



Rodney Complex

April 10, 2017



Key staff – all local!

- Jeff Riegner, WRA
- Andrea Trabelsi, WRA
- Gregg Crystal, BrightFields
- Mike Campbell, WRA
- Hans Benford, WRA
- Todd Oliver, WRA
- Rod Grier, WRA

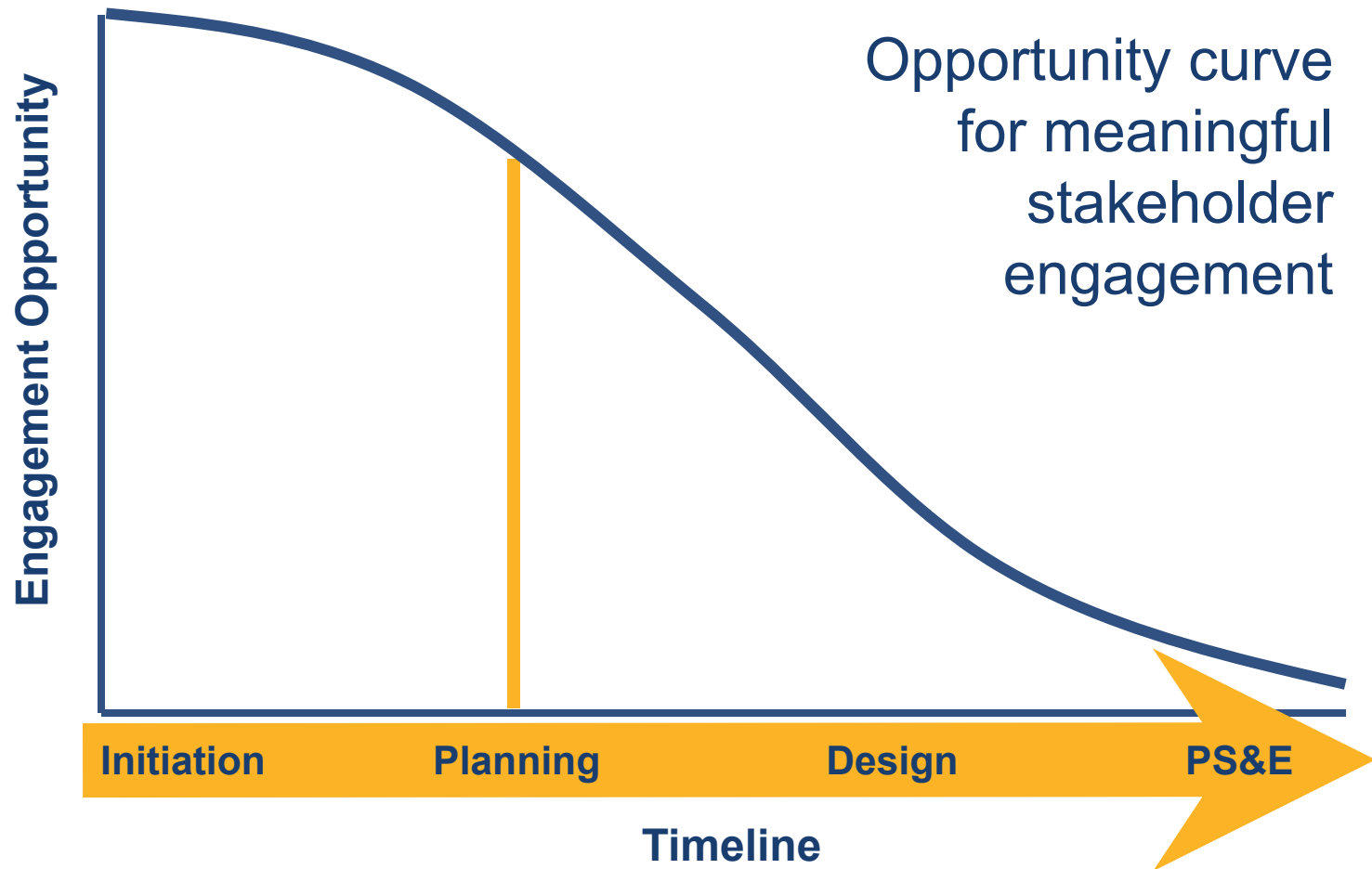
Four key challenges

- Public outreach and acceptance
- Negotiating the Delaware Brownfields Program
- Balancing stormwater and recreation needs on a limited site
- Delivering a complex, multidisciplinary project on a compressed schedule

Public outreach

- An effective outreach process enables the City to deliver the project more efficiently and effectively.
- Good outreach reduces the number of surprises in the project development process, controlling the project schedule and budget.

Public outreach



Public outreach

Stakeholders are happier and feel empowered when they are meaningfully involved in project development (and referenda are more likely to pass).



Public outreach

- Stakeholder committee
- Key person interviews
- Three public meetings
 1. Obtain initial input from the community at a public workshop with interactive activities
 2. Present three conceptual alternatives for consideration by the public at an open house
 3. Present the preferred alternative prior to - and during - a City Council meeting



Delaware Brownfields Program

- Brownfield Certification/Grant/Brownfield Development Agreement
- Project scoping (CSM/SAP)
- Sample collection
- GPR/EM survey (utilities, buried objects, tanks)
 - Soil and groundwater sampling
- Analysis and data evaluation
- Report preparation, remedy recommendation
- DNREC's Proposed Plan of Remedial Action, public comment period, Final Plan
 - Soil, groundwater, PCB oil, asbestos, hazardous materials, environmental covenant

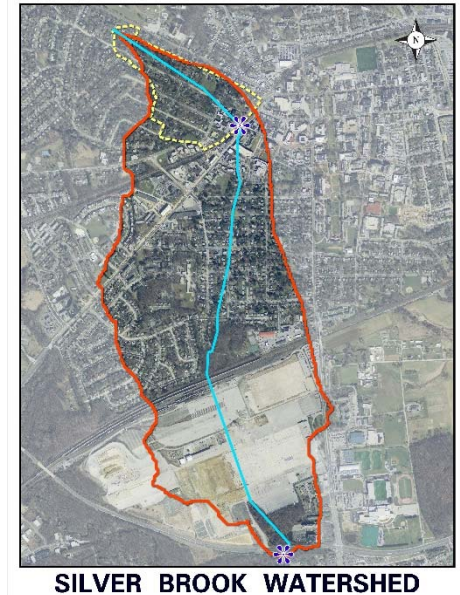
Balancing SWM/recreation needs

- Urban parks and open space analysis
- SWM analysis
- Public input/City goals



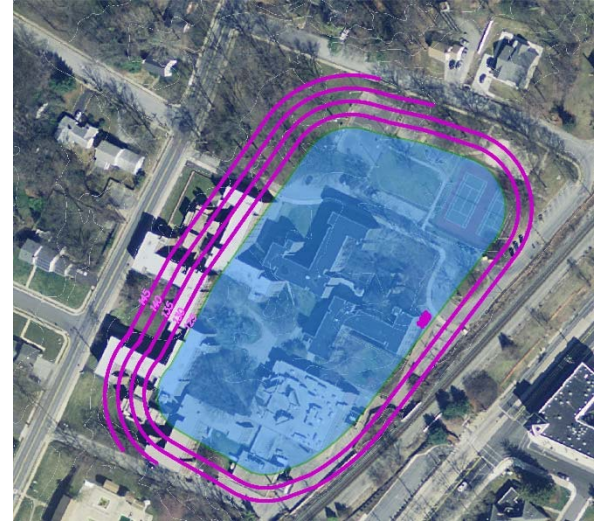
Balancing SWM/recreation needs

- Hydrologic Model Development
 - Drainage area confirmation (68 acres)
 - Hydrologic soil and land use/land cover
 - Model calibrated to match the previous study
- Hydraulic Assessment and Assumptions
 - Inflow can be intercepted and daylighted
 - Available hydraulic head (storage)
 - Pond grading within site (14 ft grade difference)
- Downstream Analysis
 - Potentially reduce frequency of localized flooding
 - Benefits to the Silver Brook watershed to be determined
 - Remain realistic about downstream consequences



Balancing SWM/recreation needs

- Alternative 1 –
Maximize SWM Detention
 - Recreational approach
 - Full site dedicated to stormwater detention facility
 - Perimeter trails with limited site access for safety
 - SWM approach
 - Should meet the 90% reduction goal of the draft MS4 permit
 - 5.3 acre pond footprint
 - Provides 20 acre-feet of storage
 - 32 cfs peak flow
 - Dependent on geotechnical analysis (ground water depth)



Balancing SWM/recreation needs

- Alternative 2 – Maximize Recreational Opportunities
 - Recreational use approach
 - Maximize active recreation
 - Additional ball fields/play surfaces/network of trails
 - SWM approach
 - Manage runoff on-site
 - Water quality focused BMPs
 - Minimal volume reduction
 - Minimal footprint required



Balancing SWM/recreation needs

- Alternative 3 –
SWM Facility with Public Space
 - Recreational approach
 - Existing public facilities could remain
 - Trail network
 - Environmental education
 - SWM approach
 - Dormitory area only available for SWM
 - 3.2 acre pond footprint
 - Provides 14 acre-feet of storage
 - Peak flow reduced to 79 cfs (75% reduction)
 - Constructed wetlands
 - Meandering channel and spill pools
 - Diverse habitat creation and opportunity for education



Balancing SWM/recreation needs



Balancing SWM/recreation needs



Delivering complex projects

- All disciplines in-house
- Constant communication with client and project team
- Direct involvement in stakeholder outreach
- Effective project management skills and tools
 - Kickoff meeting
 - Action item lists
 - Documentation
 - File sharing
 - Reporting
 - Interagency coordination
 - Quality assurance

Delivering complex projects

MANAYUNK BRIDGE TRAIL



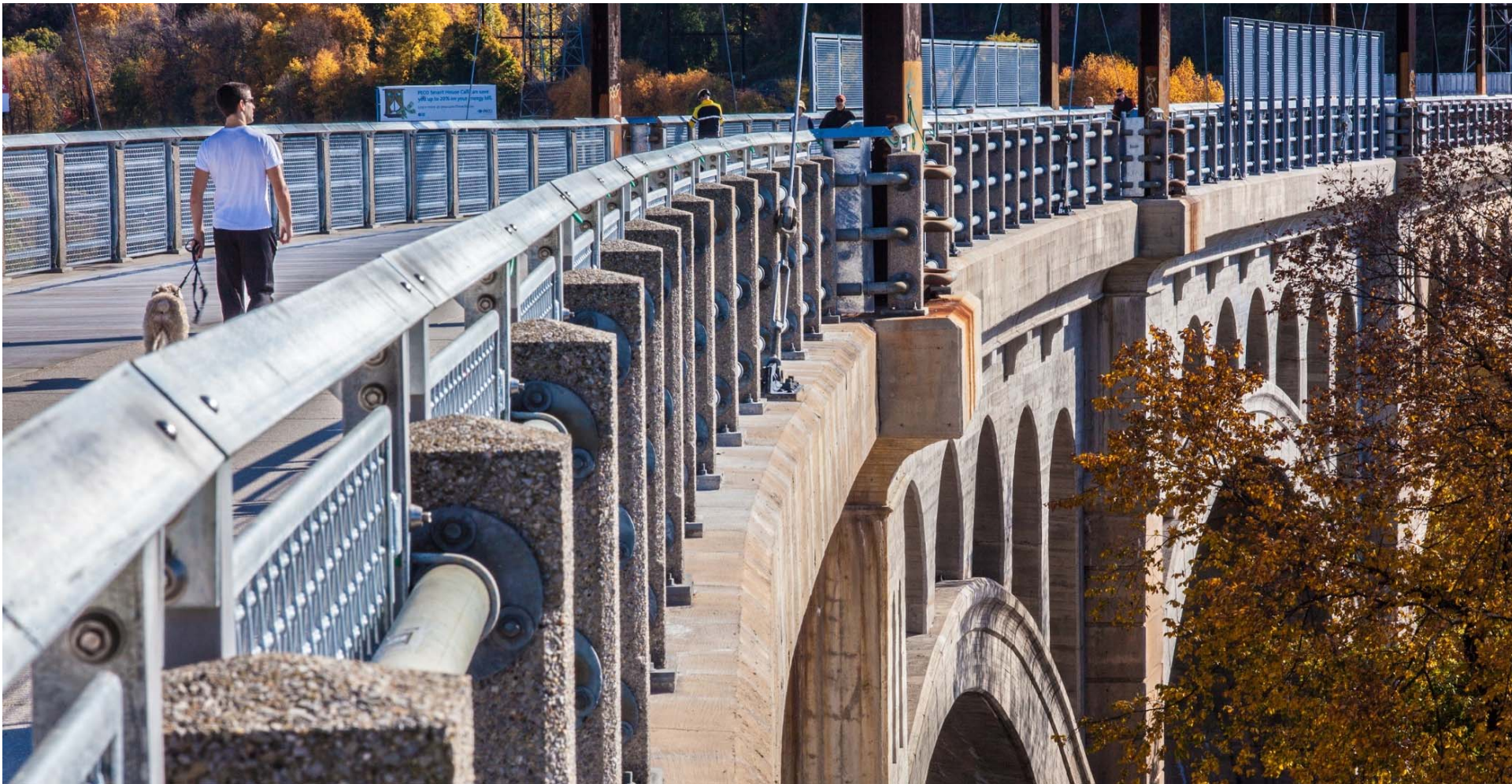
Delivering complex projects

MANAYUNK BRIDGE TRAIL



Delivering complex projects

MANAYUNK BRIDGE TRAIL



Delivering complex projects

NEW CASTLE INDUSTRIAL TRACK TRAIL



Delivering complex projects

NEWARK REGIONAL TRANSPORTATION CENTER



Questions?

