

Hatfield-4304: Situational awareness information on water levels and lake extents and potential flooding

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Challenge

Challenge ID:	HCP-4304	Originator:	Onshore: Hatfield
Title:	Situational awareness information on water levels and lake extents and potential flooding.		
Theme:	ON 4.3: Environmental monitoring - Natural Hazard Risk Analysis		
Consortium Lead:	RPS Group	Interviewed Company:	RPS Group
Geography:	ON.REG.00 - Generic onshore		
Challenge Description			
What is not possible / not adequately addressed at present?			
Lack of up to date information on water levels and lake/river extents to support situational awareness. Need for improved health and safety management, e.g. safer crew demobilization under strenuous operational conditions.			
What effect does this challenge have on operations?			
With limited information on the extent and depth of a flooded areas, operations will cease until reliable information can prove that the situation has changed and is safe for ground crews to resume operations. There is always the potential for equipment (e.g. vibroseis truck) becoming stranded or stuck if the weather changes quickly and the site needs to be evacuated (e.g. extreme precipitation events that cause flooding). This is an Issue in Canada, the tropics, and anywhere with significant seasonality.			
Thematic information requirements:	Water quantity		
What do you currently do to address this challenge?			
How is this challenge conventionally addressed?			
Send out a scout to visually assess current conditions and talk to landowners and locals. Weather forecasts are closely monitored during exploration / seismic surveys.			
What kind of solutions do you envisage could address this challenge?			
Improved water-based EO information for planning and used as a monitoring tool during a survey. Increasingly local weather forecasts to predict wet season end / conditions could be integrated into logistics / planning.			
What is your view on the capability of technology to meet this need?			
Are you currently using EO tech? If not, why not?			
Rapid mapping of flood extent and rainfall estimates could contribute to a solution.			
Challenge Classification			
Impact on Lifecycle (0=none, 4=high):		Climate / Topography / Urgency:	
Pre-license:	1	Climate class:	Generic climate
Exploration:	4	Topographic class:	Not specific
Development:	4	Seasonal variations:	Wet season focus
Production:	3	Impact area:	Strategic decision enabler
Decommissioning:	2	Technology urgency:	3 - Immediately (0-2 years)
Challenge Information Requirements			
Update frequency:	Daily		
Data currently used:	Same as proposed, ground survey and high precision GPS		

Spatial resolution:	License
Thematic accuracy:	< 1m
Required formats:	Not specific
Timeliness (Vintage):	Daily
Geographic extents:	Regional
Existing standards:	None

Relevant products

Content by label

There is no content with the specified labels