Guideline 6.7

Determination of grassland Fuel Reporting in the ACT – Observation, Validation and Distribution

The ACT Rural Fire Service Chief Officer has issued this guideline under Section 38(1) of the *Emergencies Act 2004* – A Chief Officer may determine standards and protocols.

Document information

Version history

Author	Version	Version Approval Date	Summary of Changes
Ailish Milner	1.0		First draft version for approval

Reviewed by

Name	Title/Role	Signature	Date
Rohan Scott	CO ACT RFS		03.12.2020

Approved by

Name	Title/Role	Signature	Date
Rohan Scott	CO ACT RFS		03.12.2020

Related documents

Document name	Prepared by	Version

Note that signed documents will be scanned and filed in TRIM.

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Introduction

Grassland curing is the process in which grasses die or become dormant and dry out. Curing is measured as the percentage of dead material in a grassland.

Curing data provides the necessary information to:

- Assess the onset of the grassfire season and decide when to implement fire restrictions
- Provide better information for community warnings
- Determine Fire Danger Ratings and Total Fire Bans
- Calculate potential grass fire behaviour and rate of spread
- Allocate firefighting resources appropriately for standby and response

Grassland Fuel load is assessed by the quantity and continuity of grass. Fuel quantity is the amount of fuel present which will burn readily in a fire. Fuel continuity describes the ease of which fire can spread from one area to another.

Purpose

The ACT Rural Fire Service has responsibility for determining grassland fuel reporting in the ACT.

The purpose of this document is to set out the arrangements and process for assessing grassland fuel in the ACT.

Curing in the ACT will be estimated utilising a system that automatically amalgamates the current satellite data (provided by the Bureau of Meteorology) and with field observations to produce a grassland curing map. This data is used as input to calculate the Grassland Fire Danger Index. The system is named VISCA (Victorian Improved Satellite Curing Algorithm).

The system includes an automated online system for the collection and storage of field data and a standardised training package for field observers.

The Victorian Country Fire Authority (CFA) maintain the database and Visca model use for curing assessment.

Observation and Validation of Grassland Fuel Reporting in the ACT

During the bushfire season (or when otherwise determined by the Chief Officer ACTRFS), the ACT will update grassland fuel on weekly basis following the processes detailed below:

1. Observation:
    a. Field Observations undertaken by Observers across ACT sites, weekly
    b. Field Observation will be input to the Visca site by 1700 Wednesday https://nemp.act.appspot.com.

    Notes
        i. See attachment 1 for location of sites
        ii. ACTRFS undertake assessment at sites: East Ainslie, West Jerrabomberra, Tidbinbilla
        iii. ACT PCS undertake Assessment at sites: Cook Horse Paddocks, Coppins Crossing and Gungaderra (when required)

iv. Field Observers to liaise if unavailable to assess allocated sites
v. A minimum of 6 trained field observers will be maintained
vi. RFS Strategic Planner is responsible to maintain Observer list and coordinate training.

2. Validation
    a. The Visca grassland curing model is generated by CFA, combining BoM satellite curing and Field Observations. This is provided to agencies for validation 0900 Thursday
    b. Visca Map for the ACT validated ACT PCS by 1200 Thursday.

    Notes:
        i. The map will be taken as validated by the BoM unless they are advised by exception by a Validator
        ii. RFS Strategic Planner is responsible to coordinate identification of Validators, with one from ACTRFS (when required) and one from ACT PCS.

3. Distribution of Gridded forecast
    a. BoM provides Visca derived Curing and GFDI as gridded forecasts data in the Australian Digital Forecast Database (ADFD)
    b. This is available through BoM registered users page.

Determination of curing and fuel load for BoM Daily Fire Weather forecast

1. The BoM daily 'Fire Weather Forecast for the ACT' describes curing for three locations (Canberra, Tuggeranong, Mt Ginini).

2. Curing for the 'Fire Weather Forecast for the ACT' will be calculated weekly by ACTRFS in consultation with ACT PCS.
    a. Mt Ginini is alpine woodland and will be set at default 0
    b. Grassland Curing at Canberra will be determined as the average of the curing for the 8 'North Canberra' ADFD Grids at Attachment 1
    c. Grassland Curing at Tuggeranong will be determined as the average of the curing for the 15 'South Canberra' ADFD Grassland Grids at attachment 1.

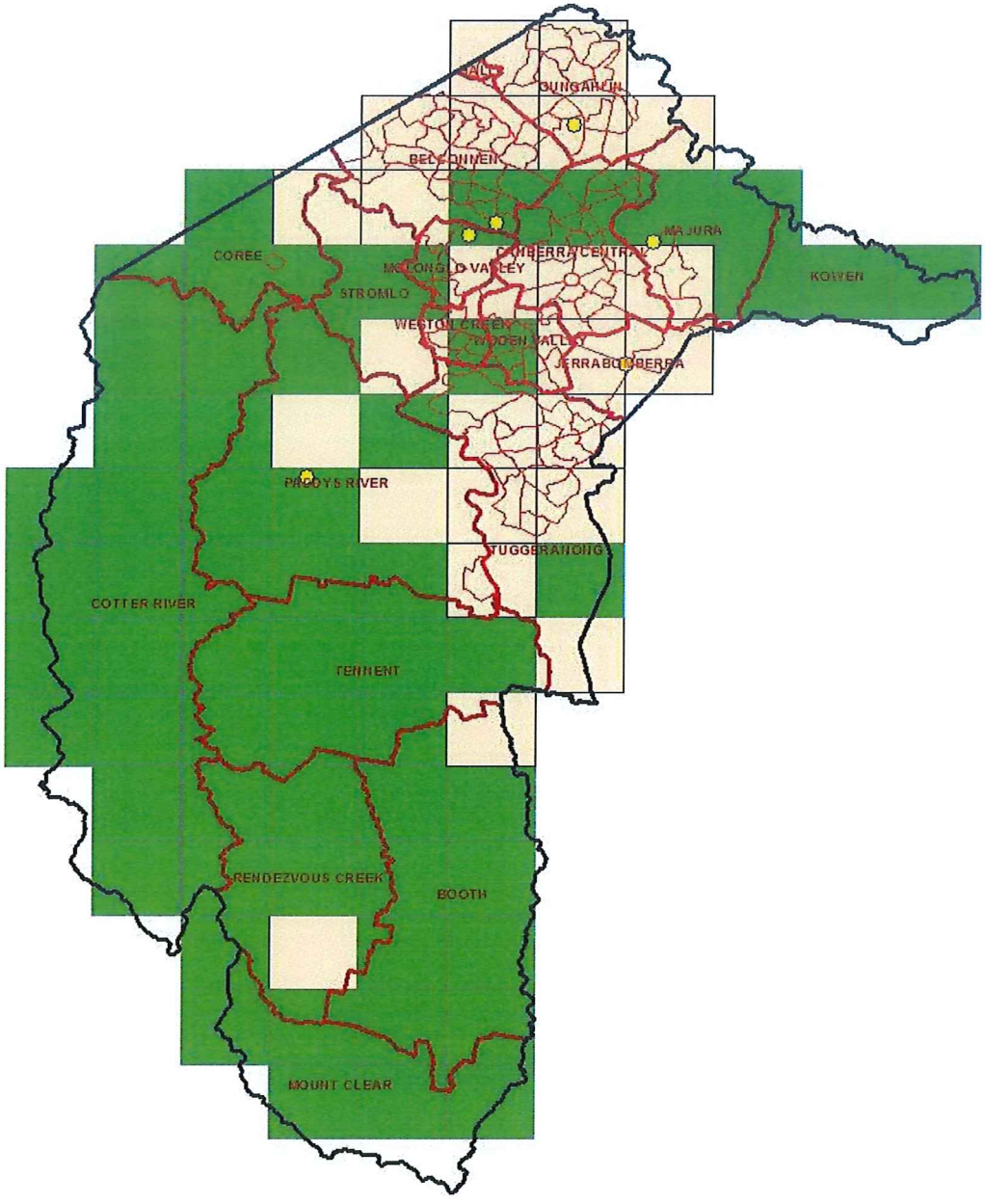
3. Grass Fuel Load will be calculated as the average of all field observations each week and be one value for the entire ACT.
4. The ACTRFS are responsible to advise BoM of area-based curing and grass fuel load weekly, by 1200 Thursday via email to NSWSevereWeather@bom.gov.au – Attachment 2 is a template email.

    Notes:
        i. RFS Strategic Planner is responsible to coordinate provision of grassland curing and fuel load for the Daily Fire Weather Forecast
        ii. In the event of significant and rapid changes in grassland fuel, curing may be assessed more frequently, and BoM advised. PCS may request this through the RFS Strategic Planner.

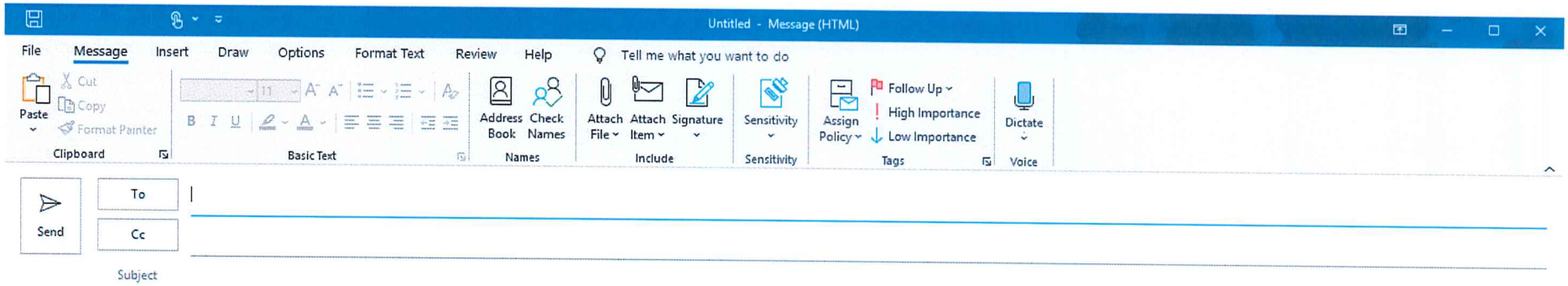
Attachment one

Map showing:

1. ACT Border
2. ADFD Grids – Forest (Green) Grassland (Yellow)
3. ADFD Grassland Grids North (crosshatch / Stipple)
4. ADFD Grassland Grids South (cross / stipple to distinguish from above)
5. Assessment sites.



Attachment two



Hi,

Please find attached Grassland Fuel reporting for the ACT:

SITE	CURING %
CANBERRA	
TUGGERANONG	
MT GININI	

Fuel Load Value for entire ACT