

PURPOSE

To define the various steps that are required to occur at different operational stages and identify the individuals who are responsible to undertake these steps to effectively manage and protect Species At Risk (SAR).

SCOPE

This Standard Operating Procedure (SOP) covers all aspects of forestry planning and block/road development, the signing and sealing of the applicable Site Plan, and implementation. It includes relevant business area staff, licensees, and contractors working for BCTS.

Important Information Sites

Conservation Data Centre: This site's Internet Mapping Service (IMap) will be utilized to identify known occurrences of Species At Risk: <http://www.env.gov.bc.ca/cdc/access.html>

BC Species and Ecosystems Explorer: Species and Ecosystems Search: utilize this site to confirm various Species At Risk and to access reports concerning specific species at risk. This site can also be used to see mapped locations of a specific species: <http://www.env.gov.bc.ca/atrisk/toolintro.html>

UBC Herbarium: This site contains a database that details the location of known SAR. It only provides written descriptions of locations and latitude and longitudinal information:
<http://www.beatymuseum.ubc.ca/herbarium/index.html>

Recent Changes (Feb. 24, 2011): **This SAR SOP has been updated to include reference to using the UBC Herbarium layer in Cengea Resources rather than having to go to the Herbarium website as an additional source for locating known information of rare and endangered plants. References to District SAR listings have been removed.**

Note: this SOP is linked to the SAR Process Design Map.

PROCEDURE	RESPONSIBILITY
Stage 1: Block Planning SAR Management	
<ul style="list-style-type: none"> • Ensure blocks have passed initial economic viability test; i.e. ensure it meets <i>PP Done</i> test. 	<i>Planning Forester Practices Forester</i>
<ul style="list-style-type: none"> • Confirm location of potential cut block and associated road networks 	<i>Practices Forester</i>
<ul style="list-style-type: none"> • Check CDC website utilizing <i>IMap</i> function to determine if any SAR have been mapped within area of proposed activity <ul style="list-style-type: none"> ○ Record any findings of relevant SAR <ul style="list-style-type: none"> ▪ If necessary complete and submit CDC <i>Custom Data Request</i> 	<i>Practices Forester</i>
<ul style="list-style-type: none"> • Check UBC Herbarium map layer in Resources to determine if any SAR have been mapped within area of proposed activity. <ul style="list-style-type: none"> ○ Record any findings of relevant SAR <ul style="list-style-type: none"> ▪ If necessary complete contact expert in plant ID 	<i>Practices Forester</i>

Species At Risk Management Process Standard Operating Procedure

February 24, 2011

PROCEDURE	RESPONSIBILITY
<ul style="list-style-type: none"> • Determine management options for each SAR discovered on CDC IMap website or on UBC Herbarium map layer: <ul style="list-style-type: none"> ○ Discuss with Planning Officer/Forester, Area Forester/Woodlands Supervisor and/or Woodlands Manager to see if there are any previous commitments related to species management; e.g., Phantom orchid, tailed frog, etc., or recommendations provided by Qualified Professional ○ If no management recommendations available consult with Qualified Professional <ul style="list-style-type: none"> ▪ discuss Qualified Professional's recommendations with Area Forester/Woodlands Supervisor and Woodlands Manager 	<p><i>Practices Forester</i> <i>Multiphase Forester</i> <i>Planning Forester</i> <i>Qualified Professional</i></p>
<ul style="list-style-type: none"> • Review BA SAR plant, animal, and ecological community listing to determine potential SAR species in area of proposed activity. <ul style="list-style-type: none"> ○ Make list of potential SAR species that could be encountered <ul style="list-style-type: none"> ▪ If uncertain about potential of SAR in area of proposed activity have the area field reviewed by a Qualified Professional. 	<p><i>Practices Forester</i> <i>Multiphase Forester</i> <i>Qualified Professional</i></p>
<ul style="list-style-type: none"> • Review Chinook plans and policies to determine if there are any pre-existing SFI/EMS SAR commitments in relation to SAR management; e.g., percent Deer Winter Range available for harvest. 	<p><i>Practices Forester</i> <i>Multiphase Forester</i></p>
<ul style="list-style-type: none"> • Update and/or review SAR tracking form and attach to SAR Block Activity in Cengea Resources with other relevant documents and comments 	<p><i>Practices Forester</i> <i>Multiphase Forester</i></p>
<ul style="list-style-type: none"> • Determine if block planning should proceed based upon management recommendations 	<p><i>Practices Forester</i> <i>Multiphase Forester</i> <i>Planning Officer</i></p>
<ul style="list-style-type: none"> • During field review collect basic coarse ecological information necessary to assist with use of MOE Species Explorer/TCH SAR database <ul style="list-style-type: none"> ○ BEC, subzone, variant ○ Primary forest cover/landscape attributes • If uncertain about potential SAR prior to field visit engage Qualified Professional during field visit • Detail any SAR located in field and discuss management options with Area Forester/Woodlands Supervisor, Woodlands Manager and/or a Qualified Professional • Determine if proposed activity should occur based upon SAR recommendations 	<p><i>Practices Forester</i> <i>Multiphase Forester</i> <i>Qualified Professional</i></p>
Stage 2: Block/Engineering Layout Pre-work (Multiphase)	
<ul style="list-style-type: none"> • Confirm location of proposed block or road 	<p><i>Practices Forester</i> <i>Multiphase Forester</i> <i>Operations Technician</i></p>

Species At Risk Management Process Standard Operating Procedure

February 24, 2011

PROCEDURE	RESPONSIBILITY
<ul style="list-style-type: none"> Summarize findings from block planning stage if applicable for handover to multiphase staff/contractor(s) 	<i>Operations Technician</i>
<ul style="list-style-type: none"> Prior to pre-work meeting, check CDC website utilizing <i>IMap</i> function to determine if any new SAR have been mapped within area of proposed activity prior to pre-work meeting <ul style="list-style-type: none"> Record any findings of relevant SAR If necessary complete and submit CDC <i>Custom Data Request</i> 	<i>Multiphase Forester Operations Technician</i>
<ul style="list-style-type: none"> Check UBC Herbarium map layer in Resources to determine if any SAR have been mapped within area of proposed activity. <ul style="list-style-type: none"> Record any findings of relevant SAR <ul style="list-style-type: none"> If necessary complete contact expert in plant ID 	<i>Multiphase Forester Operations Technician</i>
<ul style="list-style-type: none"> Update SAR tracking form and attach to SAR Block Activity in Cengea Resources with other relevant documents and comments 	<i>Operations Technician Multiphase Forester</i>
<ul style="list-style-type: none"> Provide SAR summary to contractor with any SAR management recommendations including those from Qualified Professionals where available 	<i>Operations Technician</i>
<ul style="list-style-type: none"> Discuss how contractors SAR field investigations should be documented <ul style="list-style-type: none"> In site plan under relevant R/S As supporting document to Site Plan In the SP declaration letter Private filing with documentation available upon request 	<i>Practices Forester</i>
<ul style="list-style-type: none"> Review capabilities of CDC and MOE “Species Explorer” websites, and UBC Herbarium map layer with contractor; reports, maps, reference material, etc. 	<i>Operations Technician</i>
<ul style="list-style-type: none"> Operations Tech to communicate with multiphase contractor during monthly progress meetings Re: any new SAR found 	<i>Operations Technician</i>
Stage 3: Field Work Quality Assurance (Inspection)	
<ul style="list-style-type: none"> Select blocks for review based on EMS and SAR risks 	<i>Practices Forester</i>
<ul style="list-style-type: none"> Review pre-work (Multiphase) notes and material, including SAR management strategies 	<i>Operations Technician Practices Forester</i>
<ul style="list-style-type: none"> Check CDC website utilizing <i>IMap</i> function to determine if any new SAR have been mapped within area of proposed activity prior to pre-work meeting <ul style="list-style-type: none"> Record any findings of relevant SAR If necessary complete and submit CDC <i>Custom Data Request</i> 	<i>Operations Technician Practices Forester</i>
<ul style="list-style-type: none"> Check UBC Herbarium map layer in Resources to determine if any SAR have been mapped within area of proposed activity. <ul style="list-style-type: none"> Record any findings of relevant SAR <ul style="list-style-type: none"> If necessary complete contact expert in plant ID 	<i>Operations Technician Practices Forester</i>

Species At Risk Management Process Standard Operating Procedure

February 24, 2011

PROCEDURE	RESPONSIBILITY
<ul style="list-style-type: none"> Check field ecological classification for accuracy to aid in proper identification of potential SAR species/communities 	<i>Operations Technician Practices Forester</i>
<ul style="list-style-type: none"> Where uncertain about potential for SAR in proposed area of activity engage Qualified Professional to jointly conduct field review. 	<i>Operations Technician Practices Forester Qualified Professional</i>
<ul style="list-style-type: none"> Ensure previously identified SAR are adequately managed Record any new SAR found in field and discuss management recommendations with multiphase Forester/Practices Forester <ul style="list-style-type: none"> If uncertain about management recommendations seek input from Qualified Professional 	<i>Operations Technician Practices Forester Qualified Professional</i>
<ul style="list-style-type: none"> Update SAR tracking form and attach to SAR Block Activity in Cengea Resources with other relevant documents and comments 	<i>Operations Technician Practices Forester Multiphase Forester</i>
Stage 4: Site Plan/Road Site Plan Quality Assurance	
<ul style="list-style-type: none"> Site Plan prepared by multiphase or in-house Site Plans peer reviewed: <ul style="list-style-type: none"> Review CDC website and UBC Herbarium map layer to check for any new SAR occurrences <ul style="list-style-type: none"> If new SAR found determine management requirements with QP input as deemed necessary Refine SP/field work to incorporate new SAR finding(s) if block still economically viable BA staff should review Site Plan to ensure SAR has been considered and management options are suitable for species habitat needs. Review SAR management options detailed in SP to ensure consistency with previous BA commitments Review any submissions by qualified professional(s) to ensure that they have been properly incorporated into the Site Plan and block/road engineering Seek corrections if inconsistencies or errors/omissions discovered Confirm documentation is present, if required, in relation to SAR and associated reports and recommendations. 	<i>Practices Forester Multiphase Forester</i>
<ul style="list-style-type: none"> Update SAR tracking form and attach to SAR Block Activity in Cengea Resources with other relevant documents and comments 	<i>Practices Forester Multiphase Forester</i>
<ul style="list-style-type: none"> Annual, detailed BA risk-based review of Site Plan population <ul style="list-style-type: none"> Focus on any high risk EMS/SAR areas that may have been previously identified by BA Planning section Confirm documentation is present, if required, in relation to SAR and associated reports and recommendations. 	<i>Practices Forester Operations Technician</i>



Species At Risk Management Process Standard Operating Procedure

February 24, 2011

PROCEDURE	RESPONSIBILITY
Stage 5: TSL/Contract Package Preparation	
<ul style="list-style-type: none"> • During preparation of TSL package, review CDC website and UBC Herbarium map layer in Resources to determine if any new SAR occurrences have been mapped in proposed area of activity <ul style="list-style-type: none"> • If new SAR found determine management requirements with QP input as deemed necessary • Refine SP, etc to incorporate new SAR finding(s) if block still economically viable 	<p><i>Operations Technician</i> <i>Multiphase Forester</i></p>
<ul style="list-style-type: none"> • Update SAR tracking form and attach to SAR Block Activity in Cengea Resources with other relevant documents and comments 	<p><i>Operations Technician</i> <i>Multiphase Forester</i></p>
<ul style="list-style-type: none"> • Review any SAR specific details that must be addressed in TSL or contract documents to ensure they are adequately incorporated into plan 	<p><i>Operations Technician</i> <i>Multiphase Forester</i></p>
Stage 6: TSL/Contract Pre-work	
<ul style="list-style-type: none"> • Review any SAR specific details in Site Plan with Licensee including discussions around how SAR management options were integrated into the block/road engineering and related Site Plans 	<p><i>Forest Technician</i> <i>Operations Technician</i></p>
<ul style="list-style-type: none"> • Provide summary of species characteristics to TSL Licensee to enable additional identification of new occurrences in the field <ul style="list-style-type: none"> ○ SAR name; Latin, common ○ Pictures ○ Reports 	<p><i>Forest Technician</i></p>
Stage 7: Conformance Quality Assurance (Inspection)	
<ul style="list-style-type: none"> • Review relevant plans and SAR descriptions/information to familiarize self with potential species 	<p><i>Forest Technician</i></p>
<ul style="list-style-type: none"> • Review relevant plans to ensure thorough understanding of how SAR species habitat needs were to be addressed in the field. 	<p><i>Forest Technician</i></p>
<ul style="list-style-type: none"> • Check operations to ensure consistency with legal plans. 	<p><i>Forest Technician</i></p>
<ul style="list-style-type: none"> • Where deviations from the plan have occurred that impact SAR follow standard conformance process. <ul style="list-style-type: none"> ○ Ensure appropriate agencies have been notified. 	<p><i>Forest Technician</i></p>
<ul style="list-style-type: none"> • Ensure non-conformances and/or potential non-compliances have been entered into the EMS Issue Tracking System and Action Plan has been developed. 	<p><i>Forest Technician</i></p>
<ul style="list-style-type: none"> • Return to field for follow-up inspection(s) to ensure any Action Plans/mitigation strategies have been implemented 	<p><i>Forest Technician</i></p>