# Hatfield-5303: Mapping land cover trends over the project area

## Mapping land cover trends over the project area

## Challenge

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|---|---|---|---|
| **Challenge ID:** | HCP-5303 | Originator: | Onshore: Hatfield |
| **Title:** | **Mapping land cover trends over the project area.** | | |
| Theme: | ON 5.3: Logistics planning and operations - Facility siting, pipeline routing and roads development | | |
| Consortium Lead: | C-CORE | Interviewed Company: | C-CORE |
| Geography: | ON.REG.00 - Generic onshore | | |

| **Challenge Description** | |
|---|---|
| What is not possible / not adequately addressed at present? | |
| Land cover trends over zone of influence need to be identified and assessed to determine or gain a better understanding of the driver for the trends (e.g. natural change drivers in the project area versus anthropogenically induced). | |
| What effect does this challenge have on operations? | |
| Understand pre-construction conditions and identify trends in land cover and land use in the project area. Attributing the impacts of specific projects to the cumulative impact of operations is critical to assessing operations. | |
| Thematic information requirements: | Land cover<br>Land use |
| What do you currently do to address this challenge?<br>How is this challenge conventionally addressed? | |
| Use EO information to determine baseline conditions, acquire or generate existing land use / land cover maps. Assess previous permitted activity reports. | |
| What kind of solutions do you envisage could address this challenge? | |
| Better integration of land cover trends with climatic data and models for future status. | |
| What is your view on the capability of technology to meet this need?<br>Are you currently using EO tech? If not, why not? | |
| Challenges associated with summer season in northern regions and availability of archive. | |

| **Challenge Classification** | | | |
|---|---|---|---|
| Impact on Lifecycle (0=none, 4=high): | | Climate / Topography / Urgency: | |
| Pre-license: | 3 | Climate class: | Generic climate |
| Exploration: | 1 | Topographic class: | Not specific |
| Development: | 3 | Seasonal variations: | Any season |
| Production: | 2 | Impact area: | Environmental |
| Decommissioning: | 3 | Technology urgency: | 3 - Immediately (0-2 years) |

| **Challenge Information Requirements** | |
|---|---|
| Update frequency: | Snapshot to annually |
| Data currently used: | Optical imagery, aerial imagery |
| Spatial resolution: | License |
| Thematic accuracy: | Not specific |
| Required formats: | Not specific |

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|---|---|
| Timeliness (Vintage): | Reference data |
| Geographic extents: | Regional |
| Existing standards: | None |

## Relevant products

**Content by label**

There is no content with the specified labels