas, progress to date provides a real m
	Need to align leadership with the direction the org needs to go.
	In past, transitions to new Dir's were smoother. Whole Dept has been affected by delay of appoir
	Many mgrs burned out, not dedicated, not focused and fail to encourage staff. Trng useful but iss
	change person to change people under them.
	Dept needs to present package it wants to Labor Relations and its Labor Relations job to get it do
	consolidating job titles, amending pay scales to be broader should all be pursued vigorously
Ownership Total	
Ownership	A Planning Group is visualized as center of circle of stakeholder groups: finance, system control,
	Organizational requirements of a Planning Group: (i) staffing; (ii) modeling, GIS, financial plannin
	Dept can only have one mission: provide potable water and treat wastewater. It cannot be a soci
	Engineering Staff could probably do the work with the numbers at current levels if they were dedic
	Culture change program was a good start, but it was implemented poorly.
	More effort needs to be made to develop a proactive workforce for dealing with customers, whole
	Organization cannot allow the public to lose confidence in the quality of the product and svcs prov
Alignment Total	

Alignment	A formal transition process does not exist to aid the transfer of WTP Mgrs from one plant to anoth
	Should be more partnering within depts and willingness to admit mistakes.
	Staff attitude not good. Problems with promotions, salary freeze, back pay problems are the caus
	Considers AD's are primarily used as facilitators. Under independent structure may be less need
Compensation	
Salaries Total	
Salaries	Results of salary survey show DSWD salaries are low. At a minimum, entry level salaries should
	Top mgmt slots are not appropriately compensated for all they are responsible for based on new c
	Difficulty hiring staff engineers because salaries are inadequate to be attractive.
	No uniform salary structure between City and DWSD. Critical issue and morale problem.
Incentives Total	
Incentives	Gain sharing would be an opportunity with merit. Performance evaluation program failed. Can't a
	No training was offered to manage earlier attempt at incentive plan.
	Preference for performance incentives and delegation of authority to encourage staff.
	Mgrs should have flexibility to propose ideas and HR should support them. Keep incentive plan o
	Residency rule change has hurt Lake Huron Plant which was never covered by rule by location. N
	Elimination of the residency rule may attract engineers from the region rather than just Detroit.
	Incentives not considered a strategy because of the budget impact and budgets are frozen.
	Well trained employees don't need incentives to perform productively. Empowerment is the key.
	them to be leaders that comes with salary increases, more responsibility and more variety.
Benefits Total	
Benefits	Whole benefit package needs to be reviewed for adequacy.
	Benefit package may or may not be the issue. Considered good. Quality of life issues are the qu
Structure	
Job Titles Total	
Job Titles	Water Plant Mgr does not see need to compress job titles, they are sufficient for his needs.
	Managers believe consolidation of job titles is a good idea. Should have broader range of respon
	Cross training is limited due to existence of 200 plus job titles that are narrowly written.
Table of Organization Total	
Table of Organization	Engineers used to be in position of WTP Mgr but this changed with focus on water quality in 1980
	Prog mgmt system (PC744) will evaluate efficiency of wastewater plant workforce. System could
	employees can run five water plants vs 2,000 wastewater employees to run one treatment p
	Too many layers of mgmt for efficient org. Before last change in structure, 4 layers. Last chg adc
Master Plan Group Total	
Master Plan Group	Need structure to support dept wide SCADA initiative*
Maintenance Total	
Maintenance	Central Svcs maintains assets using maintenance mgmt software from EMPAC.
	WPO's are not well trained on how water treatment process works, only that they need to be chec
	Water Works staff used to running and maintaining 1920's equipment. Avg age of staff is high. C
	Central Svcs is wrong to maintain skilled maintenance support contract. Prefer skilled trades in-h
	EMPAC is not being fully utilized.
	CMMS at wastewater plant is in 3rd generation of software. Additional software tech should not b
	support to implement the package and make it worthwhile.
	TVing sewers is only done with a development proj. CM and PM is performed in area of developr
	Don't have time to schedule televising of sewers when they are responding to CM problems due t

	Current process of assigning staff by geographic area needs to change to assign staff where work
	Need to be scheduling sewer clng and other PM work but can't without additional crews. Currentl
	Maint Div trying to use EMPAC but delayed. 75% of DWSD using EMPAC, Maint Div is 25% that and work order tracking.
	New SCADA system (Proj 713) will establish 2 monitoring points, WW plant and Central Svcs. Im Offers opportunity to better utilize and focus staff resources to the most critical system probl
Labor Relations	
Rotation Schedules Total	
Rotation Schedules	Basis for retaining rotating shift schedule is because mgmt can operate water plants with least nu
	Permanent shift schedule would require additional staff which Dept and City are trying to deter.
	New employees find it difficult to take on rotation schedule. Apprentices don't last long.
Multi-tasking Total	
Multi-tasking	No cross training being done because union titles are so specific.
	Unions may be receptive to a consolidation of job titles that offers employees more money and m
	Resistance to broader and more flexible jobs incorporating cross trng is a fear of reduction of mer
	Expect training will change to develop multiple tasking abilities
Obstacles Total	
Obstacles	Staff shortage with 150 open slots in engineering due to hiring freeze.
	Can't pay enough to attract and hold people. Stalled promotions, salary freezes undermine staff r
	Educated people on staff don't complain about positions, whereas, non-educated do.
	Need independent entity to impose new solutions on people who don't really want to work.
	Senior Chemists at Water Plants can authorize overtime for staff as well as themselves.
	Head WPO can authorize overtime for staff but cannot approve their own. Requires approval of V
	Relationship between mgmt and union is dependent on who is President of union. Membership is
	Poor relationship between mgmt and unions. Individuals are more of a problem than union leade
	DWSD will absorb people before letting them go.
	Unions are strongly resistant to anything that will impact their numbers, even attrition strategies*
	Skilled trades are more open to performance mgmt strategies whereas, non-skilled unions resist a
	Issue of workload and expectations are different between private and public sectors.
	Mgmt has not conveyed importance of performing mundane maintenance work and the critical rol
	Needs to be a clear message that employees will not be losing their jobs if consolidation of titles p
	Key here with employing new technology is having adequate staffing coverage to pursue trng to u
	Current staff have no incentive to get new skills
	City Council and Water Board has to get out of micro-managing the Dept.
	In some ways, org has given up on doing things differently due to frustrations of civil svc, labor-mg
	Believes future challenges lie with hiring and retention of adequate staff.
	Water distribution system has 4,080 miles of mains that were installed in 1890 and 1900.
	Unions are biggest hurdle blocking positive change opportunities.
	Job specs are specific and narrowly defined and unions compete against use of outside contracto
	Unions operate from their perspective and 1960 job descriptions support that position.
Information Management	
HRIS Total	
HRIS	City uses Oracle system for staff tracking. Doesn't provide info at Div level and only tracks numbe
	Accurate personnel/staff data is not available. The Position Control report does not correlate to th
	Two steps req'd for allocating positions: (i) establish a classification plan, (ii) approve financial all

	Acquisition and installation of comprehensive new HRIS system would be helpful for dept to cure
Technology/Software Total	
Technology/Software	Definite improvement in staff utilization in last few years.
	Engineering office working on document mgmt system just for them. Frustrated with lack of acces
	DRMS not designed to treat DWSD as enterprise fund. Need more people to run system. Payrol
	Would like to bill staff engineering hours to force accts but can't because financial system doesn't
	Cautious on technology since it may offer new tools/efficiencies but may not reduce staff needs n
	Would like more budget information on a regular basis. DRMS not capable of producing budget ir
	Payroll system should be in electronic format and eliminate manual sheets. Require electronic de
	New technology can create problems of responsibility and accountability.
	Technology is not a total solution. Need more staff to meet PM schedule as opposed to CM sche
	New technology offers benefits but deficiencies in staffing/procurement hinder real progress.
	GIS install is fragmented. Integration hasn't happened as planned. City, Co, DWSD to join on com
	Currently rely on too many manual systems. Computers are breaking down and IT support is not
	Tech/automation is great but should be supported with manual backup when systems fail that are
Communication Total	
Communication	Information is not being distributed through the ranks from mgmt. Mgrs talk to each other but not
	Engineering attempting to document standard engineering procedures. Currently there are not st
	DWSD puts out quarterly newsletter for employees. Not informative and feature articles on recen
	Real concern about budget info not getting out. Communication is key so mgrs can manage and
	Dept needs to make stakeholders in org aware of where they think and want the org to go.
	Communication with Mayor & Finance Dept is dysfunctional because Water Bd has changed relat
Miscellaneous	
Health Issues Total	
Health Issues	With aging work force, seeing more chronic illness (obesity, arthritis, other diseases). Need to hir
	and to prepare future employees to fill voids as they occur.