

**DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY**

Board of Directors

Strategic Planning Committee

July 16, 2015

8:30 a.m.

- 1. **Call to Order**.....**Robert Mallett, Chairperson**
- 2. **Blue Horizon 2020 Implementation Progress**.....**Sarah Neiderer**
- 3. **Blue Horizon 2020 Revisions**.....**Sarah Neiderer**
- 4. **Effective Utility Management**.....**Sarah Neiderer**
- 5. **Action Item**.....**Sarah Neiderer**
 - A. Approval of Blue Horizon 2020 Strategic Plan Revisions
- 6. **Executive Session***
- 7. **Adjournment**

* The DC Water Board of Directors may go into executive session at this meeting pursuant to the District of Columbia Open Meetings Act of 2010, if such action is approved by a majority vote of the Board members who constitute a quorum to discuss: matters prohibited from public disclosure pursuant to a court order or law under D.C. Official Code § 2-575(b)(1); contract negotiations under D.C. Official Code § 2-575(b)(1); legal, confidential or privileged matters under D.C. Official Code § 2-575(b)(4); collective bargaining negotiations under D.C. Official Code § 2-575(b)(5); facility security under D.C. Official Code § 2-575(b)(8); disciplinary matters under D.C. Official Code § 2-575(b)(9); personnel matters under D.C. Official Code § 2-575(b)(10);proprietary matters under D.C. Official Code § 2-575(b)(11); decision in an adjudication action under D.C. Official Code § 2-575(b)(13); civil or criminal matters where disclosure to the public may harm the investigation under D.C. Official Code § 2-575(b)(14), and other matters provided in the Act.

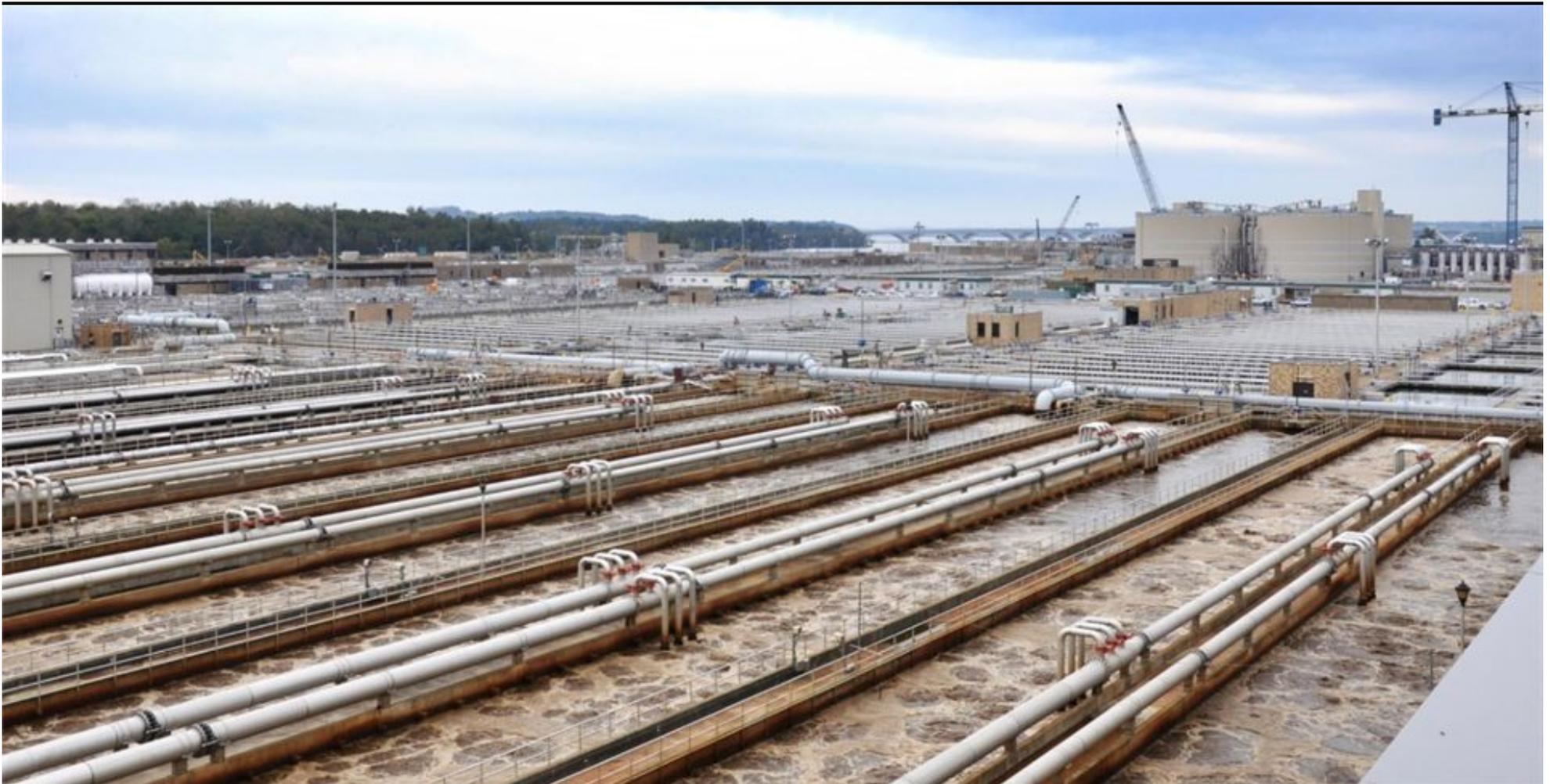


BLUE HORIZON 2020 STRATEGIC PLAN

Implementation Progress Report and Proposed Revisions

Presentation to the Strategic Planning Committee

June 18, 2015





Agenda

- Blue Horizon 2020 Overview
- Implementation Progress
- Proposed Revisions



DC Water's Strategic Direction

Vision

To be a world-class utility

Values

Respect, Ethics, Vigilance and Accountability

Mission

Exceed expectations by providing high quality water services in a safe, environmentally friendly, and efficient manner



LEADERSHIP



VALUE

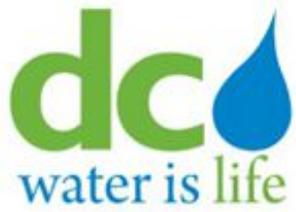


INNOVATION



Blue Horizon 2020 Goals

GOAL		COMMITTEE	GOAL CHAMPION
1	Develop, Maintain and Recruit a High Performing Workforce	Human Resources/Labor Relations	Rosalind Inge
2	Collaborate Locally, Regionally, and Nationally	Governance	John Lisle
3	Increase Board Focus on Strategic Direction	Strategic Planning	Randy Hayman
4	Enhance Customer/Stakeholder Confidence, Communications, and Perception	DC Retail and Sewer Rates	Charlie Kiely
5	Assure Financial Sustainability and Integrity	Finance and Budget	Mark Kim
6	Assure Safety and Security	Water Quality and Water Services	Walter Bailey
7	Consider DC Water Role in Drinking Water Treatment	Water Quality and Water Services	Charlie Kiely
8	Optimally Manage Infrastructure	Environmental Quality and Sewerage Services	Len Benson
9	Enhance Operating Excellence Through Innovation, Sustainability, and Adoption of Best Practices	Audit	Biju George



Blue Horizon 2020

Implementation Progress



Goal Progress

1	Develop, Maintain and Recruit a High Performing Workforce	% Complete
1.1	Improve employee and internal customer satisfaction levels.	85
1.2	Achieve 100% of employees with required certifications and/or licenses by 2015	25
1.3	Increase workforce productivity using a composite measure	50

2	Collaborate Locally, Regionally, and Nationally	% Complete
2.1	Achieve efficiencies through increased collaboration	80
2.2	Positively influence laws, policies, and regulations through collaborations	90

3	Increase Board Focus on Strategic Direction	% Complete
3.1	Board and committee structure, frequency of meetings, and agendas are focused on the strategic plan	100
3.2	On-time implementation of Initiatives	100
3.3	Demonstrated progress on the objectives	100

4	Enhance Customer/Stakeholder Confidence, Communications, and Perception	% Complete
4.1	Increase customer satisfaction	60
4.2	Improve stakeholder understanding and support of key issues facing DC Water	50



Goal Progress

5	Assure Financial Sustainability and Integrity	% Complete
5.1	Develop alternative revenue sources and achieve realistic revenue projections	85
5.2	Meet capital finance objectives as set by the Board	100
5.3	Meet affordability targets as set by the Board	100
5.4	Achieve high stakeholder confidence in financial procedures and results as measured by a stakeholder survey	100

6	Assure Safety and Security	% Complete
6.1	Achieve consistent improvement on a composite of national safety indices annually	100
6.2	Successfully implement appropriate recommendations of the vulnerability assessment	75
6.3	Implement improvements to the safety program	80

7	Consider DC Water Role in Drinking Water Treatment	% Complete
7.1	Determine by the end of fiscal year 2014 whether DC Water should take responsibility for drinking water treatment	100
7.2	Achieve consistent taste and odor quality in drinking water	100



Goal Progress

8	Optimally Manage Infrastructure	% Complete
8.1	Replace and/or rehabilitate at least 1% of linear infrastructure annually	100
8.2	Reduce impact of infiltration & inflow and critical infrastructure failures	75
8.3	Optimize the ratio of preventative versus corrective maintenance	50
8.4	Improve cost effectiveness of infrastructure repair and replacement	95

9	Enhance Operating Excellence Through Innovation, Sustainability, and Adoption of Best Practices	% Complete
9.1	Measure and evaluate specific indices of efficiency	80
9.2	Increase adoption of sustainability processes and programs	80
9.3	Achieve top quartile performance against peer group benchmarks	60
9.4	Receive external recognition for operating excellence and innovation	70



Blue Horizon 2020

Proposed Revisions



Goal 1

Adopted in 2013

- **Goal**
 - Develop, Maintain and Recruit a High Performing Workforce
- **Objectives**
 - Improve employee and internal customer satisfaction levels
 - Achieve 100% of employees with required certifications and/or licenses by 2015
 - Increase workforce productivity using a composite measure

Proposed Revisions

- **Goal**
 - Develop, Maintain and Recruit a High Performing Workforce
- **Objectives**
 - Improve employee and internal customer satisfaction levels
 - **Maintain all** regulatory licenses and certifications as required by assigned job positions
 - Increase workforce productivity
 - **Implement organizational succession planning**
 - **Enhance employee performance management**
 - **Reward employee performance and contributions**



Goal 2

Adopted in 2013

- **Goal**
 - Collaborate Locally, Regionally, and Nationally
- **Objectives**
 - Achieve efficiencies through increased collaboration
 - Positively influence laws, policies, and regulations through collaborations

Proposed Revisions

- **Goal**
 - Collaborate Locally, Regionally, Nationally, **and Internationally**
- **Objectives**
 - **Increase DC Water’s collaboration and visibility locally, regionally, nationally, and internationally**
 - Positively influence laws, policies, and regulations through collaborations
 - **Collaborate with DC Water contractors to promote local hiring**



Goal 3

Adopted in 2013

- **Goal**
 - Increase Board Focus on Strategic Direction
- **Objectives**
 - Board and committee structure, frequency of meetings, and agendas are focused on the strategic plan
 - On-time implementation of Initiatives
 - Demonstrated progress on the objectives

Proposed Revisions

- **Goal**
 - Increase Board Focus on Strategic Direction
- **Objectives**
 - **Ensure** Board and committee structure, frequency of meetings, and agendas are focused on the strategic plan
 - On-time implementation of **objectives and** initiatives



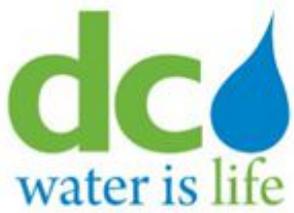
Goal 4

Adopted in 2013

- **Goal**
 - Enhance Customer/Stakeholder Confidence, Communications, and Perception
- **Objectives**
 - Increase customer satisfaction
 - Improve stakeholder understanding and support of key issues facing DC Water

Proposed Revisions

- **Goal**
 - Enhance Customer **and Public** Confidence, Communications, and Perception
- **Objectives**
 - Increase customer satisfaction
 - Improve **public** understanding and support of DC Water



Goal 5

Adopted in 2013

- **Goal**
 - Assure Financial Sustainability and Integrity
- **Objectives**
 - Develop alternative revenue sources and achieve realistic revenue projections
 - Meet capital finance objectives as set by the Board
 - Meet affordability targets as set by the Board
 - Achieve high stakeholder confidence in financial procedures and results as measured by a stakeholder survey

Proposed Revisions

- **Goal**
 - Promote Financial Sustainability and Responsible Resource Allocation
- **Objectives**
 - Achieve treasury, debt and risk management objectives
 - Achieve an affordable and fair rate structure
 - Ensure robust internal controls at DC Water
 - Ensure timely preparation, adoption and administration of DC Water's operating and capital budgets
 - Ensure integrity of DC Water's Financial Systems



Goal 6

Adopted in 2013

- **Goal**
 - Assure Safety and Security
- **Objectives**
 - Achieve consistent improvement on a composite of national safety indices annually
 - Successfully implement appropriate recommendations of the vulnerability assessment
 - Implement improvements to the safety program



Goal 7

Adopted in 2013

- **Goal**
 - Consider DC Water Role in Drinking Water Treatment
- **Objectives**
 - Determine by the end of fiscal year 2014 whether DC Water should take responsibility for drinking water treatment
 - Achieve consistent taste and odor quality in drinking water

Proposed Revisions

- **Goal**
 - Maximize water quality treatment, compliance and efficiency
- **Objectives**
 - Optimize DC Water's Role in drinking water treatment
 - Achieve distribution system optimization to enhance water quality
 - Ensure compliance with sewer and water systems permits and regulations
 - Advance innovation in drinking water and wastewater treatment processes



Goal 8

Adopted in 2013

- **Goal**
 - Optimally Manage Infrastructure
- **Objectives**
 - Replace and/or rehabilitate at least 1% of linear infrastructure annually
 - Reduce impact of infiltration & inflow and critical infrastructure failures
 - Optimize the ratio of preventive versus corrective maintenance
 - Improve cost effectiveness of infrastructure repair and replacement



Goal 9

Adopted in 2013

- **Goal**
 - Enhance Operating Excellence Through Innovation, Sustainability, and Adoption of Best Practices
- **Objectives**
 - Measure and evaluate specific indices of efficiency
 - Increase adoption of sustainability processes and programs
 - Achieve top quartile performance against peer group benchmarks
 - Receive external recognition for operating excellence and innovation

Proposed Revisions

- **Goal**
 - Enhance Operating Excellence Through Innovation, Sustainability, and Adoption of Best Practices
- **Objectives**
 - **Develop**, Measure and evaluate specific indices of efficiency
 - **Achieve top quartile asset management performance against benchmarks**
 - Increase adoption of sustainability processes and programs
 - **Increase adoption of innovative processes and programs**
 - **Leverage innovation to develop alternative revenue sources**



Questions?



Appendix A

1	Develop, Maintain and Recruit a High Performing Workforce	% COMPLETE
1.1	Improve employee and internal customer satisfaction levels	85
1.1.1	Develop and implement process to measure and assess employee and internal customer satisfaction.	85
1.2	Achieve 100% of employees with required certifications and/or licenses by 2015	25
1.2.1	Develop a listing of certifications and/or licenses that comply with regulatory and DC Water essential job requirements.	25
1.3	Increase workforce productivity using a composite measure	50
1.3.1	Determine and define a composite measure for workforce productivity.	50
1.3.2	Develop and implement a comprehensive leadership development program.	35
1.3.3	Assess and determine the current succession needs for the organization.	35
1.3.4	Enhance process by which DC Water evaluates non-union employee performance and establish individual performance measures.	90
1.3.5	Enhance process by which DC Water evaluates union employee performance and establish individual performance measures.	30

2	Collaborate Locally, Regionally, and Nationally	% COMPLETE
2.1	Achieve efficiencies through increased collaboration	80
2.1.1	Support opportunities to provide new services and to expand customer base	85
2.1.2	Increase Board and staff collaboration in local, regional, and national activities	95
2.1.3	Achieve leadership roles and seek awards for DC Water personnel	70
2.1.4	Develop local hiring initiatives for contractors	70
2.2	Positively influence laws, policies, and regulations through collaborations	90
2.2.1	Work with DC City Administrator, Board members from counties, local members of Congress, and others to improve DC Water's interaction with other governmental agencies and jurisdictions at all levels	90
2.2.2	Create formal communication channels with organizations with mutual interests	85
2.2.3	Facilitate execution of the 2012 IMA agreement	100

3	Increase Board Focus on Strategic Direction	% COMPLETE
3.1	Board and committee structure, frequency of meetings, and agendas are focused on the strategic plan	100
3.1.1	Create a Board and Committee structure and approach that support the Strategic Plan	100
3.2	On-time implementation of Initiatives	100
3.2.1	Develop new General Manager Strategic Plan "dashboard" to evaluate progress on initiatives and attainment of goals and objectives	100
3.3	Demonstrated progress on the objectives	100
3.3.1	Review and evaluate operational data by exception with the Board and Committees	100

4	Enhance Customer/Stakeholder Confidence, Communications, and Perception	% COMPLETE
4.1	Increase customer satisfaction	60
4.1.1	Establish residential and non-residential customer satisfaction survey to obtain baseline performance data and update results periodically	75
4.1.2	Develop and deploy a satisfaction survey for targeted stakeholder groups	50
4.2	Improve stakeholder understanding and support of key issues facing DC Water	50
4.2.1	Develop a communications inventory including opportunities, communication approaches, and targeted stakeholders	50
4.2.2	Increase opportunities to communicate with all customers, including those who do not receive a bill	50

5	Assure Financial Sustainability and Integrity	% COMPLETE
5.1	Develop alternative revenue sources and achieve realistic revenue projections	85
5.1.1	Identify and evaluate potential revenue-generating opportunities	85
5.2	Meet capital finance objectives as set by the Board	100
5.2.1	Review and update where appropriate all existing financing policies to ensure facilitation of capital financing needs	100
5.3	Meet affordability targets as set by the Board	100
5.3.1	Based on the 20-year Financial Feasibility Plan, establish policy objectives on affordability	100
5.3.2	Assess the effectiveness of current affordability programs and make recommendations for enhancement if needed	100
5.4	Achieve high stakeholder confidence in financial procedures and results as measured by a stakeholder survey	100
5.4.1	Achieve unqualified audit opinion on the financial statements and resolve all management letter comments	100

6	Assure Safety and Security	% COMPLETE
6.1	Achieve consistent improvement on a composite of national safety indices annually	100
6.1.1	Implement a safety management software/information system and report on relevant safety metrics	100
6.1.2	Establish a safety management system	100
6.2	Successfully implement appropriate recommendations of the vulnerability assessment	75
6.2.1	Develop a comprehensive security master plan to include ongoing reporting and monitoring process	75
6.3	Implement improvements to the safety program	80
6.3.1	Update safety policies, procedures, and training requirements, including emergency response plan	100
6.3.2	Enhance safety and security culture through improved training	100
6.3.3	Enhance safety and security culture through improved communication	40

7	Consider DC Water Role in Drinking Water Treatment	% COMPLETE
7.1	Determine by the end of fiscal year 2014 whether DC Water should take responsibility for drinking water treatment	100
7.1.1	Conduct a careful study of the potential approach and the cost and benefits of taking direct responsibility for drinking water treatment	100
7.2	Achieve consistent taste and odor quality in drinking water	100
7.2.1	Establish standards that meet or exceed current water quality measures	100

8	Optimally Manage Infrastructure	% COMPLETE
8.1	Replace and/or rehabilitate at least 1% of linear infrastructure annually	100
8.2	Reduce impact of infiltration & inflow and critical infrastructure failures	75
8.2.1	Assess impact of I/I on system and determine fix	75
8.3	Optimize the ratio of preventative versus corrective maintenance	50
8.3.1	Complete development of, and implement a comprehensive asset management plan	85
8.3.2	Increase focus on preventative maintenance	10
8.4	Improve cost effectiveness of infrastructure repair and replacement	95
8.4.1	Evaluate the use of internal crews versus contractor for repair and replacement of critical infrastructure based on cost, quality, timelines and training opportunities	95
8.4.2	Evaluate alternative technologies to reduce critical failures	100

9	Enhance Operating Excellence Through Innovation, Sustainability, and Adoption of Best Practices	% COMPLETE
9.1	Measure and evaluate specific indices of efficiency	80
9.1.1	Determine/define key organizational performance metrics	60
9.1.2	Identify and prioritize critical business processes that drive key performance metrics	100
9.2	Increase adoption of sustainability processes and programs	80
9.2.1	Identify and advance opportunities to enhance environmental sustainability	80
9.3	Achieve top quartile performance against peer group benchmarks	60
9.3.1	Develop plan for key business process performance reporting	15
9.3.2	Encourage every member of the DC Water team to identify and implement process improvements	100
9.4	Receive external recognition for operating excellence and innovation	70
9.4.1	Reward performance and contributions for improvement	70



Appendix B



Goal 1 Initiatives

1.1 Improve employee and internal customer satisfaction

- Develop and implement a process to measure and assess employee satisfaction.

1.2 Maintain all regulatory licenses and certifications as required by assigned job positions

- Develop, maintain and audit DC Water and regulatory required licenses and certifications by position and assigned employee.

1.3 Increase workforce productivity

- Determine and define a composite measure for workforce productivity.
- Develop and implement a comprehensive leadership development program.

1.4 Implement an organizational succession program

- Assess and determine the current succession needs for the organization
- Conduct a pilot succession planning program
- Implement a full-scale succession plan program

1.5 Enhance employee performance management

- Enhance process by which DC Water evaluates non-union employee performance and establish individual performance measures.
- Negotiate in the next labor agreement provisions that allow enhancement to the union employee performance evaluation process.

1.6 Reward employee performance and contributions

- Develop an employee rewards and recognition program for non union employees
- Develop an employee rewards and recognition program for union employees



Goal 2 Initiatives

2.1 Increase DC Water’s collaboration and visibility locally, regionally, nationally and internationally

- Increase DC Water collaboration in local, regional, national and international activities
- Seek awards for DC Water and its staff

2.2 Positively influence laws, policies, and regulations through collaborations

- Engage with local, regional and federal government agencies

2.3 Collaborate with DC Water contractors to promote local hiring

- Develop local hiring initiatives for contractors



Goal 3 Initiatives

3.1 Ensure Board and committee structure, frequency of meetings, and agendas are focused on the strategic plan

- Create and maintain a Board and Committee structure and approach that support the Strategic

3.2 On-time implementation of objectives and initiatives

- Update the General Manager "dashboard" to evaluate progress on initiatives and attainment of goals and objectives



Goal 4 Initiatives

4.1 Increase customer satisfaction

- Establish residential and non-residential customer satisfaction survey to obtain baseline performance data and update results periodically
- Develop and deploy a satisfaction survey for targeted stakeholder groups
- Develop and implement a plan to address customer and stakeholder concerns that most impact satisfaction

4.2 Improve public understanding and support of DC Water

- Develop a communications inventory including opportunities, communication approaches, and targeted stakeholders
- Increase opportunities to communicate with all customers, including those who do not receive a bill



Goal 5 Initiatives

5.1 Achieve treasury, debt and risk management objectives

- Maintain financial policies
- Ensure adequate liquidity
- Ensure access to capital markets
- Ensure adequate risk management
- Ensure bond indenture requirements are satisfied

5.2 Achieve an affordable and fair rate structure

- Establish rate structure that achieves policy goals and objectives
- Develop and maintain effective affordability programs and initiatives

5.3 Ensure robust internal controls at DC Water

- Achieve unqualified audit opinion on the financial statements and A-133 single audit
- Manage and oversee internal audit program
- Maintain accounting policies

5.4 Ensure timely preparation, adoption and administration of DC Water's operating and capital budgets

- Develop fiscally responsible and prudent annual operating and capital budgets.
- Maintain budget policies
- Design, develop and implement budget reporting tools and capabilities for DC Water management.

5.5 Ensure integrity of DC Water's Financial Systems

- Maintain and support integrity of Financial Systems (Infor Lawson and related software) and interfaces with other technology systems and applications at DC Water
- Design, develop, and implement strategic enhancements and upgrades to improve internal controls and functionality of Financial Systems
- Maintain financial system policies



Goal 6 Initiatives

6.1 Achieve consistent improvement on a composite of national safety indices annually

- Implement a safety management software/information system and report on relevant safety metrics
- Establish a safety management system
- EHS Management System (EHSMS): Implementation Phase
- EHS Management System (EHSMS): Checking Phase

6.2 Successfully implement appropriate recommendations of the vulnerability assessment

- Develop a comprehensive security master plan to include ongoing reporting and monitoring process

6.3 Implement improvements to the safety program

- Update safety policies, procedures, and training requirements, including emergency response plan
- Develop an enterprise-wide Job Safety Analysis (JSA) Program
- Enhance safety and security culture through improved training
- Enhance safety and security culture through improved communication



Goal 7 Initiatives

7.1 Optimize DC Water's Role in drinking water treatment

- Evaluate a potential approach for taking direct responsibility for drinking water treatment

7.2 Achieve optimal aesthetic drinking water quality

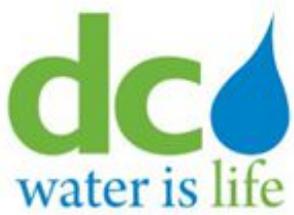
- Distribution system evaluations focused on reducing water age and enhancing monitoring
- Field Operations Data Collection

7.3 Ensure compliance with sewer and water systems permits and regulations

- Develop and achieve capacity, management, operations and management (CMOM) compliance
- Continue the development and enhancement of the cross connection control program
- Negotiate a renewal of the NPDES permit

7.4 Advance innovation in drinking water and wastewater treatment processes

- Anticipate future regulatory requirements
- Increase economics and efficiencies in distribution, collection and treatment



Goal 8 Initiatives

8.1 Replace and/or rehabilitate at least 1% of linear infrastructure annually

8.2 Reduce impact of infiltration & inflow

- Assess impact of I/I on system and develop action plan

8.3 Optimize the ratio of preventive versus corrective maintenance

- Complete development of, and implement a comprehensive asset management program
- Increase focus on preventive maintenance

8.4 Improve cost effectiveness of infrastructure repair and replacement

- Evaluate the use of internal staff versus contractors for repair, rehabilitation, and replacement of critical infrastructure based on cost, quality, timelines and training opportunities
- Perform Phase II evaluation of emerging technologies and methods for water and sewer infrastructure



Goal 9 Initiatives

9.1 Develop, Measure and evaluate specific indices of efficiency

- Develop strategy map, outcome measurements in alignment with strategic plan. Effective process measurement and benchmarking framework
- Identify and prioritize critical business processes that deliver strategic outcomes
- Determine/define key organizational performance metrics
- Implement performance management system

9.2 Achieve top quartile asset management performance against benchmarks

- Develop and implement asset management performance benchmarking framework for all classes of assets
- Research and adopt industry benchmarking frameworks for DC Water

9.3 Increase adoption of sustainability processes and programs

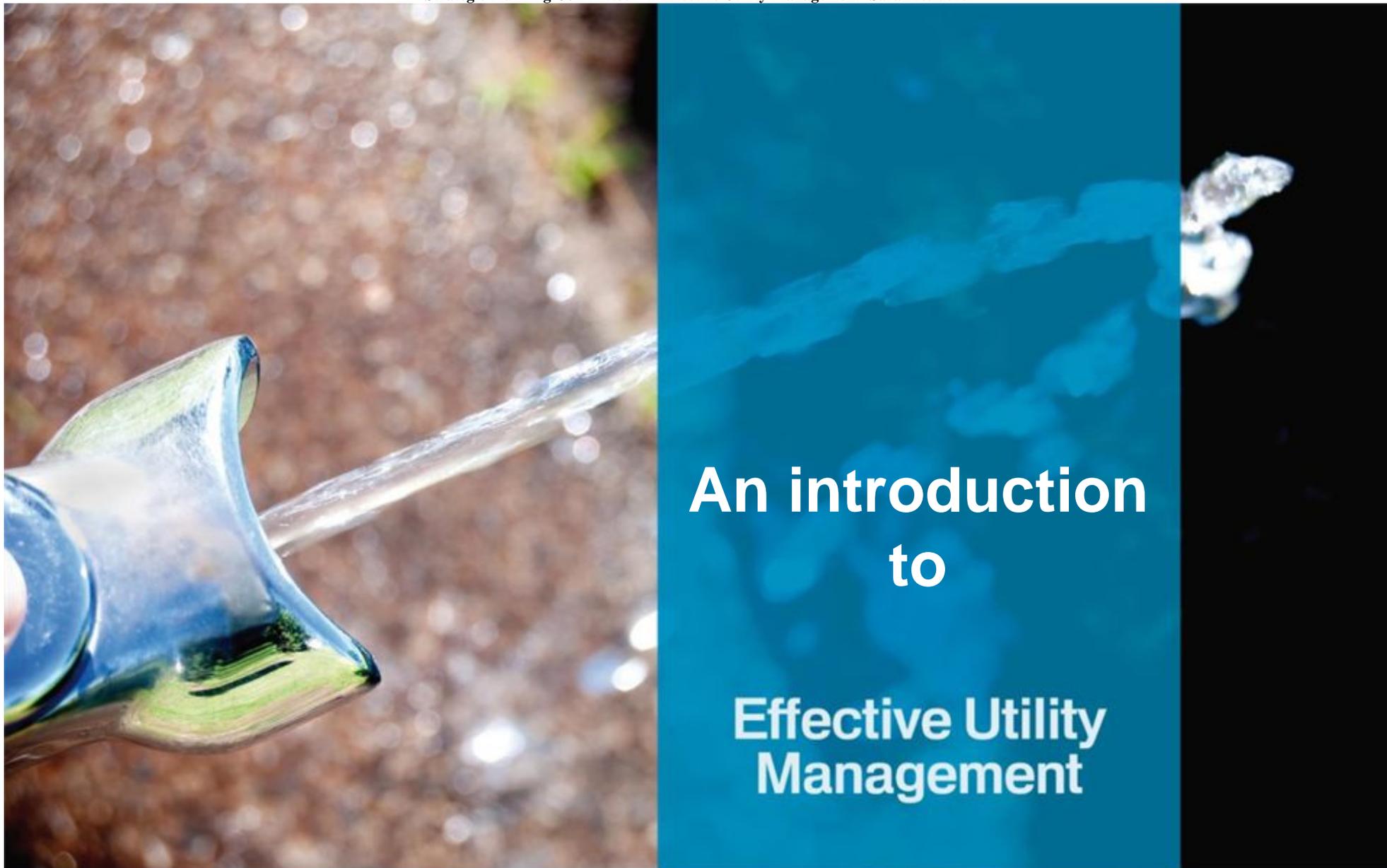
- Research and develop sustainability framework for DC Water
- Identify and advance opportunities to enhance environmental sustainability

9.4 Increase adoption of innovative processes and programs

- Develop innovation process and facilitation structure for DC Water

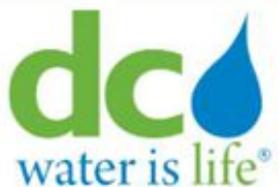
9.5 Leverage innovation to develop alternative revenue sources

- Pursue policies and procedures for enabling alternative revenue generation
- Identify and evaluate potential revenue-generating opportunities



An introduction to

Effective Utility Management



Presentation to the Strategic Planning Committee
June 18, 2015



Effective Utility Management

- Developed by utility leaders for utilities
- Relevant to any utility
- Endorsed by the EPA and six water sector industry collaborating organizations





Industry Challenges

- Aging infrastructure
- Financial sufficiency
- Organization development
- Stakeholder pressures

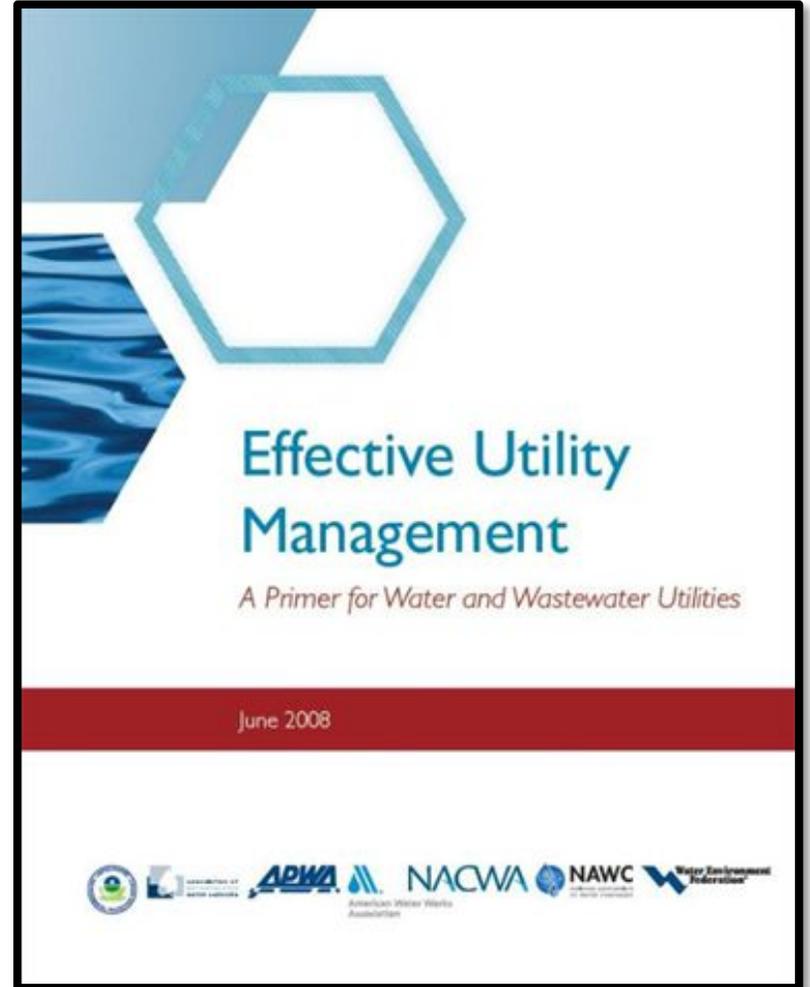


Advisory Group of Peers Recommended:

- Water sector should adopt:
 - 10 Attributes of Effectively Managed Utilities
 - 5 Keys to Management Success
- Performance measures should be identified
- A “resource toolbox” should be developed



Effective Utility Management Primer





5 Keys to Management Success





5 Keys to Management Success

5 Keys	An effective utility...
Leadership	Has purposeful direction and effective leadership.
Strategic Business Planning	Plans strategically.
Organizational Approaches	Organizes through cohesive teams and leadership support.
Measurement	Measures performance in meeting its goals.
Continuous Improvement	Never stops improving.



The Ten Attributes of an Effective Utility



Product Quality

Customer Satisfaction

Employee/Leadership Development

Operational Optimization

Financial Viability

Infrastructure Stability

Operational Resiliency

Community Sustainability

Water Resource Adequacy

Stakeholder Understanding/Support



10 Attributes of Effectively Managed Utilities

Ten Attributes	Utility's ability to...	Sample of Measures
Product Quality	Meet regulatory compliance	Regulatory compliance record and near misses
Customer Satisfaction	Provide reliable responsive and cost-effective service	Number of customer complaints by type; average hold time
Employee/Leadership & Development	Attract and retain competent workforce	Retention rate; training hrs/FTE; existence of updated succession plan
Operational Optimization	Make efficient use of resources	Water loss; # of accounts per FTEs
Financial Viability	Understand full life-cycle costs	Debt ratio; Bond ratings



10 Attributes of Effectively Managed Utilities

Ten Attributes	Utility's ability to...	Sample of Measures
Infrastructure Stability	Understand condition and costs of assets, especially those that are critical	Asset renewal replacement rates; planned maintenance ratios
Operational Resiliency	Anticipate and avoid problems	Updated emergency response plan; # of insurance claims/accidents
Community Sustainability	Understand impact on environment and community	Greenhouse gas emission; Affordability of rates - % of MHI
Water Resource Adequacy	Ensure water availability through water resource management	Existence of water resource plan - master planning
Stakeholder Understanding Support	Achieve understanding and support from stakeholders	Media/press coverage; # of mtgs with stakeholders



Questions?
