

*Introduction by
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County Executive*

and

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Wayne County FMD/DOE

State of Downriver Wastewater Treatment Facilities O&M

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Facilities Management - Director

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Vice President



Agenda

- Background
- CAMPP
- Implementation of CAMPP
- Assessment Process
- Baseline for Competitiveness
- Findings
- Opportunities
- Questions and Discussion

Downriver Wastewater Treatment Facility



Michigan's Second Largest WWTP

What is CAMPP?

- Competitiveness Assessment and Master Plan Project
- A collaborative effort undertaken with:
 - Management
 - Employees
 - Union
 - Customers
- Identifying ways to improve the way we do business

Why did we do CAMPP?

- Customer communities thought we were charging them too much for our services.
- Communities have considered privatization as an option to replace County's high costs.
- FMD wanted to operate like a business.
- Experienced staff were retiring in the next 2-5 years.
- Needed to address inefficiencies within the Division/Department as well as inefficiencies of other County Departments.

Purpose of CAMPP in 2003

To have an understandable, implementable and sound Master Plan to focus FMD's efforts over the next 3 – 5 years to become the Provider of Choice for our customers, and the Workplace of Choice for our employees

While continuing to provide improving services to our customers and protecting our health and environment around us

Vision of Customers

***5 years from now, as we look back on 2003 and CAMPP,
our customers envision that we will look like this:***

Steering Committee

- We operate in a business-like manner with mutual respect between employees and management.
- Our customers are partners in our decision-making and view our services as competitive, efficient and reliable.
- We actively shape policy through our involvement in state, regional and federal initiatives.

Customer Group

- Through close cooperation and decision-making with the FMD, rate increases have been kept to less than inflation.
- Our provider of choice (FMD) through a process of continuous analysis and improvement is nearing our goal of "Best-in-Class."
- We are committed to continuing our full partnership with the FMD based upon mutual trust and common goals.

WWTP Gap

	FMD	"BIC"	GAP (\$)	GAP (%)
Management & others	\$ 1,425,743	\$ 475,248	\$ 950,495	67%
Laboratory	\$ 792,079	\$ 316,832	\$ 475,248	60%
Training & Safety	\$ 158,416	\$ 79,208	\$ 79,208	50%
Operations	\$ 3,168,317	\$ 1,742,574	\$1,425,743	45%
Utilities & Chemicals	\$ 3,500,000	\$ 2,800,000	\$ 700,000	20%
Materials and Supplies	\$ 1,000,000	\$ 800,000	\$ 200,000	20%
I P P	\$ 396,040	\$ 316,832	\$ 79,208	20%
Maintenance	\$ 2,059,406	\$ 1,742,574	\$ 316,832	15%
Contract Services	\$ 2,900,000	\$ 2,900,000	\$ -	0%
TOTAL	\$ 15,400,000	\$11,173,267	\$ 4,226,733	27%

Savings Potential

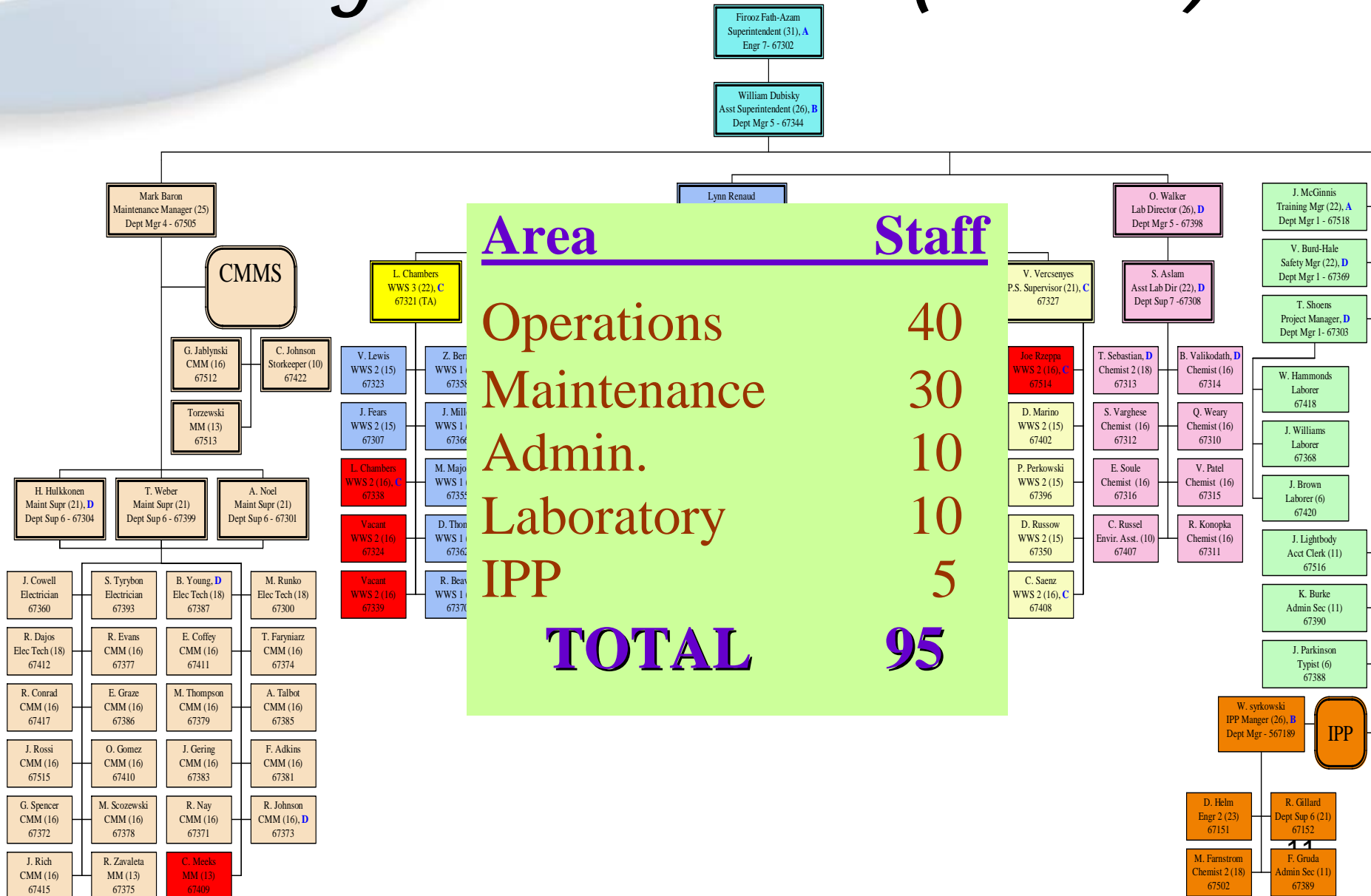
What it means to our customers

- Rate Stabilization in a time when federal/state funding continues to be cut
- Improved services at reduced costs
- Accountability

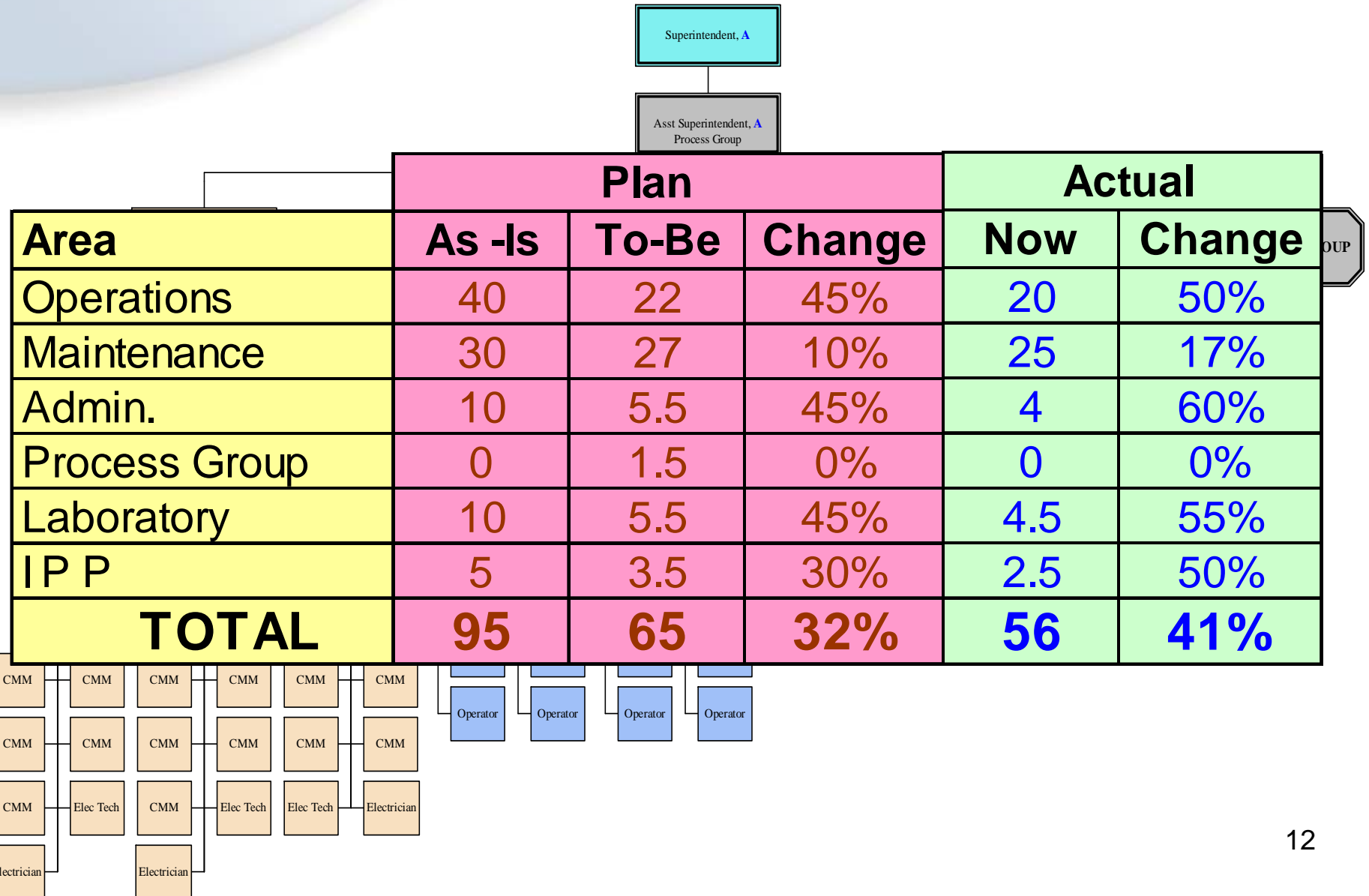
What it means to our employees

- More control over daily work effort with performance as the key measurement
- More confidence that the customer knows that they are achieving/producing a cost-effective service
- Being the Provider of Choice means our employees have jobs

As-Is Organization Chart (2002/03)



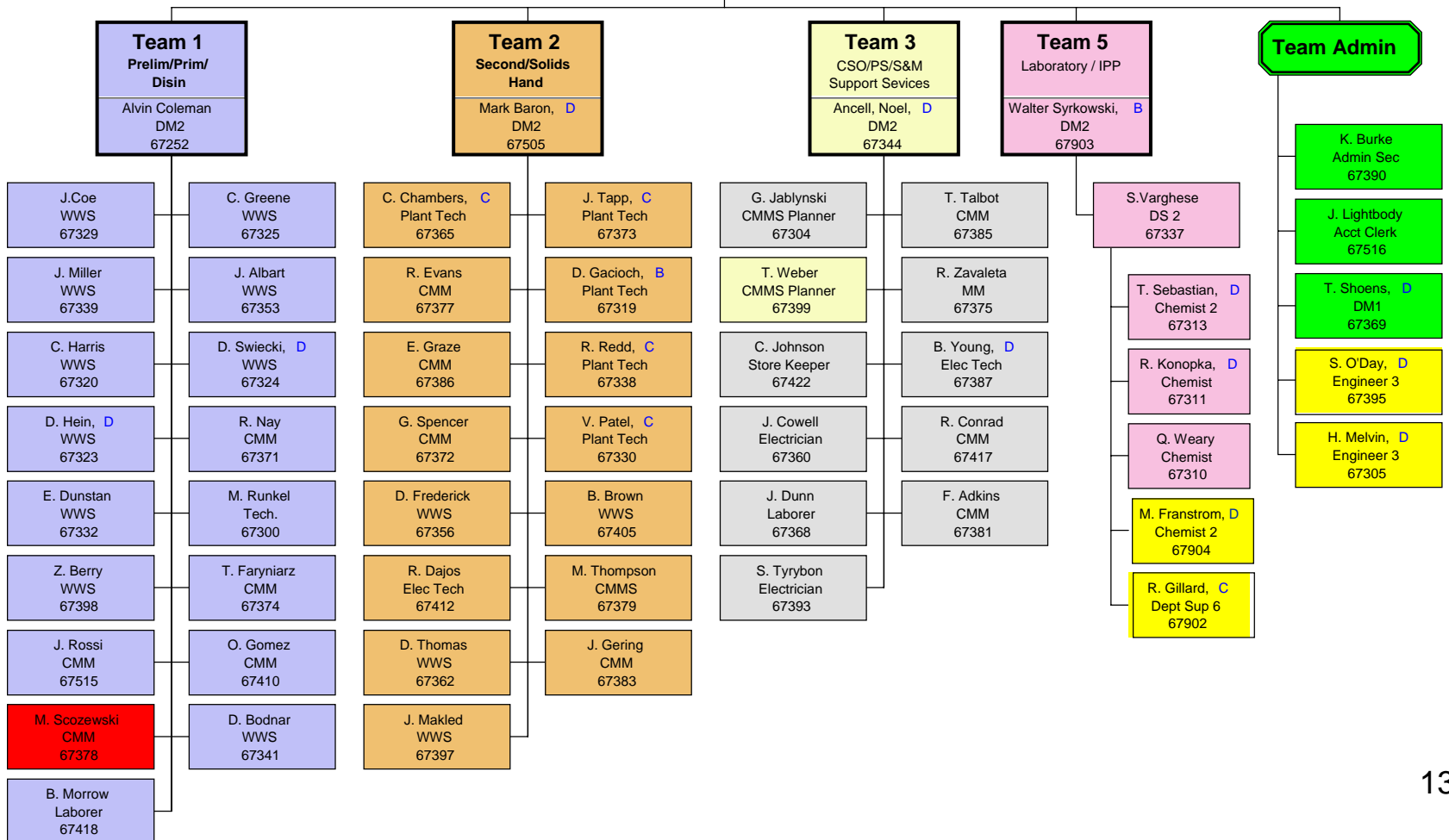
To-Be Organization Chart (2008/09)



Downriver WWTF

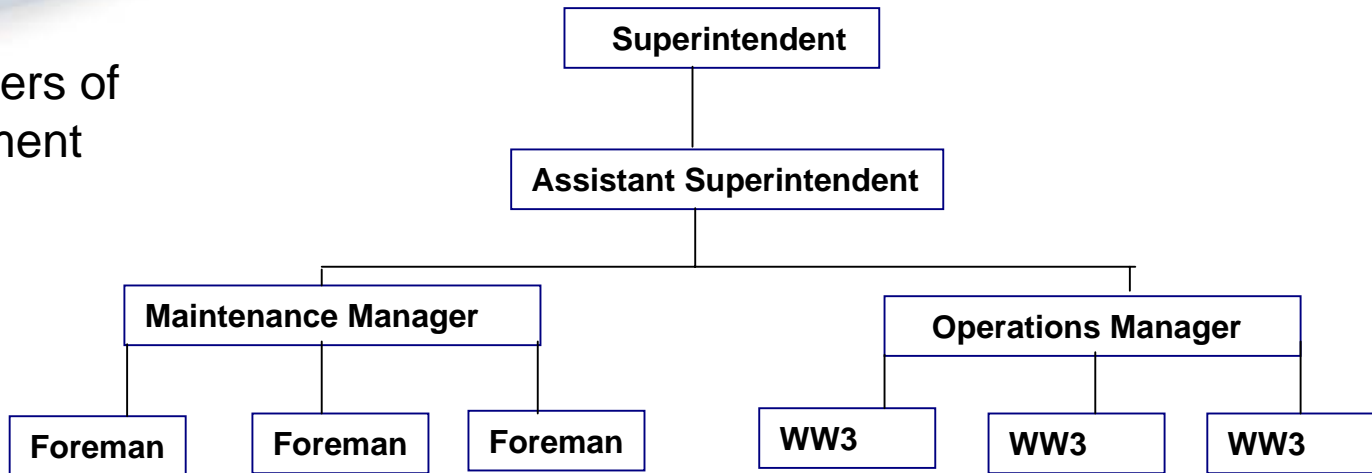
2008 Staffing (54 DR, 2 Eng, 2 IPP)

Firooz Fath-Azam, **A**
Superintendent
67302

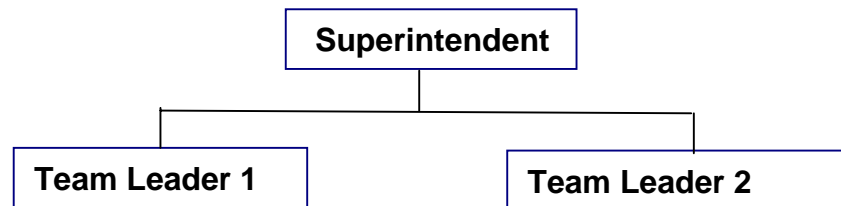


Top to Bottom

2003 Layers of Management



2008 Layers of Management



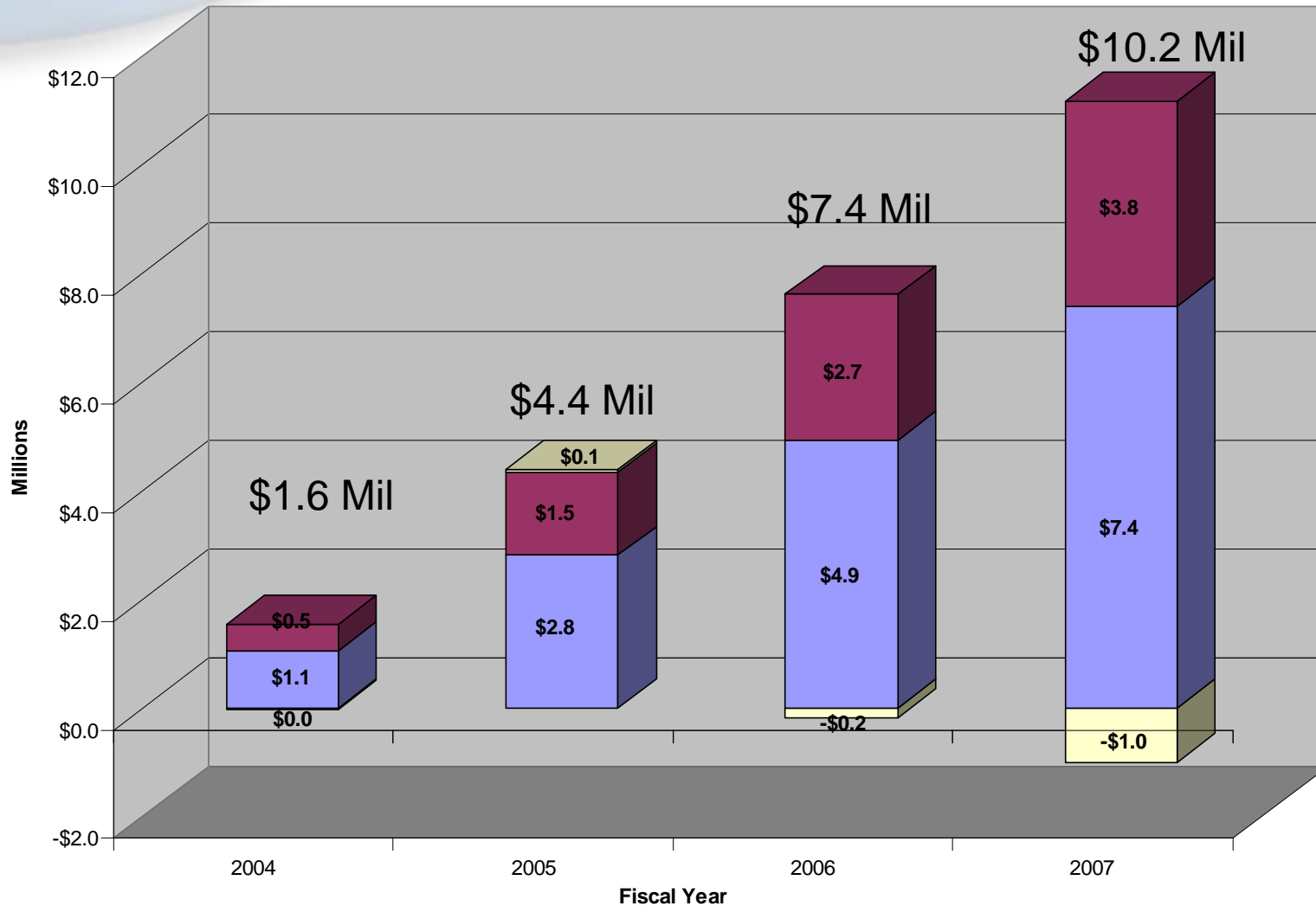
Staffing Numbers

	1/1/2002	1/1/2008	Present	% Reduction
WWTP	96	64	54	44%
DOE Admin	15	10	7	53%
FMD Admin	8	5	3	63%
Engineering	14	9	6.5	54%
Total	133	88	70.5	47%

As of this date we have exceeded the CAMPP 1 recommended staffing size.

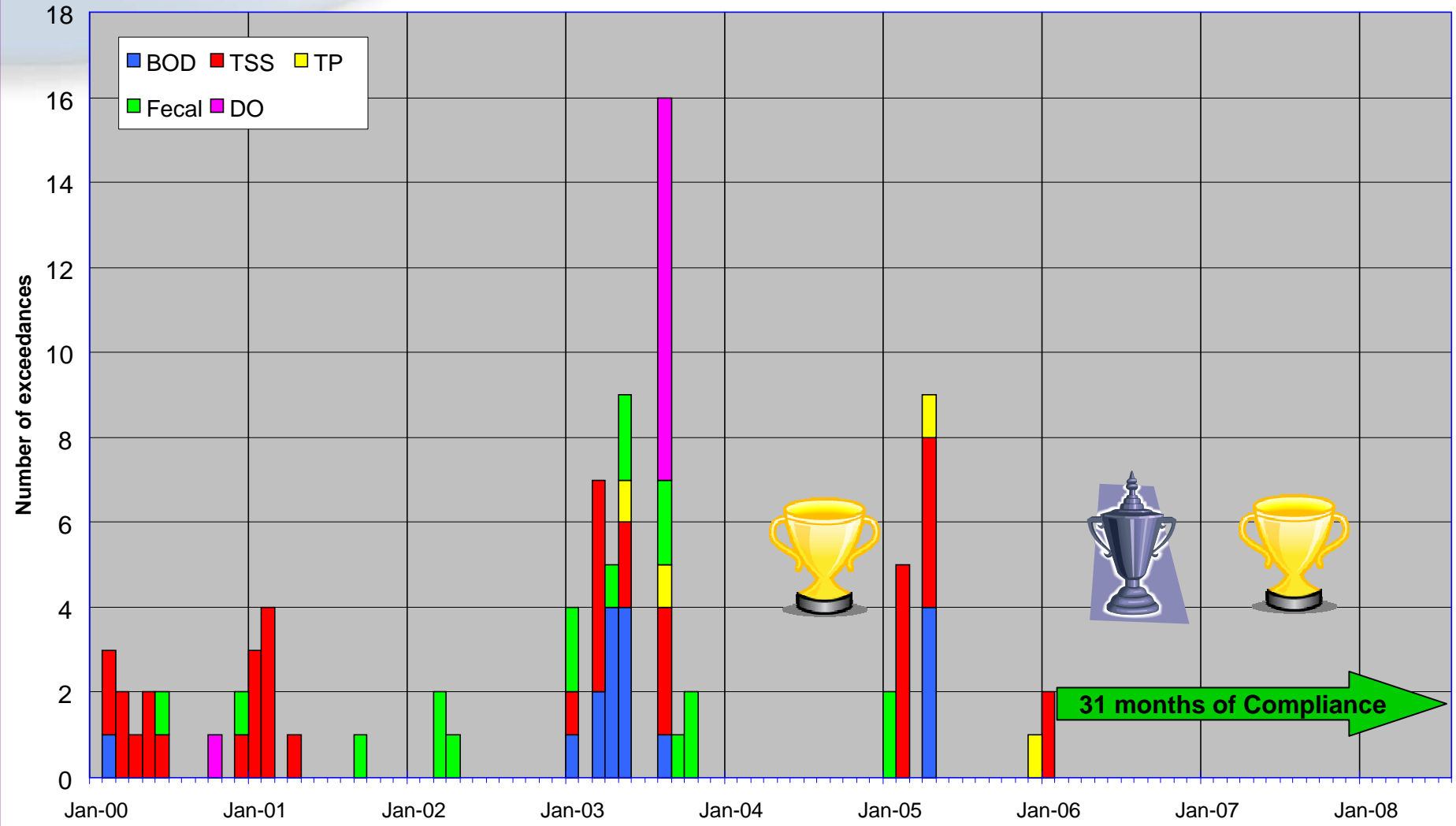
Personnel Savings

CUMMULATIVE COST SAVINGS



Salaries & Fringes County Services Contractual & Other

Downriver WWTF – Permit Compliance



Bottom Line

- Staffing ↓ (41%)
- Overtime ↓ (72.5 %)
- Compliance ↑ (31 Consecutive Months)

Customer Impact Over Past 8 Years

- System O&M Rates have increased an average of 2.55% per year for the past 8 years.
- In two of the years there were no rate increase.

Additional Opportunities

- Continuous improvement-(automation and staffing evaluation)
- Training to be done
- Energy efficiency effort



Assessment Process

The Process We Followed

- Step One: Desk audit
- Step Two: Personnel interviews
- Step Three: Compare current situation to 2001
- Step Four: Identify what has been done
- Step Five: Additional Opportunities

Desk Audit Provides Baseline

- Investigated detailed multi-year information about the operation, maintenance and management of Downriver
 - Strategic Business Plan – adequacy and compliance
 - O&M Budgets and actual expenditures including
 - Labor – costs and performance
 - Chemicals
 - Materials
 - Utilities
 - Contractual services
 - Maintenance records by team and priority – work orders, backlog, inventory management
 - Regulatory compliance

Personnel Interviews Reveal Reality

- Interviews:
 - Include a cross-section of employees for perspective
 - Either validate or deny desk audit findings
 - Disclose culture and organizational behaviors that have long-term implications not discovered with a desk audit
 - Provide anecdotal information about what and how Best-in-class strategies are implemented
 - Obtain the information from the experts



***Baseline for
Competitiveness
Program***

Best in Class O&M Strategies

- O&M strategies for “Best-in-Class” performance
 - Total Productive Operations (TPO)
 - Planned Maintenance (PM)
 - Off Shift Staffing
 - Work Force Flexibility (WFF) & Interdependence
 - Customer Service
 - Asset Management
- How to make these strategies permanent
 - Technology as a Strategy
 - Organization as a Strategy



Findings

What Did FMD / DOE Do To Meet And Exceed The Expectations

- Adopted Best-in-class O&M Strategies
- Developed and executed a competitiveness plan
- Trained personnel on the best practices concepts and processes
- Trained personnel in team skills
- Organized personnel into teams with a Team Leader and ensured multiple skills were included on each team

What Did FMD / DOE Do To Meet And Exceed The Expectations

- Opened communication and information sharing – Team meetings, Team Leader meetings, use of work management system
- Morale improvement and camaraderie
- Regular management and executive meetings
- More management control using data

What Did FMD / DOE Do To Meet And Exceed The Expectations

- Formed teams responsible for process areas
 - Sense of ownership
 - Accountable for process control
 - Accountable for maintenance
- Established work management process and maintenance documentation
 - Planning, scheduling, work execution, documentation, analysis, continuous improvement and inventory control
- Established measures for each team and monitored performance

What Did FMD / DOE Do To Meet And Exceed The Expectations

- Established Computer-Based Training (CBT)
 - Open to all personnel and widely used
 - Configured using actual Downriver operation and maintenance information and concepts
 - Certificate of completion per module

What Did FMD / DOE Do To Meet And Exceed The Expectations

- The number of employees were reduced significantly
 - Enabled by the implementation of best practices and the resulting increased employee productivity
 - Reduced the number of personnel on off-shifts. Most maintenance tasks were moved to the day shift
 - Reduced the number of managers and supervisors, larger span of control enabled by the selection process, mentoring and training
 - Assigned maintenance personnel to each team and reduced the number of positions as productivity increased

What Did FMD / DOE Do To Meet And Exceed The Expectations

- Reduced overhead
 - Reduced the number of FMD / DOE upper management and administrative personnel
 - Established agreement to cap County overhead
 - Received Delegated Purchasing Authority in the County system – helped streamline purchasing process

Proof of Success

- 31 months of 100% compliance
- Reduced discipline
- Absenteeism significantly reduced
- Grievance trend for 2008 indicates significant decline
- Over-time drastically reduced to a very small percentage
- Dramatically improved appearance and cleanliness in the plant

This CAMPP project has over achieved by a long way

- Planned 27% improvement, but achieved 47% in the five years (2002-2007)
- Plan in Place to further achieve another 15 – 20% improvement.
- Many on going Continuous Improvement Projects started.



***Opportunities
for Going Forward***

Opportunities for Going Forward

- Take advantage of the SCADA implementation to further increase the efficiencies and productivity in the plant
- Complete the Asset Management Program to further improve the long term Capital Improvement Program (CIP)
- Start an Energy Management Program immediately
- Complete the existing Capital Improvement Program (CIP) as planned and reevaluate annually

Opportunities for Going Forward

- Negotiate Collective Bargaining Agreements to include flexible workers and incentives
- Assign Wastewater Specialists more preventive maintenance tasks
- Increase electrical PM activity
- Increase work order documentation

Opportunities for Going Forward

- Include maintenance training in Computer Based Training (CBT) program
- Increase formal training opportunities for maintenance and process control

Opportunities for Going Forward

- Operators require tools for performing CLAIR
- One classification for Electronic Tech and Electricians
- Integrate the plant and CSO SCADA systems

Opportunities for Going Forward

- After the new SCADA system is installed
 - It will require proper maintenance and trained personnel to support it
 - Provide for better control of chemicals
 - Provide for better control of power
- More data analysis particularly in maintenance
- Plant requires more Predictive Maintenance tools
- More integration between the Plant and CSO's which has already started

Opportunities for Going Forward

- Procurement process needs further refinement

Reasons for Success of CAMPP and the Future

- Sponsorship support by Kurt and Butler
- The tenacity of Kerreen and Firooz
- Team Leaders buy-in and leadership

This CAMPP project has over achieved by a long way

- Planned 27% improvement, but achieved 47% in the five years (2002-2007)
- Plan in Place to further achieve another 15 – 20% improvement.
- Many on going Continuous Improvement Projects started.
- This improvement as you can see is sustainable for the future

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Questions?

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