FIRESMART

FIRE SERVICE ASSOCIATION OF NOVA SCOTIA 2023 CONFERENCE

WHO I AM?

- 30 YEARS AS VOLUNTEER FIREFIGHTER
- 30 YEARS AS WILDLAND FIREFIGHTER
- 25 YEARS AS SEARCHER WITH SEARCH AND RESCUE
- WILDFIRE PREVENTION OFFICER
- PUBLIC INFORMATION OFFICER/FIRE INVESTIGATOR

UNDERSTANDING WILDFIRE BEHAVIOUR

WILDFIRE BEHAVIOUR

CROWN

INTERMITTENT

SURFACE

FACTORS

- **Fuel** (Softwood/Hardwood/Grass/Slash) arrangement

- **Topography**

- **Weather** – Fronts/Winds, rain, humidity/temp

- **Aspect** – South (Warmer/Drier)North (Cooler/wetter)

- **Time of Year**:
  - Spring – Surface, frozen ground, ice in forests
  - Late Spring/Early Summer – Dry fine fuels, spring dip, fast moving, not deep
  - Mid to late Summer – Drought, deep burning, shorter days = lower temp/higher humidity but also hurricane season.

DIRECT FLAME

CONVECTIVE/RADIANT HEAT

FIRE EMBERS

FIRE IMPACTS ON STRUCTURES – METHODS

PORTERS LAKE FIRE 2008

FIRE IMPACTS ON STRUCTURES – HOME IGNITION ZONES

- 0-1.5m – Non-Combustible

- 1.5m-10m – Reduced combustibles (pruning, thinning, mowing and raking, moving wood etc)

- 10m-30m – Increasing the barrier with same techniques, promoting hardwood, mowing if possible, removing dead/dying and SW

Porters Lake Fire June 13, 2008 – Urban Interface where wildfire met structures

Spryfield Fire April 29, 2009 – Fringe is where there are separated structures

FIRE IMPACTS ON STRUCTURES- W.U.I (wildland urban interface)

FIRE SMART COMMUNITIES – ASSESS/PLAN AND ACTION

- Looks at neighbourhoods or subdivisions as a whole and gives percentages to evaluate

- Looks at water supply, forest stand and management, home construction, past fire occurrences, recreational uses, critical infrastructure, access

- Pull together a report and plan and action items, present to community.

FIRE SMART COMMUNITIES – PREPAREDNESS DAY AND RECOGNITION PROGRAM

Applications for Prep Day grant $500 open in fall

Neighbourhood Recognition

FIRE SMART COMMUNITIES – LOCAL FIRE SMART REPRESENTATIVE/CHAMPIONS

- LFR – Is a first responder or agency rep who has taken the one-day training in community risk assessments

- With the Provincial Liaison (ME) we complete an assessment.

- Compile a report and plan of action

- Plan a community cleanup day/larger scale project

- Track volunteer hours and resources used/rented etc.

- Apply for Community recognition status

FIRE SMART HOMES- ADVANCED ASSESSMENTS TRAINING

- 19 Trained Assessors

- 3 Agencies (HRM Fire, CMM, DNRR)

- Individual homes assessed

- Private report goes to only homeowner.

- Looks at home construction, access, forest stand and proximity, landscaping.

NOT SO FIRE SMART HOMES

FIRE SMART HOMES

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FIRE SMART LANDSCAPES – PLANTS & MULCH

- High Water Content
- Low Shed
- Drought Tolerant
- Avoid evergreen shrubs, mulch

FIRE SMART LANDSCAPES – FOREST AND LANDSCAPE

- Hardwoods – Low risk
- Mixedwoods – Medium/high depending on percent of dead
- Softwoods – Most fire receptive (pitch/resin)
- Clearcuts – Approximately 10 fires per season/low risk
- Grass/Bog – High risk of control/injury

Hurricane/Wind Damage Issues

- Species and arrangement dependent on how much more it will spread (Acts like S3 fuel)

- After the fine fuels (needles/leaves) die, the logs are less of a risk and eventually contain more moisture.

- Access/Firefighter safety

- Less recreational use or operations in – So less human related fire but chance for lightning. Where we may have issues is from machinery and cleanup/sparks

- Key messages for public is burn restrictions/mitigation – where you burn materials or provide alternatives.

STATISTICS OF SLASH FIRES

o 2011 – 10.5 hectares burned in Slash fuels (Season Total 150.4ha)

o 2012 – 32.56 hectares burned in Slash fuels (Season Total 817.1ha)

o 2013 – 18.52 hectares burned in Slash fuels (Season Total 301.5ha)

o 2014 – 32.69 hectares burned in Slash fuels (Season Total 564.4ha)

o 2015 – 89.27 hectares burned in Slash fuels (Season Total 517.2ha)

o 2016 – 46.62 hectares burned in Slash fuels (Season Total 754.9ha)

o 2017 –   8.71 hectares burned in Slash fuels (Season Total 728.3ha)

o 2018 – 13.96 hectares burned in Slash fuels (Season Total 251.1ha)

o 2019 – 10.97 hectares burned in Slash fuels (Season Total 154.5ha)

o 2020 – 54.89 hectares burned in Slash fuels (Season Total 707.1ha)

o 2021 – 10.81 hectares burned in Slash fuels (Season Total 197.2ha)

o 2022 – 70.66 hectares burned in Slash fuels (Season Total 3389.1ha)

FIRE SMART FIRST RESPONDERS - PREPLANNING

- If you are doing structural preplanning, you can add in home/business assessment

- Let's you know where your highest risk area of response zone are

- This helps in focusing resources and tactics.

- You can let community know how they fared out for more awareness and mitigation.

FIRE SMART FIRST RESPONDERS – TRAINING

- Community Champion Workshop
- Local FireSmart Representative training
- Advanced Home Assessments
- Community Risk assessments and public workshops

FIRE SMART – NOVA SCOTIA

Community Risk Assessments
Wildfire risk assessments completed in Nova Scotia
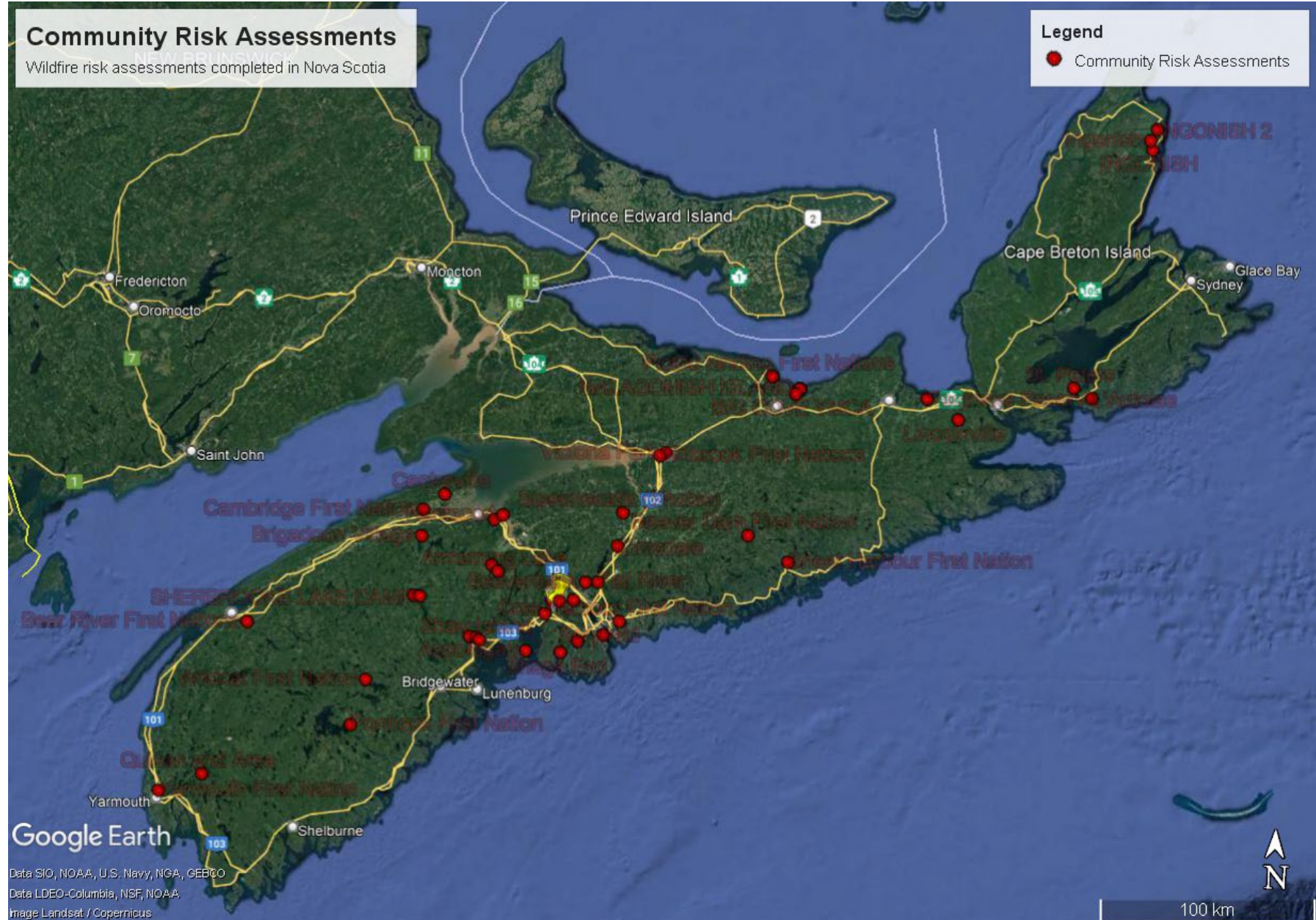
FIRE SMART NOVA SCOTIA

CMM – Trial with Bear River

- Community Assessment/home assessments

- Clean-up around community centre, and other large buildings

- Fuel Break around boundary

- Road and Civic Signs

- Fire and Chainsaw Training

- Awareness sessions

- Applied for FireSmart Community status

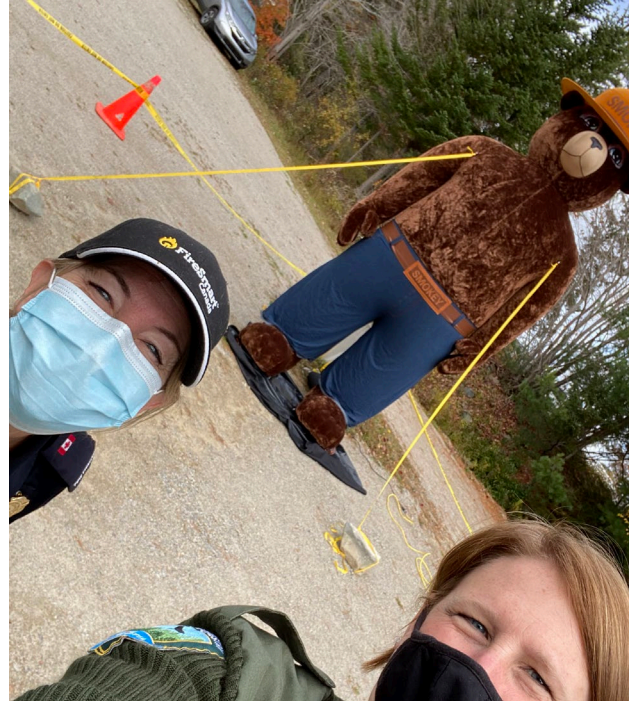- Gold River, Wildcat and Ponhook will be doing similar work with a new grant

FireSmart Nova Scotia

Halifax Regional Fire

- Implementing a new FireSmart Strategy

- Trained firefighters in Advanced Assessments

- Pulling together a plan to implement assessments and action

- Westwood Hills, Bayside ongoing assessment work (dry hydrants, mitigation plan)

West Hants & Lunenburg

Led by LFR Jennifer Daniels

- Vaughan area Falls lake, Chateau Village and Chalet Hamlet all working together to complete community assessments.

- Chateau village awarded $10,000 grant for work

- Aspotogan, Chester area ongoing work much of the work in Lunenburg is Bruce Blackwood/Angela Henhoeffer with EMO pushing.
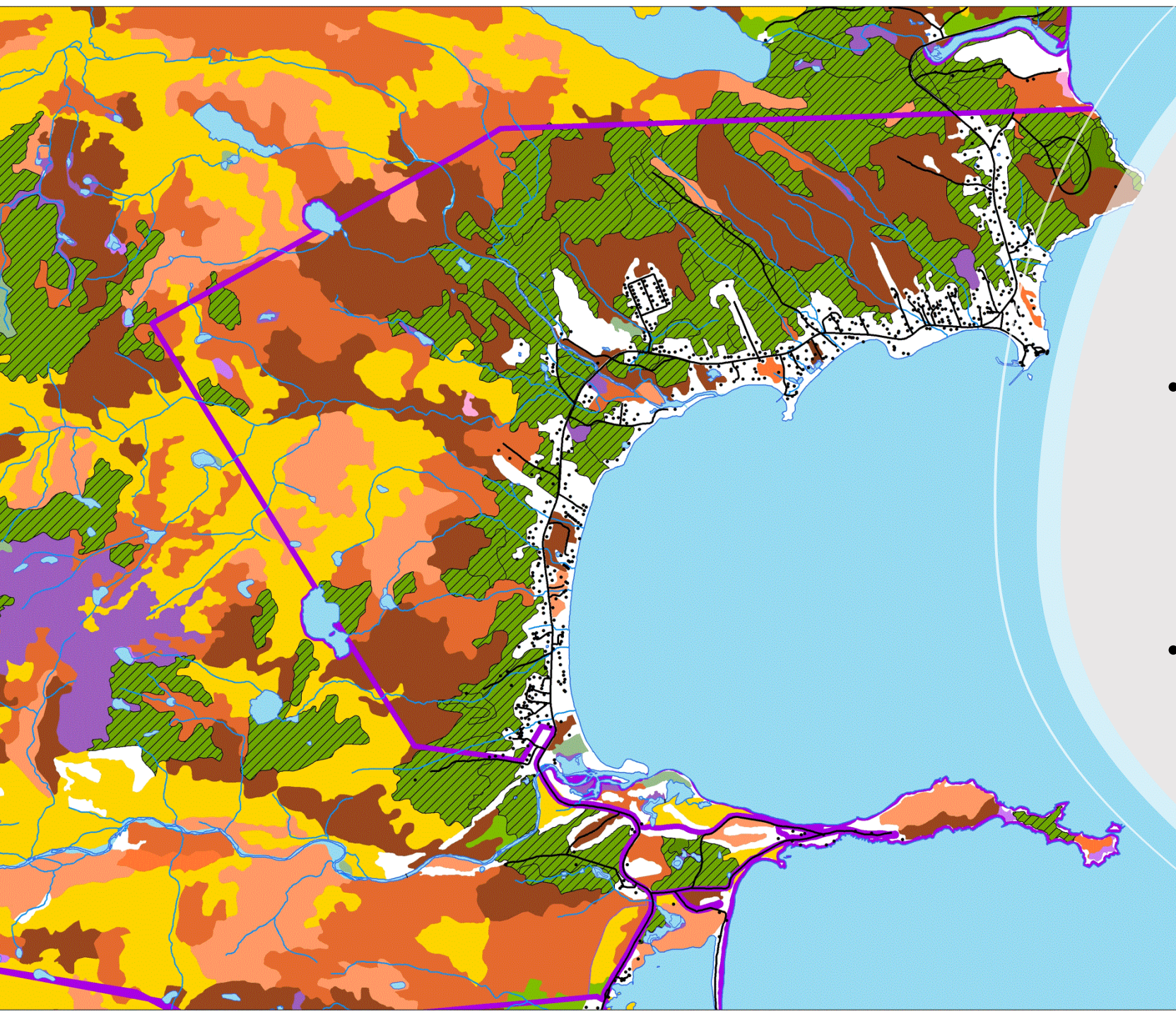
FIRESMART PARKS CANADA AND DND

- Parks Canada has completed mitigation in Highlands and is working at Seaside adjunct and Kejimikujik Parks, working with communities.

- DND has completed work around magazine hill and some other bases/lands to reduce fire spread in and out.

Note: Map is for demonstration purposes only.
For accurate fuel types conduct a ground truthing survey
Fuel Type data is from 2018.
Date: 2021-10-06

Advanced Home Assessments

FIRESMART AWARDS

Community Prep Day Grants $500 2023

- Acadia First Nation - Western NS
- Chalet Hamlet - West Hants
- Falls Lake Resort - West Hants
- Lake Charlotte Heritage Village - HRM
- North Preston - HRM
- The Pointe at Aspotogan - Lunenburg County

Wawanesa Insurance - $10-15000 grant Chateau Village in West Hants

Climate Change and other grants

WHERE CAN YOU FIND RESOURCES

- FireSmart Canada or Nova Scotia Facebook Pages

- www.firesmartcanada.ca

- https://experience.arcgis.com/experience/0ee935539ce5495d86ce607d11a57a30 - Nova Scotia Wildfire Viewer

- https://novascotia.ca/burnsafe/

- www.smokeybear.com

- https://firesmartbc.ca/ember/

- (96) Mi'kmaq Wildfire Prevention and Mitigation - Bear River NS - YouTube

THANK-YOU

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