

Stormwater Update

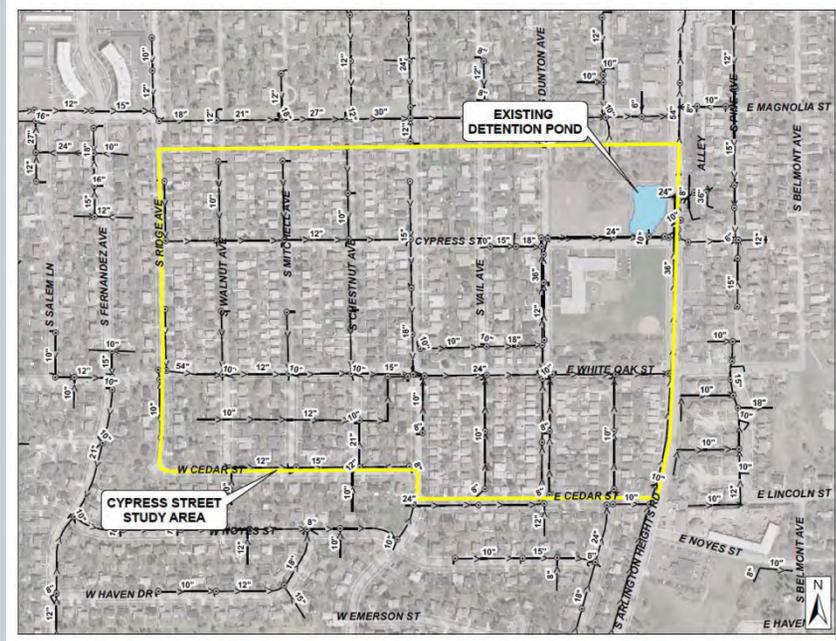


AUGUST 1, 2016



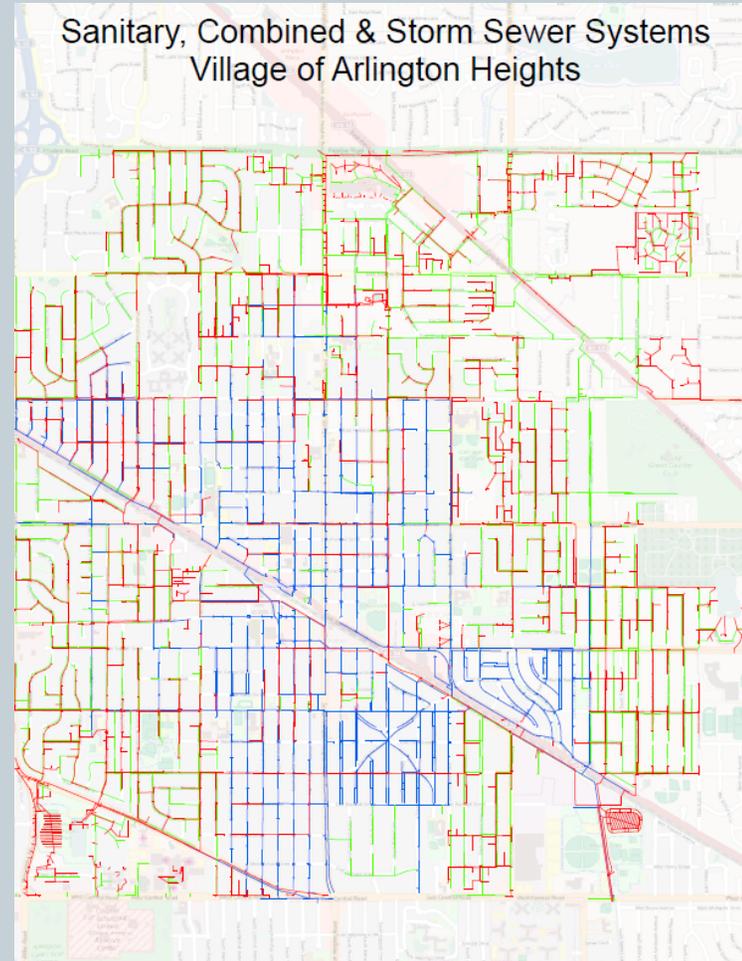
Three Studies Conducted

- Combined Sewer Area (CDM Smith)
- Separate Sewer Area (Christopher Burke)
- Cypress Street Study Area (Christopher Burke)



Staff Analysis

- Many complex issues to consider
- Improvements not designed to provide protection from a 2011 sized event
- System has performed well overall since 2011
- Costs and Benefits of each improvement must be carefully analyzed



Challenge 1



- How can the potential improvement projects be categorized and compared to one another- are they of equal importance?

ESTIMATED STORM WATER CONTROL COSTS

EXHIBIT 2

ONGOING PROGRAMS - ANNUAL COST

| | |
|------------------------------------|------------------|
| Neighborhood Drainage Improvements | \$300,000 |
| Storm Water Rehab./Replacement | \$500,000 |
| Subtotal Ongoing Programs | \$800,000 |

NEW IMPROVEMENTS - ONE-TIME COST

Separate Sewer Systems:

| Cost | Structure Flooding/ Basement Backups | Street Flooding > 1 Ft - # of Homes | Street Flooding < 1 Ft - # of Homes | Cost/Home | | | | |
|---|---|--|--|---|-----|-----------|-----------|----------------|
| | | | | Structure Flooding & Street Flooding > 1 Ft. | | | | |
| Area A - Burr Oak & Dryden Plc | \$ 1,890,000 | 2 | yes | 8 | yes | 27 | \$ | 189,000 |
| Area B - North Stuart Dr | \$ 34,000 | 2 | | 0 | yes | 10 | \$ | 17,000 |
| Area C/NW - Burr Oak/Burning Tree | \$ 1,610,000 | 3 | yes | 9 | yes | 19 | \$ | 134,167 |
| Area C/SE - Hintz Rd west of Arl Hts Rd | \$ 656,000 | 2 | yes | 0 | yes | 6 | \$ | 328,000 |
| Area D - Greenbriar/Roanoke/Wilke | \$ 2,720,000 | 2 | yes | 20 | yes | 24 | \$ | 123,636 |
| Area E - University Dr Detention Basin | \$ 6,800,000 | 1 | yes | 5 | yes | 0 | \$ | 1,133,333 |
| Area F - Forest Ave | \$ 491,000 | 3 | | 0 | yes | 8 | \$ | 163,667 |
| Area G - Regency Park East | \$ 65,000 | 5 | yes | 1 | yes | 0 | \$ | 10,833 |
| Subtotal Separate Sewer Systems | \$14,266,000 | 20 | | 43 | | 94 | \$ | 226,444 |

Combined Sewer Systems:

| Relief Sewer Only | Relief Sewer & Overhead (@ 50% Vill) | | | | | | Cost/Home | | |
|--|---|---------------------|------------|--|--|--|-------------------|---|------------------|
| | | | | | | | Relief Sewer Only | Relief Sewer & Overhead (@ 50% Vill) | |
| Area 1 - NW Hwy & Chicago Ave | \$ 1,800,000 | \$ 800,000 | 80 | | | | \$ | 22,500 | \$ 10,000 |
| Area 2 - Ridge & Euclid/Walnut & Hawthorne | \$ 1,200,000 | \$ 1,100,000 | 50 | | | | \$ | 24,000 | \$ 22,000 |
| Area 3 - Arl Hts Rd & Miner St | \$ 2,400,000 | \$ 2,400,000 | 110 | | | | \$ | 21,818 | \$ 21,818 |
| Area 4 - Campbell, Vail, Dunton & Sigwalt | \$ 2,700,000 | \$ 2,700,000 | 250 | | | | \$ | 10,800 | \$ 10,800 |
| Area 5 - NW Hwy & Chatham Plc | \$ 900,000 | \$ 1,000,000 | 20 | | | | \$ | 45,000 | \$ 50,000 |
| Area 6 - Chestnut, Vail & Evergreen Ave | \$ 1,000,000 | \$ 2,000,000 | 205 | | | | \$ | 4,878 | \$ 9,756 |
| Area 7 - Beverly Ln & Orchard St | \$ 400,000 | \$ 425,000 | 13 | | | | \$ | 30,769 | \$ 32,692 |
| Area 8 - Westgate Subdivision | \$ 2,800,000 | \$ 700,000 | 70 | | | | \$ | 40,000 | \$ 10,000 |
| Subtotal Combined Sewer Systems | \$13,200,000 | \$11,125,000 | 798 | | | | \$ | 16,541 | \$ 13,941 |

Other Storm Water Projects:

| Street Flooding & Street Flooding > 1 Ft. | Structure Flooding & Street Flooding > 1 Ft. | Cost/Home | | | | | | | |
|--|---|-----------|-----|-----------|-----|-----------|-----------|----------------|--|
| | | | | | | | | | |
| Race Ave & Chicago Ave | \$ 900,000 | 2 | yes | 1 | yes | 0 | \$ | 300,000 | |
| Campbell St & Sigwalt St | \$ 2,700,000 | 7 | | 0 | yes | 0 | \$ | 385,714 | |
| Roosevelt Ave & Cleveland Ave | \$ 2,100,000 | 5 | yes | 1 | yes | 0 | \$ | 350,000 | |
| Grove Street Sewer | \$ 4,100,000 | 7 | | 0 | yes | 0 | \$ | 585,714 | |
| Cypress Detention Basin | \$ 6,200,000 | 5 | yes | 35 | yes | 40 | \$ | 155,000 | |
| Subtotal Other Storm Water Projects | \$16,000,000 | 26 | | 37 | | 40 | \$ | 253,968 | |

Total All One-Time Projects \$43,466,000

\$41,391,000

844

80

134

\$

47,041

\$ 44,795

Challenge 2



- **How can the various projects be evaluated for cost effectiveness- does every project make sense?**

Challenge 3



- **How can new stormwater improvements and ongoing system maintenance be paid for?**

STORM WATER CONTROL FUND (426)

EXHIBIT 1

5 YEAR CAPITAL IMPROVEMENT PROGRAM (CIP)

| ACCOUNT DESCRIPTION | PROJ # | 2014-15 ACTUAL | 8 MO. PER. ENDING DEC. 2015 ACTUAL | 2016 ESTIMATED ACTUAL | 2016 BUDGET | 2017 BUDGET | 2018 BUDGET | 2019 BUDGET | 2020 BUDGET | 2021 BUDGET |
|---|----------|-------------------|---|-----------------------------|--------------------|------------------|------------------|------------------|------------------|------------------|
| REVENUES | | | | | | | | | | |
| INTEREST INCOME | | 6,169 | 744 | 3,000 | 3,000 | 1,500 | 0 | 0 | 0 | 0 |
| STATE GRANT | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| OTHER INCOME | | 5,996 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TRANSFER IN FROM GENERAL FUND | | 0 | 500,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TRANSFER IN FROM EAB FUND | | 0 | 0 | 0 | 0 | 2,700,000 | 0 | 0 | 0 | 0 |
| TOTAL REVENUES | | 12,165 | 500,744 | 3,000 | 3,000 | 2,701,500 | 0 | 0 | 0 | 0 |
| EXPENDITURES | | | | | | | | | | |
| SEWERS | | | | | | | | | | |
| Neighborhood Drainage Improvements | SW-11-02 | 63,668 | 0 | 641,100 | 641,129 | 300,000 | 300,000 | 300,000 | 300,000 | 300,000 |
| Flood Study | SW-13-02 | 102,343 | 10,690 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Utility Modeling | SW-13-03 | 144,542 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| McDonald Creek Bank Stabilization | SW-14-01 | 63,323 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sewer Backup Rebate Program | SW-15-01 | 94,684 | 19,218 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storm Water Rehab/Replacement Program | SW-15-20 | 0 | 0 | 1,000,000 | 1,000,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 |
| Arlington Knolls Storm Sewer Extension | SW-16-01 | 0 | 0 | 400,000 | 400,000 | 0 | 0 | 0 | 0 | 0 |
| SUBTOTAL - SEWERS | | 468,560 | 29,908 | 2,041,100 | 2,041,129 | 800,000 | 800,000 | 800,000 | 800,000 | 800,000 |
| OTHER EXPENSE | | | | | | | | | | |
| IMET Expense | | 19,317 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SUBTOTAL - Other Expense | | 19,317 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TRANSFER TO | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| OPERATING CONTINGENCY | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL EXPENDITURES | | 487,877 | 29,908 | 2,041,100 | 2,041,129 | 800,000 | 800,000 | 800,000 | 800,000 | 800,000 |
| BEGINNING FUND BALANCE | | 3,675,974 | 3,200,262 | 3,671,098 | | 1,632,998 | 3,534,498 | 2,734,498 | 1,934,498 | 1,134,498 |
| REVENUES OVER (UNDER) EXPENDITURES | | (475,712) | 470,836 | (2,038,100) | (2,038,129) | 1,901,500 | (800,000) | (800,000) | (800,000) | (800,000) |
| ENDING FUND BALANCE | | 3,200,262 | 3,671,098 | 1,632,998 | | 3,534,498 | 2,734,498 | 1,934,498 | 1,134,498 | 334,498 |

ESTIMATED STORM WATER CONTROL COSTS

EXHIBIT 2

ONGOING PROGRAMS - ANNUAL COST

| | |
|------------------------------------|------------------|
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| Storm Water Rehab./Replacement | \$500,000 |
| Subtotal Ongoing Programs | \$800,000 |

NEW IMPROVEMENTS - ONE-TIME COST

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|--|---|-----------|-----|-----------|-----|-----------|-------------------|
| | | | | | | | |
| Street Ponding Combined Area: | | | | | | | |
| Race Ave & Chicago Ave | \$ 900,000 | 2 | yes | 1 | yes | 0 | \$ 300,000 |
| Campbell St & Sigwalt St | \$ 2,700,000 | 7 | | 0 | yes | 0 | \$ 385,714 |
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Total All One-Time Projects \$43,466,000

\$41,391,000

844

80

134

\$

47,041

\$ 44,795

ESTIMATED STORM WATER UTILITY FEES

EXHIBIT 3

ONGOING PROGRAMS - ANNUAL COST

| | | | |
|-------------------------------------|----------------|----------------|-----------------------|
| Neighborhood Darainage Improvements | 300,000 | Est | Est |
| Storm Water Rehab./Replacement | <u>500,000</u> | <u>Mo. Fee</u> | <u>Annual Revenue</u> |
| Subtotal Ongoing Programs | 800,000 | 3.25 | 820,794 |

NEW IMPROVEMENTS - ONE-TIME COST

| | | |
|------------------------------------|-------------------|---------------------------------------|
| | Cost | |
| Separate Sewer Systems: | 14,266,000 | |
| | | Relief Sewer & Overhead |
| | | Relief Sewer Only (@ 50% Vill) |
| Combined Sewer Systems: | 13,200,000 | 11,125,000 |
| Other Storm Water Projects: | <u>16,000,000</u> | |
| Total All One-Time Projects | 43,466,000 | 41,391,000 |

| | |
|--------------------------------|---------------|
| Property Owner Class | |
| Commercial | 1,003 |
| Government, AH | 28 |
| Industrial | 113 |
| Residential | 19,794 |
| Residential, Multi-Family | 53 |
| School/Other Government Bodies | <u>55</u> |
| Total | 21,046 |

Estimated Annual Debt Service (20 yrs, 4%) for bond issues of:*

| | | Additional | |
|------------|-----------|----------------|-----------------------|
| | | Est | Est |
| | | <u>Mo. Fee</u> | <u>Annual Revenue</u> |
| 10 million | 735,820 | 3.00 | 757,656 |
| 15 million | 1,103,730 | 4.50 | 1,136,484 |
| 20 million | 1,471,640 | 6.00 | 1,515,312 |
| 25 million | 1,839,550 | 7.50 | 1,894,140 |
| 30 million | 2,207,460 | 8.75 | 2,209,830 |
| 40 million | 2,943,280 | 11.75 | 2,967,486 |
| 50 million | 3,679,100 | 14.75 | 3,725,142 |

* annual payment to retire \$1 million at 4% over 20 years =
73,582

Challenge 4



- **How should project costs be distributed?**

Questions for the Village Board



- **Staff is looking for direction on each of the identified questions so that a recommended action plan can be developed.**

Questions for the Village Board



- **1. Should the Village re-prioritize the projects based on its cost-benefit?**
- **2. Should projects be eliminated from consideration due to low benefits or high costs?**

Questions for the Village Board



- **3. Is the Board interested in exploring a stormwater fee as a funding source?**
- **4. If yes, should the fee be calculated based on actual stormwater discharge, or be flat (based on property type and/or size category)?**

Questions for the Village Board



- **5. Should the Village continue cost sharing for the overhead sewer program?**
- **6. Should the Village consider modifying the overhead sewer cost sharing formula?**

Questions for the Village Board



- **7. Should other neighborhood funding such as Special Service Areas be explored or should projects be funded with a Village-Wide funding source?**



Questions and Discussion?