



Blueprint Columbus
Our Unique Approach to Solving Water Quality Challenges
Sewer and Water Advisory Board
June 12, 2013

THE CITY OF
COLUMBUS
MICHAEL B. COLEMAN, MAYOR

DEPARTMENT OF
PUBLIC UTILITIES

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COLUMBUS
Clean streams.
Strong neighborhoods.

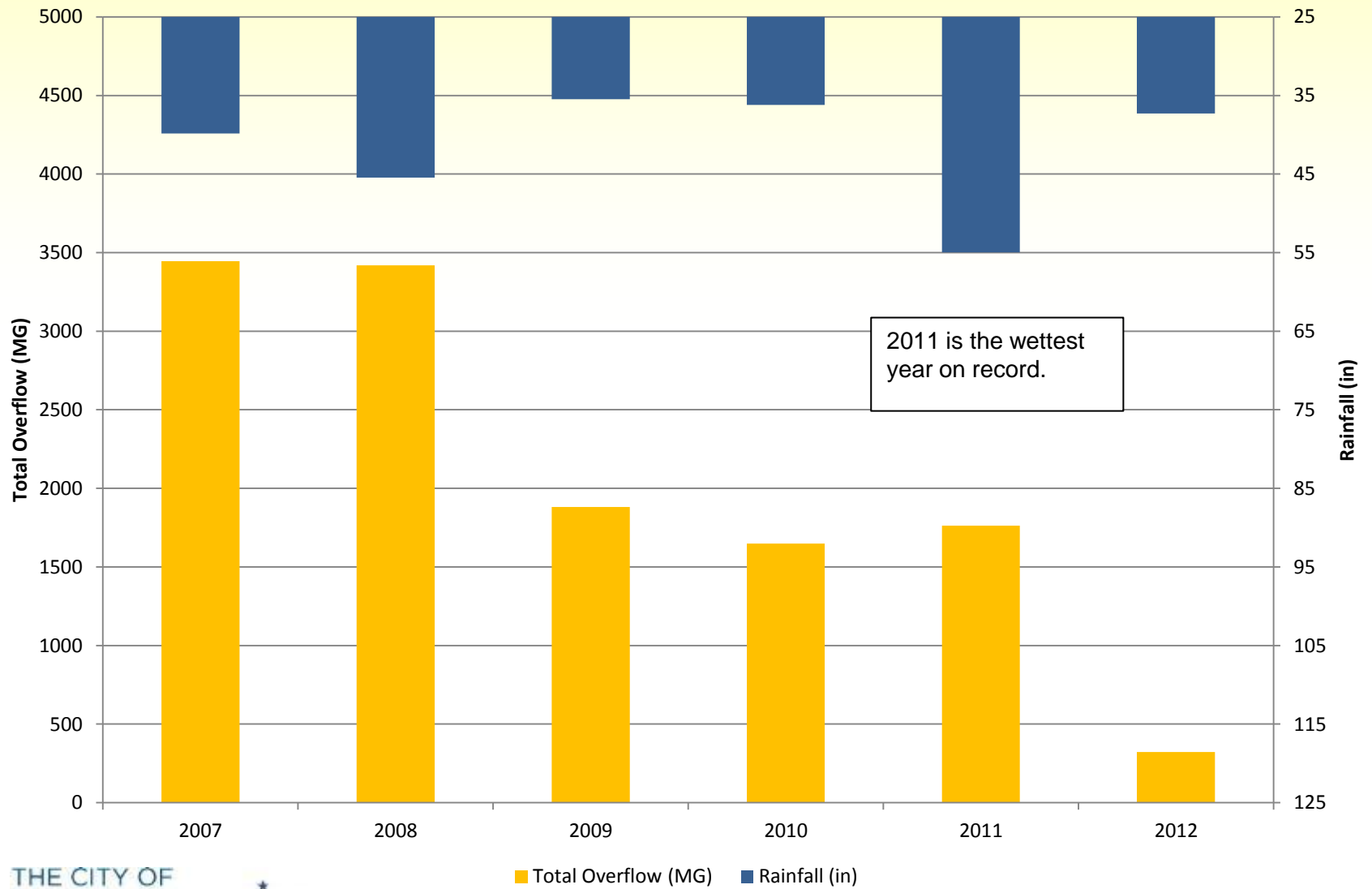
Columbus Overview Timeline

- 2002 Sanitary Sewer Overflow Consent Order with State
- 2004 Combined Sewer Overflow Consent Order with State
- July 1, 2005 submitted the Wet Weather Management Plan to the Ohio EPA
 - Massive Plant Expansions (done)
 - 20' x 4.5 mile CSO tunnel (in construction)
 - 28 miles of SSO tunnel (???????????)
- Currently have spent \$1B, and saved 1BG of CSO every year



Total Overflow

WWTP Bypass and Overflow from the Largest SSO and CSO



Sanitary Sewer Overflows (SSO)

- We have virtually taken care of the CSO problem
- The next \$2.5B of the WWMP focuses on sanitary system, for the remaining 2% of overflow



Stormwater Regulations

- Challenging stormwater regulations are coming, likely very soon
- Columbus' rivers are more impacted by stormwater than by SSOs
- Stormwater is not even addressed in the current WWMP
- Compliance with stormwater could rival the cost of the WWMP



Is there a better way?

- Spend money above ground instead of on little-used deep tunnels
- Create opportunity to engage community and rebuild neighborhoods
- Have to spend billions, why not transform the City at the same time?
- Go Gray to Green....using the Integrated Planning process



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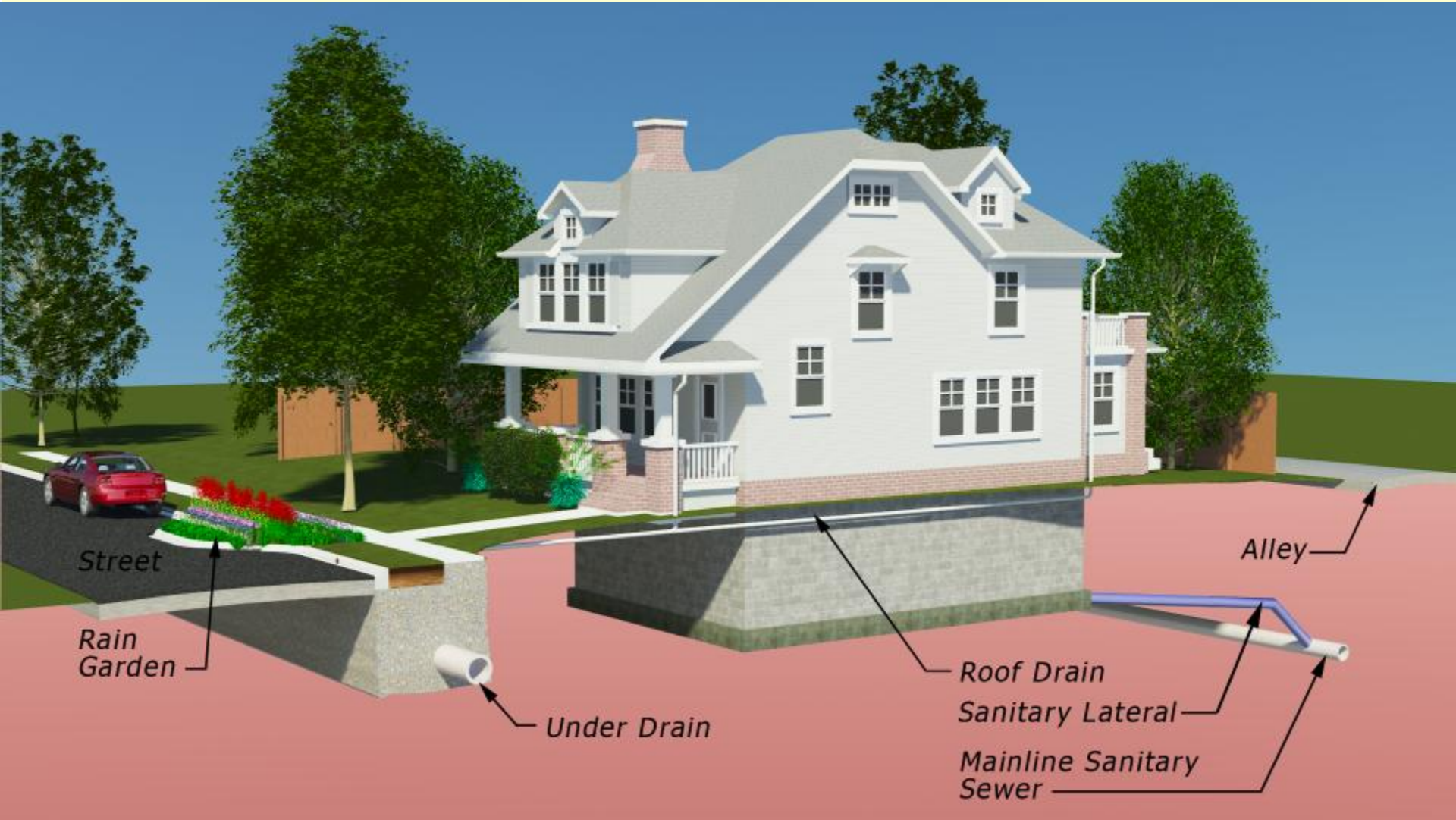
What is Blueprint Columbus?

- Columbus' version of Integrated Planning
- Aggressive Inflow and Infiltration program
 - Seal up the public system
 - Seal up the private system
- Capture public and private stormwater for treatment with Green Infrastructure
 - Residential rooftop water away from home, hence away from foundation drains/laterals



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Blueprint Columbus

- In Columbus we see a strong link between I/I removal and green infrastructure
- Separately these technologies do not offer a viable alternative
 - GI alone can make I/I worse
 - I/I reduction alone can make stormwater worse
- In combination there is an opportunity to provide an effective alternative that also provides significant benefits

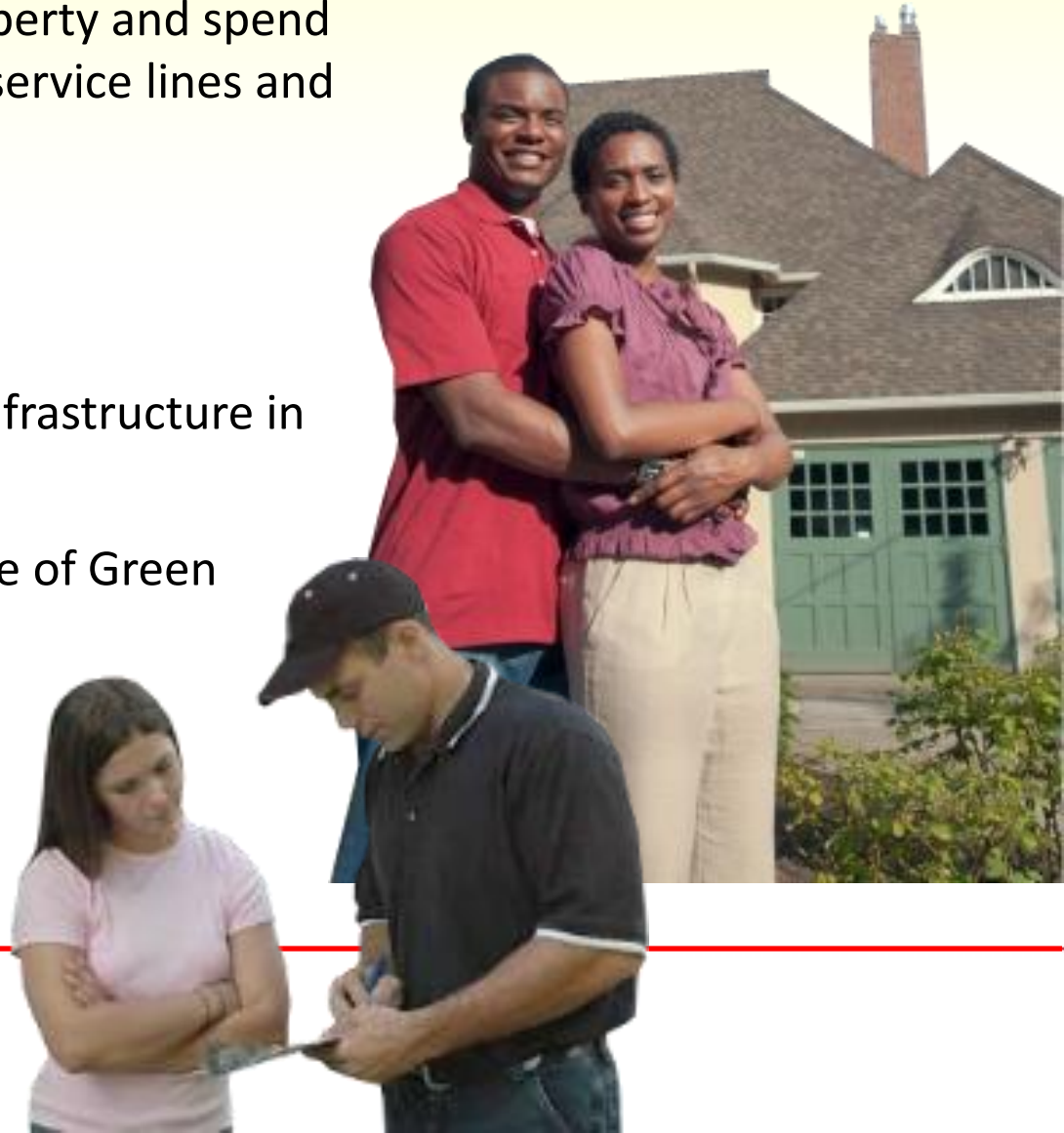
Benefits of Blueprint Columbus

- Neighborhood improvements – gardens, porous sidewalks, trees, mini parks (with porous basketball courts), vacant homes
- I/I work will provide extended asset life
- Increased home values (lateral renewal and beautification)
- Creates more opportunities for local contractors and consultants
- Permanent local maintenance jobs
- Getting ahead of anticipated stormwater rules
- **Cleaner waterways**



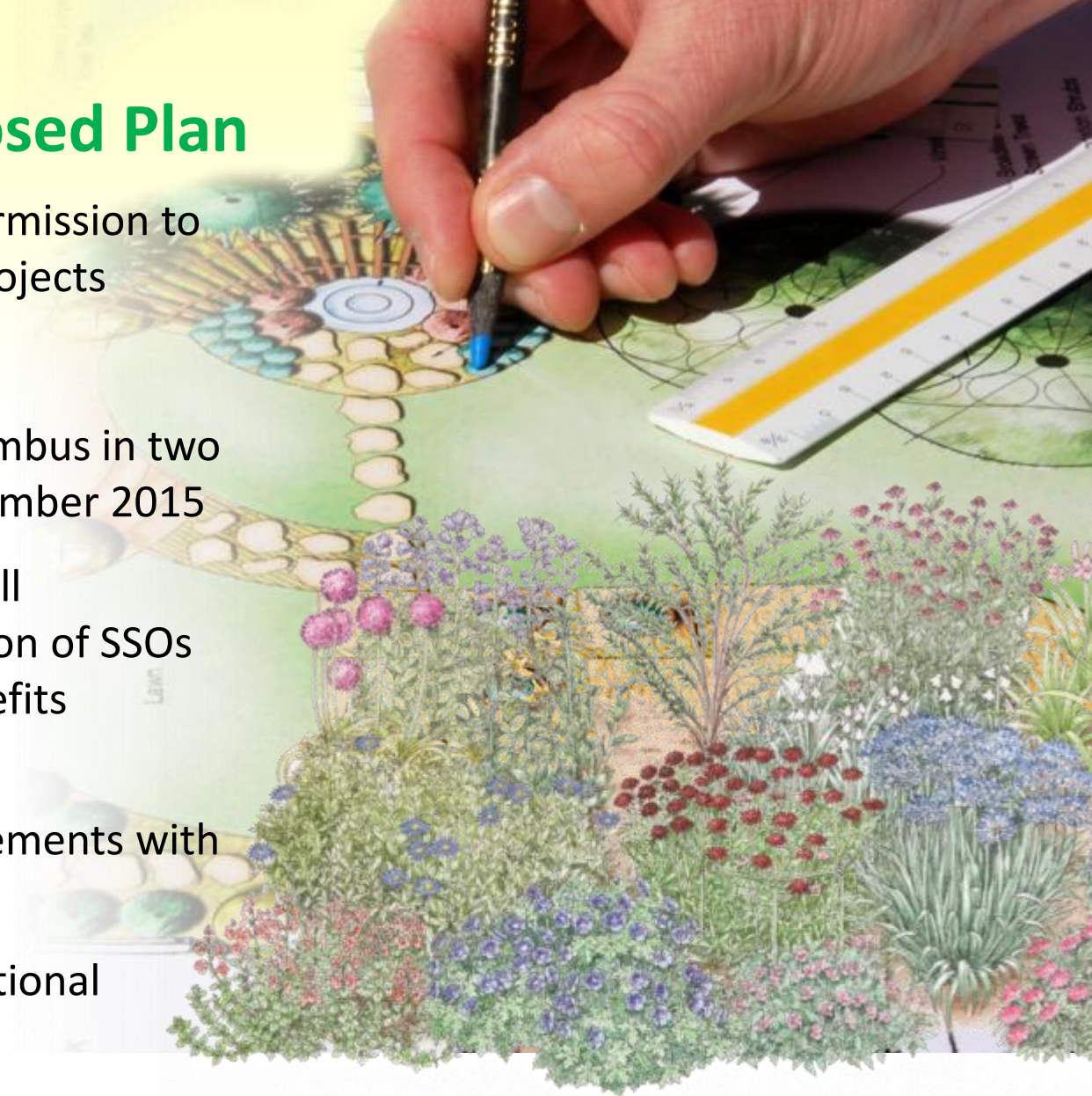
Challenges of Blueprint Columbus

- City would access private property and spend ratepayer money to fix leaky service lines and control runoff
 - Legal challenges
 - Public education
- Public acceptance of Green Infrastructure in tree lawn area
- Need permanent maintenance of Green Infrastructure



Columbus' Proposed Plan

- Asked Ohio EPA for permission to delay some WWMP Projects
- Ohio EPA is supportive
- Submit Blueprint Columbus in two and a half years, September 2015
- Blueprint Columbus will demonstrate elimination of SSOs and water quality benefits
- Visible quick start on neighborhood improvements with pilot projects
- Traded tunnel for additional treatment

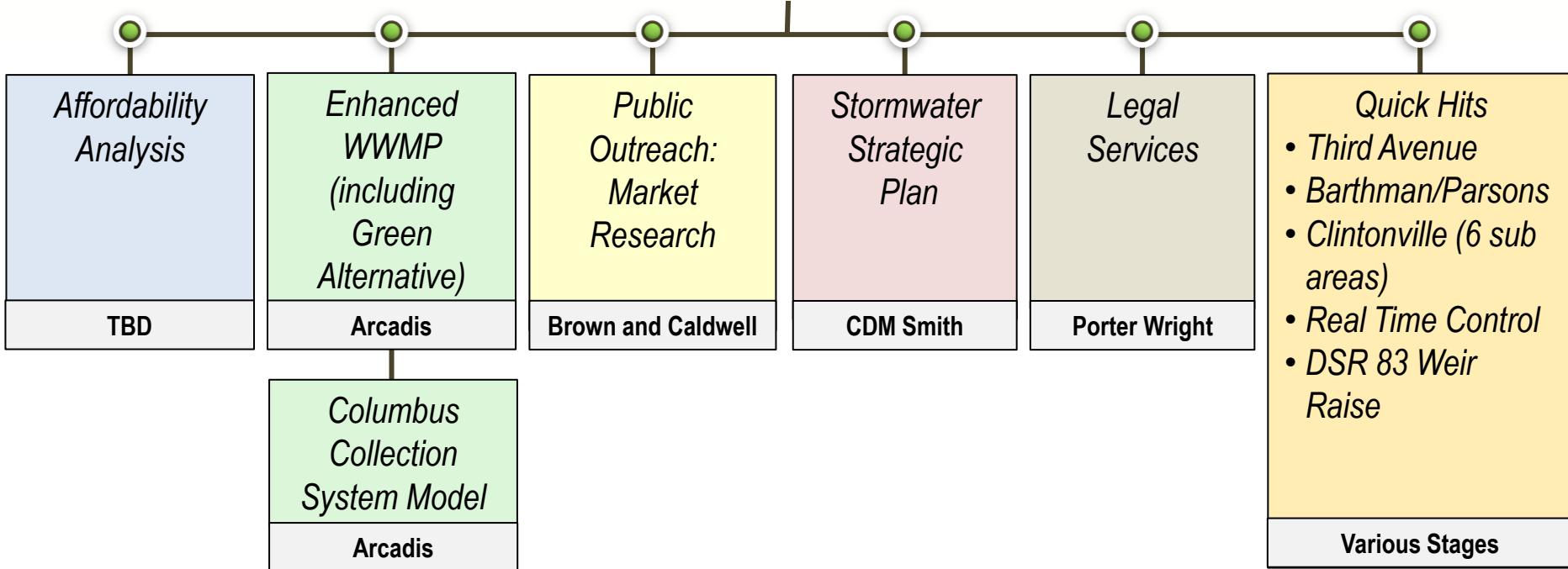


Organization of the Plan

*OEPA Interaction
Suburban Outreach
City Advisory Board*

Steering Committee

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What we are doing, Quick Hits and Pilot Projects

- Clintonville Pilot – Mandatory private lateral and stormwater effort
- Barthman Parsons – Repurpose vacant housing for stormwater benefit
- Third Avenue – Green Infrastructure to reduce CSO and control stormwater in a redeveloping area
- Public Outreach – Aggressive effort to seek input and acceptance of plan
- Suburban Outreach – Need contract communities to control their discharge
- Real Time Decision Support System (aka Real Time Control)
- Chemically Enhanced Primary Treatment Expansion (110 mgd) – instead of building the next tunnel

Clintonville

- Evaluating the first mandatory private I/I and private stormwater controls
- 1000 acres
- 3000 homes



Barthman Parsons

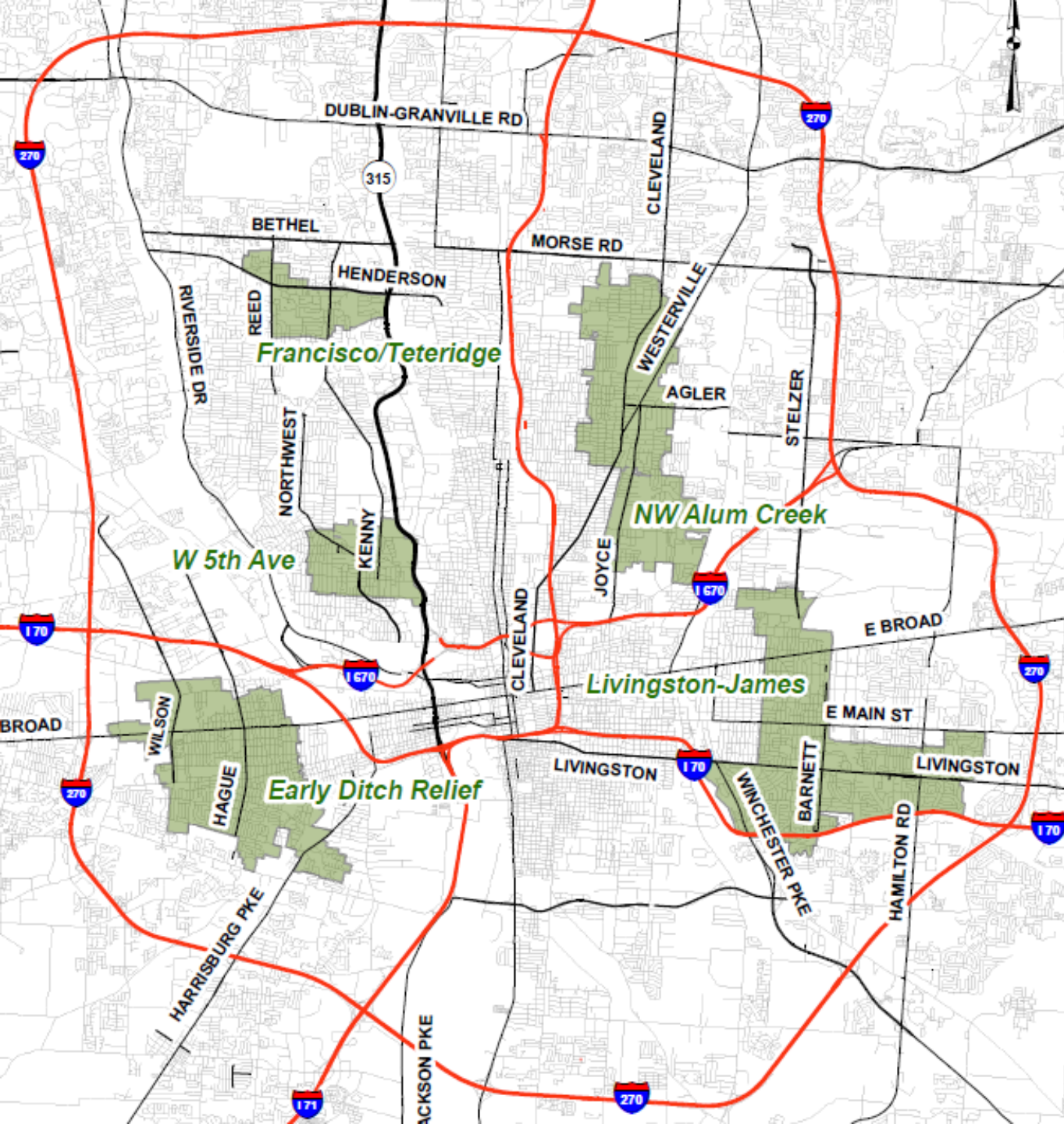
- Repurposing vacant lots to address CSO and SSO (SSO area shown here)
- South side is a focus of other City efforts
 - Public Service
 - Development
- Great opportunity for internal City collaboration



Public Outreach

- Community engagement to validate the Blueprint Columbus approach
- Community engagement and market research to determine acceptability
- Neighborhood level research will identify acceptable technologies





Blueprint Target
Areas for
Community
Education and
Engagement
Activities

Community Advisory Panel

Purpose

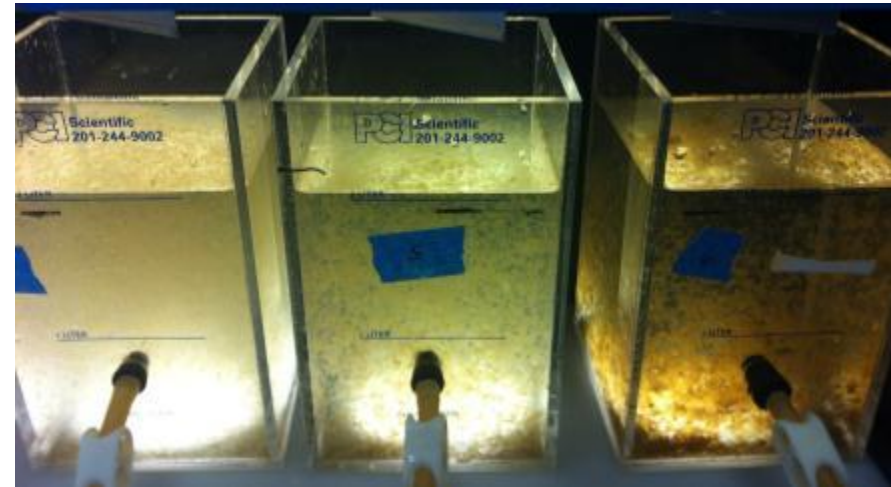
To advise the City of Columbus on the development of its plan to address both stormwater runoff and sewer overflows

Membership

Representatives of Columbus neighborhoods and businesses, environmental interests, construction, homebuilding, ratepayer groups and others (anticipate 20-25 members)

Chemically Enhanced Primary Treatment

- Expand Southerly WWTP from 330 mgd to 440 mgd peak flow capacity
- Currently finalizing a preliminary study
- Additional treatment capacity will achieve much greater benefit in overflow reduction than the tunnel project it replaces



SWAB Interests

- Shifting Capital Program
 - Numerous Consent Order Projects on hold
 - Short term drop in CIP
 - Long term, expenditures will be similar to old capital program with new maintenance and capital costs accounted
- Affordability Analysis / Rate Analysis
 - Examine the communities ability to pay for Clean Water Act requirements
 - Many efforts related to affordability at the national level
 - Previous SWAB input in 2004/2005, Envision SWAB input before 2015 OEPA submittal

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Comments or Questions?

