## Hatfield-4201: Remediation and reclamation monitoring

## Remediation and reclamation monitoring

## Challenge

Challenge ID:	HCP-4201		Originator:	Onshore:	Hatfield		
Title:	Remediation and reclamation monitoring.						
Theme:	ON 4.2: Environmental monitoring - Continuous monitoring of changes throughout the lifecycle						
Consortium Lead:	C-CORE		Interviewed Company: C-CORE		2		
Geography:	ON.REG.00 - Generic onshore						
Challenge Description							
What is not possible / not adequately addressed at present?							
There is a need for improved quantification of the recovery of vegetation in disturbed areas, e.g. seismic lines,							
well pad areas. Ongoing monitoring and biomass estimates of re-growth would support regulatory requirements							
to assess restoration. Also need for improved integration and development of vegetation re-growth models with							
monitoring. Further need to separate naturally occurring trends in vegetation from project specific impacts.							
Typically a regulatory requirement to assess monitor and report recovery of developed and remediated areas							
Repeated environmental assessment may be required compared the baseline.							
Thematic information Distribution and status of infrastructure							
requirements:		Land cover					
1		Ortho base images					
Land use							
What do you currently do to address this challenge? How is this challenge conventionally addressed?							
In-situ monitoring performed and supported by field surveys and local knowledge. LiDAR based assessments are							
sometimes performed for vegetation structure and height to assess regrowth rates. An assumption of the recovery							
period may be made due to lack of data.							
What kind of solutions do you envisage could address this challenge?							
More frequent and consistent land cover trend analysis. Integrated biomass models with remote sensing inputs to							
Support scientific evidence that regrowth has been fully integrated into surrounding environment.							
Are you currently using EQ tech? If not why not?							
Biomass estimates can require very high-resolution data which can be expensive on a regional basis or even on							
site basis (e.g. distributed well pads). High resolution satellite image archives can be limited. Need to use							
information derived from different							
Challenge Classification							
Impact on Lifecycle (0=none, 4=high):			Climate / Topography / Urgency:				
Pre-license:		3	Climate class:		Generic climate		
Exploration:		1	Topographic c	class:	Forest / woodland		
Development:		2	2 Seasonal variations:		Warmer weather focus		
Production:		3	Impact area:		Environmental		
Decommissioni	ng:	4	Technology u	rgency:	3 - Immediately (0-2 years)		
Challenge Information Requirements							
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Data currently used:	LiDAR Aerial imagery High resolution optical imagery			
Spatial resolution:	Basin to License			
Thematic accuracy:	Not specific			
Required formats:	Not Specific			
Timeliness (Vintage):	Within six months			
Geographic extents:	Regional			
Existing standards:	None			

## Relevant products

Content by label

There is no content with the specified labels