Great Australian Bight
Exploration Program

Great Australian Bight Exploration Drilling Program Stromlo-1 and Whinham-1

OIL SPILL RESPONSE PLANNING STRATEGIC OVERVIEW

Rev 0
9 September 2016

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1. Introduction

Important notice

This report is published for public information purposes. It explains the planning of oil spill response strategies to support preparedness for safe and compliant exploration drilling in the Great Australian Bight.

The report assumes that a Worst Credible Discharge (WCD) has taken place, in other words that all preventative controls implemented to avoid an accident have failed. This approach is adopted to ensure that, whilst it is a low probability event, appropriate measures are adopted to address its potential high consequences.

BP Developments Australia Pty Ltd (BP) proposes to drill two exploration wells in Commonwealth marine waters in the Great Australian Bight (GAB): Stromlo-1 and Whinham-1.

The Great Australian Bight Exploration Drilling Program (Stromlo-1 and Whinham-1) Environment Plan (EP) (Rev 0) and The Great Australian Bight Exploration Drilling Program Oil Pollution Emergency Plan (OPEP) (Rev 0) were submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) on 18 August 2016.

This document summarises the strategic approach to oil spill response planning which BP divides into three areas:

1. People
2. Procedures
3. Process and Equipment

People

BP adopts the Incident Command System (ICS) as a fundamental component of its incident management teams around the world. The ICS allows for clear lines of communication and defined roles and responsibility in an emergency response situation. It is a system that can be deployed in any emergency scenario.

In the event of an incident, response teams will initially be manned by staff from BP's upstream business in Perth where the company maintains a capability to stand up an Incident Management Team (IMT) within an hour of call out. In addition, BP's Kwinana Refinery has an established and experienced IMT, from which BP will initially draw additional support personnel. Furthermore, BP also has other experienced IMT staff within the Australian businesses outside of WA, who in the event of an incident will support the response. As required, staff will progressively be supplemented by additional personnel, from within the Asia-Pacific region, and then globally, as outlined in BP's Incident Management Plan.

BP will work with a number of government bodies in the event of a spill event for notifications, response support and regulatory oversight as required.

Additionally, BP has access to support organisations and agencies that can provide resources to support a spill response. A number of organisations have been identified, including Oil Spill Response Limited (OSRL) and Australian Marine Oil Spill Centre (AMOSC), which are, industry owned organisations that provide resources and expertise for spill response and clean up.

Procedures

A number of plans, including the Operational and Scientific Monitoring Plan (OSMP) and Oil Pollution Emergency Plan (OPEP) have been designed to be used in response to a spill event. This report contains key features of the response plan.

Process/equipment

A suite of response measures will be activated in response to any spill events as required, as soon as practicable and when safe to do so. The key equipment and processes that can be deployed in response to a spill event include:

- Well Control Response to divert and stop the flow, including:
  - Well intervention (*i.e.*, source control) strategies including direct intervention by Remote Operated Vehicles (ROVs);
  - Mobilisation and installation of a capping stack; and
  - Drilling of a relief well if required.

- Tactical Response, to manage and contain released oil, including:
  - Surveillance and tracking
  - Offshore containment and recovery and in situ burning
  - Dispersant application
  - Shoreline protection and clean up
  - Oiled wildlife response

2. Response Strategy Overview

In order to develop the response strategy, for the GAB, BP has:

- Identified and defined a range of oil spill planning scenarios;
- Determined response strategies for each of these scenarios;
- Identified and provisioned tiered/cascadable response capabilities (e.g. surveillance, dispersants, shoreline clean-up etc.) able to deliver the strategies to suitable scales and timeframes;
- Conducted stakeholder engagement throughout planning stages; and
- Developed specialist operational plans (eg TRPs) for response planning and actual response.

The scenario identified as WCD is a loss of well control from Stromlo-1. This scenario would likely require the largest response effort due to volume of oil released and predicted geographical extent of spill.

A loss of well control scenario for Stromlo-1 is characterised at the outset as a continual flow of oil from the well, rising through the water column with some lateral spreading and movement influenced by sub-sea currents, with a majority of oil droplets rising to coalesce at the sea surface. The oil will undergo weathering, a series of physical and chemical changes, involving principally evaporation, spreading out, dissolution, emulsification, biodegradation and breaking up into patches under the action of currents and wind. The oil will continue to move on the water surface until eventually some amounts reaching discrete parts of the shore along a wide stretch of the GAB coastline.

The overall aim of the response strategy is to implement a combination of response actions and techniques that will change over time as the scenario evolves, to prevent or mitigate as far as possible the potential impacts of the oil.

The response strategy has been developed based on the experience and learnings of previous events, and utilising an extensive bank of internal corporate knowledge and specialist technical contractors. The response strategy that currently forms the base case for contingency planning is separated into three zones and described below. These zones are:

- At-sea;
- Near-shore; and
- Shoreline

The purpose of these descriptions is to outline the approach that would be expected to be undertaken, identify the relevant techniques that are considered appropriate within these zones, and provide a base case for determining our response needs.

BP will mobilise a suite of response techniques in response to a well control event as soon as practicable and when safe to do so. Many of these will be deployed simultaneously to provide a comprehensive response, so that if initial response measures are unsuccessful, additional measures will be deployed as back up.

These techniques are illustrated on a time line in Figure 1.

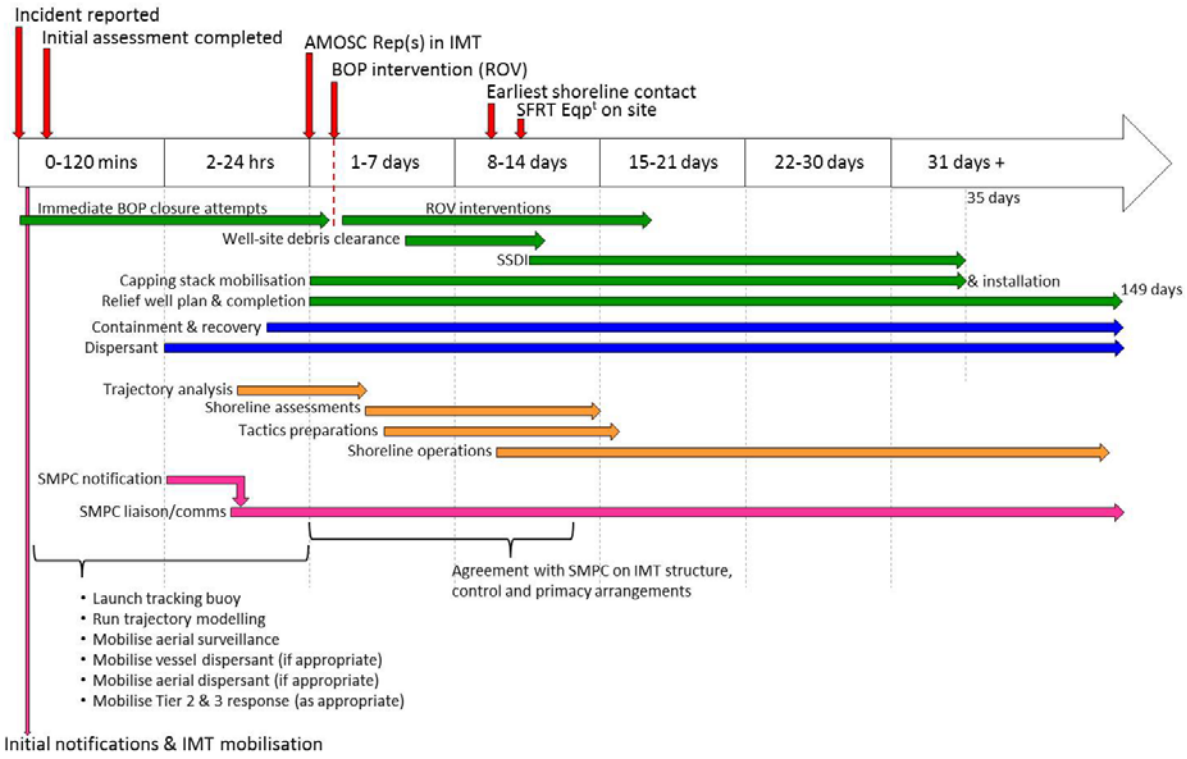

Figure 1: Overview of response activities

3. Response Strategies

Source Control

In the event of a loss of well control event, stopping the release of hydrocarbons to the environment (ie source control) is achieved using a combination of the following response techniques:

- Closure of the blow out preventer (BOP) - In the event of emergency, the first course of action would be to attempt to close the BOP. Some of the mechanisms for this are designed to occur automatically in case of any emergency.
- ROV mobilisation and external intervention - In the unlikely event that the BOP closure mechanisms fail, the next line of response would be BOP intervention using an ROV to establish control and ultimately shut in the well.
- Capping stack deployment - Capping stacks provide a means of choking back flow, establishing a barrier, and pumping heavy fluid into the well to control the pressure.
- Drilling a relief well - A relief well is a longer-term response option to stop uncontrolled flow from a well. A relief well is drilled to intersect the well that is out of control to provide a conduit to pump high density fluid into the well, and thus stop well flow.

At-sea Response Strategy

Whilst source control activities are being undertaken, a combination of oil spill response techniques will be implemented to mitigate the effects of the release of hydrocarbons to the environment. Based on oil spill modelling, BP has developed a process to identify at sea priority locations on which to base its planning needs and response preparedness. The particular values and sensitivities identified which could be exposed to oil over a defined threshold within a short timeframe (and as such represent the at-sea protection priorities) include:

- Biologically Important Areas (BIAs) (seabirds, cetaceans and pinnipeds);
- Key Ecological Features;
    - Ancient coastline at 90-120m depth
    - Kangaroo Island Pool, canyons, adjacent shelf break, Eyre Peninsula upwellings; and
- The Great Australian Bight Commonwealth Marine Reserve.

Subsea Dispersant Injection

Potential impacts from surface exposures were determined by oil spill modelling to have the most severe impacts upon these values and sensitivities. Therefore, removing hydrocarbons from the surface is the main objective.

BP believes that the application of subsea dispersant injection (SSDI) (utilising dispersant listed under the National Plan for Maritime Environmental Emergencies Oil Spill Control Agents (OSCA)) offers substantial advantage, based on the experience gained during the response to the Deepwater Horizon (DWH) incident in the Gulf of Mexico in 2010. This showed that SSDI can be an effective response technique for subsea oil blowouts, and can offer a number of benefits. Application of SSDI will:

- Reduce the exposure of surface responders to the health and safety hazards of hydrocarbon vapors and oil;
- Enhance the dispersion of oil in the water column and so increasing the opportunity for natural biodegradation;
- Teat oil released at the point of release;
- Require less dispersant compared to surface oil treatment;

- Can be conducted continuously, day and night and in practically any weather conditions, unlike response techniques on the sea surface; and
- Ultimately help reduce the volume of oil that may come ashore.

Oil spill trajectory modelling indicates there is benefit in undertaking SSDI. Simulations show that SSDI helps to reduce not only the amount and footprint of oil reaching the surface but also the thickness, viscosity and emulsification of oil once it reaches the surface. The use of SSDI has the potential to be a feasible response tactic for the duration of the release because the temperature of the released crude oil will maintain the oil at a low viscosity, meaning it will be amenable to dispersion by the dispersants detailed in this plan.

Subsea dispersant application has a number of advantages over surface application. These include that it can be sustained up to 24 hours a day; in the event of severe weather evacuation, a subsea bladder may be used to continue dispersant operations and that the sea state has nil impact on effectiveness. SSDI can also be done at a much lower application rate than surface application, with a starting point being a dispersant to oil ratio (DOR) of 1:100 or lower. The DOR will be adjusted based on field observations and measurements of the degradation of the oil

The comparative contribution this offers in terms of oil treated, relative to conventional surface dispersants and other on-water response options such as containment and recovery and in-situ burning, is substantial. BP requires all its deepwater operations to be able to implement and deploy SSDI within 10 days from the time of the incident, unless specific considerations or conditions prevail. The 10 day maximum limit is set because following a well blowout, there is likely to be a large amount of well and subsea debris present on the seabed and around the well, which will need to be cleared and removed by ROV prior to the commencement of SSDI. However, SSDI will start within the 10 days where that is possible.

Once SSDI is implemented, operations will run continually 24/7 while capping operations are being prepared and carried out. To implement SSDI, the following equipment, people and platforms are required:

- Subsea First Response Toolkit (SFRT) (inc Sub-sea dispersant toolkit);
- Dispersant delivery system (DDS);
- Installation Vessel; and
- Dispersant 85m^3/24hour period (@ application DOR ratio 1:100).

Surface dispersant application

As part of the overall response strategy, other response actions will be undertaken in the 10 day period whilst SSDI is being readied, and during its application. Surface dispersant application is considered the next most effective response technique to meet the response objectives. To determine the maximum quantity of surface dispersant application the following operational assumptions have been identified:

- Application of OSCA dispersant from Hercules aircraft and Boeing 727's is approximately 30 mins per sortie, and for the Fixed-wing Aerial Dispersant Capability (FWADC) air tractor 802's is approximately 20 minutes per sortie;
- All aircraft are able to complete two sorties per day (in daylight hours) taking into consideration flight time, refueling and loading the dispersant payload;
- The dispersant payload for the Hercules and the 727s is 15m^3 of dispersant, the FWADC air tractors 802's is 3m^3. This means that with 9 air tractors and 3 large aircraft a total of approximately 144m^3 of dispersant could be applied per day;
- Initial dispersant to oil application ratio (DOR) of 1:20 will be utilised;
- Application can only be undertaken during the daylight hours (assume 8 hour's day light); and

- Dispersability is most effective close to the source, where the oil is freshest and thickest, suggesting that application would focus on one main area of the slick. The aircraft, therefore, would require air traffic control and SIMOPS (simultaneous operations) support at the application site in addition to observers in aircraft to monitor effectiveness of the strategy.

Consequently, BP believes optimum surface dispersant application can be in place by Day 5 after a WCD event. Prior to this, surface dispersant will be initially applied by available vessels and locally available aircraft.

Containment and Recovery, and In – Situ controlled burning

Both containment and recovery and in-situ controlled burning (ISB) have many operational constraints within GAB, principally due to weather and sea-state constraints, and are not expected to provide significant benefit. However, despite this, containment and recovery operations may provide some benefit in areas away from the surface dispersant application zone, before and after SSDI operations begin. The containment and recovery operations would comprise the use of vessels, utilising an enhanced boom recovery configuration, with skimmers removing the collected oil into oil waste storage. Given the expected limited effectiveness, BP has planned to implement two strike teams by Day 11 ramping up the numbers as required. The limiting factors will be the weather/sea-state conditions and the vessels available through a Vessels of Opportunity (VoO) programme.

ISB is not planned to be implemented at this stage, principally because of the weather constraints. However, should weather allow, BP's response contractors (OSRL) have suitable equipment and ISB-trained responders available.

Near-shore Response Strategy

Any oil that is not successfully dispersed, contained and removed close to the source will continue to weather and move under the influence of currents and prevailing winds towards the coastline. Depending on the season in which such an event might occur, the areas of coast that could be affected will vary. The time for oil to reach the coast ranges from 9 days to several months and the nature of the oil on the water will vary from patches/streamers of weathered and emulsified oil and residues, through to traces of sheen.

If not managed, oil close to nearshore areas would be expected to strand on shorelines where it may be expected to have a greater impact on amenities and some wildlife. Therefore, the main focus for response will be removing as much oil from the sea surface as possible, which will ultimately minimise shoreline loading as well as surface impacts to these areas.

As modelling indicates, there are potentially large sections of coast that could be impacted. The exact sections will depend on a number of factors such as the weather, prevailing currents and time of year (season). BP have followed a process, illustrated in Figure 2, to systematically identify priority locations for which specific protection measures may be developed. Based upon the process, the following nearshore receptors were identified as having the highest sensitivity or potential consequence level:

- Mangroves and saltmarsh shoreline habitats;
- Shorebirds and seabirds;
- Marine mammals;
- Coastal settlements; and
- Commercial fishing and aquaculture.

Each coastal sector was evaluated to determine the presence or absence of these receptors. Those sectors identified as having at least one of these receptors present with a time to shore of less than 20 days were identified as being a protection priority.

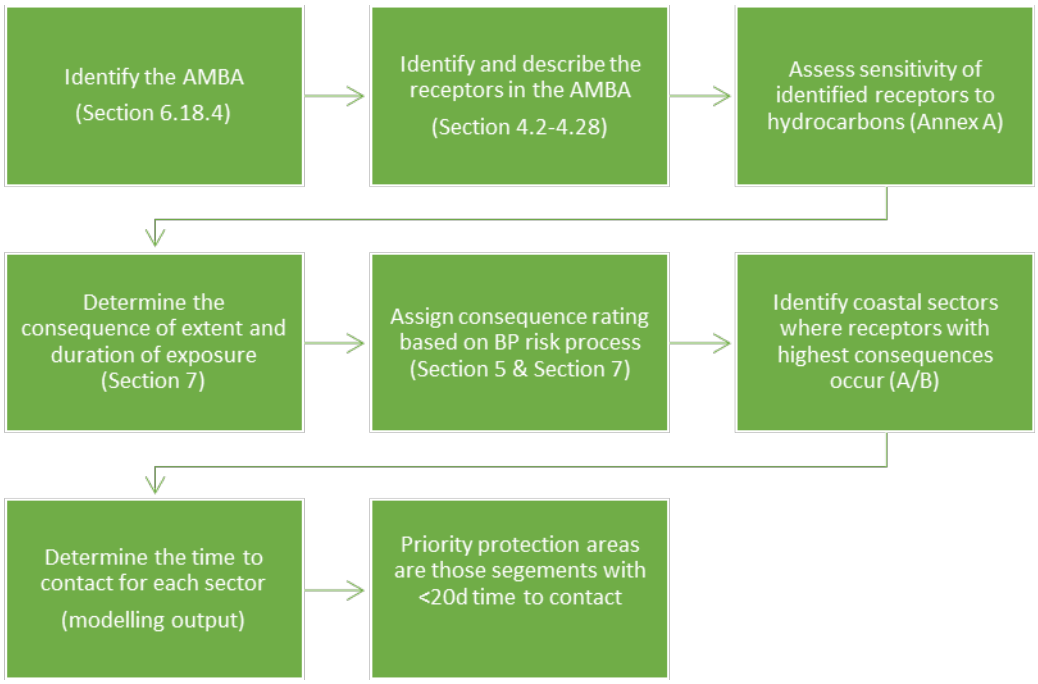

Figure 1: Process for identifying nearshore protection priorities

Based upon the protection prioritisation process, the coastal sectors identified as priority protection areas are:

- Kangaroo Island;
- Port Lincoln;
- Streaky Bay;
- Elliston to Coffin Bay; and
- Upper Spencer Gulf.

These areas have been used to provide a case study for the nature and scale of response capabilities that would be expected to be implemented initially at these areas. It should be noted that the proposed capability for each of the protection areas would not (initially) be required concurrently, but at one of these locations depending on the plume trajectory.

Kangaroo Island

Kangaroo Island is located around 250 nautical miles east of the well sites. Much of the shoreline is very exposed and high energy, which precludes protection or deflection booms from being deployed effectively. Access to sections of these high energy shores is also limited.

Regular surveillance of spilled oil will give a good indication of whether there is a risk of oil impacting the island. If this is a possibility, then the protection strategy implemented in this area would be to minimise as much floating oil from reaching the shores as possible. Due to the distance from the spill site, any oil in the locality of Kangaroo Island is likely to consist of windrows, streaks and weathered oil patches or clumps, and would approach the western shore of the island. Although there may be limitations on containment and recovery operations in open water conditions, because of the very high sensitivity of this area, a collection of strike team vessels with boom would be mobilised off the west area of the island, to contain as much floating oil as possible.

The actual scale of this at-sea containment operation would depend on a number of factors including the volume and condition of oil reaching this area, the weather, the seasonality (presence of different animals and birds whose activities we would seek to avoid disturbing as much as possible) and the availability of local Vessels of Opportunity from which to deploy and operate conventional specialised equipment. Based on the intermittent and broken patchy nature of the oil, and

considering the likely behaviour of the oil in the area at the time, a minimum fleet size of 10 strike team resources (20 vessels with booms, skimmers and storage) would be initially mobilised. Depending on the success or otherwise, this fleet would be scaled up or down appropriately.

Port Lincoln

At Port Lincoln, there are extensive tuna ranch cages, where young fish are reared for market. Floating oil reaching this area could contaminate and adhere in some places to exposed surfaces of these floating cage structures. Working in cooperation with the owners/operators of these facilities, the strategy to minimise any impact to these fish cages would be to move and re-locate the cages closer to shore within a sheltered bay area. Concurrently we would also look to utilise booms to deflect and protect the cages from exposure to floating oil in the new sheltered bay. A Tactical Response Plan (TRP) has been developed for this operation. It is essential that BP work in cooperation and coordination with the fishing industry, utilising their vessels and prior specialist experience at carrying out this operation.

Streaky Bay

There are extensive oyster cultivation areas within Streaky Bay and close to Coffin Bay. Oyster racks are sensitive to oiling, as it has the potential to contaminate surfaces of any of the racks that may be exposed. Due to the distance from the spill site (approximately 460km), any oil that may approach these areas is likely to consist of windrows, streaks and weathered oil patches or clumps, and not a continuous slick of oil.

If oil is predicted from the on-going surveillance to threaten the oyster facilities the most appropriate strategy to minimise any impacts would be to employ small strike teams utilising booms, skimmers and storage.

The broken, intermittent nature of the oil means that the most appropriate number of teams would be around 10 (20 vessels), initially to test the feasibility and effectiveness of a coordinated operation in various near-shore locations. Depending on the success or otherwise of this fleet to materially reduce the volumes of oil reaching the oyster facilities, resources would be would be scaled up or down appropriately.

Elliston to Coffin Bay

The shoreline along this stretch of coast line is around 120km in length and consists mainly of vegetated shorelines, sandy beaches and some mangroves. The area to the south, around Coffin bay is used for oyster cultivation. Mangrove areas are sensitive to oiling, but also very sensitive to physical damage from clean-up activities. Oyster racks are also sensitive to oiling, as it has the potential to contaminate surfaces of any of the racks that may be exposed.

As with Streaky bay, the distance from the spill site (approximately 460 km) means that any oil that may approach these areas is likely to consist of intermittent windrows, streaks and weathered oil patches or clumps, and not a continuous slick of oil.

In terms of mitigation, if during a spill event there is a risk of oil moving in this direction, and threatening either the mangroves of oyster facilities the most appropriate strategy to minimise any impacts would be to employ targeted small strike teams utilising booms, skimmers and storage specifically to protect these areas, around 10 (20 vessels), initially to test the feasibility and effectiveness of a coordinated operation in various near-shore locations. Depending on the success or otherwise of this fleet to materially reduce the volumes of oil reaching the mangroves or oyster facilities, resources would be would be scaled up or down appropriately.

Upper Spencer Gulf

Towards the far end of Upper Spencer Gulf, there are extensive areas of mangroves and mudflats. While these are potentially sensitive to oiling, they would also be very sensitive to physical damage from clean up attempts to remove oil that may strand within these areas. Modelling indicates that

there is only a remote chance of oil reaching in as far this part of the Gulf, with any in the area most likely consisting of sheen, and weathered patches. However, given the importance and sensitivity of this extensive area, the priority will be to prevent and minimise this as much as possible. The most effective strategy to achieve this would be by collecting and recovering as much as possible using a small targeted team of vessels deploying boom and working in a coordinated fashion in the lower reaches of the Gulf to collect as much as possible. The actual scale of this operation would depend on a number of factors including the extent of oil reaching this area, however BP expect that a small team, targeted and focused on any recoverable oil would be most appropriate.

Initially 5 small strike teams of (vessels with booms, skimmers and storage) would initially be mobilised to test the feasibility and effectiveness of this strategy in various near-shore locations. Depending on the success or otherwise of this fleet to materially reduce the level of oil reaching the oyster facilities, resources would be would be scaled up or down appropriately.

Shoreline Response Strategy

At the outset of this WCD scenario, much of the focus will be given to the rapid implementation of source control and the at-sea response, with the aim of reducing the likelihood and extent of oil reaching the shoreline as far as possible. However, the importance of preparing early for shoreline protection and cleanup is also a high priority. BP have adopted an approach to concentric levels of shoreline response planning dependent upon probability and likely scale of impact based on modelling outcomes. From a planning perspective, the areas that modelling had identified as being the most likely to be exposed, from Albany to Beachport have been categorised, and with appropriate shoreline protection and clean-up tactical response plans (TRPs) developed.

There are two main types of TRPs – 1) Primary Sites and 2) Secondary Sites.

Primary Sites

Each has had a tactical response plan prepared which includes site specific details, response tasks, site setup plans, concept of operations and a full resource inventory. Each primary site has been surveyed to establish the general layout and feasibility of the planned operations, which in the event of the need to be implemented could be adjusted for any prevailing circumstances and implemented promptly.

Secondary Sites

Their current status indicates they are not significantly at risk to the impact of oil, however conditions could change, which would require immediate attention for shoreline response planning. Tactical response plans for secondary sites focuses on site details and response initiation.

In addition to the pre-identified TRPs, once oil has come ashore, the wider shoreline response programme (SRP) will be initiated. Best practice for shoreline clean-up is to undertake this in a phased approach:

- Stage 1 - bulk oil removal from the shore to prevent remobilisation;
- Stage 2 - removal of stranded oil and oiled shoreline material which is often the most protracted part of shoreline clean-up, and;
- Stage 3 - final clean-up of light contamination and removal of stains, if required.

During a well control incident, it is likely that shoreline cleaning will most likely be repeated, with a focus on the bulk oil, until the volumes of bulk oil stranding no longer become significant. However, with extensive repeated shoreline clean-up operations, there is a risk these activities can cause their own impacts. That is, each shoreline clean-up operation may cause additional negative ground disturbance.

BP will work closely in cooperation with state government agencies and would support as far as possible the adoption of a shoreline cleanup program.

Oiled Wildlife Response Strategy

At the outset of a WCD event, at sea and nearshore response objectives are considered crucial in the removal of oil from surface waters and shorelines which will minimise the amount of oil reaching critical fauna habitats, and subsequently reduce the potential for fauna oiling.

However, in the event that shoreline oiling cannot be prevented, the objectives of an oiled wildlife response are:

- Reducing the oiling of wildlife by preventing animals from entering the impacted environment; and
- If practical, the initiation of pre-emptive capture and removal of animals at risk.
- If animals are oiled, then the next objectives are:
- Maximise the number of oiled wildlife treated and/or rehabilitated; and
- Remove dead and dying wildlife from affected area to minimise secondary exposure.

BP have used Section 5 of the WA Oiled Wildlife Response (OWR) Plan as the reference point for providing an indication of the capability requirements that may need to be implemented in the event of a spill. Given the potential for an extended response (greater than 14 days), with the potential to expose high numbers of fauna (due to the presence of recognised 'biologically important areas' as defined by the National Conservation Values Atlas), the personnel resourcing requirements would be expected to be equivalent to that of a Level-6 OWR.

IPEICA (2004) indicates the types of facilities that may be required include:

- Beach collection points;
- Forward collection,
- Stabilisation and initial care centres;
- Stabilisation centres (forward holding/distribution point);
- Primary cleaning and rehabilitation centre;
- Pre-release facility
- Consequently, to implement oiled wildlife response techniques, the following equipment, people and platforms are required:
- Personnel – based upon a Level-6 OWR (WADoT, 2014) - (122 OWR personnel are required);

Stabilisation and initial care centres will be initially located as close as possible to any impacted species, The centres would be set up utilising locally sourced resources, and supplemented with the more specialised veterinary equipment and other equipment contained within the OWR containers. Much of the equipment needed to set up these centres (pools, tarpaulins, fencing, wooden posts, chicken wire etc.) will be readily available within Australia. The exact locations of the centres will need to be determined at the time of the incident.

Planning undertaken by BP indicates that for the length of shoreline oiled, approximately 1200 km is expected to be sandy beach. Sandy beaches typically have good road access, and generally allow good access for wildlife capture teams to work. Modelling indicates that this shoreline area would not be all oiled at once, allowing the centres to be located and remobilsed dependent on oiled wildlife location, response priorities and the plume location. Due the mobile nature of the OWR Containers, it is expected that 6 would be required initially (with supporting mobile kits) to support the set-up of these first care centres. These can be supplemented as required, from other general equipment and veterinary supplies available within Australia as required, as well as from the tier 2 and tier 3 wildlife contractors that BP has access to through the global wildlife network.

It should be noted that for an oil spill from GAB operations, BP will assess if there is a threat to wildlife from the released hydrocarbon and, under the direction of the relevant Jurisdictional Wildlife Control Agency implement actions to reduce the consequences of the spill. While WA and SA are

working towards their own state and regional specific OWR plans, BP has commissioned AMOSC to develop an Interim GAB Oiled Wildlife Response Plan (IGOWRP).

This plan has been developed in close consultation with these jurisdictions, with the intent that be it be used by the relevant jurisdictional OWR Control Agencies until such time as it can be subsumed/replaced by their own regional specific OWR plans.

These actions will include supporting that wildlife control agency through:

- The interim GAB OWR plan by drafting and providing that plan to these agencies;
- Provisioning of equipment;
- Current and surge requirements;
- Embedding specialised human resources drawn from third party contractors (national, regional and international) into that agency;
- Just in time training so that surge human resources can be provided from known unskilled labour pools and volunteer organisations;
- Establishing temporary oiled wildlife response facilities/rehabilitation centres; and
- Providing that agency with other support as agreed is needed.

4. Response Strategy Summary

Table 1 summarises the response techniques that may be implemented in the event of a well blowout event for Stromlo-1.

Table 1: Summary of response techniques

Response Technique	Stromlo-1
Surveillance, modelling and visualisation	Y
Source Control – relief well drilling and sub-sea interventions	Y
Surface dispersants	Y
Subsea chemical dispersant	Y
Containment and Recovery	Y
In situ burning	Y
Shoreline protection	Y
Shoreline clean-up	Y
Oiled Wildlife Response	Y