LETTER OF INTRODUCTION FOR THE FIVE YEAR CAPITAL IMPROVEMENT PROGRAM

September 18, 2018

Honorable Mayor and Members of the Town Council,

Hereby submitted is the Five Year Capital Improvement Program (CIP) for the Town of Castle Rock, Colorado for the years 2019 through 2023. The 2019 Budget allows for $83,220,785 associated with the Capital Improvement Program, including accumulation of reserve funds for the North Meadows Drive Widening and Crystal Valley Parkway Interchange projects. The Funding Source information in the following pages is intended to identify the revenue that is planned to pay for the capital projects included. While additional revenue is anticipated to be received each year, this information identifies only what is necessary to fund the Capital Improvement Program.

The CIP summarizes all major capital expenditures to be made over the next five years. This budget contains a summary of revenue sources and CIP costs by fund and year in which the revenues and costs are anticipated. In order to be included in the CIP, the project must meet the following guidelines:

- Costs are expected to be over $25,000
- The resulting project has a useful life of more than one year
- The project results in the addition of a fixed asset, or extends the useful life of an existing asset or is a major software purchase
- The Town must have full ownership, or be a significant holder in a joint venture asset. For example, software that is licensed by the Town and owned by the vendor is not considered a capital asset of the Town.

During the preparation process, staff identified what would be necessary to meet existing levels of service to the community and which projects could reasonably be accomplished within each year, within the financial and staff limitations of the Town. Contractual obligations and/or needs were considered in setting the priorities.

Capital improvements are funded through a variety of sources including the use of reserves, impact fees, debt financing, grants, building use taxes and operating revenues. All available current and future resources were considered when identifying funding sources for the identified capital improvements. For example, the estimated available reserve balance was calculated and shown as a funding source, as well as estimated impact fees, building use taxes, and other revenue sources. The CIP costs projected meet, but do not exceed, the limitations of those funding sources.

Sincerely,

David L. Corliss
Town Manager

RESOLUTION NO. 2018-083

A RESOLUTION APPROVING THE 2019 TO 2023 FIVE-YEAR CAPITAL IMPROVEMENT PROGRAM

WHEREAS, the Town of Castle Rock, in accordance with Sections 9-5 and 9-8 of the Town of Castle Rock Home Rule Charter has prepared a Five-Year Capital Improvement Program, and

WHEREAS, the Five-Year Capital Improvement Program was discussed at the September 4, 2018 meeting and considered separately at a public hearing on September 18, 2018 as part of the 2019 Budget; and

NOW, THEREFORE BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF CASTLE ROCK AS FOLLOWS:

Section 1. **Approval**. The 2019 – 2023 Five-Year Capital Improvement Program of the Town of Castle Rock, CO in the form attached as ***Exhibit 1*** is hereby approved.

PASSED, APPROVED AND ADOPTED this 18th day of September, 2018, by the Town Council of the Town of Castle Rock, Colorado, on first and final reading by a vote of 7 for and 0 against.

ATTEST:

Lisa Anderson, Town Clerk

TOWN OF CASTLE ROCK

Jennifer Green, Mayor

Approved as to form:

Robert J. Slentz, Town Attorney

Approved as to content:

Trish Muller, Finance Director

TOWN OF CASTLE ROCK SEAL APRIL 14, 1881 COLORADO

2019-2023 CAPITAL IMPROVEMENT PROGRAM SUMMARY - ALL FUNDS

TOTAL CIP EXPENDITURES BY FUND AND YEAR

Fund	2019	2020	2021	2022	2023	Total
General Fund	$ 496,493	$ 1,033,754	$ 1,232,342	$ 1,349,069	$ 1,584,151	$ 5,695,809
General Long Term Planning	325,000	1,142,100	295,000	295,000	345,000	2,402,100
Transportation Fund	1,795,000	4,011,000	927,000	948,000	540,000	8,221,000
Transportation Capital Fund	7,032,500	6,226,000	11,063,863	12,554,810	17,037,725	53,914,898
Conservation Trust Fund	600,000	600,000	600,000	600,000	600,000	3,000,000
Parks and Rec Capital Fund	200,000	3,400,000	200,000	3,400,000	200,000	7,400,000
Fire Capital	75,000	20,000	10,000	10,000	10,000	125,000
Water Fund	7,563,371	7,006,277	5,944,609	3,850,000	4,226,000	28,590,257
Water Resource Fund	37,090,668	18,433,668	9,877,662	3,761,978	10,565,172	79,729,148
Stormwater Fund	4,910,129	3,099,885	3,041,802	2,347,970	2,914,637	16,314,423
Wastewater Fund	19,719,140	4,489,941	3,039,935	1,641,764	3,150,465	32,041,245
Fleet Fund	2,272,971	2,222,599	2,698,259	4,069,148	3,421,232	14,684,209
Golf Fund	570,513	120,000	499,356	38,606	484,628	1,713,103
Community Center Fund	570,000	225,000	-	300,000	-	1,095,000
Total by Year	**$ 83,220,785**	**$ 52,030,224**	**$ 39,429,828**	**$ 35,166,345**	**$ 45,079,010**	**$ 254,926,192**

FUNDING SOURCE SUMMARY

Funding Source information is intended to identify the revenue that is planned to pay for the capital projects included. While additional revenue is anticipated to be received each year, this information identifies only what is necessary to fund the Capital Improvement Program.

Source	2019	2020	2021	2022	2023	Total
Sales Tax	$ 1,066,493	$ 1,258,754	$ 1,232,342	$ 1,649,069	$ 1,584,151	$ 6,790,809
Building Use Tax	5,987,500	5,190,600	5,042,500	6,543,000	2,710,600	25,474,200
Road and Bridge Tax	800,000	500,000	500,000	500,000	500,000	2,800,000
Colorado Lottery Funds	165,000	165,000	165,000	165,000	165,000	825,000
Impact Fees	2,640,000	9,108,500	6,953,363	10,164,810	14,922,125	43,788,798
Metered Water Sales	2,435,000	4,563,000	1,919,000	3,250,000	1,250,000	13,417,000
System Development Fees	49,247,503	17,891,904	13,724,022	4,976,329	11,176,824	97,016,582
Water Resources Fees	14,811,150	7,147,409	3,951,065	1,504,791	4,226,069	31,640,483
Stormwater Charges	1,733,296	1,920,099	1,362,921	955,592	1,171,381	7,143,289
Wastewater Service Charges	1,056,359	1,507,359	947,000	915,000	3,032,000	7,457,719
Vehicle Repl. Contributions	1,931,921	2,000,297	2,502,906	3,792,702	3,204,994	13,432,820
Vehicle Salvage	150,195	149,997	181,583	262,194	216,238	960,207
Transfers from Other Funds	190,855	72,305	13,770	14,252	-	291,182
Douglas County Shareback	435,000	435,000	435,000	435,000	435,000	2,175,000
Charges for Service	570,513	120,000	499,356	38,606	484,628	1,713,103
Total by Year	**$ 83,220,785**	**$ 52,030,224**	**$ 39,429,828**	**$ 35,166,345**	**$ 45,079,010**	**$ 254,926,192**

2019-2023 CAPITAL IMPROVEMENT PROGRAM

TOWNWIDE

SUMMARY OF ESTIMATED ONGOING OPERATING COSTS

BY FUND [1]

Department / Division	Project Name	2019	2020	2021	2022	2023
General Fund						
	Unmanned Aerial Vehicle	$ -	$ -	$ 2,600	$ 2,600	$ 2,600
General Long Term Planning Fund						
	Draft Commander (2)	(10,000)	(10,000)	(10,000)	(10,000)	(10,000)
	Auto Extrication Equipment	-	3,000	3,000	3,000	3,000
Transportation Fund						
	Traffic Signal Program	5,200	2,600	2,600	2,600	2,600
Fire Capital Fund						
	Station 152 Vehicle Equipment	2,000	2,000	2,000	2,000	2,000
Water Fund						
	Pump & Distribution System Upgrades	-	30,074	30,074	30,074	30,074
	Administration & Customer Service Building	-	-	12,119	12,119	12,119
Water Resources Fund						
	WISE Project	500,000	500,000	1,500,000	1,500,000	1,500,000
	Chatfield Reallocation Project	-	-	100,000	100,000	100,000
	Administration & Customer Service Building	-	-	5,689	5,689	5,689
	Plum Creek Diversion	-	2,300,000	2,300,000	2,300,000	2,300,000
	PCWPF Expansion	820,000	1,100,000	1,100,000	1,100,000	1,100,000
	Stream Gages	15,000	15,000	15,000	15,000	15,000
Stormwater Fund						
	Administration & Customer Service Building	-	-	5,510	5,510	5,510
Wastewater Fund						
	Administration & Customer Service Building	-	-	6,682	6,682	6,682
Total Ongoing Operating Expenditures by Year		**$ 1,332,200**	**$ 3,942,674**	**$ 5,075,274**	**$ 5,075,274**	**$ 5,075,274**

NOTE: New vehicle additions to the fleet are incorporated and paid for in each individual department. Operating costs associated with a vehicle addition on average are $986 for repair and maintenance and $1,200 for fuel annually

(1) Existing Capital Improvement Programs included above reflect projects with known ongoing operating costs
(2) Savings in Water-Sewer expenditures are anticipated

2019-2023 CAPITAL IMPROVEMENT PROGRAM

GENERAL FUND

PROJECTS & FUNDING SOURCES BY DEPARTMENT

Project Expenditures	2019	2020	2021	2022	2023	Total
Fire & Rescue Department						
Unmanned Aerial Vehicle	$ -	$ -	$ 30,000	$ -	$ -	$ 30,000
Bullex Digital Fire Simulator	39,100	-	-	-	-	39,100
Parks & Recreation Department						
Annual Trail Improvements	73,593	607,754	638,142	670,049	703,551	2,693,089
DoIT Department						
Cisco Devices	294,800	374,000	475,200	602,800	765,600	2,512,400
Server Replacement	89,000	52,000	89,000	76,220	115,000	421,220
Total Expenditures by Year	**$ 496,493**	**$ 1,033,754**	**$ 1,232,342**	**$ 1,349,069**	**$ 1,584,151**	**$ 5,695,809**

Project Funding Sources	2019	2020	2021	2022	2023	Total
Sales Tax	$ 496,493	$ 1,033,754	$ 1,232,342	$ 1,349,069	$ 1,584,151	$ 5,695,809
Total Funding Sources by Year	**$ 496,493**	**$ 1,033,754**	**$ 1,232,342**	**$ 1,349,069**	**$ 1,584,151**	**$ 5,695,809**

Funding Source information is intended to identify the revenue that is planned to pay for the capital projects included. While additional revenue is anticipated to be received each year, this information identifies only what is necessary to fund the Capital Improvement Program.

Fire and Rescue Department Apparatus and Personnel

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Unmanned Aerial Vehicle**

Project Number: 70-30
Contact: Brian Dimock, Division Chief & Fire Marshal
Department: Fire Department
Category: Equipment
Type: New
Useful Life: 3-5 years

5 Year Historical Total	$	138,801
2019-2023 Total		30,000
CIP Project Total (2014-2023):	**$**	**168,801**

Description and Justification

The Fire Department Unmanned Aerial Vehicle (UAV) program has been in place since 2016. UAVs are used almost daily for incident support, documentation, inspections, and training. Pilots are FAA licensed UAV pilots, operating within federal guidelines. The UAV Team also provides support to Castle Rock Police Department, Douglas County Sheriff's Office, Colorado State Patrol, and Douglas County Search and Rescue, as well as mutual aid to other departments, including our Town partners. Day to day UAV operations are typically accomplished utilizing the small platform Mavic Pro quadcopters equipped with HD color video and photo technology. For specialized UAV flight operations the Inspire 1 quadcopters are currently being used, but they are limited to a single camera, allowing fo either a color HD or Thermal (FLIR) can be operated. This can become a limiting factor during complex missions, fire operations, search and rescue, SWAT operations, and other public safety uses. The Matrice 210 model solves many of these limitations in the fact that it incorporates in its technology a gimbal mounted Thermal FLIR camera, as well as a second gimbal mounted HD Color camera that can be operated independently of one another. This UAV would significantly increase the capabilities of the UAV program to support our partners in public safety, as well as protecting the community through the use of innovative cost effective aerial technology at far less expense rate than manned aircraft. Through adding an optional tethering kit, the Matrice 210 can climb to 400 feet above the ground, providing a continuous power supply for unlimited flight time to monitor safety at large events, fires, or other public safety needs. When time is of essence and weather conditions turn foul, first responders require a versatile and reliable aerial platform. The Matrice 210 is able to carry visual and/or thermal sensors at the same time, the 210 provides situational awareness of potentially dangerous situations, such as fires and natural disasters. This technology allows the incident commanders to use data collected by the aircraft to make smarter and better decisions, protecting life and property while minimizing the safety risk to rescue personnel.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
UAV Purchase	$ -	$ -	$ 30,000	$ -	$ -	$ 30,000
Total Expenditures	**$ -**	**$ -**	**$ 30,000**	**$ -**	**$ -**	**$ 30,000**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Sales Tax	$ -	$ -	$ 30,000	$ -	$ -	$ 30,000
Total Funding Sources	**$ -**	**$ -**	**$ 30,000**	**$ -**	**$ -**	**$ 30,000**

Operational Impact

Operating expenditures are reflected within the Fire Department's budget, totalling approximately $2,600 per year.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Bullex Digital Fire Simulator**

Project Number: 70-30
Contact: Christopher McCarthy, Division Chief
Department: Fire Department
Category: Equipment
Type: New
Useful Life: 5 years

5 Year Historical Total	$	16,940
2019-2023 Total		39,100
CIP Project Total (2014-2023):	**$**	**56,040**

Description and Justification

This request is intended to accommodate the purchase of two Bullex Digital Fire Simulators to enable the Training Division to conduct simulated fire training in multiple areas of the Fire Training Tower without violating NFPA 1403 Standard on Live Fire Training Evolutions. This is in line with the department mission of high customer satisfaction through quality preparation and excellent service.

This request aligns with Council priorities of providing outstanding public health and safety services, and will assist us in preparing our members to fight fires. There are no other alternatives other than to not conduct realistic training, and there are no associated ongoing maintenance costs.

Expenditures	2019	2020	2021	2022	2023	Total
Simulator Purchase	$ 39,100	$ -	$ -	$ -	$ -	$ 39,100
Total Expenditures	**$ 39,100**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 39,100**

Funding Sources	2019	2020	2021	2022	2023	Total
Sales Tax	$ 39,100	$ -	$ -	$ -	$ -	$ 39,100
Total Funding Sources	**$ 39,100**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 39,100**

Operational Impact

No additional operating expenditures are anticipated as a result of this purchase.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Annual Trail Improvements**

Project Number:	75-14
Contact:	Jeff Smullen, Assistant Director of Parks & Recreation
Department:	Parks & Recreation Department
Category:	Parks/Trails
Type:	New
Useful Life:	50 years

5 Year Historical Total	$	4,278,369
2019-2023 Total		2,693,089
CIP Project Total (2014-2023):	**$**	**6,971,458**

Description and Justification

Annual Trail Improvements are funded by sales tax, a portion of which was enacted by voters to fund trail improvements throughout Castle Rock. As a result, the trails account receives an annual transfer from a portion of sales tax through the Town's Transportation Fund in addition to outside contributions, such as grant support when available. Public Works and the Parks and Recreation Department have worked to evaluate all potential projects and create a capital plan that addresses priorities for both sidewalks and trails. Design of Sellars Gulch Trail, McMurdo Gulch Trail, and a soft-surface trail at Gateway Mesa Open Space is planned in 2019 with some construction expected to begin in 2020.

Projects in outgoing years will be determined based on identified needs throughout the Town and will be implemented as funding is available.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Construction Contracts	$ 73,593	$ 607,754	$ 638,142	$ 670,049	$ 703,551	$ 2,693,089
Total Expenditures	**$ 73,593**	**$ 607,754**	**$ 638,142**	**$ 670,049**	**$ 703,551**	**$ 2,693,089**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Sales Tax	$ 73,593	$ 607,754	$ 638,142	$ 670,049	$ 703,551	$ 2,693,089
Total Funding Sources	**$ 73,593**	**$ 607,754**	**$ 638,142**	**$ 670,049**	**$ 703,551**	**$ 2,693,089**

Operational Impact

Costs to maintain the addition to the trail will be minimal and can be accommodated within current budgeted resources.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Cisco Devices**

Project Number: 76-80
Contact: Jennifer Jaeger, Chief Technology Officer
Department: Division of Innovation and Technology
Category: Technology
Type: Replacement
Useful Life: 5 years

5 Year Historical Total	$	663,039
2019-2023 Total		2,512,400
CIP Project Total (2014-2023):	**$**	**3,175,439**

Description and Justification

This project will replace a portion of Cisco networking devices including any that are five years or older. Network devices are an essential requirement to deliver data between computers and servers. If a Cisco network device fails, data cannot be delivered, and employee productivity is greatly reduced. Maintaining these devices is important for daily work of almost every Town employee.

The Town is no longer able to buy support for some of these devices, and the likelihood of failure increases with age. Proactive replacement of the devices will avoid excessive downtime from an unscheduled failure while allowing staff to find and buy the best replacement option. Cisco devices grow at an annual rate of 27%. Replacement costs are estimated as follows, per year:

- 2019 based on 20% of 268 devices
- 2020 based on 20% of 340 devices
- 2021 based on 20% of 432 devices
- 2022 based on 20% of 548 devices
- 2023 based on 20% of 696 devices

The cost of devices vary, but average $5,500 each.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Cisco Devices	$ 294,800	$ 374,000	$ 475,200	$ 602,800	$ 765,600	$ 2,512,400
Total Expenditures	**$ 294,800**	**$ 374,000**	**$ 475,200**	**$ 602,800**	**$ 765,600**	**$ 2,512,400**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Sales Tax	$ 294,800	$ 374,000	$ 475,200	$ 602,800	$ 765,600	$ 2,512,400
Total Funding Sources	**$ 294,800**	**$ 374,000**	**$ 475,200**	**$ 602,800**	**$ 765,600**	**$ 2,512,400**

Operational Impact

No additional revenues or expenditures are anticipated as a result of this project.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Server Replacement**

Project Number: 76-83
Contact: Jennifer Jaeger, Chief Technology Officer
Department: Division of Innovation and Technology
Category: Technology
Type: Replacement
Useful Life: 5 years

5 Year Historical Total	$	291,155
2019-2023 Total		421,220
CIP Project Total (2014-2023):	**$**	**712,375**

Description and Justification

Funding requested for this project will be used to replace a percentage of the 16 physical servers in Town each year to make sure critical business operations continue to run without interruption. These 16 physical servers house 145 virtual servers that contain Town data for every application used by Town employees. Just like computers on desktops, the backend servers get old and must be replaced before a critical hardware failure causes excessive downtime. If a physical server should fail, multiple departments would be affected, resulting in impacts to productivity and corresponding levels of service. Five year old servers need to be replaced or the Town risks failures, which could potentially result in major outages. A regular schedule will keep systems healthy and vendor support available. 3 of the 16 physical servers require replacement in 2019.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Server Equipment	$ 74,000	$ 37,000	$ 74,000	$ 61,220	$ 100,000	$ 346,220
UPS Remote Server	15,000	15,000	15,000	15,000	15,000	75,000
Total Expenditures	**$ 89,000**	**$ 52,000**	**$ 89,000**	**$ 76,220**	**$ 115,000**	**$ 421,220**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Sales Tax	$ 89,000	$ 52,000	$ 89,000	$ 76,220	$ 115,000	$ 421,220
Total Funding Sources	**$ 89,000**	**$ 52,000**	**$ 89,000**	**$ 76,220**	**$ 115,000**	**$ 421,220**

Operational Impact

No additional revenues or expenditures are anticipated as a result of this project.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

GENERAL LONG TERM PLANNING FUND*

TOWN MANAGER

PROJECTS & FUNDING SOURCES BY DEPARTMENT

Project Expenditures	2019	2020	2021	2022	2023	Total
Synthetic Turf Replacement	$ -	$ 216,000	$ 295,000	$ 295,000	$ 345,000	$ 1,151,000
Self Contained Breathing Apparatus	-	926,100	-	-	-	926,100
Fire Equipment	175,000	-	-	-	-	175,000
Auto Extrication Equipment	150,000	-	-	-	-	150,000
Total Expenditures by Year	**$ 325,000**	**$ 1,142,100**	**$ 295,000**	**$ 295,000**	**$ 345,000**	**$ 2,402,100**

Project Funding Sources	2019	2020	2021	2022	2023	Total
Building Use Tax	$ 325,000	$ 1,142,100	$ 295,000	$ 295,000	$ 345,000	$ 2,402,100
Total Funding Sources by Year	**$ 325,000**	**$ 1,142,100**	**$ 295,000**	**$ 295,000**	**$ 345,000**	**$ 2,402,100**

Funding Source information is intended to identify the revenue that is planned to pay for the capital projects included. While additional revenue is anticipated to be received each year, this information identifies only what is necessary to fund the Capital Improvement Program.

**The General Long Term Planning fund is utlizied for one time repairs, improvements, and replacement of Town facilities, technology, and infrastructure*

Castle Rock Sunset

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Synthetic Turf Replacement**

Project Number: 78-47
Contact: Jeff Smullen, Assistant Director of Parks & Recreation
Department: Parks & Recreation Department
Category: Parks/Trails
Type: Replacement
Useful Life: 10 years

5 Year Historical Total	$	-
2019-2023 Total		1,151,000
CIP Project Total (2014-2023):	**$**	**1,151,000**

Description and Justification

The Parks and Recreation department requests funding for synthetic turf replacement in 2020 for Butterfield Park, 2021 for Gemstone Park, 2022 for Matney Park, and 2023 for Rhyolite Regional Park. Turf on field sites is nearing the end of the expected life and will need to be replaced in order to maintain proper safety levels, and to maintain the functional and aesthetic quality of these parks. Synthetic turf surfaces are regularly evaluated for safety and actual project timing may change based on this ongoing evaluation.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Site Improvements	$ -	$ 216,000	$ 295,000	$ 295,000	$ 345,000	$ 1,151,000
Total Expenditures	**$ -**	**$ 216,000**	**$ 295,000**	**$ 295,000**	**$ 345,000**	**$ 1,151,000**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Building Use Tax	$ -	$ 216,000	$ 295,000	$ 295,000	$ 345,000	$ 1,151,000
Total Funding Sources	**$ -**	**$ 216,000**	**$ 295,000**	**$ 295,000**	**$ 345,000**	**$ 1,151,000**

Operational Impact

No additional revenues or expenditures are anticipated as a result of this project.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Self Contained Breathing Apparatus**

Project Number: 70-30
Contact: Norris Croom, Fire Chief
Department: Fire Department
Category: Equipment
Type: Replacement
Useful Life: 10 years

5 Year Historical Total	$	26,389
2019-2023 Total		926,100
CIP Project Total (2014-2023):	**$**	**952,489**

Description and Justification

The Fire and Rescue Department utilizes Self Contained Breathing Apparatus (SCBAs), which allow responders to breathe safely when entering hazardous environments as a result of fires, hazardous materials incidents, or any other type of incident that could create a hazardous breathing environment. Current equipment was purchased in 2010, and will reach end of life in 2020.

This request is to replace the old equipment with current and more technologically advanced equipment to ensure continued maintainance of exsisting level of service. This cost is an estimate at this time to replace all of our existing equipment, but it's based on current costs with a 5% inflation rate. The department will monitor costs as we move into future years and should be able to provide a more accurate estimate as we get closer to 2020. Currently, there are 75 SCBAs, at a cost of $9,000 each for a total of $675,000. Additionally, there are 150 SCBA cylinders at a cost of $1,100 each, or $165,000, for a total cost of $840,000. Using these cost estimates plus inflation, this request is for $926,100. There is a possibility to lease/purchase this equipment to spread the cost out over several years if needed.

This aligns with the Council priority of providing outstanding public health and safety. Replacement of this equipment will maintain exsisting level of service, while not replacing them could reduce levels of service should the old SCBAs fail or become non-compliant.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
SCBA Purchase	$ -	$ 926,100	$ -	$ -	$ -	$ 926,100
Total Expenditures	**$ -**	**$ 926,100**	**$ -**	**$ -**	**$ -**	**$ 926,100**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Building Use Tax	$ -	$ 926,100	$ -	$ -	$ -	$ 926,100
Total Funding Sources	**$ -**	**$ 926,100**	**$ -**	**$ -**	**$ -**	**$ 926,100**

Operational Impact

There should be minimal to no operational costs associated with cost of this equipment other than the required annual inspection and maintenance as well as hydrotesting of the SCBA bottles.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name — Fire Equipment

Project Number: 70-30
Contact: Norris Croom, Fire Chief Fire
Department: Department
Category: Equipment
Type: New
Useful Life: 5 years

5 Year Historical Total	$	26,389
2019-2023 Total		175,000
CIP Project Total (2014-2023):	**$**	**201,389**

Description and Justification

This requested project includes multiple items. The first is a Draft Commander, which is a mobile pump testing unit used to test fire apparatus water pumping equipment. This purchase would benefit the Fire Department fleet annual pump testing, as well as testing after major repairs, as per the National Fire Protection Association (NFPA). This purchase would also be of benefit to Training, as it would allow the testing and training of nozzles, engineer testing and training, and training and flowing water by re-cycling water when the Town is on water restrictions. The Draft Commander could also be used as a mobile fill site if needed. This equipment is a multi-use device that contributes greatly to improving department training and maintenance capabilities while conserving water for the Town, which is a significant community issue.

This request also accommodates the purchase of truck lifts to be used in the repair and maintenance of the Fire Department fleet. These lifts would also have scale capabilities and can be used to perform annual weighing of all fire units. Currently, the department has to drive apparatus to a local company for use of their scale to weigh all vehicles. Included in this quote is six lifts and four large stands for use with the lifts. This request will allow the Fire Senior Emergency Vehicle Technician to better perform maintenance and service on our apparatus as there is currently no way to lift apparatus, thus all work is done from the floor.

This request aligns with Council priorities of providing outstanding public health and safety services, and will assist in preparing staff members to fight fires. There are no other alternatives other than to not conduct realistic training, and there are no associated ongoing maintenance costs.

Expenditures	2019	2020	2021	2022	2023	Total
Draft Commander	$ 110,000	$ -	$ -	$ -	$ -	$ 110,000
Truck Lifts	65,000	-	-	-	-	65,000
Total Expenditures	**$ 175,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 175,000**

Funding Sources	2019	2020	2021	2022	2023	Total
Building Use Tax	$ 175,000	$ -	$ -	$ -	$ -	$ 175,000
Total Funding Sources	**$ 175,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 175,000**

Operational Impact

Purchase of the Draft Commander will result in $10,000 per year savings in testing fees paid to other agencies, as well as savings in drive time for staff and reduced water consumption due to the unit using recirculated water.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Auto Extrication Equipment**

Project Number: 70-30
Contact: Norris Croom, Fire Chief
Department: Fire Department
Category: Equipment
Type: Replacement
Useful Life: 10 years

5 Year Historical Total	$	26,389
2019-2023 Total		150,000
CIP Project Total (2014-2023):	**$**	**176,389**

Description and Justification

The Fire and Rescue Department utilizes vehicle extrication tools to extricate patients from auto accidents. The current equipment was purchased in 2009, and will reach end of life in 2019. This request is to replace the old equipment with current and technologically advanced equipment to ensure continuing maintenance of this level of service as automobile manufacturers continue to change the construction of their vehicles. This cost is an estimate at this time to replace all existing equipment and is based on current costs with a 3% inflation rate. Costs will be monitored and updated to provide a more accurate estimate.

This request aligns with the Council priority of providing outstanding public health and safety. Replacement of this equipment will maintain levels of service, while not replacing them could reduce the level of service should the old tools fail or not be able to cut through the more modern car materials.

Expenditures	2019	2020	2021	2022	2023	Total
EMS Equipment	$ 150,000	$ -	$ -	$ -	$ -	$ 150,000
Total Expenditures	**$ 150,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 150,000**

Funding Sources	2019	2020	2021	2022	2023	Total
Building Use Tax	$ 150,000	$ -	$ -	$ -	$ -	$ 150,000
Total Funding Sources	**$ 150,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 150,000**

Operational Impact

A total of $3,000 is included in operating expenses beginning in 2020 in the Fire and Rescue Operations Division in the General Fund to accomodate estimated ongoing maintenance costs related to this equipment.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

TRANSPORTATION FUND

PUBLIC WORKS DEPARTMENT

PROJECTS & FUNDING SOURCES BY DEPARTMENT

Project Expenditures	2019	2020	2021	2022	2023	Total
Miscellaneous Projects & Studies	$ 75,000	$ 75,000	$ 75,000	$ 75,000	$ 75,000	$ 375,000
Traffic Safety Improvements	50,000	50,000	50,000	50,000	50,000	250,000
Traffic Signal Program	550,000	250,000	250,000	250,000	250,000	1,550,000
Neighborhood Traffic Calming	25,000	25,000	25,000	25,000	25,000	125,000
Development Related Projects	100,000	100,000	100,000	100,000	100,000	500,000
ADA Ramps	40,000	40,000	40,000	40,000	40,000	200,000
Craig & Gould N. Infrastructure	800,000	3,100,000	-	-	-	3,900,000
Downtown Alley Improvements	100,000	315,000	330,000	350,000	-	1,095,000
Illuminated Street Name Signs	55,000	56,000	57,000	58,000	-	226,000
Total Expenditures by Year	**$ 1,795,000**	**$ 4,011,000**	**$ 927,000**	**$ 948,000**	**$ 540,000**	**$ 8,221,000**

Project Funding Sources	2019	2020	2021	2022	2023	Total
Road and Bridge Tax	$ 800,000	$ 500,000	$ 500,000	$ 500,000	$ 500,000	$ 2,800,000
Building Use Tax	995,000	3,511,000	427,000	448,000	40,000	5,421,000
Total Funding Sources by Year	**$ 1,795,000**	**$ 4,011,000**	**$ 927,000**	**$ 948,000**	**$ 540,000**	**$ 8,221,000**

Funding Source information is intended to identify the revenue that is planned to pay for the capital projects included. While additional revenue is anticipated to be received each year, this information identifies only what is necessary to fund the Capital Improvement Program.

Curb and Gutter Work in Progres

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Miscellaneous Projects & Studies**

Project Number: 75-24
Contact: Carl Armijo, Project Manager
Department: Public Works Department
Category: Infrastructure
Type: New
Useful Life: Variable

5 Year Historical Total	$	127,371
2019-2023 Total		375,000
CIP Project Total (2014-2023):	**$**	**502,371**

Description and Justification

Small projects and studies are typically identified during the year that are currently unknown. Projects typically arise that were not accounted for or specifically identified in the annual budget process. The purpose of this miscellaneous projects account is to have monies available when minor unexpected road projects are needed to be funded and constructed. Examples include projects such as repair of broken concrete sidewalks, minor drainage improvements, or subsurface investigations such as the Sixth Street alley wall failure and Castle Oaks east approach settlement. The ability to immediately implement small projects as they are identified provides for the best customer service for the public and maintains a level of service expected and provided by the Town. This project helps to address increases in traffic and congestion, which has been identified as an area of concern in the 2017 Community Survey.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Design/Engineering/Construction	$ 75,000	$ 75,000	$ 75,000	$ 75,000	$ 75,000	$ 375,000
Total Expenditures	**$ 75,000**	**$ 75,000**	**$ 75,000**	**$ 75,000**	**$ 75,000**	**$ 375,000**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Road and Bridge Tax	$ 75,000	$ 75,000	$ 75,000	$ 75,000	$ 75,000	$ 375,000
Total Funding Sources	**$ 75,000**	**$ 75,000**	**$ 75,000**	**$ 75,000**	**$ 75,000**	**$ 375,000**

Operational Impact

Operational impacts are typically minimal as these small improvements to existing infrastructure fall under existing maintenance operations budgets.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Traffic Safety Improvements**

Project Number:	75-25			
Contact:	Ryan Germeroth, Transp. Planning & Traffic Engineering Mgr.	5 Year Historical Total	$	167,507
Department:	Public Works Department	2019-2023 Total		250,000
Category:	Infrastructure	**CIP Project Total (2014-2023):**	**$**	**417,507**
Type:	Repair			
Useful Life:	Variable			

Description and Justification

Small traffic safety studies or projects are typically identified during the year that are currently unknown. Examples include modifications to existing crosswalks or adding new crosswalks to improve pedestrian safety. This program is intended to pay for these items. The ability to immediately implement small projects as they are identified provides for the best customer service for the public and aids in improving safety. This project helps to address increases in traffic and congestion, which has been identified as an area of concern in the 2017 Community Survey.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Construction	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 250,000
Total Expenditures	**$ 50,000**	**$ 50,000**	**$ 50,000**	**$ 50,000**	**$ 50,000**	**$ 250,000**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Road and Bridge Tax	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 250,000
Total Funding Sources	**$ 50,000**	**$ 50,000**	**$ 50,000**	**$ 50,000**	**$ 50,000**	**$ 250,000**

Operational Impact

Operational impacts are typically minimal as these small improvements to existing infrastructure fall under existing maintenance operations budgets.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Traffic Signal Program**

Project Number:	75-26			
Contact:	Ryan Germeroth, Transp. Planning & Traffic Engineering Mgr.	5 Year Historical Total	$	3,336,033
Department:	Public Works Department	2019-2023 Total		1,550,000
Category:	Infrastructure	**CIP Project Total (2014-2023):**	**$**	**4,886,033**
Type:	New			
Useful Life:	15-20 years			

Description and Justification

This program is utilized to construct new traffic signals that are identified through engineering evaluations, and to perform signal system changes recommended in the comprehensive townwide system analysis. For 2019, it is expected that one new traffic signal will be needed. The exact location is to be determined through an engineering evalution in spring 2018. For years 2020 through 2023, signal projects will be chosen based upon historical trends, judgment, and locations identified by engineering evaluations. Intersections that are close to needing a signal are evaluated annually. Installations improve traffic movement and safety of roadway users. This project helps to address increases in traffic and congestion, which has been identified as an area of concern in the 2017 Community Survey.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Construction/Engineering	$ 550,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 1,550,000
Total Expenditures	**$ 550,000**	**$ 250,000**	**$ 250,000**	**$ 250,000**	**$ 250,000**	**$ 1,550,000**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Road and Bridge Tax	$ 550,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 1,550,000
Total Funding Sources	**$ 550,000**	**$ 250,000**	**$ 250,000**	**$ 250,000**	**$ 250,000**	**$ 1,550,000**

Operational Impact

The department currently contracts out the maintenance of traffic signal equipment as in-house specialization does not exist. In addition, electricity cost increases also exist with new signal installation. The average electricity and maintenance cost per signal is $2,600 per year and is included in electricity costs within the Transportation Fund.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Neighborhood Traffic Calming**

Project Number:	75-28			
Contact:	Ryan Germeroth, Transp. Planning & Traffic Engineering Mgr.	5 Year Historical Total	$	57,925
Department:	Public Works Department	2019-2023 Total		125,000
Category:	Infrastructure	**CIP Project Total (2014-2023):**	**$**	**182,925**
Type:	Upgrade			
Useful Life:	Variable			

Description and Justification

These projects are identified through the Town's Neighborhood Traffic Calming Program. This program is utilized to complete projects geared toward encouraging cars to adhere to the posted speed limit, or to reduce the amount of cut-through traffic on residential streets. Projects are identified through the current policy approved by Town Council and administered by staff. These projects are typically developed during the year as requested by residents and certain criteria are met. Examples include the installation of speed cushions on residential streets. This project helps to address the community priority of a safe and reliable transportation system.

Expenditures	2019	2020	2021	2022	2023	Total
Construction/Engineering	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 125,000
Total Expenditures	**$ 25,000**	**$ 25,000**	**$ 25,000**	**$ 25,000**	**$ 25,000**	**$ 125,000**

Funding Sources	2019	2020	2021	2022	2023	Total
Road and Bridge Tax	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 125,000
Total Funding Sources	**$ 25,000**	**$ 25,000**	**$ 25,000**	**$ 25,000**	**$ 25,000**	**$ 125,000**

Operational Impact

The impact to operations is minor as these projects are small in scope and fairly infrequent. Speed cushions are constructed with asphalt material that is keyed in above existing asphalt, which can be maintained within existing operations just as the asphalt surface below.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name — Development Related Projects

Project Number: 75-32
Contact: Bob Goebel, Director of Public Works
Department: Public Works Department
Category: Infrastructure
Type: New
Useful Life: Variable

5 Year Historical Total	$	155,403
2019-2023 Total		500,000
CIP Project Total (2014-2023):	**$**	**655,403**

Description and Justification

Opportunities exist for transportation improvements to be made in conjunction with various developments. Constructing improvements in conjunction with development improvements can be done at a reduced cost with less impact to the public. Projects are identified through the development review process and constructed as needed. The Town has recognized that opportunities exist for transportation improvements to be made in conjunction with other development activity in Town. It is the Town's intent to construct these improvements during development at a reduced cost and to continue to provide an adequate level of service. This project helps to address increases in traffic and congestion, which has been identified as an area of concern in the 2017 Community Survey.

Expenditures	2019	2020	2021	2022	2023	Total
Engineering/Construction	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 500,000
Total Expenditures	**$ 100,000**	**$ 100,000**	**$ 100,000**	**$ 100,000**	**$ 100,000**	**$ 500,000**

Funding Sources	2019	2020	2021	2022	2023	Total
Road and Bridge Tax	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 500,000
Total Funding Sources	**$ 100,000**	**$ 100,000**	**$ 100,000**	**$ 100,000**	**$ 100,000**	**$ 500,000**

Operational Impact

The operational impact of the program will depend on the specific projects constructed and will be incorporated at such time.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name — ADA Ramps

Project Number: 76-78
Contact: Aaron Monks, Project Manager
Department: Public Works Department
Category: Infrastructure
Type: Upgrade
Useful Life: Variable

5 Year Historical Total	$	40,000
2019-2023 Total		200,000
CIP Project Total (2014-2023):	**$**	**240,000**

Description and Justification

Town Council approved the Americans with Disabilities Act (ADA) Prioritization Plans which identified $40,000 per year to be allocated towards curb ramp upgrades based on priorities and funding. A contractor will be utilized to construct these upgrades. The goal of the ADA Curb Ramps Prioritization Plan for the Town of Castle Rock is to ensure that the Town creates accessible paths of travel within the public right-of-way for people with disabilities. The ADA Prioritization Plan will be implemented with annual construction upgrades and retrofits for curb ramps for the purpose of becoming ADA compliant. This project helps to address the community priority of a safe and reliable transportation system.

Expenditures	2019	2020	2021	2022	2023	Total
Construction	$ 40,000	$ 40,000	$ 40,000	$ 40,000	$ 40,000	$ 200,000
Total Expenditures	**$ 40,000**	**$ 40,000**	**$ 40,000**	**$ 40,000**	**$ 40,000**	**$ 200,000**

Funding Sources	2019	2020	2021	2022	2023	Total
Building Use Tax	$ 40,000	$ 40,000	$ 40,000	$ 40,000	$ 40,000	$ 200,000
Total Funding Sources	**$ 40,000**	**$ 40,000**	**$ 40,000**	**$ 40,000**	**$ 40,000**	**$ 200,000**

Operational Impact

Operational impacts are typically minimal as these small improvements to existing infrastructure fall under existing maintenance operations.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Craig & Gould N. Infrastructure**

Project Number:	77-62
Contact:	Carl Armijo, CIP Engineering Manager
Department:	Public Works Department
Category:	Infrastructure
Type:	Upgrade
Useful Life:	30 years

5 Year Historical Total	$ -
2019-2023 Total	3,900,000
CIP Project Total (2014-2023):	**$ 3,900,000**

Description and Justification

The scope of the project includes reconstruction and replacement of existing utility and street infrastructure. This includes reconstruction of existing pavement and the addition of curb, gutter, and sidewalk improvements. These modifications are expected to improve pedestrian safety and better define parking areas along the streets that currently do not have curbs or sidewalks. This project was included in the Public Works Five-Year Capital considerations presented to Town Council in 2014 and Strategic Planning considerations presented and approved in 2015. This infrastructure is beyond its design life, and needs to be replaced. Increased maintenance is required to keep service active, which is creating cost inefficiencies. This is a joint effort with Castle Rock Water and timing of these improvements for design and construction years was closely coordinated between both departments. This project helps to address the community priority of a safe and reliable transportation system.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Design	$ 800,000	$ -	$ -	$ -	$ -	$ 800,000
Construction	-	3,100,000	-	-	-	3,100,000
Total Expenditures	**$ 800,000**	**$ 3,100,000**	**$ -**	**$ -**	**$ -**	**$ 3,900,000**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Building Use Tax	$ 800,000	$ 3,100,000	$ -	$ -	$ -	$ 3,900,000
Total Funding Sources	**$ 800,000**	**$ 3,100,000**	**$ -**	**$ -**	**$ -**	**$ 3,900,000**

Operational Impact

Increased operational impacts are not anticipated as this project is an upgrade. A decrease in maintenance is expected as a result of the replacement infrastructure being "reset" to its original condition where normal preventative maintenance activities can resume.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Downtown Alley Improvements**

Project Number:	78-46
Contact:	Carl Armijo, Engineering Manager
Department:	Public Works Department
Category:	Infrastructure
Type:	Upgrade
Useful Life:	30 years

5 Year Historical Total	$	-
2019-2023 Total		1,095,000
CIP Project Total (2014-2023):	**$**	**1,095,000**

Description and Justification

The scope of the project includes reconstruction of alley pavement infrastructure and upgrades including the addition of gutter and storm drain infrastructure improvements at six locations in the Downtown area. These modifications are expected to improve drainage, safety, and access to the alleys. This infrastructure is beyond its design life, and needs to be replaced and improved. Increased maintenance is required to keep current service active, which is creating cost inefficiencies. This project is intended to address the community priority of a safe and reliable transportation system. The six alleys requiring Improvement are scheduled to be constructed over the course of three years, 2020 -2022.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Design	$ 100,000	$ -	$ -	$ -	$ -	$ 100,000
Construciton	-	315,000	330,000	350,000	-	995,000
Total Expenditures	**$ 100,000**	**$ 315,000**	**$ 330,000**	**$ 350,000**	**$ -**	**$ 1,095,000**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Building Use Tax	$ 100,000	$ 315,000	$ 330,000	$ 350,000	$ -	$ 1,095,000
Total Funding Sources	**$ 100,000**	**$ 315,000**	**$ 330,000**	**$ 350,000**	**$ -**	**$ 1,095,000**

Operational Impact

Increased operational impacts are not anticipated as this project is a replacement. A decrease in maintenance is expected as a result of the replacement infrastructure being reset to its original condition where normal preventative maintenance activities can resume.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Illuminated Street Name Signs**

Project Number:	79-02			
Contact:	Ryan Germeroth, Transp. Planning & Traffic Engineering Mgr.	5 Year Historical Total	$	-
Department:	Public Works Department	2019-2023 Total		226,000
Category:	Infrastructure	**CIP Project Total (2014-2023):**	**$**	**226,000**
Type:	New			
Useful Life:	10 years			

Description and Justification

This project is intended to install illuminated street name signs at two existing signalized intersections from 2019 to 2022. Six of the locations are at the I-25 ramp terminals at Meadows / Founders, Wolfensberger and Plum Creek Parkway. The other two locations are on Meadows Parkway at Factory Shops Boulevard and at Highway 85. Purchase and installation of signs costs approximately $28,000 for a typical four way intersection at about $7,000 per sign.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Construction	$ 55,000	$ 56,000	$ 57,000	$ 58,000	$ -	$ 226,000
Total Expenditures	**$ 55,000**	**$ 56,000**	**$ 57,000**	**$ 58,000**	**$ -**	**$ 226,000**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Building Use Tax	$ 55,000	$ 56,000	$ 57,000	$ 58,000	$ -	$ 226,000
Total Funding Sources	**$ 55,000**	**$ 56,000**	**$ 57,000**	**$ 58,000**	**$ -**	**$ 226,000**

Operational Impact

Operational impacts are typically minimal as these small improvements to existing infrastructure fall under existing maintenance operations budgets.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

TRANSPORTATION CAPITAL FUND

PUBLIC WORKS DEPARTMENT

PROJECTS & FUNDING SOURCES BY DEPARTMENT

Project Expenditures	2019	2020	2021	2022	2023	Total
Plum Creek Pkwy Widening & Roundabout	$ 4,667,500	$ -	$ 4,320,500	$ -	$ -	$ 8,988,000
Plum Creek Pkwy Widening-West	-	398,000	2,757,000	-	-	3,155,000
5th St Widening	-	537,500	-	5,500,000	-	6,037,500
Ridge Road Widening	-	4,540,500	-	-	-	4,540,500
Hwy 86 and 5th St. Improvements	-	-	-	4,000,000	-	4,000,000
Wolfensberger Widening	-	-	-	900,000	7,302,000	8,202,000
Wolfensberger and Red Hawk Roundabout	-	-	-	300,000	2,325,600	2,625,600
Crowfoot and Timber Canyon Roundabout	365,000	-	2,660,000	-	-	3,025,000
Highway 86 Widening-Ridge to Enderud	-	-	576,363	-	4,125,625	4,701,988
Wilcox and South Street Roundabout	1,250,000	-	-	-	-	1,250,000
Crowfoot Valley Road Widening	-	-	-	653,310	-	653,310
Prairie Hawk Widening	-	-	-	451,500	2,534,500	2,986,000
Crystal Valley Parkway Interchange	500,000	500,000	500,000	500,000	500,000	2,500,000
North Meadows Drive Widening	250,000	250,000	250,000	250,000	250,000	1,250,000
Total Expenditures by Year	**$ 7,032,500**	**$ 6,226,000**	**$11,063,863**	**$12,554,810**	**$17,037,725**	**$ 53,914,898**

Project Funding Sources	2019	2020	2021	2022	2023	Total
Impact Fees	$ 2,365,000	$ 5,688,500	$ 6,743,363	$ 6,754,810	$14,712,125	$ 36,263,798
Building Use Tax	4,667,500	537,500	4,320,500	5,800,000	2,325,600	17,651,100
Total Funding Sources by Year	**$ 7,032,500**	**$ 6,226,000**	**$11,063,863**	**$12,554,810**	**$17,037,725**	**$ 53,914,898**

Funding Source information is intended to identify the revenue that is planned to pay for the capital projects included. While additional revenue is anticipated to be received each year, this information identifies only what is necessary to fund the Capital Improvement Program.

Completed Improvements at Plum Creek Parkway and Wilcox St

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Plum Creek Pkwy Widening & Roundabout**

Project Number: 77-05
Contact: Carl Armijo, CIP Engineering Manager
Department: Public Works Department
Category: Infrastructure
Type: Upgrade
Useful Life: 20 years

5 Year Historical Total	$	794,375
2019-2023 Total		8,988,000
CIP Project Total (2014-2023):	**$**	**9,782,375**

Description and Justification

This project will accommodate the addition of the remaining two lanes of the master planned four-lane roadway on Plum Creek Parkway which was identified in the Transportation Master Plan, revised in 2018. Construction of this project will support the continued development in the south and east areas of the Town. This project will also improve access to the I-25/Plum Creek Parkway interchange from the eastern areas of Town. In addition, this project will include bicycle and pedestrian multi use lanes. The design was advanced to 2018, and construction is phased into two areas. Construction of the widening in 2019 is planned to be from Gilbert Street to Eaton Street, and 2022 construction would be from Eaton Street to Ridge Road. In addition, construction of a roundabout at Gilbert Street and Plum Creek Parkway is planned for 2019. This project helps to address increases in traffic and congestion, which has been identified as an area of concern in the 2017 Community Survey.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Widening Construction	$ 2,667,500	$ -	$ 4,320,500	$ -	$ -	$ 6,988,000
Roundabout Construction	2,000,000	-	-	-	-	2,000,000
Total Expenditures	**$ 4,667,500**	**$ -**	**$ 4,320,500**	**$ -**	**$ -**	**$ 8,988,000**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Building Use Tax	$ 4,667,500	$ -	$ 4,320,500	$ -	$ -	$ 8,988,000
Total Funding Sources	**$ 4,667,500**	**$ -**	**$ 4,320,500**	**$ -**	**$ -**	**$ 8,988,000**

Operational Impact

Increases to future pavement maintenance will occur with the additional lane-miles of impervious surface added to the roadway network and will be evaluated and incorporated in the Transportation Fund operating budget. This impact will not be known until design details are finalized or after project completion.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Plum Creek Pkwy Widening-West**

Project Number: 76-52
Contact: Carl Armijo, CIP Engineering Manager
Department: Public Works Department
Category: Infrastructure
Type: Upgrade
Useful Life: 20 years

5 Year Historical Total	$ -
2019-2023 Total	3,155,000
CIP Project Total (2014-2023):	**$ 3,155,000**

Description and Justification

This project accommodates the design and construction of the remaining two lanes on Plum Creek Parkway of the master planned four-lane roadway from the pedestrian underpass located adjacent to the Philip S. Miller Regional Park to Wolfensberger Road. This project will support the continued development of the western areas of the Town by improving access between I-25 and Wolfensberger Road, and Philip S. Miller Regional Park by increasing roadway capacity and relieving congestion. This project will include bicycle and pedestrian multi-use lanes. This project helps to address increases in traffic and congestion, which has been identified as an area of concern in the 2017 Community Survey.

Expenditures	2019	2020	2021	2022	2023	Total
Design	$ -	$ 398,000	$ -	$ -	$ -	$ 398,000
Construction	-	-	2,757,000	-	-	2,757,000
Total Expenditures	**$ -**	**$ 398,000**	**$ 2,757,000**	**$ -**	**$ -**	**$ 3,155,000**

Funding Sources	2019	2020	2021	2022	2023	Total
Impact Fees	$ -	$ 398,000	$ 2,757,000	$ -	$ -	$ 3,155,000
Total Funding Sources	**$ -**	**$ 398,000**	**$ 2,757,000**	**$ -**	**$ -**	**$ 3,155,000**

Operational Impact

Increases to future pavement maintenance will occur with the additional lane-miles of impervious surface added to the roadway network and will be evaluated and incorporated in the Transportation Fund operating budget. This impact will not be known until design details are finalized or after project completion.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **5th St Widening**

Project Number: 78-85
Contact: Carl Armijo, CIP Engineering Manager
Department: Public Works Department
Category: Infrastructure
Type: Upgrade
Useful Life: 20 years

5 Year Historical Total	$	-
2019-2023 Total		6,037,500
CIP Project Total (2014-2023):	**$**	**6,037,500**

Description and Justification

This project involves the widening of the eastbound lanes from the intersection of Woodlands Boulevard at Fifth Street to the intersection of Fifth Street and Ridge Road. The objective of this project is to reduce congestion from forecasted traffic volumes which has been identified as an area of concern in the 2017 Community Survey.

Additional pedestrian improvements will also be incorporated to improve safety between Woodlands Boulevard and Ridge Road. The timing of this project is proposed to occur with the intersection improvements at Fifth Street and Ridge Road in order to minimize disruption to transportation stakeholders.

Expenditures	2019	2020	2021	2022	2023	Total
Design	$ -	$ 537,500	$ -	$ -	$ -	$ 537,500
Construction		-	-	5,500,000	-	5,500,000
Total Expenditures	**$ -**	**$ 537,500**	**$ -**	**$ 5,500,000**	**$ -**	**$ 6,037,500**

Funding Sources	2019	2020	2021	2022	2023	Total
Building Use Tax	$ -	$ 537,500	$ -	$ 5,500,000	$ -	$ 6,037,500
Total Funding Sources	**$ -**	**$ 537,500**	**$ -**	**$ 5,500,000**	**$ -**	**$ 6,037,500**

Operational Impact

Increases to future pavement maintenance will occur with the additional lane-miles of impervious surface added to the roadway network and will be evaluated and incorporated in the Transportation Fund operating budget. This impact will not be known until design details are finalized or after project completion.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Ridge Road Widening**

Project Number: 78-84
Contact: Carl Armijo, CIP Engineering Manager
Department: Public Works Department
Category: Infrastructure
Type: Upgrade
Useful Life: 20 years

5 Year Historical Total	$	403,000
2019-2023 Total		4,540,500
CIP Project Total (2014-2023):	**$**	**4,943,500**

Description and Justification

This requested project involves the widening of Ridge Road from the intersection of Highway 86 and Ridge Road to the intersection of Ridge Road and Plum Creek Parkway. The objective of this project is to improve congestion relief due to current and forecasted traffic volumes. Additionally, this project is located on the eastern portion of the Town which assists with the geographic distribution of projects proposed over the five year period to minimize the density and associated impacts of multiple projects in a certain geographic area. This project helps to address increases in traffic and congestion, which has been identified as an area of concern in the 2017 Community Survey.

Expenditures	2019	2020	2021	2022	2023	Total
Construction	$ -	$ 4,540,500	$ -	$ -	$ -	$ 4,540,500
Total Expenditures	**$ -**	**$ 4,540,500**	**$ -**	**$ -**	**$ -**	**$ 4,540,500**

Funding Sources	2019	2020	2021	2022	2023	Total
Impact Fees	$ -	$ 4,540,500	$ -	$ -	$ -	$ 4,540,500
Total Funding Sources	**$ -**	**$ 4,540,500**	**$ -**	**$ -**	**$ -**	**$ 4,540,500**

Operational Impact

This project will add to increased operational and maintenance costs within the Transportation Fund associated with additional lanes. Based on the pavement lifecycle, pavement maintenance needs will occur at approximately five years after installation and will be incorporated at that time. Pavement marking maintenance will occur annually. This impact will not be known until design details are finalized or after project completion.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Hwy 86 and 5th St. Improvements**

Project Number: 78-69
Contact: Carl Armijo, CIP Engineering Manager
Department: Public Works Department
Category: Infrastructure
Type: Upgrade
Useful Life: 20 years

5 Year Historical Total	$	340,000
2019-2023 Total		4,000,000
CIP Project Total (2014-2023):	**$**	**4,340,000**

Description and Justification

This project is requested to accommodate capacity improvements at the intersection of Highway 86 and 5th Street in order to minimize congestion due to current and forecasted traffic volumes. The timing of this project is proposed to occur with the planned widening of Ridge Road in order to assist with minimizing disruption to the community. This project helps to address increases in traffic and congestion, which has been identified as an area of concern in the 2017 Community Survey.

Expenditures	2019	2020	2021	2022	2023	Total
Construction	$ -	$ -	$ -	$ 4,000,000	$ -	$ 4,000,000
Total Expenditures	**$ -**	**$ -**	**$ -**	**$ 4,000,000**	**$ -**	**$ 4,000,000**

Funding Sources	2019	2020	2021	2022	2023	Total
Impact Fees	$ -	$ -	$ -	$ 4,000,000	$ -	$ 4,000,000
Total Funding Sources	**$ -**	**$ -**	**$ -**	**$ 4,000,000**	**$ -**	**$ 4,000,000**

Operational Impact

Increases to future pavement maintenance will occur with the additional lane miles of impervious surface added to the roadway network and will be evaluated and incorporated in the Transportation Fund operating budget. This impact will not be known until design details are finalized or after project completion.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Wolfensberger Widening**

Project Number: 77-08
Contact: Carl Armijo, CIP Engineering Manager
Department: Public Works Department
Category: Infrastructure
Type: Upgrade
Useful Life: 20 years

5 Year Historical Total	$	-
2019-2023 Total		8,202,000
CIP Project Total (2014-2023):	**$**	**8,202,000**

Description and Justification

This project accommodates the design of the remaining two lanes of the master planned four-lane roadway on Wolfensberger Road from the intersection of Red Hawk Drive to the future Philip S. Miller Regional Park entrance. This widening of the roadway will support the continued development of the north/south and west areas of the Town by improving access to the I-25 at Wolfensberger Road from the eastern areas of Town. This project will also include bicycle and pedestrian multi use lanes. This project will also reduce congestion along Wolfensbeger Road and provide needed pedestrian and bicycle connections between the downtown area and Coachline Road and supports proposed development along Wolfensberger. Construction is currently planned outside the 2019-2023 planning period. This project helps to address increases in traffic and congestion, which has been identified as an area of concern in the 2017 Community Survey.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Design	$ -	$ -	$ -	$ 900,000	$ 7,302,000	$ 8,202,000
Total Expenditures	**$ -**	**$ -**	**$ -**	**$ 900,000**	**$ 7,302,000**	**$ 8,202,000**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Impact Fees	$ -	$ -	$ -	$ 900,000	$ 7,302,000	$ 8,202,000
Total Funding Sources	**$ -**	**$ -**	**$ -**	**$ 900,000**	**$ 7,302,000**	**$ 8,202,000**

Operational Impact

Increases to future pavement maintenance will occur with the additional lane miles of impervious surface added to the roadway network and will be evaluated and incorporated in the Transportation Fund operating budget. This impact will not be known until design details are finalized or after project completion.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Wolfensberger and Red Hawk Roundabout**

Project Number:	77-09		
Contact:	Carl Armijo, CIP Engineering Manager	5 Year Historical Total	$ -
Department:	Public Works Department	2019-2023 Total	2,625,600
Category:	Infrastructure	**CIP Project Total (2014-2023):**	**$ 2,625,600**
Type:	Upgrade		
Useful Life:	20 years		

Description and Justification

This project accommodates the construction of a roundabout at the intersection of Wolfensberger Road with Red Hawk Drive. This project will improve the capacity of the intersection in order to assist with congestion relief as well as improve safety. A roundabout is also the most efficient traffic control throughout all hours of the day, as opposed to traffic signals, which are limited in efficiency to the peak hours of a day. The improved efficiency of a roundabout leads to increased societal benefits such as decreased delay, improved safety, and decreased environmental impacts. This project helps to address increases in traffic and congestion, which has been identified as an area of concern in the 2017 Community Survey.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Design	$ -	$ -	$ -	$ 300,000	$ -	$ 300,000
Construction		-	-	-	2,325,600	2,325,600
Total Expenditures	**$ -**	**$ -**	**$ -**	**$ 300,000**	**$ 2,325,600**	**$ 2,625,600**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Building Use Tax	$ -	$ -	$ -	$ 300,000	$ 2,325,600	$ 2,625,600
Total Funding Sources	**$ -**	**$ -**	**$ -**	**$ 300,000**	**$ 2,325,600**	**$ 2,625,600**

Operational Impact

Minor increases to pavement maintenance are anticipated, dependent on the overall net change to the roadway impervious area. This impact will not be known until design details are finalized or after project completion.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Crowfoot and Timber Canyon Roundabout**

Project Number: 78-99
Contact: Carl Armijo, CIP Engineering Manager
Department: Public Works Department
Category: Infrastructure
Type: Upgrade
Useful Life: 20 years

5 Year Historical Total	$	-
2019-2023 Total		3,025,000
CIP Project Total (2014-2023):	**$**	**3,025,000**

Description and Justification

This project accommodates the design and construction of a roundabout at the intersection of North Crowfoot Valley Road and Timber Canyon Drive. This project will improve safety and mobility. A roundabout is also the most efficient traffic control throughout all hours of the day, as opposed to traffic signals, which are limited in efficiency to the peak hours of a day. The improved efficiency of a roundabout leads to increased societal benefits such as decreased delay, improved safety, and decreased environmental impacts.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Design	$ 365,000	$ -	$ -	$ -	$ -	$ 365,000
Construction	-	-	2,660,000	-	-	2,660,000
Total Expenditures	**$ 365,000**	**$ -**	**$ 2,660,000**	**$ -**	**$ -**	**$ 3,025,000**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Impact Fees	$ 365,000	$ -	$ 2,660,000	$ -	$ -	$ 3,025,000
Total Funding Sources	**$ 365,000**	**$ -**	**$ 2,660,000**	**$ -**	**$ -**	**$ 3,025,000**

Operational Impact

Minor increases to pavement maintenance are anticipated, dependent on the overall net change to the roadway impervious area. This impact will not be known until design details are finalized or after project completion.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Highway 86 Widening-Ridge to Enderud**

Project Number:	79-01		
Contact:	Carl Armijo, CIP Engineering Manager	5 Year Historical Total	$ -
Department:	Public Works Department	2019-2023 Total	4,701,988
Category:	Infrastructure	**CIP Project Total (2014-2023):**	**$ 4,701,988**
Type:	Upgrade		
Useful Life:	20 years		

Description and Justification

This project is intended to widen State Highway 86 east from Ridge Road to Enderud Boulevard from two-lanes to four-lanes as identified in the Transportation Master Plan completed in 2017. Additional travel lanes will reduce congestion by adding roadway capacity to accommodate the projected growth in vehicles using the corridor. The roadway is currently nearing capacity and is expected to slightly exceed capacity by 2030.

Expenditures	2019	2020	2021	2022	2023	Total
Design	$ -	$ -	$ 576,363	$ -	$ 4,125,625	$ 4,701,988
Total Expenditures	**$ -**	**$ -**	**$ 576,363**	**$ -**	**$ 4,125,625**	**$ 4,701,988**

Funding Sources	2019	2020	2021	2022	2023	Total
Impact Fees	$ -	$ -	$ 576,363	$ -	$ 4,125,625	$ 4,701,988
Total Funding Sources	**$ -**	**$ -**	**$ 576,363**	**$ -**	**$ 4,125,625**	**$ 4,701,988**

Operational Impact

Increases to future pavement maintenance will occur with the additional lane-miles of impervious surface added to the roadway network and will be evaluated and incorporated in the Transportation Fund operating budget. This impact will not be known until design details are finalized or after project completion.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Wilcox and South Street Roundabout**

Project Number:	79-10			
Contact:	Carl Armijo, CIP Engineering Manager	5 Year Historical Total	$	-
Department:	Public Works Department	2019-2023 Total		1,250,000
Category:	Infrastructure	**CIP Project Total (2014-2023):**	**$**	**1,250,000**
Type:	Upgrade			
Useful Life:	20 years			

Description and Justification

This project is anticipated to be constructed at the same time that the development project on the northeast corner of this intersection is planned to occur. With the anticipated increase in new traffic that will result with the development project, a roundabout is projected to enhance operations and safety at this intersection. A roundabout also fits in well with the current planning that is occurring with the Downtown Mobility Study. This improvement assists with slowing down vehicular traffic, enhancing the pedestrian environment, and still processing vehicle movement efficiently. Constructing these projects at the same time will also assist with minimizing travel disruptions to the public.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Construction	$ 1,250,000	$ -	$ -	$ -	$ -	$ 1,250,000
Total Expenditures	**$ 1,250,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 1,250,000**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Impact Fees	$ 1,250,000	$ -	$ -	$ -	$ -	$ 1,250,000
Total Funding Sources	**$ 1,250,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 1,250,000**

Operational Impact

Operational impacts are anticipated to be minor with this project. The will be some additional pavement infrastructure that will require future maintenance needs, but this should be minor in nature.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Crowfoot Valley Road Widening**

Project Number:	78-83			
Contact:	Carl Armijo, CIP Engineering Manager	5 Year Historical Total	$	-
Department:	Public Works Department	2019-2023 Total		653,310
Category:	Infrastructure	**CIP Project Total (2014-2023):**	**$**	**653,310**
Type:	Upgrade			
Useful Life:	20 years			

Description and Justification

This requested project involves the widening of Crowfoot Valley Road from the intersection of Knobcone Drive to the Town boundary. The objective of this project is to improve congestion relief due to current and forecasted traffic volumes. The timing of the project will account for the Canyons South development project in Douglas County and will coordinate any required widening work with the development. The project will also include analyzing the intersection of Timber Canyon and Diamond Ridge to assess improvements for resident egress from the existing developments. This project helps to address increases in traffic and congestion, which has been identified as an area of concern in the 2017 Community Survey.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Design	$ -	$ -	$ -	$ 653,310	$ -	$ 653,310
Construction		-	-	-	-	-
Total Expenditures	**$ -**	**$ -**	**$ -**	**$ 653,310**	**$ -**	**$ 653,310**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Impact Fees	$ -	$ -	$ -	$ 653,310	$ -	$ 653,310
Total Funding Sources	**$ -**	**$ -**	**$ -**	**$ 653,310**	**$ -**	**$ 653,310**

Operational Impact

Increases to future pavement maintenance will occur with the additional lane-miles of impervious surface added to the roadway network and will be evaluated and incorporated in the Transportation Fund operating budget. This impact will not be known until project completion.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Prairie Hawk Widening**

Project Number: 76-29
Contact: Carl Armijo, CIP Engineering Manager
Department: Public Works Department
Category: Infrastructure
Type: Upgrade
Useful Life: 20 years

5 Year Historical Total	$ -
2019-2023 Total	2,986,000
CIP Project Total (2014-2023):	**$ 2,986,000**

Description and Justification

The Town's Transportation Master Plan has identified the need to widen the existing two-lane roadway to four lanes, between Wolfensberber Road on the south end to Melting Snow Drive to the north. This widening is included in the Master Plan to be completed by 2030 in order to accomodate continued growth within the Town. This project objective is in line with one of the community's top priorities to address traffic congestion as identified in the past two Community Surveys.

Expenditures	2019	2020	2021	2022	2023	Total
Design	$ -	$ -	$ -	$ 451,500	$ -	$ 451,500
Construction	-	-	-	-	2,534,500	2,534,500
Total Expenditures	**$ -**	**$ -**	**$ -**	**$ 451,500**	**$ 2,534,500**	**$ 2,986,000**

Funding Sources	2019	2020	2021	2022	2023	Total
Impact Fees	$ -	$ -	$ -	$ 451,500	$ 2,534,500	$ 2,986,000
Total Funding Sources	**$ -**	**$ -**	**$ -**	**$ 451,500**	**$ 2,534,500**	**$ 2,986,000**

Operational Impact

Due to the increase in pavement area being added, increased maintenance revenue will be necessary in order to maintain the lifespan of the pavement surface.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Crystal Valley Parkway Interchange**

Project Number: 78-41
Contact: Carl Armijo, CIP Engineering Manager
Department: Public Works Department
Category: Infrastructure
Type: New
Useful Life: 30 years

5 Year Historical Total	$	22,740
2019-2023 Total		2,500,000
CIP Project Total (2014-2023):	**$**	**2,522,740**

Description and Justification

A new interchange is planned to be constructed at Interstate 25 in the southernmost part of Town. Located approximately 2.5 miles south of the Plum Creek Parkway interchange, the new interchange will connect Crystal Valley Parkway on the east side of I-25 and Territorial Road on the west side. The current five year effort is intended to achieve acquisition of remaining right-of-way and set aside future project funding to allow for potential funding partnerships to assist with advancing construction. Current estimates indicate that interchange construction will cost approximately $44 million in today's dollars. The future interchange will provide access from south Castle Rock to the metropolitan areas of Denver and Colorado Springs. It will serve the area's expanding population and is centrally located between several existing and planned developments in south Castle Rock. The interchange will also:

-Improve safety by eliminating one at-grade railroad crossing
-Improve the local roadway network by providing a continuous east-west through route across I-25
-Provide direct access to I-25 for the growing population
-Reduce existing and future congestion at the Plum Creek Parkway interchange by re-distributing traffic to this new interchange

*Please note that this funding accumulation is included as a Capital Reserve within the Transportation Capital Fund, until project expenditures are needed. These funds are not included in budget appropriations. As of 2018, a total of $750,000 has been accumulated for this purpose.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Reserve Accumulation	$ 500,000	$ 500,000	$ 500,000	$ 500,000	$ 500,000	$ 2,500,000
Total Expenditures	**$ 500,000**	**$ 500,000**	**$ 500,000**	**$ 500,000**	**$ 500,000**	**$ 2,500,000**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Impact Fees	$ 500,000	$ 500,000	$ 500,000	$ 500,000	$ 500,000	$ 2,500,000
Total Funding Sources	**$ 500,000**	**$ 500,000**	**$ 500,000**	**$ 500,000**	**$ 500,000**	**$ 2,500,000**

Operational Impact

Operational impacts will be evaluated and supplied when construction dates are within the five year planning timeframe.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **North Meadows Drive Widening**

Project Number: 77-06
Contact: Carl Armijo, CIP Engineering Manager
Department: Public Works Department
Category: Infrastructure
Type: Upgrade
Useful Life: 20 years

5 Year Historical Total	$	-
2019-2023 Total		1,250,000
CIP Project Total (2014-2023):	**$**	**1,250,000**

Description and Justification

Amounts included over the next five years include the accumulation of funds for future design and construction, which will occur at a later date beyond the five year planning period. This project accommodates the construction of the remaining two-lanes of the master planned four-lane section between the US-85 interchange and Butterfield Crossing Drive. This project will support the continued development of the north and west area of the Town by increasing capacity to the I-25/Castle Rock Parkway interchange from the western areas of Town. Additional enhancements include improvements to the bicycle and pedestrian environment with additional on-street shoulders and an additional multi-use sidewalk on the south side of the road. This project is intended to reduce congestion along North Meadows Drive as future development within the Meadows area increases. Funding partnerships will be explored in order to reduce the Town financial commitment.

*Please note that this funding accumulation is included as a Capital Reserve within the Transportation Capital Fund, until project expenditures are needed. These funds are not included in budget appropriations.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Reserve Accumulation	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 1,250,000
Total Expenditures	**$ 250,000**	**$ 250,000**	**$ 250,000**	**$ 250,000**	**$ 250,000**	**$ 1,250,000**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Impact Fees	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 1,250,000
Total Funding Sources	**$ 250,000**	**$ 250,000**	**$ 250,000**	**$ 250,000**	**$ 250,000**	**$ 1,250,000**

Operational Impact

Operational impacts will be evaluated and supplied when construction dates are within the five year planning timeframe.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

CONSERVATION TRUST FUND
PARKS & RECREATION DEPARTMENT
PROJECTS & FUNDING SOURCES BY DEPARTMENT

Project Expenditures	2019	2020	2021	2022	2023	Total
Park Improvements	$ 600,000	$ 600,000	$ 600,000	$ 600,000	$ 600,000	$ 3,000,000
Total Expenditures by Year	**$ 600,000**	**$ 600,000**	**$ 600,000**	**$ 600,000**	**$ 600,000**	**$ 3,000,000**

Project Funding Sources	2019	2020	2021	2022	2023	Total
Douglas County Shareback	$ 435,000	$ 435,000	$ 435,000	$ 435,000	$ 435,000	$ 2,175,000
Lottery Funds	165,000	165,000	165,000	165,000	165,000	825,000
Total Funding Sources by Year	**$ 600,000**	**$ 600,000**	**$ 600,000**	**$ 600,000**	**$ 600,000**	**$ 3,000,000**

Funding Source information is intended to identify the revenue that is planned to pay for the capital projects included. While additional revenue is anticipated to be received each year, this information identifies only what is necessary to fund the Capital Improvement Program.

Rhyolite Bike Park and Amenities

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Park Improvements**

Project Number: 75-18
Contact: Jeff Smullen, Assistant Director of Parks & Recreation
Department: Parks & Recreation Department
Category: Parks/Trails
Type: New
Useful Life: 15-20 years

5 Year Historical Total	$	702,942
2019-2023 Total		3,000,000
CIP Project Total (2014-2023):	**$**	**3,702,942**

Description and Justification

The upkeep of parks and open space requires continual investment to maintain existing levels of service.

Playground equipment and other park amenities deteriorate with standard wear patterns and have an average life expectancy of 15-20 years.

This line item is reserved each year for life cycle repair and replacement projects throughout Castle Rock, which include items such as playground replacements, game court, athletic field and pavilion improvements. This line item meets the goal of providing Council supported strategic plan goal of providing safe, high quality facilities for residents through the implementation of an annual replacement program.

Staff will request funds annually through the Douglas County Shareback through 2023 and receive annual funds from the Colorado Lottery Distribution to complete design work, assessment, and capital improvements as necessary for each property as learned through the annual assessment process. The parks in the system that will be considered include but are not limited to: Mitchell Gulch, Plum Creek, Butterfield, Metzler Ranch, Paintbrush, Founders, Castle Highlands, Baldwin, Bison, and Philip S. Miller parks.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Park Improvements	$ 600,000	$ 600,000	$ 600,000	$ 600,000	$ 600,000	$ 3,000,000
Total Expenditures	**$ 600,000**	**$ 600,000**	**$ 600,000**	**$ 600,000**	**$ 600,000**	**$ 3,000,000**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Douglas County Shareback	$ 435,000	$ 435,000	$ 435,000	$ 435,000	$ 435,000	$ 2,175,000
Lottery Funds	165,000	165,000	165,000	165,000	165,000	825,000
Total Funding Sources	**$ 600,000**	**$ 600,000**	**$ 600,000**	**$ 600,000**	**$ 600,000**	**$ 3,000,000**

Operational Impact

No additional revenues or expenditures are anticipated as a result of these projects.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

PARKS AND RECREATION CAPITAL FUND

PARKS & RECREATION DEPARTMENT

PROJECTS & FUNDING SOURCES BY DEPARTMENT

Project Expenditures	2019	2020	2021	2022	2023	Total
Future Parks	$ 200,000	$ 3,400,000	$ 200,000	$ 3,400,000	$ 200,000	$ 7,400,000
Total Expenditures by Year	**$ 200,000**	**$ 3,400,000**	**$ 200,000**	**$ 3,400,000**	**$ 200,000**	**$ 7,400,000**

Project Funding Sources	2019	2020	2021	2022	2023	Total
Impact Fees	$ 200,000	$ 3,400,000	$ 200,000	$ 3,400,000	$ 200,000	$ 7,400,000
Total Funding Sources by Year	**$ 200,000**	**$ 3,400,000**	**$ 200,000**	**$ 3,400,000**	**$ 200,000**	**$ 7,400,000**

Funding Source information is intended to identify the revenue that is planned to pay for the capital projects included. While additional revenue is anticipated to be received each year, this information identifies only what is necessary to fund the Capital Improvement Program.

Rendering of the new neighborhood park planned for construction in 2018

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Future Park Planning**

Project Number: 75-21
Contact: Jeff Smullen, Assistant Director of Parks & Recreation
Department: Parks & Recreation Department
Category: Parks/Trails
Type: New
Useful Life: 50 years

5 Year Historical Total	$	2,200,000
2019-2023 Total		7,400,000
CIP Project Total (2014-2023):	**$**	**9,600,000**

Description and Justification

Parks and Recreation requests funding for future park planning that includes new community and neighborhood parks to maintain current levels of service with population growth. Sites currently available include Cobblestone Ranch, Terrain, Crystal Valley Ranch, or Castlewood Ranch Filing #2. The cost of the project is speculative and will be constructed based on approved funding when the project arises.

At this time, the project estimate is based on a nine-acre site. The Meadows 18 site that is being constructed in 2018 is the last neighborhood park brought on line and previous to that location was Wrangler Park in 2012. In addition to these neighborhood parks, the regional Philip S. Miller Park was opened in 2014. As the Town of Castle Rock continues to grow, so will the need for additional neighborhood parks. Planning for a new neighborhood park is expected to begin in 2019 with construction taking place in 2020. The priority for the project site will be based on community needs and will be determined at a future date. Current planning includes constructing a new neighborhood park every other year.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Park Design	$ 200,000	$ -	$ 200,000	$ -	$ 200,000	$ 600,000
Park Construction	-	3,400,000	-	3,400,000	-	6,800,000
Total Expenditures	**$ 200,000**	**$ 3,400,000**	**$ 200,000**	**$ 3,400,000**	**$ 200,000**	**$ 7,400,000**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Impact Fees	$ 200,000	$ 3,400,000	$ 200,000	$ 3,400,000	$ 200,000	$ 7,400,000
Total Funding Sources	**$ 200,000**	**$ 3,400,000**	**$ 200,000**	**$ 3,400,000**	**$ 200,000**	**$ 7,400,000**

Operational Impact

Operational costs will increase after the completion of construction of each neighborhood park. These costs will be determined and incorporated into future planning in the General Fund once design of the park site is complete. Factors affecting operating costs include size of the park site, natural v. artificial turf, water features, and other elements related to the specific park site.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

FIRE CAPITAL FUND

FIRE DEPARTMENT

PROJECTS & FUNDING SOURCES BY DEPARTMENT

Project Expenditures	2019	2020	2021	2022	2023	Total
Emergency Vehicle Technician Equipment	$ 75,000	$ 20,000	$ 10,000	$ 10,000	$ 10,000	$ 125,000
Total Expenditures by Year	**$ 75,000**	**$ 20,000**	**$ 10,000**	**$ 10,000**	**$ 10,000**	**$ 125,000**

Project Funding Sources	2019	2020	2021	2022	2023	Total
Impact Fees	$ 75,000	$ 20,000	$ 10,000	$ 10,000	$ 10,000	$ 125,000
Total Funding Sources by Year	**$ 75,000**	**$ 20,000**	**$ 10,000**	**$ 10,000**	**$ 10,000**	**$ 125,000**

Funding Source information is intended to identify the revenue that is planned to pay for the capital projects included. While additional revenue is anticipated to be received each year, this information identifies only what is necessary to fund the Capital Improvement Program.

Quint Ladder Truck from Fire Station 155

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Emergency Vehicle Technician Equipment**

Project Number: 70-30
Contact: Art Morales, Fire Chief
Department: Fire Department
Category: Equipment
Type: New
Useful Life: 5-10 years

5 Year Historical Total	$	350,000
2019-2023 Total		125,000
CIP Project Total (2014-2023):	**$**	**475,000**

Description and Justification

The Fire and Rescue Department requests funding for equipment needed to service fire apparatus. The Emergency Vehicle Technician position (EVT) was approved in 2016 to service fire department apparatus rather than outsourcing repair costs. In order to adequately maintain these heavy duty vehicles and to ensure employee safety, additional equipment is necessary. Requested equipment includes a vehicle lift, oil and vehicle fluid recovery systems, heavy duty tools associated with the repair and maintenance of fire pumps and aerial ladders.

The equipment being requested is intended to be able to be used in a mobile environment as well as in a fixed facility, and the life span varies by the type of equipment. These items meet the Council priority of providing outstanding public health and safety services.

As the department continues to increase the number of stations and apparatus based on the need to keep up with overall community growth, it is no longer cost effective to outsource all vehicle maintenance and repairs. With the addition of a new ladder truck and a new brush truck based on the need to maintain our current level of service in the growing southern portion of the Town, these costs are a direct result of that growth.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Equipment	$ 75,000	$ 20,000	$ 10,000	$ 10,000	$ 10,000	$ 125,000
Total Expenditures	**$ 75,000**	**$ 20,000**	**$ 10,000**	**$ 10,000**	**$ 10,000**	**$ 125,000**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Impact Fees	$ 75,000	$ 20,000	$ 10,000	$ 10,000	$ 10,000	$ 125,000
Total Funding Sources	**$ 75,000**	**$ 20,000**	**$ 10,000**	**$ 10,000**	**$ 10,000**	**$ 125,000**

Operational Impact

Operational impacts are typically minimal as these small improvements to existing infrastructure fall under existing maintenance operations budgets.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

WATER FUND

CASTLE ROCK WATER

PROJECTS & FUNDING SOURCES BY DEPARTMENT

Project Expenditures	2019	2020	2021	2022	2023	Total
Water Supply Wells	$ 4,413,007	$ 2,225,000	$ 225,000	$ 2,225,000	$ 225,000	$ 9,313,007
Water Treatment Plant Upgrades & Equip.	150,000	255,000	150,000	150,000	150,000	855,000
Water Storage (Tank) Projects	400,000	125,000	3,475,609	50,000	50,000	4,100,609
Pump & Distribution System Upgrades	925,000	375,000	375,000	300,000	2,300,000	4,275,000
Waterline Rehab/Replacement	725,000	1,243,000	894,000	300,000	576,000	3,738,000
Craig & Gould North Improvements	60,000	670,000	-	-	-	730,000
Security & SCADA System Improvements	50,000	50,000	25,000	25,000	25,000	175,000
General Facility Upgrades & Replacements	200,000	200,000	200,000	200,000	200,000	1,000,000
Administration & Customer Service Building	140,364	1,263,277	-	-	-	1,403,641
Machinery & Equipment	500,000	600,000	600,000	600,000	700,000	3,000,000
Total Expenditures by Year	**$ 7,563,371**	**$ 7,006,277**	**$ 5,944,609**	**$ 3,850,000**	**$ 4,226,000**	**$ 28,590,257**

Project Funding Sources	2019	2020	2021	2022	2023	Total
Metered Water Sales	$ 2,435,000	$ 4,563,000	$ 1,919,000	$ 3,250,000	$ 1,250,000	$ 13,417,000
System Development Fees	5,128,371	2,443,277	4,025,609	600,000	2,976,000	15,173,257
Total Funding Sources by Year	**$ 7,563,371**	**$ 7,006,277**	**$ 5,944,609**	**$ 3,850,000**	**$ 4,226,000**	**$ 28,590,257**

Funding Source information is intended to identify the revenue that is planned to pay for the capital projects included. While additional revenue is anticipated to be received each year, this information identifies only what is necessary to fund the Capital Improvement Program.

East Plum Creek west of Castle Rock

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Water Supply Wells**

Project Number: Multiple
Contact: Jeanne Stevens, Engineering Manager
Department: Castle Rock Water
Category: Infrastructure
Type: Replacement
Useful Life: 25 years

5 Year Historical Total	$	2,212,729
2019-2023 Total		9,313,007
CIP Project Total (2014-2023):	**$**	**11,525,736**

Description and Justification

This project is intended to rehabilitate or replace existing Town of Castle Rock wells as they reach the end of their useful lives. Well 9 is no longer an active well facility. Plans are to demolish the building, disconnect services (power, telephone, etc.) and restore the site original condition. Variable Frequency Drive (VFD) replacement is intended to replace VFD's which are too old to get parts for, placing new VFD and other electrical components and controls outside of the building, away from the water pipe. As existing wells deteriorate, they need to be rehabilitated or replaced. Replacement wells generally provide the same yield as a new well, but at a fraction of the cost.

The replacement schedule is based on an assumed 25-year life from each well and a replacement will be drilled at the end of the 25-year period. Unused facilities are a liability from an insurance standpoint. The Colorado Department of Public Health is also requiring that unused wells be formally abandoned. As existing wells deteriorate, they need to be rehabilitated or replaced.

The Lanterns Wells 1500 GPM is to ensure the reliability of supply due to the growth in the Lanterns community. The funding for this project is coming from System Development Fees due to growth in the area and will help supply the demand of the area.

These projects help Castle Rock Water meet the priority of providing high quality water service to Town residents and businesses.

Expenditures	2019	2020	2021	2022	2023	Total
Water Rights Purchase	$ 250,000	$ -	$ -	$ -	$ -	$ 250,000
Well Equipment and Replacement	100,000	100,000	100,000	100,000	100,000	500,000
Laterns Wells 1500 GPM	3,938,007	-	-	-	-	3,938,007
VFD Replacement (Well/PS/Tmt Plant)	125,000	125,000	125,000	125,000	125,000	625,000
Well Redrill	-	2,000,000	-	2,000,000	-	4,000,000
Total Expenditures	**$ 4,413,007**	**$ 2,225,000**	**$ 225,000**	**$ 2,225,000**	**$ 225,000**	**$ 9,313,007**

Funding Sources	2019	2020	2021	2022	2023	Total
Metered Water Sales	$ 475,000	$ 2,225,000	$ 225,000	$ 2,225,000	$ 225,000	$ 5,375,000
System Development Fees	3,938,007	-	-	-	-	3,938,007
Total Funding Sources	**$ 4,413,007**	**$ 2,225,000**	**$ 225,000**	**$ 2,225,000**	**$ 225,000**	**$ 9,313,007**

Operational Impact

Costs will vary for each well depending on the amount and type of rehabilitation, and the depth of the well and will be determined upon project completion and incorporated into operational budgets at that time.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Water Treatment Plant Upgrades & Equip.**

Project Number: Multiple
Contact: Jeanne Stevens, Engineering Manager
Department: Castle Rock Water
Category: Infrastructure
Type: Upgrade
Useful Life: 50 years

5 Year Historical Total	$	150,000
2019-2023 Total		855,000
CIP Project Total (2014-2023):	**$**	**1,005,000**

Description and Justification

This project will provide for miscellaneous improvements at existing Water Treatment Plants (WTP). There are five active water treatment plants in Castle Rock. Examples of specific upgrades include pipe gallery painting, HVAC and cooling unit replacements, door repair and replacement, basins repairs, instrumentation, alarm upgrades, and safety improvements.

The equipment replacement project will replace existing electrical and/or mechanical equipment associated with water treatment facilities. These plants are necessary to filter deep aquifer groundwater and one facility for purifying alluvial well water. These facilities require periodic upgrades to instrumentation, controls, and other small upgrades. Electrical and mechanical equipment need to be replaced as equipment reaches the end of its useful life. A preventive maintenance program associated with asset management will be used to determine replacement schedules based on the type of equipment, service duty and operating conditions. These projects help Castle Rock Water meet the priority of providing high quality water service to Town residents and businesses.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
WTP Facility Upgrades	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 250,000
WTP Equipment Replacement	100,000	100,000	100,000	100,000	100,000	500,000
WTP Media Replacement	-	105,000	-	-	-	105,000
Total Expenditures	**$ 150,000**	**$ 255,000**	**$ 150,000**	**$ 150,000**	**$ 150,000**	**$ 855,000**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Metered Water Sales	$ 150,000	$ 255,000	$ 150,000	$ 150,000	$ 150,000	$ 855,000
Total Funding Sources	**$ 150,000**	**$ 255,000**	**$ 150,000**	**$ 150,000**	**$ 150,000**	**$ 855,000**

Operational Impact

There is no operational impact for this project.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Water Storage (Tank) Projects**

Project Number: Multiple
Contact: Jeanne Stevens, Engineering Manager
Department: Castle Rock Water
Category: Infrastructure
Type: Repair
Useful Life: 50 years

5 Year Historical Total	$	247,430
2019-2023 Total		4,100,609
CIP Project Total (2014-2023):	**$**	**4,348,039**

Description and Justification

The tank rehabilitation project will facilitate structural and/or site modifications to existing tanks to ensure reliability and tank security as needed. Known projects include adding stairs to tanks 3, 4, and 16A.

The Liberty Village Yellow Zone Tank project, which is anticipated for 2021, includes the construction of a two million gallon tank to serve Liberty Village/Cobblestone Ranch Yellow Zone. As growth in the service area increases, demand will exceed the available storage in the Red Zone tanks that currently serve the area. This tank will be dedicated storage for maximum day demands and fire flow in the service area. Water storage zones are based on elevation with about every 288 feet of elevation being a different zone.

The Electric Actuated Valves project is intended to add electric actuated valves to water storage tanks. Electric actuated valves can be remotely operated from a central SCADA location. Given the remote location of many of the tanks, this allows for quicker response to system upsets or vulnerabilities. These projects help Castle Rock Water meet the priority of providing high quality water service to Town residents and businesses. The Tank 6B demolition project will include the demolition of two water tanks. Tank 6B has structural concrete issues and has been taken out of service. Plans are to demolish the tank and restore the location.

Expenditures

	2019	2020	2021	2022	2023	Total
Tank Rehabilitation	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 250,000
Liberty Village Yellow Zone Tank	-	-	3,425,609	-	-	3,425,609
Electric Actuated Valves at Tanks	75,000	75,000	-	-	-	150,000
Tank Mixers	25,000	-	-	-	-	25,000
Tank 6B Demolition	250,000	-	-	-	-	250,000
Total Expenditures	**$ 400,000**	**$ 125,000**	**$ 3,475,609**	**$ 50,000**	**$ 50,000**	**$ 4,100,609**

Funding Sources

	2019	2020	2021	2022	2023	Total
Metered Water Sales	$ 400,000	$ 125,000	$ 50,000	$ 50,000	$ 50,000	$ 675,000
System Development Fees	-	-	3,425,609	-	-	3,425,609
Total Funding Sources	**$ 400,000**	**$ 125,000**	**$ 3,475,609**	**$ 50,000**	**$ 50,000**	**$ 4,100,609**

Operational Impact

Future repair and maintenance of tanks is ongoing and is included within currently budgeted maintenance and personnel costs.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Pump & Distribution System Upgrades**

Project Number: Multiple
Contact: Jeanne Stevens, Engineering Manager
Department: Castle Rock Water
Category: Equipment
Type: Replacement
Useful Life: 25 years

5 Year Historical Total	$	53,315
2019-2023 Total		4,275,000
CIP Project Total (2014-2023):	**$**	**4,328,315**

Description and Justification

The Town has nine active pump stations that are over 10 years old. Pump stations are critical to providing water to customers and for moving water around Town. Although a pump station facility has an overall 50 year service life, the individual components (pumps, motors, flow meters, valves, etc.) need replacement at shorter intervals. Water Infrastructure and Supply Efficiency (WISE) deliveries are expected to increase over time as more renewable water sources are added. Modeling indicates that to accommodate and deliver WISE water around Town, future pumping capacity in the Red Zone will have to be increased to move the water to distribution and storage.

The Milestone Pump Station pressure reducing valve (PRV) project will upgrade a PRV at the Milestone Pump Station. A PRV vault would provide some redundancy to the distribution system and also improve water quality in this older part of Town. The distribution system upgrades project will accomplish future year water transmission and distribution facility upgrades. Valves, pressure reducing valves and vaults, and other accessories often require repair and/or replacement before water main pipes do. Such items must be maintained in good operable condition to ensure reliable water transmission and distribution. The Diamond Ridge Pump Station Control Valve upgrade is required to control WISE deliveries.

These projects help Castle Rock Water meet the priority of providing high quality water service to Town residents and businesses.

Expenditures

	2019	2020	2021	2022	2023	Total
Pump Station Equipment Replacement	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 250,000
Red Zone Pumping Upsize	550,000	-	-	-	1,000,000	1,550,000
Milestone Pump Station PRV Valve	-	75,000	-	-	-	75,000
Green Zone Pumping Upgrades	-	-	-	-	1,000,000	1,000,000
Well 9 Demolition (Kinner St)	75,000	-	-	-	-	75,000
Distribution System Upgrades	250,000	250,000	250,000	250,000	250,000	1,250,000
Diamond Ridge Pump Station Control Valve	-	-	75,000	-	-	75,000
Total Expenditures	**$ 925,000**	**$ 375,000**	**$ 375,000**	**$ 300,000**	**$ 2,300,000**	**$ 4,275,000**

Funding Sources

	2019	2020	2021	2022	2023	Total
Metered Water Sales	$ 375,000	$ 375,000	$ 375,000	$ 300,000	$ 300,000	$ 1,725,000
System Development Fees	550,000	-	-	-	2,000,000	2,550,000
Total Funding Sources	**$ 925,000**	**$ 375,000**	**$ 375,000**	**$ 300,000**	**$ 2,300,000**	**$ 4,275,000**

Operational Impact

Future repair and maintenance of pump station equipment is ongoing and is included within the Pump Station Equipment Replacement project. A single pump or motor could exceed $25,000. Red Zone Pumping Upsize Estimated operating costs are $30,074 annually and is incorporated into the Water Fund Operations Budget and paid for with System Development Fees as part of the Town's growth.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Waterline Rehab/Replacement**

Project Number: Multiple
Contact: Jeanne Stevens, Engineering Manager
Department: Castle Rock Water
Category: Infrastructure
Type: Repair
Useful Life: 50 years

5 Year Historical Total	$	377,762
2019-2023 Total		3,738,000
CIP Project Total (2014-2023):	**$**	**4,115,762**

Description and Justification

This project is intended to rehabilitate or replace existing Town of Castle Rock waterlines as they reach the end of their useful lives. The Glovers project is a phased approach to replace aging waterline in the Glovers neighborhood. Plans include the replacement of approximately 10,500 linear feet of eight inch watermains. The Crowfoot project will replace approximately 725 linear feet of Purple Zone transmission line in Crowfoot Valley Road from Tower Road to the Diamond Ridge Pump Station. The transmission line is undersized and must be upsized from 16 inch to 20 inch to move future WISE water supplies.

The Highway 85 projects includes the construction of a transmission line at Highway 85 needed to move WISE/Dominion flows. The Tank 11 to Pine Canyon project constructs a water line from the tank to the development. These projects help Castle Rock Water meet the priority of providing high quality water service to Town residents and businesses. The Crowfoot project will replace approximately 725 linear feet of Purple Zone transmission line in Crowfoot Valley Road from Tower Road to the Diamond Ridge Pump Station. The transmission line is undersized and must be upsized from 16 inch to 20 inch to to move future WISE water supplies.

Expenditures

	2019	2020	2021	2022	2023	Total
Waterline Rehab/Replacement	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 1,500,000
Glovers Waterline Replacement	425,000	363,000	594,000	-	-	1,382,000
Tank 11 to Pine Canyon Water Line	-	388,000	-	-	-	388,000
Liggett Road Upsize	-	-	-	-	126,000	126,000
Crowfoot Purple Line Upsize	-	192,000	-	-	-	192,000
5th St. Red Zone Connection	-	-	-	-	150,000	150,000
Total Expenditures	**$ 725,000**	**$ 1,243,000**	**$ 894,000**	**$ 300,000**	**$ 576,000**	**$ 3,738,000**

Funding Sources

	2019	2020	2021	2022	2023	Total
Metered Water Sales	$ 725,000	$ 663,000	$ 894,000	$ 300,000	$ 300,000	$ 2,882,000
System Development Fees	-	580,000	-	-	276,000	856,000
Total Funding Sources	**$ 725,000**	**$ 1,243,000**	**$ 894,000**	**$ 300,000**	**$ 576,000**	**$ 3,738,000**

Operational Impact

There are no additional future operating expenditures associated with rehabilitation/replacement.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Craig & Gould North Improvements**

Project Number: 76-51
Contact: Jeanne Stevens, Engineering Manager
Department: Castle Rock Water
Category: Infrastructure
Type: Upgrade
Useful Life: 20 years

5 Year Historical Total	$	126,157
2019-2023 Total		730,000
CIP Project Total (2014-2023):	**$**	**856,157**

Description and Justification

This project would accomplish infrastructure improvements in Craig and Gould North neighborhood. Existing water lines are undersized and greater than 70 years old. This project will be coordinated with Public Works and Stormwater for a comprehensive infrastructure improvement including street improvements and storm sewer improvements. In-house resources will be used as much as possible to reduce the cost of this project and is reflected in the price below. This project helps Castle Rock Water meet the priority of providing high quality water service to Town residents and businesses.

Expenditures	2019	2020	2021	2022	2023	Total
Design	$ 60,000	$ -	$ -	$ -	$ -	$ 60,000
Construction	-	670,000	-	-	-	670,000
Total Expenditures	**$ 60,000**	**$ 670,000**	**$ -**	**$ -**	**$ -**	**$ 730,000**

Funding Sources	2019	2020	2021	2022	2023	Total
Metered Water Sales	$ 60,000	$ 670,000	$ -	$ -	$ -	$ 730,000
Total Funding Sources	**$ 60,000**	**$ 670,000**	**$ -**	**$ -**	**$ -**	**$ 730,000**

Operational Impact

There are no additional future operating expenditures associated with Craig and Gould North Improvements.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Security & SCADA System Improvements**

Project Number:	Multiple
Contact:	Tim Friday, Assistant Castle Rock Director
Department:	Castle Rock Water
Category:	Building
Type:	Upgrade
Useful Life:	20 years

5 Year Historical Total	$	214,338
2019-2023 Total		175,000
CIP Project Total (2014-2023):	**$**	**389,338**

Description and Justification

This project is intended to accomplish miscellaneous small projects to increase facility security in accordance with the Facilities Vulnerability Assessment and accomplish future year water transmission and distribution facility upgrades. Projects include electronic access control at all water facilities through installation of card readers or replacement of mechanical locks with electronic locks operated by programmable keys. Other projects include repair and replacement of fencing and installation of secure gates. Future year projects that are identified in the 2017 Water Master Plan will need to be implemented in order to ensure distribution system reliability and capacity to deliver water in growing areas. Planned improvements include the automation of several pressure reducing valve stations identified in the 2017 Water Master Plan. Most of this work will be performed by Castle Rock Water staff. These projects help Castle Rock Water meet the priority of providing high quality water service to Town residents and businesses.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Security Improvements	$ 50,000	$ 50,000	$ 25,000	$ 25,000	$ 25,000	$ 175,000
Total Expenditures	**$ 50,000**	**$ 50,000**	**$ 25,000**	**$ 25,000**	**$ 25,000**	**$ 175,000**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Metered Water Sales	$ 50,000	$ 50,000	$ 25,000	$ 25,000	$ 25,000	$ 175,000
Total Funding Sources	**$ 50,000**	**$ 50,000**	**$ 25,000**	**$ 25,000**	**$ 25,000**	**$ 175,000**

Operational Impact

There are no additional future operating expenditures associated with Security and SCADA System Improvements.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **General Facility Upgrades & Replacements**

Project Number: Multiple
Contact: Tim Friday, Assistant Castle Rock Water Director
Department: Castle Rock Water
Category: Equipment
Type: Upgrade
Useful Life: 20 years

5 Year Historical Total	$	448,142
2019-2023 Total		1,000,000
CIP Project Total (2014-2023):	**$**	**1,448,142**

Description and Justification

This project is intended to upgrade an existing booster pump station, pressure reducing valves, and other improvements to related water facilities. The facilities capital replacements project will facilitate maintaining building functionality by making needed updates and replacing portions of various facilities.

The Town operates 5 water treatment plants, many pump stations, PRVs, buildings, and office space. All of these facilities require maintenance and replacements of various items and equipment. This project also includes improvements to well building #204 which include replacing outdated equipment and electrical components. Small projects to improve the functionality and/or appearance of Town facilities are necessary. These projects include drainage, landscaping, and site improvements at existing pump stations. As buildings age components will require replacement. As a formal asset management program develops, capital replacements will become well defined. This project is created to accommodate those needs. The existing access to many sites is unimproved or gravel access that requires extension maintenance, particularly during the winter. Snowplowing and access, in general, will be improved by paving and otherwise improving site access. These projects help Castle Rock Water meet the priority of providing high quality water service to Town residents and businesses.

The paving project will pave the access drives to pump stations/tanks/well sites and other facilities.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
General Facility Upgrades	$ 75,000	$ 75,000	$ 75,000	$ 75,000	$ 75,000	$ 375,000
Facilities Capital Replacements	75,000	75,000	75,000	75,000	75,000	375,000
Facilities Paving	50,000	50,000	50,000	50,000	50,000	250,000
Total Expenditures	**$ 200,000**	**$ 200,000**	**$ 200,000**	**$ 200,000**	**$ 200,000**	**$ 1,000,000**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Metered Water Sales	$ 200,000	$ 200,000	$ 200,000	$ 200,000	$ 200,000	$ 1,000,000
Total Funding Sources	**$ 200,000**	**$ 200,000**	**$ 200,000**	**$ 200,000**	**$ 200,000**	**$ 1,000,000**

Operational Impact

There are no additional future operating expenditures associated with rehabilitation/replacement.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Administration & Customer Service Building**

Project Number: 77-57
Contact: Tim Friday, Assistant Castle Rock Water Director
Department: Castle Rock Water
Category: Building
Type: New
Useful Life: 50 years

5 Year Historical Total	$	-
2019-2023 Total		1,403,641
CIP Project Total (2014-2023):	**$**	**1,403,641**

Description and Justification

This project accommodates construction of a new Administration and Customer Service Building for Castle Rock Water. The existing Kellogg Facility will be repurposed for staff currently housed in trailers. This building will accommodate existing and future Administration and Customer Service staff within Castle Rock Water. The Admin/Customer Service Team currently is short of space by approximately 3,000 square feet. The new facility will be designed and constructed to meet the needs of the department through buildout. A site assessment was conducted in 2013 that details existing and future conditions and identifies space needs for Castle Rock Water. Construction is targeted for 2020 with funding split across the four Castle Rock Water enterprise funds based upon staffing proportions. The Water Fund's portion of the 2020 funding will be a drawdown of reserves accumulated in prior years through system development fees and rates revenues. This project helps Castle Rock Water meet the priority of providing high quality water service to Town residents and businesses.

	Design	Construction
Water Fund	$140,364	$1,263,277
Water Resources Fund	$62,794	$565,146
Stormwater Fund	$64,372	$579,352
Wastewater Fund	$58,831	$529,477

Expenditures

	2019	2020	2021	2022	2023	Total
Construction	$ -	$ 1,263,277	$ -	$ -	$ -	$ 1,263,277
Design	140,364	-	-	-	-	140,364
Total Expenditures	**$ 140,364**	**$ 1,263,277**	**$ -**	**$ -**	**$ -**	**$ 1,403,641**

Funding Sources

	2019	2020	2021	2022	2023	Total
System Development Fees	$ 140,364	$ 1,263,277	$ -	$ -	$ -	$ 1,403,641
Total Funding Sources	**$ 140,364**	**$ 1,263,277**	**$ -**	**$ -**	**$ -**	**$ 1,403,641**

Operational Impact

There are general operations expenditures of approximately $30,000 per year. The Water Fund's portion is $12,119 per year, the Water Resources Fund's portion is $5,689 per year, the Stormwater Fund's portion is $5,510 per year, and the Wastewater Fund's portion is $6,682 per year. These costs will be incorporated into operating budgets in the future.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Machinery & Equipment**

Project Number: 70-30
Contact: Jeanne Stevens, Engineering Manager
Department: Castle Rock Water
Category: Infrastructure
Type: Upgrade
Useful Life: Variable

5 Year Historical Total	$	75,000
2019-2023 Total		3,000,000
CIP Project Total (2014-2023):	**$**	**3,075,000**

Description and Justification

The purpose of these funds is to accommodate machinery and equipment purchases needed for items that have yet be identified. These funds provide flexibility to accommodate these purchases as needed.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Machinery and Equipment	$ 500,000	$ 600,000	$ 600,000	$ 600,000	$ 700,000	$ 3,000,000
Total Expenditures	**$ 500,000**	**$ 600,000**	**$ 600,000**	**$ 600,000**	**$ 700,000**	**$ 3,000,000**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
System Development Fees	$ 500,000	$ 600,000	$ 600,000	$ 600,000	$ 700,000	$ 3,000,000
Total Funding Sources	**$ 500,000**	**$ 600,000**	**$ 600,000**	**$ 600,000**	**$ 700,000**	**$ 3,000,000**

Operational Impact

Operational impacts are typically minimal as these small improvements to existing infrastructure fall under existing maintenance operations budgets.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

WATER RESOURCES FUND

CASTLE ROCK WATER

PROJECTS & FUNDING SOURCES BY DEPARTMENT

Project Expenditures	2019	2020	2021	2022	2023	Total
WISE Project	$ 6,170,000	$ 4,050,000	$5,023,151	$2,324,351	$ 9,527,551	$ 27,095,053
Chatfield Reallocation Project	4,358,580	2,000,752	1,098,661	1,037,627	1,037,621	9,533,241
Alternative Source of Supply Project	880,000	6,755,850	3,755,850	-	-	11,391,700
Administration & Customer Service Building	62,794	565,146	-	-	-	627,940
Plum Creek Diversion	5,523,994	-	-	-	-	5,523,994
PCWPF Expansion	14,000,000	-	-	400,000	-	14,400,000
Newlin Gulch	5,455,300	5,061,920	-	-	-	10,517,220
Pipeline South to PCWPF	390,000	-	-	-	-	390,000
Stream Gages	250,000	-	-	-	-	250,000
Total Expenditures by Year	**$ 37,090,668**	**$18,433,668**	**$9,877,662**	**$3,761,978**	**$10,565,172**	**$ 79,729,148**

Project Funding Sources	2019	2020	2021	2022	2023	Total
System Development Fees	$ 22,279,518	$11,286,259	$5,926,597	$2,257,187	$ 6,339,103	$ 48,088,665
Water Resources Fees	14,811,150	7,147,409	3,951,065	1,504,791	4,226,069	31,640,483
Total Funding Sources by Year	**$ 37,090,668**	**$18,433,668**	**$9,877,662**	**$3,761,978**	**$10,565,172**	**$ 79,729,148**

Funding Source information is intended to identify the revenue that is planned to pay for the capital projects included. While additional revenue is anticipated to be received each year, this information identifies only what is necessary to fund the Capital Improvement Program.

Ribbon cutting for WISE Water

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **WISE Project**

Project Number: 77-72
Contact: Matt Benak, Water Resources Manager
Department: Castle Rock Water
Category: Water Rights
Type: New
Useful Life: Perpetual/50 years

5 Year Historical Total	$ 20,362,890
2019-2023 Total	27,095,053
CIP Project Total (2014-2023):	**$ 47,457,943**

Description and Justification

This project is a part of the Town's Strategic goal to transition to a 75% renewable water supply for the future. As part of this strategy, sustainable water supplies must be imported to the Town with a focus on proximity and feasibility in order to help meet this goal. This project includes securing 1,000 acre-feet (AF) of water on average from Denver and Aurora and will build infrastructure necessary to move water from the Peter Binney Water Purification Facility located near Aurora Reservoir to the Town of Castle Rock. This part of the project includes clean-up of title documents related to the existing infrastructure purchased as part of this project in 2015, additional pipeline connections, and infrastructure expansion through Parker Water & Sanitation District's (PWSD) system. This five-year plan also includes the addition of WISE (Water Infrastructure Supply Efficiency) water that is currently under option by Douglas County and Stonegate Village Metropolitan District WISE water that is being marketed for sale. Funds are also included for the purchase from PWSD of additional treatment capacity in Rueter Hess Reservoir (RHWTP).

Expenditures	2019	2020	2021	2022	2023	Total
ECCV Title Cleanup	$ 120,000	$ -	$ -	$ -	$ -	$ 120,000
Binney Connection	3,400,000	-	-	-	-	3,400,000
WISE Project Subscription Fees	150,000	150,000	-	-	-	300,000
WISE Local Infrastructure (PWSD Expsn)	-	3,900,000	3,900,000	1,201,200	4,404,400	13,405,600
WISE Option Agreement	2,500,000	-	1,123,151	1,123,151	1,123,151	5,869,453
Stonegate WISE Water	-	-	-	-	-	-
Purchase Capacity in PWSD RHWTP	-	-	-	-	4,000,000	4,000,000
Total Expenditures	**$ 6,170,000**	**$4,050,000**	**$5,023,151**	**$2,324,351**	**$9,527,551**	**$ 27,095,053**

Funding Sources	2019	2020	2021	2022	2023	Total
System Development Fees	$ 3,702,000	$2,430,000	$3,013,891	$1,394,611	$5,716,531	$ 16,257,032
Water Resources Fees	2,468,000	1,620,000	2,009,260	929,740	3,811,020	10,838,021
Total Funding Sources	**$ 6,170,000**	**$4,050,000**	**$5,023,151**	**$2,324,351**	**$9,527,551**	**$ 27,095,053**

Operational Impact

Operating costs for the WISE project will be variable based on actual annual water purchased and paid by rates and fees. Preliminary estimates suggest that O&M costs will be approximately $1.5 million each year once the permanent delivery schedule begins in 2021. WISE water is set to be delivered to the Town in 2018.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Chatfield Reallocation Project**

Project Number: 77-29
Contact: Matt Benak, Water Resources Manager
Department: Castle Rock Water
Category: Water Rights
Type: New
Useful Life: Perpetual

5 Year Historical Total	$	948,647
2019-2023 Total		9,533,241
CIP Project Total (2014-2023):	**$**	**10,481,888**

Description and Justification

This project will fund the participation and maintenance costs of the Town's reserved storage space (374 acre-feet) in the expanded Chatfield Reservoir. The Town plans to increase its participation rate to 2,000 acre-feet over the next 13 to 17 years. This project has been identified as a critical component of the Town's Renewable Water Implementation Program, which includes maximizing the Town's existing supplies and finding the most efficient solutions to meet the Town's long term renewable water supply goals. Specifically, this storage space will allow enhanced management capabilities for the Town's Plum Creek Water rights, including treated return flows in the Plum Creek basin, and native rights along Plum Creek and the South Platte River. This project is funded in partnership with multiple entities and managed by the Chatfield Reservoir Mitigation Company (CRMC). The future goal of the Town is to provide 75% renewable water supply annually to its customers, this project will be a key component to achieve that goal.

Expenditures	2019	2020	2021	2022	2023	Total
Additional Storage	$ 875,000	$ 1,948,442	$ 1,037,621	$ 1,037,627	$ 1,037,621	$ 5,936,311
CRMC Annual Assessment	43,580	52,310	61,040	-	-	156,930
Nevada Ditch Water Rights	3,340,000	-	-	-	-	3,340,000
Chatfield Raw Pipeline and Pump Station	100,000	-	-	-	-	100,000
Total Expenditures	**$ 4,358,580**	**$ 2,000,752**	**$ 1,098,661**	**$ 1,037,627**	**$ 1,037,621**	**$ 9,533,241**

Funding Sources	2019	2020	2021	2022	2023	Total
System Development Fees	$ 2,615,148	$ 1,200,451	$ 659,197	$ 622,576	$ 622,573	$ 5,719,945
Water Resources Fees	1,743,432	800,301	439,464	415,051	415,048	3,813,296
Total Funding Sources	**$ 4,358,580**	**$ 2,000,752**	**$ 1,098,661**	**$ 1,037,627**	**$ 1,037,621**	**$ 9,533,241**

Operational Impact

Future operating and maintenance expenses of the reservoir are anticipated to be approximately $100,000 a year beginning in 2021 and are incorporated into the Water Resources Fund 2018-2020 Balanced Financial Plan and is to be funded by rates.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Alternative Source of Supply Project**

Project Number: 77-30
Contact: Matt Benak, Water Resources Manager
Department: Castle Rock Water
Category: Water Rights
Type: New
Useful Life: 50 years

5 Year Historical Total	$ 8,713,987
2019-2023 Total	11,391,700
CIP Project Total (2014-2023):	**$ 20,105,687**

Description and Justification

This project entails importing an additional 2,500 acre-feet of renewable and fully consumable water from the South Platte River basin, northeast of the Denver metro area. It includes the purchase of approximately 2,500 acre-feet of renewable surface water rights and all legal costs associated with enabling the water to be used in Castle Rock. It includes legal and engineering due diligence, construction of a well field on the Box Elder property (located in Weld County), pumping systems, and raw water transmission pipelines. This project also includes obtaining firm capacity in East Cherry Creek Valley (ECCV) Water & Sanitation District's Northern Pipeline plus pump stations and treatment capacity in ECCV's water treatment plant. The Town owns substantial Denver Basin groundwater supplies and a limited amount of surface water on Plum Creek. However, as the demand for water increases along with the Town population, other supplies will need to be secured to meet that demand. Sustainable water supplies must be imported to the Town with a focus on proximity and feasibility in order to meet the goal of 75% renewable water.

Expenditures	2019	2020	2021	2022	2023	Total
Water Rights Acquisition	$ -	$ 3,755,850	$ 3,755,850	$ -	$ -	$ 7,511,700
Box Elder Creek Project Due Diligence	300,000	-	-	-	-	300,000
Demolish Structures on Box Elder Property	500,000	-	-	-	-	500,000
Abandon Existing Wells (Box Elder)	80,000	-	-	-	-	80,000
Participation in local entity's reservoir system	-	3,000,000	-	-	-	3,000,000
Total Expenditures	**$ 880,000**	**$ 6,755,850**	**$ 3,755,850**	**$ -**	**$ -**	**$ 11,391,700**

Funding Sources	2019	2020	2021	2022	2023	Total
System Development Fees	$ 528,000	$ 4,053,510	$ 2,253,510	$ -	$ -	$ 6,835,020
Water Resources Fees	352,000	2,702,340	1,502,340	-	-	4,556,680
Total Funding Sources	**$ 880,000**	**$ 6,755,850**	**$ 3,755,850**	**$ -**	**$ -**	**$ 11,391,700**

Operational Impact

Operating costs are not currently estimated as infrastructure to move the water is not set to begin until year 2030. The operational costs will be funded by rates.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Administration & Customer Service Building**

Project Number: 77-57
Contact: Tim Friday, Assistant Castle Rock Water Director
Department: Castle Rock Water
Category: Building
Type: New
Useful Life: 50 years

5 Year Historical Total	$	-
2019-2023 Total		627,940
CIP Project Total (2014-2023):	**$**	**627,940**

Description and Justification

This project accommodates construction of a new Administration and Customer Service Building for Castle Rock Water. The existing Kellogg Facility will be repurposed for staff currently housed in trailers. This building will accommodate existing and future Administration and Customer Service staff within Castle Rock Water. The Administration Customer Service Team currently is short of space by approximately 3,000 square feet. The new facility will be designed and constructed to meet the needs of the department through buildout. A site assessment was conducted in 2013 that details existing and future conditions and identifies space needs for Castle Rock Water. Construction is targeted for 2020 with funding split across the four Castle Rock Water enterprise funds based upon staffing proportions. The Water Resources Fund's portion of 2020 funding will be a drawdown of reserves accumulated in prior years and departmentally designated plus system development fees and rates revenues. This project helps Castle Rock Water meet the priority of providing high quality water service to Town residents and businesses.

	Design	Construction
Water Fund	$140,364	$1,263,277
Water Resources Fund	$62,794	$565,146
Stormwater Fund	$64,372	$579,352
Wastewater Fund	$58,831	$529,477

Expenditures

	2019	2020	2021	2022	2023	Total
Construction	$ -	$ 565,146	$ -	$ -	$ -	$ 565,146
Design	62,794	-	-	-	-	62,794
Total Expenditures	**$ 62,794**	**$ 565,146**	**$ -**	**$ -**	**$ -**	**$ 627,940**

Funding Sources

	2019	2020	2021	2022	2023	Total
System Development Fees	$ 62,794	$ 565,146	$ -	$ -	$ -	$ 627,940
Total Funding Sources	**$ 62,794**	**$ 565,146**	**$ -**	**$ -**	**$ -**	**$ 627,940**

Operational Impact

There are general operations expenditures of approximately $30,000 per year. The Water Fund's portion is $12,119 per year, the Water Resources Fund's portion is $5,689 per year, the Stormwater Fund's portion is $5,510 per year, and the Wastewater Fund's portion is $6,682 per year.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Plum Creek Diversion**

Project Number: 77-54
Contact: Matt Benak, Water Resources Manager
Department: Castle Rock Water
Category: Infrastructure
Type: New
Useful Life: 50 years

5 Year Historical Total	$ 18,658,824
2019-2023 Total	5,523,994
CIP Project Total (2014-2023):	**$ 24,182,818**

Description and Justification

The Town has more water rights along Plum Creek than it can currently capture through the existing alluvial well and East Plum Creek diversion infrastructure. The future goal of the Town is to provide 75% renewable water supply annually to its customers and this project will be a key component to achieve that goal. Implementation of this project would allow the Town to continue towards the renewable water goal by capturing existing water rights on Plum Creek and taking full advantage of its junior water rights during times of high stream flow. This project includes the installation of a new pumping station at the Plum Creek Diversion that was purchased in 2017, improvements to Castle Rock Reservoir No. 1 (also purchased in 2017), and the construction of an approximate six-mile, 30-inch raw water pipeline that will move the water south to Castle Rock to be treated at the Plum Creek Water Purification Facility (PCWPF).

Expenditures	2019	2020	2021	2022	2023	Total
Plum Creek Diversion Structure and Pump Statio	$ 3,000,000	$ -	$ -	$ -	$ -	$ 3,000,000
Raw Water Pipeline from Diversion to PCWPF	-	-	-	-	-	-
Castle Rock Reservoir No. 1 Improvements	2,523,994	-	-	-	-	2,523,994
Total Expenditures	**$ 5,523,994**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 5,523,994**

Funding Sources	2019	2020	2021	2022	2023	Total
System Development Fees	$ 3,314,396	$ -	$ -	$ -	$ -	$ 3,314,396
Water Resources Fees	2,209,598	-	-	-	-	2,209,598
Total Funding Sources	**$ 5,523,994**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 5,523,994**

Operational Impact

Future operating costs are estimated at $125,000 per household per year beginning in 2020, these costs will be included in operating budgets for Water Resources funds.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **PCWPF Expansion**

Project Number: 77-75
Contact: Matt Benak, Water Resources Manager
Department: Castle Rock Water
Category: Infrastructure
Type: New
Useful Life: 50 years

5 Year Historical Total	$ 17,689,174
2019-2023 Total	14,400,000
CIP Project Total (2014-2023):	**$ 32,089,174**

Description and Justification

Advanced treatment processes are necessary for the effective treatment of the Town's Plum Creek surface water supplies. The future goal of the Town is to provide 75% renewable water supply annually to its customers and this project will be a key component to achieve that goal. This project will add advanced treatment processes (ozonation, biologically activated filtration, and granular activated carbon) to the Plum Creek Water Purification Facility (PCWPF), giving the Town the ability to adequately treat additional Plum Creek surface water supplies.

Expenditures	2019	2020	2021	2022	2023	Total
Membrane Rack Remove and Replace	$ -	$ -	$ -	$ 400,000	$ -	$ 400,000
Advanced Treatment Facility (Phase 1)	14,000,000	-	-	-	-	14,000,000
Total Expenditures	**$ 14,000,000**	**$ -**	**$ -**	**$ 400,000**	**$ -**	**$ 14,400,000**

Funding Sources	2019	2020	2021	2022	2023	Total
System Development Fees	$ 8,400,000	$ -	$ -	$ 240,000	$ -	$ 8,640,000
Water Resources Fees	5,600,000	-	-	160,000	-	5,760,000
Total Funding Sources	**$ 14,000,000**	**$ -**	**$ -**	**$ 400,000**	**$ -**	**$ 14,400,000**

Operational Impact

Estimated Operation and Maintenance costs for advanced treatment processes are estimated as $820,000 in 2019 and $1.1 million in 2020 and beyond and are incorporated in the Water Resources fund's operations budget.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Newlin Gulch**

Project Number: 78-04
Contact: Matt Benak, Water Resources Manager
Department: Castle Rock Water
Category: Infrastructure
Type: New
Useful Life: 50 years

5 Year Historical Total	$ 2,555,300
2019-2023 Total	10,517,220
CIP Project Total (2014-2023):	**$ 13,072,520**

Description and Justification

This project involves the construction of a pipeline (discharging water generally in the Newlin Gulch drainage) and pumping infrastructure to pump the Town's fully reusable, treated water from PCWRA to Rueter-Hess Reservoir. The Town owns substantial Denver Basin groundwater supplies and a limited amount of surface water on Plum Creek. However, as the demand for water increases along with the Town population, other supplies will need to be secured to meet that demand. Sustainable water supplies must be imported to the Town with a focus on proximity and feasibility.

Expenditures	2019	2020	2021	2022	2023	Total
Newlin Gulch Pipeline and Pump Station	$ 5,455,300	$ -	$ -	$ -	$ -	$ 5,455,300
PCWRA Upgrades for Newlin Gulch Pipeline	-	5,061,920	-	-	-	5,061,920
Total Expenditures	**$ 5,455,300**	**$ 5,061,920**	**$ -**	**$ -**	**$ -**	**$ 10,517,220**

Funding Sources	2019	2020	2021	2022	2023	Total
System Development Fees	$ 3,273,180	$ 3,037,152	$ -	$ -	$ -	$ 6,310,332
Water Resources Fees	2,182,120	2,024,768	-	-	-	4,206,888
Total Funding Sources	**$ 5,455,300**	**$ 5,061,920**	**$ -**	**$ -**	**$ -**	**$ 10,517,220**

Operational Impact

There is no operational impacts estimated for this project, however, these costs will primarily be related to electricity for pumping. When these costs are better understood, they will budgeted in the future.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Pipeline South to PCWPF**

Project Number: 76-67
Contact: Matt Benak, Water Resources Manager
Department: Castle Rock Water
Category: Infrastructure
Type: New
Useful Life: 50 years

5 Year Historical Total	$	1,663,017
2019-2023 Total		390,000
CIP Project Total (2014-2023):	**$**	**2,053,017**

Description and Justification

This project involves relocating approximately 2,000 linear feet of raw water pipeline from the Heckendorf alluvial well field that is exposed in East Plum Creek. The Town plans to relocate this exposed portion of the pipeline out of the floodplain to prevent future pipeline exposure along the stream.

Expenditures	2019	2020	2021	2022	2023	Total
Pipeline Relocation	$ 340,000	$ -	$ -	$ -	$ -	$ 340,000
PC South Well Field	50,000	-	-	-	-	50,000
Total Expenditures	**$ 390,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 390,000**

Funding Sources	2019	2020	2021	2022	2023	Total
System Development Fees	$ 234,000	$ -	$ -	$ -	$ -	$ 234,000
Water Resources Fees	156,000	-	-	-	-	156,000
Total Funding Sources	**$ 390,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 390,000**

Operational Impact

There are no operational impacts resulting from the relocation of the existing pipeline.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name — Stream Gages

Project Number:	79-09
Contact:	Matt Benak, Water Resources Manager
Department:	Castle Rock Water
Category:	Infrastructure
Type:	New
Useful Life:	50 years

5 Year Historical Total	$	-
2019-2023 Total		250,000
CIP Project Total (2014-2023):	**$**	**250,000**

Description and Justification

This project is part of the Town's Strategic goal to transition to a 75% renewable water supply for the future. The Town has existing renewable water rights along Cook Creek, a tributary to East Plum Creek in Larkspur, CO. In order to use these water rights, the Town is required to install a stream gage along Cook Creek near Noe Road.

Expenditures	2019	2020	2021	2022	2023	Total
Cook Creek Stream Gage	$ 250,000	$ -	$ -	$ -	$ -	$ 250,000
Total Expenditures	**$ 250,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 250,000**

Funding Sources	2019	2020	2021	2022	2023	Total
System Development Fees	$ 150,000	$ -	$ -	$ -	$ -	$ 150,000
Water Resources Fees	100,000	-	-	-	-	100,000
Total Funding Sources	**$ 250,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 250,000**

Operational Impact

Future operating costs are estimated at $15,000 per year beginning in 2019 within the Water Resources Funds. These operating costs will include stream gage calibration, removing debris following precipitation events, communication systems, and regular site maintenance.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

STORMWATER FUND

CASTLE ROCK WATER

PROJECTS & FUNDING SOURCES BY DEPARTMENT

Project Expenditures	2019	2020	2021	2022	2023	Total
Minor Drainageway Stabilization	$ 155,319	$ 155,319	$ 221,986	$ 155,319	$ 155,319	$ 843,262
Stream Stabilization	3,897,330	728,289	2,249,816	1,672,651	2,239,318	10,787,404
Craig & Gould N. Infrastructure Improvements	213,108	1,331,925	-	-	-	1,545,033
Detention Pond Retrofits	50,000	50,000	50,000	50,000	50,000	250,000
Corrugated Metal Pipe Rehabilitation	-	-	240,000	240,000	240,000	720,000
Watershed Master Plan Updates	30,000	30,000	280,000	230,000	230,000	800,000
Administration & Customer Service Building	64,372	579,352	-	-	-	643,724
Village North Storm Sewer	-	225,000	-	-	-	225,000
Young American Storm Sewer - Gordon Drive	500,000	-	-	-	-	500,000
Total Expenditures by Year	**$ 4,910,129**	**$ 3,099,885**	**$ 3,041,802**	**$ 2,347,970**	**$ 2,914,637**	**$ 16,314,423**

Project Funding Sources	2019	2020	2021	2022	2023	Total
Stormwater Charges	$ 1,733,296	$ 1,920,099	$ 1,362,921	$ 955,592	$ 1,171,381	$ 7,143,289
System Development Fees	3,176,833	1,179,786	1,678,881	1,392,378	1,743,256	9,171,134
Total Funding Sources by Year	**$ 4,910,129**	**$ 3,099,885**	**$ 3,041,802**	**$ 2,347,970**	**$ 2,914,637**	**$ 16,314,423**

Funding Source information is intended to identify the revenue that is planned to pay for the capital projects included. While additional revenue is anticipated to be received each year, this information identifies only what is necessary to fund the Capital Improvement Program.

Castle Rock Storm

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Minor Drainageway Stabilization**

Project Number: 78-02
Contact: David Van Dellen, Stormwater Manager
Department: Castle Rock Water
Category: Infrastructure
Type: New
Useful Life: 50 years

5 Year Historical Total	$	155,319
2019-2023 Total		843,262
CIP Project Total (2014-2023):	**$**	**998,581**

Description and Justification

This project includes new infrastructure on small channel systems downstream of development to correct erosion where the minor drainageway system is incomplete. Minor drainageways are natural or engineered conveyance systems with an upstream drainage area less than 130 acres. If improvements are not made, these systems pose a potential public safety hazard and flood risk. These projects will provide improvements for adequate capacity based on growth and stabilization. Projects are divided between the Plum Creek Basin (PC) and the Cherry Creek Basin (CC). This project helps Castle Rock Water provide high quality water service to Town residents and businesses by managing stormwater runoff and flood risks. Funding for these improvements are split between stormwater charges and system development fees to account for existing infrastructure needs and impacts due to growth.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Minor Drainage Way Stab PC	$ 84,680	$ 84,680	$ 129,324	$ 84,680	$ 84,680	$ 468,044
Minor Drainage Way Stab CC	70,639	70,639	92,662	70,639	70,639	375,218
Total Expenditures	**$ 155,319**	**$ 155,319**	**$ 221,986**	**$ 155,319**	**$ 155,319**	**$ 843,262**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Stormwater Charges	$ 97,140	$ 97,140	$ 141,784	$ 97,140	$ 97,140	$ 530,344
System Development Fees	58,179	58,179	80,202	58,179	58,179	312,918
Total Funding Sources	**$ 155,319**	**$ 155,319**	**$ 221,986**	**$ 155,319**	**$ 155,319**	**$ 843,262**

Operational Impact

No additional operating expenditures or revenues are anticipated as a result of this project.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Stream Stabilization**

Project Number:	Multiple
Contact:	David Van Dellen, Stormwater Manager
Department:	Castle Rock Water
Category:	Infrastructure
Type:	New
Useful Life:	50 years

5 Year Historical Total	$ 155,319
2019-2023 Total	10,787,404
CIP Project Total (2014-2023):	**$ 10,942,723**

Description and Justification

This project includes stream channel stabilization throughout Castle Rock. The tributaries are part of the major drainageway networks that include watersheds with an upstream area greater than 130 acres, also known as the 100-year floodplain. These projects have been identified in the 2017 Stormwater Master Plan as a scheduled activity. Stream improvements generally include natural or engineered segments of vegetated stream between engineered hard points that reduce channel slope and erosive velocities. Improvements also ensure adequate flood capacity in the channel to reduce flood potential for adjacent properties. Improvements to the natural drainageway are required to mitigate development impacts that accelerate erosion and pose a potential public safety hazard if left unattended over time. This project will restore a sustainable channel system for water quality and flood control. The improvements will reduce channel erosion and protect adjacent property from loss during flooding. Projects are divided between the Plum Creek Basin (PC) and the Cherry Creek Basin (CC). This project helps Castle Rock Water provide high quality water service to Town residents and businesses by managing stormwater runoff and flood risks. Funding for these improvements are split between stormwater charges and system development fees to account for existing infrastructure needs and impacts due to growth.

Expenditures	2019	2020	2021	2022	2023	Total
Total Drainage Way Stabilization PC	$ 3,277,903	$ 650,117	$ 1,755,695	$ 1,043,970	$ 2,190,281	$ 8,917,966
Total Drainage Way Stabilization CC	619,427	78,172	494,121	628,681	49,037	1,869,438
Total Expenditures	**$ 3,897,330**	**$ 728,289**	**$ 2,249,816**	**$ 1,672,651**	**$ 2,239,318**	**$ 10,787,404**

Funding Sources	2019	2020	2021	2022	2023	Total
Stormwater Charges	$ 843,048	$ 186,034	$ 775,736	$ 418,393	$ 636,302	$ 2,859,513
System Development Fees	3,054,282	542,255	1,474,080	1,254,258	1,603,016	7,927,891
Total Funding Sources	**$ 3,897,330**	**$ 728,289**	**$ 2,249,816**	**$ 1,672,651**	**$ 2,239,318**	**$ 10,787,404**

Operational Impact

No additional operating expenditures or revenues are anticipated as a result of this project.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Craig & Gould N. Infrastructure Improvements**

Project Number:	76-51		
Contact:	David Van Dellen, Stormwater Manager	5 Year Historical Total	$ -
Department:	Castle Rock Water	2019-2023 Total	1,545,033
Category:	Infrastructure	**CIP Project Total (2014-2023):**	**$ 1,545,033**
Type:	Upgrade		
Useful Life:	50 years		

Description and Justification

This project includes water, wastewater, sewer, and stormwater improvements in the Craig and Gould North subdivision in partnership with the Public Works department for the revitalization of this downtown area. Currently, there is no storm drain system in the area. This project will add storm drains, to capture flow and reduce flood risk for this historic neighborhood. This project will provide storm drainage infrastructure to reduce street flooding and meet current criteria for residential land use. These improvements will reduce flooding hazards on the streets and for the existing private property in the neighborhood. This project helps Castle Rock Water provide high quality water service to Town residents and businesses by managing stormwater runoff and flood risks.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Design	$ 213,108	$ -	$ -	$ -	$ -	$ 213,108
Construction	-	1,331,925	-	-	-	1,331,925
Total Expenditures	**$ 213,108**	**$ 1,331,925**	**$ -**	**$ -**	**$ -**	**$ 1,545,033**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Stormwater Charges	$ 213,108	$ 1,331,925	$ -	$ -	$ -	$ 1,545,033
Total Funding Sources	**$ 213,108**	**$ 1,331,925**	**$ -**	**$ -**	**$ -**	**$ 1,545,033**

Operational Impact

There is a possible reduction in repair and maintenance costs, which won't be known until the project is complete and will be incorporated at that time.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Detention Pond Retrofits**

Project Number: 77-18
Contact: David Van Dellen, Stormwater Manager
Department: Castle Rock Water
Category: Infrastructure
Type: Upgrade
Useful Life: 50 years

5 Year Historical Total	$	149,765
2019-2023 Total		250,000
CIP Project Total (2014-2023):	**$**	**399,765**

Description and Justification

This project includes regional detention pond retrofits to facilities that demonstrate an excessive operation and maintenance burden on the program. Generally, older water quality and detention facilities require upgrades to the outflow structure and other pond features to improve runoff circulation through the facility and reduce clogging potential. Ponds are evaluated on an ongoing basis and projects are indentified as needed. This project helps Castle Rock Water provide high quality water service to Town residents and businesses by managing stormwater runoff and flood risks.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Detention Ponds	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 250,000
Total Expenditures	**$ 50,000**	**$ 50,000**	**$ 50,000**	**$ 50,000**	**$ 50,000**	**$ 250,000**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Stormwater Charges	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 250,000
Total Funding Sources	**$ 50,000**	**$ 50,000**	**$ 50,000**	**$ 50,000**	**$ 50,000**	**$ 250,000**

Operational Impact

No additional operating expenditures or revenues are anticipated as a result of this project.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Corrugated Metal Pipe Rehabilitation**

Project Number:	78-73		
Contact:	David Van Dellen, Stormwater Manager	5 Year Historical Total	$ -
Department:	Castle Rock Water	2019-2023 Total	720,000
Category:	Infrastructure	**CIP Project Total (2014-2023):**	**$ 720,000**
Type:	Repair		
Useful Life:	20-50 years		

Description and Justification

This program is required to address aging stormwater infrastructure. Existing corrugated metal pipe (CMP) has an average life expectancy of 30 years. Failure of pipe generally includes invert corrosion and deterioration resulting in subgrade failure. This program will help ensure rehabilitation to existing CMP systems prior to infrastructure failure and prolong the life of the system by 20 to 50 years. This project helps Castle Rock Water provide high quality water service to Town residents and businesses by managing stormwater runoff and flood risks.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
CMP Rehabilitation	$ -	$ -	$ 240,000	$ 240,000	$ 240,000	$ 720,000
Total Expenditures	**$ -**	**$ -**	**$ 240,000**	**$ 240,000**	**$ 240,000**	**$ 720,000**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Stormwater Charges	$ -	$ -	$ 240,000	$ 240,000	$ 240,000	$ 720,000
Total Funding Sources	**$ -**	**$ -**	**$ 240,000**	**$ 240,000**	**$ 240,000**	**$ 720,000**

Operational Impact

No additional operating expenditures or revenues are anticipated as a result of this project.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Watershed Master Plan Updates**

Project Number: 78-74
Contact: David Van Dellen, Stormwater Manager
Department: Castle Rock Water
Category: Infrastructure
Type: Planning/Design
Useful Life: Perpetual

5 Year Historical Total	$	-
2019-2023 Total		800,000
CIP Project Total (2014-2023):	**$**	**800,000**

Description and Justification

The Stormwater Capital Program includes updating 19 Major Drainageway Master Plans (MP) covering over 71 miles of floodplain system. Periodic updates to these plans are required to account for changes in watershed hydrology, stream stability assessment and capital plan prioritization. It is estimated that approximately four plans will be updated annually over a five year period beginning in 2021. A master plan GIS database tool is needed to support modeling efforts, track capital completion status and facilitate coordination with other stakeholder projects. This project helps Castle Rock Water provide high quality water service to Town residents and businesses by managing stormwater runoff and flood risks.

Expenditures	2019	2020	2021	2022	2023	Total
Master Plan GIS Database Tool	$ -	$ -	$ 50,000	$ -	$ -	$ 50,000
Watershed MP Updates - Plum Creek	-	-	200,000	200,000	200,000	600,000
Chase Drains Installations	30,000	30,000	30,000	30,000	30,000	150,000
Total Expenditures	**$ 30,000**	**$ 30,000**	**$ 280,000**	**$ 230,000**	**$ 230,000**	**$ 800,000**

Funding Sources	2019	2020	2021	2022	2023	Total
Stormwater Charges	$ 30,000	$ 30,000	$ 155,401	$ 150,059	$ 147,939	$ 513,399
System Development Fees	-	-	124,599	79,941	82,061	286,601
Total Funding Sources	**$ 30,000**	**$ 30,000**	**$ 280,000**	**$ 230,000**	**$ 230,000**	**$ 800,000**

Operational Impact

No additional operating expenditures or revenues are anticipated as a result of this project.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Administration & Customer Service Building**

Project Number:	77-57
Contact:	Tim Friday, Assistant Castle Rock Water Director
Department:	Castle Rock Water
Category:	Building
Type:	New
Useful Life:	50 years

5 Year Historical Total	$	-
2019-2023 Total		643,724
CIP Project Total (2014-2023):	**$**	**643,724**

Description and Justification

This project accommodates construction of a new Administration and Customer Service Building for Castle Rock Water. The existing Kellogg Facility will be repurposed for staff currently housed in trailers. This building will accommodate the existing and future Administration and Customer Service staff within Castle Rock Water. The Admin/Customer Service Team currently is short of space by approximately 3,000 square feet. The new facility will be designed and constructed to meet the needs of the department through buildout. A site assessment was conducted in 2013 that details existing and future conditions and identifies space needs for the Castle Rock Water. Construction is targeted for 2020 with funding split across the four Castle Rock Water enterprise funds based upon staffing proportions. The Stormwater Fund's portion of 2020 funding will be a drawdown of reserves accumulated in prior years through system development fees and rates revenues. This project helps Castle Rock Water meet the priority of providing high quality water service to Town residents and businesses.

	Design	Construction
Water Fund	$140,364	$1,263,277
Water Resources Fund	$62,794	$565,146
Stormwater Fund	$64,372	$579,352
Wastewater Fund	$58,831	$529,477

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Construction	$ -	$ 579,352	$ -	$ -	$ -	$ 579,352
Design	64,372	-	-	-	-	64,372
Total Expenditures	**$ 64,372**	**$ 579,352**	**$ -**	**$ -**	**$ -**	**$ 643,724**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
System Development Fees	$ 64,372	$ 579,352	$ -	$ -	$ -	$ 643,724
Total Funding Sources	**$ 64,372**	**$ 579,352**	**$ -**	**$ -**	**$ -**	**$ 643,724**

Operational Impact

There are general operations expenditures of approximately $30,000 per year. The Water Fund's portion is $12,119 per year, the Water Resources Fund's portion is $5,689 per year, the Stormwater Fund's portion is $5,510 per year, and the Wastewater Fund's portion is $6,682 per year.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Village North Storm Sewer**

Project Number:	75-20
Contact:	David Van Dellen, Stormwater Manager
Department:	Castle Rock Water
Category:	Infrastructure
Type:	Upgrade
Useful Life:	50 years

5 Year Historical Total	$	50,000
2019-2023 Total		225,000
CIP Project Total (2014-2023):	**$**	**275,000**

Description and Justification

This project includes storm sewer improvements in the Village North Subdivision (which is east of Craig and Gould off 5th street) in partnership with Public Works and Wastewater. Reports of localized flooding have occurred in this commercial/industrial area. This project will add storm drains and increase street capacity to capture and contain stormwater runoff and reduce flood risk for local businesses. This project helps Castle Rock Water provide high quality water service to Town residents and businesses by managing stormwater runoff and flood risks.

Expenditures	2019	2020	2021	2022	2023	Total
Village North Storm Sewer Improvements	$ -	$ 225,000	$ -	$ -	$ -	$ 225,000
Total Expenditures	**$ -**	**$ 225,000**	**$ -**	**$ -**	**$ -**	**$ 225,000**

Funding Sources	2019	2020	2021	2022	2023	Total
Stormwater Charges	$ -	$ 225,000	$ -	$ -	$ -	$ 225,000
Total Funding Sources	**$ -**	**$ 225,000**	**$ -**	**$ -**	**$ -**	**$ 225,000**

Operational Impact

No additional operating expenditures or revenues are anticipated as a result of this project.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Young American Storm Sewer - Gordon Drive**

Project Number:	78-31			
Contact:	David Van Dellen, Stormwater Manager	5 Year Historical Total	$	498,623
Department:	Castle Rock Water	2019-2023 Total		500,000
Category:	Infrastructure	**CIP Project Total (2014-2023):**	**$**	**998,623**
Type:	Upgrade			
Useful Life:	50 years			

Description and Justification

This project includes storm sewer improvements in the Young American Subdivision on Gordon Drive in partnership with Public Works and Castle Rock Water. Currently, there is no storm drain system in the area. This project will add storm drains to capture flow and reduce flood risk for this historic neighborhood. This project will provide storm drainage infrastructure to reduce flood hazards in the right-of-way. Improvements will also increase emergency accessibility to residents in the event of a flood.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Gordon Drive	$ 500,000	$ -	$ -	$ -	$ -	$ 500,000
Total Expenditures	**$ 500,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 500,000**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Stormwater Charges	$ 500,000	$ -	$ -	$ -	$ -	$ 500,000
Total Funding Sources	**$ 500,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 500,000**

Operational Impact

There is a possible reduction in repair and maintenance costs, which won't be known until the project is complete and will be incorporated at that time.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

WASTEWATER FUND

CASTLE ROCK WATER

PROJECTS & FUNDING SOURCES BY DEPARTMENT

Project Expenditures	2019	2020	2021	2022	2023	Total
Lift Station Upgrades	$ 217,000	$ 217,000	$ 217,000	$ 185,000	$ 185,000	$ 1,021,000
Sewer Line Rehabilitation	350,000	350,000	350,000	350,000	350,000	1,750,000
Security System Improvements	25,000	25,000	25,000	25,000	25,000	125,000
PCWRA Projects	18,978,309	2,553,464	2,352,935	619,764	428,465	24,932,937
Craig & Gould North Improvements	45,000	425,000	-	-	-	470,000
Adminisration & Customer Service Building	58,831	529,477	-	-	-	588,308
Prairie Hawk Interceptor	-	-	50,000	417,000	-	467,000
Kinner Street Bottleneck	-	-	-	-	2,117,000	2,117,000
Malibu Street Upsize	-	345,000	-	-	-	345,000
Machinery and Equipment	45,000	45,000	45,000	45,000	45,000	225,000
Total Expenditures by Year	**$ 19,719,140**	**$4,489,941**	**$3,039,935**	**$1,641,764**	**$3,150,465**	**$ 32,041,245**

Project Funding Sources	2019	2020	2021	2022	2023	Total
Wastewater Service Charges	$ 1,056,359	$1,507,359	$ 947,000	$ 915,000	$3,032,000	$ 7,457,719
System Development Fees	18,662,781	2,982,582	2,092,935	726,764	118,465	24,583,526
Total Funding Sources by Year	**$ 19,719,140**	**$4,489,941**	**$3,039,935**	**$1,641,764**	**$3,150,465**	**$ 32,041,245**

Funding Source information is intended to identify the revenue that is planned to pay for the capital projects included. While additional revenue is anticipated to be received each year, this information identifies only what is necessary to fund the Capital Improvement Program.

Plum Creek Water Reclamation Authority plant

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Lift Station Upgrades**

Project Number: Multiple
Contact: Jeanne Stevens, Engineering Manager
Department: Castle Rock Water
Category: Equipment
Type: Replacement
Useful Life: 20 years

5 Year Historical Total	$	120,322
2019-2023 Total		1,021,000
CIP Project Total (2014-2023):	**$**	**1,141,322**

Description and Justification

The Lift Station Upgrades project is intended to accommodate multiple improvements to the Town's lift stations (LS). The purpose of the pump and motor replacement project is to plan for the capital replacement of pumps and/or motors at wastewater lift stations. The lift stations transport wastewater to the Plum Creek Wastewater Reclamation Authority for treatment. Pump and motor replacements are identified annually or on an emergency basis.

Pumps and motors at wastewater lift stations have a finite service life and replacement must be planned on an ongoing basis. Employee safety and year round access to the lift station are accommodated through this project, since lift stations are typically checked multiple times per week. These projects address the community need of providing a safe and reliable water supply.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
LS Rehab/Replacement	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 125,000
Lift Station Pump & Motor Replacement	50,000	50,000	50,000	50,000	50,000	250,000
Lift Station Mixing Improvements	32,000	32,000	32,000	-	-	96,000
WW Facility VFD Replacements	110,000	110,000	110,000	110,000	110,000	550,000
Total Expenditures	**$ 217,000**	**$ 217,000**	**$ 217,000**	**$ 185,000**	**$ 185,000**	**$ 1,021,000**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Wastewater Service Charges	$ 217,000	$ 217,000	$ 217,000	$ 185,000	$ 185,000	$ 1,021,000
Total Funding Sources	**$ 217,000**	**$ 217,000**	**$ 217,000**	**$ 185,000**	**$ 185,000**	**$ 1,021,000**

Operational Impact

Improvements and replacements to equipment typically result in reduced maintenance costs, which are unknown until project implementation and will be incorporated at that time.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Sewer Line Rehabilitation**

Project Number: 75-62
Contact: Jeanne Stevens, Engineering Manager
Department: Castle Rock Water
Category: Infrastructure
Type: Repair
Useful Life: 50 years

5 Year Historical Total	$	1,338,672
2019-2023 Total		1,750,000
CIP Project Total (2014-2023):	**$**	**3,088,672**

Description and Justification

This project is intended to rehabilitate or replace existing sewer lines due to age or failing infrastructure. This is an ongoing program and areas of focus are identified annually. The Engineering Division will work with the Operations Division to identify areas that need sewer improvements and coordinate with the Public Works Department to complete projects ahead of the Pavement Maintenance Program to minimize the impact of Townwide roadwork. This project funds the replacement and rehabilitation of old, undersized, and/or deteriorated sewer lines. The Sewer Rehabilitation Program will address the requirements of Environmental Protection Agency's (EPA) Capacity, Management, Operation, and Maintenance (CMOM) programs.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Repair	$ 350,000	$ 350,000	$ 350,000	$ 350,000	$ 350,000	$ 1,750,000
Total Expenditures	**$ 350,000**	**$ 350,000**	**$ 350,000**	**$ 350,000**	**$ 350,000**	**$ 1,750,000**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Wastewater Service Charges	$ 350,000	$ 350,000	$ 350,000	$ 350,000	$ 350,000	$ 1,750,000
Total Funding Sources	**$ 350,000**	**$ 350,000**	**$ 350,000**	**$ 350,000**	**$ 350,000**	**$ 1,750,000**

Operational Impact

No additional operating expenditures or revenues are anticipated as a result of this project.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Security System Improvements**

Project Number:	Multiple
Contact:	Tim Friday, Assistant Castle Rock Water Director
Department:	Castle Rock Water
Category:	Building
Type:	Upgrade
Useful Life:	20 years

5 Year Historical Total	$	71,962
2019-2023 Total		125,000
CIP Project Total (2014-2023):	**$**	**196,962**

Description and Justification

These miscellaneous small projects are needed to increase security at wastewater facilities in accordance with the vulnerability assessment. The vulnerability assessment identifies security and system integrity needs that may present a risk to public health and safety. Examples of improvements are fences, gates, cameras, and alarms. These various projects include installing or replacing electronic access control, locks, and surveillance as needed at all wastewater facilities. Security at all Town of Castle Rock facilities is important for safeguarding investments in infrastructure and ensuring employee safety.

Expenditures	2019	2020	2021	2022	2023	Total
Security Improvements	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 125,000
Total Expenditures	**$ 25,000**	**$ 25,000**	**$ 25,000**	**$ 25,000**	**$ 25,000**	**$ 125,000**

Funding Sources	2019	2020	2021	2022	2023	Total
Wastewater Service Charges	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 125,000
Total Funding Sources	**$ 25,000**	**$ 25,000**	**$ 25,000**	**$ 25,000**	**$ 25,000**	**$ 125,000**

Operational Impact

No additional operating expenditures or revenues are anticipated as a result of this project.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name — PCWRA Projects

Project Number:	Multiple
Contact:	Jeanne Stevens, Engineering Manager
Department:	Castle Rock Water
Category:	Infrastructure
Type:	New
Useful Life:	50 years

5 Year Historical Total	$ 9,286,769
2019-2023 Total	24,932,937
CIP Project Total (2014-2023):	**$ 34,219,706**

Description and Justification

The Town of Castle Rock does not perform wastewater treatment. The Plum Creek Water Reclamation Authority (PCWRA) is a regional reclamation facility that serves the Town of Castle Rock, Castle Pines, and Castle Pines North. The capital buy-in project accommodates the Town of Castle Rock's significant share of PCWRA debt which include two Colorado Water Resources and Power Development Authority (2001 and 2002) loans and Clean Water Revenue Bonds Series 2005 for capacity expansion and treatment. This project also provides funding for capital repair and replacement including replacement of pumps, motors, blowers, and general facilities maintenance. The Ditch Three project will equip Oxidation Ditch Three at the wastewater reclamation facility, which was not originally equipped to accommodate future wastewater flows associated with planned development and future growth. An oxidation ditch is a concrete channel that funnels wastewater into the treatment plant. The ditch is the first phase of wastewater treatment using biological agents. Pumps, blowers, and motors are required to equip the ditch for operation. The Manganese Control project accomplishes facility improvements to control dissolved manganese in order to meet regulatory requirements; the facility is currently operating under temporary modifications to its permit pending additional studies.

Additional funds are included in 2019 to accommodate an expansion of the PCWRA facility. Town growth is fueling the demand for additional wastewater treatment needs.

Expenditures

	2019	2020	2021	2022	2023	Total
Capital Buy-In	$ 1,992,280	$ 1,996,435	$ 1,997,935	$ 264,764	$ 73,465	$ 6,324,879
Ditch Three at PCWRA	202,029	202,029	-	-	-	404,058
Manganese Control at PCWRA	-	-	-	-	-	-
PCWRA Rehab/Replacement	284,000	355,000	355,000	355,000	355,000	1,704,000
PCWRA Capacity Expansion	16,500,000	-	-	-	-	16,500,000
Total Expenditures	**$ 18,978,309**	**$ 2,553,464**	**$ 2,352,935**	**$ 619,764**	**$ 428,465**	**$ 24,932,937**

Funding Sources

	2019	2020	2021	2022	2023	Total
System Development Fees	$ 18,558,950	$ 2,063,105	$ 1,997,935	$ 264,764	$ 73,465	$ 22,958,218
Wastewater Service Charges	419,359	490,359	355,000	355,000	355,000	1,974,719
Total Funding Sources	**$ 18,978,309**	**$ 2,553,464**	**$ 2,352,935**	**$ 619,764**	**$ 428,465**	**$ 24,932,937**

Operational Impact

Operating Expenditures for PCWRA are included in the capital buy-in payments displayed above.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Craig & Gould North Improvements**

Project Number:	76-51
Contact:	Jeanne Stevens, Engineering Manager
Department:	Castle Rock Water
Category:	Infrastructure
Type:	Replacement
Useful Life:	50 years

5 Year Historical Total	$	317,110
2019-2023 Total		470,000
CIP Project Total (2014-2023):	**$**	**787,110**

Description and Justification

This project will accomplish infrastructure improvements in the Craig and Gould neighborhood. Aging (greater than 70 years old) and undersized sewers will be replaced and deterioriated manholes will be replaced or rehabilitated. . This project will be coordinated with the Public Works department to coincide with the annual Pavement Maintenance Program in order to minimize the construction impact on the community. This project addresses the community need of providing a safe and reliable water supply.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Design	$ 45,000	$ -	$ -	$ -	$ -	$ 45,000
Construction	-	425,000	-	-	-	425,000
Total Expenditures	**$ 45,000**	**$ 425,000**	**$ -**	**$ -**	**$ -**	**$ 470,000**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Wastewater Service Charges	$ 45,000	$ 425,000	$ -	$ -	$ -	$ 470,000
Total Funding Sources	**$ 45,000**	**$ 425,000**	**$ -**	**$ -**	**$ -**	**$ 470,000**

Operational Impact

The rehabilitation of aging equipment will likely result in reduced maintenance expenditures, which will not be known until project completion and will be incorporated at that time.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Administration & Customer Service Building**

Project Number: 77-57
Contact: Tim Friday, Assistant Castle Rock Water Director
Department: Castle Rock Water
Category: Building
Type: New
Useful Life: 50 years

5 Year Historical Total	$	-
2019-2023 Total		588,308
CIP Project Total (2014-2023):	**$**	**588,308**

Description and Justification

This project accomodates construction of a new Administration and Customer Service Building for Castle Rock Water. The existing Kellogg Facility will be repurposed for staff currently housed in trailers. This building will accommodate existing and future Administration and Customer Service staff within Castle Rock Water. The Admin and Customer Service Team currently is short of space by approximately 3,000 square feet. The new facility will be designed and constructed to meet the needs of the department through buildout. A site assessment was conducted in 2013 that details existing and future conditions and identifies space needs for Castle Rock Water. Construction is targeted for 2020 with funding split across the four Castle Rock Water enterprise funds based upon staffing proportions. The Wastewater Fund's portion of 2020 funding will be a drawdown of CIP Reserves accumulated in prior years and departmentally designated plus system development fees and rates revenues. This project helps Castle Rock Water meet the priority of providing high quality water service to Town residents and businesses.

	Design	Construction
Water Fund	$140,364	$1,263,277
Water Resources Fund	$62,794	$565,146
Stormwater Fund	$64,372	$579,352
Wastewater Fund	$58,831	$529,477

Expenditures

	2019	2020	2021	2022	2023	Total
Construction	$ -	$ 529,477	$ -	$ -	$ -	$ 529,477
Design	58,831	-	-	-	-	58,831
Total Expenditures	**$ 58,831**	**$ 529,477**	**$ -**	**$ -**	**$ -**	**$ 588,308**

Funding Sources

	2019	2020	2021	2022	2023	Total
System Development Fees	$ 58,831	$ 529,477	$ -	$ -	$ -	$ 588,308
Total Funding Sources	**$ 58,831**	**$ 529,477**	**$ -**	**$ -**	**$ -**	**$ 588,308**

Operational Impact

General costs of approximately $30,000 per year are anticipated and planned for in the respective operating budgets for future years. The Water Fund's portion is $12,119 per year, the Water Resources fund 'sportion is $5,689 per year, the Stormwater fund's portion is $5,510 per year,and the Wastewater fund's portion is $6,682 per year.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Prairie Hawk Interceptor**

Project Number:	75-92			
Contact:	Jeanne Stevens, Engineering Manager	5 Year Historical Total	$	-
Department:	Castle Rock Water	2019-2023 Total		467,000
Category:	Equipment	**CIP Project Total (2014-2023):**	**$**	**467,000**
Type:	New			
Useful Life:	50 years			

Description and Justification

This project will provide for the need to upsize the sewer system along Prairie Hawk Drive. The original sewer line(interceptor) must be enlarged (upsized) to 18 or 21 inches along Prairie Hawk Drive south of Wolfensberger to meet future wastewater flows generated by growth in the Town. This interceptor would serve the proposed development at Miller's Landing and could potentially be delayed based on the pace of development in the area.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Prairie Hawk Interceptor	$ -	$ -	$ 50,000	$ 417,000	$ -	$ 467,000
Total Expenditures	**$ -**	**$ -**	**$ 50,000**	**$ 417,000**	**$ -**	**$ 467,000**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
System Development Fees	$ -	$ -	$ 50,000	$ 417,000	$ -	$ 467,000
Total Funding Sources	**$ -**	**$ -**	**$ 50,000**	**$ 417,000**	**$ -**	**$ 467,000**

Operational Impact

No additional operating expenditures or revenues are anticipated as a result of this project.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Kinner Street Bottleneck**

Project Number: 75-81
Contact: Jeanne Stevens, Engineering Manager
Department: Castle Rock Water
Category: Infrastructure
Type: Replacement
Useful Life: 50 years

5 Year Historical Total	$	-
2019-2023 Total		2,117,000
CIP Project Total (2014-2023):	**$**	**2,117,000**

Description and Justification

This project is to upsize nearly 3,000 linear feet of existing 18 and 21-inch sanitary sewer mains to 21 and 24-inch on Kinner Street. This project involves a broad crossing of I-25, East Plum Creek, and Wolfensberger Road. Hydraulic modeling does not indicate capacity issues at this time. However, increasing density downtown and in Lanterns, Crystal Valley Ranch could have an impact. The sewer main may need rehabilitation instead of full replacement.

Expenditures	2019	2020	2021	2022	2023	Total
Kinner Street Bottleneck	$ -	$ -	$ -	$ -	$ 2,117,000	$ 2,117,000
Total Expenditures	**$ -**	**$ -**	**$ -**	**$ -**	**$ 2,117,000**	**$ 2,117,000**

Funding Sources	2019	2020	2021	2022	2023	Total
Wastewater Service Charges	$ -	$ -	$ -	$ -	$ 2,117,000	$ 2,117,000
Total Funding Sources	**$ -**	**$ -**	**$ -**	**$ -**	**$ 2,117,000**	**$ 2,117,000**

Operational Impact

No additional operating expenditures or revenues are anticipated as a result of this project.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Malibu Street Upsize**

Project Number:	New
Contact:	Jeanne Stevens, Engineering Manager
Department:	Castle Rock Water
Category:	Infrastructure
Type:	Replacement
Useful Life:	50 years

5 Year Historical Total	$	-
2019-2023 Total		345,000
CIP Project Total (2014-2023):	**$**	**345,000**

Description and Justification

This project replaces 1,130 linear feet of existing 15-inch clay pipe to 18 or 21-inch PVC (size to be determined) on Malibu Street, in the Village North neighborhood. Timing is being partly driven by a stormwater project that may force realignment of the sewer, at which time it would be upsized. Upstream development is contributing to the cost of the project.

Expenditures	2019	2020	2021	2022	2023	Total
Malibu Street Upsize	$ -	$ 345,000	$ -	$ -	$ -	$ 345,000
Total Expenditures	**$ -**	**$ 345,000**	**$ -**	**$ -**	**$ -**	**$ 345,000**

Funding Sources	2019	2020	2021	2022	2023	Total
System Development Fees	$ -	$ 345,000	$ -	$ -	$ -	$ 345,000
Total Funding Sources	**$ -**	**$ 345,000**	**$ -**	**$ -**	**$ -**	**$ 345,000**

Operational Impact

No additional operating expenditures or revenues are anticipated as a result of this project.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Machinery and Equipment**

Project Number: 70-30
Contact: Jeanne Stevens, Engineering Manager
Department: Castle Rock Water
Category: Infrastructure
Type: Upgrade
Useful Life: Variable

5 Year Historical Total	$	71,940
2019-2023 Total		225,000
CIP Project Total (2014-2023):	**$**	**296,940**

Description and Justification

The purpose of these funds is to accommodate machinery and equipment purchases needed for items that have yet be identified. These funds provide flexibility to accommodate these purchases as needed.

Expenditures	2019	2020	2021	2022	2023	Total
Machinery & Equipment	$ 45,000	$ 45,000	$ 45,000	$ 45,000	$ 45,000	$ 225,000
Total Expenditures	**$ 45,000**	**$ 45,000**	**$ 45,000**	**$ 45,000**	**$ 45,000**	**$ 225,000**

Funding Sources	2019	2020	2021	2022	2023	Total
System Development Fees	$ 45,000	$ 45,000	$ 45,000	$ 45,000	$ 45,000	$ 225,000
Total Funding Sources	**$ 45,000**	**$ 45,000**	**$ 45,000**	**$ 45,000**	**$ 45,000**	**$ 225,000**

Operational Impact

Operational impacts are typically minimal as these small improvements to existing infrastructure fall under existing maintenance operations budgets.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

FLEET SERVICES FUND

PUBLIC WORKS DEPARTMENT

PROJECTS & FUNDING SOURCES BY DEPARTMENT

Project Expenditures	2019	2020	2021	2022	2023	Total
Vehicles and Equipment	$ 2,272,971	$ 2,222,599	$ 2,698,259	$ 4,069,148	$ 3,421,232	$ 14,684,209
Total Expenditures by Year	**$ 2,272,971**	**$ 2,222,599**	**$ 2,698,259**	**$ 4,069,148**	**$ 3,421,232**	**$ 14,684,209**

Project Funding Sources	2019	2020	2021	2022	2023	Total
Vehicle Replacement Contributions	$ 1,931,921	$ 2,000,297	$ 2,502,906	$ 3,792,702	$ 3,204,994	$ 13,432,820
Vehicle Salvage	150,195	149,997	181,583	262,194	216,238	960,207
Transfers from Other Funds	190,855	72,305	13,770	14,252	-	291,182
Total Funding Sources by Year	**$ 2,272,971**	**$ 2,222,599**	**$ 2,698,259**	**$ 4,069,148**	**$ 3,421,232**	**$ 14,684,209**

Funding Source information is intended to identify the revenue that is planned to pay for the capital projects included. While additional revenue is anticipated to be received each year, this information identifies only what is necessary to fund the Capital Improvement Program.

Summary of 2019 Vehicle Additions

Department	*Make & Model*	*Estimated Cost*	*Justification*
Police	Ford Utility AWD	$ 59,000	One additional vehicle is needed to accommodate the addition of a new Co-Responder position
Police	Ford Utility AWD	$ 59,000	One additional vehicle is needed to accommodate the addition of a new School Resource Officer position
Public Works	Ford F-150	60,000	One additional vehicle is needed to accommodate the addition of a new Signs and Markings Technician position
Parks and Recreation	Mower	12,855	One additional mower is needed to accommodate the replacement of a mower that was not previously in the replacement program
	Total	**$ 190,855**	

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name

Vehicles and Equipment

Project Number: 70-40
Contact: Paul Colell, Fleet Manager
Department: Public Works Department
Category: Vehicles
Type: Replacement
Useful Life: 4-15 years

5 Year Historical Total	$	14,291,599
2019-2023 Total		14,684,209
CIP Project Total (2014-2023):	**$**	**28,975,808**

Description and Justification

The vehicle replacement program is funded through departmental contributions made to the Fleet Fund, which is an internal service fund intended for replacement of Town vehicles and equipment. Departments that operate vehicles and equipment enrolled in the vehicle replacement program budget vehicle replacement contributions annually for the purpose of replacing existing units. The units in the following pages include vehicles scheduled for replacement. However, vehicles and equipment lives may be extended or replaced earlier if necessary. The inflation rate assumed for future vehicle purchases varies by vehicle type, with an average of about 3%. In accordance with the Town's vehicle replacement policy, unit age, usage, and historical maintenance costs are used to determine the replacement timing of vehicles and equipment in the program. The Town uses the best practice method recommended by the American Public Works Association. Other factors include type of use, operating weather conditions, and operating terrain. Once a vehicle has met the replacement criteria, there is a thorough review process by Fleet management, the operating department, and the Fleet Advisory Committee to determine if the vehicle should be replaced, retained for limited use, or to extend the vehicles life cycle. Because vehicles may be equipped with different equipment based upon their usage, the cost for similar vehicles will vary. Additionally, 3% of the total anticipated vehicle purchase amount is budgeted in order to accommodate unforseen variances in vehicle purchase amounts.

The following pages detail the requested replacements and additions to the Town's fleet by department.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**		**Total**
Vehicles & Equipment	$ 2,272,971	$ 2,222,599	$ 2,698,259	$ 4,069,148	$ 3,421,232	$	14,684,209
Total Expenditures	**$ 2,272,971**	**$ 2,222,599**	**$ 2,698,259**	**$ 4,069,148**	**$ 3,421,232**	**$**	**14,684,209**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**		**Total**
Vehicle Replacement Contributions	$ 1,931,921	$ 2,000,297	$ 2,502,906	$ 3,792,702	$ 3,204,994	$	13,432,820
Vehicle Salvage	150,195	149,997	181,583	262,194	216,238		960,207
Transfers from Other Funds	190,855	72,305	13,770	14,252	-		291,182
Total Funding Sources	**$ 2,272,971**	**$ 2,222,599**	**$ 2,698,259**	**$ 4,069,148**	**$ 3,421,232**	**$**	**14,684,209**

Operational Impact

Increases in operational expenditures, including gasoline and maintenance for 2019 are primarily related to vehicle additions, and are estimated to be approximately $12,000. Additional amounts are included for operational needs in the department budgets in which contributions occur from.

2019 Schedule of Vehicle & Equipment Purchase

Department and Vehicle Use	Vehicle Make/Model		Estimated Salvage Value	Estimated Cost *
Police Department				
SUV, Public Safety, Police, Fire	Ford Utility AWD		$ 4,147	$ 55,529
SUV, Police Patrol	Ford Utility AWD		4,473	59,901
SUV, Police Patrol	Ford Utility AWD		4,147	55,529
SUV, Police Patrol	Ford Utility AWD		4,473	59,901
SUV, Police Patrol	Ford Utility AWD		4,473	59,901
Vehicle Additions; SUV, Police Patrol	***Ford Utility AWD***		***-***	***59,000***
Vehicle Additions; SUV, Police Patrol	***Ford Utility AWD***		***-***	***59,000***
Total Police Department		**5**	**$ 21,713**	**$ 408,761**
Fire Department				
Fire, Response, Ambulance	Dodge Ram 4500		15,040	205,301
SUV, Public Safety, Police, Fire	Ford Expedition		4,147	55,529
Trucks, Light Duty	Ford F-150		4,147	55,529
Total Fire Department		**3**	**$ 23,334**	**$ 316,359**
Transportation Fund				
Equipment, Off-Road, Loaders, Tractors, Graders	Fairmount F20		600	8,034
Equipment, Off-Road, Loaders, Tractors, Graders	Hyster H60XL		2,184	29,240
Trucks Heavy Duty, Snow Removal, Construction Dumps	International 7400		15,480	207,282
Trucks Heavy Duty, Snow Removal, Construction Dumps	International 7400		15,480	207,282
Trucks, Medium Duty	Dodge Ram 3500		4,170	55,832
Trailers Medium, Light	Wanco WVTM		1,873	25,084
Trailers Medium, Light	Wanco WTMMB		2,088	27,955
Trailers Medium, Light	Ray Tech Mini Combo		2,840	38,028
Vehicle Additions; Trucks, Light Duty	***Ford F-150***		***-***	***60,000***
Total Transportation Fund		**9**	**$ 44,715**	**$ 658,737**
Fleet Department				
Trucks, Medium Duty	Chevrolet 3500HD		4,500	60,256
Trucks, Light Duty	Ford F-150		2,180	29,191
Total Fleet Department		**2**	**$ 6,680**	**$ 89,447**

* Estimated cost is for a planned vehicle, actual cost may be adjusted according to requirements determined by the department

2019 Schedule of Vehicle & Equipment Purchase (Continued)					
Department and Vehicle Use	Vehicle Make/Model		Estimated Salvage Value		Estimated Cost *
Parks & Recreation Department					
Equipment, Off-Road, Light duty, Mowers, Carts, Skid Steers, Plows	Toro 4100-D		$ 5,034	$	67,406
Equipment, Off-Road, Loaders, Tractors, Graders	Bobcat S160N		3,108		42,020
Heavy Equipment Off-Road, Loaders, Tractors, Graders	John Deere 4300		2,740		37,045
Trucks, Light Duty	Ford F-150		2,180		29,191
Trucks, Light Duty	Ford F-150		2,180		29,191
Trucks, Light Duty	Ford F-150		2,180		29,191
Trucks, Med Duty	Dodge Ram 3500		3,348		44,831
Trucks, Med Duty	Ford F-350 SD		2,960		39,635
Trucks, Med Duty	Ford F-250 SD		2,940		39,368
Trucks, Med Duty	Ford F-250 SD		3,678		49,254
Trailers Medium, Light	Superior Tandem Axle		550		7,431
Vehicle Additions; Equipment, Off-Road, Light duty, Mowers	***Mower***		*-*		***12,855***
Total Parks & Recreation Department		**11**	**$ 30,898**	**$**	**427,418**
Castle Rock Water Department					
Trucks, Light Duty	Chevrolet Colorado		2,080		27,853
Trucks, Light Duty	Chevrolet Colorado		2,080		27,853
Trucks, Light Duty	Chevrolet Colorado		2,080		27,853
Trucks, Light Duty	Chevrolet Colorado		2,080		27,853
Trucks, Light Duty	Ford F-150		2,116		28,334
Trucks, Light Duty	Ford F-150		2,116		28,334
Trucks, Med Duty	Ford F-250 SD		2,620		35,083
Trucks, Med Duty	Ford F-350 SD		4,276		57,257
Trucks, Med Duty	Ford F-250		3,407		45,626
Total Castle Rock Water Department		**9**	**$ 22,855**	**$**	**306,046**
Total - All Departments			**150,195**		**2,206,768**
3% Contingency					**66,203**
2019 Vehicle & Equipment Replacement Total		**39**	**$ 150,195**	**$**	**2,272,971**

* Estimated cost is for a planned vehicle, actual cost may be adjusted according to requirements determined by the department

2020 Schedule of Vehicle & Equipment Purchase					
Department and Vehicle Use	**Vehicle Make/Model**		**Estimated Salvage Value**		**Estimated Cost ***
DoIT Department					
SUV, General Purpose, Light Duty	Ford Escape Hybrid		$ 2,400	$	33,256
Total DoIT Department		**1**	**$ 2,400**	**$**	**33,256**
Police Department					
SUV, Police Patrol	Ford Utility AWD		4,473		61,997
SUV, Police Patrol	Ford Utility AWD		4,473		61,997
SUV, Police Patrol	Ford Utility AWD		4,473		61,997
Sedan General Purpose	Ford Interceptor AWD		3,583		49,654
Sedan General Purpose	Ford Interceptor AWD		3,583		49,654
SUV, Police Patrol	Ford Utility AWD		4,473		61,997
SUV, Police Patrol	Ford Utility AWD		4,473		61,997
SUV, Police Patrol	Ford Utility AWD		4,473		61,997
SUV, Police Patrol	Ford Utility AWD		4,473		61,997
SUV, Police Patrol	Ford Utility AWD		4,473		61,997
SUV, Police Patrol	Ford Utility AWD		4,473		61,997
Trucks, Light Duty	Ford F-150		3,583		49,654
SUV, Police Patrol	Ford Expedition XLT		4,473		61,997
Vehicle Additions; SUV, Police Patrol	***Ford Utility AWD***		***-***		***59,000***
Total Police Department		**14**	**$ 55,479**	**$**	**827,932**
Fire Department					
Fire Response, Brush Trucks, Hazmat	Dodge Ram 5500		14,807		205,214
Fire Response, Brush Trucks, Hazmat	Dodge Ram 5500		14,807		205,214
Fire, Response, Ambulance	Dodge Ram 4500		15,040		214,539
SUV, Public Safety, Police, Fire	Ford Expedition		4,147		57,473
Total Fire Department		**4**	**$ 48,801**	**$**	**682,440**

* Estimated cost is for a planned vehicle, actual cost may be adjusted according to requirements determined by the department

2020 Schedule of Vehicle & Equipment Purchase (Continued)					
Department and Vehicle Use	Vehicle Make/Model		Estimated Salvage Value		Estimated Cost *
Transportation Fund					
Equipment, Off-Road, Loaders, Tractors, Graders	Coleman Ultra 2500		$ 60	$	820
Equipment, Off-Road, Loaders, Tractors, Graders	Graco LL 3900		981		13,402
Heavy Equipment Off-Road, Loaders, Tractors, Graders	Volvo L90D		19,116		264,928
Trucks, Light Duty	Ford F-150		2,110		29,245
Total Transportation Fund		**4**	**$ 22,267**	**$**	**308,395**
Parks & Recreation Department					
Equipment, Off-Road, Loaders, Tractors, Graders	Kromer Field Commander		1,868		25,895
Trailers Medium, Light	Bobcat 5600		3,708		52,137
Trucks, Med Duty	Graco V250		2,960		41,023
Trailers Medium, Light	Kubota RTV400CI-H		256		3,595
Trailers Medium, Light	Kubota RTV400CI-H		256		3,595
Vehicle Additions; Equipment, Off-Road, Light duty, Mowers	***Mower***		*-*		***13,305***
Total Parks & Recreation Department		**6**	**$ 9,048**	**$**	**139,550**
Community Center Fund					
Vans < 10K GVWR Passenger/Cargo	Ford E-350 SD		2,700		37,416
Vans < 10K GVWR Passenger/Cargo	Ford E-350 SD		2,700		37,416
Total Community Center Fund		**2**	**$ 5,400**	**$**	**74,832**
Castle Rock Water Department					
Equipment, Off-Road, Loaders, Tractors, Graders	Octane FY25		2,048		28,390
Trucks, Med Duty	Dodge Ram 3500		4,356		60,370
Trailers Heavy	J.W. Tandem Axle		198		2,698
Total Castle Rock Water Department		**3**	**$ 6,602**	**$**	**91,458**
Total - All Departments			**$ 149,997**	**$**	**2,157,863**
3% Contingency					**64,736**
2020 Vehicle & Equipment Replacement Total		**34**	**$ 149,997**	**$**	**2,222,599**

* Estimated cost is for a planned vehicle, actual cost may be adjusted according to requirements determined by the department

2021 Schedule of Vehicle & Equipment Purchase

Department and Vehicle Use	Vehicle Make/Model		Estimated Salvage Value	Estimated Cost *
Facilities Department				
Trucks, Med Duty	Ford F-350 SD		$ 3,400	$ 48,770
Vans < 10K GVWR Passanger/Cargo	Ford E250		2,890	41,454
Vans < 10K GVWR Passanger/Cargo	Ford E251		2,890	41,454
Total Facilities Department		**3**	**$ 9,180**	**$ 131,678**
Police Department				
SUV, Police Patrol	Ford Utility AWD		4,473	64,167
SUV, Public Safety, Police, Fire	Ford Utility AWD		3,583	51,392
SUV, Police Patrol	Ford Utility AWD		4,473	64,167
SUV, Public Safety, Police, Fire	Ford Utility AWD		3,583	51,392
SUV, Public Safety, Police, Fire	Ford Utility AWD		3,583	51,392
SUV, Police Patrol	Ford Utility AWD		4,473	64,167
SUV, Public Safety, Police, Fire	Ford Utility AWD		3,583	51,392
SUV, Police Patrol	Ford Utility AWD		4,473	64,167
SUV, Public Safety, Police, Fire	Ford Utility AWD		4,473	64,167
SUV, Public Safety, Police, Fire	Ford Utility AWD		4,473	64,167
SUV, Public Safety, Police, Fire	Ford Utility AWD		3,583	51,392
Total Police Department		**11**	**$ 44,753**	**$ 641,962**
Fire Department				
SUV, Public Safety, Police, Fire	Ford Expedition		4,147	59,484
SUV, Public Safety, Police, Fire, Batt Chief	Ford Expedition EL		5,519	79,162
SUV, Public Safety, Police, Fire	Ford Expedition		4,147	59,484
Trucks, Light Duty	Ford F-150 SSV		4,147	59,484
Total Fire Department		**4**	**$ 17,960**	**$ 257,614**
Development Services Department				
SUV, General Purpose, Light Duty	Ford Escape XLS		$ 2,108	$ 30,237
Total Development Services Department		**1**	**$ 2,108**	**$ 30,237**
Transportation Fund				
Heavy Equipment Off-Road, Loaders, Tractors, Graders	John Deere 4720		4,628	66,383
Sweepers	Elgin NP Pelican		15,600	223,767
Trucks Heavy Duty, Snow Removal, Construction Dumps	International 7400		15,480	222,046
Trucks, Light Duty	Ford F-150		2,409	34,552
Trucks, Med Duty	Ford F-350 SD		4,170	59,809
Trucks, Med Duty	Ford F-350 SD		4,356	62,483
Trucks, Med Duty	Ford F-350 SD		4,356	62,483
Trailers Medium, Light	Dun-Rite 2LT7M		652	9,352
Total Transportation Fund		**8**	**$ 51,651**	**$ 740,875**

* Estimated cost is for a planned vehicle, actual cost may be adjusted according to requirements determined by the department

2021 Schedule of Vehicle & Equipment Purchase (Continued)					
Department and Vehicle Use	Vehicle Make/Model		Estimated Salvage Value		Estimated Cost *
Parks & Recreation Department					
Equipment, Off-Road, Loaders, Tractors, Graders	Bobcat 5600		$ 4,508	$	65,922
Trucks, Light Duty	Ford F-150		2,180		31,270
Vehicle Additions; Equipment, Off-Road, Light duty, Mowers	***Mower***		*-*		***13,770***
Total Parks & Recreation Department		**3**	**$ 6,688**	**$**	**110,962**
Community Center Fund					
Vans < 10K GVWR Passenger/Cargo	Ford E-350 SD		2,700		38,733
Total Community Center Fund		**1**	**$ 2,700**	**$**	**38,733**
Castle Rock Water Department					
SUV, General Purpose, Light Duty	Jeep Liberty		2,394		34,334
Trucks Heavy Duty, Snow Removal, Construction Dumps	International 7400		8,660		124,223
Trucks Heavy Duty, Snow Removal, Construction Dumps	International 5600I		19,260		276,266
Trucks, Light Duty	Ford F-150 SSV		2,720		39,010
Trucks, Light Duty	Ford F-150 SSV		2,906		41,680
Trucks, Med Duty	Chevrolet C-5500		7,196		103,220
Trucks, Med Duty	Ford F-350 SD		3,407		48,875
Total Castle Rock Water Department		**7**	**$ 46,543**	**$**	**667,608**
Total - All Departments			**$ 181,583**	**$**	**2,619,669**
3% Contingency					**78,590**
2021 Vehicle & Equipment Replacement Total		**38**	**$ 181,583**	**$**	**2,698,259**

* Estimated cost is for a planned vehicle, actual cost may be adjusted according to requirements determined by the department

2022 Schedule of Vehicle & Equipment Purchase					
Department and Vehicle Use	Vehicle Make/Model		Estimated Salvage Value		Estimated Cost *
Facilities Department					
Trucks, Med Duty	Ford F-350 SD		3,400		50,477
Total Facilities Department		**1**	**$ 3,400**	**$**	**50,477**
Police Department					
Sedan, Patrol	Ford Utility AWD		4,473		66,413
Sedan, Patrol	Ford Utility AWD		4,473		66,413
SUV, Police Patrol	Ford Utility AWD		4,473		66,413
SUV, Public Safety, Police, Fire	Ford Utility AWD		4,473		66,413
SUV, Police Patrol	Ford Utility AWD		4,473		66,413
SUV, Police Patrol	Ford Utility AWD		4,473		66,413
SUV, Public Safety, Police, Fire	Ford Utility AWD		3,583		53,191
SUV, Police Patrol	Ford Utility AWD		4,400		65,323
Total Police Department		**8**	**$ 34,821**	**$**	**516,992**
Fire Department					
Fire, Response, Ambulance	Ford F450		15,040		234,282
Fire, Response, Ambulance	Ford F450		15,040		234,282
SUV, Public Safety, Police, Fire, Batt Chief	Ford Expedition EL		5,230		77,645
Trailers Medium, Light	Bauer TCOM-25		9,921		147,291
Trucks, Light Duty	Ford F-150 SSV		3,835		56,935
Fire Response, Pumps, Quints, Rescue	Pierce Velocity Pumper		56,000		851,657
Total Fire Department		**6**	**$ 105,066**	**$**	**1,602,092**
Development Services Department					
SUV, General Purpose, Light Duty	Jeep Liberty		2,108		31,296
Total Development Services Department		**1**	**$ 2,108**	**$**	**31,296**
Transportation Fund					
Equipment, Off-Road, Loaders, Tractors, Graders	Caterpillar CB334D		6,540		97,093
Trucks Heavy Duty, Snow Removal, Construction Dumps	International 7400		15,480		229,817
Trucks Heavy Duty, Snow Removal, Construction Dumps	International 7500		17,268		256,362
Trucks, Light Duty	Ford F-150 SSV		2,308		34,265
Trucks, Med Duty	Ford F-250 SD		3,360		49,883
Sweepers	Schwarze A7000		18,140		269,301
Trailers Heavy	Trail-Eze PDLX20TC30		4,071		60,443
Trailers Medium, Light	Big Tex 30SA		143		2,178
Trailers Medium, Light	Safe-Stop TMA9000CLC		2,436		36,163
Total Transportation Fund		**9**	**$ 69,746**	**$**	**1,035,505**

* Estimated cost is for a planned vehicle, actual cost may be adjusted according to requirements determined by the department

2022 Schedule of Vehicle & Equipment Purchase (Continued)					
Department and Vehicle Use	**Vehicle Make/Model**		**Estimated Salvage Value**		**Estimated Cost ***
Parks & Recreation Department					
Equipment, Off-Road, Loaders, Tractors, Graders	Bobcat 5600		$ 4,508	$	68,558
Vehicle Additions; Equipment, Off-Road, Light duty, Mowers	***Mower***		*-*		***14,252***
Total Parks & Recreation Department		**2**	**$ 4,508**	**$**	**82,810**
Castle Rock Water Department					
Equipment, Off-Road, Loaders, Tractors, Graders	Vermeer S800TX		2,145		31,841
Equipment, Off-Road, Loaders, Tractors, Graders	Wachs 77-000-36		6,010		89,225
Heavy Equipment Off-Road, Loaders, Tractors, Graders	Caterpillar 930H		16,200		240,506
Sedan General Purpose	Chevrolet Impala LS		1,962		29,122
SUV, General Purpose, Light Duty	Chevrolet Equinox		1,962		29,122
Trailers Medium, Light	Cornell 3HC-RP-EM16		6,700		99,469
Trucks, Light Duty	Ford F-150 SSV		2,565		38,082
Trucks, Light Duty	Ford F-150		2,285		33,917
Trucks, Light Duty	Ford F-150		2,266		33,640
Trailers Medium, Light	Diamond T 8316 SU		263		3,817
Trailers Medium, Light	Big Tex 14X83		187		2,716
Total Castle Rock Water Department		**11**	**$ 42,545**	**$**	**631,457**
Total - All Departments			**$ 262,194**	**$**	**3,950,629**
3% Contingency					**118,519**
2017 Vehicle & Equipment Replacement Total		**38**	**$ 262,194**	**$**	**4,069,148**

* Estimated cost is for a planned vehicle, actual cost may be adjusted according to requirements determined by the department

2023 Schedule of Vehicle & Equipment Purchase					
Department and Vehicle Use	Vehicle Make/Model		Estimated Salvage Value		Estimated Cost *
Facilities Department					
Trucks, Light Duty	Ford F-150		2,400		36,872
Trucks, Med Duty	Ford F-350SD		3,400		52,243
Total Facilities Department		**2**	**$ 5,800**	**$**	**89,115**
Police Department					
Sedan, Patrol	Ford Interceptor AWD		$ 4,630	$	68,737
Sedan, Patrol	Ford Utility AWD		4,600		70,682
SUV, Police Patrol	Ford Utility AWD		4,560		70,068
SUV, Police Patrol	Ford Utility AWD		4,630		68,737
SUV, Police Patrol	Ford Utility AWD		4,630		68,737
SUV, Police Patrol	Ford Utility AWD		4,800		73,755
SUV, Police Patrol	Ford Utility AWD		4,800		73,755
SUV, Public Safety, Police, Fire	Ford Utility AWD		3,583		55,052
SUV, Public Safety, Police, Fire	Ford Utility AWD		3,583		55,052
Equipment, Off-Road, Loaders, Tractors, Graders	Polaris Ranger 800		1,569		24,113
SUV, Police Patrol	Ford Utility AWD		4,605		68,363
SUV, Police Patrol	Ford Utility AWD		3,434		50,982
Total Police Department		**12**	**$ 49,424**	**$**	**748,033**
Fire Department					
Fire, Response, Ambulance	Ford F450		15,600		253,941
Fire, Response, Ambulance	Dodge Ram 4500		16,424		244,825
SUV, Public Safety, Police, Fire	Ford Expedition		4,147		63,721
Trucks, Med Duty	Chevrolet Silverado 3500		4,147		63,721
Total Fire Department		**4**	**$ 40,318**	**$**	**626,208**
Development Services					
SUV, General Purpose, Light Duty	Ford Escape SE		2,108		32,391
SUV, General Purpose, Light Duty	Chevrolet Equinox		2,108		32,391
SUV, General Purpose, Light Duty	Ford Escape SE		2,108		32,391
SUV, General Purpose, Light Duty	Ford Escape SE		2,108		32,391
SUV, General Purpose, Light Duty	Ford Escape SE		2,108		32,391
SUV, General Purpose, Light Duty	Ford Escape SE		2,108		32,391
Total Development Services Fund		**6**	**$ 12,648**	**$**	**194,346**

* Estimated cost is for a planned vehicle, actual cost may be adjusted according to requirements determined by the department

2023 Schedule of Vehicle & Equipment Purchase (Continued)					
Department and Vehicle Use	Vehicle Make/Model		Estimated Salvage Value		Estimated Cost *
Transportation Fund					
Equipment, Off-Road, Loaders, Tractors, Graders	Miller Bobcat 250NT		424		6,508
Heavy Equipment Off-Road, Loaders, Tractors, Graders	Caterpillar 143H		24,605		378,075
Heavy Equipment Off-Road, Loaders, Tractors, Graders	Bobcat S570		2,826		43,421
Trucks Heavy Duty, Snow Removal, Construction Dumps	International 7400		15,480		237,861
Trucks Heavy Duty, Snow Removal, Construction Dumps	International 7400		15,480		237,861
Trucks, Light Duty	Ford F-150		2,200		33,805
Trucks, Med Duty	Ford F-350 SD		4,356		66,933
Trucks, Med Duty	Ford F-350 SD		4,356		66,933
Trucks, Med Duty	Ford F-350 SD		4,356		66,933
Total Transportation Fund		**9**	**$ 74,083**	**$**	**1,138,330**
Parks & Recreation Department					
Equipment, Off-Road, Light duty, Mowers, Carts, Skid Steers, Plows	Toro 4300-D		$ 5,034	$	77,350
Equipment, Off-Road, Light duty, Mowers, Carts, Skid Steers, Plows	Scag Tiger Cat STC61V		704		10,817
Equipment, Off-Road, Light duty, Mowers, Carts, Skid Steers, Plows	John Deere HPX 4X4		860		13,214
Equipment, Off-Road, Loaders, Tractors, Graders	Bobcat S570		3,420		54,092
Equipment, Off-Road, Loaders, Tractors, Graders	Bobcat 5600		4,028		63,709
Equipment, Off-Road, Loaders, Tractors, Graders	Kubota RTV400CI-H		729		11,202
Equipment, Off-Road, Loaders, Tractors, Graders	Kubota RTV400CI-H		729		11,202
Trucks, Light Duty	Ford F150		2,558		39,305
Trucks, Light Duty	Ford F-150		2,180		33,497
Trailers Medium, Light	Haulmark DLX Transport		666		10,535
Total Parks & Recreation Department		**10**	**$ 20,908**	**$**	**324,923**
Castle Rock Water Department					
SUV, General Purpose, Light Duty	Ford Explorer		2,689		41,320
Trailers Medium, Light	Wacker LTC 4L		906		13,921
Trucks, Light Duty	Ford F-150		2,080		31,962
Trucks, Light Duty	Ford F-150		2,300		35,341
Trucks, Med Duty	Ford F-350 SD		4,940		75,907
Trailers Medium, Light	DW S1A		142		2,178
Total Castle Rock Water Department		**6**	**$ 13,057**	**$**	**200,629**
Total - All Departments			**$ 216,238**	**$**	**3,321,584**
3% Contingency					**99,648**
2018 Vehicle & Equipment Replacement Total		**49**	**$ 216,238**	**$**	**3,421,232**

* Estimated cost is for a planned vehicle, actual cost may be adjusted according to requirements determined by the department

2019-2023 CAPITAL IMPROVEMENT PROGRAM

GOLF FUND

PARKS & RECREATION DEPARTMENT

PROJECTS & FUNDING SOURCES BY DEPARTMENT

Project Expenditures	2019	2020	2021	2022	2023	Total
Red Hawk Ridge Golf Carts	$ 470,513	$ -	$ -	$ -	$ 484,628	$ 955,141
Red Hawk Ridge Maintenance Equipment	-	-	499,356	38,606	-	537,962
Parking Lot Improvement	100,000	120,000	-	-	-	220,000
Total Expenditures by Year	**$ 570,513**	**$ 120,000**	**$ 499,356**	**$ 38,606**	**$ 484,628**	**$ 1,713,103**

Project Funding Sources	2019	2020	2021	2022	2023	Total
Charges for Service	$ 570,513	$ 120,000	$ 499,356	$ 38,606	$ 484,628	$ 1,713,103
Total Funding Sources by Year	**$ 570,513**	**$ 120,000**	**$ 499,356**	**$ 38,606**	**$ 484,628**	**$ 1,713,103**

Funding Source information is intended to identify the revenue that is planned to pay for the capital projects included. While additional revenue is anticipated to be received each year, this information identifies only what is necessary to fund the Capital Improvement Program.

Red Hawk Ridge Golf Course

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Red Hawk Ridge Golf Carts**

Project Number: 70-30
Contact: Bob Persichetti, Head Golf Professional
Department: Golf
Category: Equipment
Type: New
Useful Life: 4 years

5 Year Historical Total	$	653,439
2019-2023 Total		955,141
CIP Project Total (2014-2023):	**$**	**1,608,580**

Description and Justification

The existing cart fleet at Red Hawk Ridge is entering its fourth year of service and has already exceeded the energy units for the battery warranty. The fleet is also showing signs of wear and tear due to the increasing business levels over the past three years. As the golf course continues to improve product quality and service levels, it is imperative that the golf cart fleet also maintains the same high standard that golfers have come to expect from Red Hawk Ridge.

Staff is also recommending the addition of cart management and GPS features on the replacement fleet as this type of service is expected at the approved fee levels. Not only will the GPS features provide some added value to the customer experience, it will also give staff the ability to control cart traffic and pace of play remotely which could potentially lead to a reduction of on-course staff necessary for daily operations. Costs for these features are estimated in the amounts shown below.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Equipment	$ 470,513	$ -	$ -	$ -	$ 484,628	$ 955,141
Total Expenditures	**$ 470,513**	**$ -**	**$ -**	**$ -**	**$ 484,628**	**$ 955,141**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Charges for Service	$ 470,513	$ -	$ -	$ -	$ 484,628	$ 955,141
Total Funding Sources	**$ 470,513**	**$ -**	**$ -**	**$ -**	**$ 484,628**	**$ 955,141**

Operational Impact

Potential reductions of on-course staff may result from replacing the cart fleet with the additional features. Any savings realized from this change will be identified and reflected in future budget planning. Failure to replace the current fleet will result in increase maintenance costs and possible reduction in revenue due to a lower level of service. Additionally, sponsorship opportunities may be available with the updated cart technology and will be determined once the new cart fleet is in operation.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Red Hawk Ridge Maintenance Equipment**

Project Number: 70-30
Contact: Bob Persichetti, Head Golf Professional
Department: Golf
Category: Equipment
Type: New
Useful Life: 5-10 years

5 Year Historical Total	$	103,484
2019-2023 Total		537,962
CIP Project Total (2014-2023):	**$**	**641,446**

Description and Justification

The typical lifespan for golf course maintenance equipment that is used on a regular basis is approximately five years. Some less frequently used equipment can last more than 10 years. Since golf course conditions are the most important factor for most golfers, having reliable equipment that produces a quality product is critical for the long term health of the golf course fund. Having reliable maintenance equipment also allows staff to provide a consistent product with minimal risk of failure and/or catastrophic turf damage. Staff will continue to perform the necessary preventative maintenance to extend the life of the equipment as long as possible/feasible and will adjust replacement schedules accordingly.

Equipment that is planned for replacement in 2021 is budgeted as a lease/purchase. Payments are planned to occur over a five year period and will result in the golf course owning the equipment upon completion of the payment period. Equipment planned in 2022 is budgeted as a purchase with no financing needed. The amounts and potential financing needs will be evaluated in the future as current maintenance equipment nears the end of its useful life.

	2019	2020	2021	2022	2023	Total
Equipment	$ -	$ -	$ 499,356	$ 38,606	$ -	$ 537,962
Total Expenditures	**$ -**	**$ -**	**$ 499,356**	**$ 38,606**	**$ -**	**$ 537,962**

Funding Sources

	2019	2020	2021	2022	2023	Total
Charges for Service	$ -	$ -	$ 499,356	$ 38,606	$ -	$ 537,962
Total Funding Sources	**$ -**	**$ -**	**$ 499,356**	**$ 38,606**	**$ -**	**$ 537,962**

Operational Impact

Savings are not anticipated as a result of replacing maintenance equipment at Red Hawk Ridge golf course. Failure to replace the current equipment will result in increase maintenance costs and possible reduction in revenue due to a lower level of service.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Parking Lot Improvement**

Project Number: 70-10
Contact: Bob Persichetti, Head Golf Professional
Department: Golf
Category: Building
Type: Repair
Useful Life: 5 - 10 years

5 Year Historical Total	$	-
2019-2023 Total		220,000
CIP Project Total (2014-2023):	**$**	**220,000**

Description and Justification

The parking lot located at the clubhouse and maintenance facilities at Red Hawk Ridge golf course require regular upkeep. Continual repair of parking lot surfaces ensures a better experience for users and reduces the possibility of significant failures in the parking lot in the future. Planned expenditures accommodate an overlay process and replacement as needed. The actual scope, timing, and process for the parking lot repair will be determined in 2019 to ensure the most appropriate action is taken.

Expenditures	2019	2020	2021	2022	2023	Total
Club House Parking	$ 100,000	$ 96,000	$ -	$ -	$ -	$ 196,000
Maintenance Shop Parking	-	24,000	-	-	-	24,000
Total Expenditures	**$ 100,000**	**$ 120,000**	**$ -**	**$ -**	**$ -**	**$ 220,000**

Funding Sources	2019	2020	2021	2022	2023	Total
Charges for Service	$ 100,000	$ 120,000	$ -	$ -	$ -	$ 220,000
Total Funding Sources	**$ 100,000**	**$ 120,000**	**$ -**	**$ -**	**$ -**	**$ 220,000**

Operational Impact

No additional revenues or expenditures are anticipated as a result of this project. Long term savings may be realized by undergoing this proactive repair to parking lots, but amounts are not quantifiable at this time.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

COMMUNITY CENTER FUND

PARKS & RECREATION DEPARTMENT

PROJECTS & FUNDING SOURCES BY DEPARTMENT

Project Expenditures	2019	2020	2021	2022	2023	Total
Fitness Equipment Replacement	$ 320,000	$ -	$ -	$ 300,000	$ -	$ 620,000
Recreation Center HVAC System	250,000	-	-	-	-	250,000
Parking Lot Improvement	-	225,000	-	-	-	225,000
Total Expenditures by Year	**$ 570,000**	**$ 225,000**	**$ -**	**$ 300,000**	**$ -**	**$ 1,095,000**

Project Funding Sources	2019	2020	2021	2022	2023	Total
Sales Tax	$ 570,000	$ 225,000	$ -	$ 300,000	$ -	$ 1,095,000
Total Funding Sources by Year	**$ 570,000**	**$ 225,000**	**$ -**	**$ 300,000**	**$ -**	**$ 1,095,000**

Funding Source information is intended to identify the revenue that is planned to pay for the capital projects included. While additional revenue is anticipated to be received each year, this information identifies only what is necessary to fund the Capital Improvement Program.

Front desk at Recreation Center

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Fitness Equipment Replacement**

Project Number: 70-30
Contact: Mike Kilman, Recreation Manager
Department: Parks & Recreation Department
Category: Equipment
Type: Replacement
Useful Life: 3 years

5 Year Historical Total	$	1,510,224
2019-2023 Total		620,000
CIP Project Total (2014-2023):	**$**	**2,130,224**

Description and Justification

The Parks and Recreation Department requests funding for fitness equipment replacement. The cardio equipment was replaced in August of 2016 and will be three years old at the scheduled time of replacement in 2019 according to recommended industry standards. Additionally, in 2019, the stationary bikes used for group cycling classes are in need of replacement since they will be at the end of the projected useful life for that equipment. Equipment replacement is necessary in order to maintain safety and functionality for Recreation Center users.

Expenditures	2019	2020	2021	2022	2023	Total
Cardio Equipment	$ 290,000	$ -	$ -	$ 300,000	$ -	$ 590,000
Spinning Bikes	30,000	-	-	-	-	30,000
Total Expenditures	**$ 320,000**	**$ -**	**$ -**	**$ 300,000**	**$ -**	**$ 620,000**

Funding Sources	2019	2020	2021	2022	2023	Total
Sales Tax	$ 320,000	$ -	$ -	$ 300,000	$ -	$ 620,000
Total Funding Sources	**$ 320,000**	**$ -**	**$ -**	**$ 300,000**	**$ -**	**$ 620,000**

Operational Impact

No future expenditures are anticipated as a result of this project. By keeping the amenities in good working condition and updating when necessary, these general improvements contribute to the overall facility and may attract additional patronage.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Recreation Center HVAC System**

Project Number: 70-30
Contact: Mike Kilman, Recreation Manager
Department: Parks & Recreation Department
Category: Equipment
Type: Replacement
Useful Life: 20 years

5 Year Historical Total	$	755,112
2019-2023 Total		250,000
CIP Project Total (2014-2023):	**$**	**1,005,112**

Description and Justification

The Parks and Recreation Department is requesting funds for the Innovent HVAC unit, which was installed in 2005 that provides cooling, heating and dehumidification of the leisure pool, to be replaced in 2019. Typically, the lifespan for a pool unit such as this is fifteen to twenty years depending on how the unit was maintained. However, due to the harsh environment, rust has formed on the heater cabinet and return air cabinets and the controls continually break down. Over the years, several companies have worked on the controls for this unit, with each company doing their own rewiring the unit no longer resembles the diagram and it has been difficult to trouble shoot when repairs are needed. This repair will be required to maintain the level of service and to avoid any unnecessary shutdowns due to an unexpected failure.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Recreation Center HVAC System	$ 250,000	$ -	$ -	$ -	$ -	$ 250,000
Total Expenditures	**$ 250,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 250,000**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Sales Tax	$ 250,000	$ -	$ -	$ -	$ -	$ 250,000
Total Funding Sources	**$ 250,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 250,000**

Operational Impact

Replacing this unit with a newer, more energy efficient unit is expected to reduce costs for both maintenance and operations. Any savings will be determined after the new unit is in service and will be reflected in future budget information.

2019-2023 CAPITAL IMPROVEMENT PROGRAM

Project Name **Parking Lot Improvement**

Project Number:	70-10
Contact:	Mike Kilman, Recreation Manager
Department:	Parks & Recreation Department
Category:	Building
Type:	Repair
Useful Life:	5 - 10 years

5 Year Historical Total	$	-
2019-2023 Total		225,000
CIP Project Total (2014-2023):	**$**	**225,000**

Description and Justification

The parking lot located at the Castle Rock Recreation Center requires regular upkeep. Continual repair of parking lot surfaces ensures a better experience for users and reduces the possibility of significant failures in the parking lot in the future. Planned expenditures accommodate an overlay process and replacement as needed. The actual scope, timing, and process for the parking lot repair will be determined in 2019 and future year budgeting will be adjusted as necessary.

Expenditures	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Recreation Center Parking Lot	$ -	$ 225,000	$ -	$ -	$ -	$ 225,000
Total Expenditures	**$ -**	**$ 225,000**	**$ -**	**$ -**	**$ -**	**$ 225,000**

Funding Sources	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Sales Tax	$ -	$ 225,000	$ -	$ -	$ -	$ 225,000
Total Funding Sources	**$ -**	**$ 225,000**	**$ -**	**$ -**	**$ -**	**$ 225,000**

Operational Impact

No additional revenues or expenditures are anticipated as a result of this project. Long term savings may be realized by undergoing this proactive repair to parking lots, but amounts are not quantifiable at this time.