

Green Bay Metropolitan Sewerage District Sustainability plan



Cleaning Water Today for Tomorrow's Generations



SYMBIONT

Agenda

- About GBMSD
- Strategic Planning Process
- Program development
- Outline of the program
- Where are we?

About GBMSD

- Wholesaler of wastewater conveyance and treatment services.
- 17 municipal customers (219,000 people) and 2 direct industrial customers.
- Service area of 285 square miles.
- Two Wastewater Treatment Plants (WWTP), seven miles apart, discharging to Fox River.
- Green Bay WWTP – 30 mgd, 45,300 lbs/day Biochemical Oxygen Demand (BOD).
- De Pere WWTP – 8 mgd, 29,900 lbs/day BOD.

DePere and Green Bay WWTPs



De Pere Facility

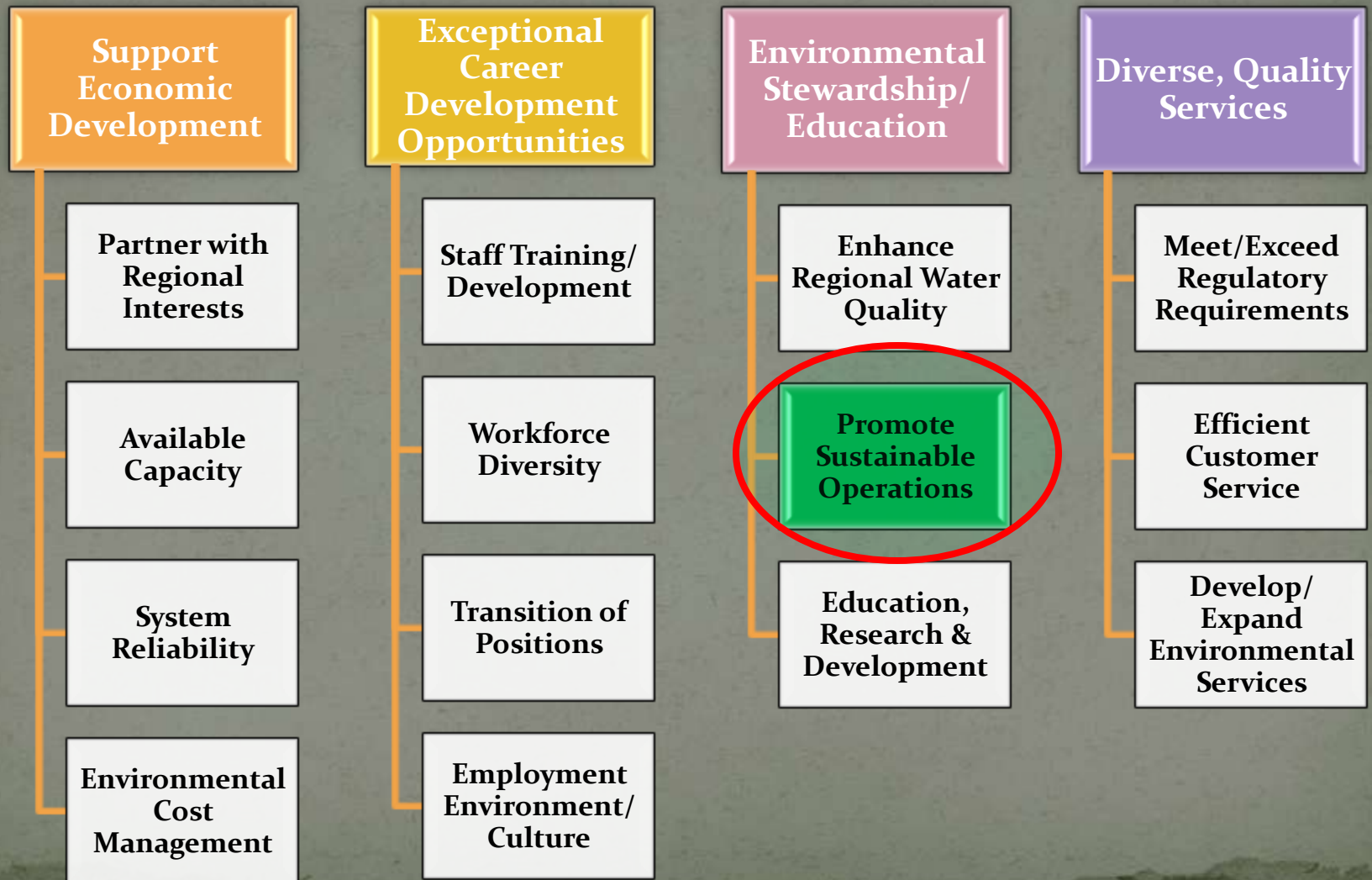
Green Bay Facility



Strategic Planning Process

- Strategic Planning process
 - Needed to address future
- Involved multiple stakeholders
- Established future goals
- Identified 14 strategic investments

Strategic Investments:



Strategic Planning Investments

1. Watershed-Based Planning
2. Services to Other Municipalities
3. In-District Sustainability
4. Risk-Based Asset Management

Sustainability Plan Development

- Define Sustainability
- Engage Consultants
- Selection Process

In-District Sustainability

GBMSD's Definition:

Strategies that integrate economy, ecology, and social equity into daily decisions, policies, and practices to ensure a prosperous and healthy future for today and tomorrow's generations.

Highlights GBMSD commitment to “triple bottom line”.

Engage Consultants

- Invited consultants to provide proposals
- Selected two respondents for interviews
- Selected on one firm, provided notice, received approval from the board July, 2010

Program Development Process

- Task 1 – Education
- Task 2 – Technical Investigation
- Task 3 – Program formulation

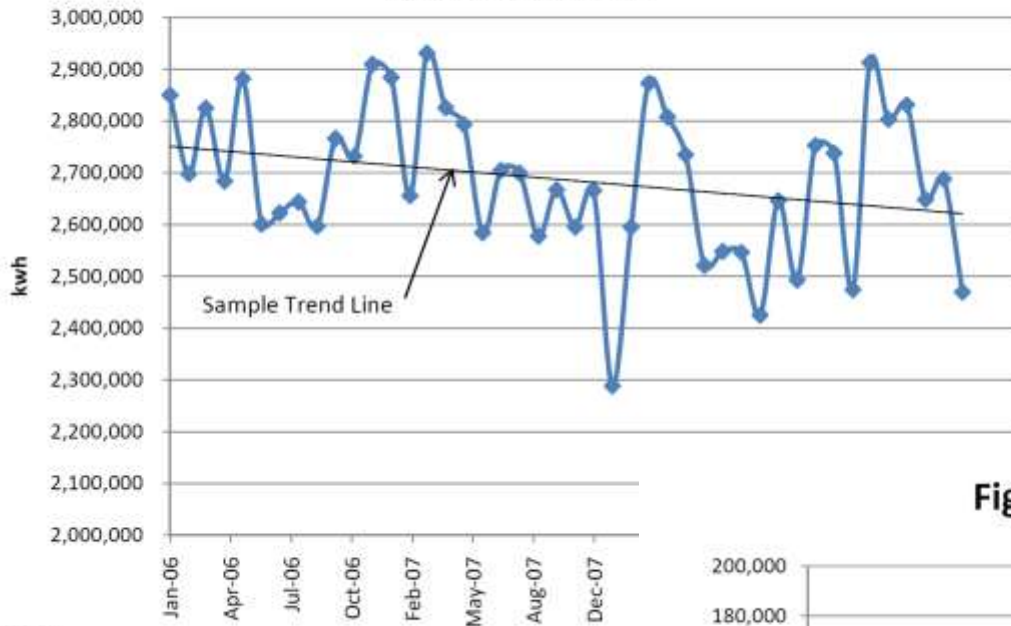
Education

- Two way street
- Conducted workshop on sustainability
- Provided background information on key issues
- Conducted phone interviews with selected individuals
- The focus was to lay a foundation for program formulation

Technical Evaluation

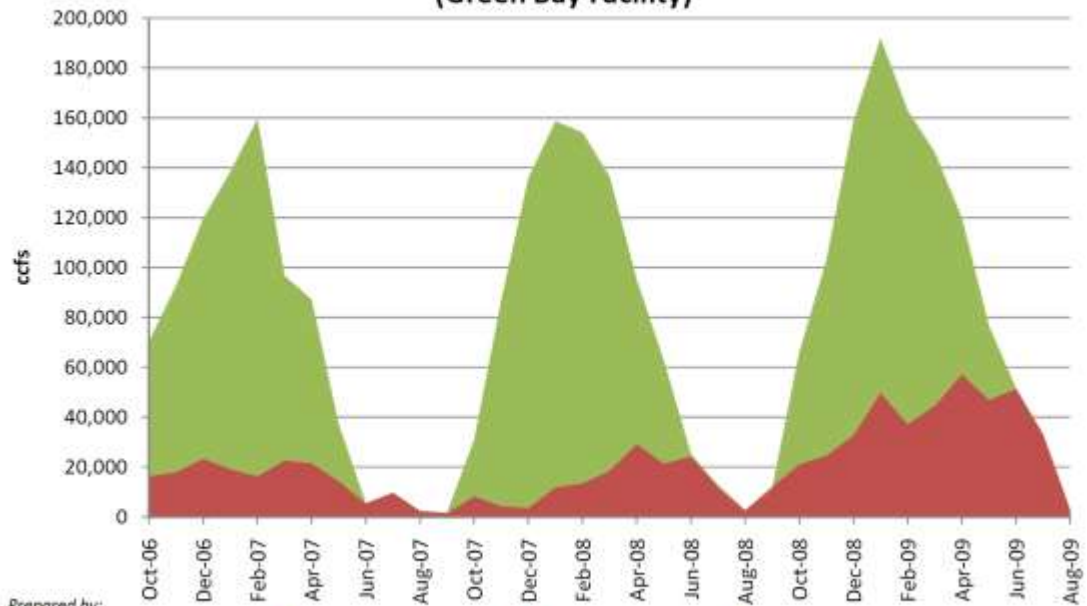
- Review plant records
- Prepare summaries to be used in plan formulation
- Rearrange data in different ways to review results.
- Some examples:

**Figure 4: Electrical Energy Usage
(Green Bay Facility)**



Prepared by:
SYMBIONT
Rebecca Vanderbeck, 11-13-09

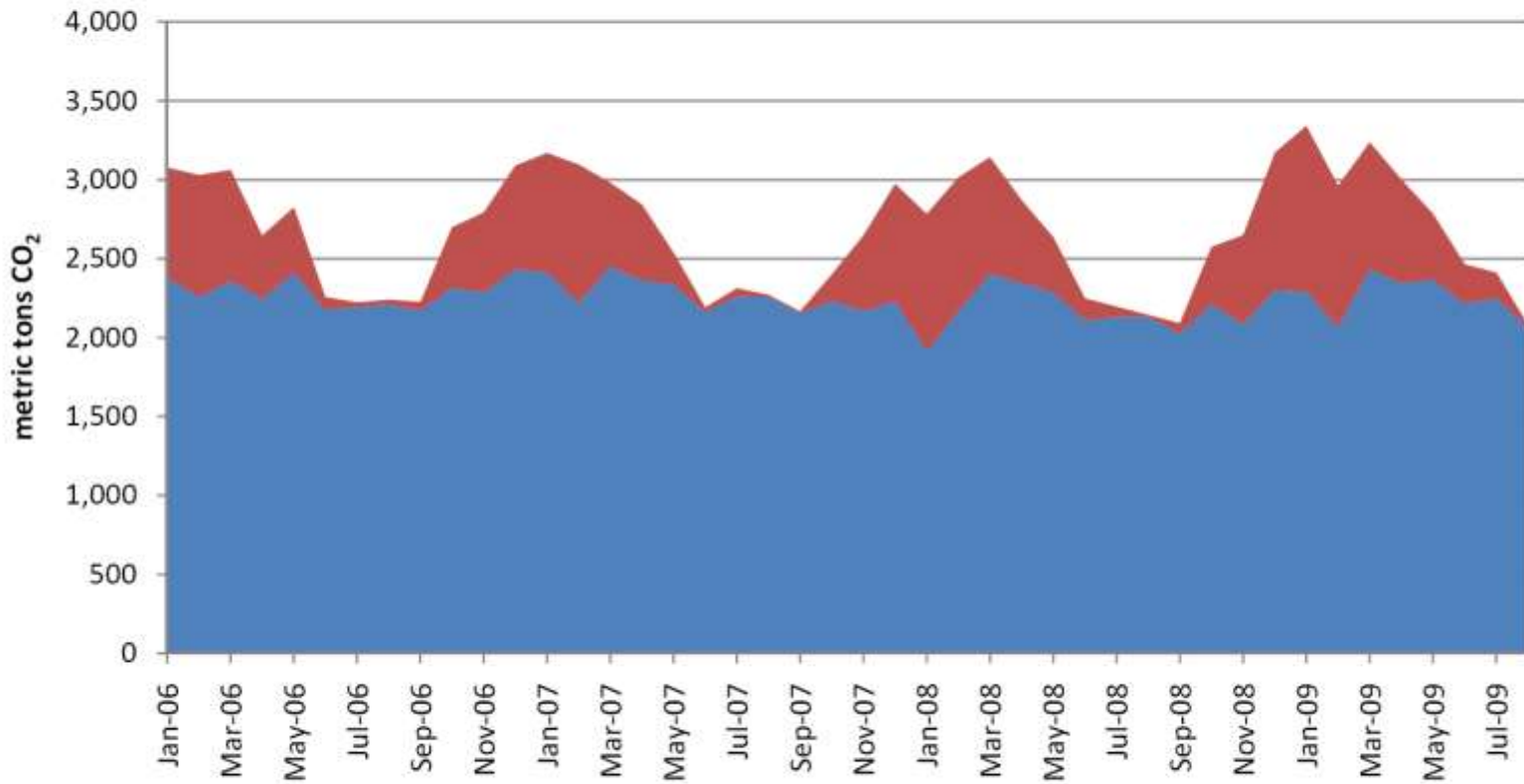
**Figure 12: Natural Gas Usage
(Green Bay Facility)**



Prepared by:
SYMBIONT
Rebecca Vanderbeck, 11-13-09

■ Process Boilers ccfs ■ Incineration ccfs ■ Heating ccfs

Figure 14: Greenhouse Gas Emissions (Green Bay Facility)



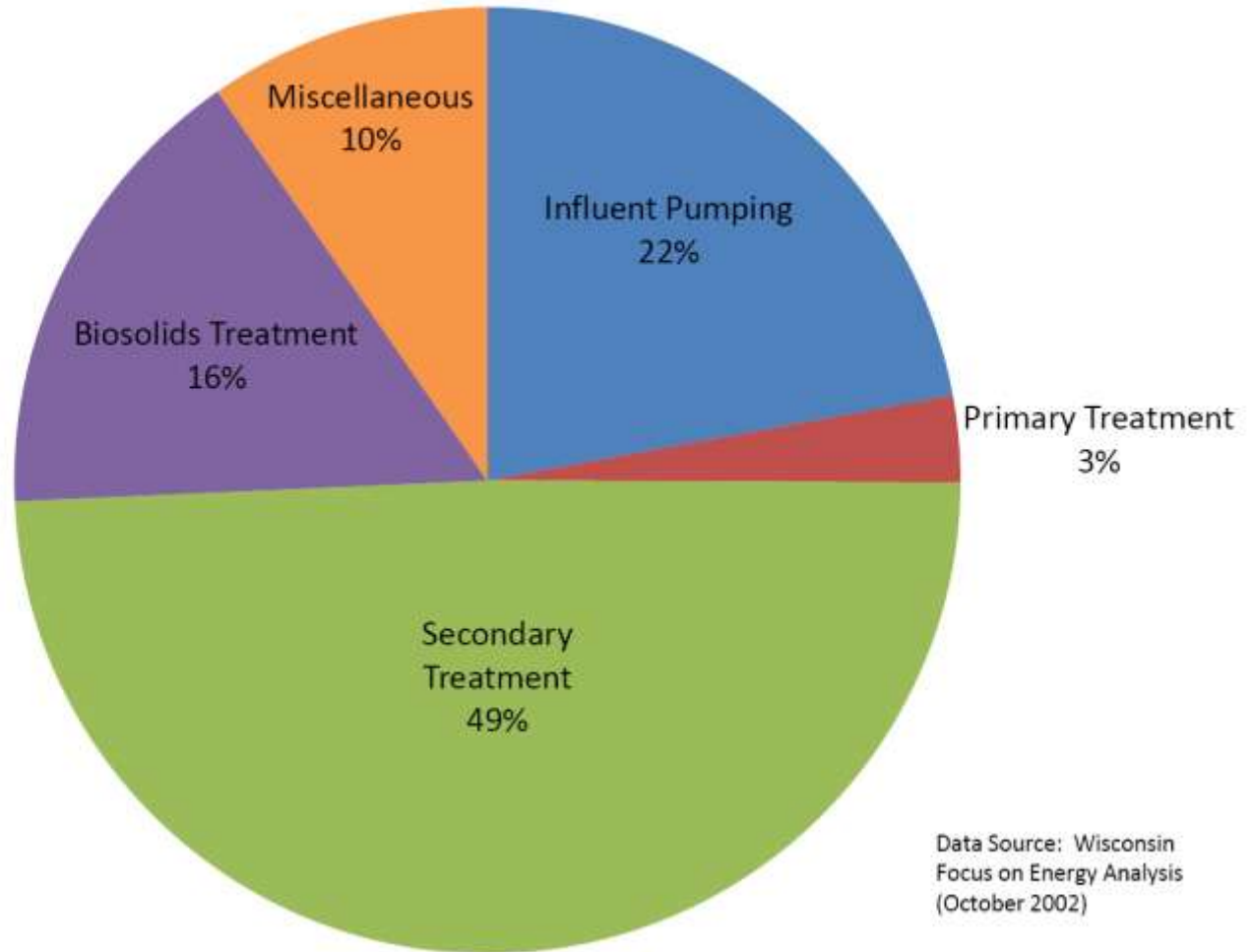
Prepared by:



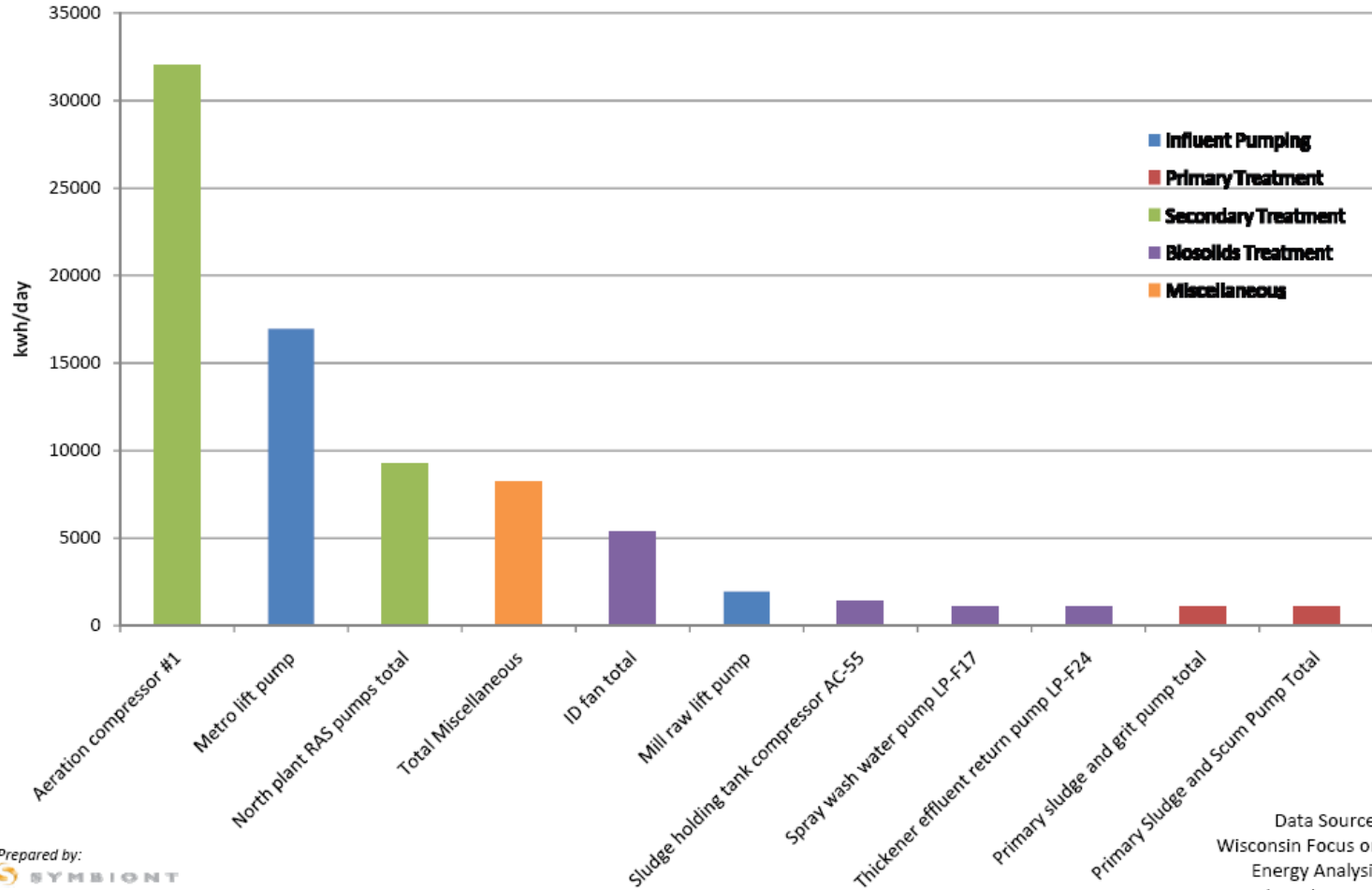
Rebecca Vanderbeck, 11-13-09

■ Electrical Usage ■ Natural Gas Usage

**Figure 6: Percent of Total On-site Energy
(Green Bay Facility)**



**Figure 7: Top Sources of On-site Energy Use
(Green Bay Facility)**



Prepared by:
SYMBIONT
 Rebecca Vanderbeck, 11-13-09

Data Source:
 Wisconsin Focus on
 Energy Analysis
 (October 2002)

Program Formulation

- Critical Step – Brainstorming workshop
 - Need representation from all areas
- Next – develop plan outline, share with team
- Next – develop draft plan, share with team
- This process must be iterative!
- The process must engage all team members!

Commitment to Sustainability

- GBMSD has already provided a lot of direction by
 - Defining sustainability
 - Having a strategic plan with investments
 - Committing to “triple bottom line”

Outline of the Plan

- The plan consists of 6 parts:
 - Introduction
 - Goals
 - Structure
 - Timeline
 - History
 - Next Steps
- The key elements are Goals and Structure

Goals

- Baseline measurement
- Evaluate energy efficiency
- Create energy conservation policies
- Create sustainability training
- Incorporate into decision-making
- Standardize
- Create recognition program

Structure

- Project Management
- Office and Building Operations
- Plant Operations
- Human Resources
- Financial
- Communications and Outreach

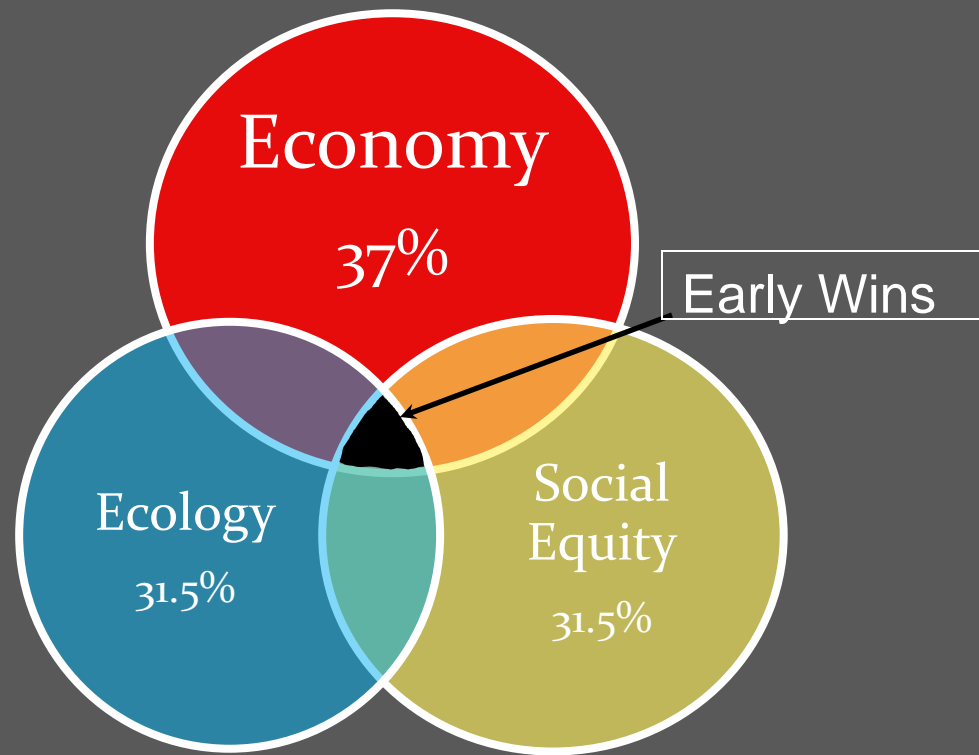
One Example – Triple Bottom Line

- GBMSD is committed to applying this into decision making
- How to weight each element?
- One approach – consider each strategic investment – how do they relate to triple bottom line?

Matrix of investments

Strategic Investment	Ecology	Economy	Social Equity
Partner with Regional Interests	X	X	
Available Capacity	X	X	
System Reliability	X	X	
Environmental Cost Management		X	
Staff Training Development			X
Workforce Diversity			X
Transition of Positions			X
Employment Environment Culture			X
Enhance regional Water Quality	X		
Promote Sustainability	X	X	X
Education, Research & Development			X
Meet/Exceed Regulatory Requirements	X		
Efficient Customer Service		X	
Develop/Expand Environmental Services		X	
Totals	6	7	6
Percentage	31.5%	37%	31.5%

Results



Where are we?

- The final draft is being reviewed
- Plan to be adopted by the board this summer
- Elements of the plan already advancing:
 - HR is moving ahead with integration
 - Large scale projects being identified
 - Energy savings evaluation of operations is beginning
- Management Systems Development needed

Thank You!

Contact Information



Cleaning Water Today for Tomorrow's Generations

Green Bay Metropolitan

Sewerage District

Lisa Evenson

Communications and
Education Coordinator

920-438-1064

levenson@gbmsd.org

Symbiont

Jon Butt

Process/Project Manager

414-291-8840

jon.butt@symbiontonline.com



SYMBIONT