

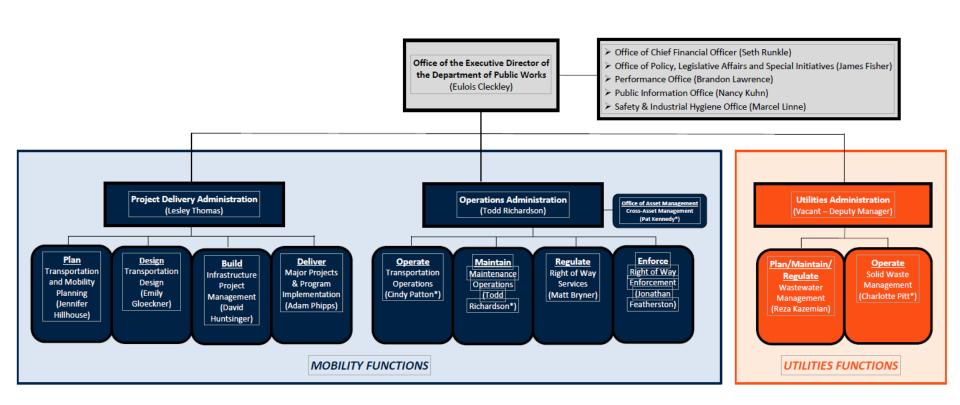
Department of Public Works

2020 Budget

"Denver Public Works, through its employees, enhances the quality of life in Denver by efficiently delivering effective, high quality, safe, and equitable public infrastructure and services."



Organization Overview



^{*} Interim



Reorganization Highlights

What's Changed

The Department of Public Works realigned in an effort to effectively tackle both Public Works and Mobility challenges facing the City. This new structure is allowing us the flexibility to meet the changing demands of a growing City.

Focus on Mobility

The shift to multi-modal options that support more equitable, economical, and expedient transportation systems and infrastructure required that we align ourselves with the realities of 21st century mobility.

Benefits Being Realized

Improved and integrated processes driving a One Build approach, allowing for efficiencies and helping to minimize large project impacts to residents and businesses throughout the City.



Vision, Mission and Strategic Focus

VISION

To be the ideal Public Works Department in the country

MISSION

Denver Public Works, through its employees, enhances the quality of life in Denver by efficiently delivering effective, high quality, safe and equitable public infrastructure and services.

STRATEGIC FOCUS AREAS

- Invest in our People
- Operate with Discipline
- Use Data to Drive Decisions
- Deliver Results



Organizational Focus



WE SUPPORT

the safe movement of people and goods.

WE PROVIDE

a reliable transportation system that reduces delay.

WE MAINTAIN

our infrastructure to ensure safe, dependable, and accessible mobility options and protect our investments.

WE PROVIDE

greater connectivity, accessibility, and equity through mobility options.



WE PROMOTE

sustainability through our innovations in infrastructure and operations.

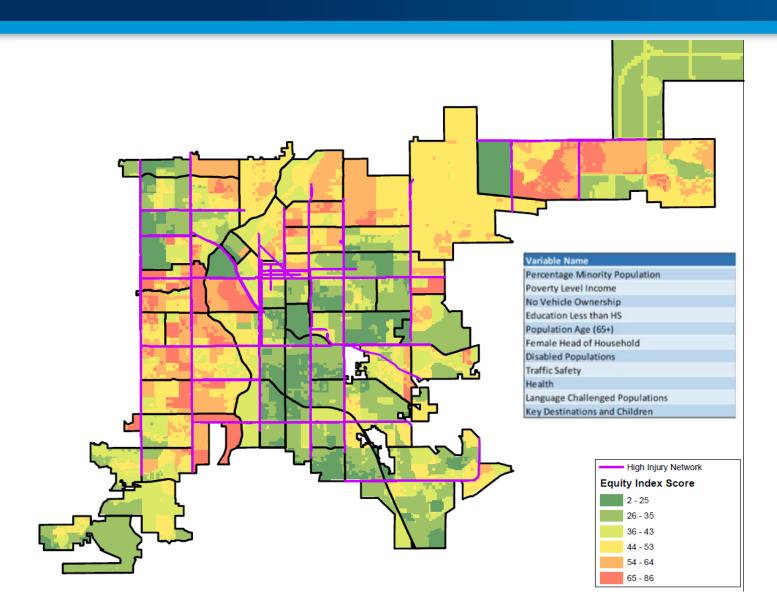
WE PROVIDE

public utilities and services that support public health and sustainability, convey stormwater, and keep our City clean.

- Improve Safety
- Provide Multimodal Connectivity
- Manage and Mitigate Congestion
- Protect and Preserve the Environment
- Leverage Innovation
- Keep our City clean

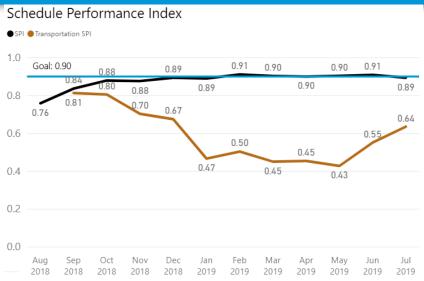


DPW Equity Model

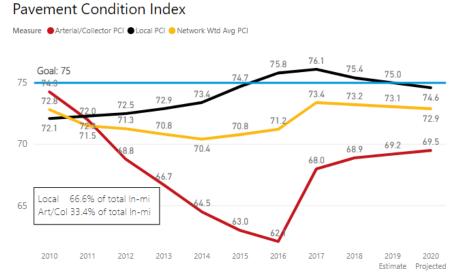


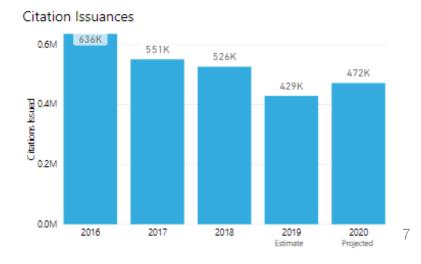


Key Strategic Metrics





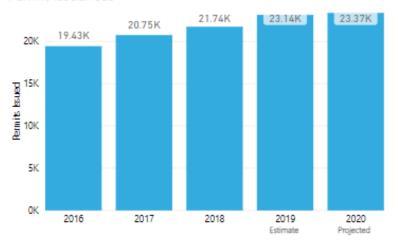




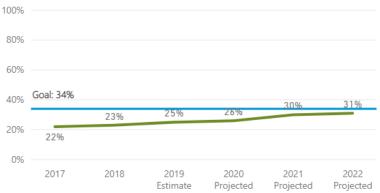


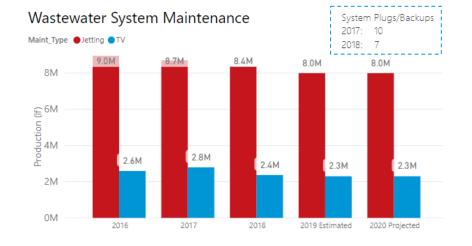
Key Strategic Metrics

Permit Issuances









DON'T WASTE THE GOOD STUFF







Financial Overview

Vision

To be the ideal Public Works Department in the country

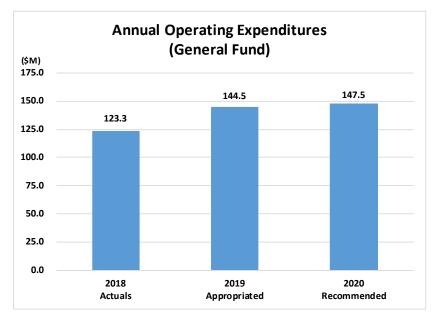
Mission

Denver Public Works, through its employees, enhances the quality of life in Denver by efficiently delivering effective, high quality, safe and equitable public infrastructure and services.

Strategic Focus Areas

- Invest in our People
- Operate with Discipline
- Use Data to Drive Decisions
- Deliver Results

Financial Resource Overview



Fund Overview - Operating (2020 \$M)

General Fund	\$1	.47
Wastewater Fund (EF)	\$1	40
Sidewalk Repair Fund (SRF)	\$	1
Asphalt Plant Fund (ISF)	\$	9
Composting Fund (SRF)	\$	2

Personnel Compliment (2020)

General Fund	1,106
Wastewater Fund (EF)	330
Sidewalk Repair Fund (SRF)	4
Asphalt Plant Fund (ISF)	8
Composting Fund (SRF)	11

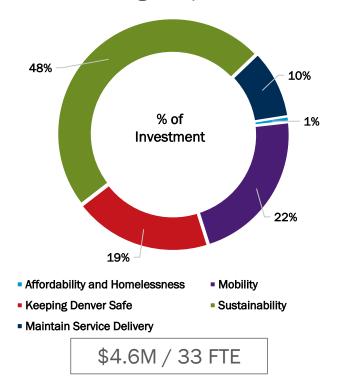
Note: Excludes NWCO



Financial Resource Allocation

2020 focused on implementation and execution. Disciplined allocation of resources to meet the City's priorities

2020 Budget Expansions



Budget Expansion Highlights

- \$4.6M total budget expansions
- Funding needs moderated through base budget reductions (\$4.5M)
- Delivering on mobility projects
- Focus on Vision Zero
- Expansion of composting



2020 Budget (General Fund)



Safe Routes Citywide Education

Expenditures	Revenues	FTE	Duration
\$100,000	\$0	N/A	One-Time

This investment is for Citywide education on the Safe Routes to School (SRTS) program.

SRTS a multi-agency effort is focused on increasing safety and safe places for physical activity for children through the "6 E's":

- Education,
- Encouragement,
- Engineering,
- Evaluation,
- Enforcement, and
- Equity.

Education is a primary mission of Denver's SRTS program.



This funding support will facilitate:

- Bike and pedestrian safety curriculum for school aged kids (Est. \$20K)
- General SRTS Marketing for safety messages and events (Est. \$25K)
- Safety promotional items (Est. \$15K)
- Community Pop Up Events with Safety Demonstrations partnered with Vision Zero (4 for \$40k)

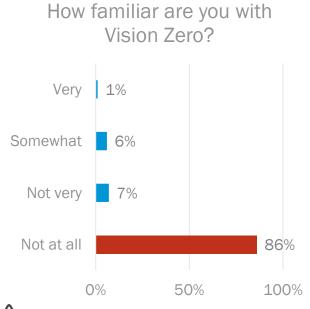
https://www.denvergov.org/content/denvergov/en/environmental-health/community-health/safe-routes-to-school.html



Safety and Mobility Campaign

Expenditures	Revenues	FTE	Duration
\$250,000	\$0	N/A	One-Time

A marketing campaign that supports the Mayor's Mobility Action Plan and for a multimodal safety campaign focused on the High Injury Network.



- Only 7% of Denver residents surveyed have seen advertising for Vision Zero.
- Increased awareness of Vision Zero will result in better adherence to safe and responsible roadway behavior.



https://www.denvergov.org/content/denvergov/en/vision-zero.html





Vision Zero Planner

Expenditures	Revenues	FTE	Duration
\$135,488	\$0	1.0	Permanent

Funding for a Planner to coordinate a public safety campaign, rapidly advance safety project implementation, and execute the Action Plan. There are 67 Actions called for in the plan that, together, are expected to reduce traffic deaths in Denver.

Among other tasks, the Planner will:

- Manage Vision Zero safety and awareness campaign and social marketing;
- Deliver 3 safety slow zones;
- Develop targeted marketing campaign based on crash trends
- Coordinate with partner agencies, such as DPD
- Lead public involvement for safety projects

Action	2018-2019	2020-2023	Partners*
Establish a Vision Zero program within the City			
Establish a permanent, dedicated funding source for Vision Zero implementation and coordination. Continue to create a Vision Zero program with dedicated staff.	\$2M/year; 1.5 additional FTE/year	\$3M/year; 2 additional FTE/year	DPW, Mayor's Office, DPD, DEH, CDOT
Coordinate existing funding already going to Vision Zero projects or that could be applied to such projects.	Ongoing action	Ongoing action	DPW, BMO, CDOT



Vision Zero Engineer

Expenditures	Revenues	FTE	Duration
\$156,682	\$ 0	1.0	Permanent

Funding for an Engineer rapid identify safety projects using crash data, design projects and manage implementation. There are 67 Actions called for in the plan that, together, are expected to reduce traffic deaths in Denver.



The Engineer will:

- Use crash data to identify safety counter measure designs that can be implemented within 3-6 months.
- Design low cost safety improvements from Rapid Reponses site visits.
- Provide capacity to manage the five HSIP grant corridors (\$3.5M) and three geometric projects in the 2020 budget ask.
- Provide design support for the Safe Routes to Schools 2020 CIP budget asks including the 11 Travel Plans and sidewalk gap projects.



City Transit Program Staff

Expenditures	Revenues	FTE	Duration
\$228,405	\$0	2.0	Permanent

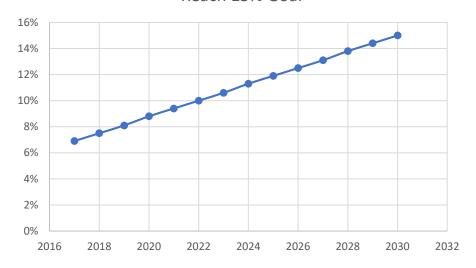
This funding will ramp up the needed staff support to deliver on Denver Moves Transit. It provides dedicated staff resources for Project Delivery administration.

1 Director. starting January 2020

1 Senior City Planner starting June 2020

- Dedicated transit program staff to being delivery of capital projects (Federal Blvd S&R and Colfax BRT) currently in the pipeline
- Accelerate additional transit projects to meet Denver's mode share goals and increasing transit commuting to 15% by 2030

Needed Transit Mode Share Increase by Year to Reach 15% Goal







16th Street Mall Sr. Engineer

Expenditures	Revenues	FTE	Duration
\$157,751	\$0	1.0	Permanent

After decades of experience with the mall, a new plan has been created to reconfigure space on the mall to encourage better pedestrian and visitor experience.

1 Senior Engineer

- The 16 St. mall is the largest tourist attraction in the Denver metro area. The infrastructure is 37 years old and in significant need of rehabilitation and replacement.
- A new plan has been created to reconfigure some of the space on the mall to encourage better pedestrian and visitor experience.
- The Senior Engineer will help provide a reduction of the overall risk profile of this very large, complicated, and politically sensitive project.







City Transit Services

Expenditures	Revenues	FTE	Duration
\$362,000	\$0	N/A	Permanent

This provides Flexride services for residents within the City and County of Denver.

RTD Flexride

Coordinated approach into city-funded transit services

- Critical first-mile, last-mile services that enhance existing transportation system
- Expansion of multi-modal options
- Can be used to connect between bus or train stations or provide direct access to destinations







Principal Multimodal Planner

Expenditures	Revenues	FTE	Duration
\$141,123	\$0	1.0	Permanent

The Principal Multimodal Planner will provide oversight and expertise in the development of Denver's Strategic Transportation Plan and lead interdisciplinary Transportation Planning Studies. This will result in best value of transpiration investments into the future.

Denver Transportation Planning Hierarchy



Outcome of this funding support: Strategic Plans develop ROIs and value potential for future investments, leading to higher value on funding in the next decades.

Effective strategic transportation planning is essential to properly prioritize a large number of potential investments and integrate multiple planning focuses and city goals into an overarching strategy.

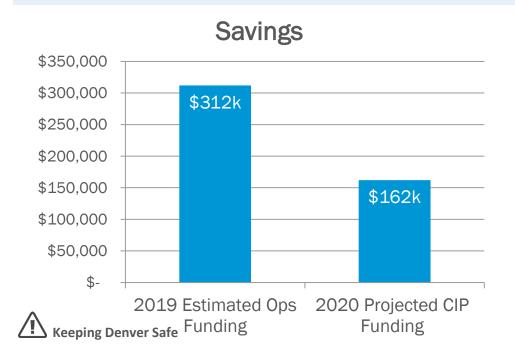




Limited Bond Senior Engineer

Expenditures	Revenues	FTE	Duration
\$158,550	\$0	1.0	Limited

This limited Sr Engineer position will focus on managing the delivery of Bond mobility projects. The position will support the Bond program in a resource effective manner, and help meet critical time and schedule constraints associated with Bond funding to keep the commitment made to voters.



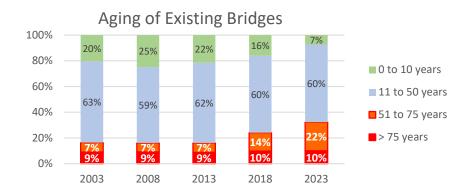
FTE to replace consultant resource at a **cost efficiency of 50%.**



In-House Bridge Maintenance

Expenditures	Revenues	FTE	Duration
\$100,000	\$0	N/A	N/A

To increase funding for tools, materials, and equipment to support the In-House Bridge Maintenance Crews. Enables quick response to emergencies and 311 requests.





- In-house bridge maintenance costs 66%
 less than a contractor.
- Funding will facilitate meeting goal of performing basic maintenance on every bridge within 2 years, so our bridges are safe for public use.
- In 2023, 32% of Denver's bridges will be over 50 years old. Maintenance and monitoring are more critical than ever.
- At the same time, Denver's inventory of bridges is growing, mainly due to inheriting bridges from private development.

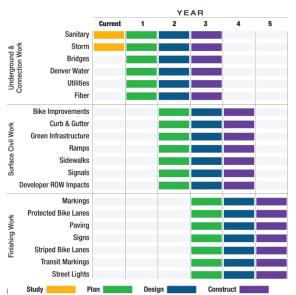


One Build Management Team

Expenditures	Revenues	FTE	Duration
\$125,594	\$ 0	1.0	Permanent

One Build Director will be responsible for coordinating all infrastructure planning, construction and maintenance in the public Right of Way. Coordinates 6 year asset maintenance plan. Oversees Risk and Program Controls function, and departmental governance, planning and issues resolution structures.

LOGICAL CONSTRUCTION SEQUENCE



- 2019 One Build Pilot, included coordination of 6 projects (totaling ~\$2.5 million), will result in estimated staff time savings of >\$540,000 in 2019.
- 2020 One Build program will coordinate an estimated 40 projects per year resulting in staff time savings of >\$1 million in 2020.
- One Build also results in: increased project values and project savings due to efficiency, and minimized construction impacts to communities.

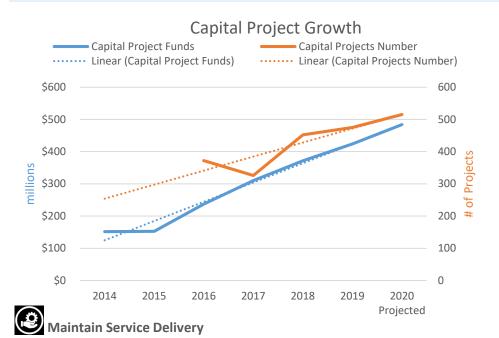




Deliver Program Resource Office Expansion

Expenditures	Revenues	FTE	Duration
\$346,850	\$0	1.0	Permanent

\$200,000 in professional services, administrative funds and 1 FTE (\$146,850) to maintain Program Resource Office (PRO) level of support for PW capital projects. PRO ensures project success by providing tools to all PW project managers such as processes, industry standards, risk management, project controls, and training.



This funding facilitates:

- Maintain 90% on budget, on schedule performance
- Implementation of robust Project Management
 Information System
- Centralize schedule and budget control and reporting functions, optimizing efficiency and performance
- Expand project support services
- Program dollars to go toward Program
 Resources equates to 10 FTE

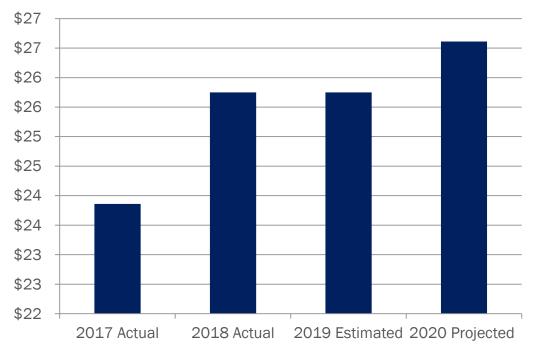


Annual Landfill Tip Fee Increase

Expenditures	Revenues	FTE	Duration
\$225,203	\$0	N/A	Annually

This is an annual contractual increase and an increase due to HB 192 adding a tip fee surcharge of \$0.15 per cubic yard in order to drive a behavior change and increase in recycling participation.

Ave. Cost per Ton to Landfill





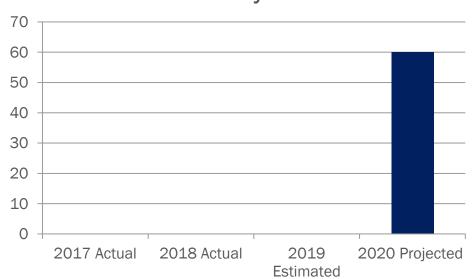


Denver Day Works - Downtown Litter Collection

Expenditures	Revenues	FTE	Duration
\$33,000	\$0	0	One-time

Funding will be used to pay Denver Day works to employ 5 people experiencing homelessness to pick up litter on a specified route downtown/Ballpark daily.

Blocks Cleaned Weekly by Denver Day Works



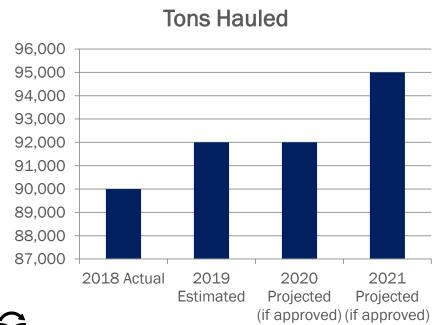


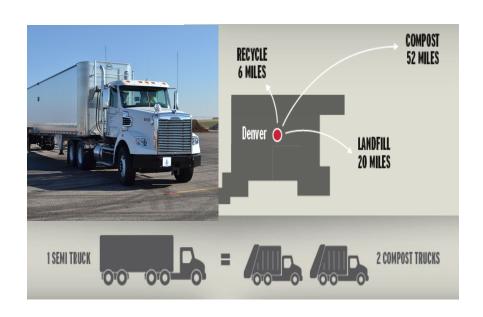


1 New Transfer Trailer

Expenditures	Revenues	FTE	Duration
\$251,200	\$0	N/A	One-Time

1 New Transfer Tractor Trailers to transport multiple loads of trash, recycling and compost to its end destination from the Cherry Creek Transfer Station.





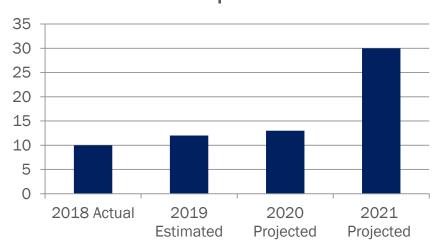


Add 12 Vehicles to Compost

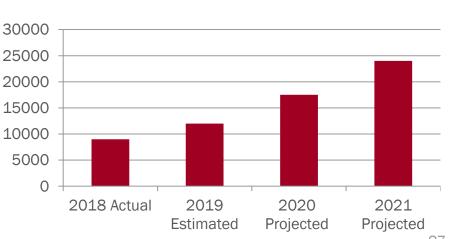
Expenditures	Revenues	FTE	Duration
\$776,000	\$0	-	Permanent

Preparation for ongoing expansion of the Composting Collection program. With existing leasing agreement in place, this leverages leasing option versus vehicle purchase. Operating expense impact for 2020 is \$776K, with DDPHE fronting the first three years of lease payments. Note, this is in addition to 13 trucks authorized in the 2019 budget, where DDPHE fronts the first year lease payment on those vehicles.

% of Homes Subscribed to Compost



Tons of Compost Collected







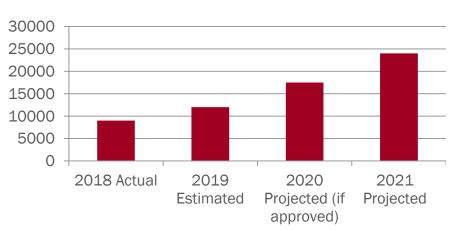
Add 23 EOS Drivers

Expenditures	Revenues	FTE	Duration
\$735,991	\$ 0	23	Permanent

Funding staffs the compost vehicles on order for 2019 (13) and for 2020 (12) in order to meet the expanded compost service expected through 2021. Hiring will be staggered in 2020 as a function of lease fulfillment timing.

% of Homes Subscribed to Compost 35 30 25 20 15 10 5 2018 Actual 2019 2020 2021 **Estimated** Projected Projected (if approved)

Tons of Compost Collected





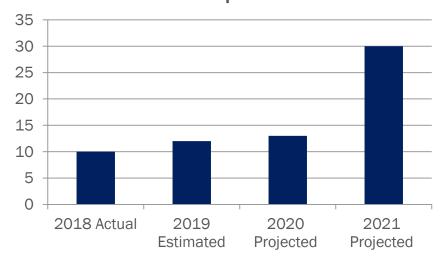


Community Education

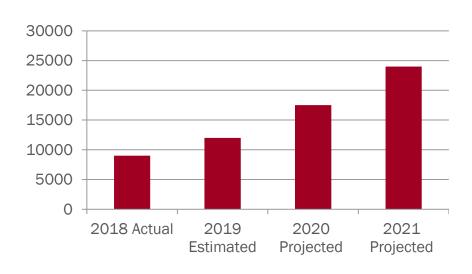
Expenditures	Revenues	FTE	Duration
\$250,000	\$0	-	One-time

Educate residents about recycling and composting to aid in achieving the 2021 Expansion efforts. A comprehensive education and outreach program is critical to this effort. This continued efforts started in 2019.

% of Homes Subscribed to Compost



Tons of Compost Collected



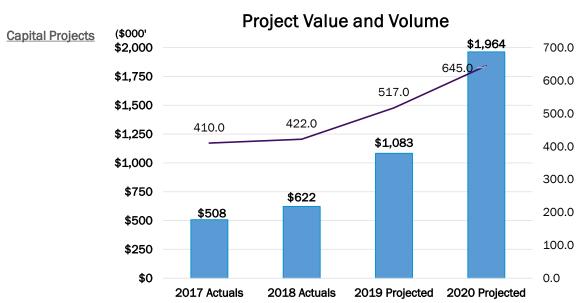




General Fund Accountant

Expenditures	Revenues	FTE	Duration
\$100,130	\$0	1	Permanent

As the volume of capital projects increase, this provides an ability to maintain service levels, improve internal controls and support capital project needs, including bond projects. The volume and complexity of projects, including those with grant compliance, requires an increased focus to maintain the City's books and records.





2020 Budget Climate – Electric Vehicles Spotlight



Climate Electric Vehicles

By the end of 2020

\$6.8M investment (\$2.9M in 2020)

22% of electric-eligible fleet will be converted by 2020

2018 Lifecycle Emissions Profile (mg/mile)

Pollutant	New Gasoline	New Electric	° %
	Car	Vehicle	Reduction
NOx	108	31	71%
VOC	135	2	99%
GHG	323,060	213,270	34%

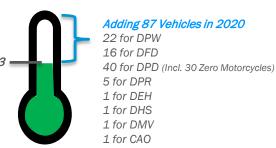
NOx – nitrogen oxide

VOC - volatile organic compound

GHG - greenhouse gas

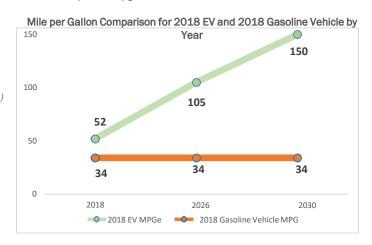


Mayor's 2020 EV Goal = 200



Beyond 2020

Electricity becomes cleaner each year and existing EVs will reduce their emissions every year. The same 2018 Nissan LEAF, if on the road in 2030, would have improved its mpge from 52 to 150 mpge, while a comparable new gasoline vehicle bought in 2018 would at best maintain its original fuel economy of 34 mpg.



27% of fleet is electric-eligible (900 vehicles)



2020 Budget Base Budget Reductions



Reduction Proposals Summary





Reductions - Detail

Expenditures	FTE
(\$250,000)	0

(1) Fuel Rates – Existing unleaded and diesel rates are locked in for a 12-month period. Monitoring of fuel rates will continue in order to manage potential future risk to fuel budget.

Expenditures	FTE
(\$500,000)	0

(2) Parking Vendor Fees – The majority of fees from Conduent are transaction based as a function of parking citations. Projected parking compliance activities will continue to be monitored to manage potential future risk.

Expenditures	FTE
(\$250,000)	0

(3) Street Markings – Materials for street markings are largely funded through annual capital maintenance budgets. A lessor operating budget, historically for small ticket use, will be eliminated and CIP funding used going forward.



Reduction – Detail (cont.)

Expenditures	FTE
(\$1,500,000)	0

(4) 3% Services and Supplies Reduction – A net 3% reduction in services and supplies budgets across all divisions of Public Works in our efforts to manage potential impacts caused by ongoing uncertainties in the national economy. This will include reductions in travel, conferences, training, as well as evaluating opportunities for moving selective activities in house (less professional services), replacing tools with less frequency and limiting inventory buildup of snow and other materials.

Expenditures	FTE
(\$2,000,000)	0

(5) Leveraging existing CIP annual maintenance budgets for signal maintenance activities. This returns us to historical practice of using CIP funding for all signal needs.



2020 Budget Expense, Revenue, FTE Summary



DPW General Fund Expenses, Revenues, and FTEs





Race and Social Justice Initiative



Race and Social Justice Initiative DPW Expansions

Budget Expansion	Community Benefit	Community Impact (Burden)	Reduce gaps in race and ethnic outcomes
Vision Zero Engineer \$151, 682	Allows for coordination of a public safety campaign to reduce traffic deaths in Denver, particularly in vulnerable neighborhoods. Allows department to keep pace with Vision Zero Action Plan	We are aware of the impact to historically marginalized groups as we have identified priority areas: • 39% of all traffic deaths and • 47% of pedestrian deaths happened in our communities of concern (CoC)	Improves health and safety outcomes for historically marginalized groups by using data from our communities of concern (COC) map. Equity Index variables include: Low income and education levels, high concentrations of seniors and people with disabilities, low rates of vehicle ownership, high obesity rates, and high numbers of schools and community centers.
Safe Routes to School Citywide Education \$100,000	Provides education and guidance to parents and residents to increase safety and safe places for physical activity	Benefits impact areas nearest schools, but benefits lessen outside of immediate project areas.	Improves safety and awareness for students and parents; safe places to play and walk. Route identification includes equity index as a factor; routes are identified in collaboration with partner agencies including DDPHE, DPD and DPS,
Safety and Mobility campaign – high injury network \$250,000	Aligns safety and mobility work with that of Vision Zero engineer and Vision Zero Program; focuses on high injury network	Benefits impact areas nearest high injury network, but benefits lessen outside of immediate project areas.	Improves health outcomes and safety awareness identified in the COC map.



Race and Social Justice Initiative DPW Expansions

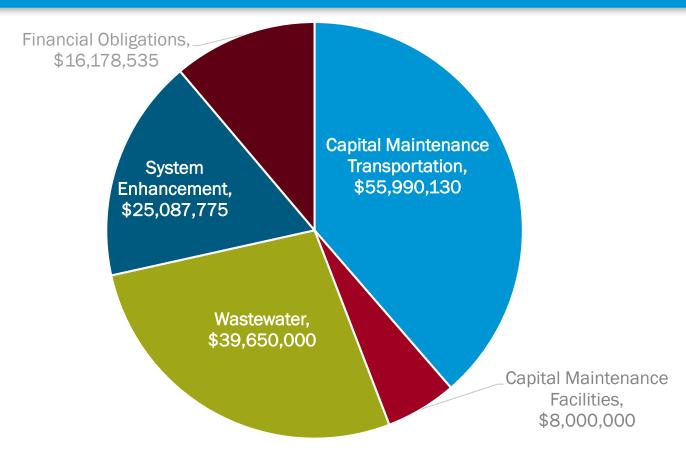
Budget Expansion	Community Benefit	Community Impact (Burden)	Reduce gaps in race and ethnic outcomes
City Transit Services \$362,000	Supports expansion of RTD Flex Ride, which provides transit services to those not currently served by existing RTD services. Request promotes citywide reduction of single occupancy vehicles; identifies areas and opportunities for transit services in underserved areas; allows for delivery of Denver Moves Transit plan	Requires greater coordination between department staff, RTD and other partner agencies.	Enhances existing transportation network for underserved areas and reduces pollution from single occupancy vehicles.
Principal Multimodal Planner \$141,123	Identifies areas of opportunity to encourage alternative transportation modes	None beyond budget financial impact.	Multimodal options allow better access to employment, medical and recreational activities to a broader section of the population, and reduce pollution from single occupancy vehicles.



Capital Budget Overview



Public Works 2020 CIP



- DPW Financial Obligations include payments for Tower Road, East Corridor Certificate of Participation, and match funding for projects included in the 2018-2021 and 2020-2023 DRCOG TIP.
- DPW annual capital maintenance projects include street maintenance, curb ramps, bridge rehabilitation, traffic signals, pavement markings, signs, and parking programs.



DPW 2020 CIP Mobility Highlights

- \$10.9M for implementation of Denver Moves: Bicycles, Pedestrians, and Transit
 - \$5M to continue commitment of building 125 miles of bikeways in 5 years
 - \$3.8M for pedestrians
 - \$3M for sidewalk gaps and \$800K for pedestrian crossings
 - \$2.1M for transit
 - \$1.9M for 18th/19th Corridor Improvements and \$200K for passenger amenity program
- \$3.6M for capital improvements to address safety
 - \$1.1 million for implementation of Vision Zero
 - \$1.5 million for safer crossing technology at Federal Blvd. intersections
 - \$750K for Safe Routes to School
 - \$250K for neighborhood traffic improvements
- \$2.0M to update the Strategic Transportation Plan to provide a comprehensive delivery approach in implementing the goals outlined in the Mobility Action Plan



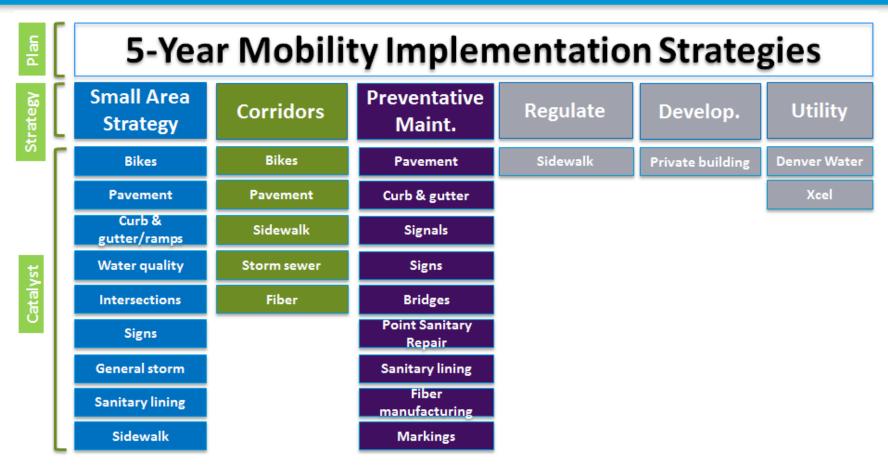
2020 Mobility Investments



Mobility Action Plan (MAP) Projects	Amount
Vision Zero Implementation	\$1,100,000
Safe Routes to School	\$750,000
Denver Moves Pedestrian Crossings	\$800,000
Sidewalk Gaps	\$3,000,000
Neighborhood Transportation Management	\$250,000
Denver Moves Bicycles	\$5,000,000
Denver Moves Transit Implementation	\$2,100,000
Subtotal	\$13,000,000
MAP Supportive Projects	CIP
Federal Funding Match	\$9,742,000
Broadway/I-25 Interchange	\$3,750,000
High Line Canal at Hampden	\$500,000
Strategic Transportation Plan	\$2,000,000
Quebec Street: 13th-26th Near-Term Improvements	\$1,000,000
Downing Two-Way Conversion: Design	\$150,000
35 th Street: Arkins to Wazee Design (NDCC)	\$450,000
National Western Center Street Connections (Design) (NDCC)	\$400,000
Subtotal	\$17,992,000
GRAND TOTAL	\$30,992,000



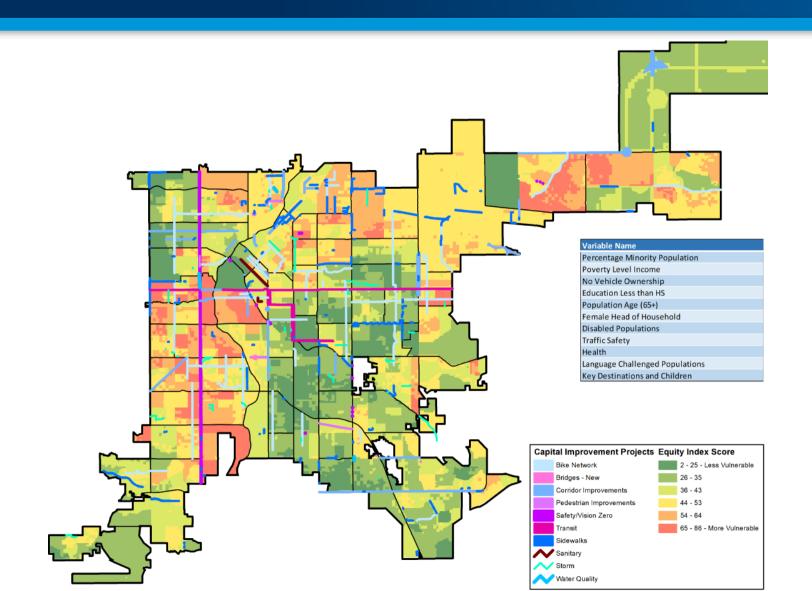
Capital One Build Approach



'One Build': A coordinated cross-asset approach to plan, design, build, regulate, maintain & operate within the public right-of-way resulting in the equitable and efficient delivery of high quality, effective, and safe public infrastructure and services minimizing neighborhood disruption and enhancing the quality of life in Denver.

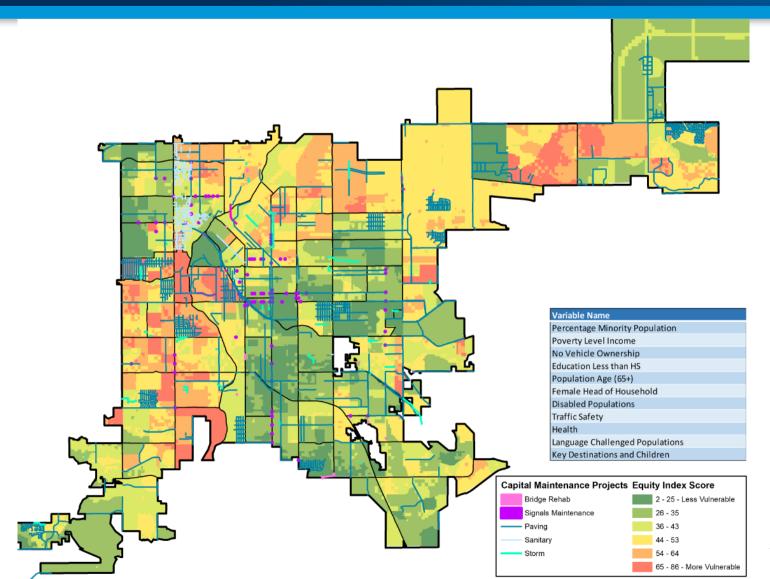


Capital Projects - Equity Lens





DENVER THE MILE HIGH CITY Capital Maintenance - Equity Lens

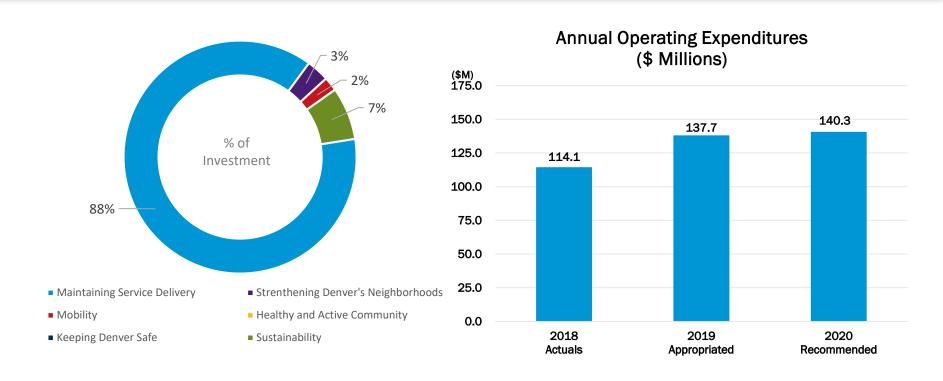




Wastewater Overview



Wastewater Financial Resource Allocation



- Wastewater Enterprise Fund remains healthy. Cash reserves, debt coverage and days cash-on-hand all remaining well above benchmark levels
- Operating budget consistent with prior years
- Budget has taken into consideration future rate changes (reversion to CPI in 2021),
 building refurbishment and potential increases in Metro fees



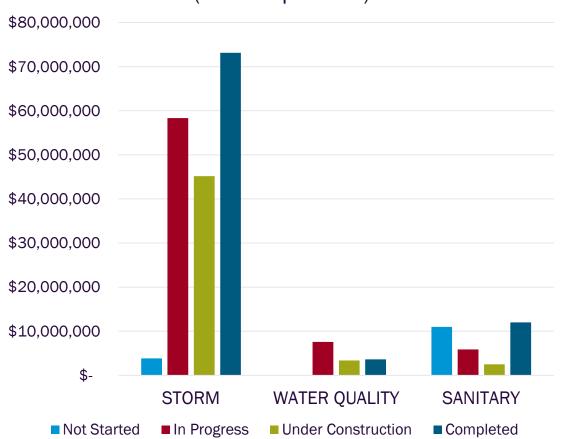
Wastewater Approved Requests Summary

Item	Expenditure	Revenue	FTE	Duration
Replacement Equipment	\$971,000	0	0.0	One-Time
Manhole Adjusting Equipment	\$264,162	0	1.0	Temporary
New Data Investigator	\$71,215	\$175,000	1.0	Permanent
Limited ROWS Engineer	\$134,305	0	1.0	Temporary
Senior Engineer Manager	\$173,069	0	1.0	Permanent
PRO Expansion	\$127,512	0	1.0	Permanent
Utility Locates	\$491,116	0	3.0	Permanent
Extend NDCC Position	\$148,385	0	1.0	Temporary
Urban Waterways	\$329,969	0	1.0	Permanent
Enterprise Billing System	\$2,298,000	0	0.0	One-Time
Mobile Restroom Expansion	\$215,687	0	0.00	Permanent
Sanitary Lining	\$2,600,000	0	0.0	Permanent



2019 Wastewater Capital Program Update





Projects to Date	#
Completed	42
Under Construction	7
In Progress (w/ '20 Construction)	12
In Progress (w/ '21 or '22 Construction)	13
Planning efforts underway	7

Visit our website for a complete list of projects https://www.denvergov.org/wcpm



Wastewater 2020 Capital Appropriations

Key Storm Drainage Projects

E 16th Avenue System Jackson Street/Hale Parkway 48th Avenue-Globeville (design) SPR-Globeville levee (design) General Storm Improvements

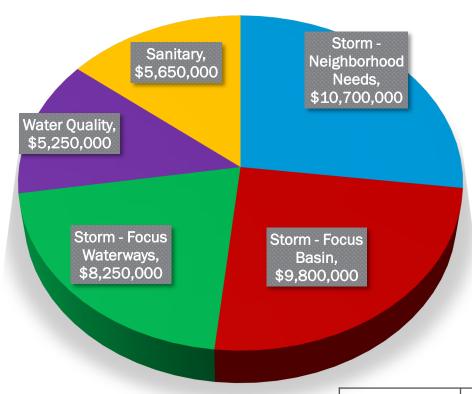
- E Dakota Ave & S Ivy St
- W Cedar Ave & S Perry St
- E Ellsworth Ave & S Garfield

Key Water Quality Projects

Heron Pond/Carpio Sanguinette Park Federal Boulevard Green Street High Line Canal University Hills Library Parking Lot

Key Sanitary Projects

Lincoln Park Lining
Five Points Lining
16th Street Mall Lining



Category	Total	
Storm Drainage	\$28,750,000	
Sanitary	\$5,250,000	
Water Quality	\$5,650,000	
Total	\$39,650,000	



Q & A