

PROJECT MILESTONES

May 2018

- Grand Forks—a city covering 10.42 square kilometres with a population of about 4,000 people—is located at the confluence of the Granby and Kettle Rivers in British Columbia’s Regional District of Kootenay Boundary (RDKB).
- Prone to flooding from the Kettle, West Kettle, and Granby Rivers, Grand Forks experienced a 1-in-200-year flood in early May 2018 caused by a “perfect storm” of especially high snow-packs, warm weather, and spring rain. Peak flows reach 1,300 cubic metres per second, or the equivalent of three 25-metre swimming pools.
- As the rivers rose above previously recorded highs, response preparation began for what was called “catastrophic” flooding. RDKB activated an emergency operations centre, the City of Grand Forks declared a state of emergency, and an evacuation order was issued for 1,471 residential and commercial properties in the North Ruckle, South Ruckle, Johnson Flats, and downtown areas as well as areas along the Kettle and Granby Rivers and tributaries in the Boundary.
- More than 400 homes in those areas suffered moderate to major damage, with more than 50 being damaged beyond repair. Response measures such as public outreach, rescue operations, sandbagging, and the provision of needed services and supplies were undertaken collaboratively by local government



CTV News photo

officials, first responders, nonprofit organizations, the Canadian Armed Forces, and hundreds of local volunteers.

- On May 13, BC Minister of Public Safety Mike Farnworth assessed the damage and reported that Grand Forks should expect ongoing and long-term provincial assistance for flood mitigation measures.
- Boundary flooding was added to a list of authorized disasters covered by BC’s Disaster Financial Assistance (DFA) program. Eligible claimants had 90 days to apply for assistance to cover up to 80 percent of a claim to a maximum of \$300,000. Eligible applicants included local governments; charitable organizations; residential, commercial, and agricultural property owners; business owners; and residential tenants.
- In mid-May, RDKB initiated recovery planning and assessment at the Emergency Operations Centre.
- On May 16, BC Premier John Horgan promised to match up to \$20 million in donations to the Canadian Red Cross. The \$5.2 million raised before July 1 was used to help people forced from their homes.
- Nearly 50 trained rapid damage assessors began to evaluate the flood-damaged properties/dwellings and decided which structures were safe or unsafe for access.
- By the week of May 20, most evacuees who were cleared to return home had done so.

June 2018

- RDKB began developing a community-based recovery process called Boundary Flood Recovery. Over the next two months, groups accepting contracts to participate in the recovery organization

included the City (recovery management and critical infrastructure), Boundary Family Services (health and wellness), Community Futures Boundary (economy and agriculture), Collective Roots Consulting (environment), and Urban Matters (housing).

- Additionally, Canadian Red Cross, Samaritan's Purse, Mennonite Disaster Service, and multiple local organizations partnered at the local level to support recovery efforts.
- A provincial cross-ministry team led first by the Provincial Disaster Recovery Branch (in the Ministry of Forests, Lands, and Natural Resource Operations, then by the Community Recovery Branch (Emergency Management BC, PSSG) coordinated funding and strategic development, and acted as a liaison across agencies and as a policy liaison with local elected officials.
- Council adopted three resolutions to help flood-affected property owners. Utility charges and fees were put on hold for residences and businesses rendered uninhabitable or inoperable by the flooding.
- Council also committed to working closely with the Province and the public to access recovery funds for affected property owners.
- The RDKB Emergency Program hires Don Dobson to prepare a technical report outlining flood impacts, safety concerns, and recovery options for flooded areas.
- A public meeting on June 13 updated attendees about hydrological, flood-protection planning, financial, insurance, and housing issues.
- The City committed to exploring potential land/dwelling recovery costs for property owners, updating flood protection mapping, and undertaking a Critical Infrastructure Study.

- BFR hired an interim flood recovery manager to guide recovery efforts. A website was created to inform stakeholders about issues, efforts, and events.
- A handful of residents formed the Community Flood Impacted Advisory Group to advocate for affected citizens.

July/August 2018

- The BFR team hosted a community meeting on July 11 to follow-up on affected citizens' concerns and questions. Major topics of discussion included wellness and unmet needs, financial support, infrastructure upgrades, housing availability, and future flood potential.
- The BFR team and the City analyzed long-term flood-protection options based on technical peer review, and internal and external stakeholder discussion of Dobson's report over a series of meetings. Staff submitted the preliminary expression of interest to DMAP based on the outcomes of these analyses and workshops.
- The City conducted a survey to determine affected property owners' views about buyout options. Findings determined that most owners supported buyout if they received adequate compensation.
- Public meetings on July 25 and August 22 featured information about the BFR team and community recovery options outlined in the Dobson report.

September/October 2018

- With input from all stakeholders through public meetings and the buyout survey, Grand Forks Councillors decided in early September which flood-protection measures would best protect property and residents from climate change-related events and provide the lowest long-term risk.

- They chose to increase Grand Forks' climate resilience by mitigating the effects of flooding using a combination of traditional grey infrastructure and innovative natural infrastructure. (Re-establishing the floodplain would ease the risk of flooding by moving people and infrastructure from high-risk areas and provide more habitat area for riparian and aquatic species, including species at risk.)
- The options adopted by Council included:
 - Buying out approximately 130 properties needed for floodplain restoration and/or green infrastructure (the entire North Ruckle area for return to natural floodplain and the high-risk areas in the South Ruckle and Johnson Flats neighbourhoods);
 - Building three new dikes and raising high-priority roads;
 - Restoring floodplains and riparian areas and protecting critical sites from erosion; and
 - Helping affected residents find new homes.
- Estimated at \$60 million, these flood recovery measures were expected to unfold between 2019 and 2023.
- BC Housing committed to fast-tracking 52 new affordable rental homes for the community, including flood-affected residents, by the fall of 2019.
- Regular updates were provided to residents at meetings held on September 19 and October 3.
- As of mid-October, 41 properties were empty, about 20 properties had RVs for temporary accommodation, and 6 families were housed in the hotel/motel program.
- To help support affected property owners find temporary housing:
 - The Province funded standard-practice commercial lodging and billeting during the early phases of response and recovery (Emergency Support Services).

- Following the ESS phase, the Province and BFR developed a new Household Emergency Assistance Program, which provided up to \$2,850 per household per month for several months while families repaired their homes or found other options. Canadian Red Cross administered this fund and complemented it with Red Cross donated funds and community resources.
- In the winter of 2018-2019, the Province provided funding for the RDKB and City to host 20 households in commercial lodging for 3-6 months where their homes were not inhabitable. They also funded rental of propane tanks and bulk purchase of propane for 14 households who chose to live in recreational vehicles on their own properties.

- The BFR team wanted to develop new permanent solutions and had released plans to house 89



households who lost their homes in the *680 News photo* flood and needed help over the winter. Strategies included helping residents complete secondary suites, incentivizing laneway homes, and exploring workforce-style trailers, modular and mobile homes, and tiny homes from BC suppliers. This was expected to help meet short-term housing needs while building long-term capacity for affordable housing but didn't materialize due to funding constraints and lack of program mandates with senior governments.

November/December 2018

- Significant work was done to advocate for business funding through DFA and insurance coverage.
- In early December, the Province announced a partnership with the Red Cross valued at \$2.9 million for small business relief.
- The City hired Keystone Appraisals to estimate the values of properties identified for buyout. This information was needed to prepare an application for Infrastructure Canada's Disaster Mitigation and Adaptation Fund (DMAF). Two public meetings on December 13 presented information to South Ruckle residents and the general public.
- The City also hired consulting engineers from Associated Engineering/NorEx to provide cost estimates and support documents related to the physical flood protection and floodplain restoration works in the grant application.
- The City report to Council December 28 outlined estimated appraisal values for 89 residential units, 8 commercial units, 20 unimproved partial parcels, and 20 unimproved vacant parcels. Outlined in the report was the estimated difference between pre-flood and post-flood values (+/- 37 percent).
- Pre-flood values for all properties totalled \$17.25 million, compared with \$10.65 million for post-flood values, leaving an overall difference of \$6.6 million. However, the City calculated a 17% contingency for the grant application, so the actual funding shortfall was approximately \$4.4 million. The average residential loss reported was \$79,000.
- Pre-flood values for residential properties totalled \$19.3 million, compared with \$11.7 million for post-flood values, leaving a shortfall of \$6.6 million. The average residential loss reported was \$79,000. Appraisals for commercial properties ranged from \$4.4 million for pre-flood values to \$3 million for post-flood values.

- These findings and property owners' focus on post-flood "fair market" values—along with the knowledge that federal and provincial funds are eligible only for current market value—caused subsequent frustration and push-back from already-stressed property owners.
- A study by the National Institute of Building Sciences found that for every dollar spent on hazard mitigation, six dollars can be saved in future disaster and recovery costs.



CBC News photo

January/February 2019

- The City received a report from NOR-EX Engineering Ltd. that also informed development of the DMAF application. Included were details and costing for: 1) property buyouts; 2) required archeological, environmental, and hazard-risk assessments; 3) cost analyses for the design and construction of floodplain restoration and green infrastructure; and 4) project management.
- The RDKB Emergency Program announced a Flood Response Plan for 2019 and restated strategic flood response priorities: public safety, health and wellness, housing, economic revitalization, environmental resilience and adaptation, public engagement, and equitable decision-making.
- The BFR team, on behalf of the City, reported at late-January and mid-February public meetings that the City had applied for a \$49.9 million DMAF grant to cover the costs of property buyouts and flood

protection infrastructure including wetlands, dikes, storm drainage, and riverbank stabilization.

- The City also applied for a \$3-million grant from the National Disaster Mitigation Program (NDMP) for flood protection and stormwater improvements on the east side of downtown.

March/May 2019

- Infrastructure planning and preliminary upgrades and flood-protection measures such as bank stabilization were ramped up.
- The City was informed that it had not received NDMP funding.
- Mennonite Disaster Service Canada began repairing and rebuilding homes for people who were considered in high need based on health, age, disability, or finances.
- A public meeting on April 30 provided flood-recovery updates.
- Thunderstorms in May brought heavy rain but no major flooding.

June 2019

- Businesses got a crash course in economic development from downtown revitalization consultant Roger Brooks.
- Residents ramped up discussion about pre-flood vs. post-flood land values. The City reported that while pre-flood values were preferred, it could not afford to make up the difference.



- RDKB tests its new Emergency Alert system.
- Researchers working with the Federation of Canadian Municipalities reported that Canada’s economic well-being depends on adapting vital infrastructure to protect against the environmental impacts of climate change.
- Grand Forks received \$53 million for flood response efforts, including provincial funding for the work submitted under the NDMP program. The federal government provided nearly \$20 million, the Province pledged almost \$28.9 million with an additional \$2.6 million to secure the downtown, and the City promised \$1 million.
- Between \$12 million and \$15 million was earmarked to buy affected properties at “fair market value,” meaning post-flood values, in 2019 and 2020. The remainder is targeted for floodplain restoration and green infrastructure upgrades.

July/August 2019

- DFA payouts to that date were about \$2.2 million. Insurance payouts were unknown, but most properties weren’t insured.
- The City hosted numerous meetings to provide opportunities for discussion with the public about buyout issues such as affordable rental options, moving houses or placing manufactured/mobile homes, buying or trading City-owned land, and the development of co-op housing, condominiums, or townhomes.
- Flood-affected property owners pushed back on the post-flood value being offered through the grant funding. They argued that flood victims in other provinces had received pre-flood values in similar situations. *CTV News photo*
- Council learned that half of affected households would receive less than \$100,000 for their properties, and that many homeowners

would not receive enough compensation to move and/or establish themselves within the city.

- Council considered what “in-kind” support it could offer affected property owners in lieu of them receiving pre-flood land values (e.g., property leases or purchases, funding support for moving mobile homes, deferred taxes and fees for existing and/or future properties, and affordable rentals).
- These in-kind support opportunities were reviewed with property owners in the buyout areas, with little support without further financial compensation.
- Infrastructure planning and upgrades continued.
- Affected property owners started a petition for Minister of Public Safety Mike Farnworth calling for compensation at pre-flood land values. Council supported their efforts by sending letters to the appropriate officials.

September 2019

- A meeting with “Owners of Properties the City wants to Repurpose for Future Flood Infrastructure” noted the use of the Sendai Framework, which the BFR team and the City were already using when responding to flood risks. The four-part framework includes: 1) Understanding the risk; 2) Strengthening disaster risk governance to manage disaster risk; 3) Investing in disaster risk reduction for resilience; and 4) Enhancing disaster

preparedness for effective response, and to “Build Back Better” in recovery, rehabilitation, and reconstruction. Residents suggested the local approach would not “build back better” if it put people further into poverty.

- The same group requested regular information in writing about all flood recovery efforts, including:
 - Appraisal processes and outcomes
 - Buyout processes and timelines
 - Project milestones and public events
 - Grant agreements, requirements, and outcomes
 - Flood mitigation infrastructure planning and upgrades.
- Some affected property owners asked the City to hold a referendum asking for a tax increase to cover the \$6.6-million shortfall in pre-flood vs. post-flood land values. The request was considered but denied due to anticipated pushback for an estimated \$200+/parcel increase in taxes.

- Other homeowners requested that trained mediators be contracted to act as intermediaries during negotiations between them and the City. They were told this would be addressed after the land acquisition team is named in October.



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- The City invited residents in the buyout areas to complete a survey about in-kind options.
- A public meeting on September 19 reported that:
 - The grant agreement with senior governments would be finalized after the federal election on October 21.

- The land acquisition process and timelines would be finalized by the selected consulting team once the grant agreement is finalized in November.
- Residents would then receive mailed notices about their appraisals and could set up individual meetings.
- The City hired a Capital Program Manager to implement all City-related flood protection projects.
- The City is committed to improved communication and engagement with project and community stakeholders to ensure they have a say in decisions regarding their futures.

October 2019

- The City issued an RFP for land acquisition team (LAT) consultants.
- The City reviewed LAT proposals and re-issued the RFP to include new commitments for in-kind land and title support.
- The City approved implementation of a project Communications Plan developed by Alliance Communications (AC) to ensure all stakeholders and partners are well informed/engaged in discussions about important issues, efforts, and events as the project unfolds.
- The City adopts **Recovery to RESILIENCE** as the project/ campaign brand.
- AC develops key messages for internal audiences to ensure common project understanding, a collective commitment to speak with a unified voice, and compassionate approaches to affected property owners.
- AC develops key messages for external audiences to ensure they receive clear, concise, and timely messaging about land acquisition and restoration processes and timelines.

- The City launches the **Recovery to RESILIENCE** project/brand October 28 in a mailout to affected property owners. The project is intended to:
 - Help affected property owners find and relocate to replacement homes in 2019-2020;
 - Optimize communication and collaboration among key stakeholders during floodplain restoration and infrastructure replacement from 2020-2023; and
 - Foster the community healing needed for unity and prosperity into the future.



November/December 2019

- AC and the City developed project-specific communication tools such as a project webpage on the City's website, a project email to provide subscribers with regular updates and templates for media releases and general mailouts.
- City launched its **Recovery to RESILIENCE** project through the local media, on a dedicated webpage, and in a mailout to all households.
- The City selects Keystone Appraisals to design and deliver the Land Acquisition Program (LAP).
- The City and Keystone host a kick-off meeting with input from Grand Forks Citizens Facing Expropriation to outline land acquisition processes, timelines, opportunities for public input and engagement.

At the meeting, and in a follow-up media release, the City acknowledged and apologized for missing key opportunities to communicate and consult with affected property owners during critical times in the development of mitigation and land acquisition programs.



stock in the city. A detailed work plan for assessing the options will be provided to Council in February, after which City staff and Keystone will share information with the community as feasibility and planning work proceeds.

- Keystone staff set up an office in Grand Forks and begin hosting group and one-on-one meetings with affected property owners.
- Global News aired a number of videos produced by Shelby Thom to explore flood mitigation and land acquisition issues and the roles played by all levels of government.

January 2020

- Council approved the Land Acquisition Program (LAP) design submitted by the Land Acquisition Team (Keystone Appraisals Inc.) on January 20th. Details of the plan, including the approved method for determining fair market value and additional compensation factors, were uploaded to Keystone’s website and shared via a letter to affected property owners the following week.
- On January 27th, Council also approved budget for a detailed feasibility study and funding plan to support the City’s In-Kind Reinvestment Program. The City and Land Acquisition Team remained committed to this program, through which serviced City lots and the relocation of moveable houses would be offered as “in-kind” support for affected property owners and to maintain housing