



Traffic Study 2023

Active Transportation Committee – Bike Cochrane

Paul Perrault – Director of Operations

Background

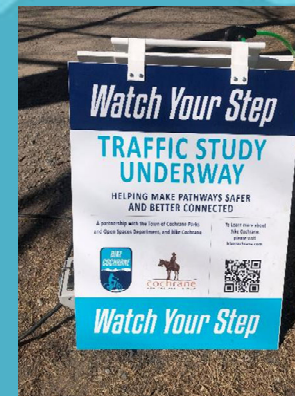
- In Winter 2020, Bike Cochrane entered into a 'Data Sharing Agreement' with the Town of Cochrane to allow for **bike counting on the Town's pathway network**
- Piloted at the Ranche park in Jan/Feb 2021 and methodology defined for Metrocount RidePod BT tube counter for bikes (see previous study report), Bike Cochrane manages traffic studies in Cochrane to **better understand recreational and 'bike to school' cycling and pedestrian traffic**
- Starting in 2022, Bike Cochrane added two optical counters (Eco-Counter Pyro Box) for all-season counting
 - These don't give a 'mode' of transportation but combined with the tube counters, we can determine walkers v bikers
- Month-long studies to align to Strava data gathering period, determine correlation factors to Strava (SUR or Strava User Rate)

Metrocount RidePod BT with local storage, data retrieved at month end

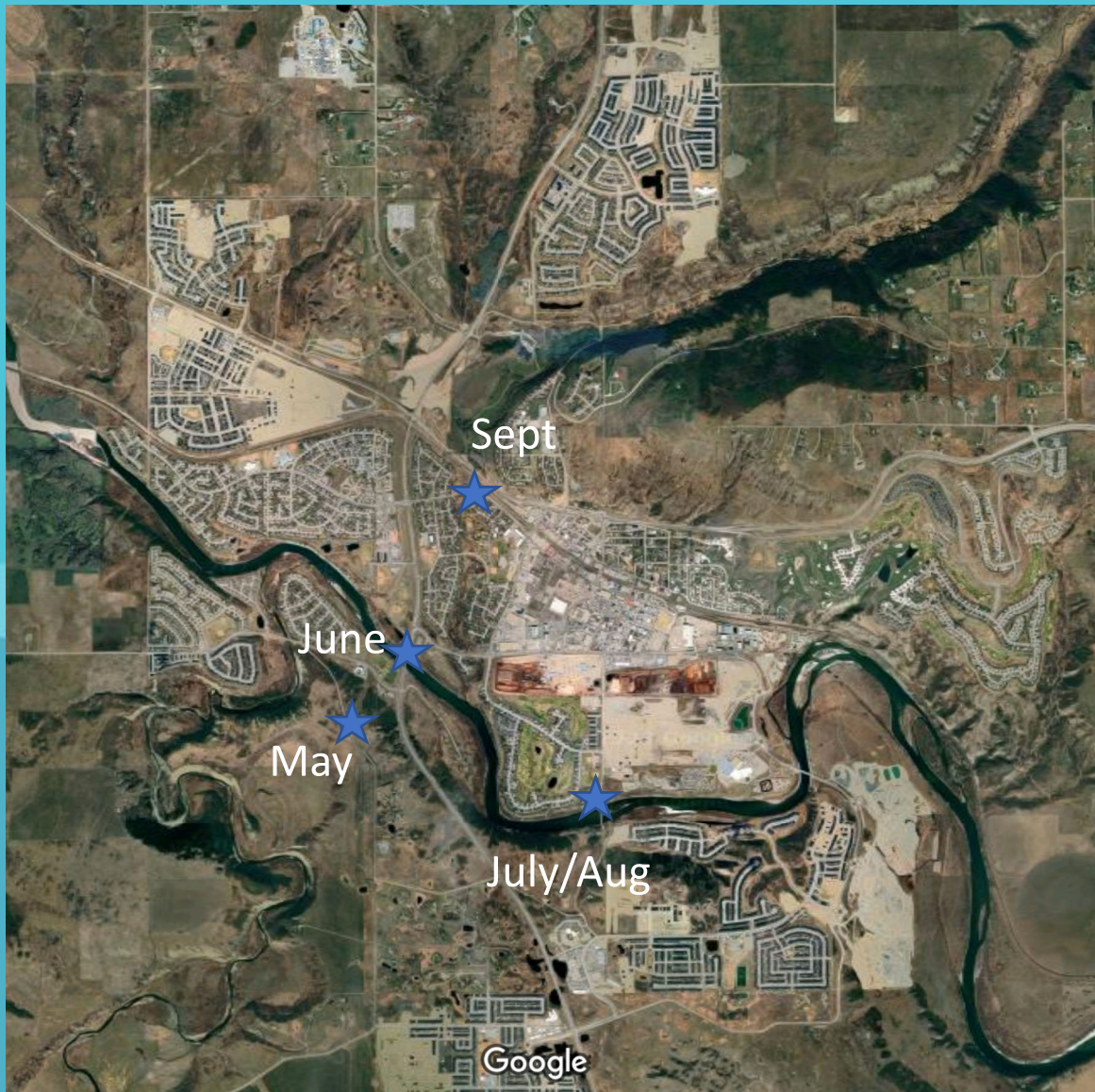


From last year - 2022 Summary and Thoughts

- **Recreational cycling usage** translates to SUR >10-20%, so use **correlation factors of ~5-10x**
 - This aligns with initial estimates from Bike Cochrane on using Strava data
- Sidewalks and **'bike to school' corridors** are less likely to be using Strava and we see SUR >2-5%, so use **20-50x multipliers**
 - This is bit higher than expected from Bike Cochrane estimates
 - Strava appears to not allow people <18 years old to be counted, or at least doesn't present their data for aggregation
- Ensure Strava segment exists before choosing count location
- Ecocounter Pyro Box had firmware issues that caused initial data integrity problems
 - Document the 'best practices' methodology for gathering data well using these counters as the data is quite rich and worth getting
- Quigley Drive appeared to show a 4x reduction in counted bikes (from May 2021 to May 2022) and it's unclear why
 - That reduction was also seen in June 2022
- Both Bow River Pathway and CP Rail crossing in Heartland showed very high usage with bikes counted at **~100-120/day** and **people counted at ~300-600 people/day**
 - **Great potential for a permanent counter like Eco-Counter ZELT or similar**



2023 Traffic Counting Plan



- May – Towers Trail
 - It's doubtful this sees much walking traffic but Strava says it does
 - Unable to use optical counter since this is a road
- June – Bow Bridge at Highway 22
 - MOST commented safety issue by Bike Cochrane members and to the Parks/Rec committee
- July + August – Bow River Pathway
 - Continued counting
- Sept – **Glenbow Bike Lane** or Griffin Road bike lane (couldn't get a permit for Griffin)
 - Bike Cochrane speculates that the sidewalks are used more than the bike lane -> can we prove it?
- Oct – Gleneagles Drive – didn't do this since we can't get a road permit for 'winter' time
 - This sees a significant amount of road bike traffic as people are shifting from previous route on hwy 1A



May – Towers Trail

- Paved roadway in between Bow Meadows/Bow Ridge and Fireside which showed a reasonably high number of walkers/bikes in Strava Metro
- Working with Canopy Lands also encouraged us to get a sense of the volume of traffic in this area
- Since there isn't an easy way to mount the optical counter, we used the Metrocount RidePod BT tube counter
- **30-40 bikes/day** counted in May with a higher number of **recreational usage** (Sat/Sun vs weekday)
- Estimated **4455 bikes/season** (April to September) at this location

Data notes

- Pro-rated monthly traffic based on incomplete month's data

Monthly Count – 980 Bikes
SUR – 18%, 5.55x

This report includes aggregated and de-identified data from Strava Metro

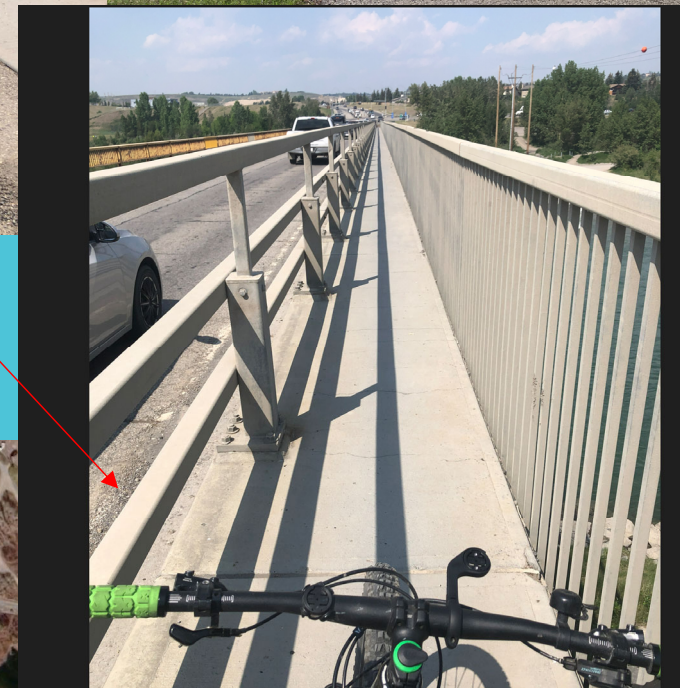


June – Bow Bridge

- Bow Bridge (highway 22) is one of the highest reported safety issues in Active Transportation surveys, along with reports from Bike Cochrane members
- This ~1.3m sidewalk/pathway alongside a very busy highway has barely enough space for a bike, let alone pulling a Chariot, or a kid on a Tow-whee.
- We counted using both the bike counter and an optical counter to see feet/bikes
- Estimated **15,388 bikes/season and 13,330 walkers/runners** (April to September) at this location



2023 AT survey contained 3 user comments saying that they feared a child falling through this gap onto the highway – **can this be improved?**



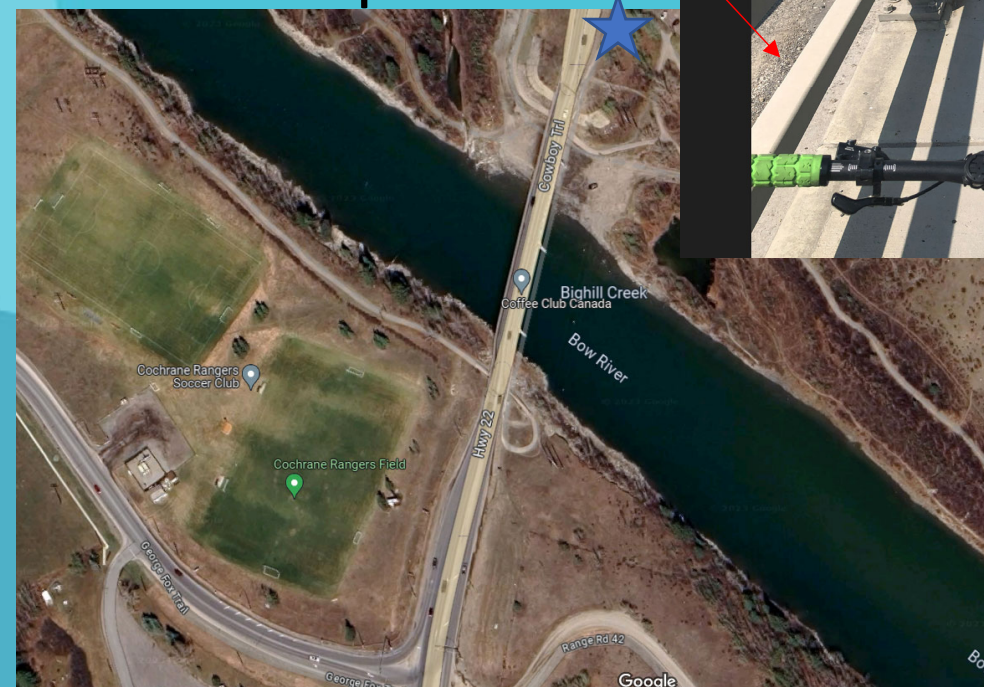
Monthly Count – 2988 bikes
SUR – 10%, 9.9x

Data notes

- **53% of users were on a bike** across this segment for this month
- This is unusually high

Monthly Count – 5241 users
SUR – 6.5%, 15.5x

This report includes aggregated and de-identified data from Strava Metro



July/Aug – Bow River Pathway

- Counting site on pathway west of River Ave bridge
- Historically high site of counting (2022 study showed **23,130 users** crossing this spot in Aug 2022). Placed bike and optical counter for 2 months to validate SUR rates, and to count heaviest usage
- Site is immediately west of Jim Uffelmann off-leash dog area and along the very busy Bow River Pathway
- We counted using both the bike counter and an optical counter to see feet/bikes
- Estimated **31,671 bikes/season and 114,072 walkers/runners** (April to September) at this location

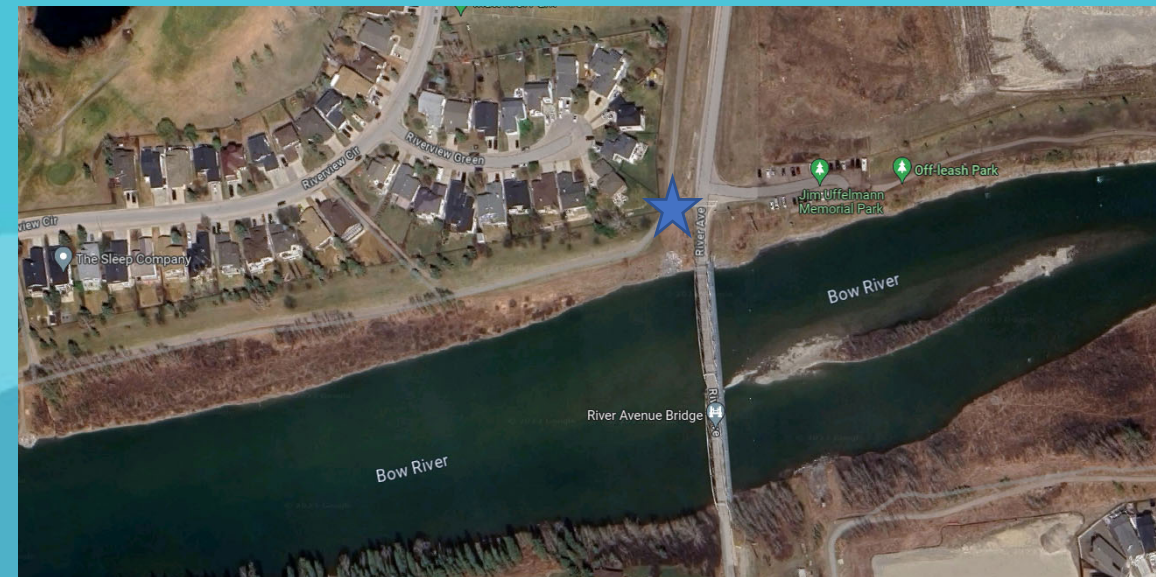
Data notes

- Strava Metro counts for bikes/peds show increases (**17%/22%**) from 2022-23
- Bike counts showed a **67% increase** from 2022-23
- Ped counts showed a **26% decrease** from 2022-23
- **34% of users are on bikes**

Monthly Count – 6501 bikes
SUR – 7.2%, 13.8x

Monthly Count – 17,668 feet
SUR – 2.6%, 38.8x

This report includes aggregated and de-identified data from Strava Metro



Sept – Glenbow Drive Bike Lane

- Glenbow Drive is a major east-west corridor within Cochrane's transportation network, connecting north/south/west Cochrane to downtown
- There is a bike lane on both north and south sides of this road, but it ends suddenly to the east at 5th Ave, and similarly at highway 22
- We used optical counter to count the sidewalk traffic, and used a bike tube counter placed on only the bike lane to count the bikes (and cars) using this space
- Estimated **11,092 bikes/season and 24,960 walkers/runners** (April to September) at this location

Data notes

- From Alberta Transportation numbers, we see **144,900 vehicles/month** traveling this direction on Glenbow Drive
- With the bike counter, we counted **44,138 cars 'drifting' into the bike lane**

Monthly Count – 1462 bikes
SUR – 10.6%, 9.4x

Monthly Count – 3840 feet
SUR – 1.3%, 76.8x

This report includes aggregated and de-identified data from Strava Metro

This means ~30% of cars on Glenbow Drive 'drift' into the bike lane, making the case for greater protection **NECESSARY** for bikes in bike lanes



Summary of findings – 2023 Traffic Study

	Bikes counted	People counted	SUR Bikes	SUR Walkers	Comments
May – Towers Trail	30-40 bikes per day	N/A	5.55x, 18%	N/A	Optical counts need separation from roads
June – Bow Bridge	2988 bikes/month	5241 /month	9.9x, 10%	15.5x, 6.5%	Bikes are 53% of users across bridge
July/Aug – Bow River Pathway	6500 bikes/month	17,668 /month	13.8x, 7.2%	38.8x, 2.6%	Count changes suggest recreational walkers are avoiding this area
Sept – Glenbow Drive	1462 bikes/month	3840 /month	9.4x, 10.6%	76.8x, 1.3%	Est 30% of vehicles are 'drifting' into bike lane

	Est Bikes/season	Est People/season
May – Towers Trail	4455	N/A
June – Bow Bridge	15,388	13,330
July/Aug – Bow River Pathway	31,671	114,072
Sept – Glenbow Drive	11,092	24,960



2023 Summary of Thoughts

- SUR rates of ~5-10x continue to be accurate for 'recreational cycling' routes/segments
- Higher SUR rates of 10-50x are more accurate for 'bike to school' routes/segments, sidewalks, and areas with lower expected Strava usage
- Seeing 54% of Bow Bridge traffic being bikes tells us that this route isn't 'perceived as safe' by walkers and improvements would encourage greater use
- With an estimates 30% of vehicles 'drifting' into the bike lane on Glenbow Drive, Town of Cochrane needs to consider the safety of bikes in bike lanes and prioritize **PROTECTED BIKE LANES** before someone is hit/injured
 - Councilor Susan Flowers was almost hit by a gravel truck while in the bike lane on Griffin Road during our 'Council E-bike ride' in June 2023



Proposed 2024 Traffic Counting Plan

- Focus on pre- and post-implementation of a protected cycle lane (**Quigley Drive, Railway, or downtown location**)
- Work to correlate desired routes with COLT/Roll data sets
- Continue counting in Ranche until construction starts on paving to build up baseline usage
- May – Focus on Quigley Drive
- June – Focus on Quigley Drive
- July – Bow River Pathway?
- August – Bow Bridge?
- Sept – Tri-school post paving?



Appendix

Raw data and analysis (Contact Bike Cochrane for raw data)