



**PARKS, RECREATION & CULTURAL SERVICES**  
**MEMORANDUM #2015 – 21**

DATE: November 2, 2015  
TO: Honorable Mayor Joyce Downing and City Council Members  
FROM: David H. Willett, Acting City Manager   
Amanda J. Peterson, Director of Parks, Recreation & Cultural Services   
SUBJECT: Council Study Session  
2016 Capital Improvement Program – Department of Parks, Recreation & Cultural Services

---

**BACKGROUND**

The City of Northglenn's Capital Improvement Program (CIP) includes a summary of all planned capital projects for 2016. Below is a list of Parks, Recreation & Cultural Services projects identified in the Capital Improvement Program Summary.

**PLANNING DOCUMENTS**

Parks, Recreation & Cultural Services planning cycle studies/documents:

1. *Parks and Recreation Master Plan (2011)*
2. *Open Space Management Plan (2010)*

**2016 CAPITAL IMPROVEMENT PROJECT**

**Conservation Trust Fund**

- Greenway Trail Replacement \$50,000 (as planned)  
*This project is an ongoing repair and replacement of concrete within the City's trail system. Concrete is replaced as needed to ensure a safe and functional trail system.*
- Northwest Open Space Facility Improvement \$1,000,000 (modified per plan)  
*This project has both a design and construction phase. Funding has been identified for this project for several years, but did not delineate between design and construction. In 2015, funding was identified for design only, with the intent that a budget would be identified during the year for construction. Grant funding was recently awarded from Adams County Open Space to complete the design phase, which will begin in late 2015/early 2016. Once the design phase is complete, including final construction cost estimates, grant funding will be sought for the construction phase, as well. The project is intended to include water/sewer/utilities, a concession stand area, restrooms and a pavilion, modification to the location of the existing trails, associated modifications to the irrigation system, and potential realignment of one or more of the field spaces to best serve current and future uses. The final scope of work will be determined in the design phase.*

**General Fund**

- Emergency Park Repairs \$25,000 (as planned)  
*This is an ongoing budgeted line to address any emergency repairs in the park system. Funds are only expended on an as-needed basis.*
- Irrigation Central Control \$20,000 (modified per plan)

*This project will complete the central control system, which went into service in several parks this year. The project was originally intended to be phased over two more years, at a cost of \$10,000 per year, these final two years are proposed to be combined into a single year to close out the project.*

Tennis Court Repair & Construction

\$10,000 (new)

*The acrylic tennis court surface needs regular maintenance to provide a high-quality playing surface. The three courts at Wyco Park are in need of significant repair, and minor repairs may be needed on the courts at Danahy Park. In addition, a full renovation of the Wyco courts is planned for 2019.*

Parking Lot Repair

\$100,000 (new)

*This project includes both in-house and contracted services to make repairs to the parking lots at the Recreation Center and E.B. Rains Jr. Memorial Park.*

**STAFF REFERENCE**

Amanda Peterson, Director

[apeterson@northglenn.org](mailto:apeterson@northglenn.org)

303.450.8950

**PUBLIC WORKS DEPARTMENT  
MEMORANDUM #2015 – 46**

DATE: November 2, 2015  
TO: Honorable Mayor Joyce Downing and City Council Members  
FROM: David H. Willet, Acting City Manager/Public Works Director  
SUBJECT: **Council Study Session**  
2016 Capital Improvement Program – Public Works Department



---

**BACKGROUND**

The City of Northglenn's Capital Improvement Program (CIP) includes a summary of all planned capital projects for 2016. The Public Works Department manages many of the projects identified in the Capital Improvement Program Summary.

**PLANNING DOCUMENTS**

Public Works Department planning cycle studies/documents:

1. *Water Treatment Plant Master Plan Update (2009)*
2. *Treated Water Systems Modeling Evaluation (2008)*
3. *Wastewater Utility Plan Update (2012)*
4. *Collection System Modeling Report (2007)*
5. *Water and Wastewater Rates (2009)*
6. *Master Drainage Plan Update (2007)*
7. *Integrated Water Resources Plan (2007)*

**2016 CAPITAL IMPROVEMENT PROJECT**

**General Fund**

Residential Street Program – Maintenance program based on various surface treatments in order to maximize the life span of street pavement. Streets are selected based on the Pavement Condition Index (PCI) which is completed every three years. The PCI is proposed to be conducted by an independent firm in 2016 as part of the Residential Street Program.

Traffic Signal Program – Maintenance program based on bi-annual inspections of all traffic signals maintained throughout the City. Work includes preventive maintenance on equipment and infrastructure in order to maintain the signals in operational condition. Work is prioritized based on risk of failure and traffic delays throughout corridor areas.

Concrete Program – Maintenance program designed to address damage concrete within the City's sidewalk and trail network. Work is prioritized based on severity of damage and mobility of residents.

99<sup>th</sup> Ave Reconstruction – Reconstruction of the roadway section of 99<sup>th</sup> Ave between Bruce Ln and Huron St.

Marketplace Pedestrian Bridge Assessment – Complete analysis of the pedestrian bridge located at the Marketplace crossing I-25 to include structural analysis and life span of current bridge.

## 2016 Capital Improvement Program – Public Works Department

Utilities Study – Utility planning analysis for stormwater, water and sewer systems capacities within the Marketplace and Karls Farm area to develop standards and requirements for the redevelopment and development of those perspective areas within the City.

Ralson House Development – Work will include the overall design of the redevelopment area of the Ralson House to include both land entitlement documents and construction documents.

104<sup>th</sup> and Grant Intersection Analysis – The review and analysis of the intersection for both traffic signal timing and intersection geometry to determine warrants for intersection modifications to increase level of service. Work will also include the analysis of alternative traffic signalization timings for left turns.

Justice Center (police/courts) – Work will include the overall design of the development area including land entitlement documents and overall construction documents

### **Water/Wastewater Fund**

Collection System Rehabilitation – Maintenance program designed to extend the life of the sanitary sewer system and to prevent sewer pipeline collapse.

Water Line Replacement – Installation of 580 LF of 8” PVC water line to replace existing water line on a section of 99<sup>th</sup> Ave between Dodge Dr and Bruce Ln.

High Zone Storage Tank Painting – Recoating the exterior of the tank and repairs to the cathodic protection system.

Lift Station A Assessment – Addition of an emergency bypass quick connect system to Lift Station A.

WWTP Headworks and Clarifier – Improvements at the Northglenn Wastewater Treatment Plant.

Decommission Southern Lagoon – Decommission of lagoon at the Wastewater Treatment Plant once the new headworks is placed into service.

### **STAFF REFERENCE**

Raymond Reling –Utilities Manager

[rreling@northglenn.org](mailto:rreling@northglenn.org)

303.450.4049

Kent Kisselman, PE – Engineering Manager

[kkisselman@northglenn.org](mailto:kkisselman@northglenn.org)

303.450.4005



## 5-YEAR CAPITAL IMPROVEMENT PROGRAM

**Project Name:** Sensory Playground Repair

**Project Dates:** **Begin:** Jan-2013 **Finish:** \_\_\_\_\_

**Comprehensive Project Cost:** \$290,000.00

**Project Rationale:** Parks and Recreation Master Plan

**Future Operational Impact:**  Yes  No **Operational Impact Category:** N/A

**Description/Justification:**  
Renovation of the playground equipment at Sensory Park.

The playground equipment at the City's parks is replaced on a periodic basis due to normal wear and tear, vandalism, and unavailable replacement parts. The playground equipment at Sensory Playground was last replaced in 2006. The typical life span of a park is 10 to 12 years, however as the City's largest playground, this park is highly utilized causing equipment to wear out prematurely. This project includes replacement of various play structures and other park amenities. Not all of the playground equipment is anticipated for replacement in 2013. This project will allow for replacement of only worn pieces, extending the useful life of the playground. The type of playground equipment and park amenities will be selected through a public input process as is discussed in the Parks and Recreation Master Plan. It is anticipated that this playground will benefit from multiple renovations in the years to come, rather than one complete park replacement.

Source of Funding:	2016	2017	2018	2019	2020	5 - Year Total
Conservation Trust Fund				250,000		\$ 250,000
						-
						-
						-
Total Revenue	\$ -	\$ -	\$ -	\$ 250,000	\$ -	\$ 250,000

Expenditures:	2016	2017	2018	2019	2020	5 - Year Total
Plans/Studies						\$ -
Design						-
Construction				250,000		250,000
Materials						-
Equipment						-
Other -						-
Other -						-
Total Expenditures	\$ -	\$ -	\$ -	\$ 250,000	\$ -	\$ 250,000

## 5-YEAR CAPITAL IMPROVEMENT PROGRAM

**Project Name:** Melody Pocket Park Design

**Project Dates:** **Begin:** Jan-2016 **Finish:** Dec-2016

**Comprehensive Project Cost:** \$35,000.00

**Project Rationale:** Park Improvement

**Future Operational Impact:**  **Yes**  **No** **Operational Impact Category:** Negative

**Description/Justification:**

There is a 20,000 square foot piece of land that is currently fenced off and unused, directly to the east of Melody Dr and Belford Dr. There is potential create a small neighborhood "pocket park" that is more visually appealing from the street and provides local residents with a public green space. Challenges include the existing ditch on the property, as well as the lack of irrigation source. The budget for this project would be for design only.

Source of Funding:	2015	2016	2017	2018	2019	5 - Year Total
Conservation Trust Fund		35,000				\$ 35,000
						-
						-
						-
						-
<b>Total Revenue</b>	\$ -	\$ 35,000	\$ -	\$ -	\$ -	\$ 35,000

Expenditures:	2015	2016	2017	2018	2019	5 - Year Total
Plans/Studies						\$ -
Design						-
Construction		35,000				35,000
Materials						-
Equipment						-
Other -						-
Other -						-
<b>Total Expenditures</b>	\$ -	\$ 35,000	\$ -	\$ -	\$ -	\$ 35,000

## 5-YEAR CAPITAL IMPROVEMENT PROGRAM

**Project Name:** Kiwanis Splash Pad

**Project Dates:** **Begin:** Jan-2017 **Finish:** Dec-2017

**Comprehensive Project Cost:** \$300,000.00

**Project Rationale:** Facility Improvement

**Future Operational Impact:**  **Yes**  **No** **Operational Impact Category:** Negative

**Description/Justification:**

Splash pads have become very popular among children in Colorado. They provide a fun outdoor activity that keeps them occupied and engaged. There is plenty of space located outside of the existing fence at the Kiwanis Pool, and it has been identified as a future location for a splash pad. The splash pad would provide an additional interactive feature at the pool, making the area more appealing for drop-in use.

Source of Funding:	2015	2016	2017	2018	2019	5 - Year Total
Conservation Trust Fund			300,000			\$ 300,000
Adams County Open Space Grant			300,000			300,000
						-
						-
						-
<b>Total Revenue</b>	\$ -	\$ -	\$ 600,000	\$ -	\$ -	\$ 600,000

Expenditures:	2015	2016	2017	2018	2019	5 - Year Total
Plans/Studies						\$ -
Design						-
Construction						-
Materials						-
Equipment						-
Other -						-
Other -						-
<b>Total Expenditures</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -



## 5-YEAR CAPITAL IMPROVEMENT PROGRAM

**Project Name:** NWOS Facility Improvements

**Project Dates:** **Begin:** Jan-2015 **Finish:** Dec-2016

**Comprehensive Project Cost:** \$1,120,000.00

**Project Rationale:** Facility Improvements

**Future Operational Impact:**  Yes  No **Operational Impact Category:** N/A

**Description/Justification:**

There was an original intent to add a vault-style concession, restroom and storage facility at Northwest Open Space, as well as a children's playground and covered pavilion area. The area currently does not have electricity or water on site. The complex has no permanent structures, and currently all of the structures are temporary and are in need of improvement. After an initial evaluation of the site and obtaining more concrete budget numbers, it seems to be appropriate to have a professional analysis and design done for the NWOS. If the City intends to run permanent utilities for restrooms and concessions, sufficient analysis should be done prior to construction in order to ensure the most beneficial placement of the facilities.

The intent in the future is to use the analysis and design in order to develop a complete project budget plan for NWOS in the 2016 Budget Request.

Source of Funding:	2016	2017	2018	2019	2020	5 - Year Total
Conservation Trust	1,000,000					\$ 1,000,000
						-
						-
						-
						-
<b>Total Revenue</b>	<b>\$ 1,000,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,000,000</b>

Expenditures:	2016	2017	2018	2019	2020	5 - Year Total
Plans/Studies						\$ -
Design						-
Construction	1,000,000					1,000,000
Materials						-
Equipment						-
Other -						-
Other -						-
<b>Total Expenditures</b>	<b>\$ 1,000,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,000,000</b>



## 5-YEAR CAPITAL IMPROVEMENT PROGRAM

**Project Name:** Irrigation System Central Control

**Project Dates:** **Begin:** Jan-2012 **Finish:** Dec-2015

**Comprehensive Project Cost:** \$40,000.00

**Project Rationale:** Water Conservation

**Future Operational Impact:**  Yes  No **Operational Impact Category:** Positive

**Description/Justification:**

Analyze the economic impacts and practicality of installing an irrigation central control system. If determined feasible, develop implementation plans for the city parks.

In the event of an irrigation line break or during a large storm event, staff must shut numerous valves within a park in order to turn off the irrigation system. An irrigation central control system would automate the system, allowing staff to respond to situations more quickly, in addition to conserving water. An irrigation central control system consists of a master control providing a single location to open or close irrigation valves. Central Control systems also include rain sensors that detect the quantity of rainfall and reduce the duration of watering accordingly. If the design shows potential for water savings and is cost effective, the design will be implemented throughout the park system over the next 5-10 years. Funding has been identified in the long term CIP Plan (ADCOO) to allow for installation of this system if it is determined to be appropriate.

Source of Funding:	2016	2017	2018	2019	2020	5 - Year Total
Open Space Tax (ADCOO)	20,000					\$ 20,000
						-
						-
						-
						-
<b>Total Revenue</b>	<b>\$ 20,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 20,000</b>

Expenditures:	2016	2017	2018	2019	2020	5 - Year Total
Plans/Studies						\$ -
Design						-
Construction	20,000					20,000
Materials						-
Equipment						-
Other -						-
Other -						-
<b>Total Expenditures</b>	<b>\$ 20,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 20,000</b>

## 5-YEAR CAPITAL IMPROVEMENT PROGRAM

**Project Name:** NWOS Facility Improvements

**Project Dates:** **Begin:** Jan-2015 **Finish:** Dec-2016

**Comprehensive Project Cost:** \$1,120,000.00

**Project Rationale:** Facility Improvements

**Future Operational Impact:**  Yes  No **Operational Impact Category:** N/A

**Description/Justification:**

There was an original intent to add a vault-style concession, restroom and storage facility at Northwest Open Space, as well as a children's playground and covered pavilion area. The area currently does not have electricity or water on site. The complex has no permanent structures, and currently all of the structures are temporary and are in need of improvement. After an initial evaluation of the site and obtaining more concrete budget numbers, it seems to be appropriate to have a professional analysis and design done for the NWOS. If the City intends to run permanent utilities for restrooms and concessions, sufficient analysis should be done prior to construction in order to ensure the most beneficial placement of the facilities.

The intent in the future is to use the analysis and design in order to develop a complete project budget plan for NWOS in the 2016 Budget Request.

Source of Funding:	2016	2017	2018	2019	2020	5 - Year Total
Open Space Tax (ADCOO)	120,000					\$ 120,000
						-
						-
						-
						-
<b>Total Revenue</b>	<b>\$ 120,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 120,000</b>

Expenditures:	2016	2017	2018	2019	2020	5 - Year Total
Plans/Studies						\$ -
Design	120,000					120,000
Construction						-
Materials						-
Equipment						-
Other -						-
Other -						-
<b>Total Expenditures</b>	<b>\$ 120,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 120,000</b>

## 5-YEAR CAPITAL IMPROVEMENT PROGRAM

**Project Name:** Senior Fitness Equipment

**Project Dates:** **Begin:** Jan-2019 **Finish:** Dec-2019

**Comprehensive Project Cost:** \$25,000.00

**Project Rationale:** Parks and Recreation Master Plan

**Future Operational Impact:**  Yes  No **Operational Impact Category:** N/A

**Description/Justification:**

Design and Construction of new "Playground".

At the request of the senior center staff and senior center participants, a senior "playground" is proposed to be installed behind the recreation center. This space would consist of 6-8 outdoor workout stations designed specifically for the senior population. The budget includes site preparation, purchase and installation of the equipment.

Source of Funding:	2016	2017	2018	2019	2020	5 - Year Total
Open Space Tax (ADCOO)				100,000		\$ 100,000
						-
						-
						-
						-
<b>Total Revenue</b>	\$ -	\$ -	\$ -	\$ 100,000	\$ -	\$ 100,000

Expenditures:	2016	2017	2018	2019	2020	5 - Year Total
Plans/Studies						\$ -
Design						-
Construction				100,000		100,000
Materials						-
Equipment						-
Other -						-
Other -						-
<b>Total Expenditures</b>	\$ -	\$ -	\$ -	\$ 100,000	\$ -	\$ 100,000

## 5-YEAR CAPITAL IMPROVEMENT PROGRAM

**Project Name:** Theater and Recreation Center Marquee Replacement

**Project Dates:** **Begin:** Jan-2016 **Finish:** Dec-2016

**Comprehensive Project Cost:** \$120,000.00

**Project Rationale:** Facility Maintenance

**Future Operational Impact:**  Yes  No **Operational Impact Category:** N/A

**Description/Justification:**

The recreation center marquee has deteriorated significantly and is not safe for employees to ascend.

Source of Funding:	2016	2017	2018	2019	2020	5 - Year Total
ADCOO	120,000					\$ 120,000
						-
						-
						-
						-
<b>Total Revenue</b>	<b>\$ 120,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 120,000</b>

Expenditures:	2016	2017	2018	2019	2020	5 - Year Total
Plans/Studies						\$ -
Design						-
Construction	120,000					120,000
Materials						-
Equipment						-
Other -						-
Other -						-
<b>Total Expenditures</b>	<b>\$ 120,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 120,000</b>

## 5-YEAR CAPITAL IMPROVEMENT PROGRAM

**Project Name:** Citywide Fence Maintenance

**Project Dates:** **Begin:** Jan-2017 **Finish:** Dec-2017

**Comprehensive Project Cost:** \$160,000.00

**Project Rationale:** Facility Maintenance

**Future Operational Impact:**  Yes  No **Operational Impact Category:** N/A

**Description/Justification:**  
Cleaning and staining of citywide fences.

Source of Funding:	2016	2017	2018	2019	2020	5 - Year Total
General Fund		160,000				\$ 160,000
						-
						-
						-
						-
Total Revenue	\$ -	\$ 160,000	\$ -	\$ -	\$ -	\$ 160,000

Expenditures:	2016	2017	2018	2019	2020	5 - Year Total
Plans/Studies						\$ -
Design						-
Construction		160,000				160,000
Materials						-
Equipment						-
Other -						-
Other -						-
Total Expenditures	\$ -	\$ 160,000	\$ -	\$ -	\$ -	\$ 160,000

## 5-YEAR CAPITAL IMPROVEMENT PROGRAM

**Project Name:** Kiwanis Bath House Renovation

**Project Dates:** **Begin:** Jan-2017 **Finish:** Dec-2017

**Comprehensive Project Cost:** \$500,000.00

**Project Rationale:** Facility Maintenance

**Future Operational Impact:**  Yes  No **Operational Impact Category:** N/A

**Description/Justification:**

The existing bath house is the original structure, with minimal improvements made throughout the years. The improvements include electrical and plumbing repairs, as well as functional and aesthetic improvements to the shower and changing areas.

Source of Funding:	2016	2017	2018	2019	2020	5 - Year Total
ADCOO		500,000				\$ 500,000
						-
						-
						-
						-
<b>Total Revenue</b>	\$ -	\$ 500,000	\$ -	\$ -	\$ -	\$ 500,000

Expenditures:	2016	2017	2018	2019	2020	5 - Year Total
Plans/Studies						\$ -
Design						-
Construction		500,000				500,000
Materials						-
Equipment						-
Other -						-
Other -						-
<b>Total Expenditures</b>	\$ -	\$ 500,000	\$ -	\$ -	\$ -	\$ 500,000



## 5-YEAR CAPITAL IMPROVEMENT PROGRAM

**Project Name:** Parks Barn Replacement

**Project Dates:** **Begin:** Jan-2015 **Finish:** Dec-2016

**Comprehensive Project Cost:** \$850,000.00

**Project Rationale:** Facility Improvement

**Future Operational Impact:**  Yes  No **Operational Impact Category:** N/A

**Description/Justification:**

Removal of existing parks storage area and replace with new storage and maintenance building

The existing parks barn/storage facility was originally constructed in 1950 by the school district for school busses. In 1996, the doors were re-sized and the electric overhead door openers were installed. In 2000, North Metro Fire suggested that the building be removed, due to the lack of appropriate fire exits, and the building was scheduled for demolition in 2004. This never occurred, and the building remained in use. In 2008, North Metro Fire again evaluated the building, and required that all ignition sources and electric openers be removed. To meet this requirement, all gas lines and furnaces were removed at that time. In addition to the safety concerns noted, the structure does not meet the current needs of the Parks Maintenance division. It lacks functional doors, and is not large enough to store the equipment used by the division. Both the roof and the siding have significant perforations, allowing for animals and water to enter the facility. This project includes the demolition and removal of the existing facility, and the design and construction of a new facility. The new facility is proposed to be approximately 50% larger than the existing facility and would include appropriate heating, electrical, and plumbing (ie. eye wash station, utility sink) to meet the needs of the division.

Source of Funding:	2016	2016	2016	2016	2016	5 - Year Total
1/2% Sales Tax	850,000					\$ 850,000
						-
						-
						-
						-
<b>Total Revenue</b>	<b>\$ 850,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 850,000</b>

Expenditures:	2016	2016	2016	2016	2016	5 - Year Total
Plans/Studies						\$ -
Design	50,000					50,000
Construction	800,000					800,000
Materials						-
Equipment						-
Other -						-
Other -						-
<b>Total Expenditures</b>	<b>\$ 850,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 850,000</b>

## 5-YEAR CAPITAL IMPROVEMENT PROGRAM

**Project Name:** Fox Run Open Space

**Project Dates:** **Begin:** Jan-2015 **Finish:** Dec-2016

**Comprehensive Project Cost:** \$80,000.00

**Project Rationale:** Maintenance

**Future Operational Impact:**  **Yes** **Operational Impact Category:** Negative  
 **No**

**Description/Justification:**

This project includes rehabilitating the existing irrigation system, tree replacement, crusher fine trail upgrades, wayfinding and wildlife informational signs, and shaded seating options. This project is eligible for Adams County Open Space grant funding, as a passive use project. It will enhance the current open space, making it more appealing to residents within the community.

Source of Funding:	2016	2017	2018	2019	2020	5 - Year Total
Suncor Funding	40,000					\$ 40,000
Adams County Open Space Grant	40,000					40,000
						-
						-
						-
<b>Total Revenue</b>	<b>\$ 80,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 80,000</b>

Expenditures:	2015	2016	2017	2018	2019	5 - Year Total
Plans/Studies						\$ -
Design						-
Construction	80,000					80,000
Materials						-
Equipment						-
Other -						-
Other -						-
<b>Total Expenditures</b>	<b>\$ 80,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 80,000</b>

## 5-YEAR CAPITAL IMPROVEMENT PROGRAM

**Project Name:** Tennis Courts

**Project Dates:** **Begin:** Jan-2016 **Finish:** Dec-2019

**Comprehensive Project Cost:** \$180,000.00

**Project Rationale:** Safety and Functionality

**Future Operational Impact:**  Yes  No **Operational Impact Category:** N/A

**Description/Justification:**

The city owns and maintains two tennis facilities - a three-court facility at Wyco Park and a two-court facility at Danahy Park. These are lighted, fenced, asphalt courts with an acrylic overlay. The thin acrylic overlay must be repaired every 1-3 years, to prevent a poor playing surface, trip hazards and/or additional damage. The courts at Danahy Park were entirely reconstructed in 2014, the acrylic surface has some wear and needs minor patching. The court at Wyco is cracking, with significant damage to the acrylic surface. The Wyco court needs acrylic repairs in 2016, and is recommended for reconstruction in 2019.

Source of Funding:	2016	2017	2018	2019	2020	5 - Year Total
Adams County Open Space	10,000			170,000		\$ 180,000
						-
						-
						-
<b>Total Revenue</b>	<b>\$ 10,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 170,000</b>	<b>\$ -</b>	<b>\$ 180,000</b>

Expenditures:	2016	2017	2018	2019	2020	5 - Year Total
Plans/Studies						\$ -
Design						-
Construction	10,000			170,000		180,000
Materials						-
Equipment						-
Other -						-
Other -						-
<b>Total Expenditures</b>	<b>\$ 10,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 170,000</b>	<b>\$ -</b>	<b>\$ 180,000</b>

## 5-YEAR CAPITAL IMPROVEMENT PROGRAM

**Project Name:** Parking Lot Repairs

**Project Dates:** **Begin:** Jan-2016 **Finish:** Jun-2016

**Comprehensive Project Cost:** \$100,000.00

**Project Rationale:** Safety and Functionality

**Future Operational Impact:**  Yes  No **Operational Impact Category:** N/A

**Description/Justification:**

The parking lots at both the Recreation Center and E.B. Rains Jr. Memorial Park are in disrepair with multiple potholes, cracks and an uneven surface. This project includes in-house patching of the potholes, crack sealing and gutter repairs, as well as the application of a slurry seal on the entire surface by a contractor.

Source of Funding:	2016	2017	2018	2019	2020	5 - Year Total
General Fund	100,000					\$ 100,000
						-
						-
						-
						-
<b>Total Revenue</b>	<b>\$ 100,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 100,000</b>

Expenditures:	2016	2017	2018	2019	2020	5 - Year Total
Plans/Studies						\$ -
Design						-
Construction	40,000					40,000
Materials	60,000					60,000
Equipment						-
Other -						-
Other -						-
<b>Total Expenditures</b>	<b>\$ 100,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 100,000</b>

## 5-YEAR CAPITAL IMPROVEMENT PROGRAM

**Project Name:** Residential Street Program

**Project Dates:** **Begin:** Ongoing **Finish:** Ongoing

**Comprehensive Project Cost:** \$2,250,000.00 (5 Year Total)

**Project Rationale:** PCI Rating - Maintenance Program

**Future Operational Impact:**  Yes  No **Operational Impact Category:** N/A

**Description/Justification:**

The Residential Street Program is an annual program to maintain a minimum level of pavement condition for the residential street network.

On July 27, 2006, the City Council passed Resolution 06-92, making a City policy to maintain an average PCI rating of 70 or better. The Residential Street Program is an essential component in maintaining the 70 PCI rating. The Program includes resurfacing, restriping, patching, and concrete repair of selected streets.

Source of Funding:	2016	2017	2018	2019	2020	5 - Year Total
Transportation Tax (ADCOT)	550,000	450,000	450,000	550,000	450,000	\$ 2,450,000
						-
						-
						-
<b>Total Revenue</b>	<b>\$ 550,000</b>	<b>\$ 450,000</b>	<b>\$ 450,000</b>	<b>\$ 550,000</b>	<b>\$ 450,000</b>	<b>\$ 2,450,000</b>

Expenditures:	2016	2017	2018	2019	2020	5 - Year Total
Plans/Studies						\$ -
Design						-
Construction	550,000	450,000	450,000	550,000	450,000	2,450,000
Materials						-
Equipment						-
Other -						-
Other -						-
<b>Total Expenditures</b>	<b>\$ 550,000</b>	<b>\$ 450,000</b>	<b>\$ 450,000</b>	<b>\$ 550,000</b>	<b>\$ 450,000</b>	<b>\$ 2,450,000</b>





## 5-YEAR CAPITAL IMPROVEMENT PROGRAM

**Project Name:** East 112th Avenue Expansion

**Project Dates:** **Begin:** Jan-2013 **Finish:** Apr-2016

**Comprehensive Project Cost:** \$4,929,745.00

**Project Rationale:** Capacity and Safety Improvements

**Future Operational Impact:**  **Yes** **Operational Impact Category:** Negative  
 **No**

**Description/Justification:**

E. 112th Avenue is a two lane arterial roadway with traffic signals at Washington Street, Irma Drive and York Street. A conceptual analysis has shown improved traffic operation, particularly at the intersections, if a three lane section is constructed along with other traffic signal improvements.

Source of Funding:	2016	2017	2018	2019	2020	5 - Year Total
4.0 Mill Levy	2,067,917					\$ 2,067,917
						-
						-
						-
						-
<b>Total Revenue</b>	<b>\$ 2,067,917</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 2,067,917</b>

Expenditures:	2016	2017	2018	2019	2020	5 - Year Total
Plans/Studies						\$ -
Design						-
Construction	2,067,917					2,067,917
Materials						-
Equipment						-
Other -						-
Other -						-
<b>Total Expenditures</b>	<b>\$ 2,067,917</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 2,067,917</b>



## 5-YEAR CAPITAL IMPROVEMENT PROGRAM

**Project Name:** Huron Street Rehabilitation

**Project Dates:** **Begin:** Jan-2019 **Finish:** Dec-2019

**Comprehensive Project Cost:** \$600,000.00

**Project Rationale:** Roadway Rehabilitation

**Future Operational Impact:**  Yes  No **Operational Impact Category:** N/A

**Description/Justification:**  
Rehabilitation of Huron Street South of 104th.

Design and construction of the Huron Street Rehabilitation South of 104th may include drainage and cross slope improvements. The total cost shown is for pavement rehabilitation only.

Source of Funding:	2016	2017	2018	2019	2020	5 - Year Total
Mill Levy	-			600,000		\$ 600,000
						-
						-
						-
						-
<b>Total Revenue</b>	\$ -	\$ -	\$ -	\$ 600,000	\$ -	\$ 600,000

Expenditures:	2016	2017	2018	2019	2020	5 - Year Total
Plans/Studies						\$ -
Design				600,000		600,000
Construction	-					-
Materials						-
Equipment						-
Other -						-
Other -						-
<b>Total Expenditures</b>	\$ -	\$ -	\$ -	\$ 600,000	\$ -	\$ 600,000

## 5-YEAR CAPITAL IMPROVEMENT PROGRAM

**Project Name:** East 120th Avenue Eastbound Widening Design

**Project Dates:** **Begin:** Jan-2014 **Finish:** Dec-2019

**Total Project Costs:** \$600,000.00

**Project Rationale:** Roadway Capacity Improvements

**Future Operational Impact:**  Yes  No **Operational Impact Category:** N/A

**Description/Justification:**

Widening design of E. 120th Avenue (Eastbound Only) from a two lane road to a three lane road. A conceptual design of the E. 120th Avenue roadway will provide the City with estimates and for how to address the full buildout of the roadway template for eastbound 120th Ave. The conceptual design will also identify engineering constraints, including but not limited to, drainage, soils, ROW, and utilities. The conceptual design also will consider the impacts of FasTracks and stormwater requirements of Urban Drainage & Flood Control District (UDFCD).

In 2015 full roadway and street scape improvements will be designed based on the concept design completed in 2014 and construction anticipated to begin 2016

Source of Funding:	2016	2017	2018	2019	2020	Total
1/2% Sales Tax			500,000			\$ 500,000
						-
						-
						-
						-
<b>Total Revenue</b>	\$ -	\$ -	\$ 500,000	\$ -	\$ -	\$ 500,000

Expenditures:	2015	2016	2017	2018	2019	Total
Plans/Studies		-				\$ -
Design			500,000			500,000
Construction						-
Materials						-
Equipment						-
Other -						-
Other -						-
<b>Total Expenditures</b>	\$ -	\$ -	\$ 500,000	\$ -	\$ -	\$ 500,000

## 5-YEAR CAPITAL IMPROVEMENT PROGRAM

**Project Name:** 99th Ave. Reconstruction

**Project Dates:** **Begin:** Jan-2016 **Finish:** Dec-2016

**Total Project Costs:** \$350,000.00

**Project Rationale:** Roadway Rehabilitation

**Future Operational Impact:**  Yes  No **Operational Impact Category:** N/A

**Description/Justification:**

Reconstruction of approximately 980 feet of roadway, due to existing conditions inaduaquete to support future traffic impact loading, and drainage concerns along the south section of the roadway. In addition, completing approximately 980 LF feet of water main replacement due to condition of main. Water main has had multiple breaks in past years which has casued the roadway to have inaduaquate strenght to support future traffic impact loads.

Source of Funding:	2016	2017	2018	2019	2020	Total
General	350,000					\$ 350,000
						-
						-
						-
						-
Total Revenue	\$ 350,000	\$ -	\$ -	\$ -	\$ -	\$ 350,000

Expenditures:	2016	2017	2018	2019	2020	Total
Plans/Studies		-				\$ -
Design						-
Construction	350,000					350,000
Materials						-
Equipment						-
Other -						-
Other -						-
Total Expenditures	\$ 350,000	\$ -	\$ -	\$ -	\$ -	\$ 350,000

## 5-YEAR CAPITAL IMPROVEMENT PROGRAM

**Project Name:** School Zone Safety Assessment

**Project Dates:** **Begin:** Jan-2015 **Finish:** Dec-2016

**Comprehensive Project Cost:** \$100,000.00

**Project Rationale:** School Zone Safety Assessment

**Future Operational Impact:**  Yes  No **Operational Impact Category:** N/A

**Description/Justification:**

The assessment is to analyze existing conditions both in the Right of Way and on school grounds. The assessment will include survey of existing conditions to include signs, ramps, striping, etc. The assessment will also include evaluation of existing pedestrian and traffic movements in and around the school to include both pedestrian and traffic volumes counts during peak school hours. Based on the assessment of existing conditions recommendations will be presented on the overall existing school zone safety and what changes could be implemented to improve overall pedestrian and traffic safety concerns both in the Right of Way and school site.

Source of Funding:	2016	2017	2018	2019	2020	5 - Year Total
General Fund	90,000					\$ 90,000
						-
						-
						-
						-
<b>Total Revenue</b>	<b>\$ 90,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 90,000</b>

Expenditures:	2016	2017	2018	2019	2020	5 - Year Total
Plans/Studies	90,000					\$ 90,000
Design						-
Construction						-
Materials						-
Equipment						-
Other -						-
Other -						-
<b>Total Expenditures</b>	<b>\$ 90,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 90,000</b>

## 5-YEAR CAPITAL IMPROVEMENT PROGRAM

**Project Name:** Market Place Pedestrian Bridge Assessment

**Project Dates:** **Begin:** Jan-2016 **Finish:** Dec-2016

**Comprehensive Project Cost:** \$50,000.00

**Project Rationale:** Bridge Assessment

**Future Operational Impact:**  Yes  No **Operational Impact Category:** N/A

**Description/Justification:**

The assessment is to prepare an investigative study including data gathering in accordance with the National Bridge Inspection Standards (NBIS) to visually inspect the 104th Avenue and I-25 Marketplace Pedestrian bridge and ramps.

Source of Funding:	2016	2017	2018	2019	2020	5 - Year Total
General Fund	50,000					\$ 50,000
						-
						-
						-
<b>Total Revenue</b>	<b>\$ 50,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 50,000</b>

Expenditures:	2016	2017	2018	2019	2020	5 - Year Total
Plans/Studies	50,000					\$ 50,000
Design						-
Construction						-
Materials						-
Equipment						-
Other -						-
Other -						-
<b>Total Expenditures</b>	<b>\$ 50,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 50,000</b>

## 5-YEAR CAPITAL IMPROVEMENT PROGRAM

**Project Name:** Utility Studies - Market Place and Karls Farm

**Project Dates:** **Begin:** Jan-2016 **Finish:** Dec-2016

**Comprehensive Project Cost:** \$150,000.00

**Project Rationale:** Utility Studies

**Future Operational Impact:**  Yes  No **Operational Impact Category:** N/A

**Description/Justification:**

The utility studies are to analyze the existing utilities including water, sewer and storm drainage. Work will include the assessment of the existing conditions, capacity evaluations and review of major drainage way updates. Studies will provide recommendations for utilities and report preparation.

Source of Funding:	2016	2017	2018	2019	2020	5 - Year Total
General Fund	150,000					\$ 150,000
						-
						-
						-
Total Revenue	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ 150,000

Expenditures:	2016	2017	2018	2019	2020	5 - Year Total
Plans/Studies	150,000					\$ 150,000
Design						-
Construction						-
Materials						-
Equipment						-
Other -						-
Other -						-
Total Expenditures	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ 150,000

## 5-YEAR CAPITAL IMPROVEMENT PROGRAM

**Project Name:** Ralston House Development

**Project Dates:** **Begin:** Jan-2016 **Finish:** Dec-2016

**Comprehensive Project Cost:** \$35,000.00

**Project Rationale:** Development

**Future Operational Impact:**  Yes  No **Operational Impact Category:** N/A

**Description/Justification:**  
The Ralston House Development will include hiring of Architectural/Engineering firm to complete building and site improvement documents.

Source of Funding:	2016	2017	2018	2019	2020	5 - Year Total
General Fund	35,000					\$ 35,000
						-
						-
						-
<b>Total Revenue</b>	\$ 35,000	\$ -	\$ -	\$ -	\$ -	\$ 35,000

Expenditures:	2016	2017	2018	2019	2020	5 - Year Total
Plans/Studies	35,000					\$ 35,000
Design						-
Construction						-
Materials						-
Equipment						-
Other -						-
Other -						-
<b>Total Expenditures</b>	\$ 35,000	\$ -	\$ -	\$ -	\$ -	\$ 35,000

## 5-YEAR CAPITAL IMPROVEMENT PROGRAM

**Project Name:** 104th and Grant Intersection Assessment

**Project Dates:** **Begin:** Jan-2016 **Finish:** Dec-2016

**Comprehensive Project Cost:** \$35,000.00

**Project Rationale:** Intersection Assessment

**Future Operational Impact:**  Yes  No **Operational Impact Category:** N/A

**Description/Justification:**

The intersection at 104th and Grant will be assessed to determine if improvements can be made to increase traffic flow and relieve congestion. Analysis will include collection of traffic counts, level of service, intersection queue lengths, traffic signal operations and geometry of the intersection. Concept designs will be provided.

Source of Funding:	2016	2017	2018	2019	2020	5 - Year Total
General Fund	35,000					\$ 35,000
						-
						-
						-
						-
Total Revenue	\$ 35,000	\$ -	\$ -	\$ -	\$ -	\$ 35,000

Expenditures:	2016	2017	2018	2019	2020	5 - Year Total
Plans/Studies	35,000					\$ 35,000
Design						-
Construction						-
Materials						-
Equipment						-
Other -						-
Other -						-
Total Expenditures	\$ 35,000	\$ -	\$ -	\$ -	\$ -	\$ 35,000



## 5-YEAR CAPITAL IMPROVEMENT PROGRAM

**Project Name:** Police and Municipal Court Complex

**Project Dates:** **Begin:** Jan-2016 **Finish:** Dec-2017

**Comprehensive Project Cost:** \$18,000,000.00

**Project Rationale:** Facility

**Future Operational Impact:**  **Yes** **Operational Impact Category:** Negative  
 **No**

**Description/Justification:**

A Master Plan was completed in 2015 to better understand the needs for the Police and Municipal Court Complex. In 2016 plans will include hiring of an Architectural/Engineering firm to complete building and site improvement documents. Construction of the complex will begin in 2017.

Source of Funding:	2016	2017	2018	2019	2020	5 - Year Total
1/2% Sales Tax - Capital Projects	2,500,000	15,500,000				\$ 18,000,000
						-
						-
						-
<b>Total Revenue</b>	<b>\$ 2,500,000</b>	<b>\$ 15,500,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 18,000,000</b>

Expenditures:	2016	2017	2018	2019	2020	5 - Year Total
Plans/Studies						\$ -
Design	2,500,000					2,500,000
Construction		15,500,000				15,500,000
Materials						-
Equipment						-
Other -						-
Other -						-
<b>Total Expenditures</b>	<b>\$ 2,500,000</b>	<b>\$ 15,500,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 18,000,000</b>

## 5-YEAR CAPITAL IMPROVEMENT PROGRAM

**Project Name:** Water Line Replacement Program

**Project Dates:** **Begin:** Ongoing **Finish:** Ongoing

**Comprehensive Project Cost:** \$500,000.00 (5 Year Total)

**Project Rationale:** Maintenance Program

**Future Operational Impact:**  Yes  No **Operational Impact Category:** N/A

**Description/Justification:**  
Rehabilitation of Water Lines throughout the City.

The Water Line Replacement program includes the repair and replacement of the aging water lines throughout the City. The City's water mains are predominately Asbestos Concrete (AC) pipe and because of the corrosive nature of the soil have a shortened life span. In order to ensure continuous water service to the community, the failing water lines must be replaced. In 2012, the City decided to be more proactive in finding leaks before they cause damage to streets and property. A sonic leak detection survey was performed on a small portion of the distribution system, on a trial basis. The survey found that the portion of the distribution system was generally well-maintained, but there were areas of concern that need to be monitored in the future. The City was satisfied with the results of the survey and recommends an ongoing sonic leak detection program. The cost of the sonic leak detection program will be approximately 10 percent of the annual appropriated funding.

Source of Funding:	2016	2017	2018	2019	2020	5 - Year Total
Water & Wastewater Fund	80,000	50,000	50,000	50,000	50,000	\$ 280,000
						-
						-
						-
						-
<b>Total Revenue</b>	<b>\$ 80,000</b>	<b>\$ 50,000</b>	<b>\$ 50,000</b>	<b>\$ 50,000</b>	<b>\$ 50,000</b>	<b>\$ 280,000</b>

Expenditures:	2016	2017	2018	2019	2020	5 - Year Total
Plans/Studies						\$ -
Design						-
Construction	80,000	50,000	50,000	50,000	50,000	280,000
Materials						-
Equipment						-
Other -						-
Other -						-
<b>Total Expenditures</b>	<b>\$ 80,000</b>	<b>\$ 50,000</b>	<b>\$ 50,000</b>	<b>\$ 50,000</b>	<b>\$ 50,000</b>	<b>\$ 280,000</b>

## 5-YEAR CAPITAL IMPROVEMENT PROGRAM

**Project Name:** Standley Lake Pipeline Program

**Project Dates:** **Begin:** Ongoing **Finish:** Ongoing

**Comprehensive Project Cost:** \$726,000 (5 Year Total)

**Project Rationale:** Facility Maintenance

**Future Operational Impact:**  Yes  No **Operational Impact Category:** N/A

**Description/Justification:**

Repair and/or replacement of sections of the Standley Lake Pipeline.

The Standley Lake Pipeline is a 48" pipeline that conveys the City's raw water from Standley Lake to the City of Northglenn Water Treatment Plant. In 2010, the City completed the Standley Lake Pipeline Inspection that employed electromagnetic technology to inspect the entire length of the pipeline for wire breaks and identified areas for future repairs and/or replacement. The Standley Lake Pipeline Inspection report identified approximately 120 feet of the 48" concrete pipe in critical condition and additional sections requiring repair or replacement within the next 5 to 10 years. Project Update: Standley Lake Pipeline Program, Ongoing - this program includes: an ongoing replacement of 120 feet of pipeline in critical condition, at a cost of approximately \$100,000 per 16-foot section, b) surveying and repairing the pipeline's cathodic protection system, and c) additional piping joint repairs to be completed when the pipeline is dewatered for section replacement. All costs associated with maintenance of the pipeline are shared 50/50 with the City of Thornton.

Source of Funding:	2016	2017	2018	2019	2020	5 - Year Total
Water & Wastewater Fund	155,000	128,000	133,000	155,000	155,000	\$ 726,000
						-
						-
						-
						-
<b>Total Revenue</b>	<b>\$ 155,000</b>	<b>\$ 128,000</b>	<b>\$ 133,000</b>	<b>\$ 155,000</b>	<b>\$ 155,000</b>	<b>\$ 726,000</b>

Expenditures:	2016	2017	2018	2019	2020	5 - Year Total
Plans/Studies	25,000	25,000				\$ 50,000
Construction - Replacement Sections	55,300	27,100	30,600	51,100	48,700	212,800
Construction - Additional Joint Repairs	23,200	23,600	24,300	25,000	25,000	121,100
Construction - Cath. Prot. Repairs						-
Equipment						-
Other - Electromagnetic Survey/Engineering	25,000	25,000	50,000	78,900	50,000	228,900
Other - Engineering	26,500	27,300	28,100		31,300	113,200
<b>Total Expenditures</b>	<b>\$ 155,000</b>	<b>\$ 128,000</b>	<b>\$ 133,000</b>	<b>\$ 155,000</b>	<b>\$ 155,000</b>	<b>\$ 726,000</b>

## 5-YEAR CAPITAL IMPROVEMENT PROGRAM

**Project Name:** High Zone Tank Storage Painting

**Project Dates:** **Begin:** Jan-2016 **Finish:** Dec-2016

**Comprehensive Project Cost:** \$100,000.00

**Project Rationale:** Facility Improvements

**Future Operational Impact:**  Yes  No **Operational Impact Category:** N/A

**Description/Justification:**  
In 2015 the engineering assessment, design and interior tank painting was completed. Year two of the project will include exterior painting.

Source of Funding:	2016	2017	2018	2019	2020	5 - Year Total
Water & Wastewater Fund	100,000					\$ 100,000
						-
						-
						-
						-
<b>Total Revenue</b>	<b>\$ 100,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 100,000</b>

Expenditures:	2016	2017	2018	2019	2020	5 - Year Total
Plans/Studies						\$ -
Design						-
Construction	100,000					100,000
Materials						-
Equipment						-
Other -						-
Other -						-
<b>Total Expenditures</b>	<b>\$ 100,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 100,000</b>

## 5-YEAR CAPITAL IMPROVEMENT PROGRAM

**Project Name:** Berthoud Pass Ditch Maintenance - Pipe Design Only

**Project Dates:** **Begin:** Jan-2018 **Finish:** Dec-2018

**Comprehensive Project Cost:** \$350,000.00

**Project Rationale:** To improve deliveries of fully consumable Berthoud Pass water to the Northglenn system.

**Future Operational Impact:**  Yes **Operational Impact Category:** N/A  
 No

**Description/Justification:**

For the design of piping the ditch from US 40 to the siphon entrance. The length of ditch to be piped is approximately 3,000 feet.

Source of Funding:	2016	2017	2018	2019	2020	5 - Year Total
Water & Wastewater Fund			350,000			\$ 350,000
						-
						-
						-
						-
Total Revenue	\$ -	\$ -	\$ 350,000	\$ -	\$ -	\$ 350,000

Expenditures:	2016	2017	2018	2019	2020	5 - Year Total
Plans/Studies						\$ -
Design			350,000			350,000
Construction						-
Materials						-
Equipment						-
Other -						-
Other -						-
Total Expenditures	\$ -	\$ -	\$ 350,000	\$ -	\$ -	\$ 350,000



## 5-YEAR CAPITAL IMPROVEMENT PROGRAM

**Project Name:** Lift Station A Facility Assessment and Rehabilitation

**Project Dates:** **Begin:** Jan-2016 **Finish:** Dec-2016

**Comprehensive Project Cost:** \$390,241.00

**Project Rationale:** Facility Maintenance

**Future Operational Impact:**  Yes  No **Operational Impact Category:** N/A

**Description/Justification:**  
Rehabilitation of Lift Station A.

Lift Station A is a critical component in the sanitary sewer system since it pumps approximately 95% of the City's wastewater to the Wastewater Treatment Facility. The integrity of the lift station must be maintained to provide continued service and to avoid bypassing wastewater flow to the Metro Wastewater Reclamation District via the City of Thornton sewer inter-connect. This project includes replacement of the pump valves, meter, isolation valves, and modification to the electrical system.

Source of Funding:	2016	2017	2018	2019	2020	5 - Year Total
Water & Wastewater Fund	390,241					\$ 390,241
						-
						-
						-
						-
<b>Total Revenue</b>	<b>\$ 390,241</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 390,241</b>

Expenditures:	2016	2017	2018	2019	2020	5 - Year Total
Plans/Studies						\$ -
Design						-
Construction	390,241					390,241
Materials						-
Equipment						-
Other -						-
Other -						-
<b>Total Expenditures</b>	<b>\$ 390,241</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 390,241</b>

## 5-YEAR CAPITAL IMPROVEMENT PROGRAM

**Project Name:** Lift Station B Facility Rehabilitation

**Project Dates:** **Begin:** Jan-2018 **Finish:** Dec-2019

**Comprehensive Project Cost:** \$500,000.00

**Project Rationale:** Maintenance Program

**Future Operational Impact:**  Yes  No **Operational Impact Category:** N/A

**Description/Justification:**

Completing facility assessment and rehabilitation of Lift Station B.

Lift Station B is a major component in the sanitary sewer system since it is the second largest lift station in the City's collection system. Completing a facility assessment would provide recommendation and prioritize necessary improvements to extend the life of the facility. Repairs will be made based on the recommendations of the assessment.

Source of Funding:	2016	2017	2018	2019	2020	5 - Year Total
Water & Wastewater Fund			250,000	250,000		\$ 500,000
						-
						-
						-
						-
Total Revenue	\$ -	\$ -	\$ 250,000	\$ 250,000	\$ -	\$ 500,000

Expenditures:	2016	2017	2018	2019	2020	5 - Year Total
Plans/Studies						\$ -
Design						-
Construction			250,000	250,000		500,000
Materials						-
Equipment						-
Other -						-
Other -						-
Total Expenditures	\$ -	\$ -	\$ 250,000	\$ 250,000	\$ -	\$ 500,000



## 5-YEAR CAPITAL IMPROVEMENT PROGRAM

**Project Name:** WWTP Headworks and 3rd Secondary Clarifier

**Project Dates:** **Begin:** Jan-2014 **Finish:** Dec-2015

**Comprehensive Project Cost:** \$13,000,000.00

**Project Rationale:** Wastewater Utility Plan Update

**Future Operational Impact:**  **Yes**  **No** **Operational Impact Category:** Positive

**Description/Justification:**

Design and Construction of a new Wastewater Treatment Plant headworks and 3rd secondary clarifier.

Headworks facilities are designed for removal of solids in the wastewater stream and are the first stage of wastewater treatment systems. Typically, headworks are composed of screens to remove trash such as rags or plastics and grit chambers to remove sand, gravel or other granules. Removal of the trash and grit prevents unnecessary and considerable wear and tear to the treatment system equipment. Staff currently spend a significant amount of time removing trash from the system and repairing equipment damaged by rags and grit. The headworks and 3rd secondary clarifier design is proposed for 2014, with construction in 2015. Once the headworks is in operation, the decommissioning of the existing lagoons can commence. Although there is anticipated to be a moderate increase in the tasks associated with operating a headworks, this increase should be offset by the removal of the maintenance requirements for the lagoons. The existing clarifiers are the limiting factor in the overall capacity at the WWTP. Design for expansion is required by the "Colorado Water Quality Control Act" once a facility has reached 80% of it's existing capacity. A 3rd secondary clarifier will provide redundancy in the system and increase the overall capacity of the facility to meet the planned future flows.

Source of Funding:	2016	2017	2018	2019	2020	5 - Year Total
Water & Wastewater Fund	9,537,956					\$ 9,537,956
						-
						-
						-
						-
<b>Total Revenue</b>	<b>\$ 9,537,956</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 9,537,956</b>

Expenditures:	2016	2017	2018	2019	2020	5 - Year Total
Plans/Studies						\$ -
Design						-
Construction	9,537,956					9,537,956
Materials						-
Equipment						-
Other -						-
Other -						-
<b>Total Expenditures</b>	<b>\$ 9,537,956</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 9,537,956</b>

## 5-YEAR CAPITAL IMPROVEMENT PROGRAM

**Project Name:** Decommission Southern Lagoon

**Project Dates:** **Begin:** Jan-2015 **Finish:** Dec-2017

**Comprehensive Project Cost:** \$1,440,000.00

**Project Rationale:** Facility Improvements

**Future Operational Impact:**  Yes  No **Operational Impact Category:** N/A

**Description/Justification:**

Decommission Existing Southern Lagoon at Wastewater Treatment Facility.

As part of the design and construction of the full mechanical wastewater treatment facility in 2014 and 2015 the southern lagoon will no longer be required. In 2015 the design and process of how the south lagoon will be decommissioned will take place and construction is anticipated to start in 2016.

Source of Funding:	2016	2017	2018	2019	2020	5 - Year Total
Water & Wastewater Fund	240,000	1,200,000				\$ 1,440,000
						-
						-
						-
						-
<b>Total Revenue</b>	<b>\$ 240,000</b>	<b>\$ 1,200,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,440,000</b>

Expenditures:	2016	2017	2018	2019	2020	5 - Year Total
Plans/Studies						\$ -
Design	240,000					240,000
Construction		1,200,000				1,200,000
Materials						-
Equipment						-
Other -						-
Other -						-
<b>Total Expenditures</b>	<b>\$ 240,000</b>	<b>\$ 1,200,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,440,000</b>



## 5-YEAR CAPITAL IMPROVEMENT PROGRAM

**Project Name:** Brantner Gulch and Tributaries Master Drainage Plan Update & Flood Hazard Area Delineation

**Project Dates:** **Begin:** Jan-2018 **Finish:** Dec-2018

**Comprehensive Project Cost:** \$100,000.00

**Project Rationale:** FEMA Mapping Updates

**Future Operational Impact:**  Yes  No **Operational Impact Category:** N/A

**Description/Justification:**

In conjunction with the Urban Drainage & Flood Control District, Thornton and Adams County we would update the entire Brantner Gulch & Tributaries 1983 Master Drainage Plan and Flood Hazard Area Delineation to develop documentation for application to FEMA on Letter of Map Revisions (LOMR) for areas within the City that should no longer be considered to be in the Floodplain. This would lead to obtaining approval from FEMA for the LOMRs.

Upstream development or storm sewer infrastructure upgrades completed since 1983 (and never formally documented and accepted by FEMA) have positively impacted areas within the City that previously were mapped by FEMA as being within the 100-year floodplain. Removal of these areas from the official FEMA mapping would allow the property owners affected to potentially reduce or cease paying for flood insurance and reduce the City's liabilities under the National Flood Insurance Program. This action was suggested in the City-Wide Drainage Master Plan Update.

Source of Funding:	2015	2016	2017	2018	2019	5 - Year Total
Stormwater Fund				100,000		\$ 100,000
						-
						-
						-
						-
<b>Total Revenue</b>	\$ -	\$ -	\$ -	\$ 100,000	\$ -	\$ 100,000

Expenditures:	2015	2016	2017	2018	2019	5 - Year Total
Plans/Studies				100,000		\$ 100,000
Design						-
Construction						-
Materials						-
Equipment						-
Other -						-
Other -						-
<b>Total Expenditures</b>	\$ -	\$ -	\$ -	\$ 100,000	\$ -	\$ 100,000

## 5-YEAR CAPITAL IMPROVEMENT PROGRAM

**Project Name:** Grange Hall Creek: Grant Dr. to Irma Dr. - Phase 1 A, Larson Drive Improvements

**Project Dates:** **Begin:** Jan-2017 **Finish:** Dec-2017

**Comprehensive Project Cost:** \$1,300,000.00

**Project Rationale:** Drainage System Improvements & Upgrades

**Future Operational Impact:**  Yes  No **Operational Impact Category:** N/A

**Description/Justification:**

Construct Grange Hall Creek Phase 1A improvements. The Urban Drainage & Flood Control District (UDFCD) and the city previously completed design and construction documents for this part of the Washington Street Detention project. Unfortunately sufficient funding was not available to construct the culvert improvements and channel stabilization improvements on either side of Larson Drive with the improvements at Washington Street. The culvert and channel improvements at Larson are critical to the hydraulic functioning of the drainageway. We will continue to see inundation of the pedestrian box culvert during almost every storm event, until such time that the culvert at Larson Dr is improved.

Source of Funding:	2016	2017	2018	2019	2020	5 - Year Total
Stormwater Fund		1,300,000				\$ 1,300,000
						-
						-
						-
						-
<b>Total Revenue</b>	\$ -	\$ 1,300,000	\$ -	\$ -	\$ -	\$ 1,300,000

Expenditures:	2016	2017	2018	2019	2020	5 - Year Total
Plans/Studies						\$ -
Design						-
Construction		1,300,000				1,300,000
Materials						-
Equipment						-
Other -						-
Other -						-
<b>Total Expenditures</b>	\$ -	\$ 1,300,000	\$ -	\$ -	\$ -	\$ 1,300,000