### Business Systems In a Utility

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## Managing a Utility





### Purpose

A What is the purpose of a water utility such as City West Water?





It delivers potable water to customers

It collects waste water from customers

It collects trade waste from customers

### Purpose

#### • What do you notice about the purpose?



Its totally customer driven!

So whether we are doing a good job or not can be totally determined by how well we serve our customers



# A How do we know how we are performing?





- How many complaints do we get?
- What is our customer satisfaction rating?
- What is our product quality?
- How quickly do we resolve customer issues?



#### Key Performance Indicators



KPIs are used to determine whether a water utility is delivering what it has agreed to deliver. There is no other measurement system!





#### Key Performance Indicators



CWW has 18 water supply and 6 wastewater key performance indicators which <u>must</u> be met

If it doesn't meet these then has not done its job, hasn't met its contract!



#### KPI examples





- Number of customers
   experiencing >5 water supply
   interruptions
- Duration of unplanned interruptions
- Frequency of interruptions
- Blockages per 100km
- Water main breaks per 100km
- Compliance with discharge licence

#### A Managing assets and money



- What assets do we have?
- How are our assets performing?
- Are we getting a return on our investments?
- What are our costs?
- What is our revenue?
- What are our profits?



### Statistics

## City West Water facts and figures



- 352,341 residential customers
- 103,321ML total consumption
- \$1.9B total asset value
- \$422M total revenue
- \$100.2M operating expenditure



- 4,571km of water mains
- 3,978km of sewers
- 337,220 house connection branches
- 35,089 valves
- 30,075 hydrants
- 274,860 property service connections
- 76 pump stations

Little River





### The Need

#### Business Systems



We need to systematically manage these assets and our services to enable our business to operate efficiently and effectively.

Business Systems enable us to do that.





### Definition





#### Business Systems





"A system is a procedure, process, method or course of action designed to achieve a specific result. Its component parts and interrelated steps work together for the good of the whole.

Creating effective business systems is the only way to attain results that are consistent, measurable, and ultimately benefit customers."

Source: Ron Carroll, Box Theory



## Our Business Systems









### Process Framework

#### Purpose





- Provides a framework that enables processes to be understood, defined, managed and operated
- To provide an understanding of and to get agreement to key processes across the organisation
- Common nomenclature



### Process Framework

#### Purpose



- Used to scope and guide the development of the enterprise system
- Provides a framework for documentation
- Provides a framework to establish a governance approach that enables accountability for process performance within and across organisational boundaries.









## Support Processes





Processes which support core business including financial services, information technology services and human resource services

- Manage Governance Processes
- Manage Corporate Planning
- Manage Finances
- Manage Procurement
- Manage Information Technology
   Manage Risk
- Manage People
- Manage General Services

#### Property Management



Registration (including mapping) and maintaining the property data.

- Property Registration
- Property Data Management



#### Asset Lifecycle Management





Asset Life Cycle Management includes the planning, creation, acquisition, utilisation, maintenance and disposal of hydraulic assets required to deliver drinking water, alternative water, urban irrigation and sewerage services.

- Asset Lifecycle Business Systems Management
- Asset Planning
- Asset Acquisition & Creation
- Asset Utilisation
- Asset Maintenance
- Asset Disposal and Decommissioning

#### A Billing and Collection Management





Collecting and processing billing information including water meter reads, invoicing debtors and resolving payments. Debtors include water, alternative water, urban irrigation, sewerage and trade waste customers, land developers and entities wishing to connect to our networks.

- Data Collection
- Data Processing
- Customer Billing
- Accounts Receivable Management

#### Customer Lifecycle Management







Planning, establishment, management, monitoring and termination or renewal of a customer. This includes all interactions such as faults, billing accounts, metering, complaints. This process also includes management of special customer groups such as trade waste, key accounts etc.

- Customer Management
- Customer Contact Management
- Key Customer Management
- External Relations
- Manage Sewage Quality
- Application Management
- Agreement Management

#### Customer Program Management





The planning, establishment, delivery and management of customer focussed programs. It includes programs such as Water Efficiency, Resource Efficiency

- Program Strategy Management
- Program Development
- Program Delivery
- Program Effectiveness

#### Anagement Systems





- ISO 9001 Quality (QMS)
- ISO 14001 Environmental (EMS)
- AS 4801 OH&S (OHSMS)
- HACCP Water Quality (HACCP)
- ISO 2200 Sewage Quality (ISQMS)







# Note that we wanted the second state of the





To demonstrate the ability to consistently provide services and products that meet both customer needs and the applicable regulatory requirements

To optimize efficiency in business processes





#### QES



An Electronic document management system that maintains all CWW's documents required by its Quality, Environmental, Safety and other management systems. This includes policies, strategies, procedures and work instructions.







#### A Geographical Information System

Records the physical characteristics of CWW's hydraulic assets







#### A Hydraulic Modelling System

Ensures that there is enough capacity in our existing water supply and sewerage systems to supply our customers







# Works Management System

Records work undertaken on CWW assets and enables jobs to be allocated to resources







#### SCADA System

Monitors the operations of our systems

### Alerts when operations are outside set parameters





#### A Billing System



Records customer details and consumption and enables the billing process to occur





#### \* Finance System

Oracle Fusion Financial Application



Enables the financial management including the calculation of accounting measures, revenue and expense schedules, wages and balance sheet verification, as well as program and project budgeting, forecasting and expenditure.







## **Business Systems**

### What do they do?





Support the efficient and effective operation of the business

Enable systematic management of large volumes of assets and associated information

Enable the transparent management of performance and reporting and analysis of this performance

Supports effective governance of the business