Bushfire Management Planning Guide: Onshore Petroleum Projects

NORTHERN TERRITORY GOVERNMENT

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Acronyms	Full form
BMP	Bushfire Management Plan
EMP	Environment Management Plan
DENR	Department of Environment and Natural Resources
NT	Northern Territory

Contents

1. Introduction

This guide has been written to assist interest holders of onshore petroleum projects in the preparation of a Bushfire Management Plan (BMP) as a component of an Environment Management Plan (EMP) under the Petroleum (Environment) Regulations 2016 and in accordance with the Code of Practice: Onshore Petroleum Activities in the NT.

Having a BMP helps proponents: understand and manage risk; increase preparedness; comply with the Bushfires Management Act 2016; and start a conversation between staff, contractors, neighbours and Bushfires NT. This shared understanding aims to improve collaboration, clarify responsibilities and reduce potential conflicts.

A BMP should be site specific and operationally focussed. This guide covers what is considered the minimum requirements of a BMP and provides a template for a single page poster-type plan. The proponent may present the information in an alternative manner if preferred, however the advantage of a plan on a page is that it is easy to digest and can be put up on a wall in an operational space. BMPs do not necessarily need updating annually. They need to be updated as risks change (e.g. high fuel as a result of rainfall; removal of cattle; additional infrastructure).

2. Approvals

The Minister for Environment and Natural Resources is responsible for approval of Environment Management Plans (which BMPs are a component). Recommendation for the approval or otherwise of the BMP will be sought from Bushfires NT within the Department of Environment and Natural Resources (DENR) as the lead agency for bushfire management in the Northern Territory outside of major towns.

3. Your legal responsibilities

Bushfire management planning should be guided by the Bushfire Management Act 2016. Core responsibilities for onshore petroleum interest holders include:

- Outside of Fire Protection Zones a permit to burn is required in the Fire Danger Period. The Fire Danger Period generally goes from June to December for northern NT and from November to March in southern NT. Contact Bushfires NT for a permit.

- Open flares require a permit to burn during the Fire Danger Period.

- A risk assessment should be conducted prior to flaring and on each day during a flaring event.

- Permits to burn are required throughout the entire year inside Fire Protection Zones. There are four Fire Protection Zones (Northern, Katherine, Tennant Creek and Alice Springs).

- Even with a permit you cannot burn or flare on a Fire Ban day (see https://securent.nt.gov.au/).

- A permit is required to conduct all aerial burns.

- A 4m wide firebreak around the boundary of all properties, permanent structures and stationary engines is required within Fire Protections Zones[1].

- The owner/occupier must prevent fire spread from their land to other land. If unable to control fire you need to notify Bushfires NT and the neighbour where spread is likely.

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[1] Fire Protection Zones are generally about 50kms from major town centres. For more information, see https://denr.nt.gov.au/bushfire-information-and-management/planning-for-a-bushfire/fire-protection-zone. For maps, see http://nrmaps.nt.gov.au/nrmaps.html?search=fire_protection_zones&gaz_name=Fire Protection Zone.

4. Recommended points to address when making a BMP

4.1. Site specific analysis of bushfire risks

Considering risk is a universal way to assess the "effect of uncertainty on objectives". Below are a set of points that aid in assessing bushfire risks to specific locations:

- Identify land uses of adjoining land including economic, social, cultural and environmental values and consider how they might be impacted by existing and potential fire regimes resulting from proposed activities. Remember proposed activities could potentially increase or decrease fire frequency or change the timing of bushfires.

- Analyse fire history (see https://www.firenorth.org.au/nafi3/) for the previous 10 years to develop an understanding to identify potential areas of bushfire risk. Useful metrics to understand bushfire risk include time since last burnt and fire frequency.

- Consider potential on-site and off-site sources of ignition.

- Identify the type of vegetation, the slope of the land, watercourses, roads and predominant wind direction during bad fire weather.

- Annually assess local site conditions including seasonal rainfall, fuel load, grazing, high fuel exotic grasses (gamba, mission, grader, buffel).

- Use above information to develop a list of risks and run them through the company risk assessment process.

4.2. Collaboration with adjoining neighbours

Due to the vastness of regional Northern Territory, fire emergency availability and response times can be prolonged emphasizing the need to develop local and regional fire management capacity. At a property scale, bushfires do not often respect tenure boundaries. This highlights the need for BMPs to demonstrate collaboration with neighbours and develop strong working relationships. The following points outline how this can be achieved.

- Identify neighbours and consult about their land and fire management objectives.

- Discuss potential collaboration, collect contact details including emergency contacts.

- Consider neighbour wildfire response plans, if any.

- Identify local Volunteer Bushfire Brigades, Fire and Emergency Response Groups, Aboriginal Ranger groups that could assist in bushfire management. Consider developing shared capacity.

The Petroleum (Environment) Regulations 2016 require details of stakeholder engagement to be included in an EMP. It should be noted that EMP stakeholder discussions may not consider BMP detail to an appropriate level and consultation with landholders about specific BMP requirements is recommended.

4.3. Create a map identifying bushfire management zone, access tracks and neighbouring land

Maps are a great way to communicate the bushfire management objectives of the BMP. To achieve this, proponents should:

- Develop a map defining boundaries of different fire management areas or zones (e.g. fire exclusion area; fire access tracks; fuel reduction area) and infrastructure including access roads.

- Include neighbouring land. Ideally boundaries should be workable fire management lines such as access tracks, creeks or hard stand areas.

- Include fire management areas/zones of neighbouring land for context.

4.4. Develop site specific bushfire management objectives and actions to address identified risks in above zones

The following set of points will aid proponents to develop a site specific BMP:

- Identify the site fire management objectives.

- Develop specific fire management objectives for each fire management area/zone.

- Identify management actions, to reduce risks (to proponent and neighbours). These can include:
    - perimeter bare earth loop roads and laydown areas
    - removal of vegetation around infrastructure
    - planned fuel reduction burns adjacent to site in areas of risk
    - being prepared and having appropriately trained personnel.

- Develop a calendar of fire management actions such as:
    - monitoring of seasonal conditions and fuel loads
    - pre and post fire season meetings with Bushfires NT and other stakeholders including neighbours
    - maintenance of fire access trails
    - maintenance of bare earth breaks around infrastructure
    - planned fuel reduction burns (ground and aerial)
    - communication systems including bushfire alerts
    - training of staff in fire management and roles and responsibilities
    - contribute to increased regional fire-fighting capacity
    - monitoring protocols and annual reporting of fire management activities.

- Develop plans in the event of a wildfire, include:
    - neighbours contact details
    - emergency response actions
    - location/s of water sources.

- List equipment that can be used for establishing fire management objectives or emergency response.

5. Example of a BMP for onshore gas project

An example BMP showing the required elements for an onshore gas project is depicted below.

For more information or assistance with developing a BMP for an onshore gas project please see the Bushfires NT website at www.denr.nt.gov.au/bushfire-information-and-management.

EXAMPLE BUSHFIRE MANAGEMENT PLAN

Bushfire Management Plan (date) Well Site 1 EP12345	Stakeholder	Contact Details	Name
	Green Hills Station	08 89XX XXXX	John Citizen
	Emergency	000	
	Bushfire NT – Katherine Office	08 89XX XXXX	BFNT staff member
	Bushfire NT – Head Office	08 89XX XXXX, bushfiresnt.compliance@nt.gov.au	BFNT staff member
	NT Fire and Rescue Service		
	NAFI- North Secure NT (Fire Bans) Fire Incident Map	https://www.firenorth.org.au/nafi3/ https://securent.nt.gov.au/alerts https://www.bushfires.nt.gov.au/incidentmap/	

Location of EP 12345

Property Land Uses

- Gas exploration, cattle, carbon farming

Site Fire Management Aim

- To successfully construct and test exploration well without a wildfire incident

Site Fire Management Objectives

- Protect well infrastructure by excluding fire from infrastructure zone
- Reduce threat of wildfire by managing fuel loads adjacent to the site with early dry season planned burns
- Support neighbours fire management objectives of pasture production and carbon farming

Fire Management Risks

Ignitions (humans & lightning) on or off site resulting in harm to workers, damage or loss of integrity of the equipment and loss of production.

Altered landscape fire regimes as a consequence of development leading to conflict with adjacent land use (e.g. more/less fires, change in pattern or timing). Site currently burnt about 7 times in 19 years.

Spread of high fuel load grassy weeds particularly along access tracks increasing fire intensity (e.g. gamba, grader, buffel).
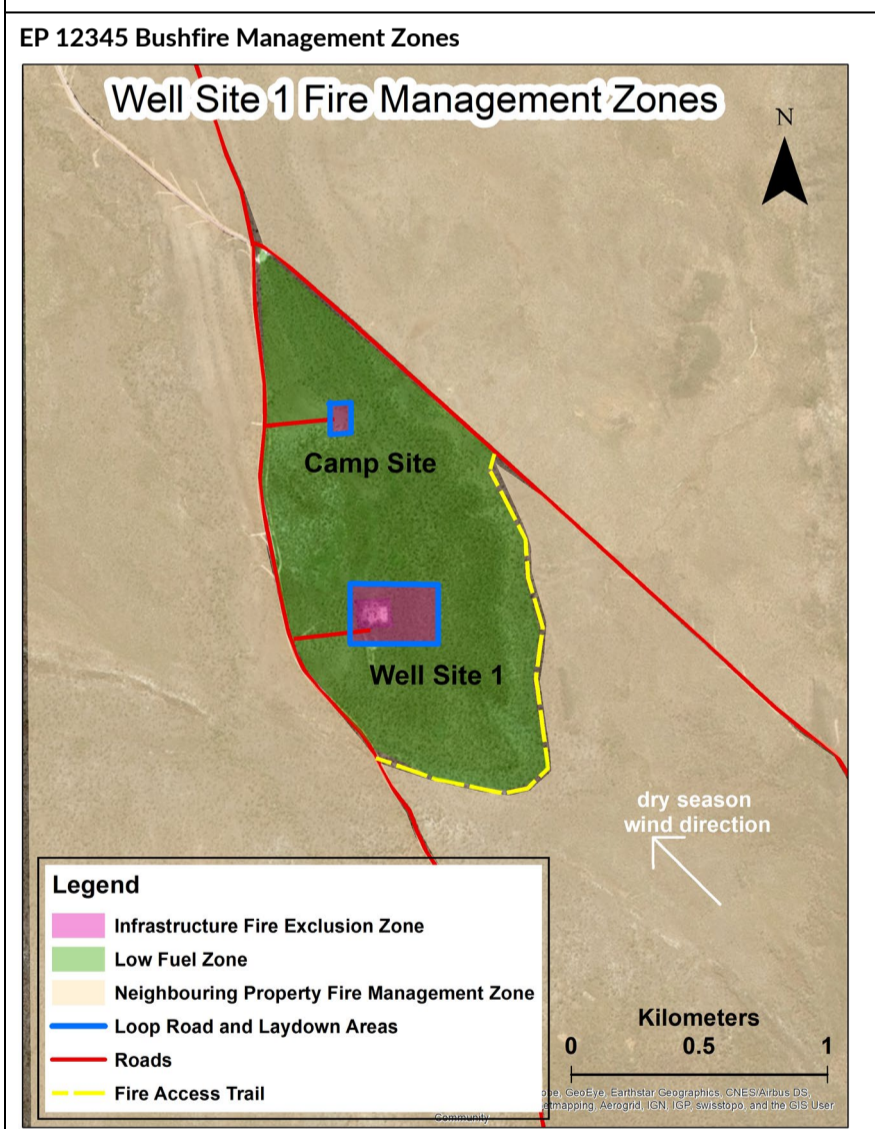

EP 12345 Bushfire Management Zones

Bushfire Management Actions

Infrastructure Fire Exclusion Zone	- Remove all vegetation and implement erosion and sediment control plan. - Treat emerging vegetation with herbicide. - Create and maintain 10m wide bare earth loop road and laydown area around perimeter. - Permit for open flaring in Fire Danger Period (July to December) required and no flaring on fire ban days.
Low Fuel Zone	- Site manager to assess fuel load at end of wet season. - Use existing roads and create additional 4 m fire access trail to encircle well and camp sites. - Plan burn in early dry season in conjunction with neighbour. - Planned burn should be when fire weather is mild and be undertaken by appropriately trained and resourced personnel. - Planned burns require a permit in Fire Danger Period.
Neighbouring Property Fire Management Zone	- Planning meeting with neighbour. - Neighbour to advise proponent of planned burns (ground and aerial).
Fire access trails	- Create and maintain minimum 4m access trails for fire management by grading, spraying or slashing. - Monitor trails for grassy weeds and control where appropriate.

Annual Works Calendar

Wildfire Response

- Wildfire is an uncontrolled fire in an area of combustible vegetation. They are generally started by people or lightening.
- Monitor NAFI, fire weather and look for smoke
- Liaise with neighbour if fire nearby
- Prepare firefighting equipment
- Follow directions of Site Manager
- Call 000 if unable to control