

Business Process Reengineering – Operations Division

Presented By:
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Background

- Water / Waste Water and Roads currently share both equipment and human resources within the City.
- As result of reorganization, decision to sever Roads and Water / Waste Water.
- Firm specializing in Business Process Reengineering (Covenco) hired to assist in the creation of a new structure and processes
- Covenco in consultation with all stakeholders developed a model of present operations and identified possible improvement areas

Impetus for Review

- Independent review by Council Auditor (BMA) expected to identify possible productivity improvements
- New Regulation will severely limit Operations Division ability to provide existing service levels:
 - Ontario Regulation 128, effective in August, 2005, will impact mandating compulsory training for OIT (Operator in Training) personnel and reduce staff availability.
 - ESA standards will limit Winter Control and all other labor to 16 hours per day and 13 hours per day for drivers (a maximum 20 hours a week in overtime)

Impetus for Review

- Expanding capital and operating gap (documented at \$350 M) requires Municipality to think of new creative ways for managing present resources and improving productivity
- Demand by our customers (citizens) to improve service and provide better value for their tax dollars
- Aging infrastructure in both Roads and Water / Waste Water, especially in the City core, leading to increasing maintenance.
- Quality of Life of Supervisory staff (400 hours of overtime during peak seasons per year)
- Breakup of Operations into two new Divisions requiring reallocation of staff

Methodology

- Detailed interviews with all Section Superintendents, Managers and Directors
- Current work Processes were Mapped demonstrating the way work is 'accomplished'.
- A computerized work Model was developed

ELEMENTS OF MODEL

- Inventory: An inventory was assembled for work done in Operations Division
- Workload: Workload developed for each activity based on inventory and frequency of occurrence.
- Capacity Plan: Workload translated into a capacity plan for each section based on current staffing levels.

Model Findings

Planning:

- 63% of all work done is incident driven (“Reactive” versus “Preventive”)
- Long and Short Planning is done on an ad hoc basis, limited information on work that needed to be carried out
- Computerized maintenance system does not support effective planning
- Most work is ‘budget driven’ as opposed to ‘needs driven’

Budget Allocation:

- Winter control alone results in about \$1M in overtime
- Roads Winter Maintenance overspent by \$1M - \$2M creating deficit in Water / Waste Water and Summer Maintenance program

Model Findings

Labor Productivity:

- Effective utilization of labor is not apparent.
- Productivity Indices are not available for effective measurement
- Seasonality impacts results in sub-optimized resourcing
- Flexibility is limited because of how work is assigned

Training and Certification:

- A core group of Operators in Water/ Waste Water require certification to comply with Ontario Regulation 128

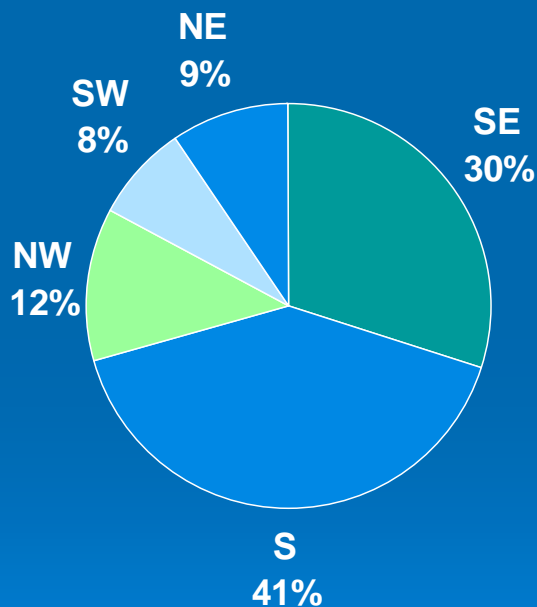
Model Findings

Potential Improvements:

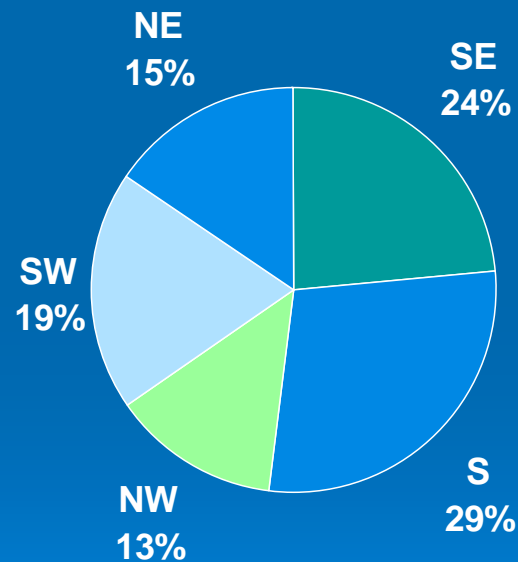
- Potential productivity gains and cost savings of 10-15% (**\$1.5M - \$2.5M**)
- Increased service levels for citizens resulting in more citizen satisfaction
- Portion of savings reinvested in Water and Waste Water and Roads

Model Findings

Work Breakdown per Section



Water/Waste Water Activities



Roads and Winter Maintenance Activities

NE	Capreol, Val Caron, Blizzard Valley
S	Old City North, FalconBridge
SE	Old City South, Wannup
NW	Azilda, Chelmsford, Onaping, Levac, Dowling
SW	Lively, Naughton, Whitefish

Recommendations

Strategic

Service Standards:

- Create and publish Service Standards for major functions.
- Improve overall Customer Service due to improved service standards

Resource Reallocation:

1. Examine opportunities to combine job classifications to facilitate flexibility
2. Examine collapsing the current 5 Sections to 3

Business Process Improvement:

1. Provide tools to Management & Supervision to enable them to plan and execute work more effectively
2. Coordinate maintenance program with Capital Planning
3. Define perimeter routes for Winter Control and utilize sub-contractors to service
4. Move towards more Preventive Maintenance versus Reactive Maintenance

Recommendations

Operational

- Develop a Maintenance Optimization Strategy which includes:
 1. Formalized Business Processes
 2. A computerized Maintenance Management System
- Establish a 'core' group for Water & Waste Water that will be certified to comply with Ontario Regulation 128
- Examine developing a 'common', non-core group from Roads & Water & Waste Water to augment Roads and Water & Waste Water to provide flexibility
- Determine the effectiveness of two-shift operations in Roads
- Target reduction in overtime by 20% per year for 3 years

Recommendations

Operational

- Use contractors for snow removal activities after an extended shift operation to reduce overtime to comply with pending ESA regulation.
- Develop a template to plan winter control events so budgeting for these events can be more accurate.
- Explore the possibility of a City Wide Standby system and/or using CBU employees for standby

The City of Greater Sudbury Roads & Water / Waste Water Organization

➤ Potential Benefits:

- 1) Compliance with O.I.T. and ESA legislation
- 2) Greater flexibility within segments of the CBU
- 3) Greater Resource Utilization of:
 - A. People
 - B. Equipment
- 5) Cross functional training
- 6) Reduction of overtime has two distinct benefits:
 - A. Expense Dollar Impact. Some portion of \$1M
 - B. Reduces grievances with CBU

The City of Greater Sudbury Roads & Water / Waste Water Organization

➤ Potential Benefits Con't:

- 7) Reduced stress on those assigned to 'Standby' duty during winter control
- 8) Ease of measurement with the establishment of Key Performance Indices for each major operation
- 9) Target productivity increase of 10% to 15% (**\$1.5M to \$2.5M**)
- 10) More effective and useful computerized maintenance management system

The City of Greater Sudbury Roads & Water / Waste Water Organization

Potential Barriers:

- CBA may inhibit transfers
- Budget Dollar reallocation. Traditionally, Roads Winter Maintenance activity has been under-funded and overspent resulting in deficit in Water & Waste Water and Summer Maintenance program
- Change Management at all levels in the organization
- Training in revised concepts will represent a major barrier

Next Steps

- Authorization to pursue recommendations
- Define job scope
- Develop detailed project schedule committing to
 - Resources required
 - Expected timelines
 - Results

Covenco (CVC)

- Our intent to request that we be authorized to pursue the use of CVC to do the remainder of the IES Group – SOLE SOURCE
- Proposed Work Plan:
 - Water/waste Water Plants (Sep- Nov 2005)
 - Engineering Services (Jan- Feb 2006)
 - Support Services (Mar-May 2006)
 - Emergency Services (Jun-Oct 2006)
- Aim:
 - Potential productivity gains and cost savings of 10-15% (**\$1.5 M-\$2.5M**)
 - Increased service levels for citizens resulting in more citizen satisfaction
 - Portion of savings reinvested in Department
- Anticipated Cost: \$140,000 plus expenses approx \$30K Total \$170K

Business Process Reengineering – Infrastructure and Emergency Services Department

Questions