



Blueprint Lessons Learned  
5 Cities Plus Conference  
August 16, 2017  
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THE CITY OF  
**COLUMBUS**  
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF  
PUBLIC UTILITIES

**Hazen**

**BLUE  
PRINT**  
COLUMBUS  
Clean streams.  
Strong neighborhoods.



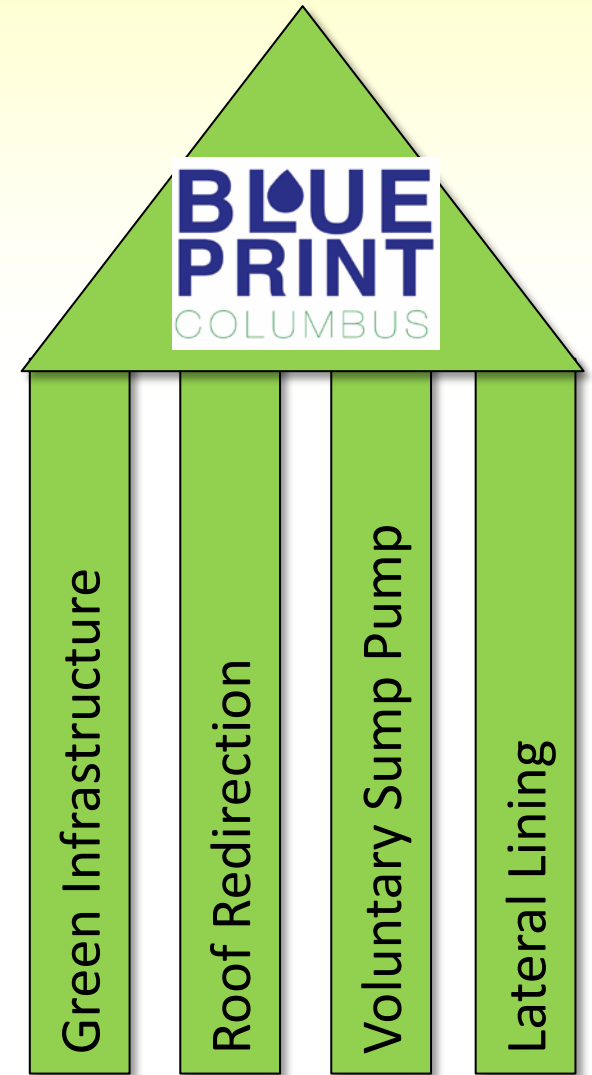
# Agenda

- Blueprint Columbus
- Lessons Learned
  - Planning and Design
  - Communication
  - Costs
- Steps Forward

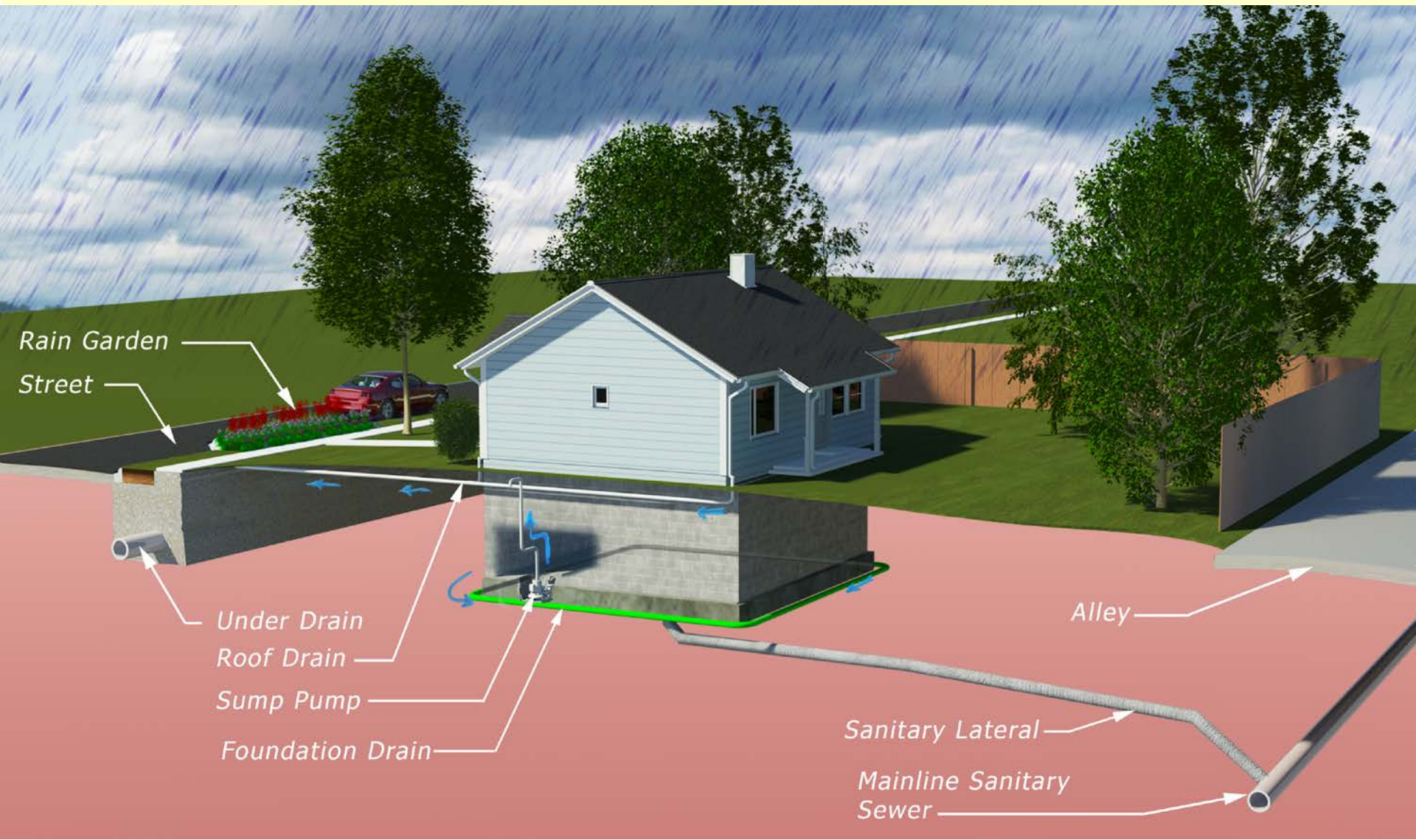


# Blueprint Columbus

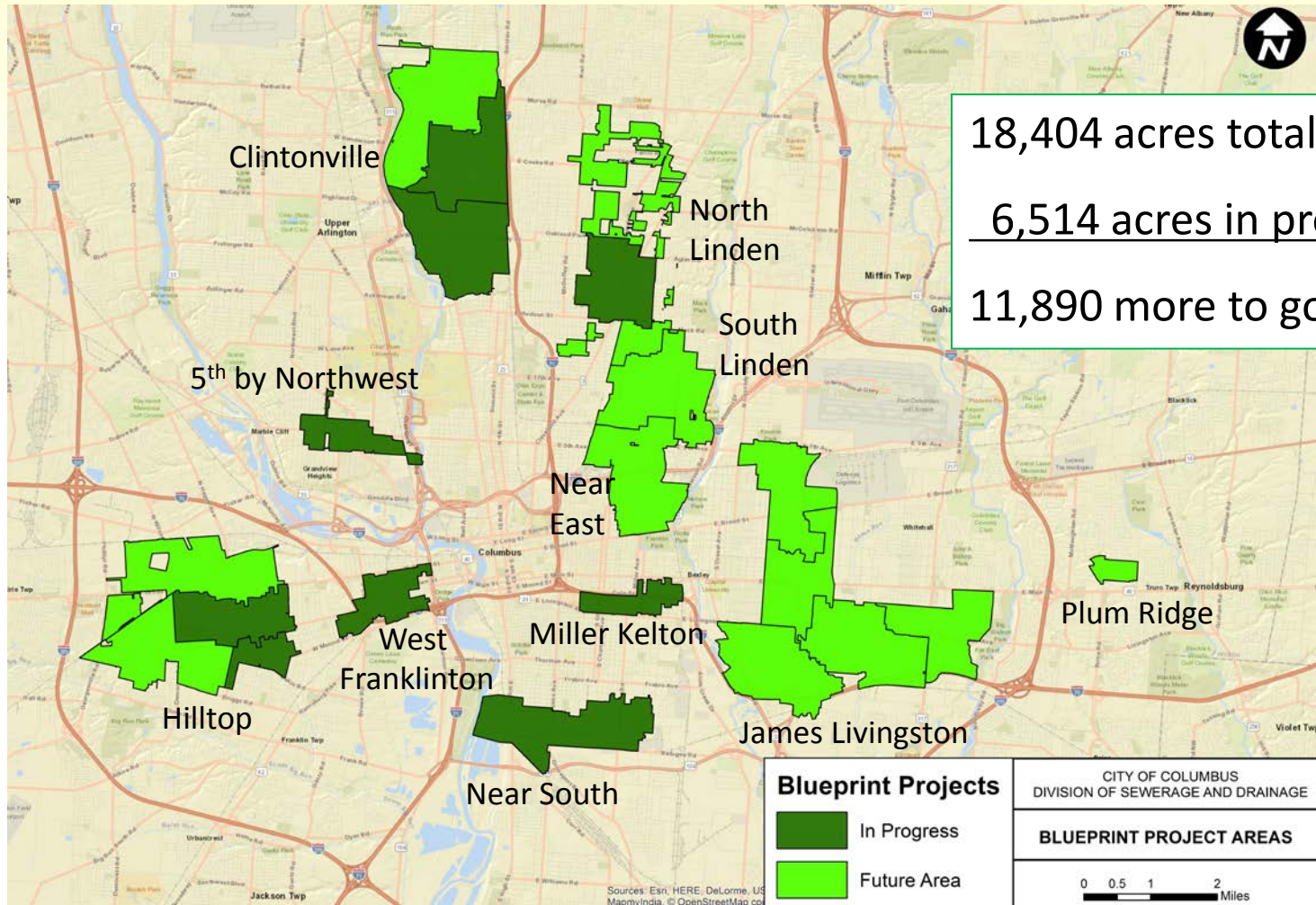
- Integrated Plan approved by Ohio EPA December 2015
- Addresses the source of the overflows and basement backups: I/I
- Over 18,000 acres planned
- 2 projects have been designed and are constructed/under construction
- 4 subsequent rounds of design are underway
- GI implementation first







# Blueprint Program





# Blueprint Planning

- Neighborhood Variability
  - Housing Density
  - Occupancy Rates
  - Neighborhood Involvement
  - Topography
  - Existing infrastructure
- **No two neighborhoods are the same**



# Blueprint Planning

- Project sequencing for minimum customer disruptions
  - Construction of GI prior to redirection efforts
  - Combining lateral lining and roof redirection
  - Voluntary sump pump installations
- Pilot area testing for roof redirection and lateral lining
- Pilot area for sump pump installations
- **Carefully consider construction sequencing, pilots can help gain insight to performance and construction**





# Blueprint Planning

- Area Information

- Parking
- Trees
- Fences
- Driveways
- Intersections
- Utilities

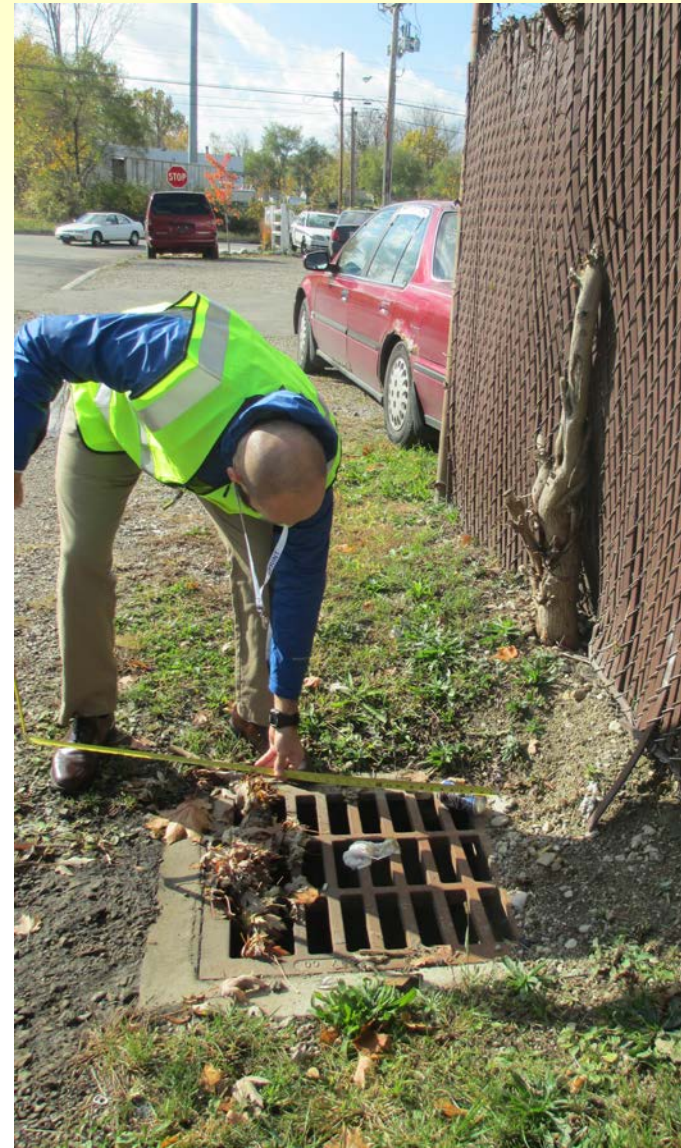


- All of these (and more) impact location of GI



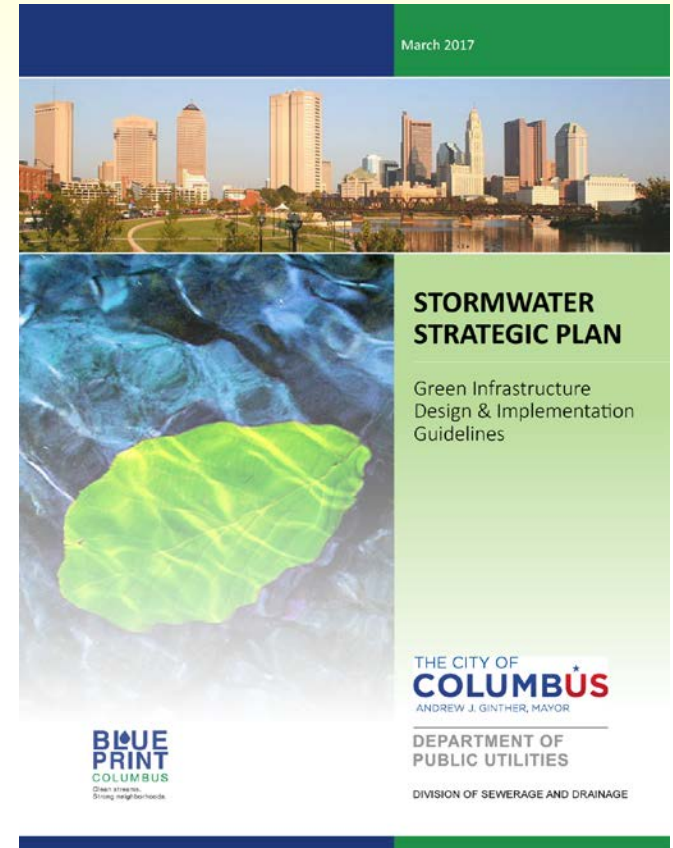
# Blueprint Planning

- Maximize Utilization of Available Data
  - LIDAR data
  - Critical data for modeling
  - Detailed site survey
  - CCTV
- Creation of detailed modeling guidelines
- **Streamline the process, understand what the project needs to move forward**



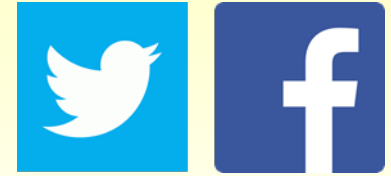
# Blueprint Design

- Standardization of drawings
  - Internal reviews
  - Contractor bidding
- Design Guideline documents
- Design coordination meetings including all teams
- **Consistency can ease reviews and will help lower costs in the long-run**





# Communication



- Customer communication and education

- Social media (area dependent)
- CAP Meetings
- Door-to-door
- Public Meetings



- Not well attended in the beginning
  - When construction was eminent 200 people showed up, 10% upset, most curious
  - People are not concerned unless it impacts their property
- Should have kicked outreach into a higher gear initially

# Communication

- Need to promote the positive
- Need to address the truly unhappy
- **Develop a recruitment plan for successes and a clear process for complaints**



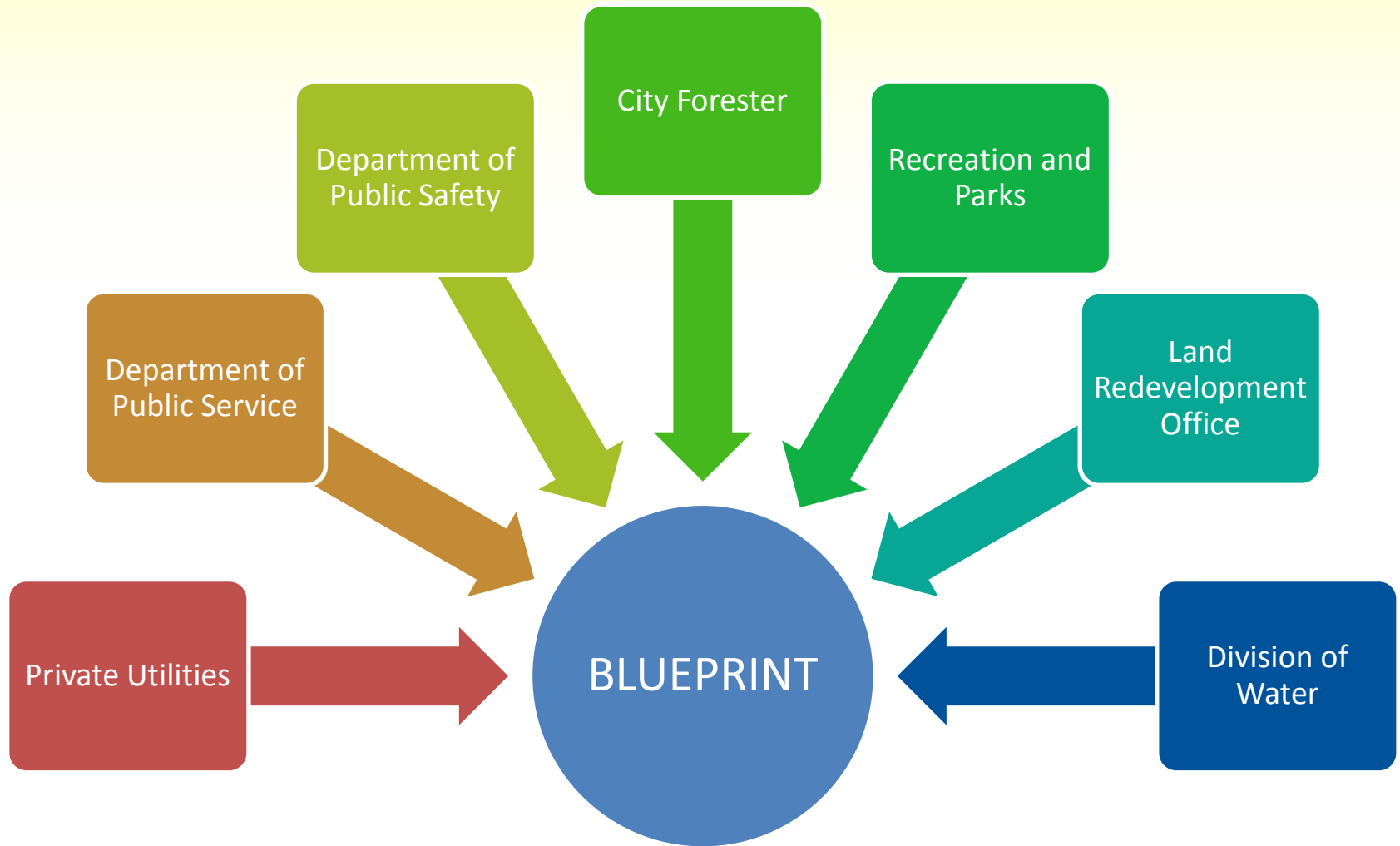


# Communication – Voluntary Sump Pump Programs

- Clintonville Pilot
  - Goal of 750 volunteers
  - Approximately 150 installations
- Planning for additional outreach and education
- Social media will be utilized to help solicit volunteers



# Design Communication



- More communication is better, especially in understanding competing standards/interests, being able to adapt and compromise



# Program Cost

- Green Infrastructure bids are coming in close to engineer's estimates
- Sump pumps have been close to the original planning-level costs \$6500/home
- Downspout redirection and lateral lining pilot project had to be re-bid
  - Original estimate 30% higher
  - Re-bid within 10%, after prices increased



# Program Cost

- Program just starting up, too early to understand how the costs will impact overall affordability
- **Consider where program will have most initial success**





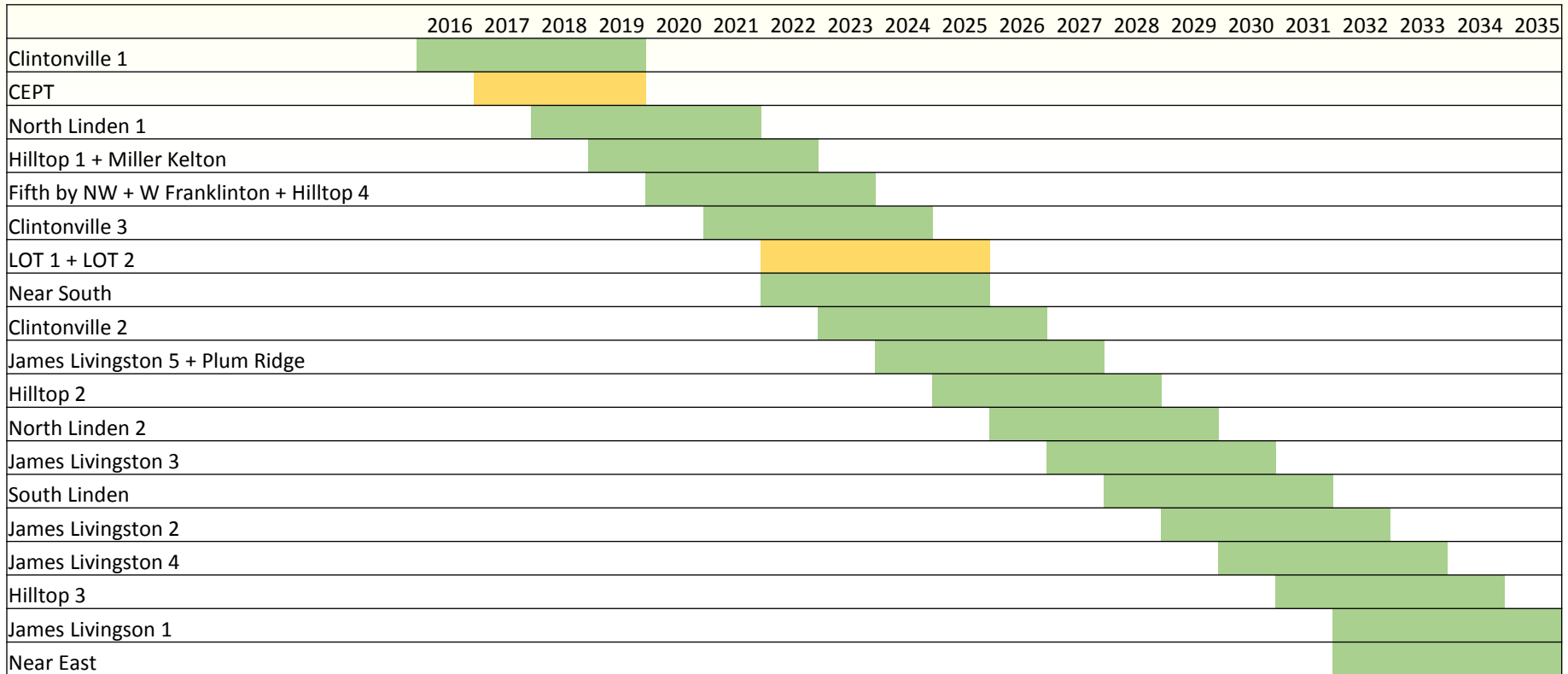
# Steps Forward

- Take the lessons learned during planning / design and apply them during construction and maintenance phases
- Communication is critical
- Continue to streamline the process and create SOPs and standard materials to lower costs and communicate expectations



# City Recommended Schedule

- The recommended schedule is completion in 2035







**Thank you**

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