

Crisis Borealis



a game about extreme weather in Canada

by Jeff Hohner, 2022 & 2025

based on Pandemic by Matt Leacock, 2008

WINNING / LOSING THE GAME



In CRISIS BOREALIS, players are charged with saving lives in Canada by fighting floods, forest fires, extreme heat and continued fossil fuel investments. At the same time, players rush to win the game by developing political support for measures to reduce each type of disaster.

During the game, cubes (BLUE, RED, YELLOW and BLACK) are placed onto the game board. These cubes represent people imperilled by four kinds of DISASTERS as they unfold around the country (people impacted by floods, forest fires, extreme heat, and people who are economically dependent on fossil fuel investments). Players take turns to move around the game board and rescue these populations. The RESCUE action removes a cube from the board.

A location may only ever have three cubes of the same colour on it. If for any reason a fourth cube of a colour needs to be placed, a STATE OF EMERGENCY is declared and impact of the disaster spreads to adjacent locations. If more than seven EMERGENCIES are declared, the game is lost.

The game may also be lost if no cubes of a colour are available when one is required for placement, or if no PLAYER CARDS are available when one needs to be drawn.

To win the game, players must cooperate and achieve a CONSENSUS TO ACT on each type of disaster AND remove all black cubes from the game board.

Players each have a hand of cards depicting locations in the game. These represent knowledge of and influence with those communities. When a player collects five cards of the same colour, they may discard them to ACHIEVE CONSENSUS. Those communities have joined forces to lead the rest of the country in mitigating the disasters they know so well. One of the cards discarded is tucked under the game board to record the achievement. That location becomes a RESILIENT COMMUNITY. Cubes on that location matching the colour of the tucked card are removed, and if that location's DISASTER CARD is drawn later in the game, no cubes are placed.

MOVEMENT



Canada is a large country, the second largest in the world by area. Located in the northern hemisphere, much of the country is covered by boreal forest, although the country also enjoys large swathes of mountain and prairie. All of these areas experience warm summers although they are shorter the further north one goes. Most regions experience harsh winters which increase in length and severity with latitude. For this reason, most of Canada's population lives along the southern border of the country where the Trans-Canada Highway runs. The indigenous peoples of Canada –First Nations, Inuit and

Métis– make up 5% of the Canadian population. They live in all regions of the country, many in the north. Two Arctic settlements are depicted in CRISIS BOREALIS, Inuvik and Iqaluit. Iqaluit has no road or rail link to the rest of Canada. It relies on air links for travel and supplies. In summer, cargo ships also supply the city.

In CRISIS BOREALIS, straight lines between cities represent roads, and curved lines represent air links. Both kinds of line function identically. Players may move between two linked cities, regardless of line type, by taking the DRIVE / FERRY / CARGO FLIGHT action. (Note: although the lines linking OTTAWA to IQALUIT and ST. JOHN'S to FORT MAC cross, they do not connect, i.e. OTTAWA is not linked to ST. JOHN'S or FORT MCMURRAY.)

Players may also move between any two locations on the board by discarding a card from their hand. The DIRECT FLIGHT action allows players to discard the card matching a location to move directly to that location. The CHARTER FLIGHT action allows players to discard the card matching the location they are in to move to any other location.

EMERG. OPERATIONS CENTRES



Players may move between EMERGENCY OPERATIONS CENTRES using the GOVERNMENT TRANSPORT action. The Canadian Armed Forces are often deployed to help provincial and territorial emergency responses; their Hercules aircraft are always available for use.

Each game of CRISIS BOREALIS starts with one EMERGENCY OPERATIONS CENTRE on the game board in HALIFAX. Up to five more EMERGENCY OPERATIONS CENTRES may be built during the game.

DISASTERS



Most locations on the CRISIS BOREALIS game board have coped with one or more of the DISASTERS included in the game. See pages 3-4 for descriptions of this history. The type of DISASTER that a location is prone to (FLOOD, FIRE, EXTREME HEAT, OIL PRODUCTION) is indicated by the icon or icons it possesses on the game board.

At the end of a player's turn, they must assess the country for disasters by drawing the number of cards from the DISASTER DECK indicated by the position of the ATMOSPHERIC CO2 marker. According to the type/colour of the DISASTER CARD, they place a cube of that colour onto the game board on the location depicted on the card, and place the card in the DISASTER DISCARD pile.

If a CONSENSUS TO ACT has been achieved on oil and gas investments, a moratorium on such investments is enacted and BLACK cubes are no longer placed onto the game board when a BLACK DISASTER CARD is drawn. Likewise, no cubes are placed when the DISASTER CARD of a tucked location is drawn. Drawing a BLACK card, or the card of a RESILIENT COMMUNITY, still counts towards that turn's required DISASTERS or CATASTROPHIC EVENTS.

CATASTROPHES ☼

Some disasters are bigger than others. During SET-UP, a number of CATASTROPHIC EVENT cards are shuffled into the PLAYER DECK. After a player takes their ACTIONS, they draw 2 cards from the PLAYER DECK. If a CATASTROPHIC EVENT card is drawn, increase the ATMOSPHERIC CO2 by moving the CO2 marker one space to the right and draw the bottom card of the DISASTER DECK. Place three cubes matching the colour of that DISASTER CARD onto the game board on the location depicted on the card. Then add the card to the DISASTER DISCARD PILE, shuffle that pile and place it face down on top of the DISASTER DECK.

STATES OF EMERGENCY ☼

A location may only ever have three cubes of the same colour on it. If a fourth cube of a colour needs to be placed, a STATE OF EMERGENCY is declared in that location. Instead of placing the fourth cube, one cube of that colour is placed on each location connected to the overwhelmed location. Advance the STATES OF EMERGENCY marker one space. If the marker reaches the final space on the STATES OF EMERGENCY track, the game is lost.

If resolving a STATE OF EMERGENCY causes another STATE OF EMERGENCY, resolve that second EMERGENCY normally but do not place a cube on the location of the initial EMERGENCY. The location of the first EMERGENCY cannot suffer another EMERGENCY that turn. A location may only suffer one EMERGENCY on any given turn.

PROVIDENCE ☼

During SET-UP, five PROVIDENCE CARDS are shuffled into the PLAYER DECK. A player may play a PROVIDENCE CARD from their hand at any time on their turn, or on another player's turn. Playing a PROVIDENCE CARD does not count as an ACTION. After playing a PROVIDENCE CARD, place it in the PLAYER DISCARD PILE.

PROVIDENCE CARDS count towards a player's hand limit of seven cards. However, they may be played immediately after drawing cards before discarding down to seven cards.

PLAYER TURNS ☼

Play in CRISIS BOREALIS proceeds clockwise around the game table in turns. The player dealt the LOCATION CARD with the smallest population takes the first turn.

On their turn, a player executes three steps:

1. TAKE 4 ACTIONS

On a player's turn, that player may take 4 ACTIONS. They may take a particular ACTION more than once per turn, and they may take ACTIONS in any order. All players are free to discuss the course of action for a player's turn, but the player taking that turn may take any ACTIONS they wish.

2. DRAW 2 CARDS

After taking their ACTIONS, the player draws 2 cards from the PLAYER DECK into their hand.

- Resolve Any Catastrophic Events

If a CATASTROPHIC EVENT card is drawn, resolve that EVENT according to the instructions on that card. Discard the CATASTROPHIC EVENT card to the PLAYER DISCARD PILE.

- Discard to 7 Cards

If a player now holds more than seven cards, they must choose cards to place into the PLAYER DISCARD PILE until they hold no more than seven. Players may look through the PLAYER DISCARD PILE at any time.

3. ASSESS CITIES FOR DISASTERS

Finally, the player must reveal cards from the top of the DISASTER DECK. Reveal the number of cards indicated by the current position of the ATMOSPHERIC CO2 marker. For each card, place a cube matching the colour of the DISASTER CARD on the location indicated by the card (unless CONSENSUS prevents it). Discard each DISASTER CARD to the DISASTER DISCARD PILE. Players may look through the DISASTER DISCARD PILE at any time.

ACTIONS ☼

DRIVE / FERRY / CARGO FLIGHT

Move your PAWN along a line to another location.

DIRECT FLIGHT

Discard a card from your hand to move your PAWN to the location named on that card.

CHARTER FLIGHT

Discard the card matching the location of your PAWN to move to any location.

GOVERNMENT TRANSPORT

If an EMERGENCY OPERATIONS CENTRE exists at your location, move your PAWN to another EMERGENCY OPERATIONS CENTRE.

SET UP AN EMERG. OP. CENTRE

Discard the card matching your location to place an EMERGENCY OPERATIONS CENTRE there.

RESCUE

Remove 1 DISASTER cube from the location you are in. If that DISASTER enjoys a CONSENSUS TO ACT, remove *all* cubes of that colour.

SHARE INFORMATION

When your PAWN is in a location with another player's PAWN, give the card matching your location from your hand to that player, or take that card from them with permission.

ACHIEVE CONSENSUS

Tuck the card matching your location under the game board and discard four other cards of the same colour to establish a CONSENSUS TO ACT on that type of disaster. Remove any cubes matching the tucked card's colour from that location.

SET-UP 🎲

1. SET-UP THE GAME AREA

- Place the game board in the middle of the game area.
- Place the ATMOSPHERIC CO₂ marker on the 400ppm space of the CO₂ track.
- Place the STATES OF EMERGENCY marker on the 0 space of the EMERGENCIES track.
- Form supplies of each colour of DISASTER cubes (24 of each) beside the game board.
- Place an EMERGENCY OPERATIONS CENTRE on the game board in HALIFAX.
- Form a supply of EMERGENCY OPERATIONS CENTRES (5) beside the game board.

2. ASSESS NINE INITIAL DISASTERS

- Shuffle the DISASTER CARDS and place them on the DISASTER DECK space on the game board.
- Reveal a DISASTER CARD and place three cubes matching the colour of the card onto the game board on the location depicted by the card. Repeat this two more times.
- Reveal three more cards and place two matching cubes on those locations.
- Reveal three final cards and place one cube for each.

3. BUILD OUT CANADA'S OIL & GAS INFRASTRUCTURE

- Place one black cube on each oil producing location that does not already have at least one black cube.

4. CHOOSE A DIFFICULTY LEVEL

- Decide how difficult to make your game.
- For a beginner game, lay out 3 CATASTROPHIC EVENT cards face down.
- For a standard game, lay out 4 CATASTROPHES.
- For an advanced game, lay out 5 CATASTROPHES.
- For a truly historic game, lay out 6.

5. DEAL PLAYER HANDS

- Choose five PROVIDENCE CARDS and shuffle them into the LOCATION CARDS.
- For a two-player game, deal each player 4 cards.
- For a three-player game, deal each player 3 cards.
- For a four-player game, deal each player 2 cards.

6. BUILD THE PLAYER DECK

- Continue dealing cards, this time to each of the face down CATASTROPHIC EVENT cards laid out in STEP 4. Form equal piles as best as possible.
- Shuffle each pile.
- Starting with the smallest pile(s), stack each pile onto the PLAYER DECK spot on the game board.

7. CHOOSE ROLES

- Assemble a team to save lives in Canada. Choose ROLES that complement each other. Try new and different combinations of ROLES, or play your favourites.
- Give each player the ROLE CARD and matching PLAYER PAWN they've decided to play.
- Place each PAWN onto the game board on the location shown on its ROLE CARD.

8. DETERMINE FIRST PLAYER

- Players compare hands and the player holding the LOCATION CARD with the smallest population takes the first turn.

EXTREME WEATHER IN CANADA 🌪️

1989 355 ppm atmospheric CO₂

- **Northern Manitoba is on fire**
1200 fires burn 6.2M acres in July & August.

1991 356 ppm CO₂

- **Hail in Calgary the size of tennis balls**
costliest storm in Canada at that time, \$342M loss.

1996 363 ppm CO₂

- **Largest overland flooding in Canada**
Saguenay, 16,000 evacuated, 488 homes destroyed.

1997 364 ppm CO₂

- **Most severe Red River flood since 1826**
\$500M damage (\$3.5B upstream in the U.S.), Winnipeg floodway almost overwhelmed.

1998 367 ppm CO₂

- **Ice storm in Quebec, Ontario, New Brunswick**
1,000 steel transmission towers crumple, 4M people left in the dark, some for a month, 34 deaths.

2003 376 ppm CO₂

- **1st interface fire near a large city**
Kelowna, 27,000 evacuated, 239 homes destroyed, driest summer on record at that time.

2008 386 ppm CO₂

- **Worst flood of Saint John River in 35 years**
record snowfall plus heavy rain, 680 evacuated.

2009 388 ppm CO₂

- **Another 1-in-100 year flood of the Red River**
(12 years after the last one) 12 inches of rain falls on frozen ground, second worst Red River flood.

2010 390 ppm CO₂

- **120 lightning fires start in 1 week in La Tuque**
smoke reaches Montréal, Ottawa and New England.

2011 392 ppm CO₂

- **3rd and largest flood in southern Manitoba**
1-in-300 year event, Brandon, Portage la Prairie & Lake Winnipeg affected by Assiniboine River flood and Red River flood.
- **Entire town of Slave Lake evacuated in May**
fire destroys the 1/3 of the town, \$750M damage.

2013 397 ppm CO₂

- **Worst floods in Alberta history**
32 states of emergency declared, 100,000 people displaced, downtown Calgary flooded, \$5B loss.
- **Thunderstorm creates flash floods in Toronto**
4 inches of rain falls in 2 hours, highways and subway stations flooded.

2014 399 ppm CO₂

- **Worst fires in Northwest Territories in 30 yrs**
8.6M acres burned, smoke reaches North Dakota, the Maritimes, and Portugal.

EXTREME WEATHER IN CANADA ☼ cont'd

2016 404 ppm CO₂

- **Fort McMurray wildfire**
20% of city destroyed, 88,000 flee, costliest weather event in Canadian history at \$9.9B, 1.5M acres burn.

2017 407 ppm CO₂

- **Flooding in Quebec, Montréal & Ottawa**
March blizzard & 2x the average rain in April floods many municipalities in St. Lawrence River Valley.
- **Central BC burns**
BC declares a provincial state of emergency July 17 which lasts until Sept. 15, largest total area burned in BC history (3M acres), 65K people evacuated. Major fires: 1) Hanceville-Riske Creek near Williams Lake, repeated evacuations as 3 fires merge over July & Aug., 561K acres burned; 2) Elephant Hill fire, south of Williams Lake, 474K acres burned; 3) Plateau Complex fire, north of Williams Lake, 20 fires merge, 1.3M acres burned (the size of PEI), largest fire in BC history.

2018 409 ppm CO₂

- **Downtown Grand Forks flooded**
an entire neighbourhood is declared unsuitable for rebuilding.
- **Saint John River floods again**
levels meet or exceed 2008, Fredericton & St. John.
- **Northern BC burns**
3.2M acres of BC burns, even more than in the previous, record setting, year. Smoke turns daytime skies twilight orange & spreads as far as Ireland. Major fires: Tweedsmuir Complex south of Burns Lake; the Babine Complex around Burns Lake; Johnny Creek near Williams Lake; Alkali Lake in the very north of BC.
- **Wildfire near Temagami**
only 550 acres burn but evacuation alerts devastate the local economy.

2019 412 ppm CO₂

- **The Ottawa River floods again**
many houses rebuilt after 2017 are damaged again, records broken in 2017 are broken again.
- **Saint John River floods again**
another exceptional year of flooding.
- **Northern Alberta burns**
3M acres of Alberta burn (3.5x the recent average), Alberta requests Federal assistance on May 31, many towns, settlements and reserves evacuated, High Level (5,000) the largest, smoke reaches Milwaukee, Detroit, Chicago, Kansas City, also Montana, South Dakota and Wyoming, air quality in Calgary is 10+ very high risk, smoke also reaches Vancouver, BC and much of the Pacific Northwest.

2020 414 ppm CO₂

- **Massive hailstorm in Calgary**
tennis-ball-sized hail causes \$1.2B damage, 4th costliest natural disaster in Canadian history at that time, Alberta claims 6 of Canada's 10 costliest disasters.

2021 416 ppm CO₂

- **Atmospheric river floods southern BC**
flooding in Abbotsford blocks the Trans-Canada and other highways & both rail lines, Vancouver and its port cut-off from rest of Canada; bridges & sections of the Coquihalla Highway are destroyed; mudslides trap 300 people; 630,000 animals die in the flood; provincial state of emergency declared; panic buying of gasoline leads to fuel rationing; costliest natural disaster in BC history. Inland, Princeton floods, natural gas lines fail, many are left without heat for days, flooded areas freeze. In Merritt, sewage treatment plant flood and all 7,000 residents evacuate.
- **Heat dome kills 619 people in BC**
10 days of over 40°C temps, deadliest weather event in Canadian history, 99% died at home, 103 all-time heat records set in Western Canada.
- **Lytton burns to the ground**
entire town burns down one day after heat record of 49.6°C (121°F) is set (highest temp. ever recorded in Canada, the U.S. outside of the Desert Southwest, Europe and South America).

2022 419 ppm CO₂

- **Wind storm travels Sarnia to Quebec City**
one of the most impactful thunderstorms in Canadian history, winds up to 190 km/hr (120 mph), 4 tornados, 1.1M without power, \$875M damage.
- **Flooding forces Hay River to evacuate**
ice jams, storms and waterlogged ground exacerbate spring flooding, entire community is evacuated.
- **Worst fires in Yukon Territory in 25 years**
250k acres burned, many communities on evac alert.

2023 421 ppm CO₂

- **Record setting fires burn across Canada**
about 5% of Canada's forest burns, 6x the long-term avg, more than 2.5x the previous record; 232,000 people displaced including 16,400 in Halifax, 21,720 in Yellowknife & 35,000 in Kelowna; Donnie Creek fire sets BC record (1.4M acres burned); smoke turns the skies of Toronto, Washington, DC Chicago, & New York dark orange, NYC has the worst air quality in the world, flights to NYC are halted; fires limit oil production in Alberta driving up the price of oil.
- **Fire forces Hay River to evacuate**
also, 87% of Yellowknife evacuates; 68% of the entire Northwest Territories is evacuated by Aug. 21.
- **July rains flood Nova Scotia**
a whole summer's rain in 1 day, non-stop lightning, 1,000 flee their homes overnight, 50 roads wash out.

2024 425 ppm CO₂

- **Flash flooding in Toronto again**
thunderstorm dumps 3" of rain in a few hours, highways flood stranding motorists, \$940M in losses.
- **Resort town of Jasper, AB burns**
2 forest fires merge & rapidly overwhelm firefighting crews, 25,000 evacuate, 1/3 of town destroyed, second costliest fire in Canadian history at \$880M.
- **Baseball-sized hail in Calgary**
\$2.8B loss, Canada's 2nd costliest weather event.
- **Atmospheric river floods Abbotsford again**
landslide closes Trans-Canada Highway.