



# **The New Brunswick Bicycle Safety Handbook**

A Guide to Learning Safe Cycling



**Be Smart. Be Seen. Be Safe.**  
***Enjoy the ride!***

# **The New Brunswick Bicycle Safety Handbook**

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**WE'RE ALL TRAFFIC.**

**LA CIRCULATION,  
C'EST NOUS TOUS.**



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**NB Trauma Program**  
**Programme de**  
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# Foreword by Nancy Watters, mother of Ellen Watters.

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This Cycling Safety Handbook is of personal importance to me. I can only think a stronger emphasis on cycling safety with education for all road users could have prevented the tragedy I struggle with every day. Close encounters with motorists and cycling in countries where bike lanes and laws are in place for everyone's benefit made Ellen quite aware of the concerns and importance around sharing the road. Educating cyclists and motorists alike as to where they should be on the road and what their responsibilities are will negate this quandary.

Bicycling has been, and still remains, a recognized form of transportation, recreation and exercise for our children and adults of all ages. For our roadways to become safer and users to become more aware of how they are to share the road, people need from the time they start cycling, to have the cycling information to understand their rights and responsibilities. A more formal and pronounced cycling program starting with our young, school age children will help to bring about this awareness.

This handbook is for everyone who cycles our roadways to read and put into practice. We must all know where we are to be on the road and how to operate in traffic to use our roads in a safe manner. After Ellen's passing, I picked up a greeting card with a picture of a bike on the front. The script read "Life is About Enjoying the Ride". Ellen did just that and made life enjoyable for many others.

- Nancy Watters

# Bicycling Safety

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## The basic principles:

- 1 Maintain your bicycle in good working order.
- 2 Be visible - Be seen as much as possible.
- 3 Wear an approved bicycling safety helmet.
- 4 Learn the skills needed to control your bike.
- 5 Cycle in traffic safely and predictably.
- 6 Know and obey the rules of the road.

***Be Smart. Be Seen. Be Safe.  
Enjoy the ride!***



# Introduction

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Bicycling for transportation, recreation and fitness has seen enormous growth in recent years. People everywhere are rediscovering the joys of cycling; how much fun it is, how practical it is, and how good it is for their health and well-being. However, with the increase in cycling there has also been an increase in conflicts with other road users. Many of these conflicts stem from confusion about how cyclists are to behave in traffic.

New Brunswick's Motor Vehicle Act says that cyclists have the same rights and duties as drivers of vehicles. Cyclists must know and obey the rules of the road. The New Brunswick Bicycle Safety Handbook is a guide to Learning Safe Cycling and provides information on traffic laws and riding strategies to help cyclists understand their rights, responsibilities and how best to protect their own safety in traffic.

By following the rules of the road and cycling in a predictable manner, cyclists will find more courtesy and respect on the road. For further information on the rules of the road you should consult the New Brunswick Driver's Handbook - A Guide to Learning Safe Driving Skills and the New Brunswick Motor Vehicle Act (M-17).

# Why Cycle?

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## **Cycling is fun**

People cycle for many reasons. Riding your bicycle allows you to feel active and energetic, feel your fitness improving, and to enjoy the surroundings of the natural environment. Cycling provides the independence of using only your own power, free from the constraints of motor vehicles.

## **Cycling is healthy**

Incorporating exercise into your lifestyle has many health benefits. It can strengthen your immune system, lower blood cholesterol, reduce stress, strengthen the heart,

and increase energy levels. Cycling can improve personal health and a healthier population can ease pressure on health care costs.

## **Cycling is low impact exercise**

It is easy on your joints because it is a non weight-bearing form of exercise. It can be done at any level of intensity, which makes it suitable for people of all ages and levels of fitness.

## **Cycling is practical and cost effective**

It is often just as fast as a car or a bus in city traffic and it makes it easier to avoid traffic jams. There are no gas tanks to fill and parking is usually free and available next to your destination. Once you have the basic equipment, cycling is an extremely economical form of transportation.

## **Cycling is better for the environment**

Cycling produces no air pollution, greenhouse gases or noise. It also reduces traffic congestion, deterioration of road surfaces, and land requirements for roads and parking lots.



# Equipment

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*To ride your bicycle safely and efficiently it is important to have all equipment operating smoothly and properly.*

## **Types of bikes**

Mountain bikes and hybrids are well suited for city riding thanks to their upright sitting position, accessible gear shifters and brakes, rugged construction, and manoeuvrability. Their only disadvantage is that they are somewhat slower and less efficient for longer distance road riding than road bikes with drop handlebars.

## **Size and fit**

Make sure your bike is the right size and adjusted to fit you properly. The right size bicycle is easier to control and more comfortable, causing less fatigue. Your local bike shop can help you choose, adjust and equip the right bicycle for your needs.

## **Brakes**

Before you start, make sure you can stop. Your brakes must be adjusted and be powerful enough so you can easily bring your bike to a quick stop. You should be able to quickly and easily reach the brake levers from where you ride.

# Equipment

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## Follow the **2V1** RULE!



### Helmet

To be effective, the bicycle helmet must fit correctly and be worn properly. When in doubt, check with a bike shop for the proper adjustment of your approved cycling helmet. Follow the **2V1 rule**.

#### A helmet is not safe if:

- It has been in a fall or crash.
- It does not fit properly.
- You have had it for more than five years.
- It has any damage.
- It is not designed for your chosen sport (skateboards, inline skates, scooters, or bikes).
- There are any stickers, paint or extra decorations on it.
- A hat or high ponytail is being worn with the helmet.

### Lights and reflectors

After dark, all cyclists are required by law to have a front white headlight visible for a minimum of 150 metres and a rear red reflector visible for 100 metres when directly illuminated by a motor vehicle headlight. Many rear red bicycle lights sold currently are also designed to function as a reflector and are legally acceptable. Flashing red rear lights are also acceptable. Lights and reflective devices come in a wide range of shapes, sizes, colours, and costs and should be mounted directly on the bicycle.

Check with your local bike shop for advice on the most appropriate set up for your needs and to ensure that the lights you intend to purchase meet or exceed these requirements.

# Equipment

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## Tires

Use good condition tires inflated to their recommended pressure, which is stated on the sidewall. Under-inflated tires reduce your efficiency and increase your chances of flat tires and uneven road wear. For on-road use, tire pressure can be reduced to absorb greater impact and provide better traction. Increased tire pressure provide less rolling resistance, and therefore easier pedalling, on hard surfaces; while, less inflated tires provide more comfort and better traction, especially if riding on-road. Ask your bike shop what type of tire would be best suited to your riding needs.

## Fenders

Fenders keep you (the rider) dry and clean. They also prevent lights, reflectors, and your bike (and the rider) from getting dirty in wet weather.

## Panniers (saddle bags)

Panniers allow you to comfortably and safely carry a load while keeping your hands on the handlebars and, by keeping your centre of gravity low, they increase stability. These bicycle-mounted packs also keep the weight of your bottom, reducing 'saddle sores' and back pain.

***DO NOT hang grocery bags or carry loose loads on your handlebars as they can upset the control of your bicycle and prevent you from properly turning your front wheel which increases your risk of being involved in an avoidable incident.***

## Bell

A bell is useful as a warning and as a courtesy to alert pedestrians or other road and trail users of your approach. A bell is legally required by law in most jurisdictions.

"Have a bell, use your bell"

***\*\* Remember that a bell will probably not be heard by motor vehicle operators inside their vehicles.***

# Equipment

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## Mirror

A mirror is a great safety device to use while riding, to see traffic coming up behind you, and to keep an eye on a riding partner without turning around. They are available in models that can be mounted on your handlebars, on your helmet or glasses.

## Regular maintenance and inspection

Perform maintenance and safety checks yourself, or take your bicycle to a qualified bicycle mechanic regularly. It is particularly important to frequently check the brakes and tires, and to clean, inspect, and lubricate the drive train (the gears, chain, and derailleur). By doing this you will ensure the efficient performance of the bicycle, ensure that your bicycle will perform properly in an emergency situation and minimize the risk of a mechanical breakdown far from home.



## Tool Kit/Pump

A tool kit and a pump are a necessity for longer road trips and useful around town to prevent a potentially long walk for minor repairs. A basic tool kit includes: tire levers, spare tube, patch kit, pump, screwdriver, and multi-purpose tools or wrenches suitable for adjusting a variety of nuts and bolts. Be sure that the tube and tools fit your bike, since there are many types and sizes. If you are unsure, consult your bike shop.

## The Fixit Station

Urban areas are installing bicycle repair stations along their trail networks. These stations have all the tools necessary to perform basic bike repairs and maintenance, from changing a flat tire to adjusting brakes and derailleurs. The tools and air pump are securely attached to the stand with stainless steel cables and tamper-proof fasteners. Hanging the bike from the hanger arms allows the pedals and wheels to spin freely while making adjustments.

# Visibility

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## Be SEEN

Armed with proper safety equipment and using basic cycling skills, a cyclist can be highly visible and greatly reduce general risks.

***“I didn’t see them” “I couldn’t see them”***

\* A common driver remark in a vehicle/cyclist collision.

## Wear brightly coloured clothing

Wear brightly coloured clothing such as neon green, yellow and orange, and/or wear a safety vest.

## Lights usage

Turn on your lights, front and rear, whenever visibility is reduced or on busy roadways. Aim your rear light to the traffic behind you and aim your front light on an angle for vehicles to see you and for you to be able to see the road. You need to BE SEEN, as well as SEE THE ROAD.



***A bicycle operated on a highway between 1/2 hour after sunset and 1/2 hour before sunrise must have a lighted lamp mounted on the front which, under normal atmospheric conditions, is capable of displaying a white light visible at least 150 m in the direction the cycle is pointed.***

## Consider increasing the strength of your lights

Dual headlights are effective to increase your visibility in either low light or low visibility conditions or in high traffic areas and roadways. They will allow you to aim one toward oncoming traffic and one at the road ahead of you. Make sure the batteries for your lights are fully charged and consider carrying a spare.





# Visibility

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***As a narrow vehicle, cyclists can be less visible to motorists.***

***Cyclists must use all means available to make them visible and seen.***

***It is particularly important to increase your visibility to others in the dark, at dawn or dusk, or in difficult weather conditions such as rain, fog, or snow.***

## **Reflective materials**

Put reflective materials on your bicycle and clothing, including front forks and rear stays, wheels, pedals, helmets, wrists and ankles. Reflective bands or lights on wrists make your hand signals more visible.

## **Be aware**

Be aware that lights and reflectors are primarily useful for traffic coming from behind or ahead. Cars coming from the side may have trouble seeing you regardless of your lights.

Reflective tape and devices on the frame of your bike will allow you to be seen by others from more angles. It is particularly important to increase your visibility at dawn or dusk, in weather conditions such as rain, fog and snow and in busy or congested road traffic conditions.

# Cycling Safety Tips

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## **General safety guidelines for off road, cross country and road cycling safety tips:**

- Test the fit and function of your equipment before each ride.
- Always wear a properly fastened helmet, where extra safety gear as appropriate.
- Always yield the trail.
- Let others know you are coming, and call out “on your left!” before you pass.
- Do not ride wet and soft trails.
- Ride open trails only.
- Be aware of your surroundings and other trail users.
- Ride to your ability and in control at all times.
- Lower your tire pressure for better traction control.
- Lower your seat for better center of gravity on long downhill.
- Use your brakes intermittently on rough terrain.
- Bring repair equipment, it could be a long hike back if you have mechanical problems.
- Always keep your speed at a level that will allow full control.
- Ride with friends. It’s more fun and you have someone to help you if you need it.
- Leave a copy of your itinerary with a responsible person.

# Cycling and Traffic Skills

*Learning all the required cycling skills will greatly increase your safety and comfort when cycling in traffic.*

## Control your bike at all times

### Approved Cycling Courses

Consider registration in an approved cycling course taught by licensed cycling instructors such as CANBIKE I and II to improve skills, knowledge and confidence on the road.

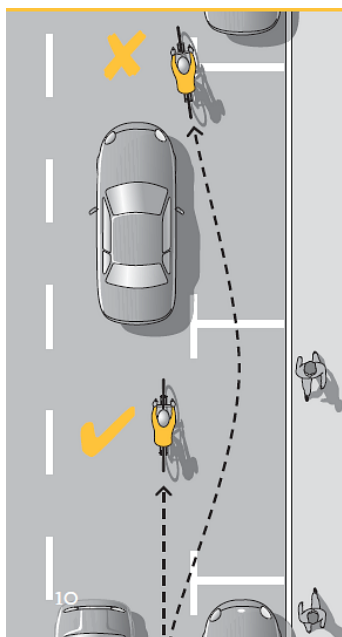
### Ride DEFENSIVELY

The single most important rule is to remain ALERT and be PREPARED for unpredictable moves or mistakes by others.

### Think and plan your next 30 seconds

Anticipate behaviour and movements of other road users and dangers that might appear. Make eye contact and observe the traffic on the road ahead, behind and

around you. Practice this so field of view that it becomes automatic behaviour.



### Cycling in a straight line (right)

Ride with your head up and keep looking one and a half to two blocks forward. Being able to ride in a straight line under varying conditions is the key to riding safely in traffic. Practice following a painted line as closely as possible at different speeds. With practice you can minimize wobbles. Riding in a straight line as shown on the right, makes you predictable to other road users. Practice cycling in a straight line while looking over your shoulders, both to the right and to the left. This is not easy at first, but it is a critically important skill in traffic. A mirror does not replace the need to shoulder check in any circumstances.

# Cycling and Traffic Skills

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## Hand signals

Always make hand signals well in advance of any turn. Hand signals are required by NB Law. Since making a hand signal requires cycling with just one hand on the handlebars, practice doing that while maintaining a straight line. The proper turning sequence is; first shoulder check, then a hand signal, and then, with both hands on the handlebars, shoulder check again before making the turn or the stop. In the case of an emergency manoeuvre, the need for the cyclist to keep both hands on the handlebars may sometimes outweigh their need to signal. In such cases, it is accepted that safety should prevail and the cyclists' discretion and skills must be relied upon to avoid incidents or injuries.

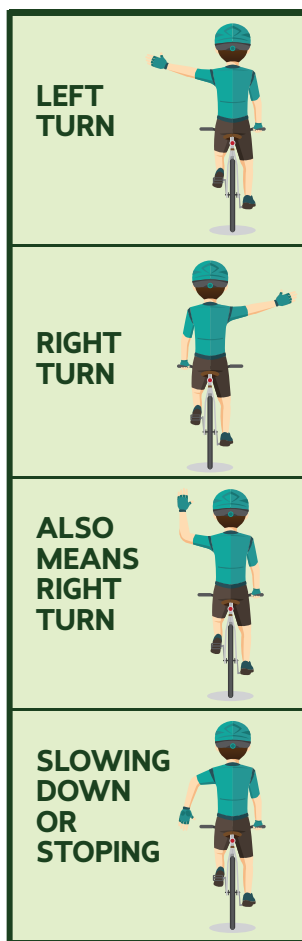
## Turning

Practice turning to give you a feel for how sharply, and at what speeds, you can turn comfortably and safely. As you lean into corners, keep your inside pedal up to avoid catching the pedal on the road.

## Stopping

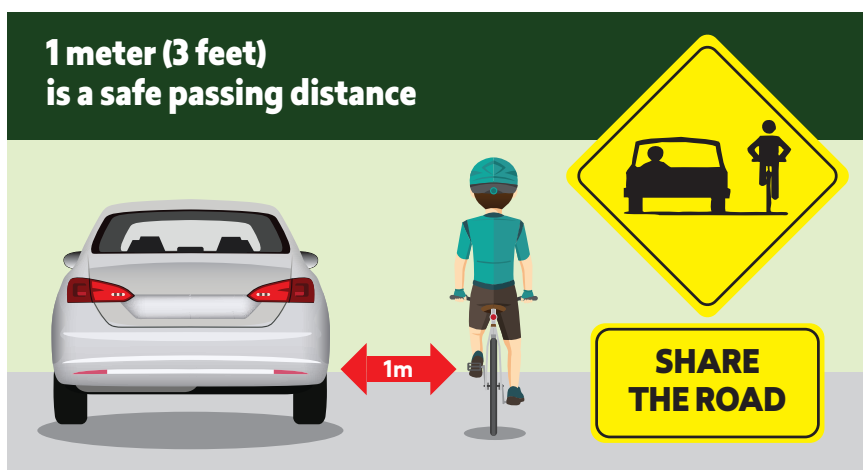
On a bicycle with hand brakes, the front brake accounts for up to 80% of the stopping power during abrupt braking because forward momentum puts most weight over your front wheel. For optimum stopping power, shift your weight towards the rear and try to keep your centre of gravity low and towards the rear wheel. This, in addition to using both brakes, will reduce the tendency for the rear wheel to skid and will increase stability. It is important to always keep both hands on the handlebars when applying the brakes.

Practice stopping as quickly as you can to get a feel for how much distance is needed at different speeds and under different conditions. You will need considerably greater stopping distances during wet conditions. Also make sure you can stop in a straight line. Coaster brakes are located in the rear hub and applied by pedaling backwards. They are much less effective than hand brakes.



# Cycling and Traffic Skills

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***The legal passing distance is 1 Metre. It's the LAW in New Brunswick***

## **Gear shifting**

The basic rule is that low gears are for slow speeds, using a small chain ring in the front and a large sprocket in the rear. High gears are the opposite. Never change gears on a power stroke, this risks derailing your chain. Always shift into a low, easy gear before you stop. Check ahead and shift into a lower gear well in advance of hills. On the level, use a gear that gives you a fast comfortable spin ('cadence') of around 70-90 rpm. Pedalling in a gear that is too fast can tire you more quickly. However, pedalling in a gear that is too hard can strain your knees and lower back.

## **Be assertive**

Be assertive but remember that a conflict between a cyclist and a motor vehicle usually results in injury to the cyclist. It is best to remember that, when in doubt, do not cycle beyond your confidence level. By law, cyclists have the same rights and duties as operators of vehicles. The same rules of right-of-way, traffic signs and signals, apply to cyclists as apply to motorists. If you are in doubt about the rules of the road, obtain a copy of NB Drivers Handbook – NB's Safe Driving Guide from a Service NB office.

## **Ride on the right**

Ride in the same direction as other traffic. Some people still believe that cyclists are like pedestrians and should ride facing traffic. This is not only illegal, but has also been shown to dramatically increase the risk of a collision.



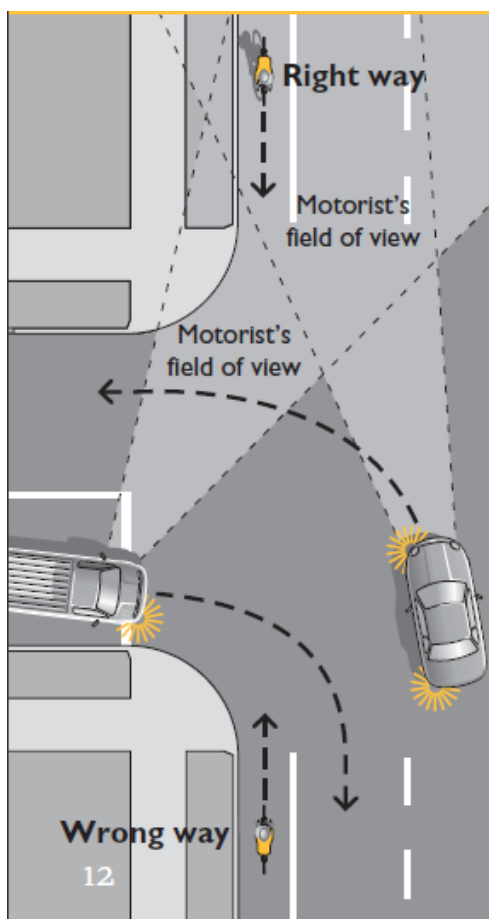
# Cycling and Traffic Skills

## Road surface hazards

Keep an eye on the road well ahead of you to see if there are potholes, gravel, glass, drainage grates or other hazards coming up. If you have to move over into traffic to avoid these, look over your shoulder first and ALWAYS use a hand signal. To abruptly swerve into traffic can easily lead to a collision. To make riding safer for you and other cyclists, report any unsafe road conditions to local authority as soon as possible.

## How far to the right should you ride?

The law requires bicycles to ride as near to the right side of the lane as practicable to keep as close as practicable. You always need some extra space to manoeuvre around road hazards without running the risk of hitting the curb or going off the edge of the road. This allows you to move away from traffic instead of directly into traffic in the event of an emergency manoeuvre. Motorists are required to pass “at a one meter distance” (by Law) and must not return to the right of the roadway until they have fully passed you. As a general rule, ride approximately one metre from the curb.



## Parked cars and Dooring Cyclists

Ride no closer than one metre from parked cars to avoid being hit by an opening door. The doors of some vehicle types can swing far into your lane. If you can see that the motor vehicle is occupied, be particularly careful. Where cars are parked

# Cycling and Traffic Skills

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intermittently, ride in a straight line instead of swerving in and out between the parked cars. This increases your visibility and predictability for motor vehicle drivers on the road.

## When to take a lane

If there is no shoulder or bike lane and the curb lane is narrow (i.e. when the right wheel track of most traffic is less than a metre from the curb), cyclists may choose to take the whole lane by riding to the right of center in the lane. This can be safer than riding near the curb, which may encourage motorists to squeeze by where there isn't sufficient room. This will keep you out of motorists' blind spots and reduce conflicts with right-turning traffic. Be prepared for the occasional frustrated driver who is not familiar with the safe and legal operation of a bicycle.

If you are uncomfortable in the centre of the lane, consider taking an alternative route. On high-speed roads, it may not be safe to take the whole lane. It is important to cycle within your confidence limits and comfort when dealing with heavy or high-speed traffic.

It is important to know that there is currently no stated legal definition of "as near as practicable to the right side of the highway" so the cyclist should use discretion to decide whether to take the lane or how far to the right to ride. It is often safer to ride in the manner detailed in this handbook. However, this issue is still undecided and it is possible that a peace officer could issue you a ticket.

***If there is no shoulder or bike lane and the curb lane is narrow (i.e. when the right wheel track of most traffic is less than a metre from the curb), cyclists may choose to take the whole lane by riding to the right of center in the lane. This can be safer than riding near the curb, which may encourage motorists to squeeze by where there isn't sufficient room.***

# Cycling and Traffic Skills

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## Intersections and turning lanes

Approximately 60% of motorist-cyclist collisions occur at intersections. The majority of these happen when the cyclist is moving straight ahead. To minimize the dangers you must observe the rules on intersections and turn lanes. Always watch for vehicles turning across your path and be prepared to avoid them. Always enter intersections either ahead of or behind the vehicle in your lane.

**When you approach** an intersection with several lanes, choose the lane with the arrow pointing in the direction you want to go. You may get cut off by turning cars if you are not in the appropriate lane. If you cannot safely change lanes to the correct lane, you have the choice to dismount and walk in the crosswalk instead. Never put your safety at risk.

**Make eye contact** with other road users, when necessary, to signal your intentions and to be sure that they have seen you.

**Treat every driveway like an intersection** and watch for traffic emerging from the driveway. Do not assume that a driver backing out of a driveway has seen you.

**Never enter an intersection on a yellow light** since it is likely to turn red when you are still in the middle of it. Most lights are timed for motor vehicles that can cross the intersection more quickly. Remember, cyclists must stop at all red lights and stop signs.

**When there are four-way stop signs**, the first vehicle to come to a complete stop has the right-of-way. If two vehicles stop simultaneously or so close as to constitute a hazard, the vehicle on the right has right-of-way. Legally you must not proceed until it is safe to do so.

## Going straight through an intersection

To go straight through an intersection, ride in the lane that is closest to the right side of the road. Enter the intersection either ahead or behind the vehicle in your lane. Do not approach or enter an intersection beside another vehicle as it may not see you and turn across your path.

# Cycling and Traffic Skills

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## Making a left turn

There are two main ways of making a left turn on a bicycle:

**1. With Traffic:** As you approach the intersection, look over your left shoulder for traffic, signal your turn, and, when clear, move over to the left side of the lane (on a two-lane road), or into the left lane or the centre-turn lane. You should be positioned so cars going straight through cannot pass you on your left. Yield to oncoming traffic before turning. If you are riding in a bike lane, or on a road with several lanes, you need to look and signal each time you change lanes. Never make a left turn from the right side of the road, even if you are in a bike lane.

**2. Dismounted:** In some cases it may be safer to negotiate a left turn on foot. Dismount at the intersection and act as a pedestrian until it is safe to begin cycling again after negotiating the intersection.

## Rural or high-speed roads

On rural or high-speed roads you should time your left turn so that you can complete the whole turn at once without compromising your safety. You don't want to get caught in the middle of high-speed traffic. If necessary, slow down or stop on the right edge of the road and wait until you get a large enough gap in traffic to make your turn safely. If the traffic is too heavy without a sufficient gap, continue on to the next intersection or use the cross-walk.

## Multiple turn lanes

When more than one turn lane exists, use the rightmost turn lane. On rural or high-speed roads you should time your left turn so that you can complete the whole turn at once without compromising your safety. You don't want to get caught in the middle of high-speed traffic. When overtaking slower moving traffic, you must pass on their left and should allow at least one metre of clearance.

If it is a lane where everyone turns left, stay on the right side of the lane.

If traffic can also go straight through this lane, stay to the left side of the lane. If you turned from the inside lane, make sure you turn into the inside lane. Once the turn is complete, shoulder check, signal and move over lane by lane to the right.

# Cycling and Traffic Skills

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## **Position yourself where motorists are looking**

The law requires cyclists to keep to the right, but that does not mean hugging the curb or shoulder. You should be approximately one metre away from the roadway edge, both to reduce the risk of hitting the curb or debris, and also to better place yourself within the motorists' field of vision. This allows you to move away from traffic to avoid an obstacle, an open door, or crowding by another vehicle. Avoid riding in a motorist's blind spot.

## **Passing on the left**

When overtaking slower moving traffic, you must pass on their left and should allow at least one metre of clearance. When passing other cyclists, warn them in advance by voice or bell.

## **Passing on the right**

Passing stationary vehicles on the right between intersections, especially in congested city traffic, is a serious safety problem for cyclists. . Most often it is best to shoulder check, move into the middle of the lane and line up with the rest of traffic to pass legally and safely on the left. This will also prevent motorists from making a right turn into you as you enter an intersection.

When cycling in narrow-lane traffic where many motorists attempt to squeeze past you before each traffic light, some cycling instructors suggest the following: Rather than moving up to the first car, which will likely re-pass the cyclist, it may be more strategic for the cyclist to proceed only as far up the line as the last cars likely to make the next green light.

## **Do not pass on the right**

Do not pass moving traffic on the motorists' right side, since motor vehicle drivers do not expect anything to interfere with a right turn from the right lane and, as such, they often neglect to shoulder check. Sometimes cars also drift close to the right edge of the road if the driver cannot see any reason not to.

***It is illegal to pass on the right***



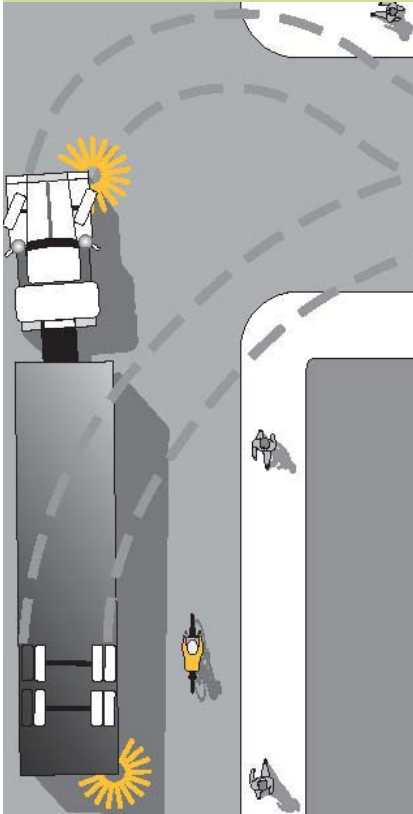
# Cycling and Traffic Skills

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## Riding side by side

According to the New Brunswick Motor Vehicle Act it is illegal to ride side by side on a provincial roadway.

- ***Use extra caution when cycling in traffic with large vehicles such as buses, trucks, and motor homes.***
- ***DO NOT ride in their blind spots and be prepared for wide turns.***



## Buses, trucks and motor homes

Drivers of large-long vehicles have large blind spots where they are unable to see cyclists. If you cannot see the driver in their mirrors, they cannot see you. Avoid riding in these blind spots and only pass slow moving vehicles on the left.

In urban areas watch for right-turning buses and tractor-trailers, since their length and rear overhang require more space than you might expect. Large vehicles will often move toward the left lane in preparation for a right turn. Never pass on the right unless you have a lane to yourself and are positive they are not preparing for a right turn. The most dangerous point in a turn is when the tractor has made the turn but the trailer has not. When travelling at the same speed as a transit bus requiring frequent stops, use common sense and courtesy to avoid conflict and a potentially dangerous situation between yourself and the bus that can happen when you re-pass each other. Recognize that it is often difficult for a bus to pass you, especially in heavy traffic. In NB, all traffic, including cyclists, must yield when transit buses signal their intention to pull out into traffic.

Drivers frequently underestimate the speed of cyclists, or they may not see you at all. Large vehicles travelling at high speeds create varying degrees of air turbulence that

# Cycling and Traffic Skills

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can cause a cyclist to be pulled into the path of passing vehicles.

On high-speed and well-travelled highways, cyclists may also encounter commercial vehicles with tandem trailers. Use extra caution to avoid being drafted (pulled) into the temporary space between the trailers. Never assume that it is safe to adjust your road position until a large vehicle has passed you entirely and you have completed a shoulder check. Be especially cautious in windy conditions, where the draft can be magnified by the wind-blocking action of the trailer.

Drivers of certain types of vehicles such as motor homes and rental moving vans are often less experienced than commercial drivers. Be prepared for these drivers to underestimate the length and width of their vehicles.

## Railway tracks

Cross railway tracks carefully. Watch for uneven pavement and grooves along the rails that will catch your wheels. Keep firm control of your bicycle. One way is to rise up from the saddle and bend your arms and legs so that your body acts like a shock absorber.

If the tracks cross the road at a sharp angle, consider changing your road position well in advance so that you cross them at close to a right angle. ALWAYS indicate your intention to other traffic with hand signals. Avoid swerving suddenly which will cause you to fall or to veer into traffic.

## Weather hazards

Rain makes roads slippery, especially after a long dry period. You need to adjust your riding accordingly.

***Visibility is poor in wet weather; motorists may have more difficulty seeing you. Ride defensively and increase your visibility.***

**Turn more slowly** in wet conditions as you have less traction. Also, avoid manhole covers and painted road line markings as these are particularly slippery.

**Avoid puddles** when possible since they might hide potholes, broken glass or other exciting surprises.

**Leave extra room** and be prepared for sudden stops or swerves by traffic around you.

# Cycling and Traffic Skills

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**Brakes work less effectively when wet**, especially during the initial exposure to wet conditions. If possible, try them out on a quiet street to test their stopping power before heading into heavier and faster traffic.

**Dry your wet brakes** by feathering (applying them lightly) before you need to stop or slow down.

**Cold weather** leads to frost, black ice and snow, all reducing traction dramatically. Remember that two wheels do not slide in the same manner as four wheels. A bicycle is most likely to slide out from under you on ice. Whenever traction is reduced you should cycle more slowly and cautiously, especially at intersections. Using wider tires with lowered pressure can help.

**Frostbite** can also be a problem since the increased air movement will increase the wind chill. Wear warm layered clothing and be particularly careful to protect your head, face, ears, hands and feet.

***Black ice is particularly dangerous since it is hard to see and can suddenly eliminate your grip on the road. It is most common on bridges, metal surfaces, and brick roads.***

## Traffic signals

Many traffic signals are triggered by electrically charged wires buried under the pavement. When a vehicle stops over the wires, the metal disrupts the current, which sends a signal to a traffic light control box. Most bicycles contain enough metal to trigger the light. If after waiting an appropriate length of time the light signal has not been triggered, treat the situation like an uncontrolled intersection and proceed when it is safe to do so.

## School Bus and Emergency Vehicles

Remember that in New Brunswick, all traffic including cyclists must yield to:

- transit buses signal their intention to pull out into traffic
- School busses flash yellow or red flashing lights, and
- Emergency and Police vehicles with flashing lights.

# Cycling and Traffic Skills

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## Carrying children

***Special care should be taken when transporting small children by bicycle. All children should wear an approved bicycle helmet and should be secured by a seat belt system when in a trailer or bicycle child seat.***

There are a number of options available for transporting children depending on their size and age. For carrying younger children, a bike trailer provides greater protection for the child if you should fall. Bike trailers are generally considered to be a safer alternative than a bicycle child seat. When using a seat mounted on the back of a bicycle, special care should be taken to ensure that the child's feet, hands and clothing cannot be caught in the spokes or other moving parts of the bike. Bike trailers and trailer-cycles should be equipped with a taillight and reflector if being used at night. Bike trailers should also have a bike flag attached to the trailer to improve visibility since they are lower to the ground. All children should wear an approved bicycle helmet and should be secured by a seat belt system when in a trailer or in a bicycle child seat. Prior to taking your child out in any type of carrier you may wish to practice turning, stopping, hill climbing and other manoeuvres with a sand bag or other weight to simulate the effect of the additional load.

Trailer-cycles must be equipped with a taillight and reflector if being used at night.

## Riding two on a bicycle

Riding double is only permitted when carrying a child in an approved carrier or when riding a tandem or trailer-cycle.

## Headphones

Because headphones can obstruct your hearing, they are not recommended while riding a bicycle and are illegal in many jurisdictions. Check your local bylaws.

## Cycling restrictions

The New Brunswick Department of Transportation and Infrastructure restricts cyclists from riding on certain bridges and sections of provincial highways indicated by signs posted at bridge and highway entrances. To learn of possible restrictions in your area, contact your local cycling club or Police Department.

# Cycling and Traffic Skills

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## Riding on sidewalks and through Pedestrian Cross-Walks

***It is against the law to ride on sidewalks and through Cross-walks in New Brunswick, unless specifically directed to do so by a sign or local bylaw.***

Several studies have proven that cyclists on sidewalks face a far greater collision risk than cyclists on the roadway. The main danger points are driveways and street crossings where sidewalk cyclists surprise motorists and pedestrians by appearing from unexpected directions.

## Riding on multi-use paths - Pedestrians have the Right of Way

Multi-use trails are safe from collisions with motorized vehicles, however, other users such as pedestrians, dog walkers, joggers and other cyclists may act unpredictably, particularly on busy sections. Therefore, cyclists who want to travel quickly might opt to use roadways rather than heavily used paths. When preparing to pass other trail users, always ring your bell or call out to alert them. Helmets are required on most multi-use paths and some paths may post speed limits. Respect user regulations for these facilities.



# Cycling and Traffic Skills



## Right of Way - disability mobility devices

Be aware that under the Motor Vehicle Act of New Brunswick such users of disability wheelchair mobility devices are legally considered to be pedestrians and must follow the same rules as other pedestrians on foot.

## Electric Bicycles / E-Bikes

The New Brunswick Motor Vehicle Registrar will permit an electric motor driven cycle to be registered if it meets Canada Motor Vehicle Safety Standards (CMVSS) as a Limited Speed Motorcycle, or Scooter as is done with gas powered motor driven cycles. If the vehicle was manufactured after 1988 it will bear a compliance label stating that it meets these standards.

## Operators of Electric bicycles are subject to all the requirements of the Motor Vehicle Act.

If the vehicle is able to powered by human force and has a motor 500W or less, and the motor is not capable of assisting when the vehicle is traveling at a speed greater than 32



## Trail Crossings vs. Crosswalks

**Under existing MVA legislation: A TRAIL CROSSING IS NOT A CROSSWALK**

- A Legal crosswalk only exists between facilities used exclusively by pedestrians (i.e. sidewalks)
- Trail Crossings can not be treated as crosswalks and users must yield the right-of-way to vehicles.



Dismount and Walk Signage targeted towards cyclists

# Cycling and Traffic Skills

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km/h then it can be considered a bicycle and all the requirements placed on bicyclists are applicable. A power assisted bicycle shall have Manufacturers' labels permanently affix, in a conspicuous location. To be allowed on the road it needs wheel rims larger than 9 inches, a headlight for night riding and a seat at least 27 inches off the ground. E-bikes are allowed to use cargo trailers/bike trailers.

## Children and Bike Safety

To ride a bike, first you have to listen to and observe traffic. If your children want to ride their bikes unaccompanied, such as to go to school, be sure to travel the route with them several times in order to help them identify dangers and adopt the right behaviour. Give your children support while they are learning:

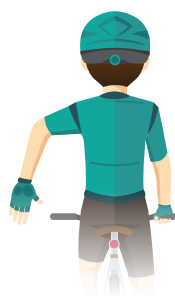
- ***Go for bike rides with them and keep an eye on them.***
- ***Stress the importance of following the rules of the roadways to stay safe.***
- ***Practice stopping and turning and help them learn how to deal with unexpected situations.***
- ***Make sure they understand the importance of performing a shoulder check every time they want to change directions.***
- ***Tell them they must use pedestrian crossings and walk their bikes when they want to cross intersections or turn left.***



**RIGHT  
TURN**



**LEFT  
TURN**



**STOP**

# What to do in case of a traffic-related incident

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## Collision - What to do

1. Check for injuries first. If someone is injured, call for help right away. Administer first aid if you are trained.  
New Brunswick EMERGENCY DIAL 911.
2. Look to see if all parties involved have remained or returned to the scene of the collision.
3. Cyclists are required to remain at the scene of a collision by Law.
4. You are also required to provide your name and address to the other parties involved or to a police officer upon request.
5. Carry identification, emergency contact information, and medical insurance information.

### **If you cycle alone, write down the following as soon as possible:**

- Location and exact time of the collision.
- Vehicle descriptions and plate numbers.
- Driver's description and driver's licence information.
- Details of the incident, including a diagram. Describe the collision circumstances in detail: weather conditions, lighting, speeds, etc.
- All witness' information (names and phone numbers).

## Hit and Run

In the case of a hit and run, with or without a vehicle licence plate number, follow the same procedure as above. You must make a reasonable effort to identify the motor vehicle. To report a hit and run that you have witnessed or been involved in, call: New Brunswick EMERGENCY DIAL 911.

## Dangerous Traffic Situations or Violations

Many cyclists and motorists are unaware of the rights and responsibilities of cyclists. In the event that you are on the receiving end of dangerous driving behaviour and are able to obtain a vehicle licence plate number, report the matter to police as soon as possible. Never confront motorists on the offending vehicle.

## Most common collisions

Be aware of the most common circumstances surrounding collisions and stay especially alert when cycling in these conditions.

# What to do in case of a traffic-related incident

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## **Cyclists vs. Motor Vehicle drivers**

Several other studies in North America have found that the primary fault in bicycle/motor vehicle collisions is approximately equally shared between cyclists and drivers

## **Contributing factors**

The most common error among cyclists was to ride without due care. Among motorists the most frequent fault was failure to yield right-of-way.

## **Collision probability**

Most collisions happened at intersections, where there were no traffic controls, or in residential areas.

## **Collision prevention awareness**

All cyclists should be aware that the three most common motorist-caused bicycle/motor vehicle collisions are:

- An oncoming driver turns left in front of the cyclist.
- A driver on a cross street stops, and then pulls out directly in front of the cyclist.
- A driver barely passes the cyclist and then turns right.

# Cyclists and New Brunswick Law

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## ***Cyclists have the same rights and responsibilities as a driver of a motor vehicle. (Except from the Motor Vehicle Act, RSNB 1973, c M-17)***

The laws that govern cyclists are contained in the New Brunswick Motor Vehicle Act (MVA), RSNB 1973, c M-17.

Full excerpts are NOT included here, as at this time as the Motor Vehicle Act is undergoing revisions to update cycling provisions for currency and improved cycling safety. A current summary follows as per the MVA article number:

- 176 Cyclist using N.B. roads have all of the rights as any driven vehicle and is subject to all applicable duties.
- 177(1) Cyclist must use a regular attached seat while on N.B. roads.
- 177(2) The number of persons on a bicycle on N.B. roads are limited to the number it was designed and equipped.
- 177(3) All cyclist must use an approved helmet with chin strap properly adjusted and fastened under the chin, at all times while cycling on N.B. roads
- 177(4) Parent(s) or guardian(s) shall not allow cyclist under the age of sixteen (16) to not wear an approved helmet while on N.B. roads.
- 178(1) Cyclist on N.B. roads shall not be attached by any means to another vehicle.
- 178(2) No person shall operate a motor vehicle on a highway while allowing any person to be towed or attached while the person is riding upon a bicycle.
- 179(1) Cyclist using N.B. roads shall do so as near to the right side of the roadway as practicable, use caution when passing standing or moving item(s) traveling in the same direction.
- 179(2) Cyclist shall not ride abreast while on N.B. roads unless on paths or parts of roadway set aside for the exclusive use of bicycles.
- 179(3) Cyclist may not use N.B. road(s) when a usable path for bicycles has been provided adjacent to a road.
- 180 Cyclist on N.B. roads shall keep at least one hand upon the handle bars.
- 181(1) Bicycles must be equipped with an approved forward facing white color light and a rear facing red reflector for night time use on roads. A rear facing approved red color light may be used WITH the red reflector
- 181(2) Bicycles must be equipped with an approved bell or device giving a audible signal, a siren or whistle is not permitted.
- 181(3) Bicycles must be equipped with brakes adequate to control, stop and hold the bicycle in place.

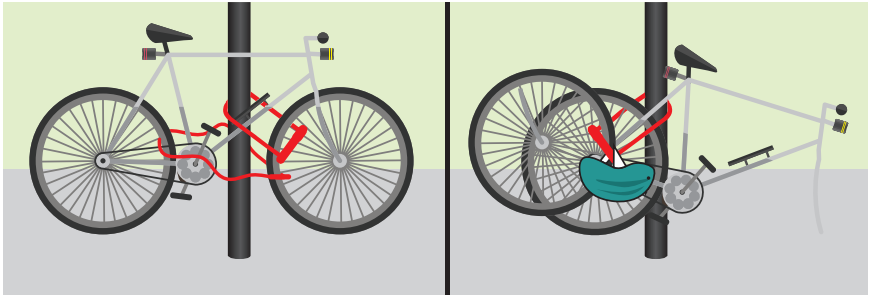
***Note: that several New Brunswick jurisdictions have bylaws specifically for cyclists. It is wise to check with your local police department or municipality for cycling-specific bylaws in your area.***

# Bicycle Security

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## Lock It or Loose It

Talk to your local bicycle store about the right lock for you and your bicycle. Look for secure, covered parking at your workplace. Lock your bike frame to a bike rack or other immovable object for short-term parking. Best locations are in busy pedestrian areas visible from many vantage points. At home keep your bicycle invisible and inside where it's dry and secure. Knowing the serial number of your bike can help you get it back if it is stolen.



- Lock your bike frame (and wheels) to a bike rack or other immovable object, best located in busy and visible pedestrian areas.
- If you have quick disconnect wheels, ensure the security cable passes through them as well.
- Remove all quick disconnect accessories such as panniers, lights, GPS and cell phones if the bike is left unattended.
- Never leave anything of value on an unattended bicycle.

## Secure your ride!

***Of the 3,728 bikes reported stolen in 2016 in the City of Toronto, only 49 were recovered that's only 1%. The recovery rates in 2014 and 2015 were just as low.***

# Cycling Advocacy

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Ever wonder what advocacy really is? You may be interested in advocacy and not even know it! If you are concerned about the rights and privileges of cyclists, whether for land access or safer road riding provisions, then you are interested in cycling advocacy.

There are many ways to become involved in advocacy and help ensure that cyclists as a community of people are heard and understood. There are clubs and coalitions, as well as concerned individuals, throughout the province that work within their regions to improve cycling conditions, rights and privileges.

Don't wait for others to solve problems for you. Become familiar with the decision-makers and cycling advocacy groups in your area to work toward improved conditions for cyclists.

## Cycling advocacy contacts in New Brunswick

We are excited to discover that there is no longer enough room to list the contact information for the entire cycling advocacy and cycling support groups in New Brunswick because they continue to grow. To find out if there is a group in your area, see your local recreational website or the following. If there isn't one near you, grab some cycling buddies and start one! Ask us how.

- Cycling Communities New Brunswick @ <http://velo.nb.ca>

VELO NB welcomes all comments, suggestions, and additional cycling information from across the province. To reach us, or to download copies of the New Brunswick Bicycle Safety Handbook, see: <http://velo.nb.ca>

## Who Can You Call?

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Cyclists are a legitimate and recognized part of traffic and they have a legal right to safe riding conditions on our province's roads. Many New Brunswick municipalities have bicycle infrastructure planners and Police Community Officers to educate and plan for cycling safety and deal with concerns regarding road conditions, construction or other cycling hazards. It's their job to ensure that the cyclists' needs and concerns are being taken into account when municipal decisions are being made.

**Call your City Hall or Municipal Offices. Your voice is important.**

# Who Can You Call?

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## Ellen's Law

In February 2017, the New Brunswick Department of Justice and Public Safety created a new Provincial Cycling Safety Working Group comprised of Police, civic planners, highway engineers and provincial cycling representatives. Along with the event of Ellen's Law legalizing the 1 Metre Safe Passing distance, the Working Group activities will be particularly important in ensuring that the principles of a new Safe Cycling Agenda are applied throughout the province of New Brunswick.

## Cycling Communities New Brunswick

Acts as an umbrella organization for all New Brunswick cycling groups and tackles the issues at the provincial level. Cycling Communities New Brunswick, is a VELO NB partner, has a narrow focus and mandate, for cycling safety. Recent successes include Government Liaison for the creation of the increased provincial Cycling Safety through recommendation to update the New Brunswick Motor Vehicle Act, standardized cycling safety education and recommendations for increased cycling tourism and safety by establishing a cycling corridor across New Brunswick. They both lobby for cyclists' rights at the provincial level and provide support at the regional levels. If you have transportation oriented cycling concerns that you would like addressed at a provincial level, contact us at: [www.VeloNB.ca](http://www.VeloNB.ca)

## Riding and Touring about New Brunswick

There are many options to cycle around the province New Brunswick on Roadways or Multi-purpose trails. As well, several Cities have well defined and developed trail systems.

**Sentier NB Trail** is part of the TransCanada Trail (or The Great Trail) and has many well defined trails throughout the province of New Brunswick which can be found here: <https://www.sentiernbtrail.com/sentier-nb-trails>

**VELO NB** and its members have scouted out many cycling routes throughout the province and have highlighted as few favourites here: <http://velo.nb.ca/touring/routes/>

## Clubs and User Groups

Whether it is racing, recreation or social; on the roadways, trails or cross-country, you will find listings of local user groups and cycling facilities through your community recreational listings, local bike and sports shops or on the internet. VELO NB also maintains a listing of New Brunswick cycling clubs and support organizations at: <http://velo.nb.ca/clubs/>



# Acknowledgements

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We thank and recognize all those who laid the foundation for safe cycling across Canada plus those who participated in the review and production of this handbook. Our hope is this handbook will educate and encourage New Brunswick cyclists plus provide education to help make our roads safer for all road-users alike.

This handbook has relied heavily upon excellent cycling information published in Canada and North America. A special thanks to:

- The CAN-BIKE Program
- The Greater Victoria Cycling Coalition
- The Toronto Cycling Committee (Cycling Skills)
- Cycling Communities New Brunswick, VELO NB

## Disclaimer

This handbook condenses and paraphrases language in the New Brunswick Motor Vehicle Act M-17 (RSNB 1996). It also provides proven safety advice not included in the law. This handbook is not a proper legal authority to cite and should not be relied upon in a court of law. In the event of deference between materials included this Handbook and the NB Motor Vehicle Act, the Act shall apply.







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**Be Smart. Be Seen. Be Safe.**  
***Enjoy the ride!***