



***Detroit Water and
Sewerage Department***

***Sue McCormick
Director***

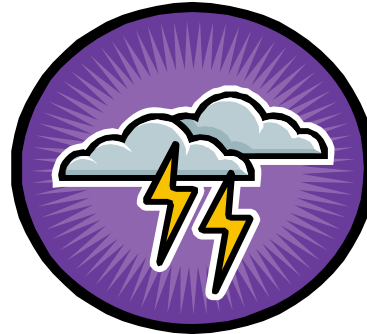
August 2012

Agenda

1. Introduction (Sue McCormick)
2. Key Findings
3. High Level Org Chart
4. Division Level Org Charts
5. Summary of staffing
6. Classification List
7. Key Recommendations
8. Proposed Next Steps
9. Closing Comments (Sue McCormick)

The Perfect Storm

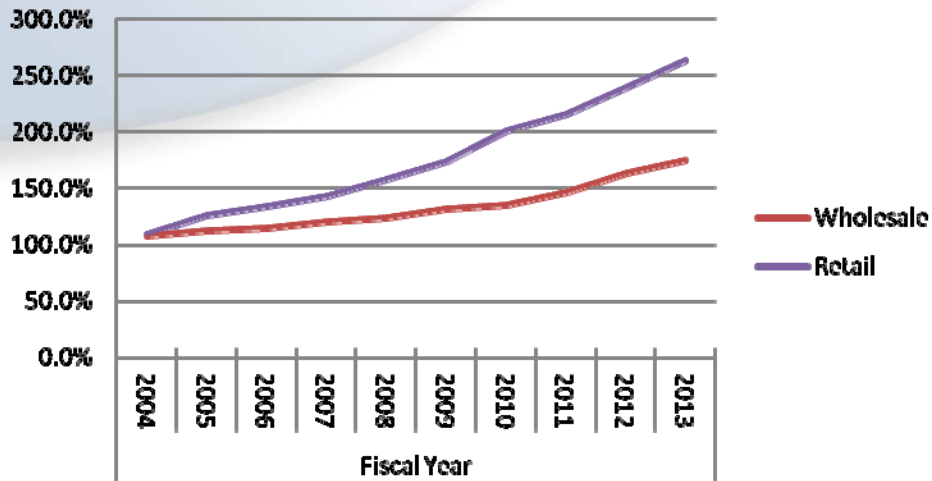
INCREASING



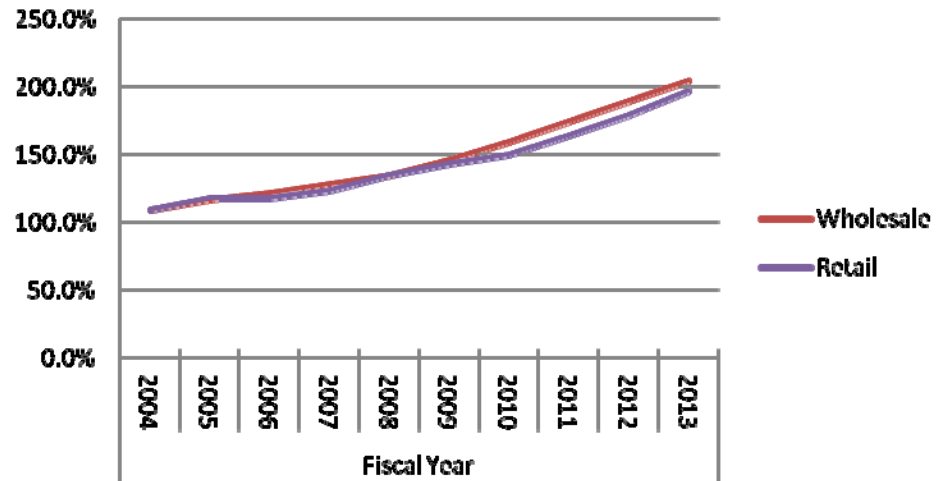
DECREASING

- Citizen expectations
 - Capital investment needs
 - System Debt
 - **Personnel Costs**
 - Health Care Costs
 - Pension liabilities
 - Productivity costs
- System reliability
 - Support for significant rate increases
 - Federal \$'s in grants or low interest loans
 - Numbers of customers and sales

Compounding Effect of Sewage Rate Increases



Compounding Effect of Water Rate Increases



The affordability picture (June, 2012)

Federal regulations gauge water services as affordable if 'bills' are less than 2% of the median annual household income.

- *Sewer bills are now consuming a higher share of income than in 2009 having risen from 2.43% to 2.64% MAHI (June, 2012)*
- *Water bills are consuming approximately 1% of MAHI*

Debt Service requirements

- The Water financial plan projects debt service remains approximately 44% of the revenue requirement through 2016
- The Sewer financial plan projects debt service remains approximately 40% of the revenue requirement through 2016.

2012 CIP (basis for the current financial plan) constrains both Water and Sewerage Capital Investment

Compelling Case to reduce O&M at the same time addressing:

Shift toward revenue financed capital

Addressing Backlogs:

- restorations
- preventative maintenance requirements in distribution and collection systems
- collections activities

Employee Training and Development

Etc.

Organizational Conversations With:

DWSD Management Team

Labor Leadership

Employees throughout the Utility

- Reorganization creates efficiency opportunities and clear accountability and responsibility
- Job design reduces the number of job classifications to increase work flexibility* and creates career opportunities for all employees

* From the November 4, 2011 order of the US District Court
Eastern District of Michigan Southern Division

EMA engaged to conduct an Organizational Assessment because:

- Utilize significant employee input in the assessment of the current organizational situation – interviewed at least one employee in nearly every job classification.
- Conduct desk audits and review technology and business processes
- Track record of results that achieve or exceed their projected savings
- No compromise on Safety or Quality

Today's Presentation...

- The results of EMA's 90 day assessment
- A recommended Organizational Design and plan for moving forward

After EMA's presentation I'll outline next steps

August 2012

Detroit Water and Sewerage Department

Organization Assessment Presentation of Results

Presented by:

*Brian Hurding P.E.
Vice President*

*Denise O'Berry
Practice Group Manager*





2

Key Findings

Key Findings

- Siloed organization
- Inflexible job descriptions
- Multiple reporting levels
- Lack of training
- Seasonal work issues
- Ineffective deployment and use of technology
- Disconnected business processes

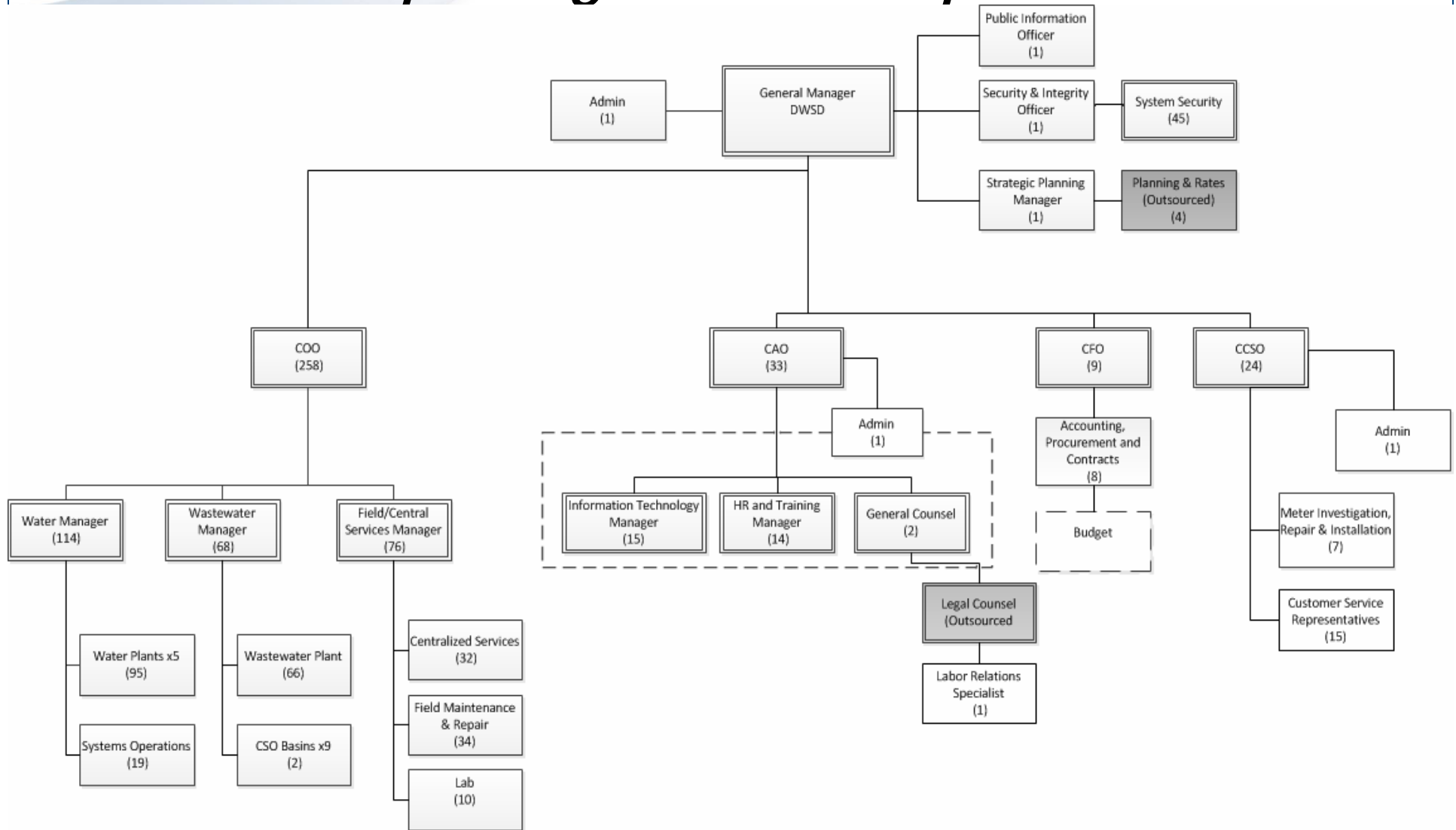
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High Level Org Chart

Flexible Organization Approach



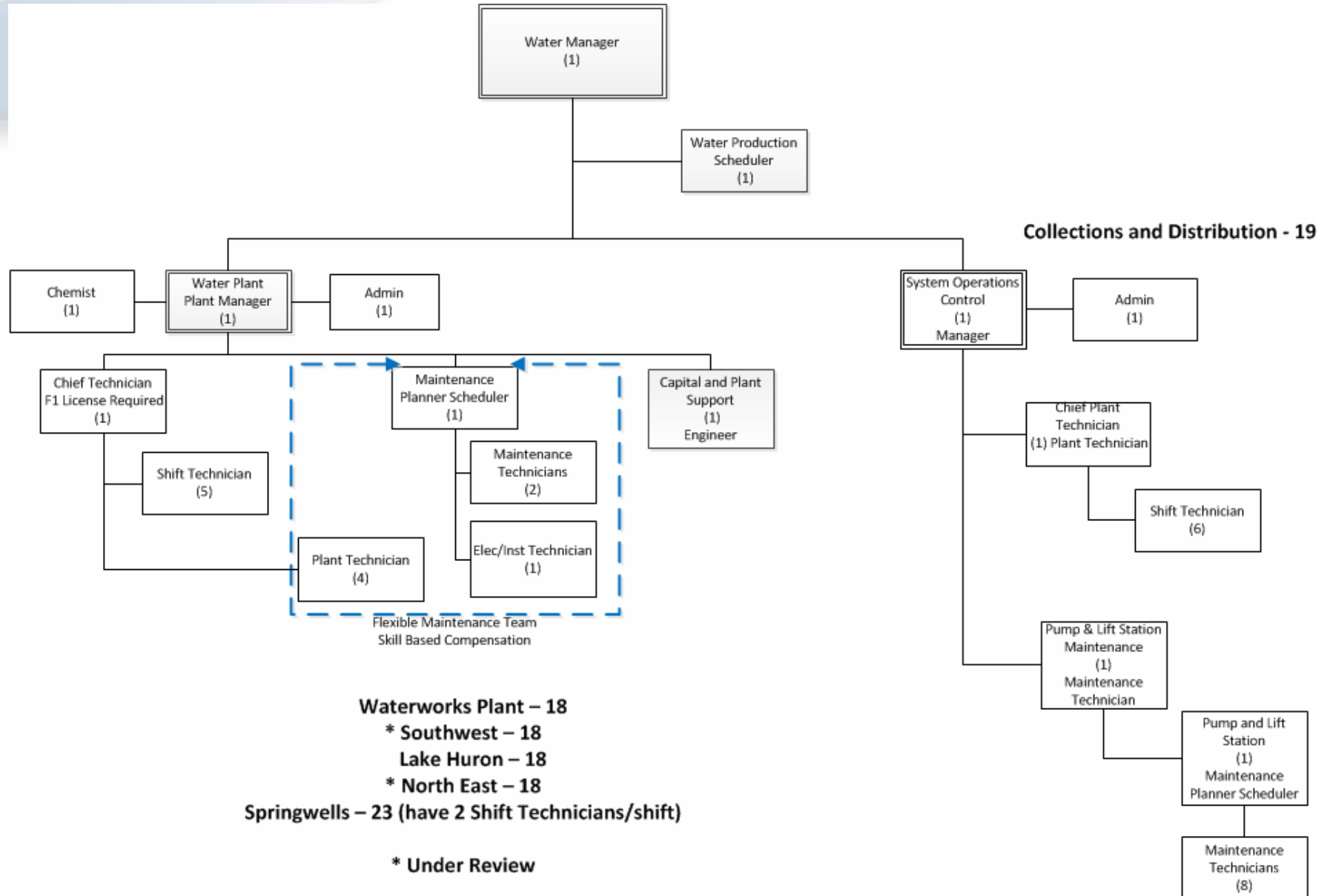
Detailed Reporting Relationships



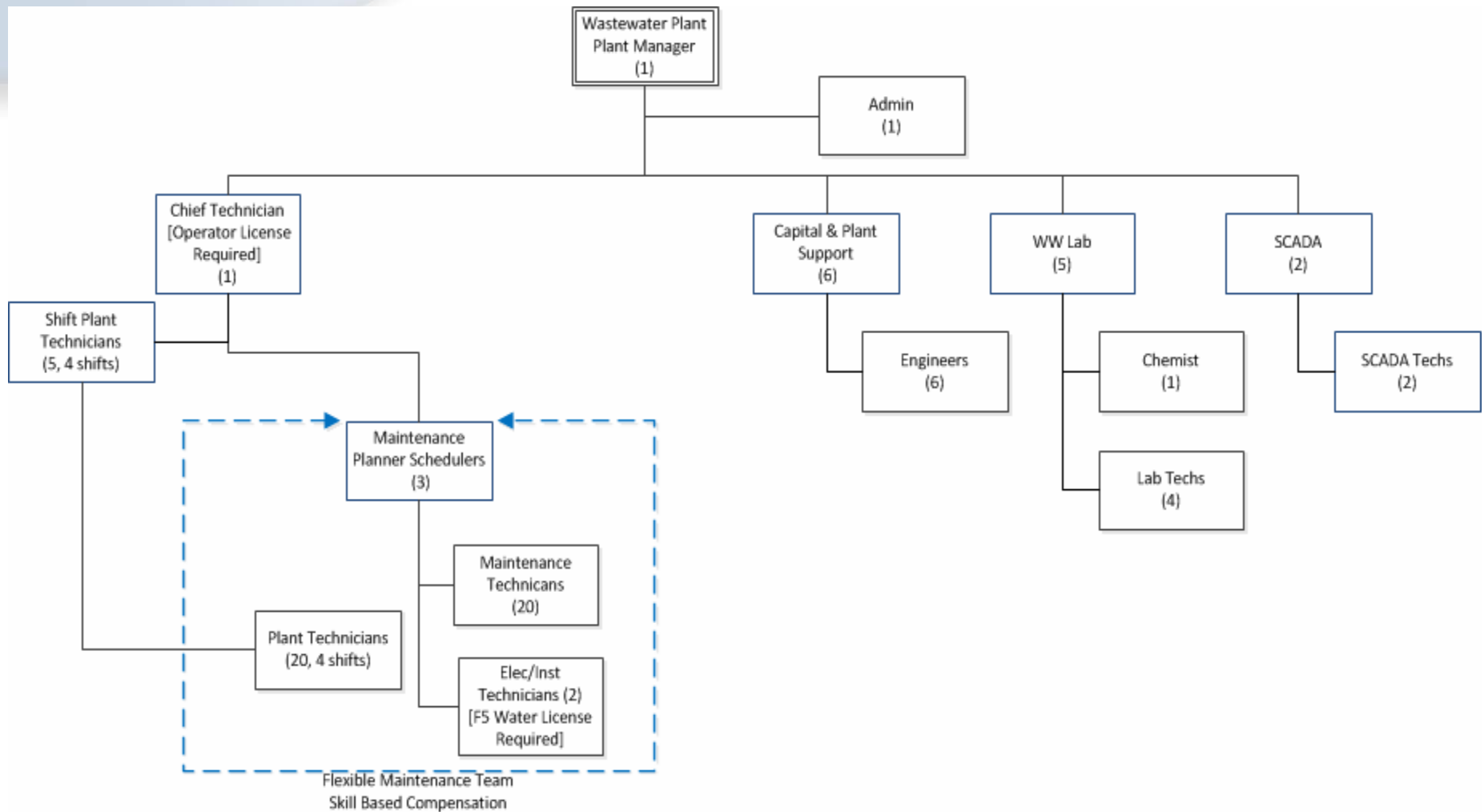
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Detailed Reporting Relationships

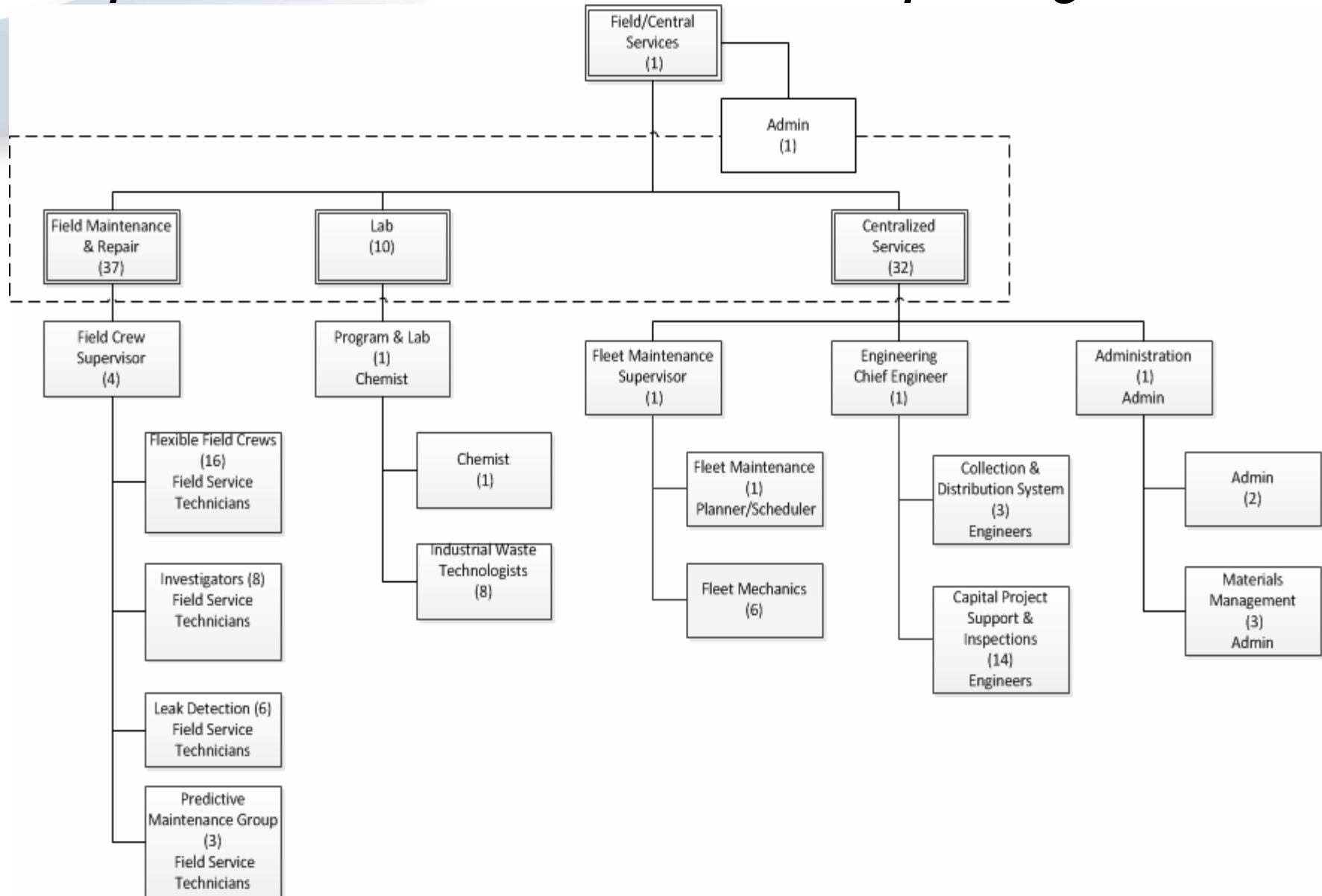
Proposed Water Reporting Relationships



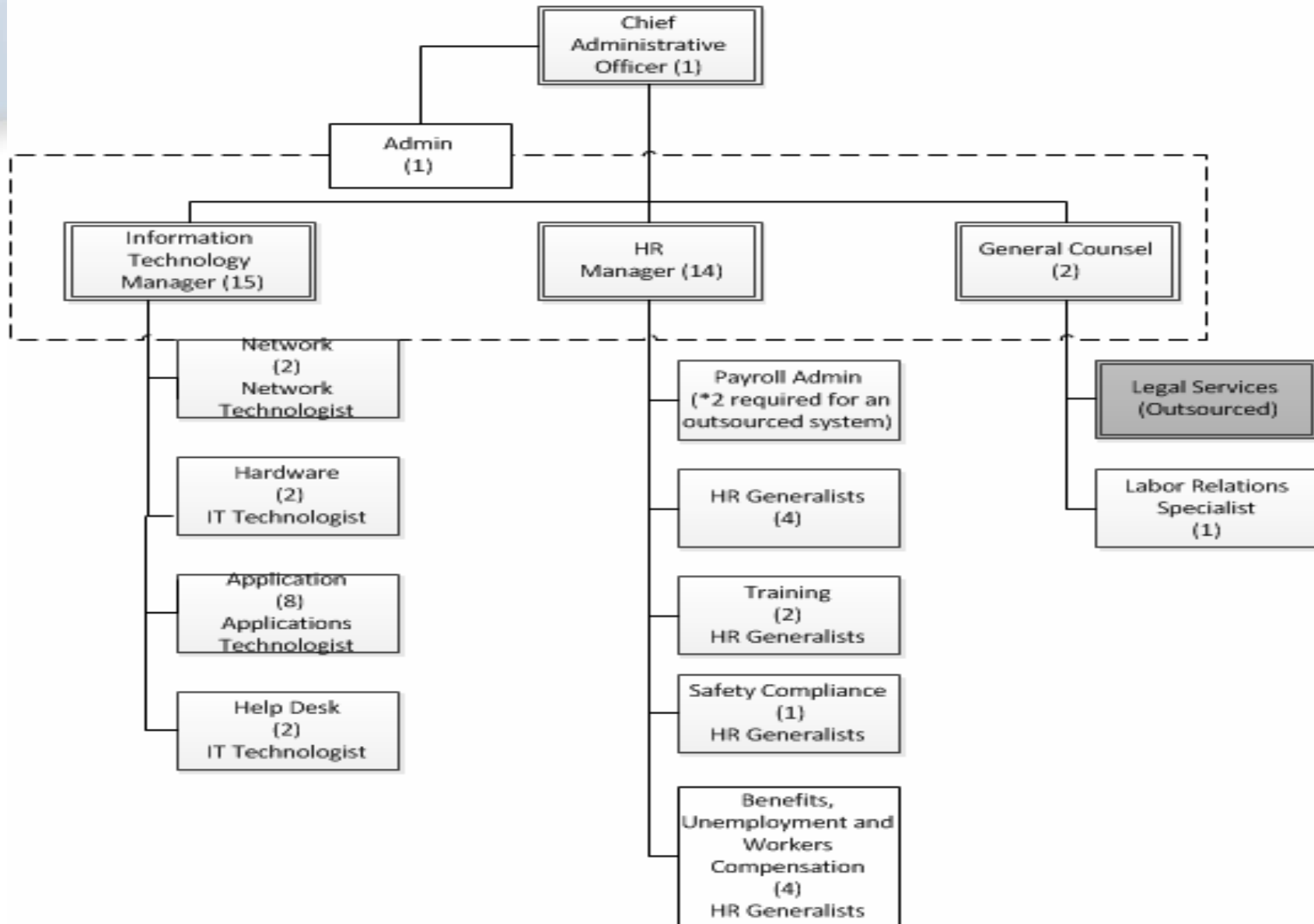
Proposed Wastewater Reporting Relationships



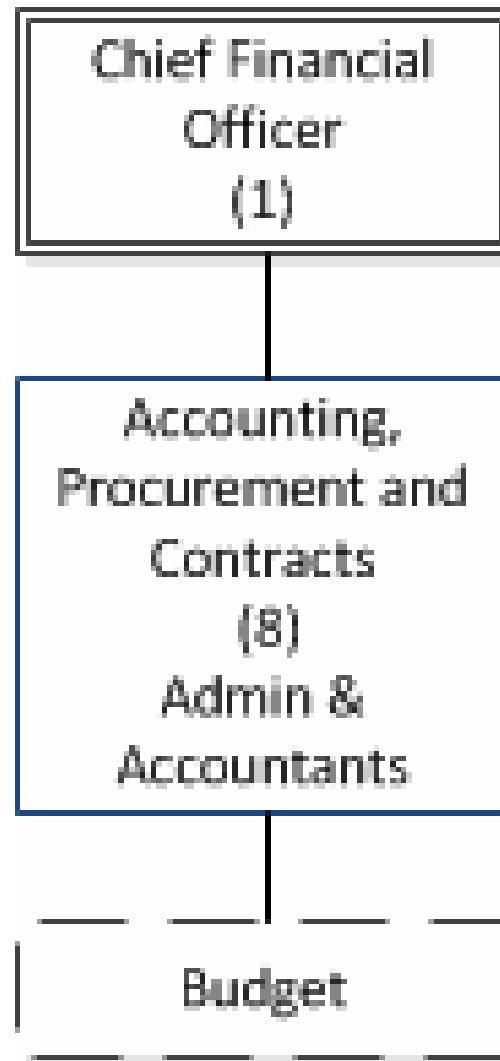
Proposed Field/Central Services Reporting



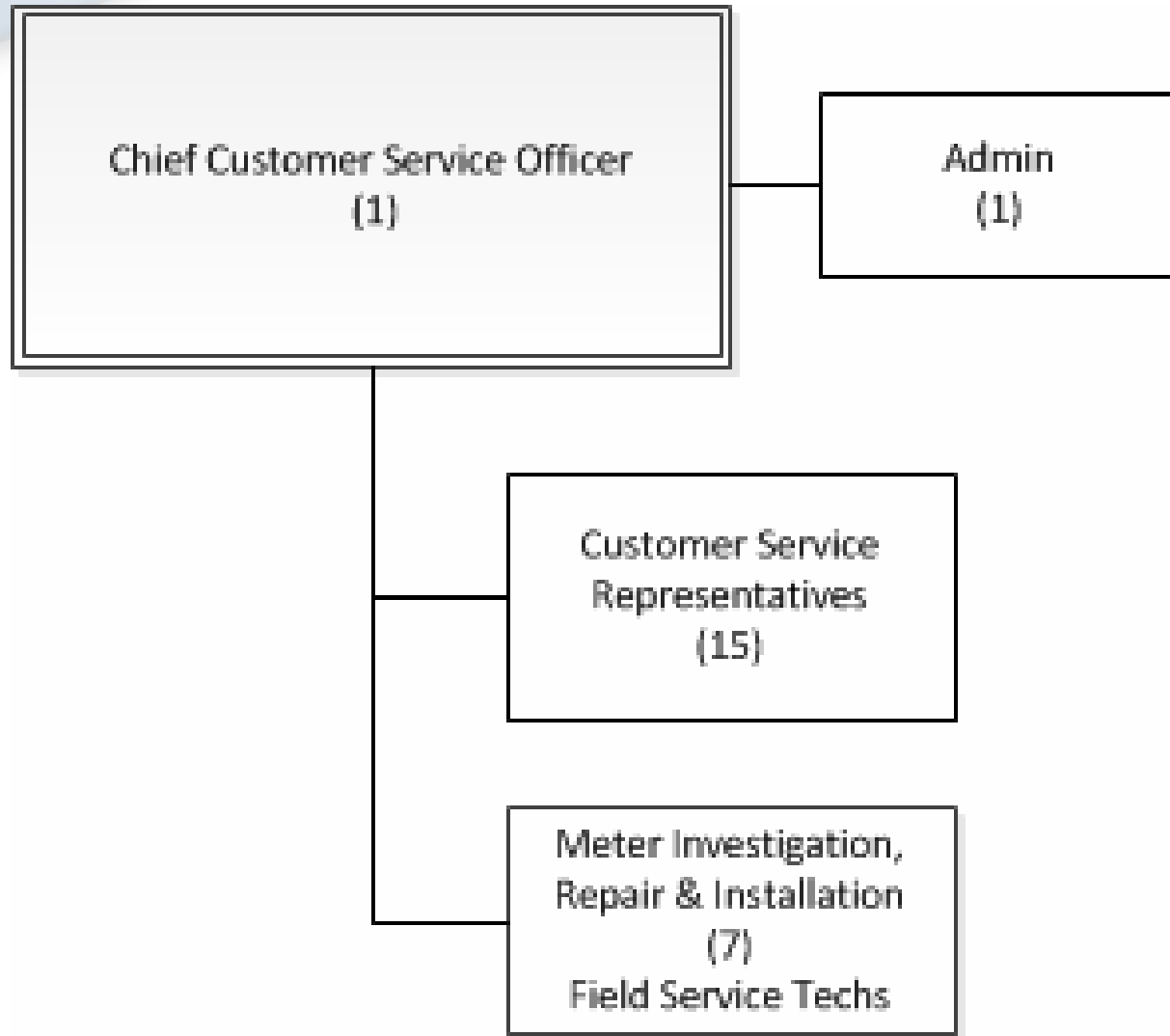
Proposed Admin Service Reporting Relationships



Proposed Financial Services Reporting Relationships



Proposed Customer Service Reporting Relationships



5.

Summary of Staffing

Savings to date

- Budgeted staff 2012 – 2,244
- Existing filled positions as of June 2012 – 1,978
- Savings already identified - \$23M annually, realized in 2014 budget

Projected Staffing Summary

- New planning numbers are 374 staff, (and 361 outsourced)
- Current payroll is 1,978 staff June 30, 2012
- Burden Rate is \$86,135
- Reduction provides \$138,160,540 in annual staffing net cost reduction
- Reductions can only be fully realized with an investment in job design, training, re-organization, outsourcing and technology upgrades

Potential Outsourcing ~ 361 positions

- Functions that are not part of the Core Business:
 - Non-repetitive lab functions (\$1M)
 - Security, to be evaluated (\$1.8M)
 - Rate Setting (\$150K)
 - Grounds Maintenance (\$500K)
 - Facilities Maintenance (\$2M)
 - Office Cleaning & Garbage Collection (\$500K)
 - Minor/Major fleet repairs (\$300K)
 - Payroll (\$40K)
 - Legal (\$1M)
 - Print Shop (\$100K)
 - Billing and mailing (\$2.2M)
- These are new annual costs that are required to achieve greater savings. \$7M in additional expenses offset \$32.13 M in current costs.

Reduction Targets

Item	Reduction/Year	Notes
Staffing	\$138.1 Million	1,978 to 374
Chemical Use	\$2.6 Million	15% of \$17.4M
Energy Use	\$4.8 Million	15% of \$32.3M
Vehicles	\$3.6 Million	724 vehicles @ \$5,000
Total	\$149.1 Million	33% Reduction

- Additional costs and projects are required to achieve these savings
- Does not include cost savings from benefit changes already implemented, reductions in overtime, or staffing savings already implemented

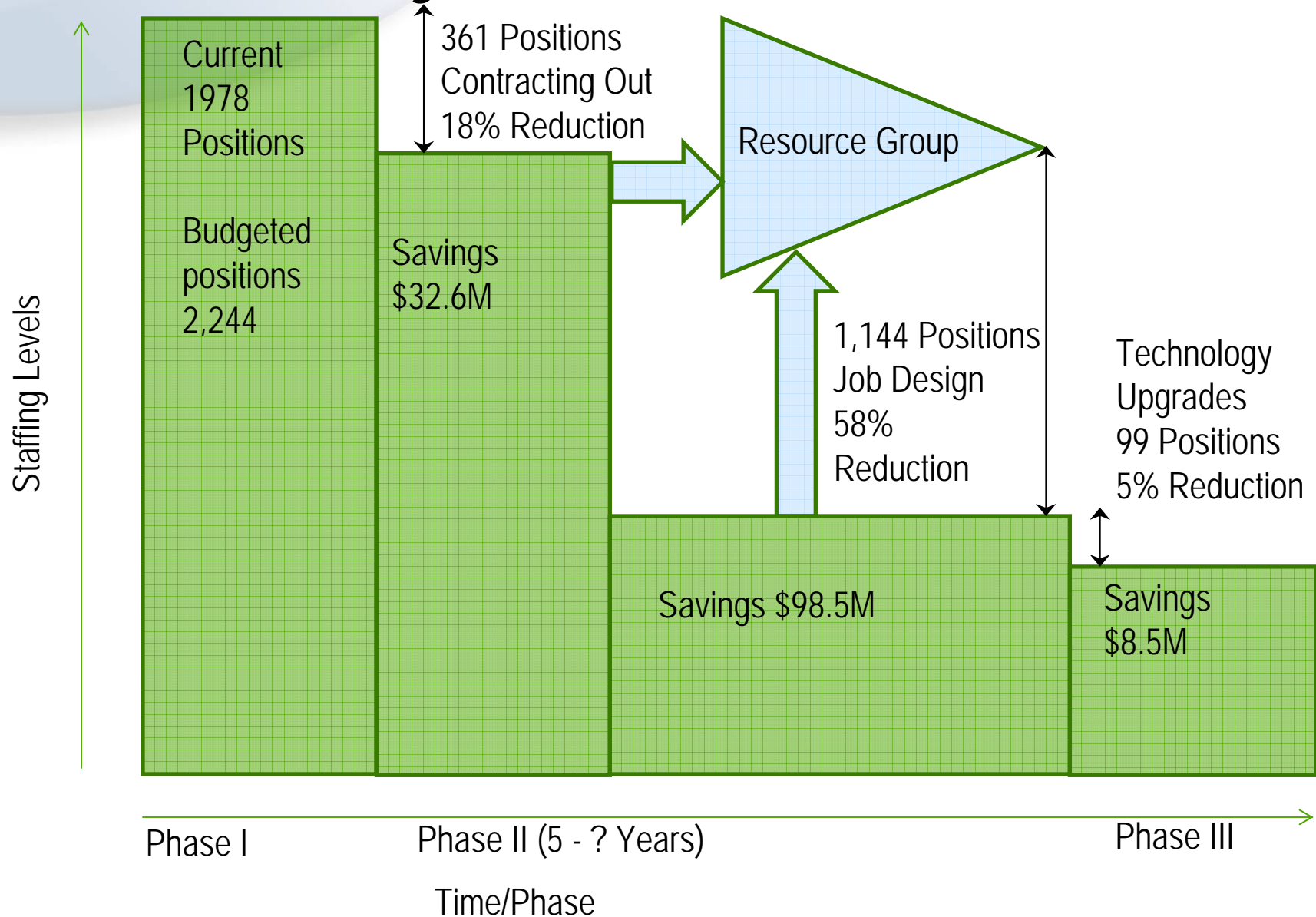
Additional Cost Summary

- To achieve the savings in staffing a number of activities are required
 - Complete job design, training, re-organization and technology projects
 - Invest in current systems and technologies through licensing costs and on-going training costs
 - Outsource for large engineering projects and for peak times
 - Contract out non-core functions for low cost services
 - One-time separation costs

Job Design Benefits

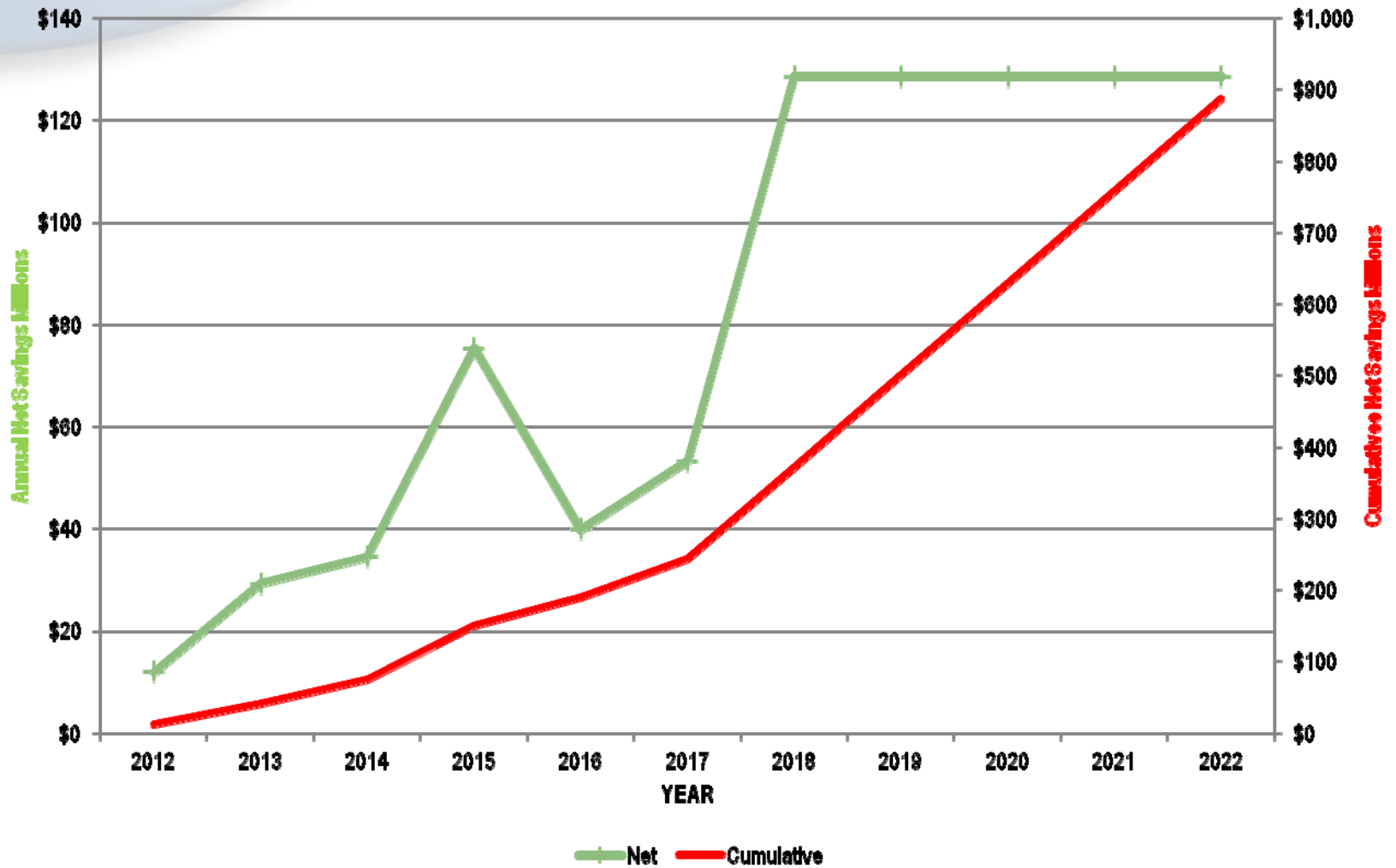
- Career Development
 - Employee driven
- Job Enrichment
- Compensation
 - Potential for higher earnings
- Flexibility and depth of coverage
- Organization Sustainability and Succession Planning

DWSD Projected Staff Reductions



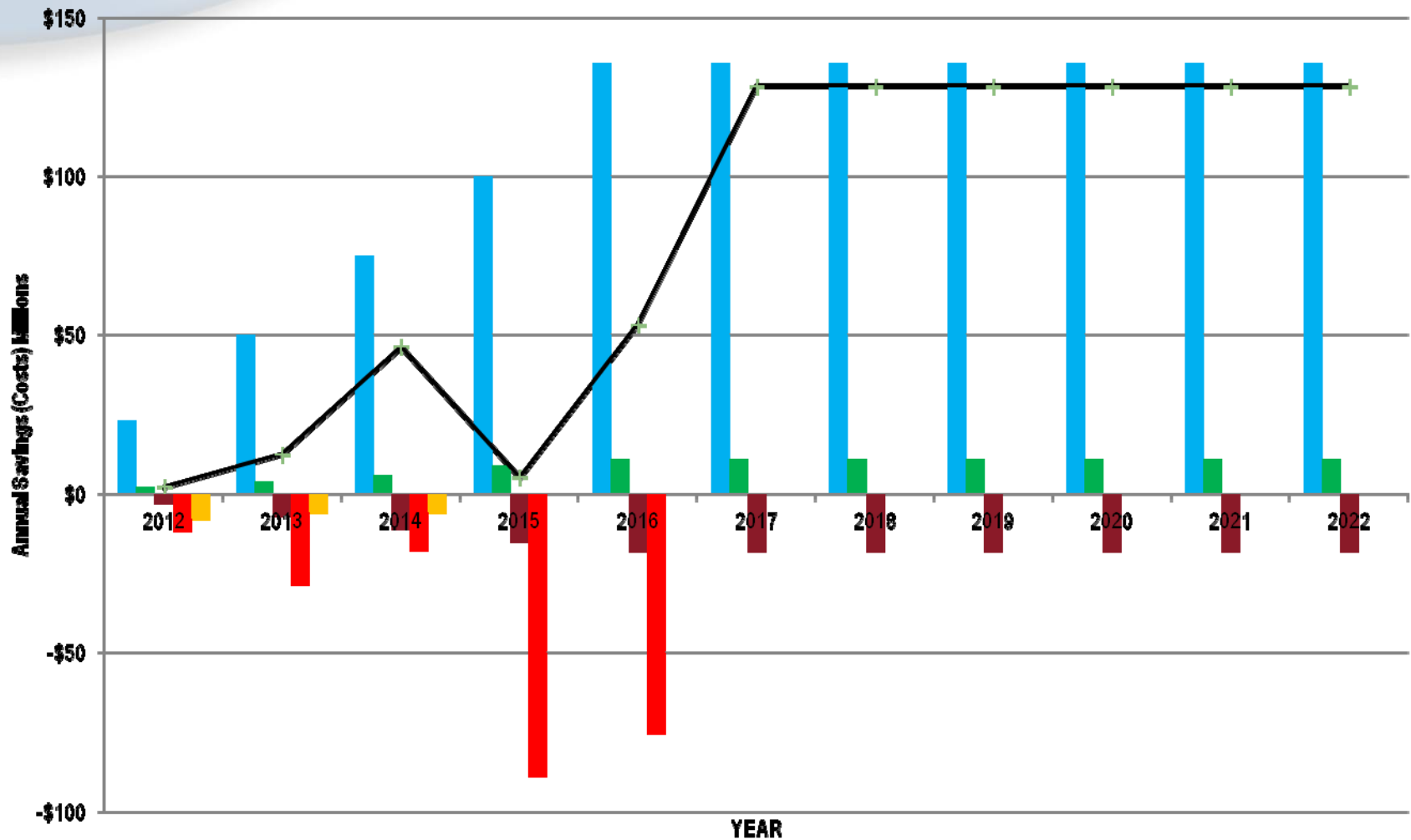
Cumulative Savings for Implementation of Recommendations 2012 \$

DWSD Reorganization Target Savings



DWSD Target Savings, 2012 Dollars

DWSD Reorganization Estimated Savings



■ Labor Savings
 ■ Operational Savings
 ■ Ongoing Expenses
 ■ Projects
 ■ Separation Expense
 — + Net

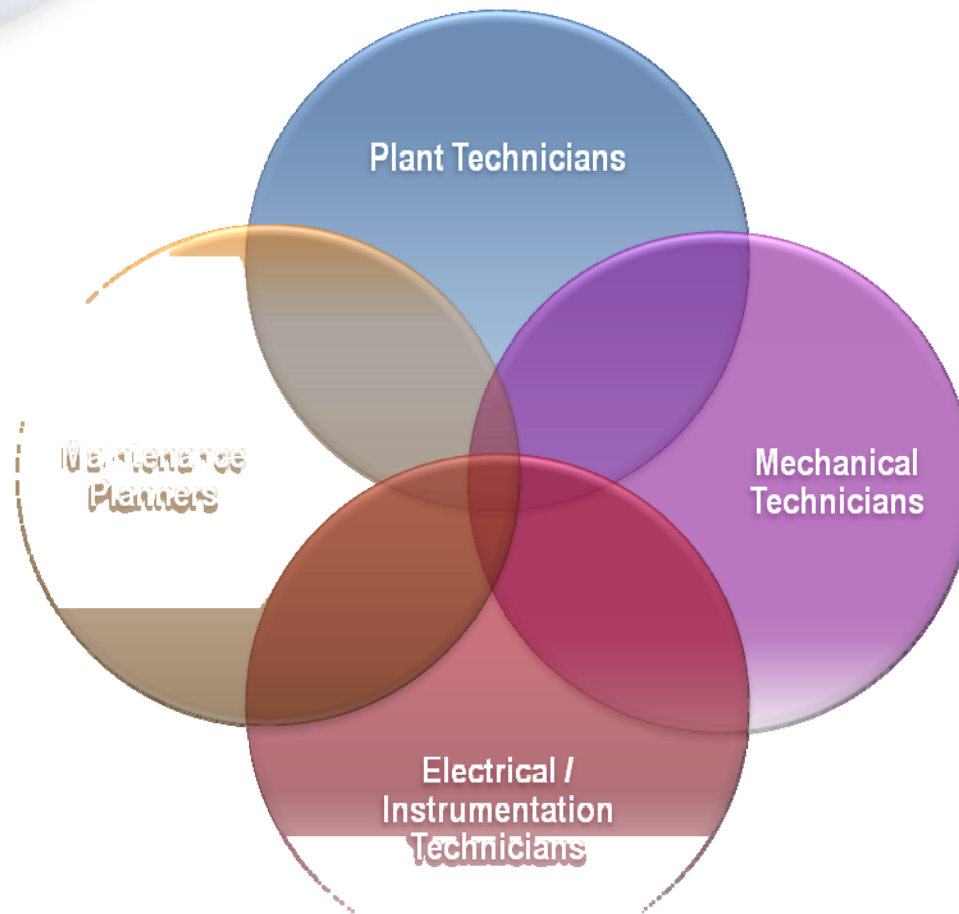
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Classifications Listing

Current Number of Classifications vs. Proposed

- Approximately 257 Classifications at present
- 31 proposed classifications including 5 management classifications
- 3 to 5 skill set levels are proposed for most classifications

Flexible Team Approach



Proposed Job Classification List

Operations		Admin	Finance	Customer	Management
Chief Plant Technician	Chemist	GIS Technologist	Accountant / Agent	Customer Representative	General Manager
Shift Plant Technician	Lab Technician	IT Technologist			CFO, CCSO, CAO, COO
Maintenance Planner Scheduler	Field Service Technician	Network Technologist			Manager
Plant Technician	Industrial Waste Technician	Application Technologist			Officer
Maintenance Technician	Fleet Mechanic	Administration Support			Security Guard
Electrical-Instrumentation Technician	Inspectors	Labor Relations Specialist			General Counsel
Engineer	Plant Manager	HR Generalist			
SCADA Technician	Field Crew Supervisors				

As-Is vs. To-Be % Reduction

Jobs	Current Number of Positions	Targeted number of Positions	% Reduction
Management / Supervisors	241	32	86.7%
Staff	1737	342	80%
Total	1978	374	81.1%

7.

Key Recommendations

Key Recommendations

- Many recommendations are common across all groups
 - Flexible Job Design
 - Resource Loading
 - Automation
 - Computerized Maintenance Management Systems (CMMS) Improvements
 - Change in Business Practices and Enterprise Systems

Job Design, Resource Loading, Work Area Teams

- Many recommendations are common across all groups
 - Resource Loading for positions to confirm the number of staff and duties, design the new work practices
 - Implementation of new work practices on a pilot basis
 - Training for staff in new practices, procedures and technology that will be implemented
 - Introduction of succession planning

Automation

- Leverage existing automation to allow for less attended facilities
 - Single location for monitoring and control of a facility
 - Increased monitoring and controls at all facilities, in conjunction with hardware and software upgrades
 - Design and implement process controls for energy efficiency and chemical usage

Leverage Enterprise Systems and Computerized Maintenance Management System (CMMS)

- Streamline materials management and time tracking through integration
- Apply reliability program to achieve 80/20 Planned Maintenance to reactive work split
- Streamline the purchasing of parts and services
- Interface GIS and CMMS to better manage linear assets
- Implement Asset Management program
 - a) Assessment
 - b) Design
 - c) Implementation

Leverage Enterprise Systems and (CMMS) (continued)

- Adjust work order management practices to align with new organizational structure
- Align CMMS configuration with new organizational structure and practices
- Configure CMMS to meet performance management requirements (develop queries and reports)

Asset Reliability and Upgrade

- Asset/process performance requirements definition (levels of service by asset/process)
- Define asset criticality for reliability and upgrade prioritization
- Apply business case process to identify best solution option
- Adjust Capital Investment Plan (CIP) to address critical needs

Evaluate Business Practices and Implement Enterprise Systems

- Payroll
- Finance
- HR
- Document Management
- Performance Management
- Knowledge Management
- Purchasing
- Materials Management

Performance Metrics

- Implement performance management program
 - Measurable items
 - Accountability
 - Automate reporting
 - Make data available to all staff
- Define data requirements from O&M technologies to support performance management

Document Management

- Implement Document Management and Knowledge Systems
 - Staff need access and training
 - Eliminate requests for documentation
 - Provide data for Maintenance, Operations, Planning and support activities
 - GIS, drawings, O&M information

Recurring Yearly Costs

- Additional operating costs:
 - New system licensing & IT support costs (\$3M)
 - External engineering services, e.g. peak project activities, design activities (\$5M)
 - External maintenance services, e.g. peaks and major overhauls (\$5M)
 - Training & Certification additional to existing, e.g. licenses (\$1M)

Projects

- Over 30 projects identified to develop staff and systems to achieve savings
- Seven groups of projects
- Total costs of \$211 Million
- Projects will require funding, this is available from the savings
- Project funding is scheduled for positive cash flow

HR/Finance/Payroll System Required

- Recommendations do not identify a specific software product, only provide a direction
- Need to conduct a requirements definition and system investigation prior to selecting a vendor
- First projects identified in the plan

8.

Proposed Next Steps

Proposed Next Steps – Projects (\$2012)

Projects	Cost \$M
HR/Finance/Payroll System Procurement	3.00
Initiate Re-Org Job Design	3.00
Initiate IT Governance & Master Plan	0.25
Initiate Control System Upgrades design, implementation & construction	190.10
Organization Development Training	1.05
IT Support Systems	9.00
Maintenance Management Upgrades	4.85
Total Cost	\$211.25

Proposed Next Steps - Projects

1. HR/Finance/Payroll/Procurement system:
 - a) Definition & requirements (\$500K)
 - b) Procurement (\$1.5M)
 - c) Implementation (\$1M)

2. Initiate Re-Org Job Design:
 - a) Pilot redesign (5) (\$750K)
 - b) Pilot Implementation (\$750K)
 - c) Rollout Phase 1 (\$750K)
 - d) Rollout Phase 2 (\$750K w/SCADA implemented)

3. Initiate IT Governance & Master Plan (\$250K)

Proposed Next Steps - Projects

4. Initiate Control System upgrades design:
 - a) Standards & templates (\$100K)
 - b) Water Plant design (\$10M)
 - c) Wastewater Plant design (\$10M)
 - d) Water Plant implementation (\$77M)
 - e) Wastewater Plant implementation (\$82M)
 - f) System Control & Operations Optimization design (\$5M)
 - g) System Control & Operations Optimization implementation (\$6M)
5. Organizational Development, Training:
 - a) General IT & Systems training (\$100K)
 - b) Team training (\$250K)
 - c) Leadership training (\$100K)
 - d) Skills training (\$500K)
 - e) On-the-Job training (\$100K)

Proposed Next Steps - Projects

6. IT Support Systems

- a) Learning Management, Hazardous Materials Management, Document Management and Performance Management Requirements and Design (\$2M)
- b) System Procurement (\$5M)
- c) Implementation (\$2M)

7. Maintenance Management Upgrades

- a) CMMS configuration requirements
 - Business practice streamlining (warehousing, time keeping, procurement interface) (\$500K)
 - Configuration and interface redesign (\$1M)

Proposed Next Steps - Projects

7. Maintenance Management Upgrades (continued)

b) Reliability program implementation

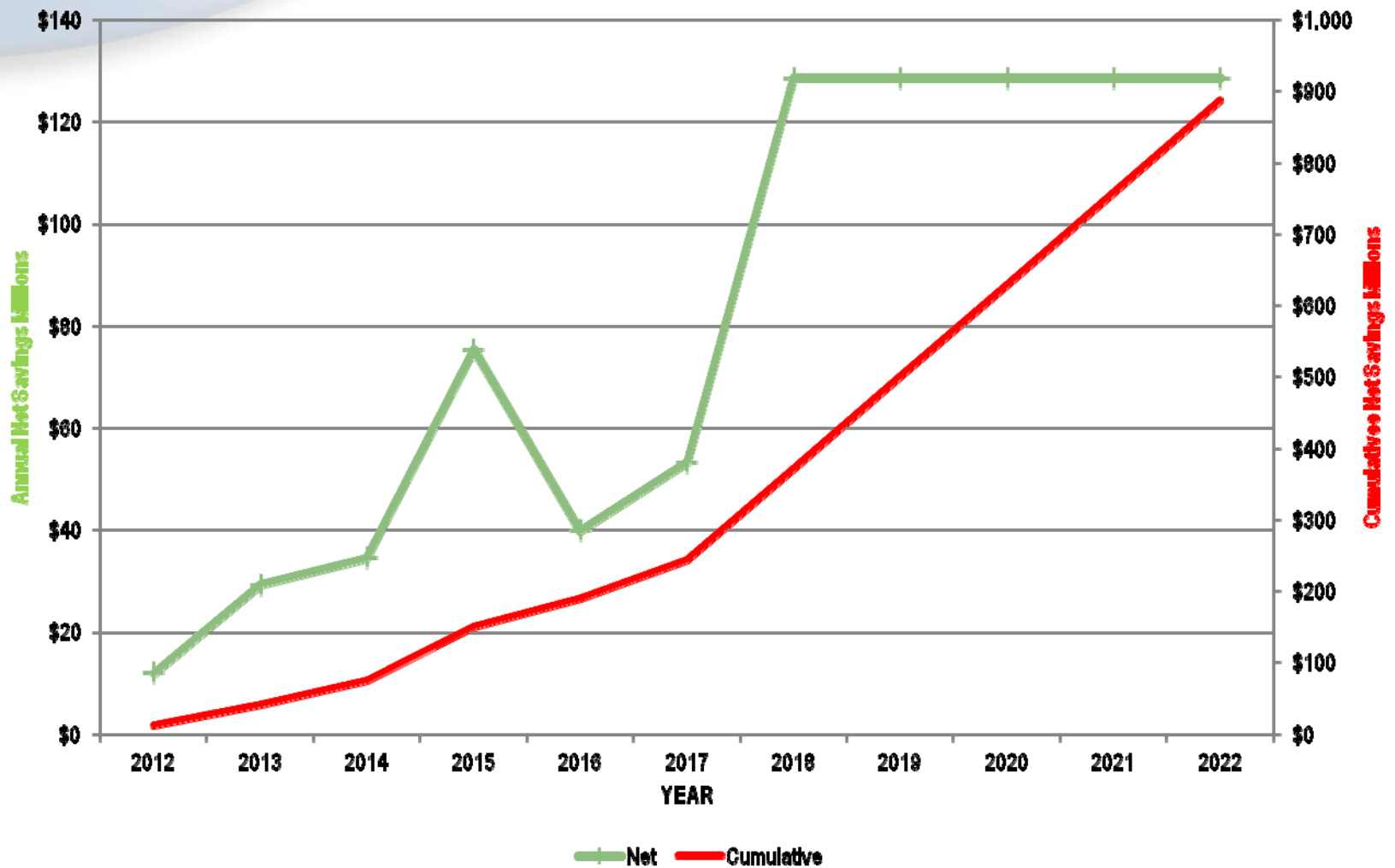
- Education (\$100K)
- Pilot (\$150K)
- Full program (\$1.25M)

c) Implement Asset Management program

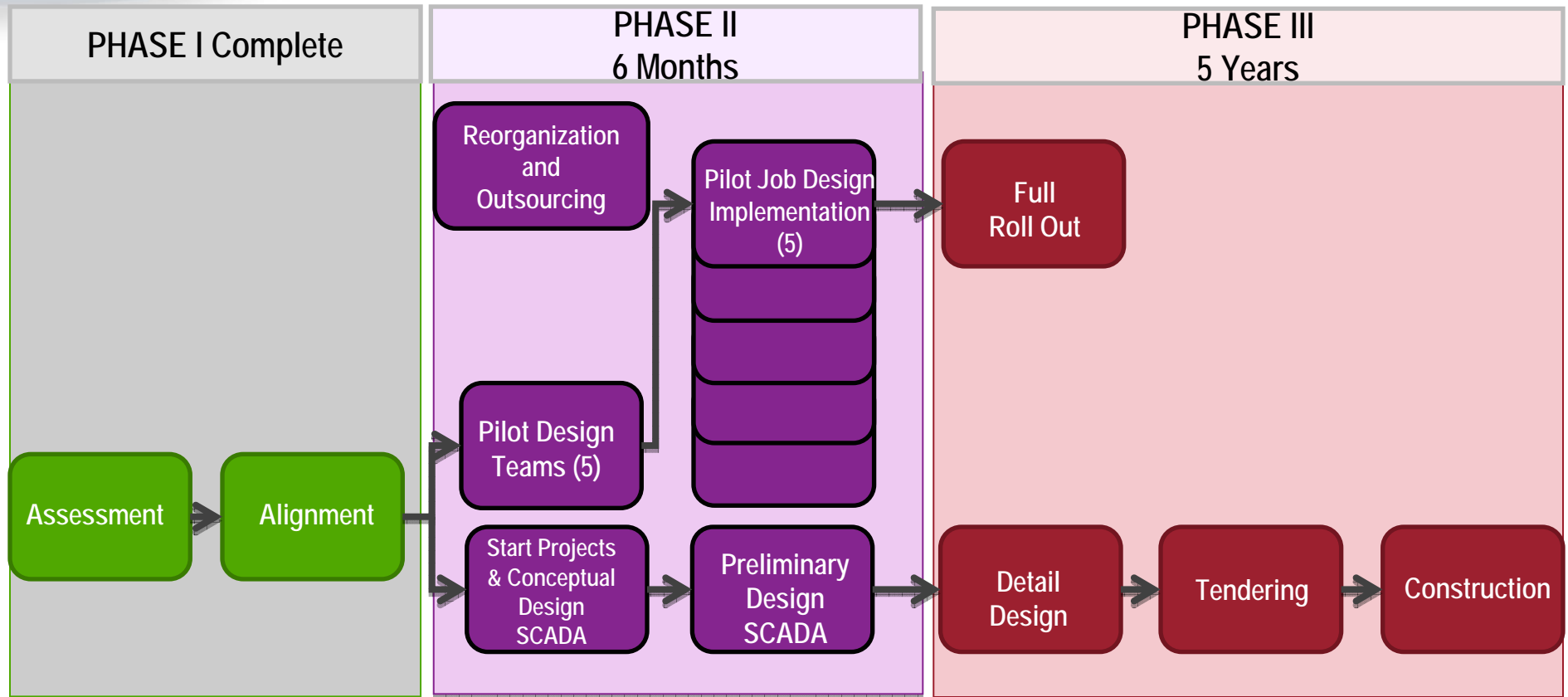
- Assessment (\$100K)
- Design (\$250K)
- Implementation (\$1.5M)

Cumulative Savings for Implementation of Recommendations 2012 \$

DWSD Reorganization Target Savings



Project Plan Overview



Testimonials

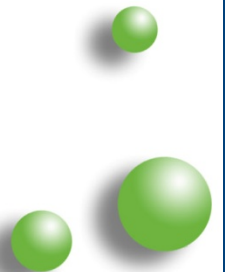
- **Niagara Falls Water Board** – Bob Game (past) Executive Director stated that the staff have “...turned the corner...” and are on their way to becoming an effective and efficient public utility.
- **City of Toronto** - Rob Lash, Manager from Toronto Water said....WBPP (Works Best Practices Program) has been the largest single effort that has allowed TW to have a solid “business focused” foundation that we have and will be able to continually improve upon. It alone (coupled with strong focused internal leadership) has enabled Toronto Water to move out of a typically run municipal organization to one that is more aligned to a private or publicly owned/run business entity that puts higher value on bottom line costs, asset care, health and safety, employees and improved Customer Service over time.

Testimonials (continued)

- **City of Toronto** - Patrick Newland (past) Director of Water Treatment and Supply... "We've tried to put the accountability and the responsibility where it belongs and we believe it belongs on the front line."
- **City of Toronto**, Lou Di Gironimo, Director of Wastewater Treatment, "When they start to realize the power of the new tools, they're going to want to optimize it."
- **City of Akron**, Michael McGlinchy, Public Utilities Bureau Manager, "When I started here we used to have to write letters every month to the EPA apologizing for all of our violations, now we have taken the organization from many, many violations per month to an organization that is winning awards for no violations and doing it with fewer people and lower expenditures for operations and maintenance. It makes me very proud."

9.

Closing Comments



Where do we go from here?

Commitment to Transparency

- Results were reviewed with the Management Team this morning
- A similar review has been scheduled for labor leadership later today
- Beginning tomorrow, meetings will occur with employee groups throughout DWSD
- Presentation to be posted for employees and Customer Communities

Where do we go from here?

The report confirms recognized improvement opportunities:

- Outsourcing opportunities
- Job design opportunities
- Business Process and Enterprise Technology Opportunities
- Automation Opportunities

Where do we go from here?

- We remind everyone that this a 90 day assessment
- The next step includes validation and piloting (outsourcing savings and staffing plan)
- ACO and Federal Court Order Compliance issues must be addressed
- This plan requires multi-year (5+ year) implementation

Next Steps

- To the largest extent possible, considering financial feasibility, we recommend transitioning by attrition
- The BOWC will be asked to approve the contract with EMA in August or September for Phase II
- We will be seeking BOWC guidance regarding the financial feasibility of transitioning through attrition



Questions

