

# Hatfield-1202: Identify rivers, lakes and wet areas to apply safe setback distances

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## Challenge

Challenge ID:	HCP-1202	Originator:	Onshore: Hatfield
Title:	Identify rivers, lakes and wet areas to apply safe setback distances.		
Theme:	ON 1.2: Seismic Planning - Identification of adverse terrain for trafficability		
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?			
Water bodies and wet areas need to be mapped to ensure proper setbacks are applied. Small lakes, rivers and wet areas may be inadequately mapped. It is important to avoid surface water and any potential impact on potable water.			
What effect does this challenge have on operations?			
Without up to date information, on the fly changes may be required to line design and gaps in source acquisition occur. Sufficient mitigation is more likely with adequate advance knowledge.			
Thematic information requirements:	Water quantity Distribution and status of infrastructure Topographic information		
What do you currently do to address this challenge?			
How is this challenge conventionally addressed?			
Topographic maps, aerial photography and other available satellite images. Review historical data to look for seasonal changes. Use LiDAR data where available.			
What kind of solutions do you envisage could address this challenge?			
Derive water courses based on DEM. Map of water bodies including under forest canopy.			
What is your view on the capability of technology to meet this need?			
Are you currently using EO tech? If not, why not?			
LiDAR survey and high-resolution satellite imagery is expensive. Seasonal variation in water bodies and wet areas requires multi-temporal and wet season imagery.			
Challenge Classification			
Impact on Lifecycle (0=none, 4=high):		Climate / Topography / Urgency:	
Pre-license:	2	Climate class:	Generic climate
Exploration:	4	Topographic class:	Not specific
Development:	2	Seasonal variations:	Any season
Production:	2	Impact area:	Environmental, Cost reduction, Data Quality
Decommissioning:	2	Technology urgency:	3 - Immediately (0-2 years)
Challenge Information Requirements			
Update frequency:	Snapshot		
Data currently used:	Reconnaissance, DEM, high resolution imagery (including Google Earth)		
Spatial resolution:	Basin		
Thematic accuracy:	Not specific		
Required formats:	Not Specific		

Timeliness (Vintage):	Within six months
Geographic extents:	Regional, Basin
Existing standards:	None

## Relevant products

**Content by label**

There is no content with the specified labels