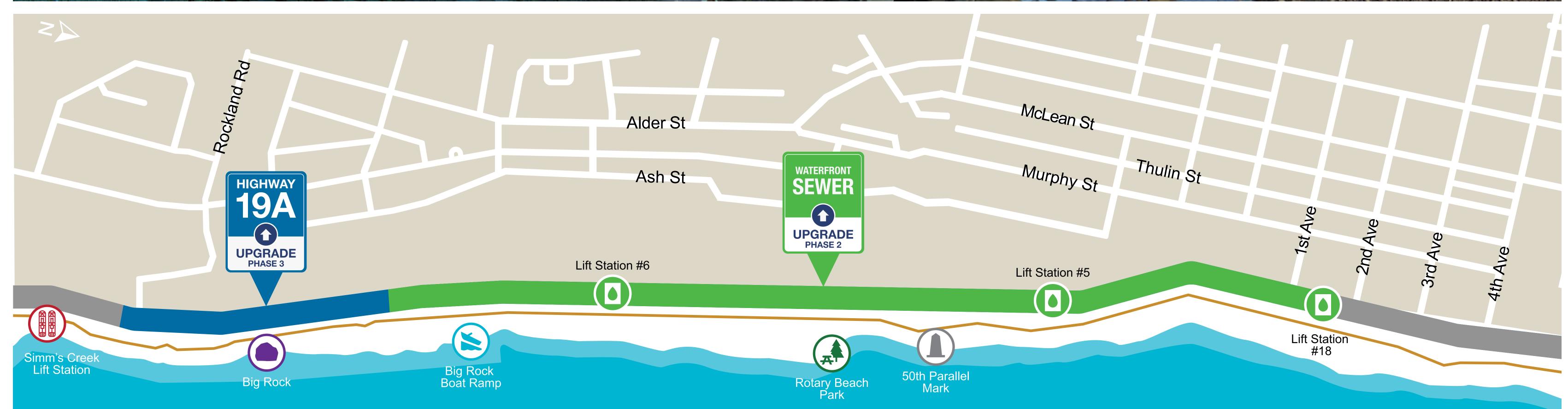
# WATERFRONT PROJECT 2018 - 2020 PROJECT MAP



#### UP NEXT – PHASE 2 & 3

The City of Campbell River is now working on the next phases of work to improve services and access along our waterfront; improving livability, building for the future – and delivering on a vision created by the community. In 2018, upgrades to the Big Rock Boat Ramp and the first phase of the Waterfront Sewer Project (north of 1st Ave) were completed.

HIGHWAY 19A UPGRADES







PHASE 3A: 2019
Watermain & Forcemain

PHASE 3B: 2020
Utilities & Roadworks

PHASE 2A: 2019

Forcemain, Big Rock Boat Ramp to 1st Ave

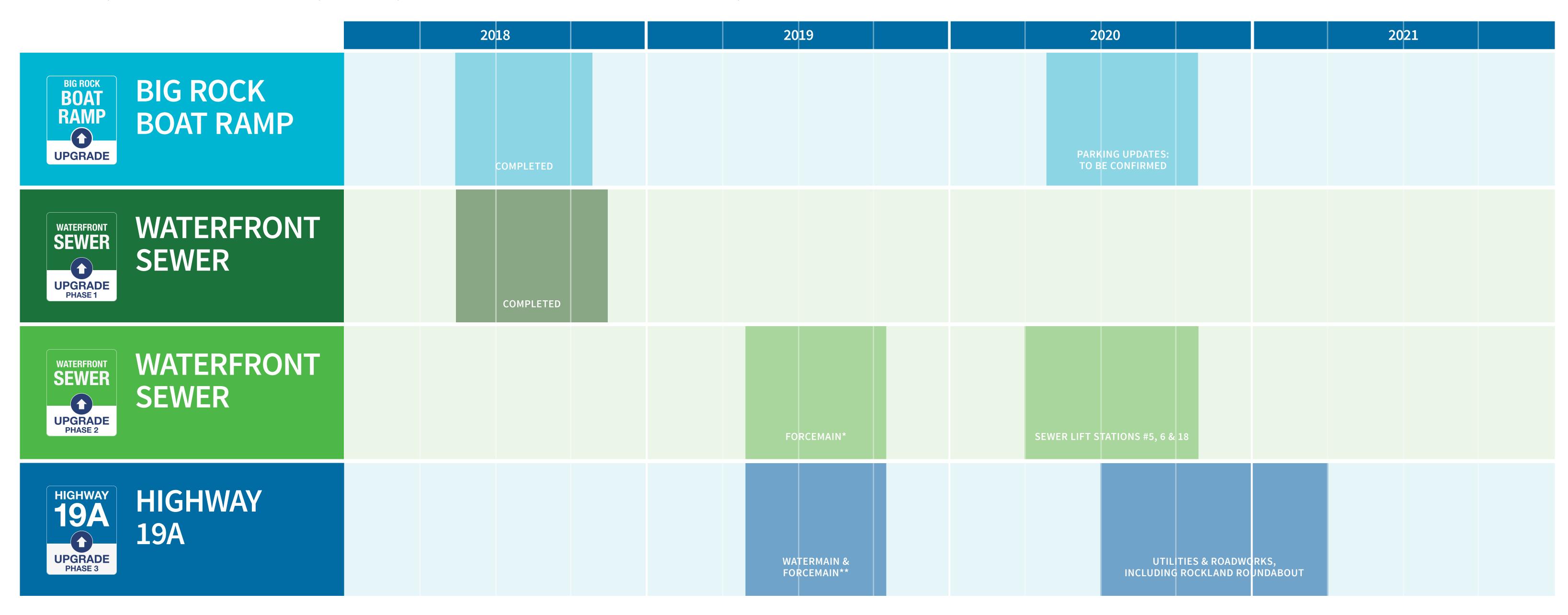
**PHASE 2B: 2020** *Sewer Lift Stations # 5, 6 & 18* 





# WATERFRONT PROJECT 2018 - 2020 CONSTRUCTION TIMELINE

The Waterfront Project will require multiple phases of construction as each piece of the revitalization work proceeds. Each portion will have starts and stops – this timeline helps to explain where construction is anticipated, and when.





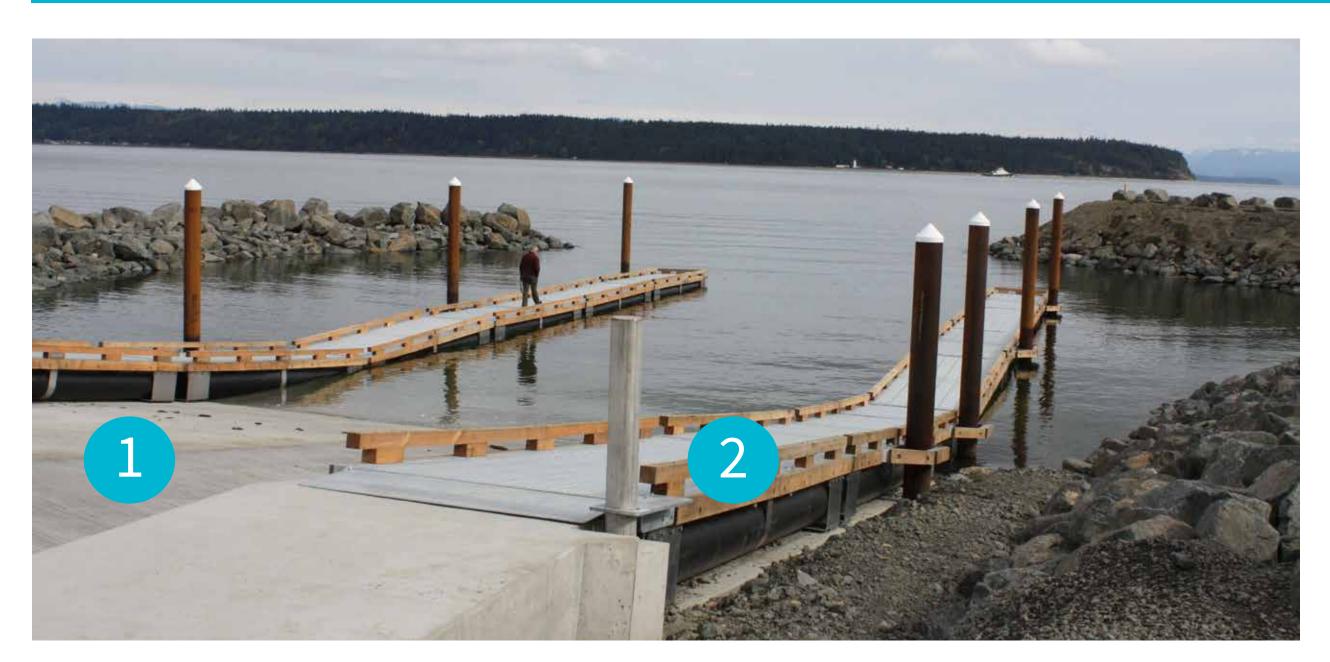
\*Originally planned for 2020, forcemain construction has been moved up to to keep construction progressing and reduce the cumulative impact of work in 2020.

\*\*Originally planned for 2020, underground work along Highway 19A has been moved up to coincide with Waterfront Sewer underground work.

#crwaterfrontwork



### BIG ROCK BOAT RAMP UPGRADES 2018 COMPLETED WORK





The Big Rock Boat Ramp was upgraded over the summer and fall of 2018. The in-water improvements were completed on budget and on-schedule and included: the addition of floating docks, a higher and reoriented breakwater, repaved ramp and increased parking.

### 1 CONCRETE RAMP

- Angle reduced and ramp widened
- Repaired and repaved with high traction finish
- Enables easier access

### 3 PARKING LOT/PARK

- Lot to the south of the existing parking area was graded and a new parking lot and exit added
- Increases parking by 50 per cent and makes coming and going from the facility safer for all
- Parking updates are temporary until
   Phase 2 of this project

### 2 FLOATING DOCKS

- 130 ft long, made of seven sections
- Metal grate surface installed on deck areas
- Provides year-round access with improved accessibility

### 4 BREAKWATERS

- Raised from 13 ft to 15 ft (north side); from 16 ft to 23 ft (south side)
- Angled north-facing entrance (65 ft wide at mean tide level)
- Offers better protection from wave action and prevents gravel build-up in the basin and access channel





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### BIG ROCK BOAT RAMP UPGRADES FINAL STEPS AND WRAP UP

While the improved Big Rock Boat Ramp reopened in October and has been well-used ever since, the work wasn't quite finished. Below are a few final steps for the project:

### **Eelgrass Planting**

Nearly 400m<sup>2</sup> of new habitat was created for marine species in the Campbell River estuary when 3,600 eelgrass plants were planted in plots near the float plane dock in October. The program offered compensation for the inwater work at the boat ramp, where the larger breakwaters required habitat improvements elsewhere to meet Fisheries and Oceans Canada regulations.



### Walkway Repairs

In December, winter storms damaged a new walkway built to the end of the south breakwater. The damage also highlighted a risk to public safety – people walking out during dangerous conditions with debris and waves washing over. To reduce risk and maintenance costs in the long-term, the city will create a shortened walkway and add more rocks to the top of the breakwater this spring.



### Phase 2 Upgrades

The increased parking and revised access is a helpful addition for this popular amenity – but it's an interim measure for further upgrades to the boat ramp infrastructure above the water line.

Council will consider future plans for the ramp, which would not be constructed until future years.



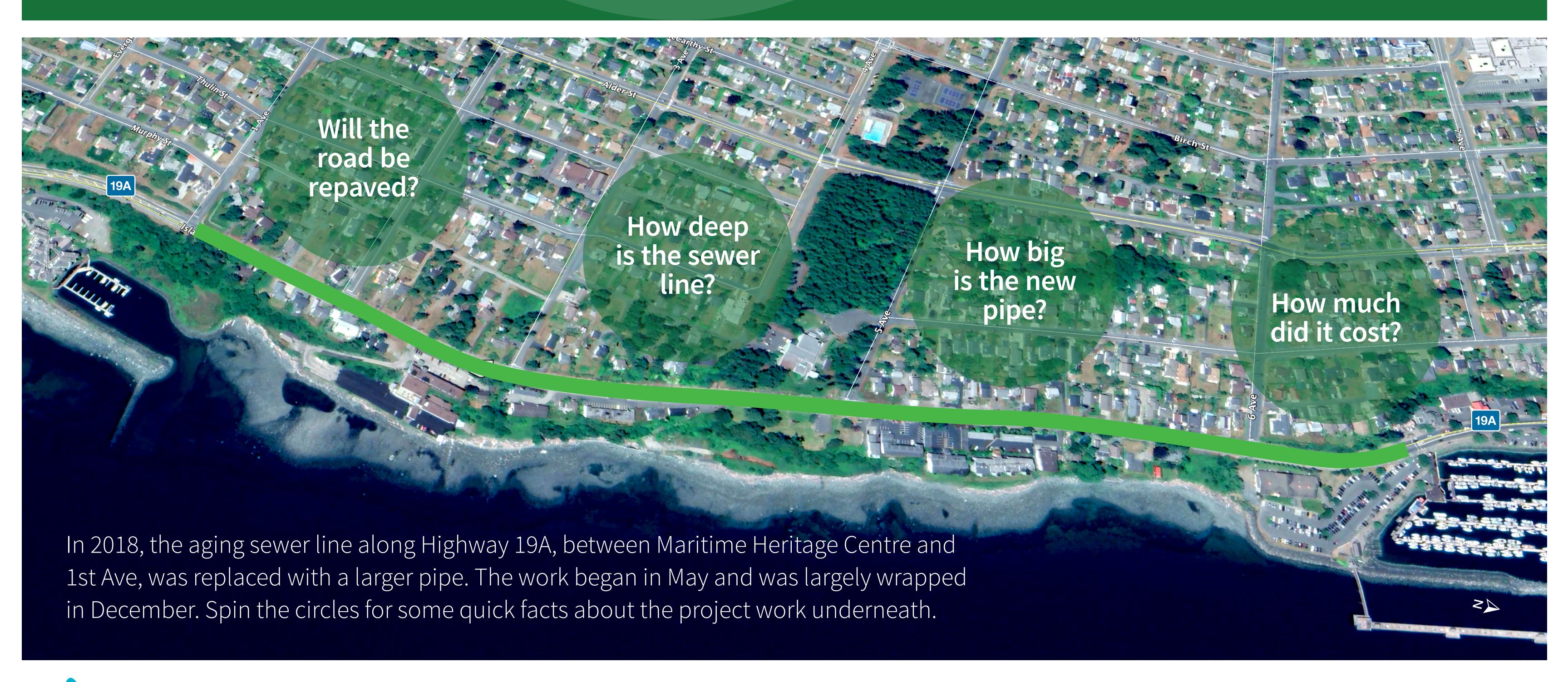






### WATERFRONT SEWER UPGRADES

PHASE 1 - 2018 COMPLETED WORK









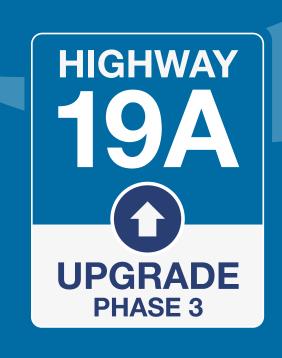
### WATERFRONT SEWER UPGRADES

### PHASE 1 - 2018 COMPLETED WORK











### THE YEAR AHEAD CONSTRUCTION IN 2019

Upgrading our infrastructure is critical to meeting the long-term goals for growth and quality services in our community. Those upgrades though can be disruptive while construction is underway. Below are some quick facts about this year's work:



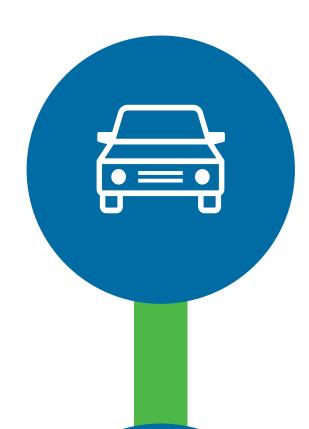
The Details: A new sewer line will be constructed between 1st Ave and the Big Rock Boat Ramp. As well, new water and sewer lines will be installed between the boat ramp and Rockland Road.



Two Projects: These are two separate projects under the Waterfront Project 2018-2020 umbrella: Keep in mind, commuters in this area will pass through two work zones between 1st Ave and Rockland Road.



**Timing Ahead:** Both stretches will go to tender in March, with plans to start construction in May and have work complete by November 2019.



Vehicle Traffic: Two-way traffic will be maintained where possible through the work site. It will be at a reduced speed and could go to alternating one-way as needed.



Pedestrians: There will be impact on the seawalk, particularly at the south end of the construction zone. Contractors will ensure routes around the work zone, but the regular flow will be disrupted at times.



Keeping in Touch: The project team is committed to keeping people informed about the work via the website, social media, newsletters, signage and more. Talk to us about signing up for ongoing updates.



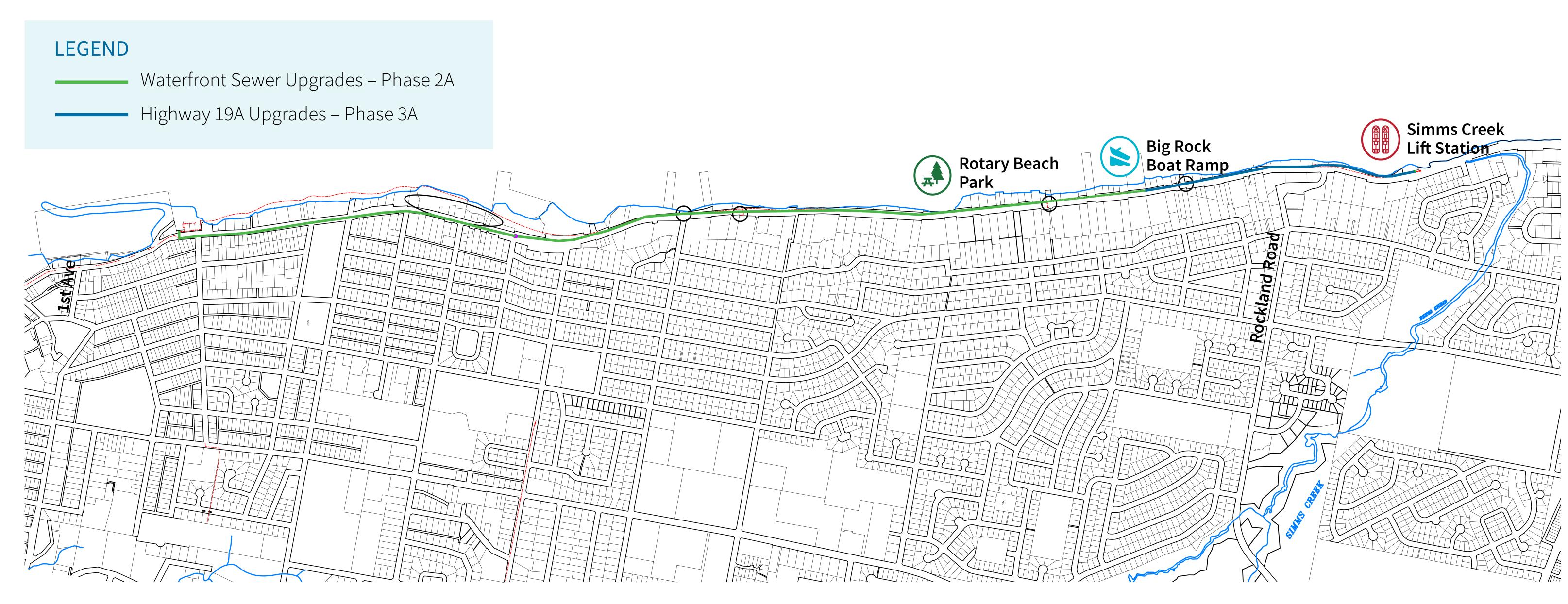






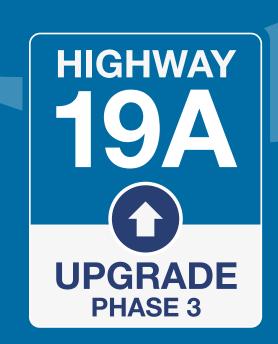
# 2019 CONSTRUCTION PROJECT MAP

Construction for Waterfront Sewer upgrades (Phase 2A) and Highway 19A upgrades (Phase 3A) is starting this spring. These upgrades will involve the installation of underground services from 1st Ave to Rockland Road. Below is a detailed map of the area, showing the construction routes.









## HIGHWAY 19A UPGRADES ROUNDABOUT 101

Roundabouts are a traffic management tool which have been shown to be highly effective and safer than other means of controlling an intersection. In order to improve safety and promote a better balance for all road users, the City of Campbell River is installing a single-lane roundabout at Highway 19A and Rockland Road. Below, you'll find details on the benefits of roundabouts and information on how to use them.

### Why a Roundabout?

Campbell River is experiencing continued growth, resulting in increased traffic flow along major corridors. At this busy intersection, improved safety and traffic calming are currently needed.

### Benefits of Roundabouts

- Improving safety for all road users pedestrians, cyclists and motorists
- Reducing speed, which results in reduced number and severity of crashes
- Reducing traffic noise and vehicle emissions
- Enhancing appearance of intersection

### Using a Roundabout

- 1. In a roundabout, traffic flows in a counter-clockwise direction around a centre island, which helps to reduce traffic delays and collisions while continuing to keep traffic flowing.
- 2. Drivers don't have to stop before entering a roundabout unless there is a vehicle or pedestrian in their way.
- 3. Traffic inside the roundabout has the right-of-way and vehicles entering the roundabout must yield.
- 4. In a roundabout, all exits are right turns.
- 5. Roundabouts are always designed to ensure emergency vehicles can safely pass through.



Simulation of single-lane roundabout at Highway 19A and Rockland Road





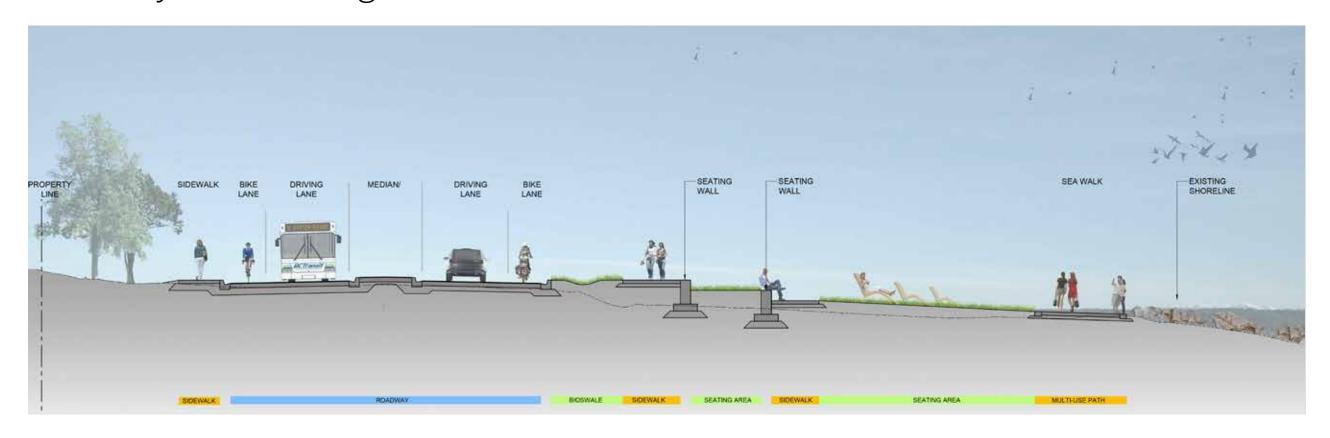


## HIGHWAY 19A UPGRADES HOW IT WILL LOOK

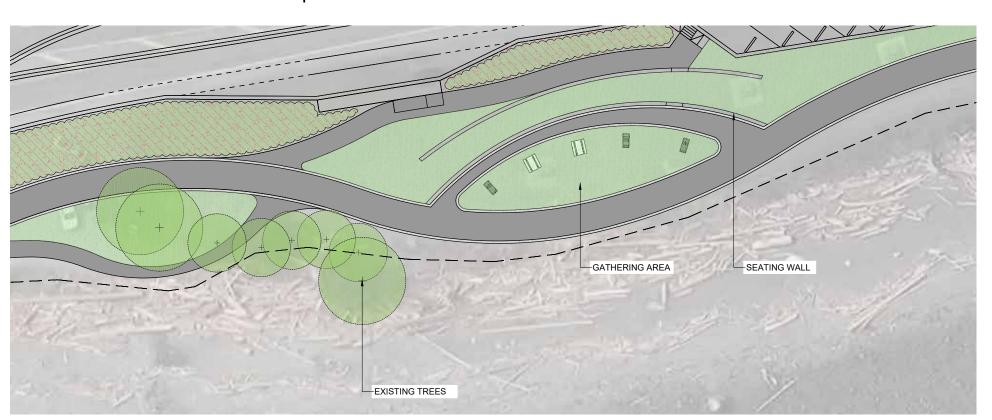
In 2020, the aesthetic of the Hwy 19A upgrades originally completed up to Simms Creek will be extended another 1 km. Along with the underground servicing/addition of medians and construction of the roundabout, there will also be upgrades to Ellis Park. Below are concept ideas for the area.



1 Ellis Park Section: A side view shows how the tiering would allow for walkway and seating.



2 Ellis Park Plan: This area will include a seating area focus on the viewpoint from the location.



3 Samples: These are some examples of what could be built in the tiered seating area.









#### **IMPORTANT NOTE**

The work in 2020 will require a road closure for through traffic. More updates will be available as we approach the start of Phase 3B.



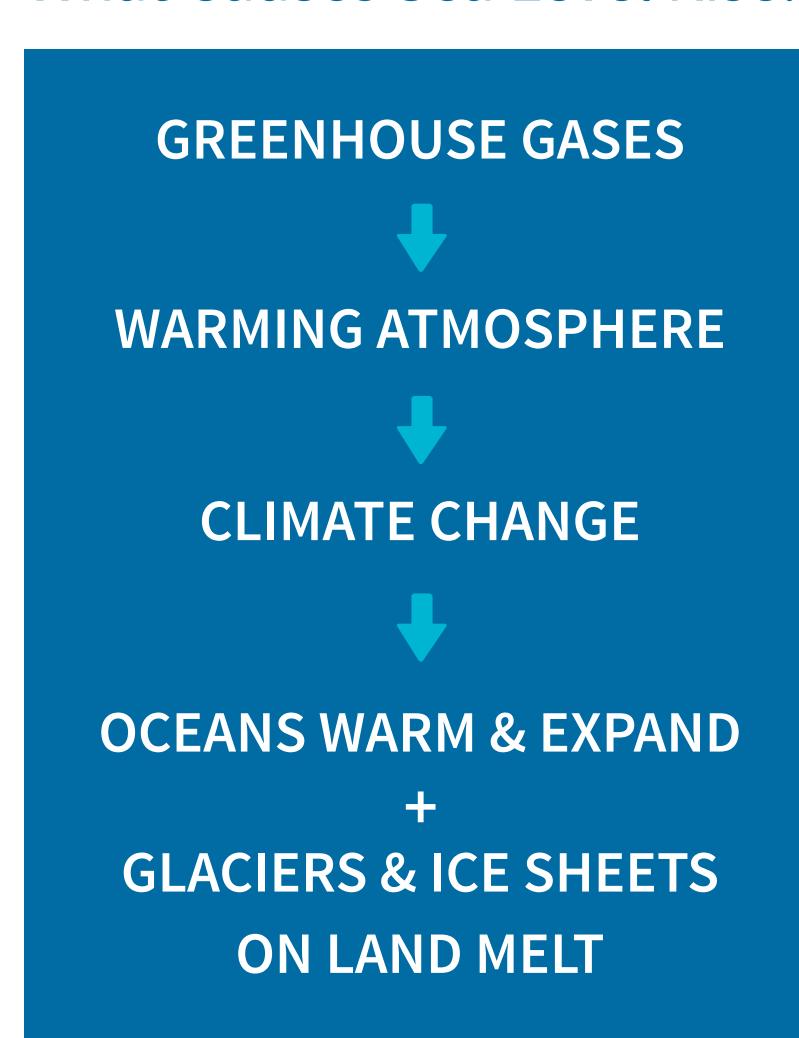




# SEA LEVEL RISE UNDERSTANDING & PREPARING

Rising sea levels and extreme storms create increasing hazards like flooding and erosion for seaside communities. Campbell River is one of many coastal municipalities in British Columbia preparing to deal with the implications of sea level rise, as we adapt to our changing environment.

#### What Causes Sea Level Rise?



### Which Areas Are Affected?

Coastal planning recognizes two flooding areas:

Inland Flooding Areas: Areas away from the shoreline where flood waters may be unable to drain during storms



Coastal Flooding Areas: Areas directly adjacent to the shoreline



### pbell For more information www.campbellriver.c

For more information on sea level rise, visit: www.campbellriver.ca/planning-building-development/sea-level-rise

### What Are the Possible Impacts?



Flooding



**Habitat Loss** 



Erosion



Damage from waves & debris

### How Should We Prepare?

The Province of British Columbia recommends that communities plan for:

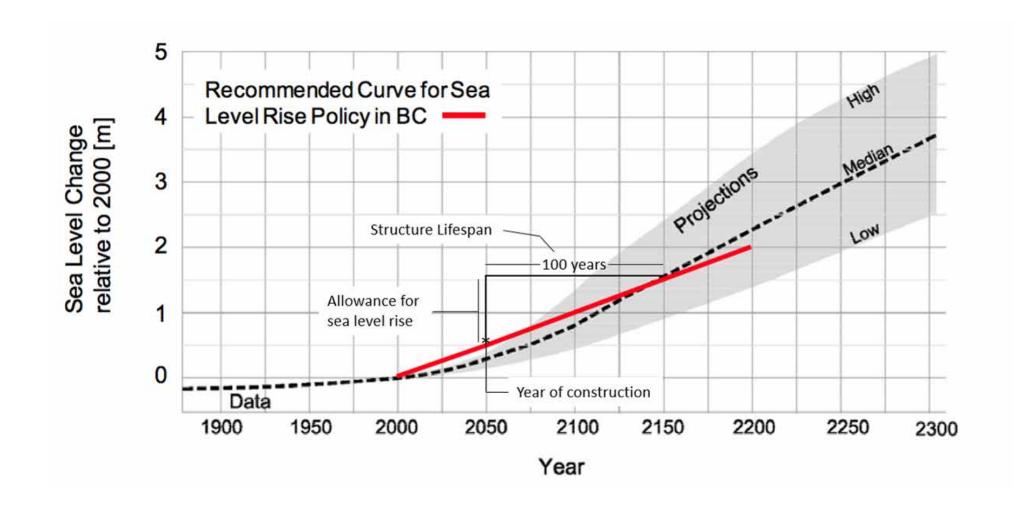
**0.5m** 

1.0m

of sea level rise

of sea level rise

in **2050** in **2100** 





# SEALEVEL RISE ADAPTING IN CAMPBELL RIVER

The City of Campbell River has a history of storms and flooding in low lying areas, and with climate change, these will become more regular and severe. Planning today can help avoid and minimize damage in the future, and help improve resiliency to winter storms and coastal flooding.

### Preparing for the Future

The City of Campbell River is currently engaged in a four-phase process, to plan for sea level rise and develop long-term adaptation strategies.



#### PHASE ONE: 2018 – COMPLETE

Gather info to assess the scale and nature of sea level rise risks to the community



#### PHASE TWO: 2018 - COMPLETE

Complete technical studies of key locations with possible responses



#### PHASE THREE: 2018-2019

Seek input from the public



#### PHASE FOUR: 2018-2019

Develop plan and guidelines based on technical recommendations and community preferences



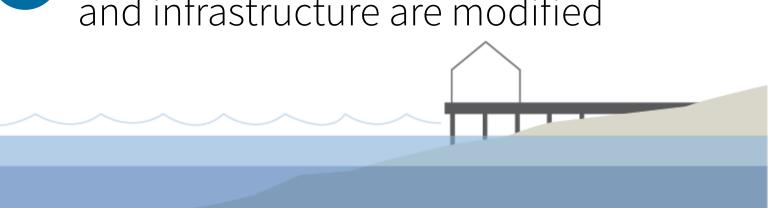
### Typical Adaptation Strategies

The following strategies are commonly used by communities planning for sea level rise. A combination of these approaches will likely be used in Campbell River.

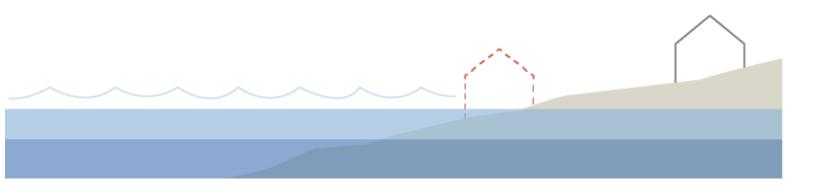




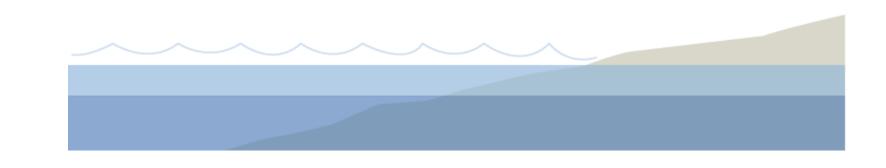
Accomodate: Human activities, buildings, and infrastructure are modified



Retreat: People/infrastructure within the floodplain will be relocated over time



Avoid: Development within the flooplain is limited through planning

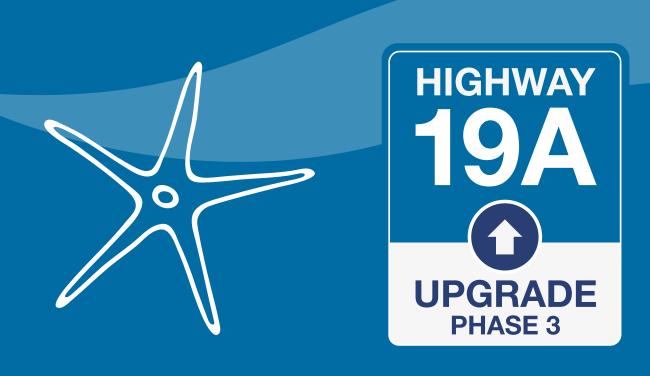


### **Evaluating Options**

The City is evaluating technically feasible options through public engagement to help Council decide on suitable adaptation strategies for the community. The next public workshop will be held on March 19, to evaluate sea level rise adaptation options for Campbell River.

For more info, visit: www.campbellriver.ca/planning-building-development/sea-level-rise

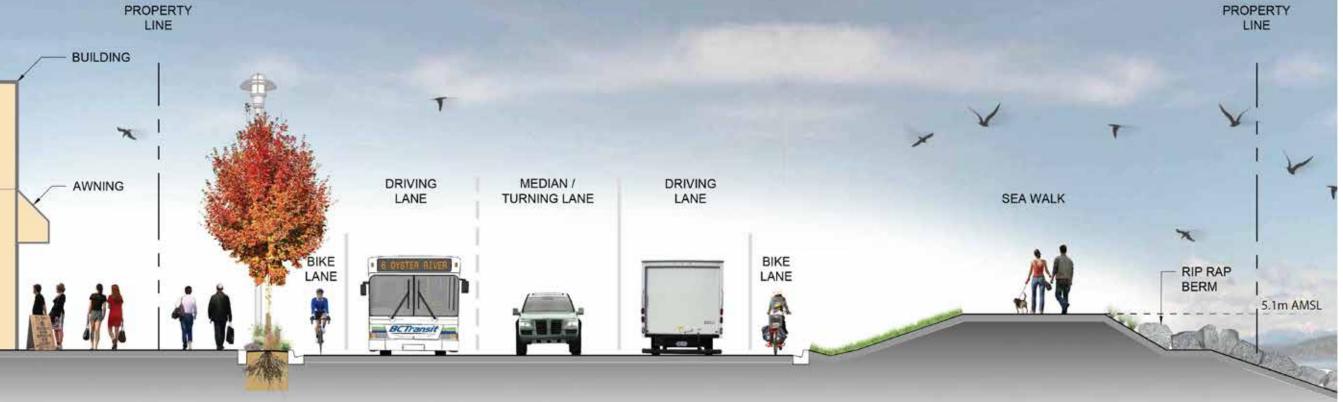




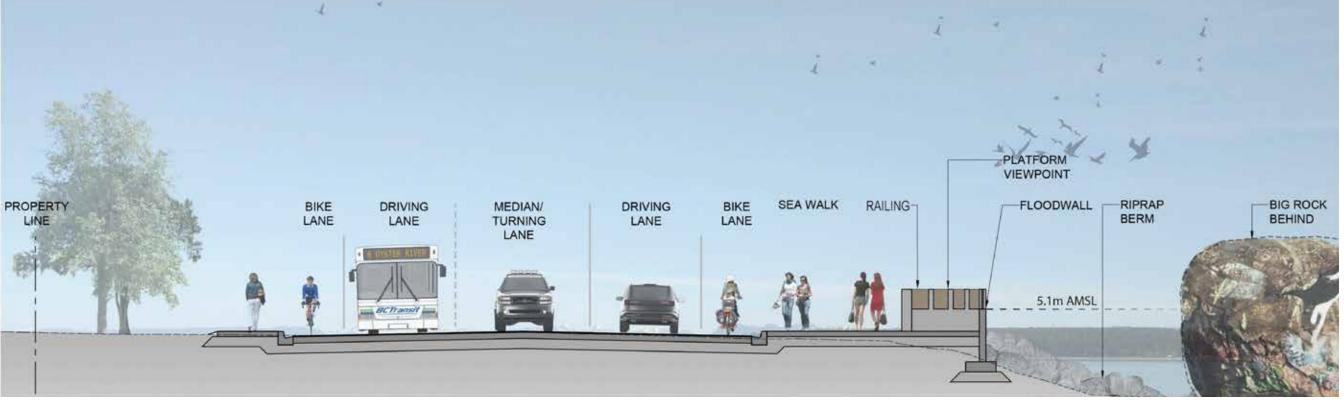
# SEA LEVEL RISE DESIGN FOR HIGHWAY UPGRADES

As we learn more about sea level rise and future impacts on our community, it's imperative that we consider it in our infrastructure design decisions. Below are two samples of how the Phase 3 of Highway 19A Upgrades have been designed to prepare for rising water levels.





**Elevated Seawalk Section:** In this area, an elevated seawalk will be constructed, raising the path above the forecasted sea rise levels outlined by the province.



Sea "Wall" Section: Near the Big Rock, a floodwall will be constructed to protect the road and walkway. A viewing platform is proposed to be integrated.

#### DID YOU KNOW?

Both of these are examples of "protect" – using barriers against floodwaters – one of the four options for mitigating sea level rise.



