Improving an Urban Watershed
The Past, Present and Future of Addison Creek

IAFSM Conference
March 14, 2018
PAST
Reservoirs and Channel Improvements

- Arlington Cemetery (1981)
- Redmond (1977)
- Northlake (1992)
- Railroad (1981)
- Bellwood (Planned)
- Westchester Pump Station

- York Rd / I-290 (1979)
- Doyle (1979)
- Lower Elmhurst (1990)
- Various Channel Improvements
- Hillside (1976)
• Impairments to Designated Uses:
  • Aquatic Life
  • Primary Contact Recreation

• Sources Include:
  • Urban Runoff
  • Combined sewer overflow

• TMDL

• NPDES discharge permits
PAST/PRESENT
P.A., CCSMP, DWP, and WMO

• P.A. 93-1049
  Enacted 2004

• Cook County Stormwater Management Plan
  Completed 2007 & Amended 2014

• Lower Des Plaines River
  Detailed Watershed Plan
  Completed 2011

• P.A. 98-0652
  Enacted 2014

• Watershed Management Ordinance
  Effective 5/1/14 and Amended 2/15/18
• Since 2014, new construction and redevelopment created app. 50.69 ac-ft of detention through the WMO.

• Since 2014, new construction and redevelopment created app. 6.97 ac-ft of green infrastructure through the WMO.
PRESENT
Small Streams Maintenance Program

• Since November 2014, SSMP removed app. 5,713 CY of debris.

• In April 2017, SSMP removed app. 950 CY of sediment in Bellwood.

• In July 2017, MWRD installed debris boom.
PRESENT
Small Streams Maintenance Program
PRESENT
Small Streams Maintenance Program

Cermak Road
June 2011

Cermak Road
August 2014
SSMP Cleared Vegetation in 2014

Cermak Road
October 2016
PRESENT

TARP – McCook Reservoir Stage 1
PRESENT
Centerpoint Preserve Riparian Area Restoration
• MAP ID: ADCR-7B
• Project #: 15-IGA-13
• Location: Northlake, Illinois
• Project Description:
  • Streambank stabilization from Wolf Road to Palmer Avenue.
  • Removal of two degraded dams.
  • Riparian area restoration and wetland creation.
  • Project is addressing critical erosion threatening buildings, roads, and utilities.
• Estimated Cost: $3,813,870 ($1M MWRDGC contribution)
• Project Status:
  • Under Construction (app. 75% complete)
PRESENT
Northlake Flood Prone Property Acquisitions

Legend
- Stormwater Management Phase 1 Project
- Stormwater Management Phase 2 Project
- Flood Control Reservoir
- Flood Prone Property Acquisition (FPA)
- Water Reclamation Plant (WRP) with GI
- Tunnel and Reservoir Plan Tunnel System
- Tunnel and Reservoir Plan Reservoir
- Cook County
- Project Construction Complete

Map showing Northlake Reservoir, Stone Park FPA, Berkeley 4, Hillside Reservoir, and other locations relevant to Northlake Flood Prone Property Acquisitions.
PRESENT
Northlake Flood Prone Property Acquisitions

• MAP ID: Northlake FPA
• Project #: 16-IGA-14
• Location: Northlake, Illinois
• Project Description:
  • In collaboration with the City of Northlake - purchase 7 flood-prone properties along Addison Creek
• Estimated Acquisition Cost: $1,184,018
  MWRD – 100%
• Project Status:
  • Acquisitions are underway
FUTURE
Streambank Stabilization Project for Addison Creek

Legend
- Stormwater Management Phase 1 Project
- Stormwater Management Phase 2 Project
- Flood Control Reservoir
- Flood Prone Property Acquisition (FPA)
- Water Reclamation Plant (WRP) with GI
- Tunnel and Reservoir Plan Tunnel System
- Tunnel and Reservoir Plan Reservoir
- Cook County
* Project Construction Complete

ADCR-7A
ADCR-7B
ADCR-6B
ADCR-6
ADCR-9
FUTURE
Streambank Stabilization Project for Addison Creek

• **MAP ID:** ADCR-7A, ADCR-9
• **Project #:** 14-108-3F
• **Location:** Northlake and North Riverside, Illinois
• **Project Description:**
  • 1,950 linear feet of streambank stabilization adjacent to Fullerton Avenue in Northlake
  • 410 linear feet of streambank stabilization adjacent to 19th Avenue in North Riverside
• **Estimated Cost:** $994,100
• **Project Status:**
  • Estimate award is summer 2018
In 1993, IDNR-OWR’s Strategic Planning Study for Flood Control Projects recommended a 480 ac-ft reservoir in Melrose Park along with channel improvements.

In 2004, Addison Creek Restoration Commission (ACRC) was created. ACRC reevaluated and agreed with the IDNR-OWR 1993 recommendation. ACRC was abolished in 2015.

In early 2011 MWRD completed Lower Des Plaines Watershed Detailed Plan (DWP), and the DWP recommend 960 ac-ft reservoir in Melrose Park along with channel improvements.

In late 2011 Preliminary Design initiated for Melrose Park reservoir, due to landowner and constructability issues alternate site was identified by Bellwood in late 2014.

In 2015, MWRD selected the Bellwood site for a proposed 600 ac-ft reservoir, and completed the preliminary design in 2016.

In December 2017, the 98% Design Documents were submitted.
FUTURE
Addison Creek Reservoir

Legend
- Stormwater Management Phase 1 Project
- Stormwater Management Phase 2 Project
- Flood Control Reservoir
- Flood Prone Property Acquisition (FPA)
- Water Reclamation Plant (WRP) with GI
- Tunnel and Reservoir Plan Tunnel System
- Tunnel and Reservoir Plan Reservoir
- Cook County
* Project Construction Complete
• MAP ID: ADCR-6
• Project #: 11-186-AF
• Location: Bellwood, Illinois
• Project Description:
  • Demolition of remaining structures at the Addison Creek Reservoir site.
• Construction Cost: $391,222.00*
• Project Status:
  • Award contract on 3/15/18.
  • Est. completion is this summer

* includes demolition of structures at the Thornton Reservoir site.
FUTURE
Addison Creek Reservoir

- MAP ID: ADCR-6
- Project #: 11-186-3F
- Location: Bellwood, Illinois
- Project Description:
  - 600 ac-ft reservoir
  - Reservoir and channel improvements will provide benefits to approximately 2200 structures
- Estimated Construction Cost: $95.4M
- Project Status:
  - IGA executed
  - State Revolving Funds Approved
  - CDBG-DR funding being finalized
  - Permits obtained
  - 98% design documents submitted
  - Working to obtain remaining easements
  - Est. award is this summer 2018
FUTURE
Addison Creek Reservoir - Cross Section
## FUTURE
Addison Creek Reservoir- Planned Schedule

<table>
<thead>
<tr>
<th>Schedule</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 2017</td>
<td>Acquired Reservoir Property</td>
</tr>
<tr>
<td>Summer 2017</td>
<td>Site Cleanup (Separate Contract)</td>
</tr>
<tr>
<td>Winter 2017</td>
<td>Permits (USACE, IDNR, IEPA, SWCD)</td>
</tr>
<tr>
<td>Spring 2018</td>
<td>Demolition (Separate Contract)</td>
</tr>
<tr>
<td>Spring 2018</td>
<td>Utility Relocations</td>
</tr>
<tr>
<td>Spring 2018</td>
<td>Acquire Easements</td>
</tr>
<tr>
<td>Spring 2018</td>
<td>Finalize Bid Documents</td>
</tr>
<tr>
<td>Spring 2018</td>
<td>Advertise for Construction</td>
</tr>
<tr>
<td>Summer 2018</td>
<td>Award Construction Contract</td>
</tr>
<tr>
<td>Fall 2020</td>
<td>Construction Completion</td>
</tr>
</tbody>
</table>
FUTURE
Addison Creek Channel Improvements

Legend
- Stormwater Management Phase 1 Project
- Stormwater Management Phase 2 Project
- Flood Control Reservoir
- Flood Prone Property Acquisition (FPA)
- Water Reclamation Plant (WRP) with GI
- Tunnel and Reservoir Plan Tunnel System
- Tunnel and Reservoir Plan Reservoir
- Cook County
* Project Construction Complete
• MAP ID: ADCR-6B
• Project #: 11-187-3F
• Location: Northlake, Melrose Park, Stone Park, Bellwood, Westchester, and Broadview, Illinois
• Project Description:
  • Channel improvements from Northlake to Broadview
  • Removal of 3 bridges in Bellwood
  • Reservoir and channel improvements will provide benefits to approximately 2200 structures
• Estimated Construction Cost: $43.4 M
• Project Status:
  • Final design
  • Working on permits
  • Finalizing IGAs for each village
  • Easements to be acquired
  • Est. construction award in early 2019
FUTURE
Addison Creek Channel Improvements

Open Channel

Gabion Baskets

Soldier Pile Walls
FUTURE
Addison Creek Channel Improvements
FUTURE
Addison Creek Channel Improvements
FUTURE
Jon Paul Park – Stone Park
FUTURE
Jon Paul Park – Stone Park
FUTURE
Addison Creek Channel Improvements

Bellwood

Legend
Channel Treatments
- Clearing and GB
- Mattress Stabilization
- Conc Slope Wall
- GB Mattress Stabilization, 1-Tier GB
- Multi-Tier Gabions
- Bridge Removal and AGB Installation
- Cleaning and Rippel Stabilization
- 1-Tier Gabion
- Multi-Tier Gabions, Soldier Pile Wall
- Soldier Pile Wall
- Open Channel
- Reservoir Location
- With Project Inundation Limits
- Baseline Inundation Limits
- Addison Creek
- Municpalities
- Streams/Lakes

Addison Creek Reservoir
Reach 4
Reach 5
ST CHARLES RD
22ND AVE
25TH AVE
19TH AVE
16TH AVE
WASHINGTON
FUTURE
Addison Creek Channel Improvements

Legend
Channel Treatments
- Clearing and GB Matting Stabilization
- Conc Slope Wall
- GB Matting Stabilization, 1-Tier CB
- Multi-Tier Gabions
- Bridge Removal and AGB Installation
- Cleaning and Riprap Stabilization
- 1-Tier Gabion
- Multi-Tier Gabions, Soldier Pile Wall
- Soldier Pile Wall
- Open Channel
- Reservoir Location
- With Project Inundation Limits
- Baseline Inundation Limits
- Addison Creek Manispaloes
- Streams/Lakes

Bellwood
Remove 3 Bridges

Westchester

Broadview

Reach 6
Reach 7

MAYWOOD DR
21ST AVE
18TH AVE
22ND AVE
LYMAN AVE
ROOSEVELT RD
HARVARD
FUTURE
Addison Creek Channel Improvements

Legend
Channel Treatments
- Clearing and GB Matting
- Conc Slope Wall
- GB Mattress Stabilization
- 1-Tier Gabion
- Multi-Tier Gabions
- Bridge Removal and AGC Installation
- Clearing and Riprap Stabilization
- GB
- Multi-Tier Gabions, Soldier Pile Wall
- Soldier Pile Wall
- Open Channel
- Reservoir Location
- With Project Inundation Limits
- Baseline Inundation Limits
- Addison Creek
- Municipalities
- Streams/Lakes

Reach 8
Reach 9
Addison Creek
End Channel Improvements

Broadview

Locations:
Wesco
Westchester Ave
27th Ave
16th St
14th St
Roosevelt Rd
21st Ave
12th Ave
19th St
17th St
14th Ave
12th Ave
### FUTURE
Addison Creek Channel Improvements

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<thead>
<tr>
<th>Schedule</th>
<th>Activity</th>
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<tbody>
<tr>
<td>Spring 2018</td>
<td>Final Design</td>
</tr>
<tr>
<td>Spring 2018</td>
<td>Negotiate &amp; Enter Into Intergovernmental Agreements</td>
</tr>
<tr>
<td>Fall 2018</td>
<td>Permits (USACE, IDNR, IEPA, SWCD)</td>
</tr>
<tr>
<td>Spring 2018 - Spring 2019</td>
<td>Acquire Easements</td>
</tr>
<tr>
<td>Spring 2019</td>
<td>Finalize Bid Documents</td>
</tr>
<tr>
<td>Spring 2019</td>
<td>Advertise for Construction</td>
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<tr>
<td>Summer 2019</td>
<td>Award Construction Contract</td>
</tr>
<tr>
<td>Summer 2021</td>
<td>Construction Completion</td>
</tr>
</tbody>
</table>
### Community Baseline Benefits

<table>
<thead>
<tr>
<th>Community</th>
<th>Baseline Number of Parcels Damaged</th>
<th>With Project Number of Parcels Damaged</th>
<th>Parcels Removed from Floodplain Area</th>
<th>Total Baseline Damages</th>
<th>Total With Project Damages</th>
<th>Total Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broadview</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>$73,600</td>
<td>0</td>
<td>$73,600</td>
</tr>
<tr>
<td>Bellwood</td>
<td>991</td>
<td>188</td>
<td>803</td>
<td>$33,490,300</td>
<td>$852,150</td>
<td>$32,638,150</td>
</tr>
<tr>
<td>Melrose Park</td>
<td>316</td>
<td>4</td>
<td>312</td>
<td>$5,776,450</td>
<td>$98,900</td>
<td>$5,677,550</td>
</tr>
<tr>
<td>Northlake</td>
<td>296</td>
<td>78</td>
<td>218</td>
<td>$28,494,700</td>
<td>$1,991,800</td>
<td>$26,502,900</td>
</tr>
<tr>
<td>Stone Park</td>
<td>314</td>
<td>131</td>
<td>183</td>
<td>$46,437,000</td>
<td>$1,637,600</td>
<td>$44,799,400</td>
</tr>
<tr>
<td>Westchester</td>
<td>262</td>
<td>73</td>
<td>189</td>
<td>$7,570,450</td>
<td>$803,805</td>
<td>$6,766,600</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2181</strong></td>
<td><strong>474</strong></td>
<td><strong>1707</strong></td>
<td><strong>$121,842,500</strong></td>
<td><strong>$5,384,300</strong></td>
<td><strong>$116,458,200</strong></td>
</tr>
</tbody>
</table>
Questions?

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