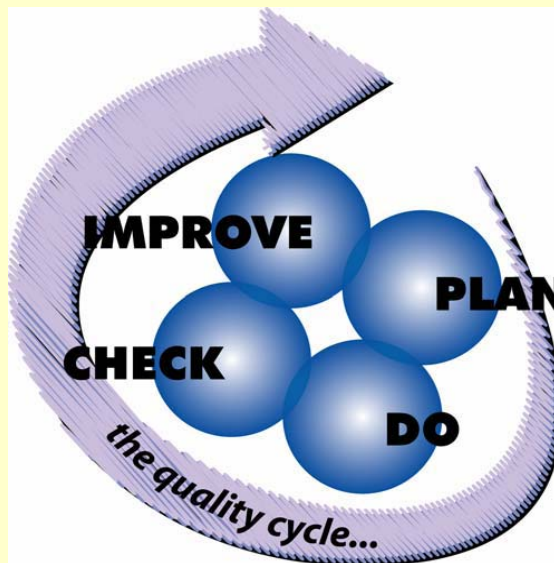


Quality Management System Gap Analysis and Delivery Plan

Presentation to General Committee

October 22, 2007



Agenda

Introduction

Peter Loukes, P.Eng., Director of Operations

Gap Analysis Result

Rob Flindall, P.Eng., Manager of Operations & Maintenance

Delivery Plan

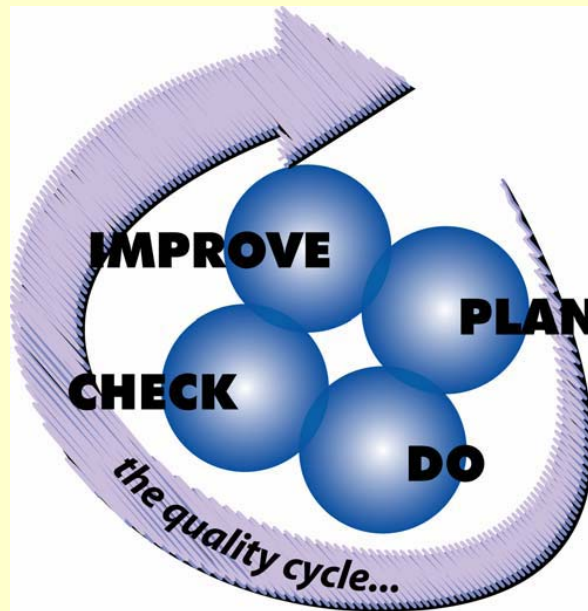
Eddy Wu, P.Eng., QMS Controller

Next Steps

Peter Loukes, P.Eng., Director of Operations

Q&A

Introduction



Introduction

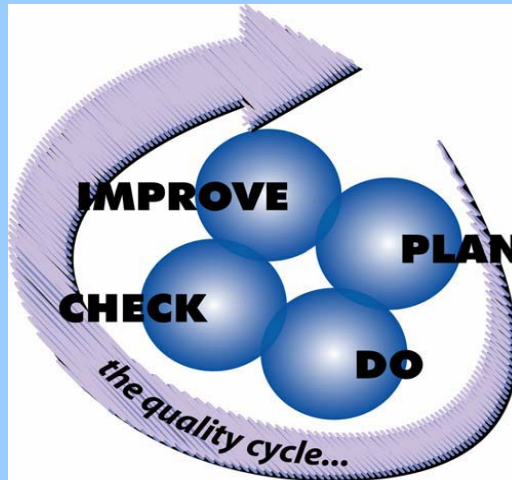
- The Province has introduced the Municipal Drinking-Water Licensing Program in May 2007
- Staff will be making a series of presentations to inform Council of the implications of the this Licensing Program for the system and Owners
- Presentation #1 – Legal and Operational Implications of the Walkerton Inquiry (September 17, 2007)
- Presentation #2 – Municipal Drinking Water Licensing Program (October 15, 2007)
- **Presentation #3 – Quality Management System Gap Analysis & Delivery Plan (October 22, 2007)**

Introduction

This presentation provides an overview of:

- Readiness and Needs of Markham to implement the Drinking Water Quality Management Standard (DWQMS)
- Delivery plan for implementation

DWQMS Gap Analysis



Gap Analysis Procedure

- The existing procedures and practices were reviewed across selected departments with respect to the DWQMS
- All 21 elements of the DWQMS were evaluated to determine if a suitable procedure has been developed, documented, implemented and audited

Gap Analysis Results

- 13 of the 21 elements were identified as having a Major Gap
- Major Gap is defined as less than 50% completed
- 8 elements have a Minor Gap

Gap Analysis Results

- From the 13 elements with Major Gaps only 5 were identified requiring Major Effort to resolve
- 1 element identified with a Minor Gap still requires Major Effort to document and resolve
- Major Effort means extensive staff time is required to close the gap
- Staff time will be reallocated from other activities to assure DWQMS implementation targets
- No new staff is expected or planned for this project

Gap Analysis Results

The elements requiring Major Effort:

Element 7 – Risk Assessment

Element 8 – Risk Assessment Outcomes

Element 10 – Competencies (Minor Gap)

Element 14* – Review and Provision of
Infrastructure

Element 18 – Emergency Management

Element 19 – Internal Audits

* major effort is required to develop and implement a condition rating system in order to support the Financial Plan requirement and the Lift Cycle Reserve Study

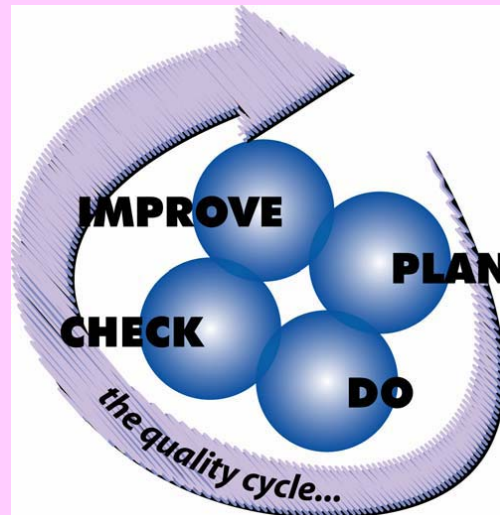
Gap Analysis Results

- Major Effort is also required to prepare Standard Operating Procedures (SOP) and Process Mapping
- All SOPs related to the Drinking Water System including those from Departments outside of Waterworks will be included in the Operational Plan
- Only the necessary SOPs required to achieve the accreditation will be completed, implemented and audited by February 1, 2009
- The remaining SOPs identified will be addressed after the accreditation audit, as Continuous Improvement incentives

DWQMS Involvement with Others

- QMS implementation is a Corporate initiative
- Waterworks will lead the QMS implementation and undertake majority of the tasks but other departments will be required to participate in the overall QMS process in achieving system accreditation
- Roles and responsibilities of all departments will be formalized in the Operational Plan
- All departments must understand their roles in the QMS process

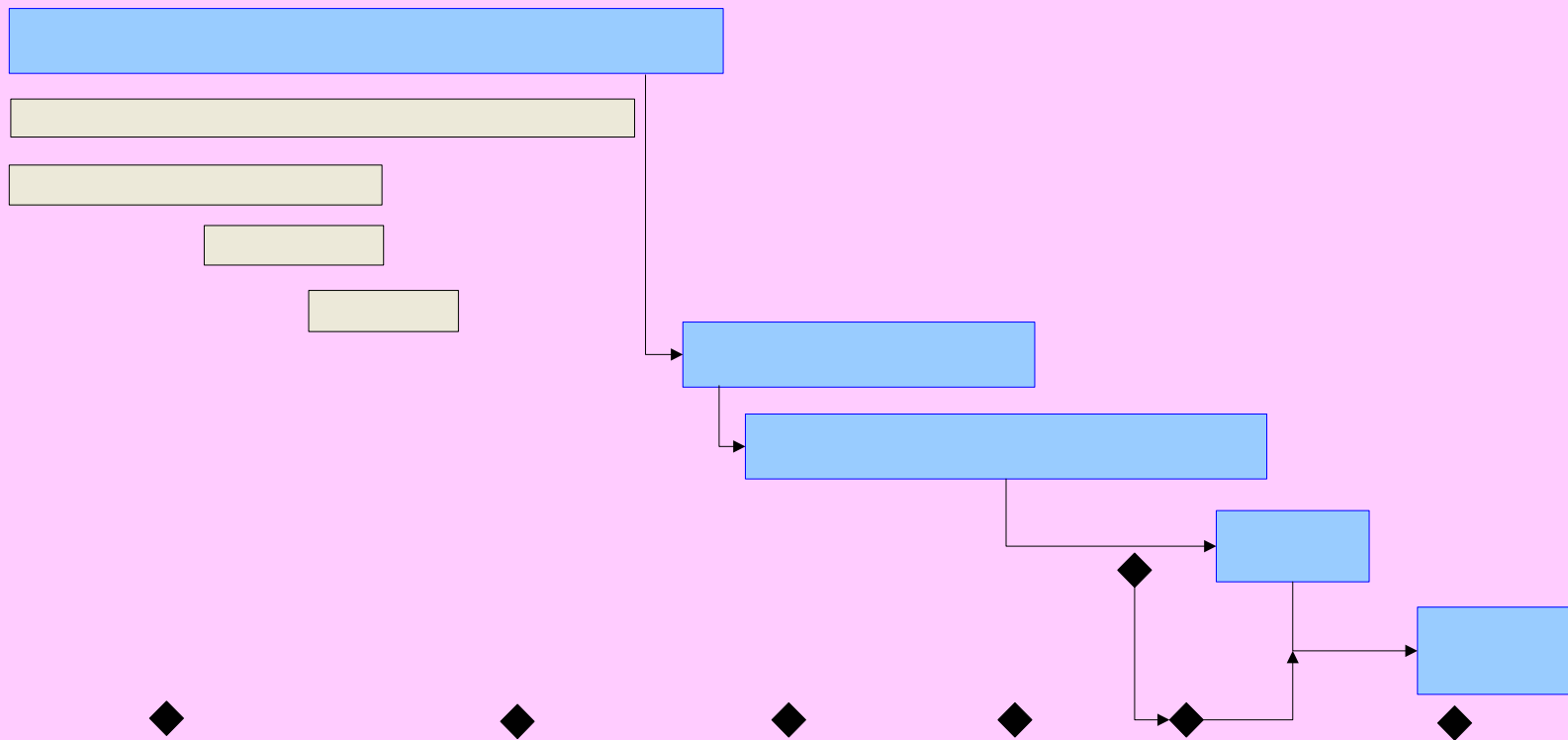
QMS Delivery Plan



QMS Delivery Plan

- Primarily a staff driven process with input from consultants in areas where additional expertise is needed
- Consultants will assist at different stages of the implementation process in order to meet the submission deadline
- Town must apply for accreditation and licensing by February 1, 2009

QMS Implementation Timeline



2007

Oct

Nov

Dec

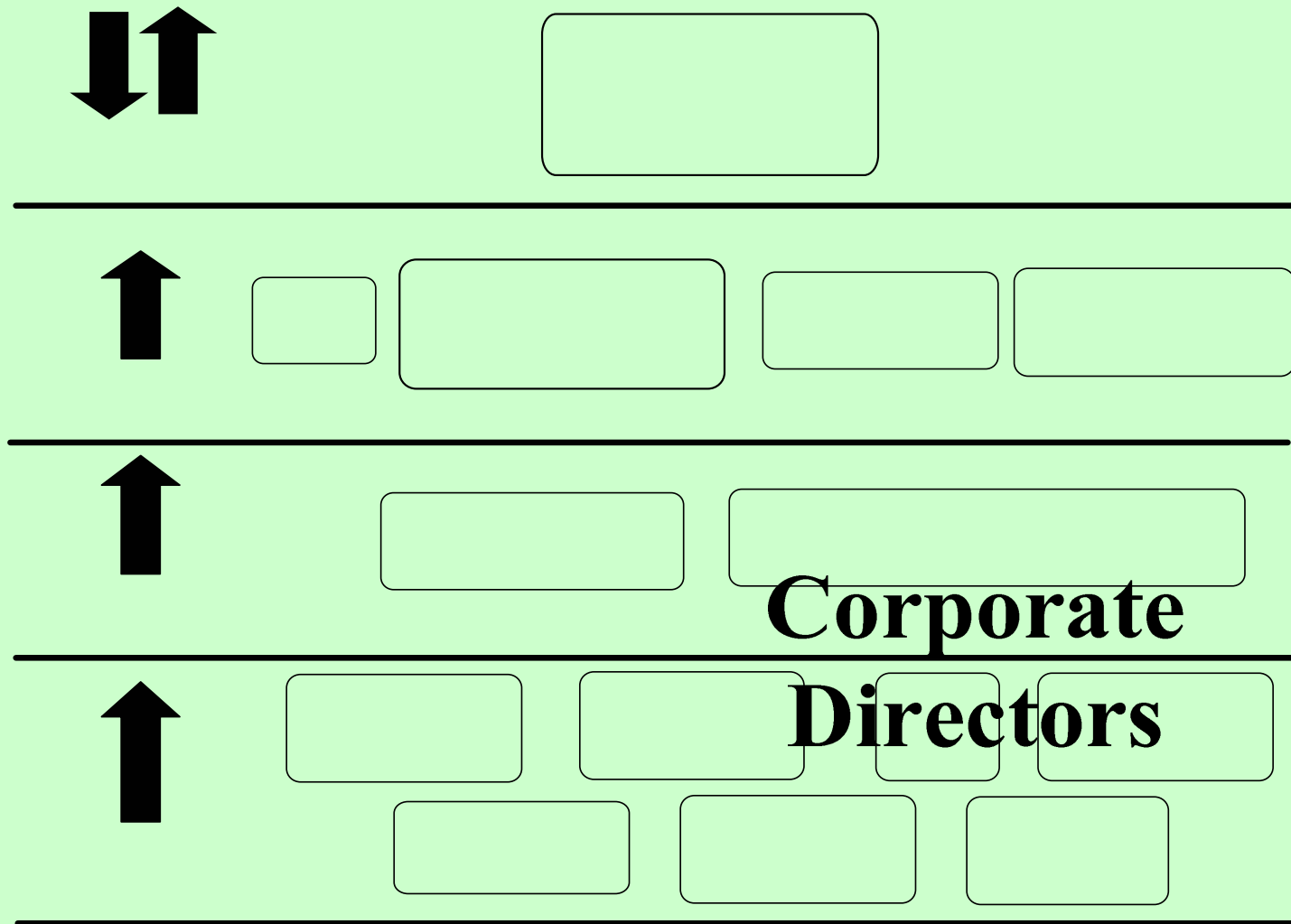
15
Jan

Feb

QMS Operational Structure

- Corporate Directors
- Owner & Operating Authority
- Corporate Top Management
- Operational Top Management
- Support Departments

QMS Operational Structure



Owner & Operating Authority

- The DWQMS requires definition of the Owner and the Operating Authority
- For Markham's Drinking Water System, the Corporation of Town of Markham is both the Owner and Operating Authority
- Mayor and Council act as the Corporate Directors

Corporate Top Management

- ***Top Management – DWQMS Definition:***
“comprised of one or more persons at the highest level of management within the Operating Authority that makes decisions respecting the QMS and recommendations to the Owner respecting the drinking water system”
- The Corporate Top Management is the CAO, Commissioner of Community & Fire Services; Director of Operations, and the General Manager of Waterworks

Operational Top Management

- The Operational Top Management is the General Manager of Waterworks, Waterworks Management Team, and the Waterworks QMS Controller

Quality Management System Representative

- The DWQMS requires the Operational Plan to identify a QMS Representative
- The QMS Representative is to be responsible for the implementation and maintenance of the DWQMS
- Waterworks QMS Controller is proposed as the QMS Representative

Next Steps

Next Steps

- Presentation to Council on the Waterworks Reserves and Water Rate Structure with respect to the requirements of the Financial Plans Regulation (November 2007)
- QMS Policy to be drafted up and report to follow in November
- Quarterly updates reports to Council to be made, next one in January 2008

Q&A

Q:\Commission Share\Operations and Asset Management\Reports\2007\Waterworks\Municipal Drinking Water Licence Program\ Committee Presentation #2 – QMS Gap Analysis & Delivery Plan (Oct 22, 2007)