Agenda

• Overview of ms
• China Sponge Cities Initiative
• Efforts on-going and Case Studies
• Lessons Learned
• Next Steps
Regional Experts at Your Doorstep

- 50+ years in business: we’ve practically seen it all and can handle all projects/issuses effectively
- Large, Regional-based staff: access to in-person services quickly
- Consistently top-ranked in industry: longevity and success in business attributed to our focus on client and community needs without exception
Our Sustainable Commitment

20+ LEED AP Professionals

60+ LEED Certified Projects

2017 China’s Sponge Cities
So You are Wondering...China?

• 3 visits 2015-2017
• Culture Shock
• They want to learn from us
• Need a different strategy for GI
• Still channelizing rivers
• Bigger is better = Solution
Our Role

• Green Infrastructure Experts
• H&H Expertise
• Floodplain Management
• Watershed Planning
• Integrated Planning
• Planners, Engineers and Designers
• Life-cycle Cost Analysis and O&M
Sponge Cities Pilot Cities

China's Sponge Cities
United States
Shenzhen, China
Qainhai - Water City
Pingshan New District, Shenzhen, China
Chongqing Liangjiang New District

- 4 square kilometers
- Natural Slopes
- Floodplain
- Developer Led Efforts
- Large-scale Developments
- Sustainable Infrastructure
- Model for future initiatives
Chongqing Alternative Considerations

1. Protection and cultivation
2. Restoration and repairation
3. Dispersion of consumption
4. Deceleration buffer
5. Connection and fusion
Evaluation of Alternatives
Park Focused
How is Green Infrastructure & Flooding Connected?

Seeing the Significance of the Hydrologic Impacts of Urbanization Over Time
Green Infrastructure Technology Types
Bio-infiltration - Urban Champion
Permeable Pavement - the 3 P’s

- PERMEABLE
- POROUS
- PREVIOUS

2017 China’s Sponge Cities
Tree Boxes – Do they make sense?

2017 China’s Sponge Cities
Bio-Tree Trench

- Bio-infiltration and Tree Boxes
- Redirection of I&I
- Horizontal Infiltration
- Permeable Pavers provide resiliency
- Less Maintenance with trees
Lessons Learned

- Desire to understand and learn from the West
- Strategy must be different
- Government implementation may not work
- Large-scale developments - Developers involvement...key!
- Appeals to new buyers
- Connection to water is critical
- We have a responsibility