Outline

- Arlington Stormwater Issues
- Ordinance Consolidation
- Stormwater Permit
- Current vs. Proposed
- Stormwater Quantity
- Stormwater Quality/Post-Construction BMPs
- Special Management Areas
- Next Steps
City of Arlington, Texas
Arlington Issues - Flooding
Arlington Issues - Erosion
Arlington Issues — Water Quality
## Impaired Water Bodies

<table>
<thead>
<tr>
<th>Creek</th>
<th>Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Village</td>
<td>Upstream of Lake Arlington</td>
</tr>
<tr>
<td>Fish</td>
<td>Upper end of creek to Bardin</td>
</tr>
<tr>
<td>Johnson</td>
<td>Trinity to south of Mayfield</td>
</tr>
<tr>
<td>Kee Branch</td>
<td>Rush to headwaters</td>
</tr>
<tr>
<td>Rush</td>
<td>Village to Calendar</td>
</tr>
<tr>
<td>Village</td>
<td>Trinity to lake</td>
</tr>
<tr>
<td>West Fork</td>
<td>Upstream of Village</td>
</tr>
<tr>
<td>Cottonwood</td>
<td>City limits to 360</td>
</tr>
</tbody>
</table>
TCEQ TPDES/MS4 Permit Requirements. Stormwater Management Program must include:

- Treatment or pollutant removal techniques
- Storm water monitoring
- Post-construction storm water control measures
- Long-term operation and maintenance of BMPs

“Each element of the SWMP must be developed or revised to include measurable goals, whenever feasible.”

FEMA CRS Program
Unified Stormwater Ordinance
Design Criteria Manual

Unified Stormwater Ordinance

Policies and Regulatory Standards

Design guidance to meet Policies
Ordinance Consolidation

- Article I: General Provisions
- Article II: Administration
- Article III: Municipal Stormwater Utility System
- Article IV: Stormwater Permits
- Article V: Stormwater Pollution Prevention
- Article VI: Special Management Areas
- Article VII: Non-Stormwater (Illicit) Discharges
- Article VIII: Stormwater Discharges Associated with Industrial Activities
- Article IX: Reconsideration, Variances and Appeals
- Article X: Enforcement Remedies
Stormwater Permit

- Drainage Report
- Stormwater Quality Plan
- Flood Study
- SWPPP
- Construction Plans
- Operations and Maintenance Plan
- Floodplain Development Permit
- FEMA Requirements (CLOMR – Pre-Construction; LOMR – Post-Project)
- USACE Permit – Impacted Waters of U.S.
- CDC Permit – USACE Regulatory Zone/Trinity River
## Current vs. Proposed

<table>
<thead>
<tr>
<th>Current</th>
<th>Proposed</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;12,000 sf = 1 BMP &amp; SWPPP</td>
<td>&gt;12,000 sf = Stormwater Permit Required</td>
<td>9</td>
</tr>
<tr>
<td>No post-construction BMPs for CIP/Public Roadways</td>
<td>Post-construction BMPs required for CIP/public roadways (unless exempted)</td>
<td>9, 11</td>
</tr>
<tr>
<td>25-year channel/creek easement</td>
<td>100-year floodplain easement</td>
<td>14</td>
</tr>
</tbody>
</table>
## Current vs. Proposed

<table>
<thead>
<tr>
<th>Current</th>
<th>Proposed</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil Types based on soil maps</td>
<td>Soil types for all disturbed areas default to highest runoff potential classification</td>
<td>21</td>
</tr>
<tr>
<td>Post-Construction BMPs – Point System based on area</td>
<td>Post-Construction BMPs – TSS Removal</td>
<td>24</td>
</tr>
<tr>
<td>Post-Construction BMPs – covered by maintenance agreement only when located in public easement</td>
<td>Post-Construction BMPs – always covered by maintenance agreement</td>
<td>15,17</td>
</tr>
</tbody>
</table>
## Current vs. Proposed

<table>
<thead>
<tr>
<th>Current</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1 to 1 Compensatory Storage</td>
<td>1.5 to 1 Compensatory Storage</td>
<td>38</td>
</tr>
<tr>
<td>ECZ – labeled when outside easement</td>
<td>ECZ dedicated as easement</td>
<td>50</td>
</tr>
<tr>
<td>ECZ – 3:1 w/ relationship to depth (drawings)</td>
<td>ECZ – 4:1 +30’</td>
<td>50</td>
</tr>
<tr>
<td>Storm Drain Design Frequency – Variable</td>
<td>Storm Drain Design Frequency – 25-year</td>
<td>21</td>
</tr>
</tbody>
</table>
Runoff Reduction Hierarchy

- Preserve Natural Resources
- Minimize Impacts
- Enhance Infiltration
- Structural Measures for Quality and Quantity
Benchmarking
All sites required to perform assessment to show no adverse impact, unless 20 acres or less and providing detention to pre-developed condition

No adverse impact means:
- No new or increased flooding
- No increase more than 0.04’ in water surface elevations
- No velocity increase greater than 5%
- No exceeding the capacity of downstream structures

Downstream assessment extends to a point where there are no adverse impacts (minimum to the next drainage structure at least 1,000 feet downstream)
Stormwater Quality/Post-Con BMPs

- All land disturbing activities > 12,000 sf
- Requirement – 80% TSS removal
  - New Development – Treat first 1-inch of rainfall
  - Redevelopment – Treat first ½-inch of rainfall
- Based on disturbed areas – area reduced based on Low Impact Development Practices
- Hydrocarbon – 80% Removal
  - Vehicle fueling and servicing facilities
  - Parking lots with more than 25 stalls
  - Car wash facilities that do not reclaim water
Stormwater Quality/Post-Con BMPs

- Stormwater Quality Plan will include:
  - Disturbed area map and calculations
  - Plan showing locations of post-construction BMPs
  - Details of post-construction BMPs
  - Design Calculations for post-construction BMPs
  - Requirements are intended to lead to a “treatment train” approach to the BMPs
Inspection and Maintenance

- Required to ensure functionality of stormwater facilities
- All BMPs identified and included in a maintenance agreement
- Maintenance is responsibility of property owner
- Annual inspection report provided by the owner
- Initial Inspection by City, prior to release of project
- City authority to conduct additional periodic inspections
Special Management Areas

- NFIP Flood Insurance Rate Maps – Existing Conditions
  - For Flood Insurance
- City Regulatory Floodmaps – Ultimate Conditions
  - For Development
- Flood-prone Areas – Drainage Areas of 20 acres or more
- Compensatory Valley Storage
Special Management Areas

- Buffer Areas
  - Wetlands
  - Riparian Areas
  - Erosion Clear Zones
Next Steps

- DCM Internal Advisory Committee Review and Revisions
- DCM External Advisory Committee Review
- 95% Draft of USO and DCM
- Advisory Committee Reviews
- Final Revisions
- Council Consideration
- Implementation
QUESTIONS

Mandy Clark
101 W. Abram Street
Arlington, TX 76010
(817) 459-6592

Stephen Crawford
2080 N. State Highway 360, Suite 350
Grand Prairie, TX 75050-1497
(214) 201-1270

Ben Pylant
4000 Fossil Creek Blvd
Fort Worth, TX 76137
(817) 847-1422