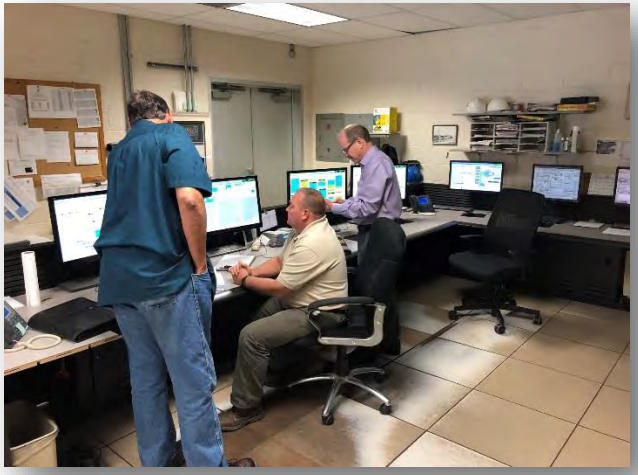
CPAC Meeting
Water Reclamation
January 28, 2019

TWI Current Status Summary
January 2019



Control Combined Sewer Overflows
LTCP Progress Status Summary - Jan 2019

City of Toledo
Toledo Waterways Initiative
Segment 3 - CSO LTCP Implementation Progress

Number	Project	LTCP Study	Facility Site Planning	Preliminary Design	Final Design			Construction
					60%	90%	100%	
1	O-1 Lockwood/Devilbiss SSES	Done	n/a	n/a	n/a	n/a	n/a	n/a
2	O-2 Lockwood/Devilbiss Sewer Separation	Done	Done	Done	Done	Done	Done	Done
3	W-1 Ash/Columbus Storage Pipeline	Done	Done	Done	Done	Done	Done	Done
4	E-6 Wheeling Area SSES and Sewer Separation	Done	Done	Done	Done	Done	Done	Done
5	S-3 Highland Area SSES and Sewer Separation	Done	Done	Done	Done	Done	Done	Done
6	S-4 Woodsdale Area SSES & Inflow Reduction	Done	Done	Done	Done	Done	Done	Done
7	W-2 Ash Area SSES & Sewer Separation	Done	Done	Done	Done	Done	Done	Done
8	W-5 Williams/Knapp Area SSES & Inflow Reduction	Done	Done	Done	Done	Done	Done	Done
9	W-7 New York Area SSES & Inflow Reduction	Done	Done	Done	Done	Done	Done	Done
10	W-6 Maumee Storage Basin	Done	Done	Done	Done	Done	Done	Done
11	E-7 Bay View Grit Facility	Done	Done	Done	Done	Done	Done	Done
12	O-3 Ayers/Monroe Storage/Conveyance Pipeline	Done	Done	Done	Done	Done	Done	Done
13	E-5 Oakdale Storage Basin	Done	Done	Done	Done	Done	Done	Done
14	S-1A Swan Creek North Tunnel Optimization	Done	Done	Done	Done	Done	Done	Done
15	S-2A Swan Creek South Tunnel Optimization	Done	Done	Done	Done	Done	Done	Done
16	W-4A Downtown Tunnel Optimization	Done	Done	Done	Done	Done	Done	Done
17	O-4A Ottawa River Storage Facility (Conveyance)	Done	Done	Done	Done	Done	Done	Done
18	O-4B Ottawa River Storage Facility (Basin)	Done	Done	Done	Done	Done	Done	Done
19	E-2 Dearborn Storage Pipeline	Done	Done	Done	Done	Done	Done	Done
20	E-3 International Park Storage Basin	Done	Done	Done	Done	Done	Done	Ongoing
21	S-1B Swan Creek North Sewer Separation	Done	Done	Done	Done	Done	Done	Ongoing
22	W-4C Downtown Storage Basin	Done	Done	Done	Done	Done	Done	Ongoing
23	S-2B Swan Creek South In-System Storage	Done	Done	Done	Done	Done	Done	Ongoing
24	E-1 Paine Regulator Modifications	Done	Done	Done	Done	Done	Done	Ongoing
25	E-4 Fassett Regulator Modifications	Done	Done	Done	Done	Done	Done	Ongoing

Progress Through Jan 15, 2018

Control Combined Sewer Overflows

Where are we today?

CSO Storage in the System will be significant!

- ***95 MG Combined Sewer System storage at completion***
  - ***20 MG of tunnel storage completed in 1990s***
  - ***15 MG of storage in 5 projects***
  - ***36 MG of storage Joe E. Brown***
  - ***7 MG of storage Int'l Park***
  - ***17 MG of storage in construction – Downtown***

Control Combined Sewer Overflows

Where are we today?

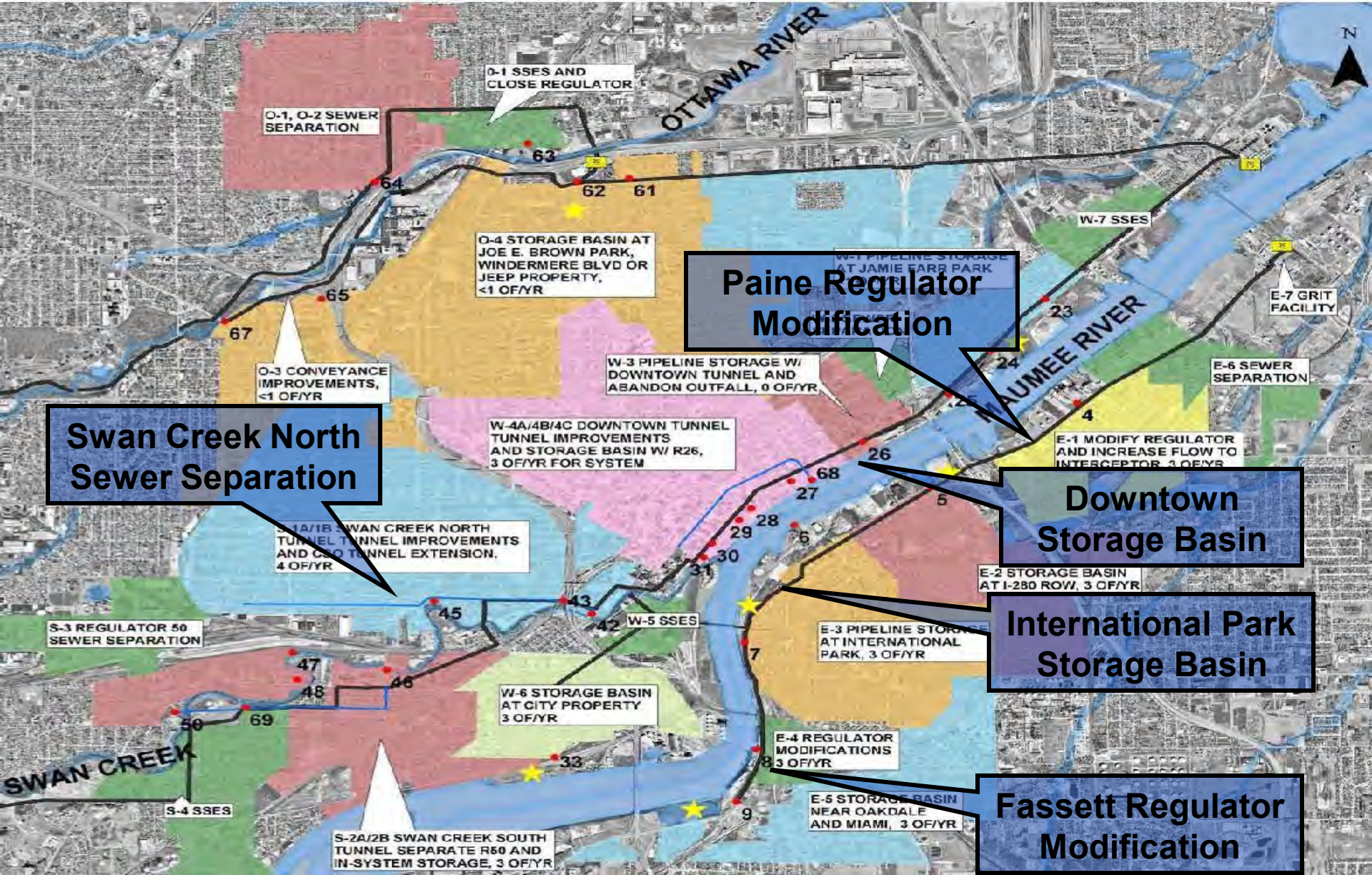
- *Design 99% complete & Construction 90% complete*
- *7 of 8 CSO outfalls eliminated….1 to go*
- *470 MG /year on average will be eliminated when complete*
  - *8 Inflow reduction & sewer separation projects complete*
  - *3 Optimization projects for ex. CSO Storage Tunnels complete*
  - *6 Storage/conveyance projects complete*
  - *2 Storage & 1 sewer separation project under construction*
  - *2 Regulator projects under construction*

CSO LTCP Construction Safety December 2019

PHASE 2 LTCP PROGRAM-TO-DATE (105 Months - from 02/10 to 12/18)							
Contract	Total PH Worked (1)	Recordable Injury/Illness Rate (IIR) (2)	IIR Frequency Rate (2) x 200K /(1) (3)	Lost Work Day Injury (LWDI) (4)	Days Lost Due To LWDI (5)	LWDI Frequency Rate (4) x 200K /(1) (6)	Severity Rate (5) x 200K/(1) (7)
O-2A	11,191	0	0.0	0	0	0.0	0.0
O-2B	48,140	0	0.0	0	0	0.0	0.0
O-2C	19,948	0	0.0	0	0	0.0	0.0
O-3	24,735	0	0.0	0	0	0.0	0.0
W-1	32,594	0	0.0	0	0	0.0	0.0
E-7	74,288	1	2.7	0	0	0.0	0.0
W-6	38,519	1	5.2	1	6	5.2	31.2
E-5	86,491	2	4.6	1	13	2.3	30.1
W-4A/S-1A/S-2A	69,837	1	2.9	0	0	0.0	0.0
W-4A (Madison)	1,598	0	0.0	0	0	0.0	0.0
E-2	51,070	0	0.0	0	0	0.0	0.0
O-4A/O-4B	451,439	8	3.5	2	25	0.9	11.1
E-3	120,944	4	6.6	1	11	1.7	18.2
W-4C	143,940	3	0.0	0	0	0.0	0.0
PROGRAM TOTAL	**1,174,735**	**20**	**3.4**	**5**	**55**	**0.9**	**9.4**

- ***1,175,000 const. hours + 359,000 eng. hours = 1.534 M total***
- ***20 recordable injuries. 3.4 IIR. Nat. avg. is 3.5***
- ***5 lost workdays due to injuries. 0.9 LWDI. Nat. avg. is 1.1***

Control Combined Sewer Overflows
Map of TWI CSO Projects in Construction



International Park Storage Basin – Nov 2018

Main St Crossing – Pipe Installation & Backfill

International Park Storage Basin – Nov 2018

Main St Chamber - Placing Water Proofing

International Park Storage Basin – Nov 2018

84” Sewer Installation – Sheeting Removal

International Park Storage Basin – Nov 2018

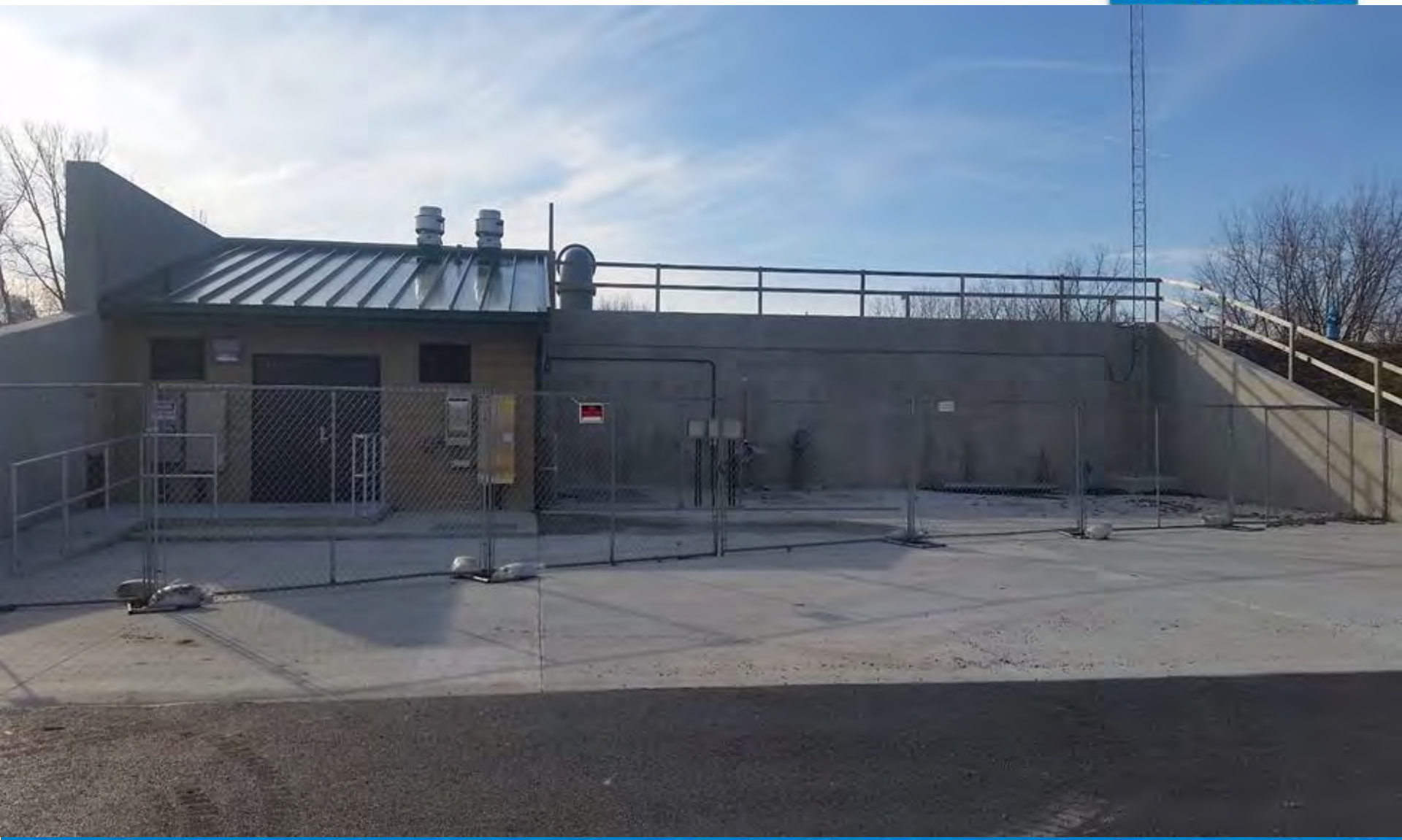
Park Roadway – North End Subbase Prep

International Park Storage Basin – Nov 2018

Park Roadway – North End Paving Base Course

International Park Storage Basin – Dec 2018

Control Building – Temp Fencing



International Park Storage Basin – Dec 2018

Unicast Site Restoration – Brick Removal

Downtown Storage Basin – Nov 2018

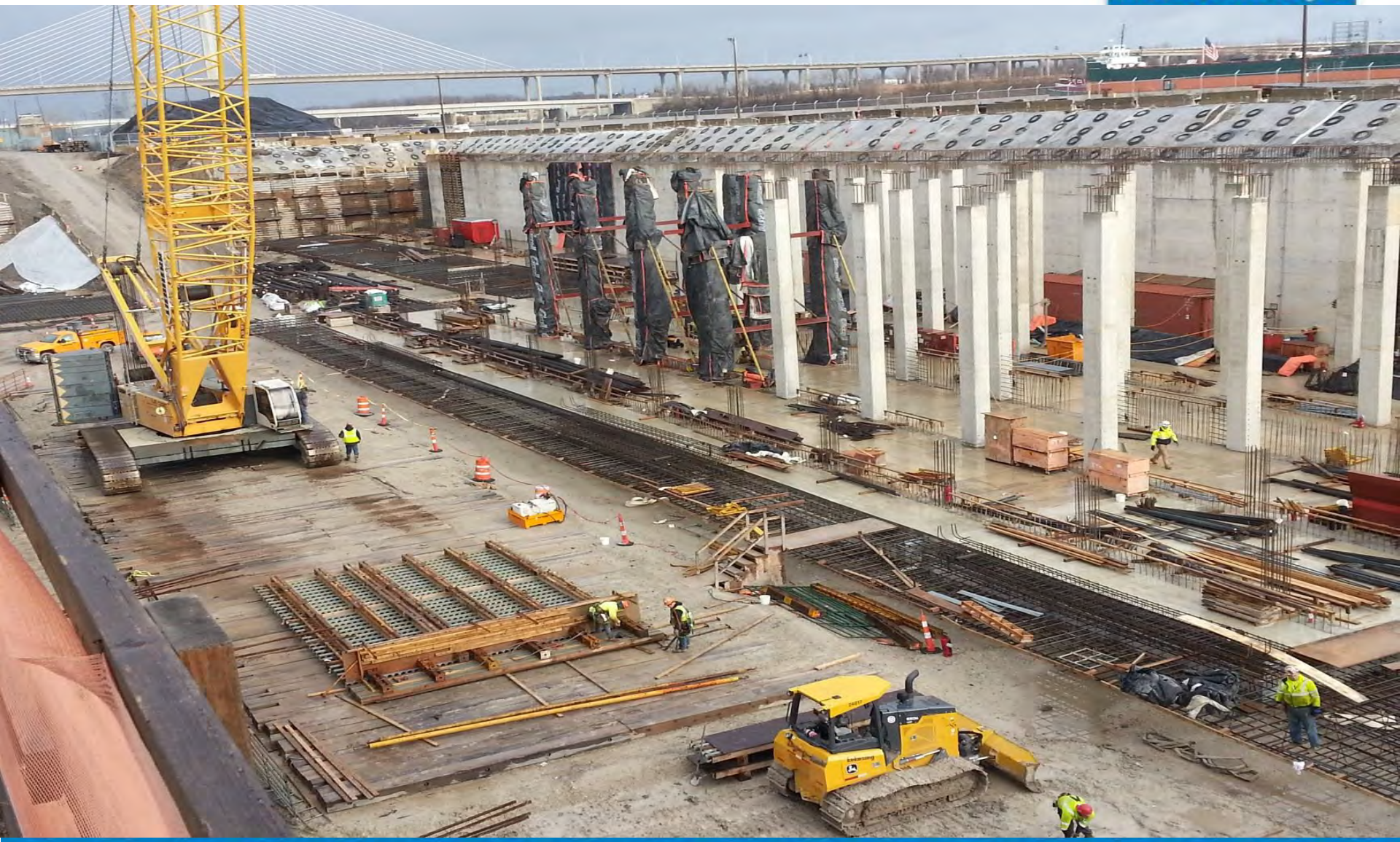
Jefferson Drop Shaft – Brick Restoration

Downtown Storage Basin – Nov 2018

Jefferson Drop Shaft – Asphalt Restoration

Downtown Storage Basin – Dec 2018

Basin – Base Slab, Walls and Column Install



Downtown Storage Basin – Dec 2018

Basin - Installing Base Slab and Wall Re-steel

Downtown Storage Basin – Dec 2018

Basin-Pump Station – Form Removal

Downtown Storage Basin – Dec 2018

LaGrange Structure – Installing Base Slab

Downtown Storage Basin – Dec 2018

Locust St - 48” SS Sleeve Brick/Concrete

Downtown Storage Basin – Dec 2018

Locust St Diversion Chamber - Connection

Swan Creek North/South – Nov 2018

Green Infrastructure – Hamilton St

Swan Creek North/South – Nov 2018

Green Infrastructure – Biocell

Swan Creek North/South – Nov 2018

Green Infrastructure – Biocell

Swan Creek North/South – Nov 2018

Green Infrastructure – Biocell Signage

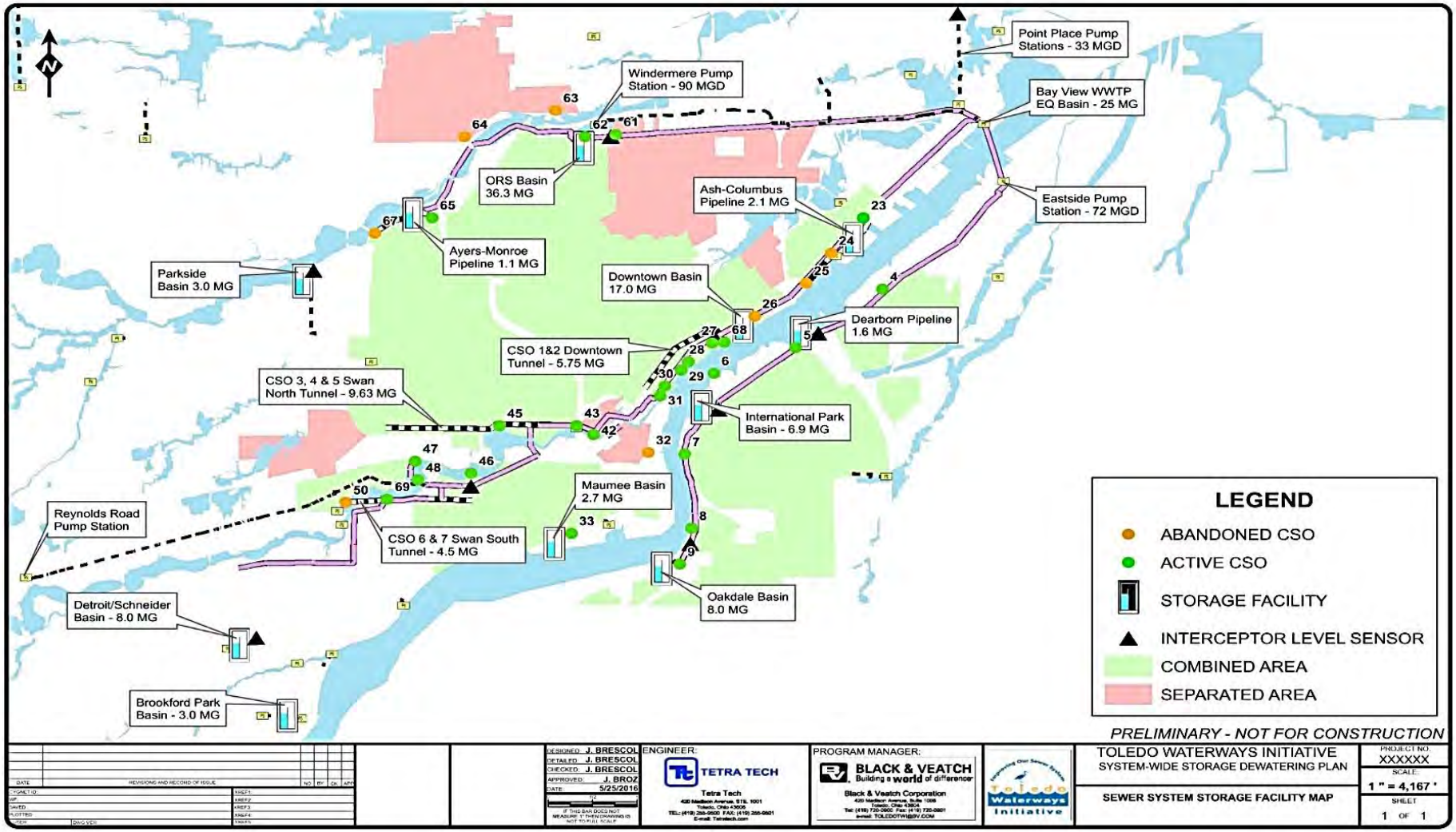
Swan Creek North/South – Nov 2018

Harper St – Paving

Fassett St Regulator – December 2018

Pipeline Install – Conflicts

Bay View Water Reclamation Service Area
Sewer System Storage Facility Map



TWI – Total Program…
Where are we today?

The Program is over 93% complete & on schedule:

- ***All 152 Consent Decree milestones to date have been met***
- ***66 on Phase 1 and 86 on Phase 2***

Out of 45+ projects, 40 are complete 5 are under construction

TWI – Total Program….
Where are we today?

Program cost @ complete projection: $527 M

1. **Eliminate WWTP Bypasses - $135 M & 12 projects**

   Done! Zero bypasses since 2006 144 MG/yr. removed

2. **Eliminate Sanitary Sewer Overflows - $71 M & 8 projects**

   Done! Completed in 2014/2017 36 MG/yr. removed

3. **Control Combined Sewer Overflows - $321 M; 25 projects**

   Design 99% complete & Const. ~90% complete

   When complete 470 MG/yr. removed

TWI Program Participating Planning/Design/CM/PR Firms

The Black & Veatch Team

Jones & Henry

ARCADIS

Tetra Tech

Stantec

- *TTL*
- *Hull & Associates*
- *Vision Design Group*
- *G Stephens*
- *Northwest Consultants*
- *Funk Lutke Skunda*
- *Hart Associates*

- *Rudolph Libbe*
- *Barton Malow*
- *Mosser*
- *ES Wagner*
- *Gleason*
- *Anderzack Pitzen*
- *Crestline*
- *Salenbien*
- *Inland Waters*
- *Miller Brothers*
- *PHC*
- *Ed Kelly & Sons*
- *Irish*
- *Kokosing*
- *Doetsch*
- *Hank's Plumbing*
- *Underground Utilities*
- *L. D'Agostini & Sons*

TWI Program Participating General Contractors

Questions??

Please visit: *toledowaterwaysinitiative.com*

Public Relations and Community Engagement

CPAC Meeting

January 28, 2019

Why Public Engagement?

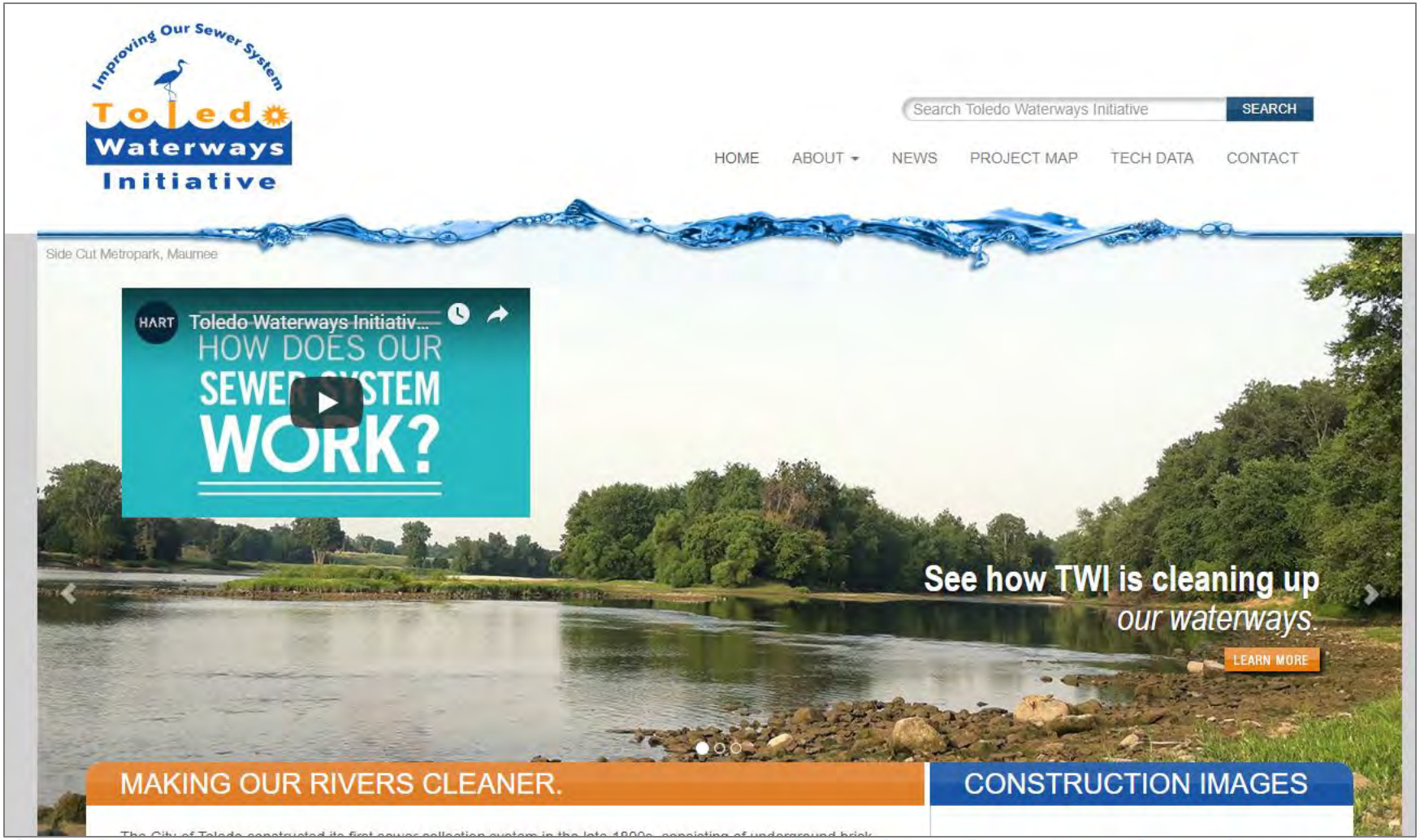
Long Term Control Plan:

"Toledo is committed to active public participation and consultation during the planning, design and construction of CSO control projects. Future public participation will be designed to educate the public about the status of the program, communicate progress in implementing the program to neighborhood residents before, during and after construction, and report on the progress in reducing CSOs and improving water quality as a result of the program."

Program-Wide Communications

Transparency in program status and progress

Website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Side Cut Metropark, Maumee
HART
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HOW DOES OUR
SEWER SYSTEM
WORK?
See how TWI is cleaning up
our waterways.
LEARN MORE
MAKING OUR RIVERS CLEANER.
CONSTRUCTION IMAGES

Community Events

- Clean Your Streams
- Party for the Planet
- Drinking Water Week events

CPAC

Community Program Advisory Committee

- Appointed by Mayor during LTCP creation
- Continued for program oversight, appointed by Program Administrator

"Selected to reflect a cross section of community interests and geographic areas."

Project-Specific Communications

Notification of construction and its impacts

Public Meetings

- Beginning of project
- Notify nearby residents/businesses of:
  - Program goals
  - Project goals
  - Project timeline
  - Project impacts

NACs and BACs

Neighborhood/Business Advisory Committees

- Composed of engaged neighbors
- Explain project impacts
- Solicit input on restoration, when possible

Resident Response

- Website contact form
- Hotline
- Team availability
- Other activities as warranted

PR Goals

- Transparency
- Availability
- Maintain neighborhoods