

## LANDIS-II – Wind 1.0 – Design

### Organization of Source Code

<u>Source File</u>	<u>Description</u>
PlugIn.cs	The main class of the plug-in. The core interacts with this class.
AssemblyInfo.cs	Information about the plug-in's assembly, e.g., description, copyright, etc.
Event.cs	This class that represents a single wind event. It includes the algorithms for initiation, spread and cohort damage.
SiteVars.cs	Site variables created by the plug-in
SeverityPixel.cs	The class is the type of pixels in wind-severity output maps. A pixel has one band: a byte value (8-bit).
ListOfEditable.cs	Auxiliary class used by input-related classes (see below). Eventually it will be moved into the utility library.

The remaining source files are all related to the input parameters. See Figure 1.

All of the plug-in's parameters:

Parameters.cs	The whole set of parameters in the input file.
IParameters.cs	Interface to the whole set of input parameters.
ParameterParser.cs	Reads the set of input parameters from text input.
EditableParameters.cs	Editable set of input parameters. It validates parameter values, and is used by the parser.

Wind event parameters:

EventParameterDataset.cs	Wind event parameters for all ecoregions.
EventParameters.cs	Wind event parameters for an ecoregion.
IEventParameters.cs	Interface to an ecoregions' wind event parameters.
EditableEventParameters.cs	Editable set of wind event parameters for an ecoregion. It validates parameter values, and is used by the parser.
IEditableEventParameters.cs	Interface to an editable set of wind event parameters for an ecoregion.

Wind severities:

Severity.cs	Definition of a wind severity
ISeverity.cs	Interface to a wind severity
EditableSeverity.cs	Editable definition of a wind severity. It validates parameter values, and is used by the parser.
IEditableSeverity.cs	Interface to editable wind severity.

Miscellaneous:

MapNames.cs	Used for validating the filename template in the input file, and for expanding the template to create the actual name of an output map.
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Figure 1. Relationship between the source code and the structure of input file.

