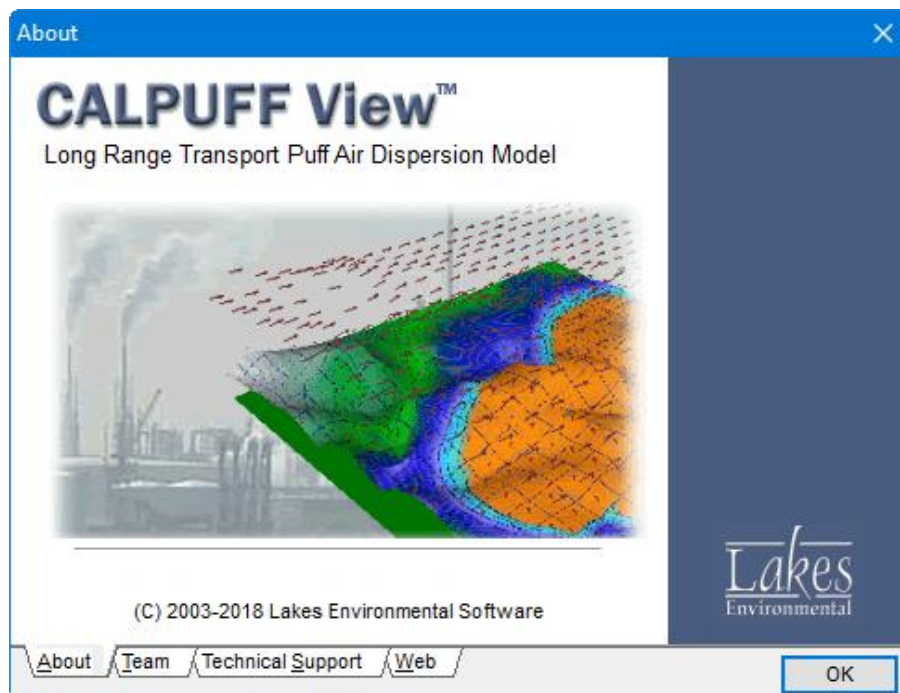


CALPUFF View™

Graphical Interface for the US EPA Approved Long Range Transport Model - CALPUFF

Release Notes

Version 8.5 and 8.6



Lakes Environmental Software
Tel: (519) 746-5995 - Fax: (519) 746-0793
E-mail: support@webLakes.com
Web Site: www.webLakes.com



© 2003-2018 - Copyright Lakes Environmental Software

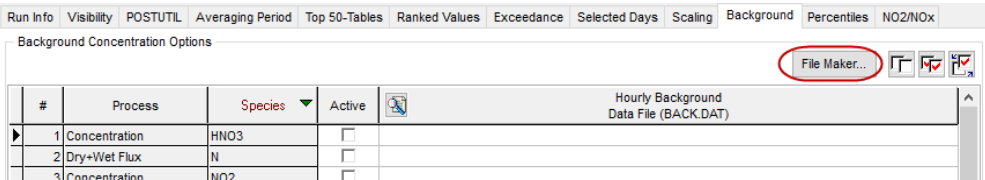
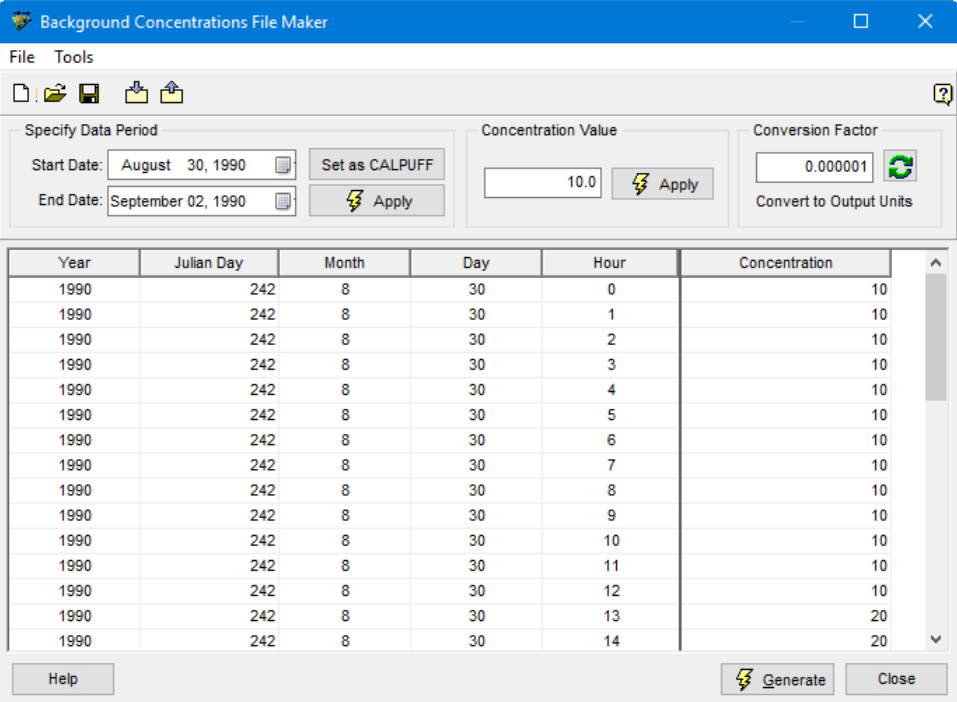
CALPUFF View™ Version 8.6.0

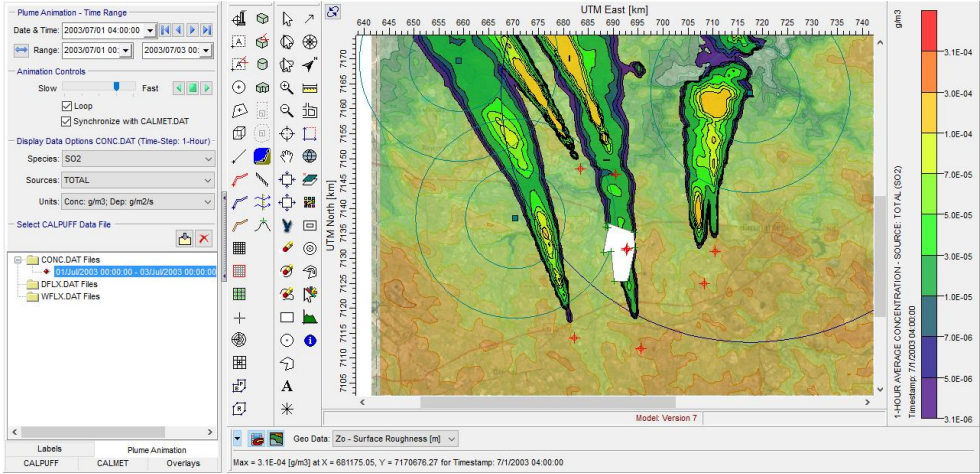
Release Notes

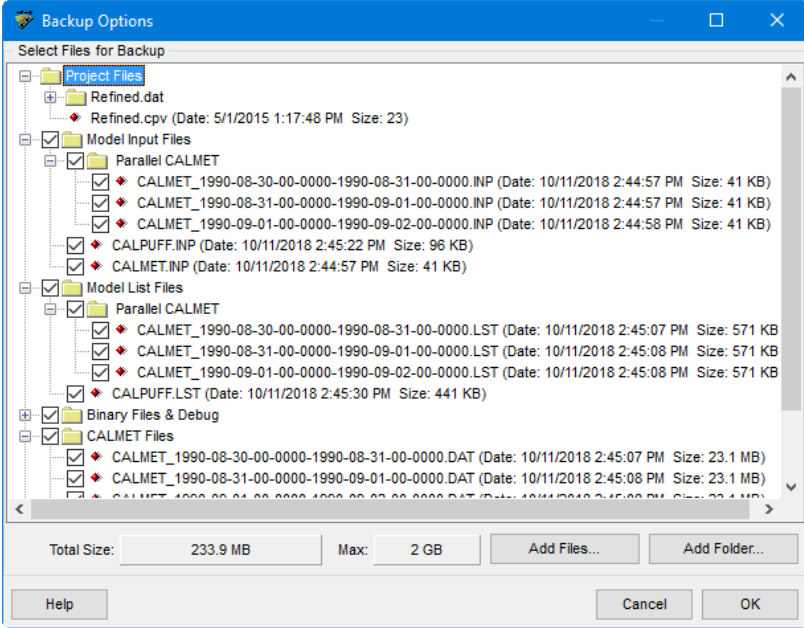
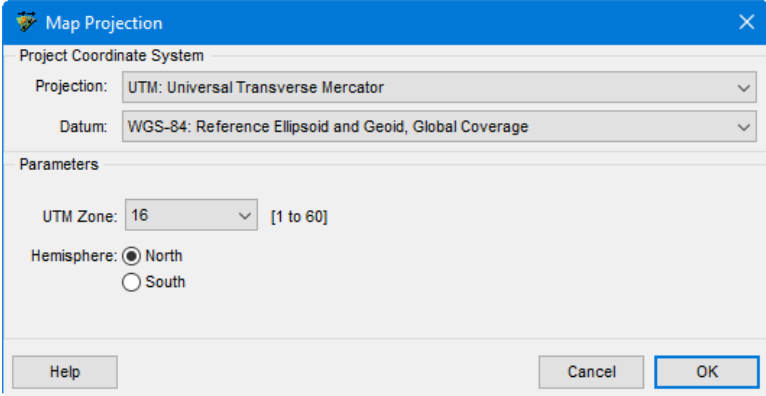
October 17, 2018

New Features

Topic	Feature Description																																																																																																																																
<p>Reports</p>	<p>Sensitive Receptors Report</p> <p>Modelers can now flag discrete receptors as Sensitive and CALPUFF View will produce a Sensitive Receptors report which detail concentrations and flux values at the selected receptors. This is useful when needing to quickly find concentrations at specific receptors.</p> <div data-bbox="431 877 1328 1234" style="border: 1px solid gray; padding: 5px;"> <p>Discrete Receptors</p> <table border="1"> <thead> <tr> <th>#</th> <th>Active</th> <th>ID</th> <th>X Coord. [m]</th> <th>Y Coord. [m]</th> <th>Ground Elevation [m]</th> <th>Height Above Ground [m]</th> <th>Sensitive</th> <th>Description (Optional)</th> </tr> </thead> <tbody> <tr><td>1</td><td><input checked="" type="checkbox"/></td><td>MACA_1</td><td>583302.16</td><td>4106839.17</td><td>219.00</td><td>0.00</td><td><input checked="" type="checkbox"/></td><td>Mammoth Cave NP (NPS;</td></tr> <tr><td>2</td><td><input checked="" type="checkbox"/></td><td>MACA_2</td><td>583293.03</td><td>4107763.67</td><td>213.00</td><td>0.00</td><td><input checked="" type="checkbox"/></td><td>Mammoth Cave NP (NPS;</td></tr> <tr><td>3</td><td><input checked="" type="checkbox"/></td><td>MACA_3</td><td>576612.64</td><td>4109549.49</td><td>183.00</td><td>0.00</td><td><input checked="" type="checkbox"/></td><td>Mammoth Cave NP (NPS;</td></tr> <tr><td>4</td><td><input checked="" type="checkbox"/></td><td>MACA_4</td><td>577352.88</td><td>4109556.25</td><td>213.00</td><td>0.00</td><td><input checked="" type="checkbox"/></td><td>Mammoth Cave NP (NPS;</td></tr> <tr><td>5</td><td><input checked="" type="checkbox"/></td><td>MACA_5</td><td>579573.58</td><td>4109576.92</td><td>244.00</td><td>0.00</td><td><input checked="" type="checkbox"/></td><td>Mammoth Cave NP (NPS;</td></tr> <tr><td>6</td><td><input checked="" type="checkbox"/></td><td>MACA_6</td><td>580313.82</td><td>4109583.94</td><td>243.00</td><td>0.00</td><td><input checked="" type="checkbox"/></td><td>Mammoth Cave NP (NPS;</td></tr> <tr><td>7</td><td><input checked="" type="checkbox"/></td><td>MACA_7</td><td>581054.06</td><td>4109591.02</td><td>244.00</td><td>0.00</td><td><input checked="" type="checkbox"/></td><td>Mammoth Cave NP (NPS;</td></tr> </tbody> </table> </div> <div data-bbox="431 1272 1421 1619" style="border: 1px solid gray; padding: 5px;"> <p>Reports</p> <ul style="list-style-type: none"> CALMET Parameters CALPUFF Parameters Results Summary Percentile Results Summary Sensitive Receptors Percentile Sensitive Receptors <p>Sensitive Receptors</p> <p>Refined Tutorial Observation Data Year 1990</p> <p>SO2 - Concentration: [ug/m**3]</p> <table border="1"> <thead> <tr> <th>Average Period</th> <th>Rank</th> <th>Peak</th> <th>Year, Julian Day, Start Hour</th> <th>X [km]</th> <th>Y [km]</th> <th>Receptor ID</th> <th>Receptor Descrip</th> </tr> </thead> <tbody> <tr><td>1-HOUR</td><td>1</td><td>9.6143E-002</td><td>1990, 242, 1300</td><td>583.302</td><td>4106.839</td><td>MACA_1</td><td>Mammoth Cave NP</td></tr> <tr><td>1-HOUR</td><td>2</td><td>8.7892E-002</td><td>1990, 242, 1200</td><td>583.302</td><td>4106.839</td><td>MACA_1</td><td>Mammoth Cave NP</td></tr> <tr><td>1-HOUR</td><td>3</td><td>8.3930E-002</td><td>1990, 242, 1100</td><td>583.302</td><td>4106.839</td><td>MACA_1</td><td>Mammoth Cave NP</td></tr> <tr><td>1-HOUR</td><td>10</td><td>9.8503E-004</td><td>1990, 242, 1800</td><td>583.302</td><td>4106.839</td><td>MACA_1</td><td>Mammoth Cave NP</td></tr> <tr><td>1-HOUR</td><td>1</td><td>9.9721E-002</td><td>1990, 242, 1300</td><td>583.293</td><td>4107.764</td><td>MACA_2</td><td>Mammoth Cave NP</td></tr> <tr><td>1-HOUR</td><td>2</td><td>9.3962E-002</td><td>1990, 242, 1200</td><td>583.293</td><td>4107.764</td><td>MACA_2</td><td>Mammoth Cave NP</td></tr> </tbody> </table> </div>	#	Active	ID	X Coord. [m]	Y Coord. [m]	Ground Elevation [m]	Height Above Ground [m]	Sensitive	Description (Optional)	1	<input checked="" type="checkbox"/>	MACA_1	583302.16	4106839.17	219.00	0.00	<input checked="" type="checkbox"/>	Mammoth Cave NP (NPS;	2	<input checked="" type="checkbox"/>	MACA_2	583293.03	4107763.67	213.00	0.00	<input checked="" type="checkbox"/>	Mammoth Cave NP (NPS;	3	<input checked="" type="checkbox"/>	MACA_3	576612.64	4109549.49	183.00	0.00	<input checked="" type="checkbox"/>	Mammoth Cave NP (NPS;	4	<input checked="" type="checkbox"/>	MACA_4	577352.88	4109556.25	213.00	0.00	<input checked="" type="checkbox"/>	Mammoth Cave NP (NPS;	5	<input checked="" type="checkbox"/>	MACA_5	579573.58	4109576.92	244.00	0.00	<input checked="" type="checkbox"/>	Mammoth Cave NP (NPS;	6	<input checked="" type="checkbox"/>	MACA_6	580313.82	4109583.94	243.00	0.00	<input checked="" type="checkbox"/>	Mammoth Cave NP (NPS;	7	<input checked="" type="checkbox"/>	MACA_7	581054.06	4109591.02	244.00	0.00	<input checked="" type="checkbox"/>	Mammoth Cave NP (NPS;	Average Period	Rank	Peak	Year, Julian Day, Start Hour	X [km]	Y [km]	Receptor ID	Receptor Descrip	1-HOUR	1	9.6143E-002	1990, 242, 1300	583.302	4106.839	MACA_1	Mammoth Cave NP	1-HOUR	2	8.7892E-002	1990, 242, 1200	583.302	4106.839	MACA_1	Mammoth Cave NP	1-HOUR	3	8.3930E-002	1990, 242, 1100	583.302	4106.839	MACA_1	Mammoth Cave NP	1-HOUR	10	9.8503E-004	1990, 242, 1800	583.302	4106.839	MACA_1	Mammoth Cave NP	1-HOUR	1	9.9721E-002	1990, 242, 1300	583.293	4107.764	MACA_2	Mammoth Cave NP	1-HOUR	2	9.3962E-002	1990, 242, 1200	583.293	4107.764	MACA_2	Mammoth Cave NP
#	Active	ID	X Coord. [m]	Y Coord. [m]	Ground Elevation [m]	Height Above Ground [m]	Sensitive	Description (Optional)																																																																																																																									
1	<input checked="" type="checkbox"/>	MACA_1	583302.16	4106839.17	219.00	0.00	<input checked="" type="checkbox"/>	Mammoth Cave NP (NPS;																																																																																																																									
2	<input checked="" type="checkbox"/>	MACA_2	583293.03	4107763.67	213.00	0.00	<input checked="" type="checkbox"/>	Mammoth Cave NP (NPS;																																																																																																																									
3	<input checked="" type="checkbox"/>	MACA_3	576612.64	4109549.49	183.00	0.00	<input checked="" type="checkbox"/>	Mammoth Cave NP (NPS;																																																																																																																									
4	<input checked="" type="checkbox"/>	MACA_4	577352.88	4109556.25	213.00	0.00	<input checked="" type="checkbox"/>	Mammoth Cave NP (NPS;																																																																																																																									
5	<input checked="" type="checkbox"/>	MACA_5	579573.58	4109576.92	244.00	0.00	<input checked="" type="checkbox"/>	Mammoth Cave NP (NPS;																																																																																																																									
6	<input checked="" type="checkbox"/>	MACA_6	580313.82	4109583.94	243.00	0.00	<input checked="" type="checkbox"/>	Mammoth Cave NP (NPS;																																																																																																																									
7	<input checked="" type="checkbox"/>	MACA_7	581054.06	4109591.02	244.00	0.00	<input checked="" type="checkbox"/>	Mammoth Cave NP (NPS;																																																																																																																									
Average Period	Rank	Peak	Year, Julian Day, Start Hour	X [km]	Y [km]	Receptor ID	Receptor Descrip																																																																																																																										
1-HOUR	1	9.6143E-002	1990, 242, 1300	583.302	4106.839	MACA_1	Mammoth Cave NP																																																																																																																										
1-HOUR	2	8.7892E-002	1990, 242, 1200	583.302	4106.839	MACA_1	Mammoth Cave NP																																																																																																																										
1-HOUR	3	8.3930E-002	1990, 242, 1100	583.302	4106.839	MACA_1	Mammoth Cave NP																																																																																																																										
1-HOUR	10	9.8503E-004	1990, 242, 1800	583.302	4106.839	MACA_1	Mammoth Cave NP																																																																																																																										
1-HOUR	1	9.9721E-002	1990, 242, 1300	583.293	4107.764	MACA_2	Mammoth Cave NP																																																																																																																										
1-HOUR	2	9.3962E-002	1990, 242, 1200	583.293	4107.764	MACA_2	Mammoth Cave NP																																																																																																																										

Topic	Feature Description
<p>CALMET</p>	<p>Multi-Processor CALMET File Division Refinement</p> <p>The parallelized CALMET routine was updated to provide more intelligent selection of start and end dates of individual runs. The updated routine avoids file divisions which mimic those found in prognostic data files which can lead to fatal run errors in specific situations.</p>
<p>CALPOST</p>	<p>Background Concentration File Maker Utility</p> <p>A File Maker utility was added to the CALPOST Options Background tab to aid in the generation of hourly background concentration / deposition flux files (i.e., BACK.DAT). Options for selecting the data period, applying concentration values across ranges, and setting the conversion factor are available.</p>   <p>Note: See Known Issues for an important note about this model function.</p>

Topic	Feature Description
<p>CALPOST</p>	<p>Discrete Receptor Selection Optimization</p> <p>When selecting a subset of discrete receptors for processing in CALPOST, the Specify Receptors to Process table has been optimized to:</p> <ul style="list-style-type: none"> • Display all discrete receptor IDs for easier receptor identification • Limit X & Y coordinate figures so fields are fully readable • Include a visual identifier of which receptors were flagged as Sensitive in the CALPUFF run.
<p>CALPOST</p>	<p>POSTUTIL Run Optimization</p> <p>CALPOST execution was optimized to support POSTUTIL output file sizes in excess of 2GB.</p> <p>Note: Minimum memory requirements of at least 1 GB are required for percentile calculations with such large file sizes.</p>
<p>CALSUM Wizard</p>	<p>Automatic Output File Loading</p> <p>Upon successful completion of the CALSUM Wizard, the combined output files (e.g., CONC.DAT, DFLX.DAT, WFLX.DAT) are automatically loaded into CALPUFF View’s Plume Animation display.</p> 

Topic	Feature Description
<p>Project Backup</p>	<p>Parallel CALMET Files Included</p> <p>CALPUFF View’s integrated project backup utility now includes all files produced by the Multi-Processor CALMET routines.</p> 
<p>Map Projection</p>	<p>Updated Descriptions</p> <p>Updates were applied to the Map Projection dialog:</p> <ul style="list-style-type: none"> • Expanded window width so all descriptions are visible • Datum descriptions were updated to reflect current model-integrated selections 

Fixed Issues

Topic	Issue Description
CALPUFF	<p>Output Units Update</p> <p>Updated selection of Output Units based on Units defined in Emission Rates.</p> <p>Note: CALPUFF assigns the same Output Unit to all sources in a project. Verify that emission rates were set to the same unit to avoid errors in model setup.</p>
Sources	<p>Rectangular Area Source Coordinate Description</p> <p>Coordinate descriptions for Area-Rectangular sources were updated to reflect that the displayed coordinates are the SW corner and not the center of the model object.</p>
Import	<p>Lake Breeze Data Imported</p> <p>When creating a new project from an existing CALMET input file, lake breeze information was not included. This issue has been resolved.</p>
Overlays	<p>Maintaining Grid Layer Selections</p> <p>The Meteorological Grid and Computational Grid layers will remain hidden if previously unchecked by the user upon completion of model routines which add new layers to the Overlays Tree View (e.g., Geophysical Processor, Sampling Grid, etc.).</p>
Tools	<p>DEM Converter Correction</p> <p>The DEM Converter was updated to properly write projection information for the South hemisphere. Previous iterations of the tool would write UTM zones as North hemisphere values.</p>
Tools	<p>Coordinate Converter Multiple Locations Update</p> <p>When using the Multiple Locations (File) option, converting coordinates from the NAD83 to the NAD27 datums of the same projection (e.g., UTM) would return results converted from the WGS84 datum instead. This has been corrected.</p>

Topic	Issue Description
CALSUM Wizard	Scaling Factors Fix Previous versions of CALPUFF View did not properly account for multiplicative scaling factors (A values) much less than 0.1. This has been corrected and values are now written using scientific notation.

Known Issues

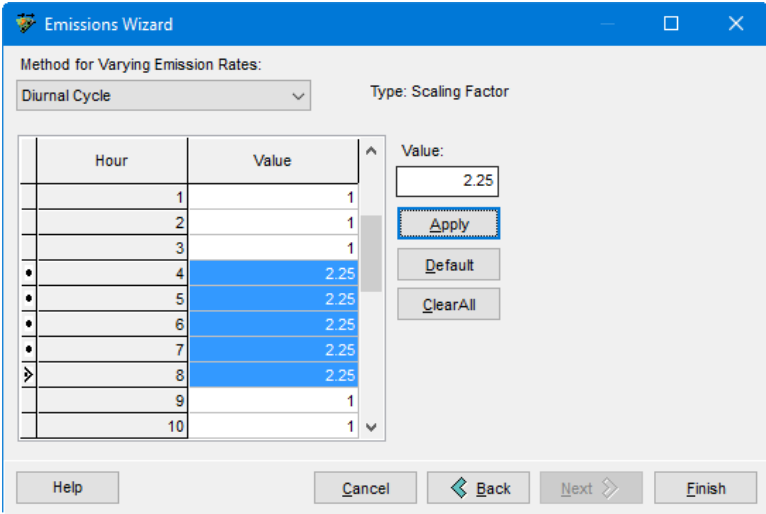
Topic	Issue Description
CALPOST Options	Background Data Files Not Accepted in EPA-Approved Version A bug in the model code prevents the EPA-Approved CALPOST model (Version 6.221, Level 080724) from reading hourly background data files (BACK.DAT). Code modification is necessary for the process to work correctly.

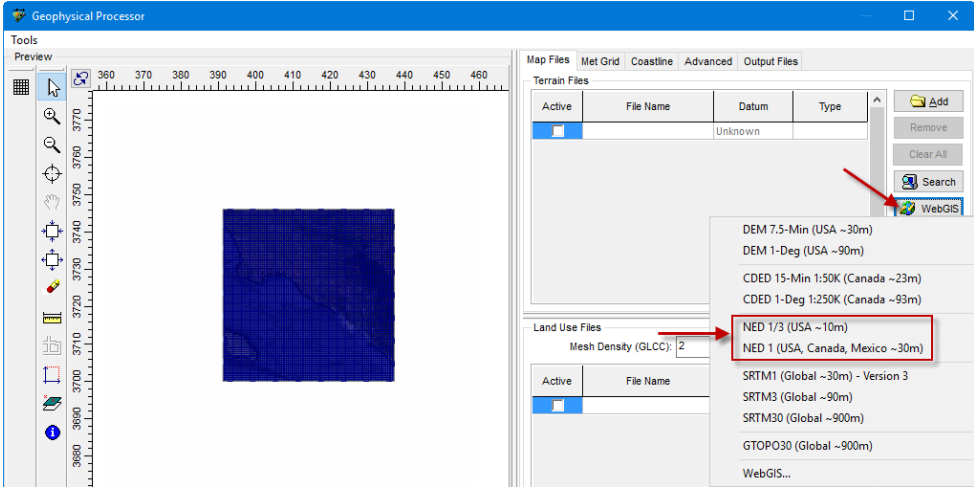
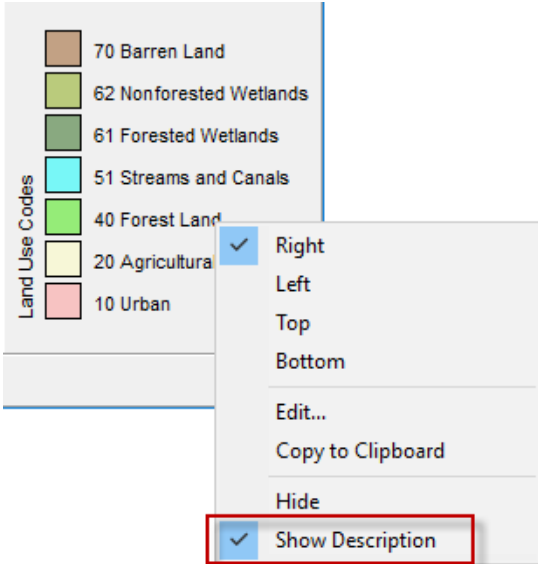
CALPUFF View™ Version 8.5.0

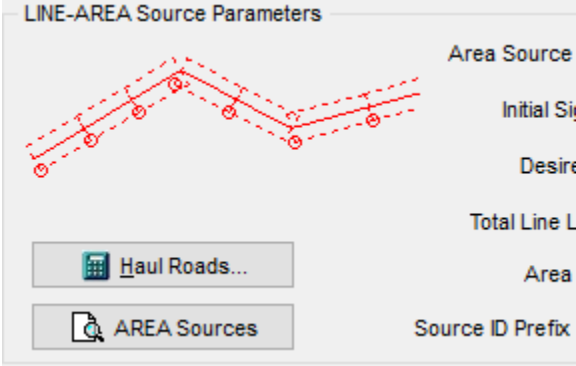
Release Notes

March 17, 2017

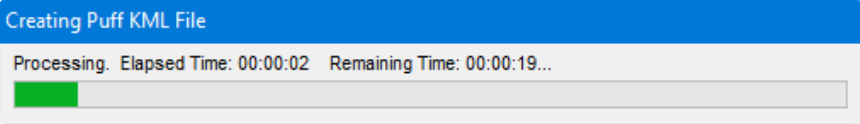
New Features

Topic	Feature Description
<p>CALPUFF</p>	<p>Multi-Row Select and Apply Values</p> <p>The Apply button now works on user-specified selections of multiple rows instead of applying values to all cells in a table. Updated sections include Emissions Wizard and Chemical Transformation monthly ozone and ammonia tabs.</p> 

Topic	Feature Description
<p>Geo Processor</p>	<p>Updated NED Terrain Download Routines</p> <p>The process for downloading USGS National Elevation Dataset 1/3 arc-second (NED 1/3) and 1 arc-second (NED 1) data formats has been updated to reflect a name change implemented by USGS in their storage servers. The updated download includes updated tiles in some locations.</p>  <p>The screenshot shows the Geophysical Processor interface. On the right, the 'Terrain Files' list includes several options. A red box highlights 'NED 1/3 (USA ~10m)' and 'NED 1 (USA, Canada, Mexico ~30m)'. A red arrow points to the 'WebGIS' button in the toolbar.</p>
<p>Land Use Color Ramp</p>	<p>Show / Hide Description Option</p> <p>The Land Use Color Ramp can now be directly modified from the context menu to show or hide the code description. Right-click the Color Ramp and select or de-select the Show Description option to show or hide the description.</p>  <p>The screenshot shows a 'Land Use Codes' list with a context menu open over it. The 'Show Description' option at the bottom of the menu is highlighted with a red box and has a checkmark next to it.</p>

Topic	Feature Description
<p>Sources</p>	<p>Updated Captions for Line-Area and Line-Volume Sources</p> <p>The group box captions for the Line-Area and Line-Volume source types were updated for consistency. All functionality remains the same as in prior versions.</p> 
<p>Sources</p>	<p>Checks Against Model Version</p> <p>Additional warnings were implemented to avoid errors caused by using source types with improper model versions. For example, the ROAD source type is only allowed in the Version 7 model.</p>
<p>Site Domain</p>	<p>Updated Projection Support</p> <p>Support for listed projections was updated to match settings in publicly-available model executables.</p> <p>The Equatorial Mercator (EM), Polar Stereographic (PS), and Lambert Azimuthal Equal Area (LAZA) projections remain supported in the interface for projects utilizing user-specified model executables. The default model executables made available by the model developer will not support these, however. Appropriate warning messages have been added.</p>

Fixed Issues

Topic	Issue Description
Export Puffs to Google Earth	<p>Updated Puffs to Google Earth Tool</p> <p>The process for exporting puffs to Google Earth was updated to restore the Puffs Representation layer when the Puff Tracking modeled period was different from the CALPUFF start time. The updated puff generator also corrects an issue with Windows 8 and Windows 10 where old versions of Microsoft .NET were not installed by default.</p> 
Met Preprocessor	<p>Overwater Template File Added</p> <p>A missing overwater template file led to run failures when the Version 7 modeling system was used. The file has been added.</p>
Sources	<p>Deleting Polygon Area Source Vertices</p> <p>An issue was addressed which caused an error when deleting individual vertices from an individual polygon area source.</p>
Receptors	<p>Nested Grid Receptor Updates</p> <p>The Generate Receptors button in the Nested Grid window has been restored. In addition, the center receptor of the grid was not generated. This has been resolved.</p>
CALSUM Utility	<p>Import Existing CALSUM Input Files</p> <p>The utility was updated to import information more accurately from existing CALSUM input files.</p>