



# BEDC Quest to Become the Best

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Kathryn Mallon, PE

Deputy Commissioner



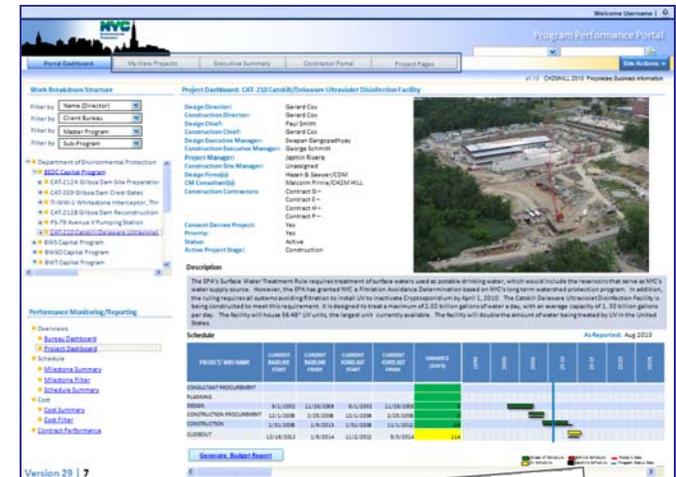
Our goal is to become  
the best Capital Program  
Delivery organization in  
the US

# Performance Goals Established

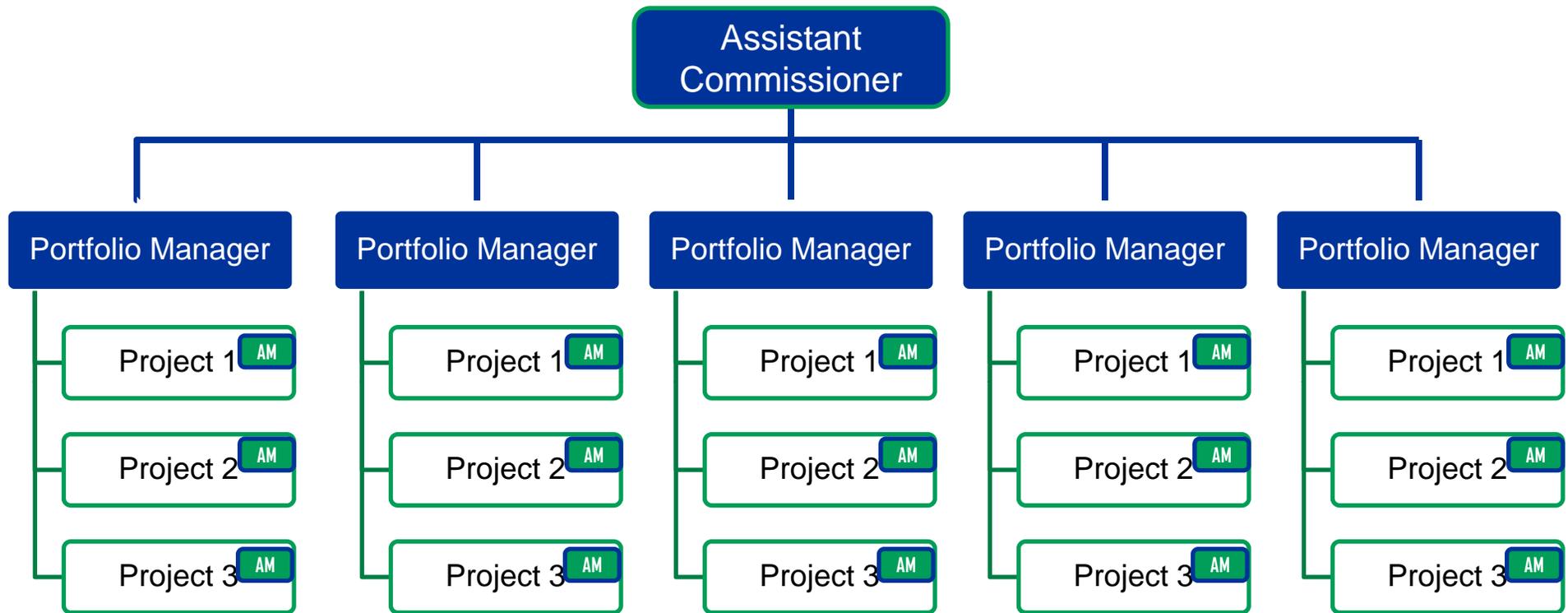
Performance Metric	Goal
<b><u>Schedule</u></b>	
Construction Closeout	< 15% Delay <18 months
<b><u>Cost</u></b>	
Construction Contracts	<10%
Consultant Contracts	< 20% < 15%
Engineer's Estimate Bid Change Orders	+20% to -5% -30%
<b>Change Order Processing</b>	120 Days
<b>Payments</b>	45 Days

# Started with Systems and Procedures

- ❖ Project Delivery System
- ❖ Cost Estimating Manual
- ❖ Design Quality Management Manual
- ❖ Construction Management SOPs
- ❖ Permit Tracking Database
- ❖ Project Management Information System



# Major Reorganization to Drive Accountability



- ❖ Structure focused on project delivery
- ❖ Flatter organization reduces layers of management, speeds up decision making, enhances communication/staff involvement
- ❖ Single point of accountability for each project

# Changing Culture Starts with Defining Core Values



## **1. Safety**

Every day, everyone goes home safe on BEDC projects.

## **2. Client Service**

BEDC recognizes the Operating Bureaus as our clients and strives to meet their needs through quality project delivery and partnerships built on trust and respect.

## **3. Quality**

BEDC strives to design high quality projects are constructed with the finest workmanship to ensure longevity.

## **4. Budget**

BEDC is committed to spending every capital dollar wisely to deliver high value on behalf of the Agency and our rate payers.

## **5. Schedule**

BEDC strives to deliver projects when promised - our infrastructure requires timely upgrades to ensure reliable operations and time is money.

# Web-Based Project Management Data



Site Actions Browse Page

Ingle, Todd



PMIS Sandbox

PMIS Sandbox Advanced Search

## Work Breakdown Structure

Filter by:

Filter by:

Filter by:

Filter by:

## Program and Portfolios Dashboard : BEDC : BEDC CAPITAL PROGRAM

Show Stage:

Show Consent:

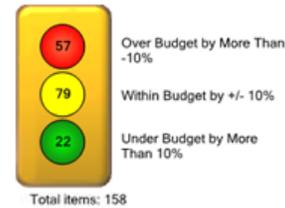
Show Priority:

Show Status:

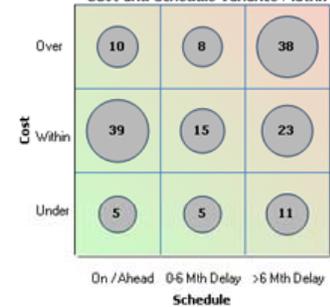
### Schedule Variance



### Cost Variance Percentage



### Cost and Schedule Variance Matrix



- ▣ BEDC : BEDC CAPITAL PROGRAM
  - ▣ 26W-1 : Bulkhead Replacement
  - ▣ 26W-11 : Raw Sewage Header Replacement
  - ▣ 26W-12 : Miscellaneous Improvements
  - ▣ 26W-13 : Emergency Generator System
  - ▣ 26W-14 : Reconstruction of Regulator 26W R-1
  - ▣ 26W-15 : Installation of Low Level Main Sewage Pumps
  - ▣ 26W-16 : 26th Ward Carbon Addition Facility
  - ▣ 26W-18 : Interim Caustic System at 26th Ward
  - ▣ 26W-20 : Preliminary Treatment & Solids Handling Facilities
  - ▣ 26W-21A : Digesters & Thickeners
  - ▣ 26W-21B : Administration

## Variance

As Reported: 1/1/2012

## Performance Monitoring/Reporting

- ▣ Overviews
  - ▣ Program and Portfolios Dashboard
  - ▣ Project Dashboard
- ▣ Schedule
  - ▣ Milestone Filter
  - ▣ Milestone Summary
  - ▣ Schedule Summary
- ▣ Cost
  - ▣ Cost Filter
  - ▣ Contract Performance
- ▣ Workflows
  - ▣ Preliminary Project Approval
  - ▣ My Workflow Tasks
- ▣ Useful Links
  - ▣ User Guide
  - ▣ Definitions
  - ▣ Training Materials
  - ▣ Tips

CONSENT	PRIORITY	STATUS	PROJECT / WBS ID	PROJECT / WBS NAME	CURRENT STAGE	COST				SUBSTANTIAL COMPLETION SCHEDULE					
						COST DATA DATE	CURRENT BASELINE BUDGET (\$)	EAC (\$)	VARIANCE AT COMPLETION (\$)	VAR %	SCHEDULE DATA DATE	CURRENT BASELINE DATE	CURRENT FORECAST DATE	VARIANCE (DAYS)	SLIP / GAIN (DAYS)
						A	B	C=A-B	D=(A-B)/A	E	F	G=E-F			
N	A	26W-11	Raw Sewage Header Replacement	Closeout	6/30/2011	\$23,321,050	\$19,233,443	\$4,087,607	18	11/1/2011	8/29/2007	4/1/2010	-946	0	
Y	Y	A	26W-12	Miscellaneous Improvements	Construction	6/30/2011	\$127,536,739	\$173,184,215	(\$45,647,476)	-36	11/1/2011	6/24/2008	2/26/2014	-2073	17
N	A	26W-13	Emergency Generator System	Construction	6/30/2011	\$42,693,361	\$44,416,017	(\$1,722,656)	-4	11/1/2011	8/25/2012	8/7/2012	18	101	
N	A	26W-14	Reconstruction of Regulator 26W R-1	Construction	6/30/2011	\$9,914,325	\$9,930,215	(\$15,890)	0	11/1/2011	12/23/2011	9/28/2012	-280	13	
Y	Y	A	26W-16	26th Ward Carbon Addition Facility	Facility Planning	8/31/2011	\$22,087,539	\$22,087,538	\$1	0	11/1/2011	1/8/2016	12/31/2015	8	0
	A	26W-18	Interim Caustic System at 26th Ward	Design	7/31/2011	\$4,088,222	\$4,088,222	\$0	0	11/1/2011	4/8/2014	8/18/2014	-132	0	
Y	A	26W-20	Preliminary Treatment & Solids Handling Facilities	Facility Planning	6/30/2011	\$144,591,081	\$144,686,987	(\$95,906)	0	11/1/2011	8/7/2014	12/30/2018	-1506	0	
Y	A	26W-ARP	Ammonia Recovery Process	Design	3/31/2011	\$53,531,500	\$53,508,123	\$23,377	0	8/1/2011	4/7/2014	6/5/2014	-59	0	
N	A	5198	Upper Reconstruction Phase 2 - Security/Safety Improvement	Closeout	7/31/2011	\$37,974,457	\$38,412,526	(\$438,069)	-1	11/1/2011	7/4/2008	12/1/2010	-880	0	
N	A	5298	West Entrance Guardhouse, Access Road, and Tree Removal	Construction	7/31/2011	\$14,702,292	\$14,978,452	(\$276,160)	-2	11/1/2011	12/6/2011	5/31/2012	-177	0	
N	A	538C	Completion of the Manhattan City Tunnel #3, Stage 2	Closeout	4/30/2011	\$688,840,115	\$716,831,908	(\$27,991,793)	-4	9/1/2011	7/28/2009	4/20/2010	-266	0	
			Installation of Equipment and												



# Good Governance Keeps Us Focused on Mission



Project ID No:	NC-36
Project Title:	Main Building North Modifications
Accountable Mgr:	Eric Lehan

Reporting Period:	Apr 2012
Current Phase:	Construction
Project Status:	Active

## Contract Summary

			Latest Contract Evaluation Rating	Current Project Performance Rating	Comments
Design:	NC-UPGRD DES	Greeley & Hansen/ Hazen & Sawyer/ Malcolm Pirnie (JV)	Good	Good	anticipate project completion by 7/30/12
CM:	NC-CM02	Hazen & Sawyer, P.C. /Malcolm Pirnie (JV)	Good	Good	anticipate project completion by 7/30/12
Contractor:	NC-36E	Five Star Electrical Corp.	Good	Good	anticipate project completion by 7/30/12
Contractor:	NC-36G	Silverite Construction Co., Inc.	Good	Good	anticipate project completion by 7/30/12
Contractor:	NC-36H	CDE Air Conditioning	Good	Good	anticipate project completion by 7/30/12
Contractor:	NC-36P	Skountzos Plumbing & Heating Corp.	Good	Excellent	anticipate project completion by 7/30/12

## General Project Performance to Date

General Performance (Red, Yellow, Green)					Comments/Corrective Actions
EHS	Scope	Schedule	Budget	Quality	
Acceptable Audits	Insignificant Scope Change Impact	Delay > 6 Months	Over Budget by >10%	> 2% E/O	contractor is expediting completion of the odor control system and conveyor system

## Project Performance This Reporting Period

Monthly Performance (Red, Yellow, Green)					Comments/Corrective Actions
EHS	Scope	Schedule	Budget	Quality	
Acceptable Audit	No NMSC Initiated	Recoverable Schedule Slip	No Change to Design/CM EAC	Medium	

## EHS Performance

Data Date: 4/30/2012

### Audit Results Within This Reporting Period:

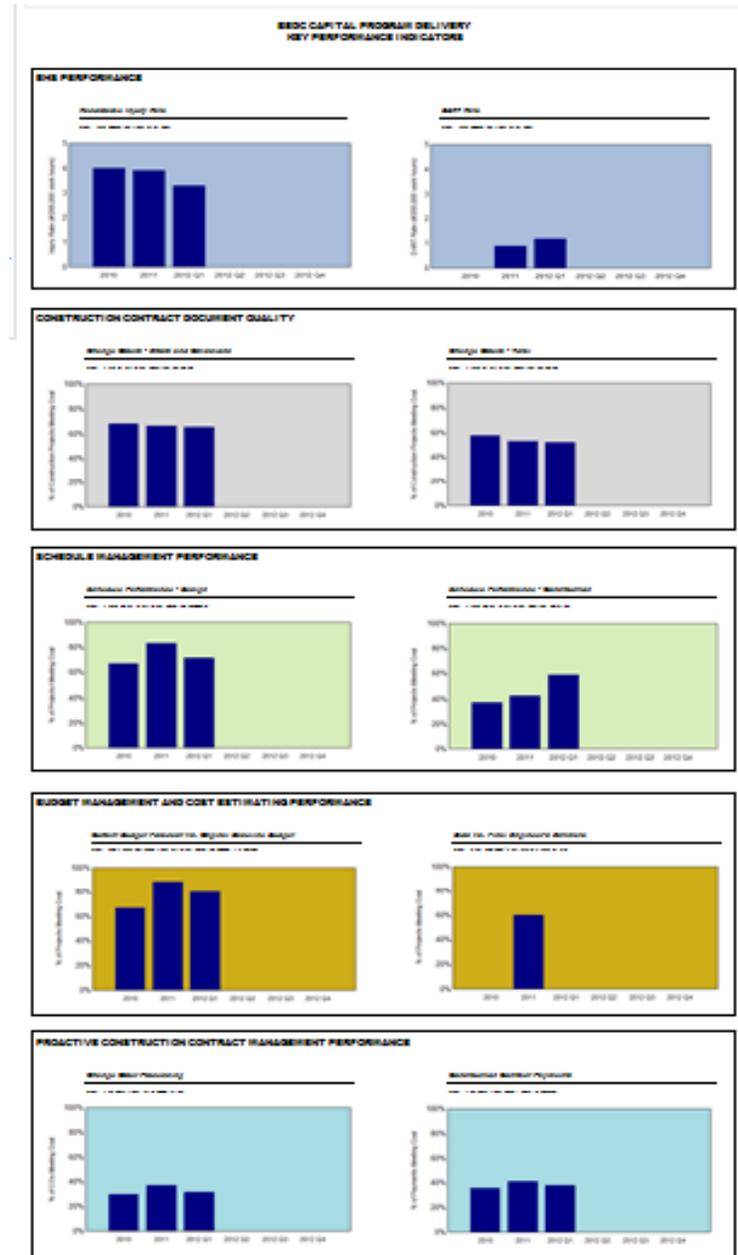
Contract	Last Date Performed in This Period	# Life Threat/High Hazard Observations	Corrective Action Plan
NC-CM02	N/A	N/A	
NC-36E	4/25/2012	0	
NC-36G	4/25/2012	1	
NC-36H	4/25/2012	0	
NC-36P	N/A	N/A	

### Incidents Detail Within This Reporting Period:

Contract	Incident Date	Incident Type	Incident Description	Lessons Learned / Corrective Action Plan
NC-36G	4/3/2012	Injury	Incident Description: On Tuesday, 04/03/12, the CM was notified by the contractor that Silverite employee was injured. While removing the inlet hatch to carbon tank #3, he lost his grip and his right hand was struck by the hatch cover. The top of his han	

# Key Performance Indicators Posted Quarterly

- Safety
- Quality
- Schedule
- Budget
- Contract Management



# Strong In-House Design Makes Us a Better Owner



Project	Status	Budget
Orchard Beach PS	In Construction	\$2.5 Mil
Throgs Neck PS	90% Design Complete	\$30 Mil
Shaft 21 Building	In Construction	\$2.5 Mil
Newtown Creek TRC	30% Design	\$10 Mil
Hannah Street PS	Basis of Design Report	\$30 Mil
Wards Island Emergency Generators	Basis of Design Report	\$40 Mil
Rikers North PS	Basis of Design Report	\$5 Mil
Jerome Park Repairs	Basis of Design Report	\$10Mil
Jerome Park Gatehouses	Project Scoping	\$15Mil
<b>TOTAL</b>		<b>\$145Mil</b>

# Best In-House Tunnel Skills in the Country



Project	Status	Budget
CT3 Shaft Mechanical Design	In Construction (on-time)	\$175 Mil
RWBT Shafts (BT-1)	Out to Bid	\$230 Mil
RWBT Tunnel (BT-2)	Design Starting	\$700 Mil
B-Q Shafts 17B and 18B	BODR Complete	\$225 Mil
JFK Meter Vault	Basis of Design in Progress	\$2 Mil
<b>TOTAL</b>		<b>\$1.35 Bil</b>

- Recruiting “Best and Brightest” of top engineering schools and assigning to our Best Mentors
- Launched Workforce Development Program to clearly communicate skills requirements to our staff
- Launched Extensive Training Program – Technical and Managerial Curriculum
- Expanded In-House Design and Construction Management Programs
- Staff Recognition: Project Delivery and Safe Site Team Awards; Quarterly New Hire Breakfast

# Training Investment Paying Dividends



Home - Training Opportunities - Windows Internet Explorer  
 http://bedc/HR/to/default.aspx

File Edit View Favorites Tools Help

Home - Training Opportunities

Mallon, Kathryn



**For BEDC Training Courses, Click on Course Title to get more information. To submit a request to attend a course, please fill out the Training Request Form above. Your request will be electronically submitted to your Director/Manager for approval. Please complete one form for each class of interest. Each class request will be considered independently.**

**BEDC Training Courses**

Course Title	Course Category	Course Type	Course Date	Application Dates	Final Approval Date
Improving Project Communication Within and Outside of the Project Team	Technical	5th Floor Low Rise East	6/27/2012	June 25 2012	June 25 2012
Dam Safety	Technical	6th Floor Training	6/20/2012	June 11 2012	June 11 2012

6/14/2012 9:00 AM **Fundamentals of Supervision (Day 1 of 2)**  
 This workshop offers participants an introduction to the issues, challenges, and typical situations related to supervising "frontline" employees. Participants will learn basic skills and be introduced to the key techniques that they will need to function...

6/15/2012 9:00 AM **Fundamentals of Supervision (Day 2 of 2)**  
 This workshop offers participants an introduction to the issues, challenges, and typical situations related to supervising "frontline" employees. Participants will learn basic skills and be introduced to the key techniques that they will need to...

6/19/2012 9:00 AM **Inspired Leadership: Creating a Motivational Environment (Day 1 of 2)**  
 \*\*Must attend both days of course  
 Exploring the wisdom and values of other real-life leaders, this course will assist participants in identifying new ways to encourage individual contributors to perform at higher levels...

6/20/2012 8:30 AM **Inspired Leadership: Creating a Motivational Environment (Day 2 of 2)**  
 \*Must attend both days  
 Exploring the wisdom and values of other real-life leaders, this course will assist participants in identifying new ways to encourage individual contributors to perform at higher levels - therefore increasing productivity,...

6/20/2012 2:00 PM **Biowin Modeling and Optimization**  
 Hazen & Sawyer Presentation

6/27/2012 9:00 AM **Dealing with Difficult People**  
 This workshop provides participants with techniques to enhance their skills for dealing with difficult people in the workplace. Participants will learn how to manage their own behavior, explore different coping mechanisms, and develop more effective...

7/2/2012 9:00 AM **Geek Speak: Interpersonal Communication Skills for Technical Professionals**  
 This course highlights communication fundamentals for technical professionals who need to clearly express complicated ideas to diverse colleagues Through a series of small-group exercises, each participant will practice

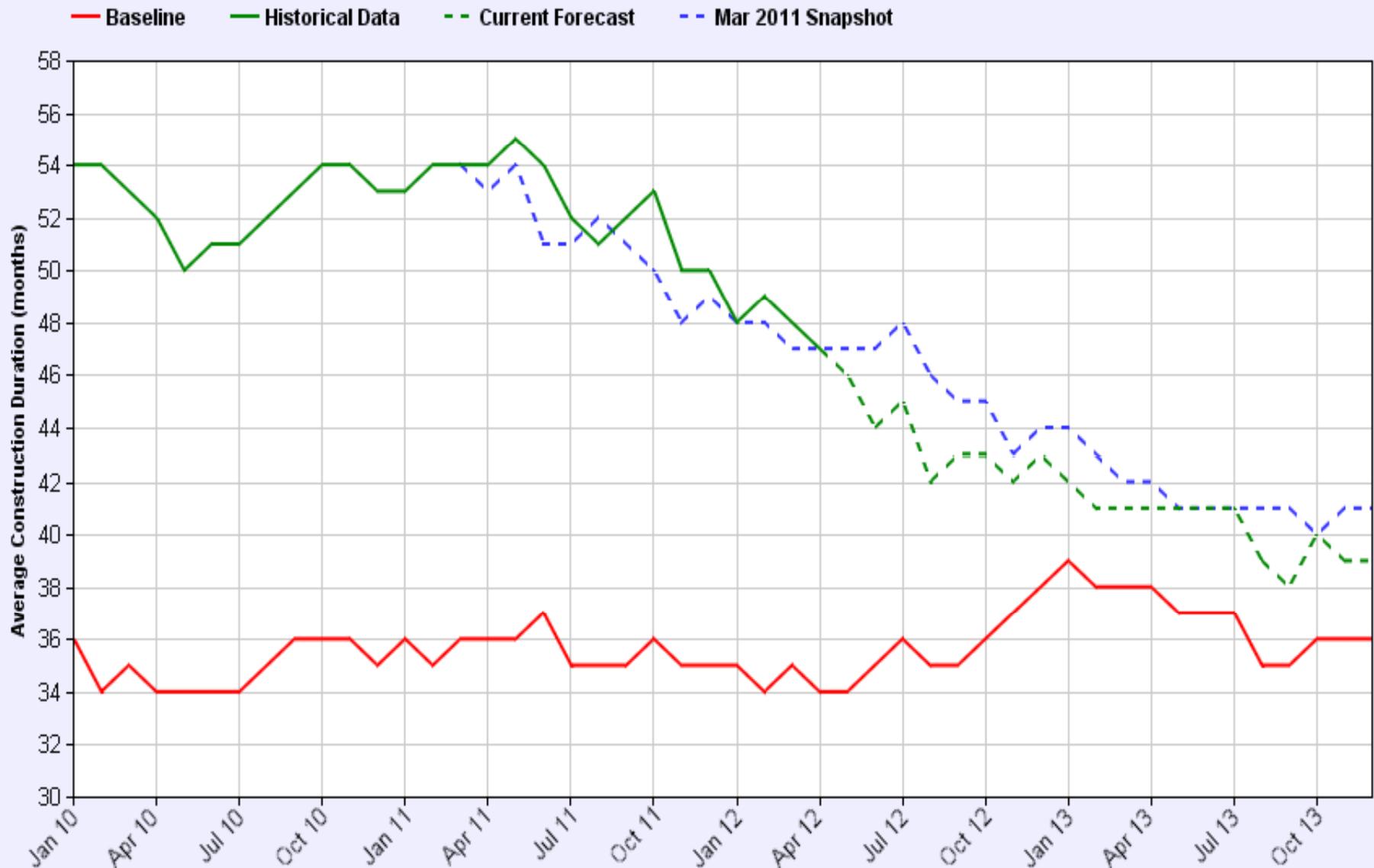
Local intranet | Protected Mode: Off | 100% | 7:05 PM 6/13/2012

- Payment Turnaround Times
- Change Order Processing Durations
- Timely Response to Disputes
- Article 16 and 44 letters within 30 days
- Shop Drawing Process
- Contract Closeout and Final Payments
- Schedule Management during construction
- Information Transparency (COs, Payments, Closeout, SOPs)

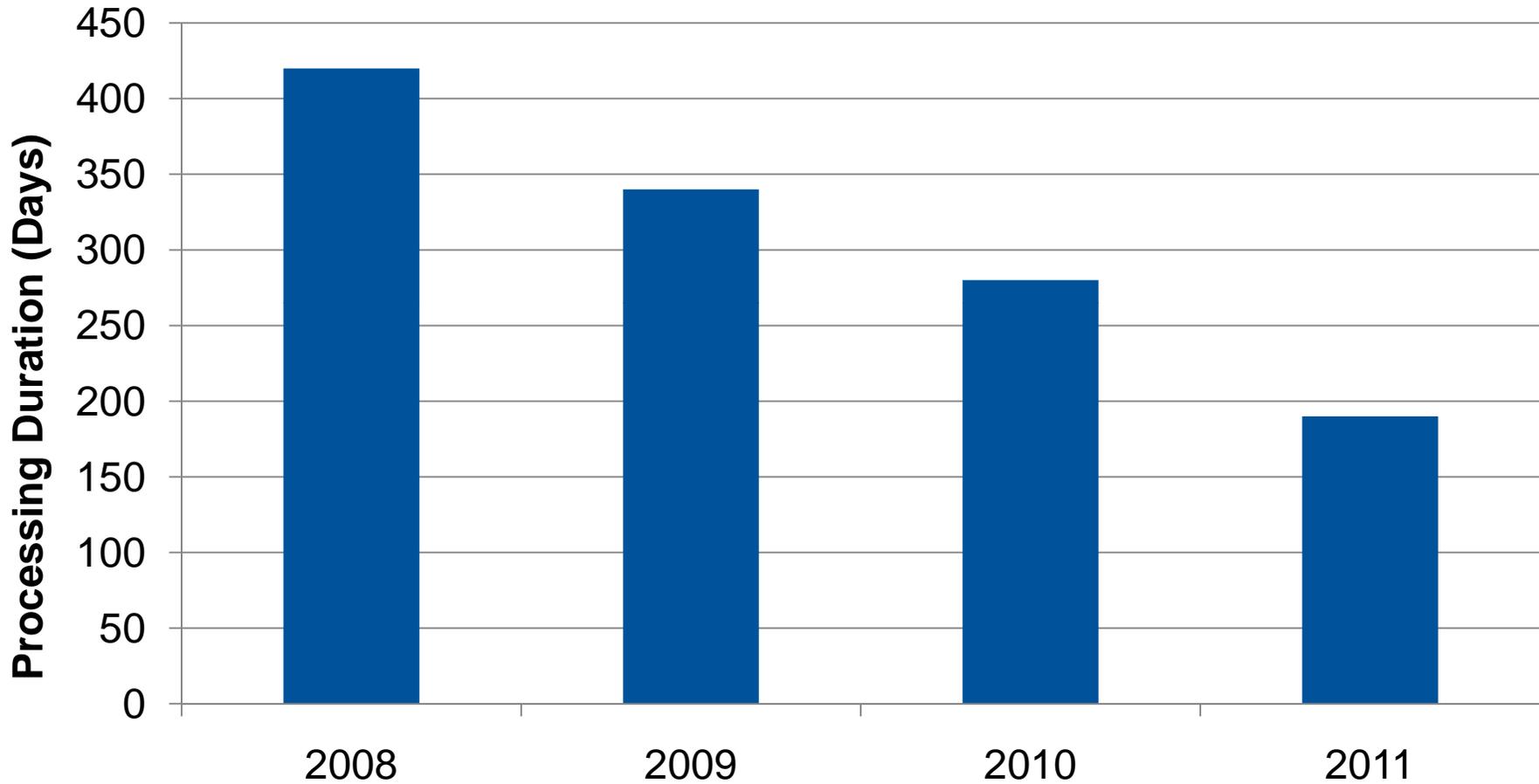
- Damages for Delays
- Eliminated Vendor Approvals
- Included Quality Inspection Instructions in Contracts
- Revamped Value Engineering
- Partnering Requirements
- Project Labor Agreement
- Pre-Qualification for Major Construction Projects
- Escrow Bid Documents
- Geotechnical Baseline Reports

# Change Is Working...Schedule Management

## BEDC Capital Program Construction Duration Trend and Projection



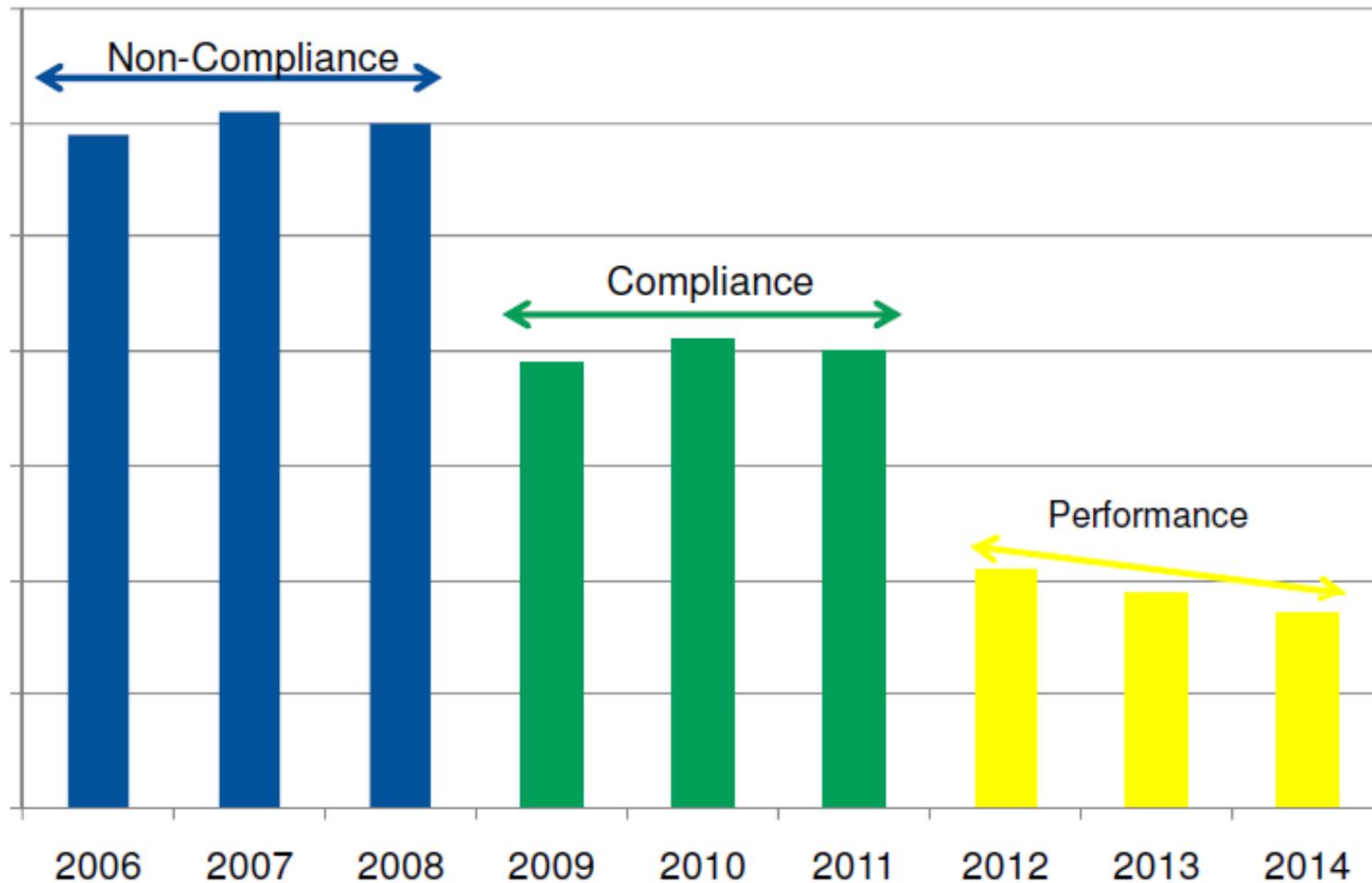
# Change is Working....Change Orders



# Always More to Do...

- Demand Higher Quality Contract Documents from our Consultants
- Demand More Pro-Active Performance from our Construction Managers
- Greater Accountability in our BEDC Staff
- Update our Contract Specifications
- Revamp our Quality Program to ensure that we are getting value
- Revamp our Safety Program to ensure that our requirements are actually resulting in safer sites
- Ways to expedite delay claims at the comptroller office
- Contingency Allowances in our Contracts
- Lobby for Alternative Delivery Legislation to give us more delivery tools

# EHS Performance Had Stagnated



# EHS Management System Under Development

## EHS MANAGEMENT SYSTEM

**DEP's "goal is to run the safest operations and capital program in the country with the best environmental compliance record of any large water and wastewater utility!"  
(DEP's Strategic Plan)**

In line with that goal, BEDC is building an Environmental, Health and Safety *Management System*.

The goals of our *EHS Management System* are to:

- Reduce BEDC, Construction Manager and Contractor injuries, illnesses and incidents at our project sites
- Implement effective Pollution Prevention programs to further enhance our environmental stewardship
- Maintain a commitment to "Continual Improvement" that goes beyond compliance



# Need Better Performance from our Consultants



Performance Evaluation for Quarter ending

Item	Criteria	Max. Score	Score
<b>Safety</b>			
1	CM staff is working safely and promoting safety	3	
2	Working with the contractors to promote safe working practices	3	
<b>Documentation/Communications</b>			
3	As-built documentation is being properly maintained	2	
4	Project files are being properly maintained	2	
5	Project Communications are effective	3	
<b>Technical Capability</b>			
6	Project staff is properly trained and effective	2	
7	Contractor working relationships are effective	3	
8	Staff is providing value to the program work effort	3	
<b>Staffing</b>			
9	Projects are staffed in accordance with the staffing plan	2	
10	Subconsultants are being managed properly	2	
11	Working well as a part of a multidisciplinary project team	3	
<b>Schedule</b>			
12	Project deliverables are provided on schedule	2	
13	Each project is being managed to meet the contract schedule	2	
14	Turnaround of contractor documentation is timely	3	
<b>Cost Control</b>			
15	Consultant billings are accurate and timely	2	
16	Contractor payment applications are processed quickly and accurately	2	
<b>Change Management</b>			
17	Resolution of changes is timely	2	
18	Change estimates are accurate and timely	2	
19	Provided timely notice of potential changes of out of scope work and claims	2	
<b>Quality</b>			
20	Quality control is performed according the submitted project plan	2	
21	Project deliverable quality	3	
Total		50	0
Percentage Score			0%

**Rating Guidelines:**

3 - Exceeds Expectations, 2- Meets Expectations, 1 - Needs Improvement

Calculation of the performance element of the fee will be as follows:

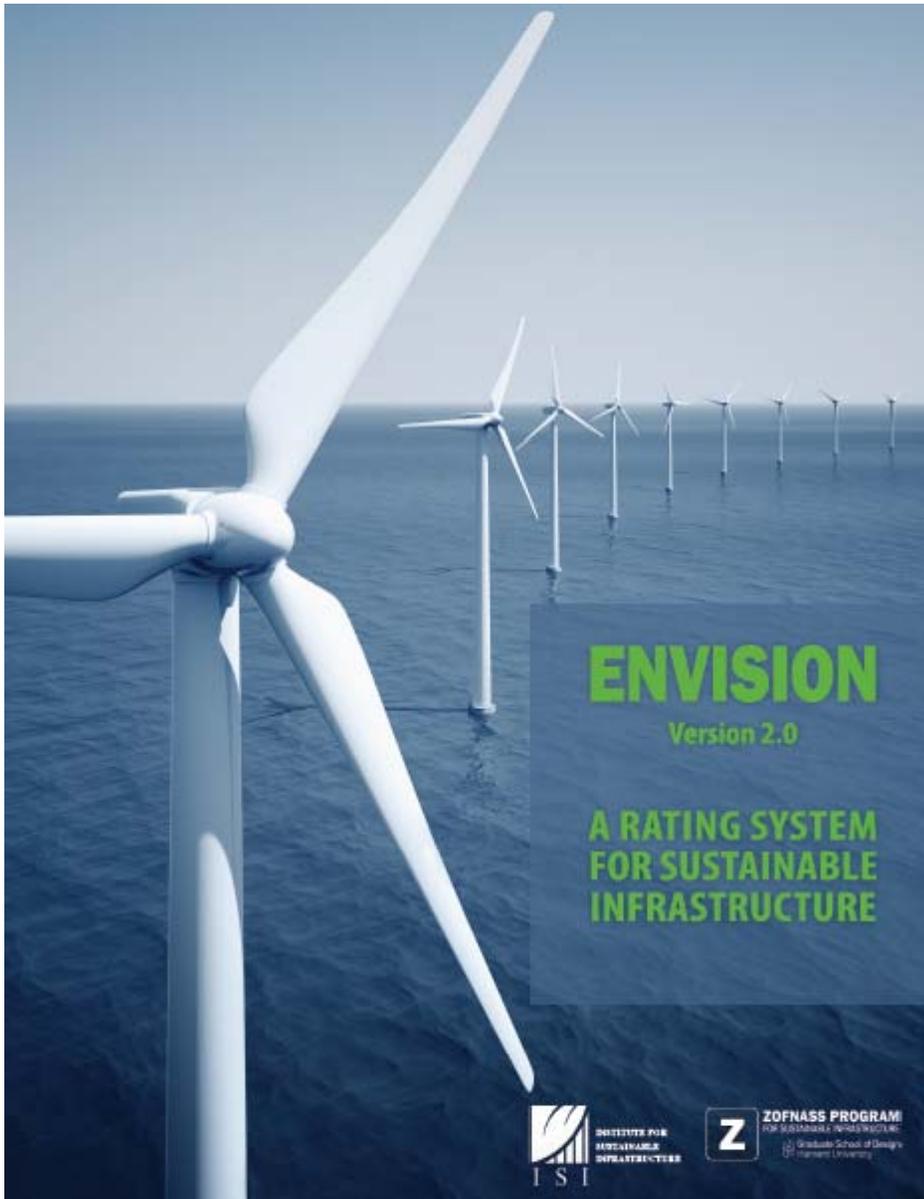
- less than 60% - no performance fee
- 60% to 69% - 1%
- 70% to 79% - 2%
- 80% to 89% - 3%
- 90% to 100% - 4%

## Performance Fee Schedule

Contract Year	Base Fee	Max Performance Fee
1	8.0%	0.0%
2	7.0%	4.5%
3	6.0%	5.5%
4	5.0%	6.5%

Score	Typical Characteristics
10.0	Outstanding performance. Significant improvement not imaginable
7.5	Some areas where performance could be improved, but overall what would be called a "good CM".
5.0	Average and competent, but not remarkable CM, adequate performance and motivation.
2.5	Clearly sub-par performance.
0.0	A disaster; abysmally poor performance.

# Sustainability Isn't an Option Anymore

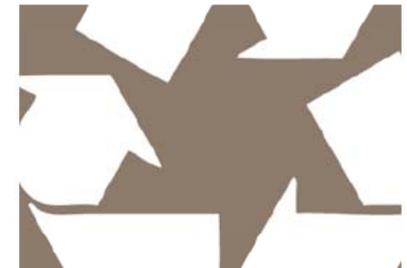


**Z ZOFNASS PROGRAM**  
FOR SUSTAINABLE INFRASTRUCTURE



**Graduate School of Design**  
Harvard University

EXPLORE  
THE  
CATEGORIES



**If you are behaving the  
same way today as  
yesterday, expect the  
same outcome.**