



INFORMATION ONLY COUNCIL REPORT  
Engineering / Public Works  
For the May 12, 2020 Council Meeting

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DATE: April 29, 2020  
TO: Paul Gipps, CAO  
FROM: Jason Brolund, Fire Chief  
Stacey Harding, Parks & Fleet Operations Manager  
RE: Emergency Preparedness – Wildfire and Flooding Update

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**STRATEGIC PRIORITY OBJECTIVE:**

Foster Safety and Well-being – Emergency Preparedness and Wildfire Mitigation Measures

**BACKGROUND:**

This report continues the series of annual updates Council is provided on activities and progress to reduce the impacts of Wildfire in the City of West Kelowna as well as a review of Flood Planning for the 2020 freshet season. All of these emergency preparedness and response plans are now significantly affected by COVID-19.

Mitigation through forest fire fuel reduction is an annual ongoing activity involving City staff, contractors and the general public. Mitigation activities are driven by scientific direction outlined in the 2018 West Kelowna Community Wildfire Protection Plan, which was adopted by Council in December 2018. The plan can be viewed at:

<https://www.westkelownacity.ca/en/city-hall/resources/Documents/CWPPUpdate-26OCT2018.pdf>

In 2019 and 2020, funding has been provided by Provincial 'Community Resiliency Investment' (CRI) and 'FireSmart' grants as well as from budgeted City funds. The CRI funding condition to date has been focused on protecting critical public infrastructure.

The scope of this report will be a review of 2019 wildfire mitigation initiatives and a look forward to 2020 freshet, flooding and wildfire mitigation activities.

**CRI 2019**

In 2019 the City of West Kelowna was awarded a \$100,000 grant and in combination with City funds completed the 'Prescriptions' or working documents to clean up the fuel loading in four different areas of the City.

1. East side of Mount Boucherie (currently underway)
2. Around the perimeter of the Powers Creek Treatment Plant (complete)

3. North Rosewood slope (coming weeks)
4. Davidson Creek Park, north of Shannon Woods (coming weeks)

This spring, contracted crews are busy falling trees and cleaning up needles and limbs on the forest floor in these locations. The debris will either be piled and burned through a Special Burning Permit issued by Chief Brolund or will be finely chipped and evenly spread for decomposition. It is anticipated these works will be completed before winter 2020.

### CRI 2020

Again, in 2020 the focus remained on mitigation activities to protect critical public infrastructure as defined in the CWPP.

The CWK was awarded a grant for \$64,500 for the creation of prescriptions and operational treatments of two primary areas.

1. The lower west and north face of Mount Boucherie
2. The wooded area around the chlorine intake for the Rose Valley Dam

Adding protection for one of drinking water sources and also our only high school and City Hall which houses critical records and electronics.

These projects will be tendered in May 2020 and projected to start in the fall of 2020. The Province is expected to offer another CRI uptake this fall for 2021 projects and staff will bring forward a request for Council to endorse this application in due course.

### FireSmart Programs

Local governments have very limited statutory authority to enforce fuel mitigation and fire prevention activities on private land. Consequently, public education and awareness of "FireSmart" principles has been the primary focus of wildfire prevention and mitigation.

Due to the provincial restriction on public gatherings, the 6<sup>th</sup> annual 2020 FireSmart Family Day has been postponed. This flagship FireSmart event will be hosted once the COVID pandemic situation has passed.

In 2019, as a pilot project, WKFR staff established innovative, out-of-the-box solutions to incite and encourage private property owners to do work to improve the survivability of their homes in a wildfire. The program resulted in the following:

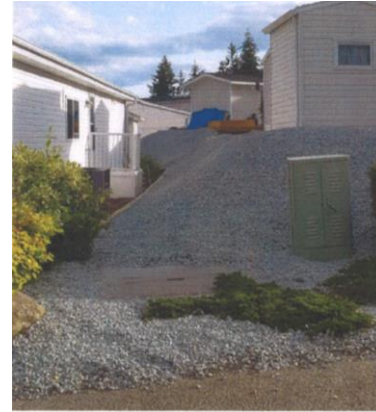
- \$5,850 in FireSmart Mitigation Grants were provided to 23 individuals who undertook a wide variety of activities to mitigate their private properties against wildfire threats.
- \$534 was distributed in the form of dumpster bin rentals for neighbourhoods and for 36 loads of wood debris that was taken to the regional landfill, at no cost to the property owner.

*For example - 1850 Shannon Lake Road:*

*Using the FireSmart Home Assessment, residents in a mobile home community identified that junipers presented a high fire hazard that affected four surrounding properties. The four individual residents worked in partnership to remove the combustible vegetation, rented a stump grinder, dumpster, and stone slinger truck. Residents landscaped the treated area with a non combustible alternative (rock). For this application a total of \$1000.00 was distributed between the homeowners and is a great example of using FireSmart principles to reduce wildfire risk.*



**Before**



**After**

In 2020 and despite COVID, these activities will continue. Staff hopes to expand the reach and success of the program electronically. The new FireSmart App will be available to help property owners with assessments. Applications will be available online and will be submitted electronically. Vouchers will be e-distributed to the public.

While subject to change, staff anticipates allocating funding as follows:

- **\$2,000** –to offset tipping fees at the Westside Transfer Station for private property owners who have completed mitigation works as per the FireSmart Guidelines. WKFR staff trained in FireSmart Assessments will verify and approve.
- **\$3,000** –to provide collection bins or chipping services at the neighbourhood level for residents to deposit materials from mitigation activities on private properties.
- **\$15,000** –to provide thirty \$500 grants to private property owners who undertake larger scale activities to improve their properties as per FireSmart guidelines. WKFR staff trained in FireSmart Assessments will give approval following verification. This could include actions such as: (but not limited to)
  - Replacing combustible roof and siding materials
  - Removing cedar hedges and replacement with low density, fire-resistant plants
  - Increasing tree spacing, removing limbs and creating defensible space around structures
  - Installing dedicated wildfire suppression systems (sprinklers on buildings)
- **\$6,000** - advertising and providing promotional materials related to the initiatives above.



**Door “wrap” installed for 2020 at Fire Station #34 (Glenrosa) to promote Grant Program**

### WFN Partnership

In 2020, WFN will also participate in the FireSmart Grant Program. Their portion of grant funding will be fully covered under our long term fire service agreement.

### Prescribed Burning

Prescribed burning is a highly regulated, controlled and confined process of intentionally lighting low burning forest floor fires to consume forest fuels via natural processes. Detailed ‘Burn Plans’ are created by professional foresters and vetted through the Province for authorization. Historically they have been done in remote Crown or First Nations lands but CWK staff have been working towards a Provincial first, employing this cost saving method to treat City owned parkland as well as bordering crown lands.

The program in development would be done via a conglomeration of industry experts and safety officials. The City would be represented by West Kelowna Fire Rescue and Parks, BC Wildfire crews, contracted fuel modifications crews and registered foresters acting as the ‘Burn Boss’. Control lines staffed by fire fighters and post monitoring are components of the “Burn Plan” which is reviewed and approved by the province.

The program would be supported by an extensive public Information effort and could only be done when stringent air quality conditions permit open burning. The preparation and logistical planning is also extensive. All conditions aligning themselves may be challenging however staff wish to be staged to utilise the opportunities of working with BC Wildfire crews and industry experts in reducing costs and increasing City fire protection.

Unfortunately, due to the suspension of all Open Burning Activities by the province in April 2020 – forward progress on this initiative has been paused. It is expected that open burning will not be allowed until the fall of 2020. The burn plans that were developed are under a 3 year approval for action during the spring or fall season – so progress will resume as permitted by the Province, when air quality objectives can be met.

## Freshet and Flood Preparation 2020

West Kelowna staff have received accolades for their planning, preparation and execution of measures during the 2017 and 2018 floods. Fortunately, 2019 was a quiet year on the freshet and flood front. However, this same level of professionalism remains today and is ongoing. Freshet and Flood season brings together CWK staff from across the organization to protect the community. Teams not normally tasked to work together stand alongside each other and strong relationships are forged between departments.

The City has an internal Flood Preparation Committee chaired by the Parks & Fleet Operations Manager and is comprised of the following departments:

- Engineering
- Public Works
- Parks
- West Kelowna Fire Rescue
- Roads & Drainage
- Utilities
- Finance
- Communications
- Flood Remediation
- Planning

CWK and WKFR staff maintain a strong link to Emergency Management BC, the Regional Emergency Program and the Emergency Operations Centre. Planning for potential events in 2020 is well underway, working alongside our Regional and Provincial colleagues. Activities include but are not limited to,

- Sand bag orders and stockpiling
- Public sand bag station preparation
- Detailed weather monitoring
- Groundwater monitoring
- Drainage patrols
- Creek and culvert clearing
- Snow shed calculations
- Storm pattern development
- Equipment preparations

Should the situation worsen, planning is well underway in drafting Local State of Emergency declarations, provincial resource requests and expenditure authorizations. Delayed snow pack melt, sudden warming trends and heavy spring rains are trends we watch for, however our staff are mindful and preparing.

## Current (Mid April) Flooding Forecast

City staff are actively involved with snow pillow monitoring and reviewing the BC River Forecast Centers predications. A critical sequence of events of 'rain on top of snow events' are monitored through Environment Canada. At present Provincial officials share optimism that Okanagan Lake flood risks are low. However, the slow to emerge spring melt and plenty of snow in the mid and higher levels has staff keenly aware of daily forecasts and changing conditions.

## Impact of COVID-19

The worldwide impact of COVID-19 has played heavily into Emergency Preparedness in CWK. Events such as FireSmart Family Day (May 2020) have been cancelled due to restrictions on gatherings. The cancellation of open burning has impacted wildfire mitigation projects. Many planning meetings and EOC meetings have been migrated to virtual platforms.

Staff have worked hard to prepare for a Freshet, Flood and Wildfire season under very different conditions than ever before. If flooding or wildfire events are to occur in our region, the response will be far different from what staff have been accustomed to in the past. Factors such as physical distancing will require new methods of conducting emergency work. Assistance from Provincial (BC Wildfire) and Federal (Canadian Armed Forces) may be less available and/or operate differently than we are used to. In all cases, tasks will take longer in order to maintain the health and safety of all involved. However, plans have been adapted and staff feels we are adequately prepared for conditions we will face.

Striving to protect staff is a 2020 Safety Goal that is in the process of adoption. One of the measures completed are individual departments completing Hazard Assessments specific to their areas of work. In addition, staff is working alongside the Province to comply with safety precautions for front line responders to flood and fire. WorkSafe BC has been very clear with respect to social distancing and staff want to ensure compliance.

## FINANCIAL IMPLICATIONS:

Grant funding is represented in the Annual Financial plan as both revenue and expense.

Existing budgeted funds of \$25,000 will be used for prescriptions and operational treatments as per the CWPP and the remaining \$25,000 budgeted will be used by WKFR to incent mitigation on private properties. WFN will fund their portion on grants given to WFN properties under the program.

## REVIEWED AND APPROVED BY:

Allen Fillion, Director of Engineering & PW  
Warren Everton, Director of Finance/CFO  
Tracey Batten, Deputy CAO/Corporate Officer  
Paul Gipps, CAO

PowerPoint: Yes ☒ No ☐