



## Land Spill Model and Analysis System

**OILMAPLAND** is a land and surface water spill model system for simulating oil and chemical releases from pipelines and storage facilities. OILMAPLAND fills the need for a numerical modeling tool for oil and chemical spills that occur on land and then migrate to streams and lakes.

### OILMAPLAND

- Meets federal hazardous pipeline safety regulations
- Hindcasts/forecasts spills for response actions and training
- Aids oil spill contingency planning
- Supports oil spill response drills and education

### Features

- Models oil and chemical movement across land, in streams lakes and canals
- The model runs within a stand-alone GIS or as an extension to ArcGIS® for complete integration with existing facility data, High Consequence Area data, terrain models and surface water networks
- Provides a quantitative assessment of a potential worst-case release from a pipeline or other facility



### OILMAPLAND Model Highlights

- World-wide capability
- 2D and 3D capability
- Models spills that occur on land and migrate to streams and lakes
- System overlays model results with HCA's and other GIS data
- Utilizes ArcGIS® tools for buffering and spatial overlay analysis
- Creates maps for use in management plans, alignment sheets and other documents

OILMAPLAND is a valuable tool for addressing the requirements of the Pipeline Integrity Management Rule (49 CFR 195.452). Because it is GIS-based, it can be fully integrated with National Pipeline Mapping System data collected by the Office of Pipeline Safety or with corporate spatial databases. The spill model enables quick identification of pipeline segments with potential to impact HCA's and aids development of integrity management and baseline assessment plans. OILMAPLAND also assists in the development of spill response and training scenarios and in conducting tabletop response exercises.





## OILMAPLAND

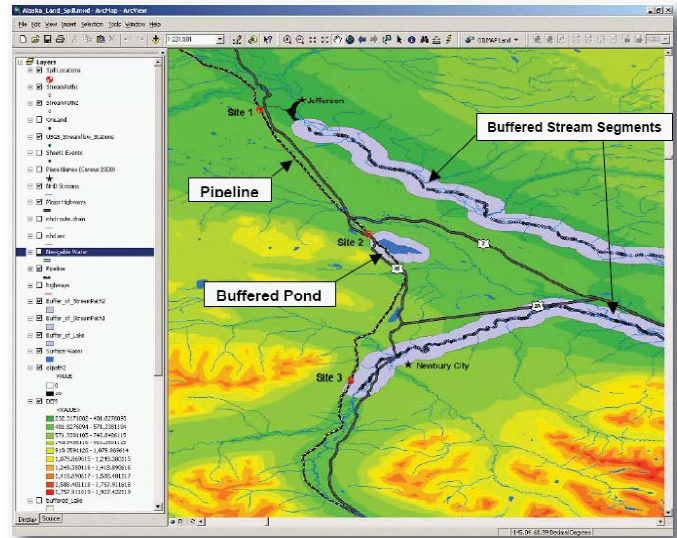
### Land Spill Model

The model calculates the overland flow of oils and chemicals from point source releases.

Processes modeled include:

- Spreading
- Evaporation
- Infiltration
- Depression storage

Mass balance calculations allow for a complete accounting of the product spilled and accurate determination of the path and behavior of the oil or chemical.



### Surface Water Model

Spilled hazardous liquids frequently travel only short distances overland before they enter a stream or a lake. The OILMAPLAND model system determines the path and physical fate of the spilled oil or chemical once it enters the surface water system. Processes modeled include:

- Evaporation
- Stream shoreline oiling

### Model Interface

The OILMAPLAND extension easily integrates with existing pipeline and facility spatial data sets. OILMAPLAND provides numerical modeling capabilities for all kinds of hazardous liquid spills from land-based pipelines and facilities.

### Other OILMAP Applications:

#### OILMAP

Rapidly generates predictions of the movement and weathering of spilled oil.

#### OILMAPDEEP

Provides rapid predictions of the movement of spilled oil from sub-sea releases.

ASA has built a wide range of computer modeling applications to solve various environmental problems. ASAMAP™, ASA's suite of environmental modeling tools, are available for licensed use and customization and include: AIRMAP, CHEMMAP, COASTMAP, HYDROMAP, OILMAP, SARMAP, SIMAP, MUDMAP and WQMAP. For more information visit our website at [www.asascience.com](http://www.asascience.com).



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