



November 7, 2024
Chris Barlow, CAO

When it comes to Asset Management, money isn't everything – but it's close.

CASTLEGAR

✿² If money is everything, how do we get it?



Castlegar



The best time to
plant a tree was
20 years ago.
The second best
time is now.

~Chinese Proverb





Trust, honesty, humility, transparency and accountability are the building blocks of a positive reputation. Trust is the foundation of any relationship.

Mike Paul

 quotefancy

A close-up, slightly low-angle photograph of Winston Churchill. He is wearing a dark fedora hat, a light-colored checkered suit jacket, and a dark bow tie with white polka dots. He has a cigar in his mouth and is looking downwards with a serious expression. The background is blurred, showing what appears to be a crowd of people.

**PERFECTION
IS THE ENEMY OF
PROGRESS**

--Winston Churchill

Our Journey ~2016

CASTLEGAR

Our Vision for Asset Management Planning & Funding

CASTLEGAR

Understanding our Core Assets

Water, Sewer, Storm, Roads

CASTLEGAR

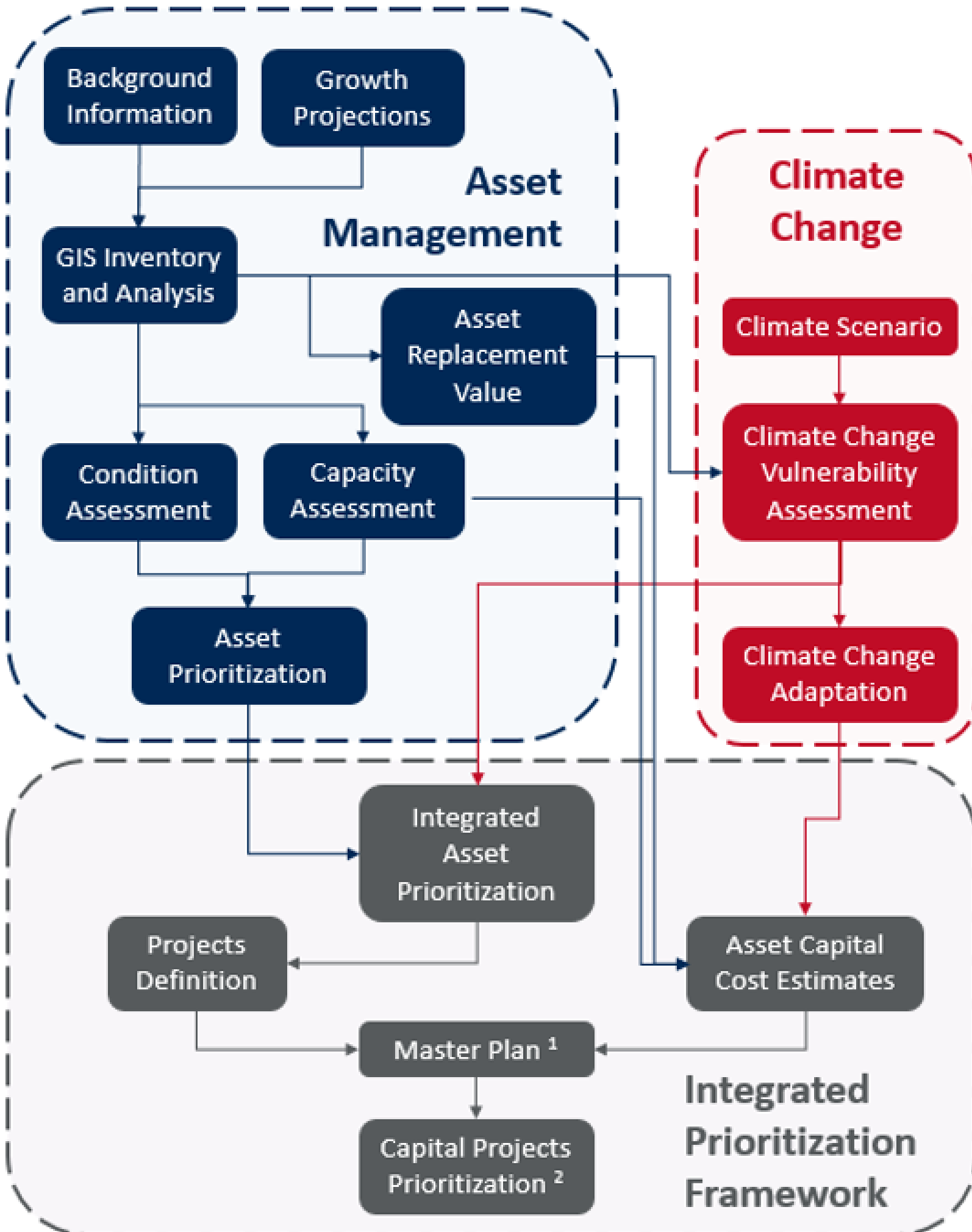
Understanding Potential Impacts of Climate Change

CASTLEGAR

Our Approach

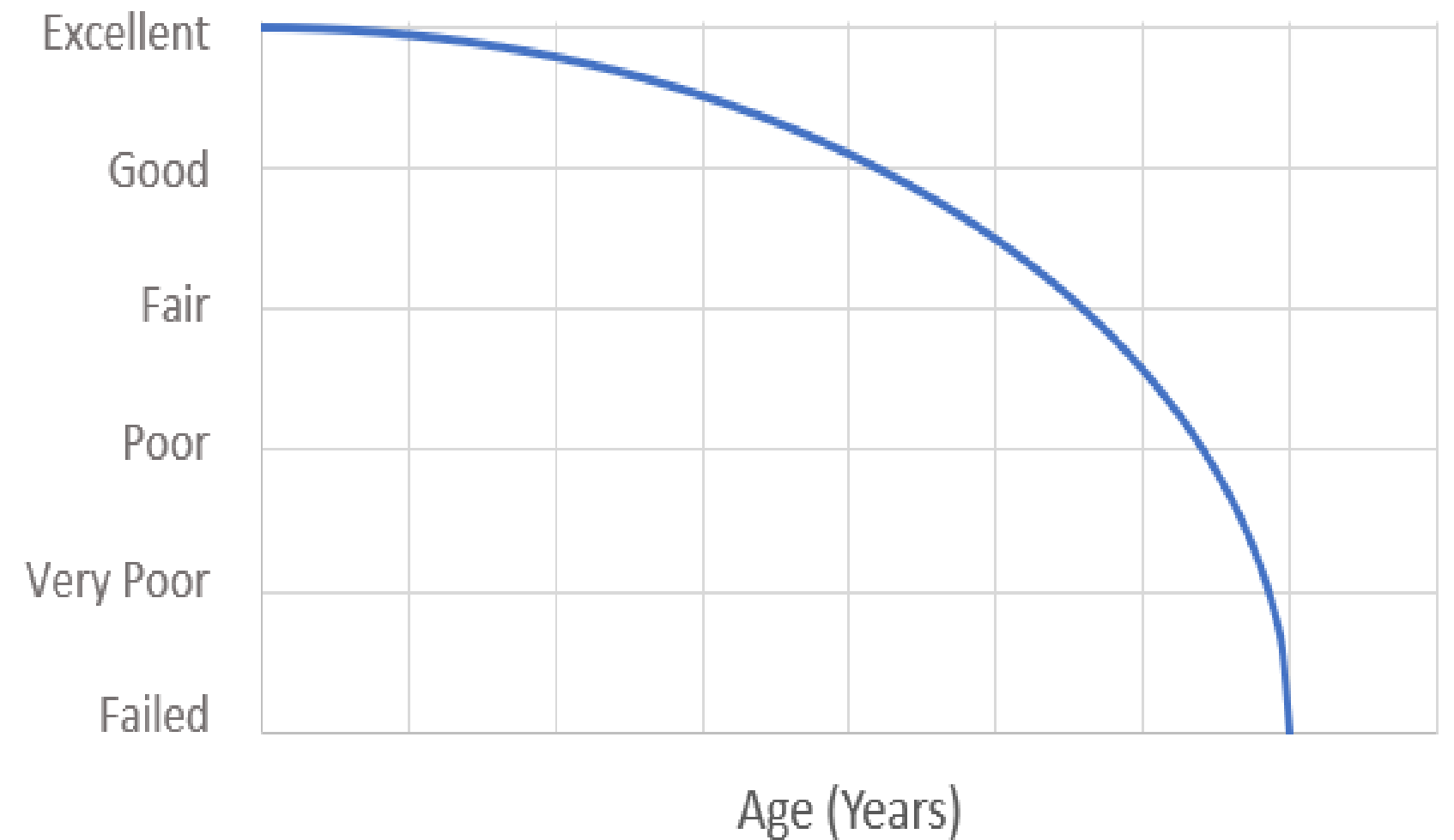
Getting to a base level

- Combine to create one, best source of data & model
- Assess condition and capacity
- Overlay climate impacts and vulnerability
- Create integrated infrastructure capital plan
- Capital cost estimates
- 25-year capital plan



Failure Mechanisms:

- Relentless slide toward failure
- What causes failure?
- Is climate involved?
- How much does climate change impact failure timelines?



Failure Mechanisms: Roads – High Impact

- Ultimately expressed by asphalt damage
- Loss of road base strength
 - Soil water content
- Surface frost damage
 - Soil water content
 - Temperature
- Loss of asphalt strength
 - Extreme high temperature





Failure Mechanisms: Watermains – Med. Impact

- External pipe stresses
 - Differential soil movement - soil water content
- External corrosion
 - Soil chemistry - water content/flow; temperature
- Internal corrosion
 - Source water chemistry – surface runoff; temperature



Failure Mechanisms: Sanitary Sewers – Low Impact

- Increased flows
 - Inflow and infiltration
- External pipe stresses (force mains)
 - Soil movement - soil moisture content
- External corrosion
 - Soil chemistry - water content/flow; temperature



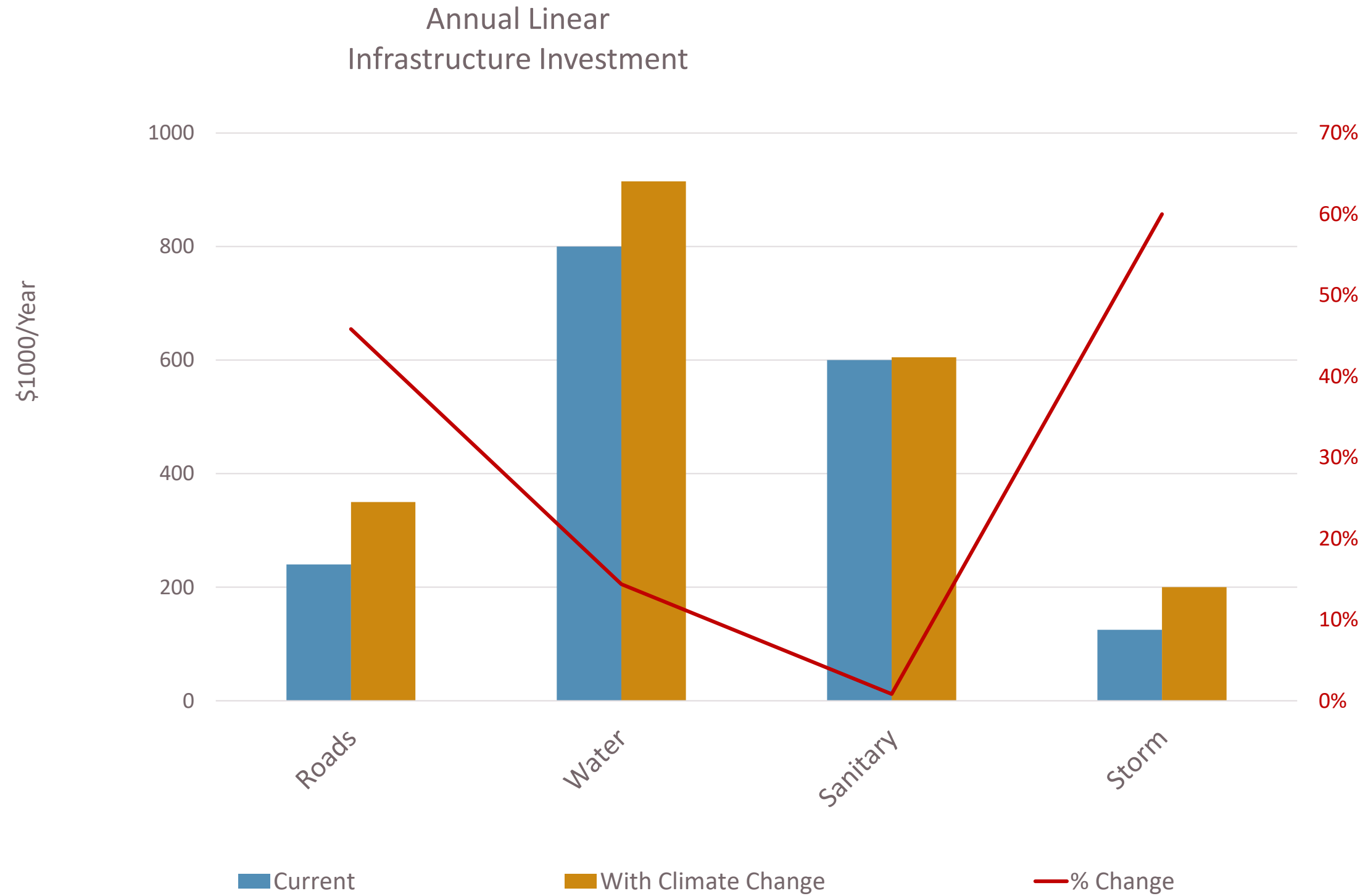


Failure Mechanisms: Storm Sewers/Culverts – Major Impact

- Increased flows
 - Streams
 - Urban runoff
- Internal abrasion
 - Suspended sediment
- External corrosion
 - Soil chemistry - water content/flow
temperature



Impacts to Funding – Climate Change

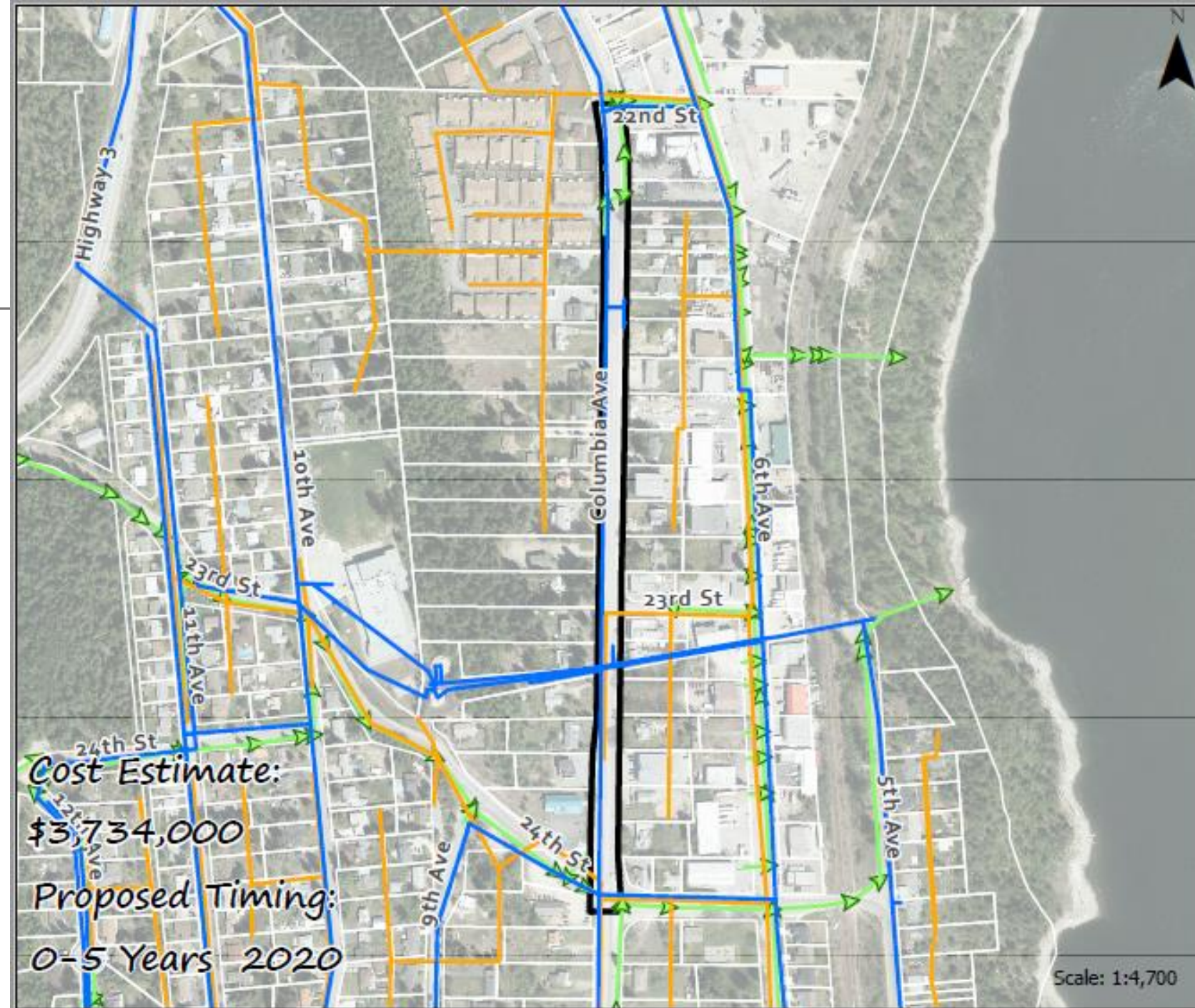


Project Priorities

Figure 2: Hex-bins of utility corridors, weighted by project priority and timing



Our Example 1



Project 2 of 77: Columbia Ave (Part of Phase 2) - 24th St to 22nd St

Infrastructure Categories:

Sanitary: **No**

Water: **Yes** Replace aging 200mm AC with new 200mm

Storm: **Yes** Add new storm where necessary

Roads: **Yes** Full new cross section, including sidewalks and street furniture

Trigger Document: Existing City Project

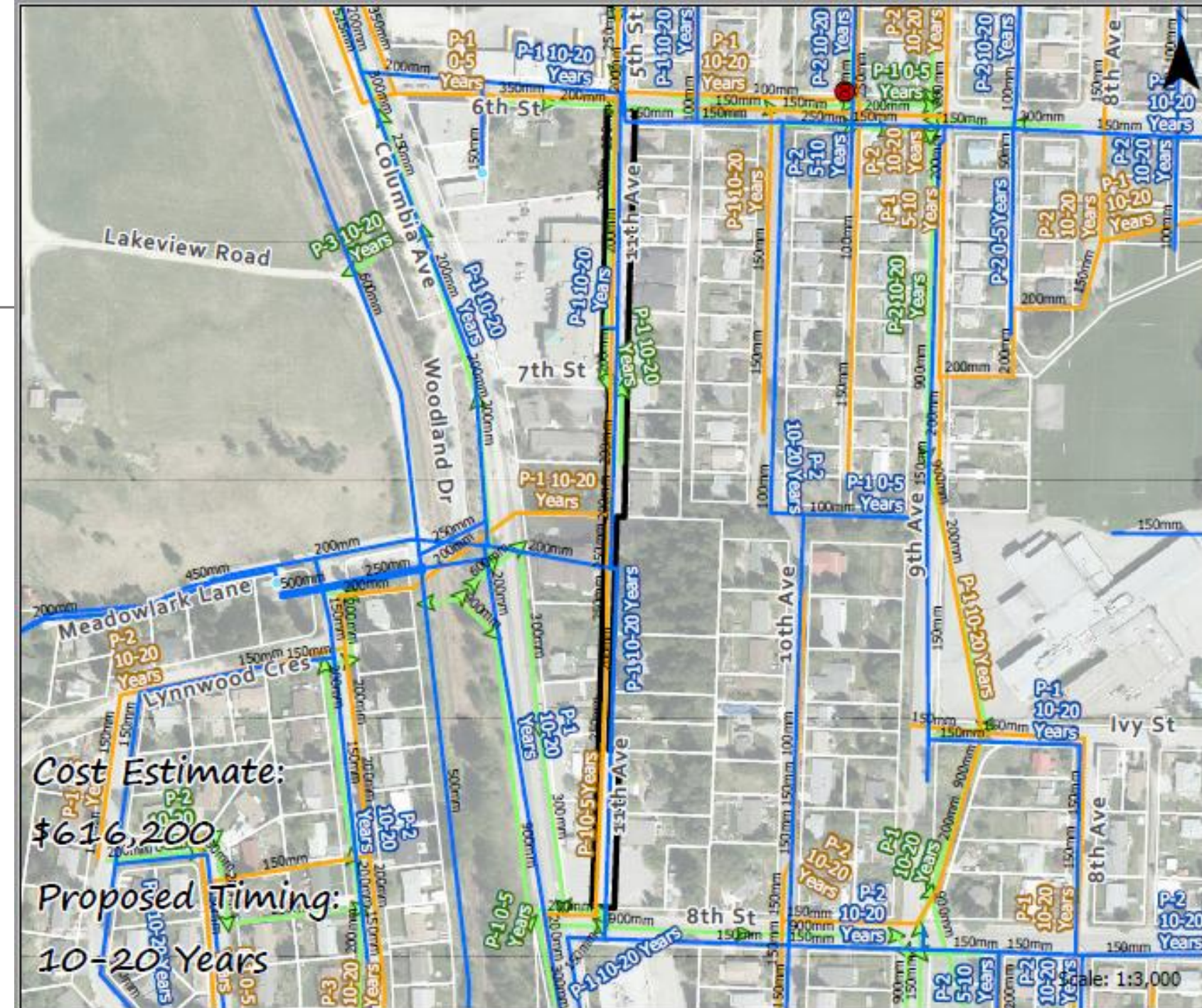
Trigger Category: Condition and Capacity

Prioritization Driver: Strategic Goals

Additional Comments: MoTI to cover paving costs and 50% of storm. Costs shown here reflect amount to be paid by City only.



Our Example 2



Cost Estimate:
\$616,200
 Proposed Timing:
 10-20 Years

Project 66 of 77: 11th Ave - 6th St to 8th St

Infrastructure Categories:

- Sanitary: **Yes** Upsize aging 200/250mm gravity to 375mm.
- Water: **Yes** Replace aging 200mm AC watermains (PVC sections ok)
- Storm: **Yes** Check condition of storm mains and replace if necessary
- Roads: **Yes** South section of road in poor condition

Trigger Document: IICP

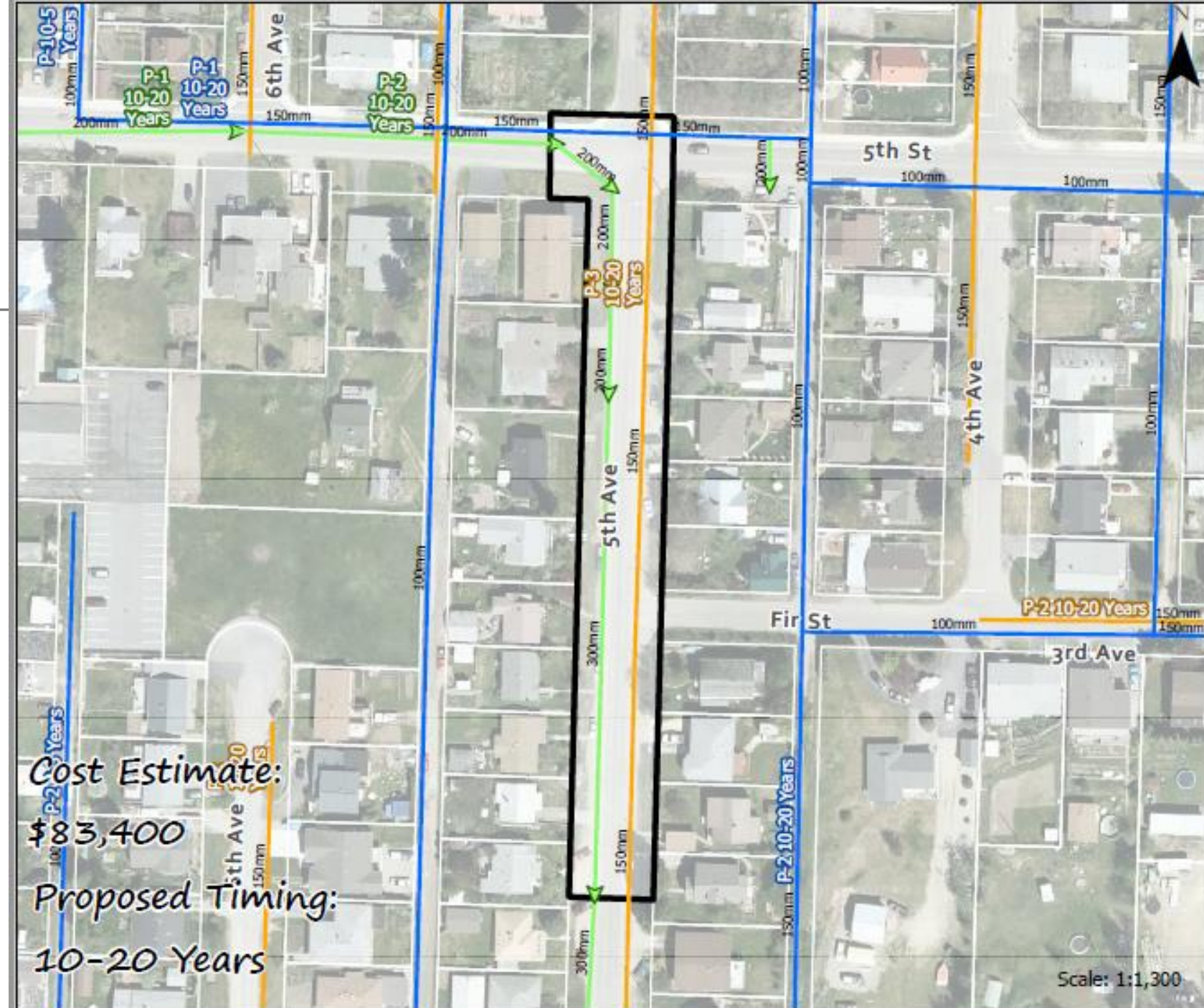
Trigger Category: Condition and Capacity

Prioritization Driver: Level of Service

Additional Comments: Could divide project into north and south sections



Our Example 3



Project 74 of 77: 5th Ave - 5th St to 6th St

Infrastructure Categories:

Sanitary: **No**

Water: **No**

Storm: **Yes** Upsize existing aging 200mm Conc to 300mm and existing 300mm Conc to 450mm

Roads: **No**

Trigger Document: IICP

Trigger Category: Climate

Prioritization Driver: Climate Change

Additional Comments: Upsize is based on climate change scenario



We now understood our
core assets and the
impacts of Climate
Change = \$

CASTLEGAR



23

Now we have to find a way to fund it



**SHOW ME
THE MONEY!**

Our Journey ~2017

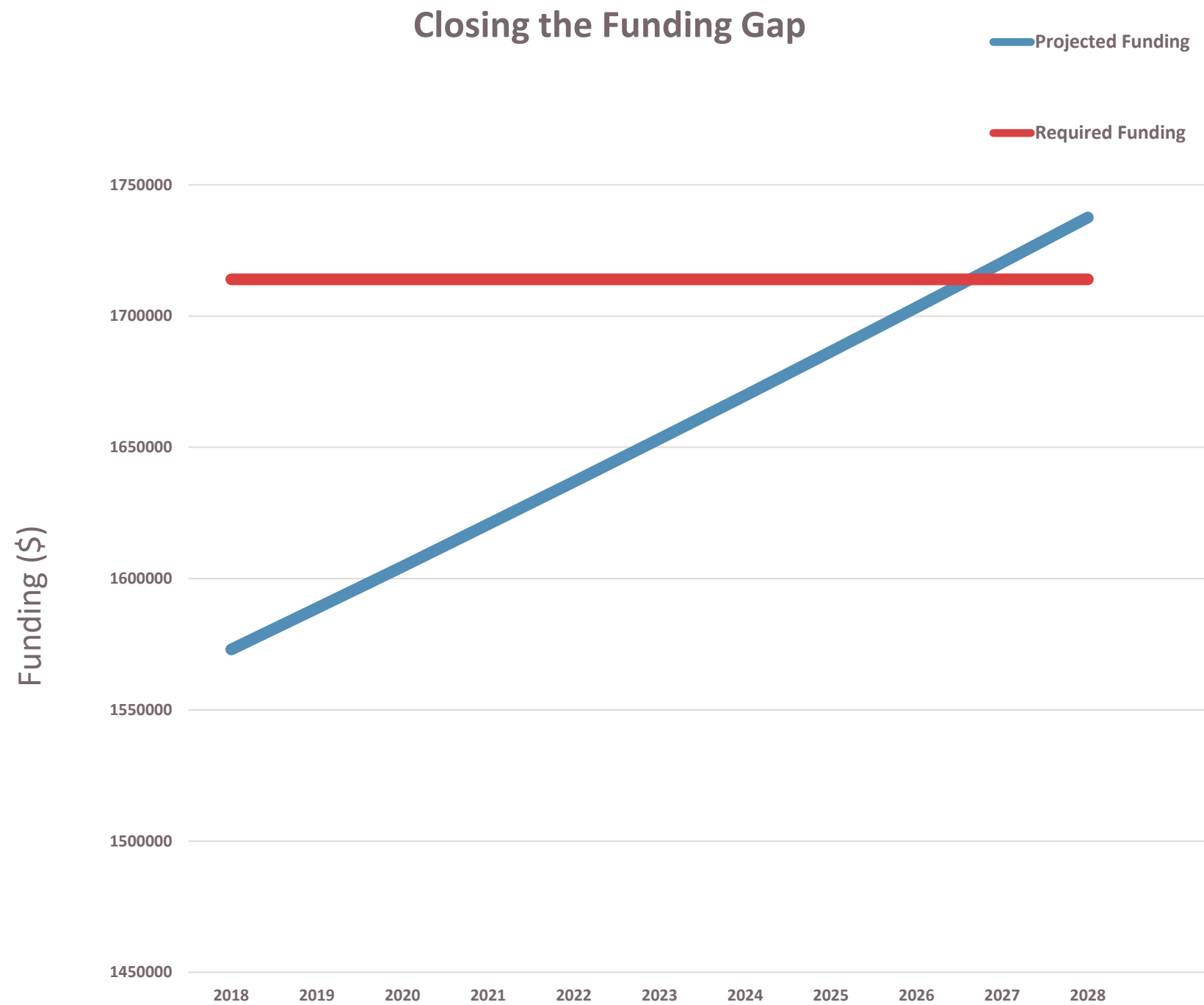
CASTLEGAR

A close-up photograph of Winston Churchill. He is wearing a dark fedora hat, a light-colored checkered suit jacket, and a dark bow tie with white polka dots. He has a cigar in his mouth and is looking slightly to the left with a serious expression. The background is blurred, showing what appears to be a crowd of people.

**PERFECTION
IS THE ENEMY OF
PROGRESS**

--Winston Churchill

Water Financing Options

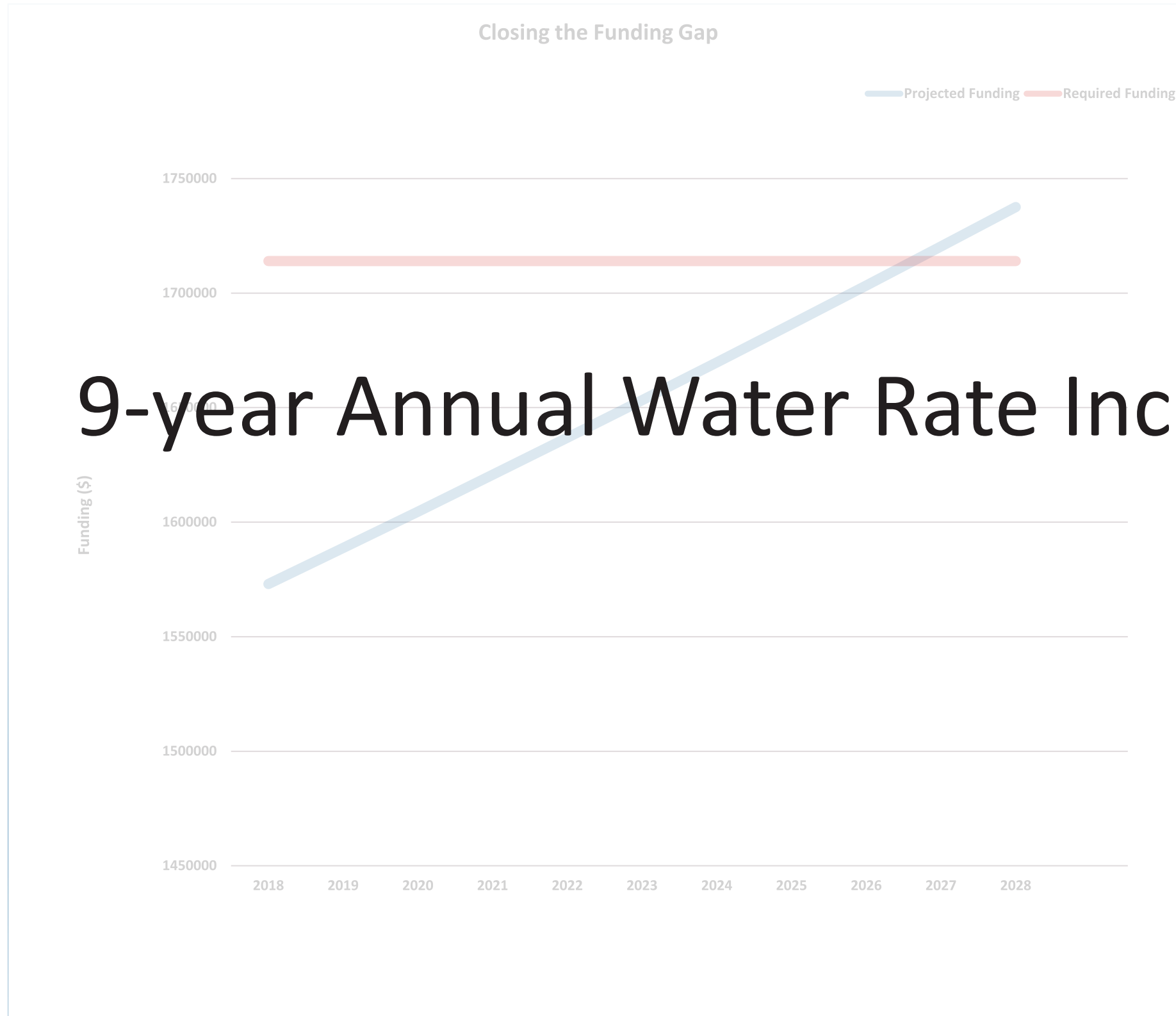


A 1% increase in water rates over a 9-year period would close the funding gap.

Allocating a funding increase of 1% per year to the reserves over a 10-year period would put \$173,000 annually into reserves.

$$\text{Annual Water Rate Increase} = 1\% + \text{CCI} + 1\%$$

Water Financing Options



9-year Annual Water Rate Increase = 1% + CCI + 1%

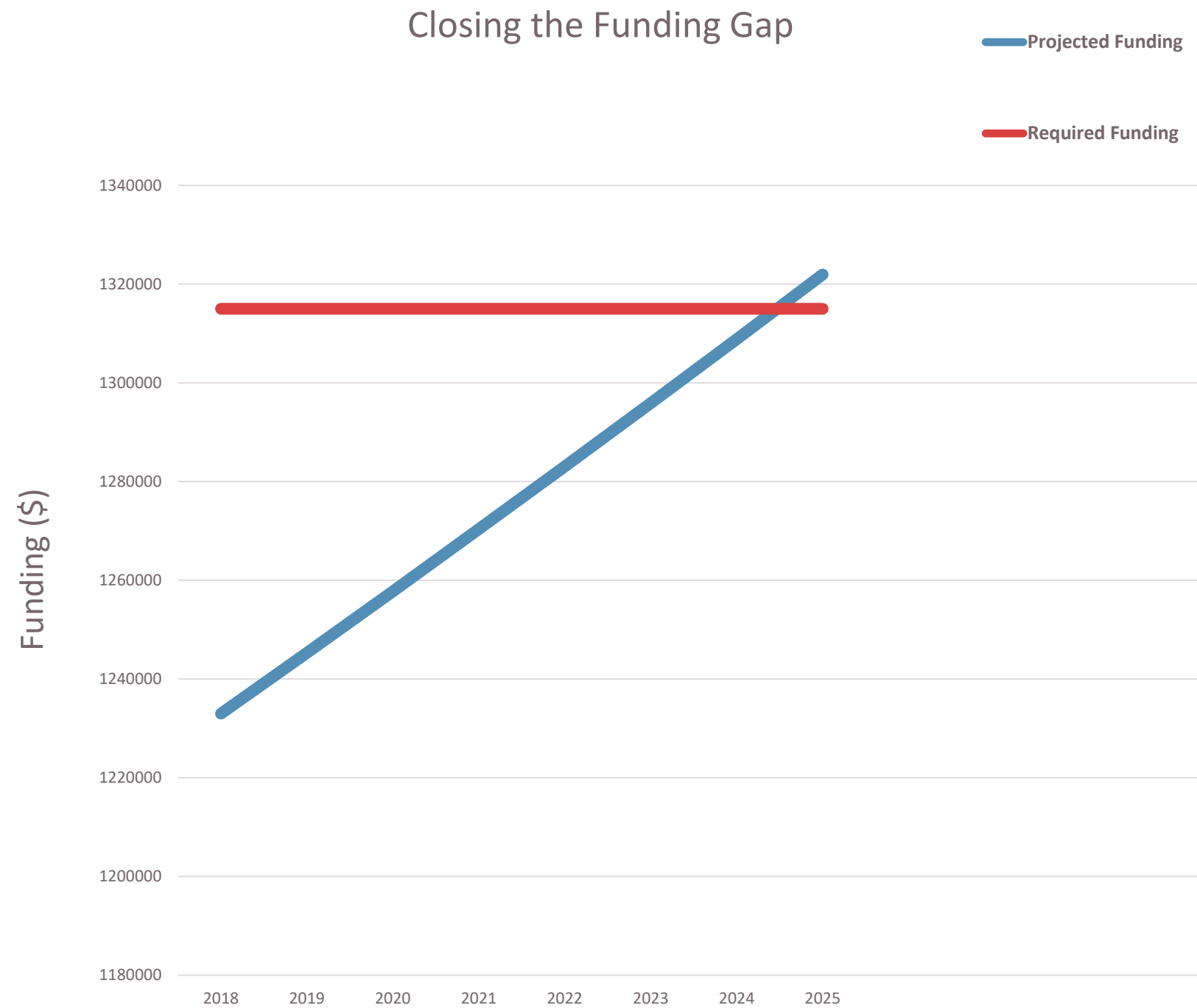
A 1% increase in water rates over a 9-year period would close the funding gap.

That 1% increase would only cover the funding gap. It is important to consider CCI and the water reserves.

Allocating a funding increase of 1% per year to the reserves over a 10-year period would put \$173,000 annually into reserves.

Annual Water Rate Increase = 1% + CCI + 1%

Sewer Financing Options



A 1% increase in sewer rates over a 7-year period would close the funding gap.

Allocating a funding increase of 1% per year to the reserves over a 10-year period would put \$135,000 annually into reserves.

Annual Sanitary Rate Increase = 1% + CCI + 1%

Sewer Financing Options

Closing the Funding Gap



7-year Annual Sanitary Rate Increase = 1% + CCI + 1%

A 1% increase in sewer rates over a 7-year period would close the funding gap.

That 1% increase would only cover the funding gap. It is important to consider CCI and the sewer reserves.

Allocating a funding increase of 1% per year to the reserves over a 10-year period would put \$135,000 annually into reserves.

Annual Sanitary Rate Increase = 1% + CCI + 1%



Storm System Funding



Storm system, the forgotten poor cousin.

\$150 per parcel




Covered short term funding needs





Ensures stormwater is funded outside of the general revenues (similar to sanitary and water)



Utility Funded

General Revenue Funded

- Water 
- Sewer 
- Storm 

- Roads 
- Fleet 
- Facilities 
- Parks 

Our Vision for Asset Management Planning & Funding

CASTLEGAR

A close-up portrait of Winston Churchill, wearing a brown hat, a checkered suit jacket, and a dark bow tie with white polka dots. He has a cigar in his mouth and is looking slightly to the left with a serious expression. The background is blurred, showing a crowd of people.

**PERFECTION
IS THE ENEMY OF
PROGRESS**

--Winston Churchill

Capital Funding Needs



Total Annual Funding Required = \$1,895,000

City of Castlegar							
General Fund							
	2018	2019	2020	2021	2022	2023	
General Operating Fund							
General Fund Taxation	7,135,000	7,135,000	7,135,000	7,135,000	7,135,000	7,135,000	7,135,000
Other Revenue	11,230,801	11,230,801	11,230,801	11,230,801	11,230,801	11,230,801	11,230,801
Total Operating Expenses	(18,215,150)	(18,215,150)	(18,215,150)	(18,215,150)	(18,215,150)	(18,215,150)	(18,215,150)
Contribution to Operating Reserves	(79,300)	(64,000)	(64,000)	(64,000)	(64,000)	(64,000)	-
Operating Surplus	71,351	86,651	86,651	86,651	86,651	86,651	150,651
General Capital Fund							
Capital Fund Taxation	335,000	335,000	335,000	335,000	335,000	335,000	335,000
Capital Taxation Increase		-	-	-	-	-	-
Excess Transferred to Capital	335,000	335,000	335,000	335,000	335,000	335,000	335,000
Debt Repayments							
Internal Debt Repayments	(650,000)	(650,000)	(443,900)	(244,986)	-	-	-
Debt Repayments - 5 Year Plan	(123,284)	(249,124)	(619,000)	(619,000)	(619,000)	(619,000)	(619,000)
Excess Left for Capital Expenditure	-438,284	-564,124	-727,900	-528,986	-284,000	-284,000	-284,000
External Capital Revenue							
Gas Tax Revenue	380,000	380,000	380,000	380,000	380,000	380,000	380,000
Host Financial Agreement	470,000	470,000	470,000	470,000	470,000	470,000	470,000
Capital Expenditure - Government	-645,000	-645,000	-645,000	-645,000	-645,000	-645,000	-645,000
Capital Expenditure - Asset Renewal	0	-1,250,000	-1,250,000	-1,250,000	-1,250,000	-1,250,000	-1,250,000
(Deficit)/Surplus	-233,284	-1,609,124	-1,772,900	-1,573,986	-1,329,000	-1,329,000	

Election 2018



Language Matters

CASTLEGAR

2019 BUDGET FOUNDATION FOR THE FUTURE.



Capital Funding Needs



Total Annual Funding Required = \$1,895,000

Taxation Policy – Clear & Transparent

Municipal Inflation(CPI) _____ %	+	Asset Renewal (IIL) _____ %	+	New Funding Requests _____ %	+	Operational Requests _____ %	=	Annual Taxation Rate _____ %
--	---	---------------------------------------	---	--	---	--	---	--

Taxation Policy – Clear & Transparent

$$\begin{array}{ccccccc}
 \text{Municipal} & & \text{Asset} & & \text{New Funding} & & \text{Operational} & & \text{Annual} \\
 \text{Inflation(CPI)} & & \text{Renewal (IIL)} & & \text{Requests} & & \text{Requests} & & \text{Taxation Rate} \\
 \text{_____ \%} & + & \text{_____ \%} & + & \text{_____ \%} & + & \text{_____ \%} & = & \text{_____ \%}
 \end{array}$$

Taxation Policy – Clear & Transparent

Municipal Inflation(CPI)		+		Asset Renewal (IIL)		+		New Funding Requests		+		Operational Requests		=		Annual Taxation Rate
_____ %				_____ %				_____ %				_____ %				_____ %

Taxation Policy – Clear & Transparent

Municipal Inflation(CPI)		+		Asset Renewal (IIL)		+		New Funding Requests		+	Operational Requests		=		Annual Taxation Rate
_____ %				_____ %				_____ %			_____ %			_____ %	

Taxation Policy – Clear & Transparent

Municipal Inflation(CPI) _____ %	+	Asset Renewal (IIL) _____ %	+	New Funding Requests _____ %	+	Operational Requests _____ %	=	Annual Taxation Rate _____ %
--	---	---------------------------------------	---	--	---	--	---	--

Taxation Policy – Clear & Transparent

$$\begin{array}{c}
 \text{Municipal} \\
 \text{Inflation(CPI)} \\
 \text{_____ \%}
 \end{array}
 +
 \begin{array}{c}
 \text{Asset} \\
 \text{Renewal (IIL)} \\
 \text{_____ \%}
 \end{array}
 +
 \begin{array}{c}
 \text{New Funding} \\
 \text{Requests} \\
 \text{_____ \%}
 \end{array}
 +
 \begin{array}{c}
 \text{Operational} \\
 \text{Requests} \\
 \text{_____ \%}
 \end{array}
 =
 \begin{array}{c}
 \text{Annual} \\
 \text{Taxation Rate} \\
 \text{_____ \%}
 \end{array}$$

2019 - 2023 Taxation Policy

YEAR	Inflation	Infrastructure Investment Levy	New Funding Requests	New Operational Adjustments	Total Annual Taxation Investment
2018					
2019	2%	4.42%	0.36%	0.27%	7.06%
2020	2%	3.57%	0.25%	1.15%	6.97%
2021	2%	3.34%	0.23%	0.99%	6.56%
2022	2%	2.53%	0.22%	0.77%	5.51%
2023	2%	2.39%	0.21%	0.94%	5.54%
2024	2%	0.00%	0.20%	0.49%	2.69%
2025	2%	0.00%	0.19%	0.48%	2.67%

Taxation Policy to Fund Infrastructure Renewal

Over 5 Years

Year	CPI	Asset Renewal	New Funding Requests	Operational Requests	Annual Taxation Rate
2019	___ %	4.42%	___ %	___ %	___ %
2020	___ %	3.51%	___ %	___ %	___ %
2021	___ %	3.27 %	___ %	___ %	___ %
2022	___ %	2.49%	___ %	___ %	___ %
2023	___ %	2.37 %	___ %	___ %	___ %

AVERAGE
3.21%

Taxation Policy to Fund Infrastructure Renewal

Over 7 Years

Year	CPI	+	Asset Renewal	+	New Funding Requests	+	Operational Requests	=	Annual Taxation Rate
2019	___ %		2.68%		___ %		___ %		___ %
2020	___ %		2.51%		___ %		___ %		___ %
2021	___ %		2.36%		___ %		___ %		___ %
2022	___ %		2.24%		___ %		___ %		___ %
2023	___ %		2.14%		___ %		___ %		___ %
2024	___ %		2.03%		___ %		___ %		___ %
2025	___ %		1.94%		___ %		___ %		___ %

AVERAGE
2.27%



Taxation Policy to Fund Infrastructure Renewal

Over 10 Years

Year	CPI	+	Asset Renewal	+	New Funding Requests	+	Operational Requests	=	Annual Taxation Rate
2019	___ %		2.01%		___ %		___ %		___ %
2020	___ %		1.89%		___ %		___ %		___ %
2021	___ %		1.79%		___ %		___ %		___ %
2022	___ %		1.71%		___ %		___ %		___ %
2023	___ %		1.64%		___ %		___ %		___ %
2024	___ %		1.56%		___ %		___ %		___ %
2025	___ %		1.50%		___ %		___ %		___ %
2026	___ %		1.50%		___ %		___ %		___ %
2027	___ %		1.50%		___ %		___ %		___ %
2028	___ %		1.50%		___ %		___ %		___ %

AVERAGE
1.66%



(Left to right) Coun. Sue Heaton-Sherstibitoff, Coun. Maria McFadden, Coun. Florio Vassilikakis, CAO Chris Barlow, mayor Bruno Tassone, corporate services Tracy Butler, Coun. Cherryl Macleod, Coun. Dan Rye, Coun. Bergen Price.

Castlegar property taxes may rise 7 per cent

New infrastructure investment levy means a higher-than-usual tax increase

BETSY KLINE / Feb. 6, 2019 11:00 a.m. / LOCAL BUSINESS / NEWS



Unless major changes are made to the City of Castlegar's proposed 2019 budget, residents and businesses can expect to see a property tax increase of approximately seven per cent.

OPINION: Florio Vassilakakis calls city tax increase 'overly ambitious'

One city councillor's take on the City of Castlegar's proposed budget

Feb. 15, 2019 1:30 p.m. / LOCAL NEWS / OPINION



There has been much discussion in the community over the recently proposed 2019-23 municipal budget and what I believe to be its **overly ambitious 37 per cent increase on residential taxation**. My opposition to it has been well documented in these pages and on social media over the last few weeks.

Every year, during budget deliberations, council endeavours to strike a balance between taking care of the necessities like core

infrastructure while also funding capital projects that invest in and resonate with people. Building a community is more than just pipes, roads and sidewalks. We must have a vision for our city that includes striving to make life more enjoyable for our citizens. Economic growth and our ability to attract and retain residents and business depends on the latter.

Water & Sewer Rates - 2021

CASTLEGAR

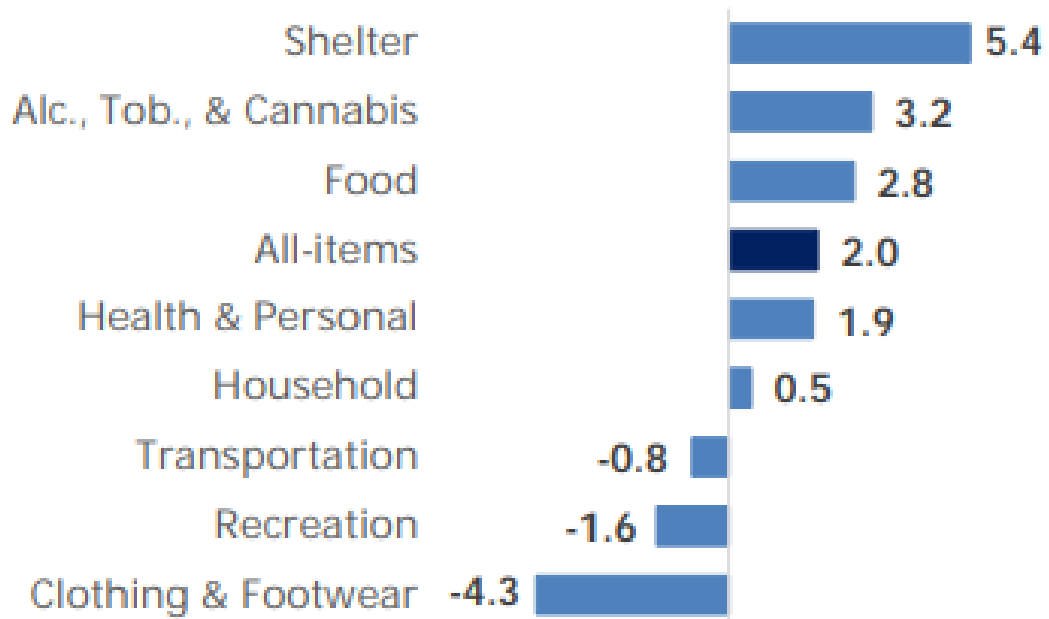
A close-up photograph of Winston Churchill. He is wearing a dark fedora hat, a light-colored checkered suit jacket, and a dark bow tie with white polka dots. He has a cigar in his mouth and is looking slightly to the left with a serious expression. The background is blurred, showing what appears to be a crowd of people.

**PERFECTION
IS THE ENEMY OF
PROGRESS**

--Winston Churchill

Released: October 15, 2024

Inflation by Category
% change, same month previous year



recreational cannabis, which is measured separately from tobacco products and smokers' supplies, remained unchanged compared to 12-months ago.

Within the food category, the prices for food purchased from stores (+2.9%) and meals purchased from restaurants (+2.7%) both increased when compared to the previous year. Foods categories with the highest price increases included vegetables

Consumer Price Index (CPI)

Not useful for budgeting

- Shelter
- Alcohol, tobacco & cannabis
- Food
- All items
- Health & Personal
- Household
- Transportation
- Recreation
- Clothing & Footwear



Municipal Price Index(MPI)

Direct correlation to budget – Preserves Purchasing Power

- Wages
- Administration
- Services
- Operations
- Transfers

Water Rate Refinement

Water Utility Rates:

Staff recommend that the water utility is adjusted by 4.3% for 2024 which integrates the following:

- Municipal Price Index of 4.0% which preserves purchasing power
- Capital reserve transfer of 0.0% due to operational savings in 2023 which allowed the capital transfers to reserve for 2023 to be higher than budgeted
- Future asset renewal of 1.0% as the City still needs to proactively plan to avoid a steep increase in the future

2024 MPI	Capital Reserves Transfer	Future Asset Renewal	Preliminary Rate Increase	2023 MPI Adjustment	Recommended Rate Increase
4.0%	0.0%	1.0%	5.0%	-0.7%	4.3%



Sewer Rate Refinement

Sewer Utility Rates:

Staff recommend that the sewer utility is adjusted by 6.3% for 2024 which integrates the following:

- Municipal Price Index of 4.0% which preserves purchasing power
- Capital reserve transfer of 1.0% which recognizes that the sewer has a small reserves balance and faces immediate substantial operating needs
- Future asset renewal of 2.0% as the sewer utility faces immediate asset renewal requirements and urgent capital projects

2024 MPI	Capital Reserves Transfer	Future Asset Renewal	Preliminary Rate Increase	2023 MPI Adjustment	Recommended Rate Increase
4.0%	1.0%	2.0%	7.0%	-0.7%	6.3%



Staffing

CASTLEGAR

We knew we needed help.

Where to start - 2021



- Determine Service levels
 - Role clarity & responsibilities
 - Job Descriptions
 - Timesheets
-
- Who has the time?
 - **We didn't have the resources to figure out how we get more resources!**

A close-up photograph of Winston Churchill. He is wearing a dark fedora hat, a light-colored checkered suit jacket, and a dark bow tie with white polka dots. He has a cigar in his mouth and is looking slightly to the left with a serious expression. The background is blurred, showing what appears to be a crowd of people.

**PERFECTION
IS THE ENEMY OF
PROGRESS**

--Winston Churchill



Staffing Plan

Start somewhere

- Interviewed 50% of staff
- New and enhanced expectations & responsibilities
- Peer comparison # of staff
- Peer comparison for spending per asset class
- Personal impacts
- Evaluate cumulative impacts
- **Real honest conversation with Council**

Staffing Plan Outcomes

2022 - 2024

- Project Manager
- Assistant Manager - Roads & Parks
- Assistant Manager – Facilities & Fleet
- Assistant Manager – W&S Utilities
- 2 new Water & Sewer frontline positions
- 2 new Roads & Parks frontline positions
- GIS Technician
- Planner
- IT staff member

In Conclusion

CASTLEGAR

Our Journey Continues

Vision to have an asset management plan for every asset class and have it funded

- Water Asset Management Plan
- Sanitary Asset Management Plan
- Roads Asset Management Plan
- Storm Asset Management Plan
- Castlegar Infrastructure Prioritization Plan
- Facilities Condition Assessment
- Castlegar Housing Needs Assessment
- Park Memorial Cemetery Master Plan
- Street Tree Master Plan
- Airport Master Plan
- RDCK inclusive of Castlegar Resource Recovery Plan
- Parks Asset Management Plan
- Fleet Replacement Plan
- IT Master Plan
- Liquid Waste Management Plan
- Staffing Plan
- Fleet Replacement Plan
- Transportation Master Plan
- Airport Airside Development Plan
- Parks Master Plan

Our Journey Continues

Pursuing progress

- Refining all master plans as needed
- Annual work planning improvements
- Preparing to update the Infrastructure Investment Levy (IIL)
- Replace the Storm System Parcel Tax
- Community Survey – Service Levels and Priorities

Key Take Aways

It's not Churchill, but it's not bad.

- Convey your vision
- Tell the story
- Build trust through transparency
- Don't struggle alone – use consultant help
- Language matters
- Do not put Council/Community in a corner
- Perfection is the enemy of progress
- It's our responsibility to move the needle
- Keep refining and keep moving forward

The best time to
plant a tree was
20 years ago.
The second best
time is now.

~Chinese Proverb





Thank you

CASTLEGAR