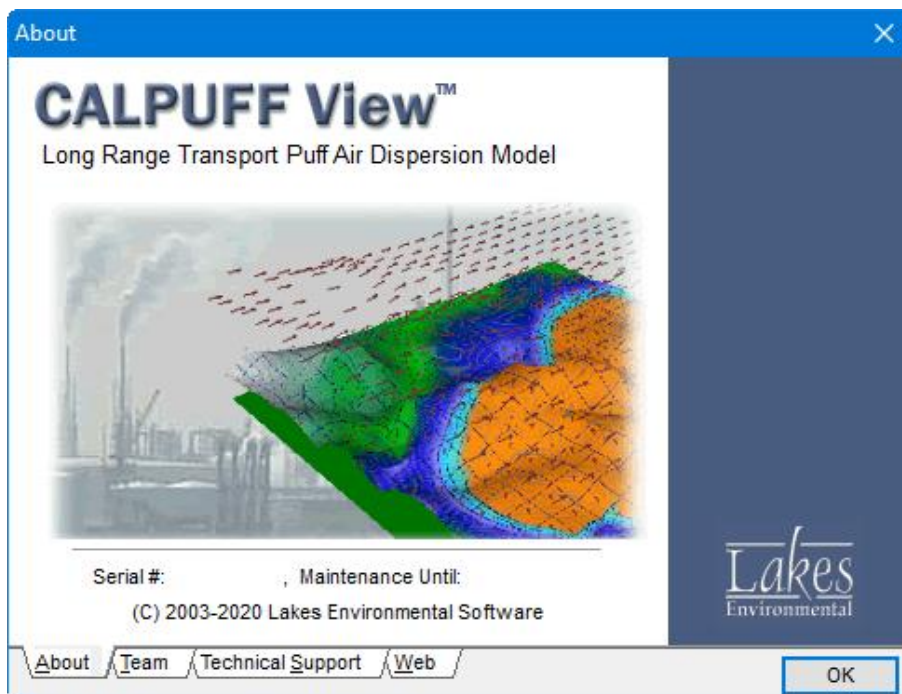


# CALPUFF View™

Puff Air Dispersion Model – CALPUFF

## Release Notes

Versions 9.0.0



Lakes Environmental Software  
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**Lakes**  
Software

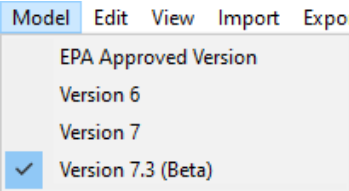
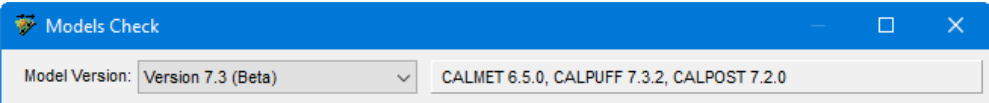
© 1996-2020 Lakes Environmental Software

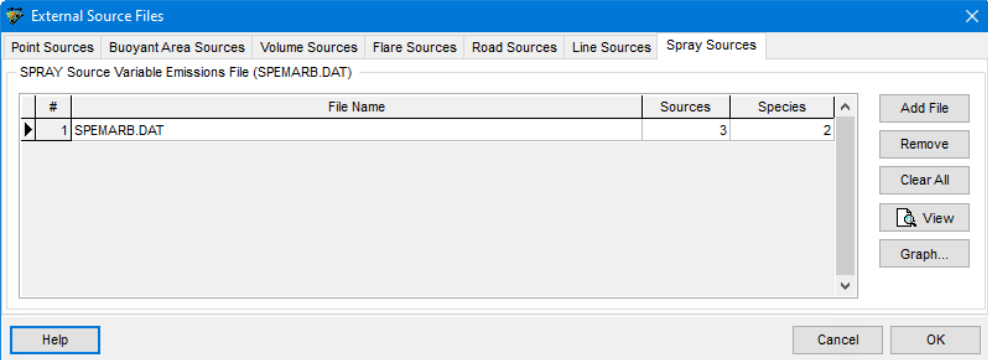
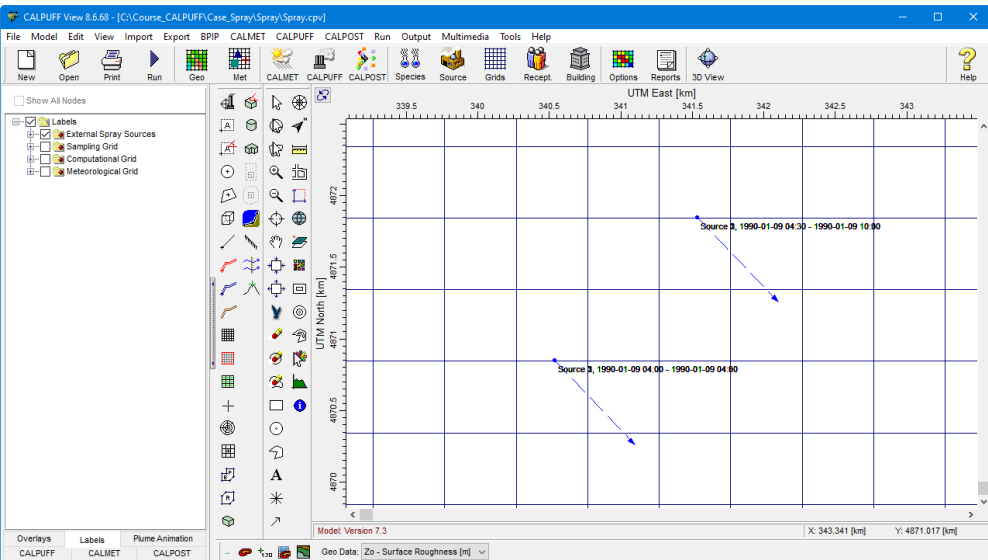
# CALPUFF View™ Version 9.0.0

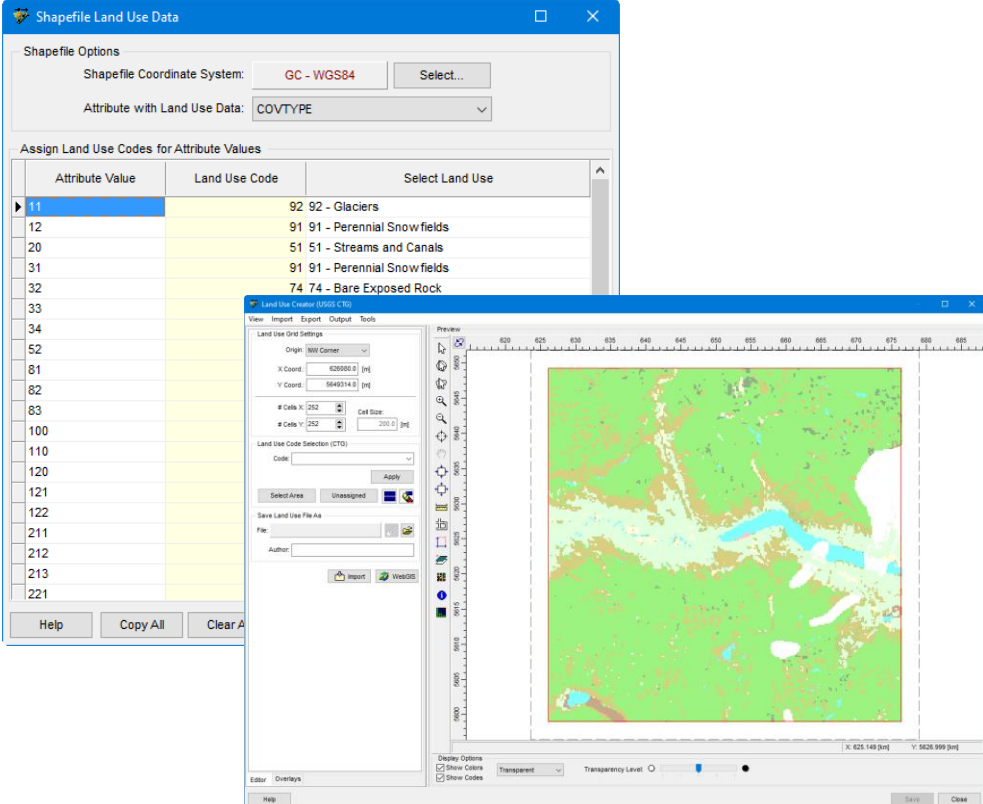
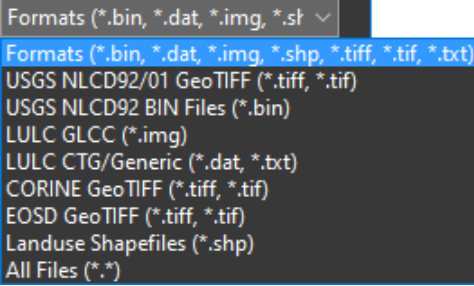
## Release Notes

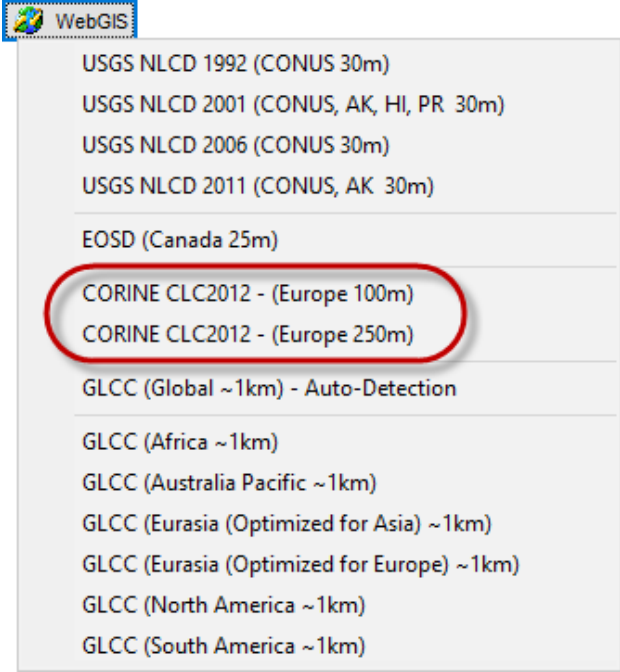
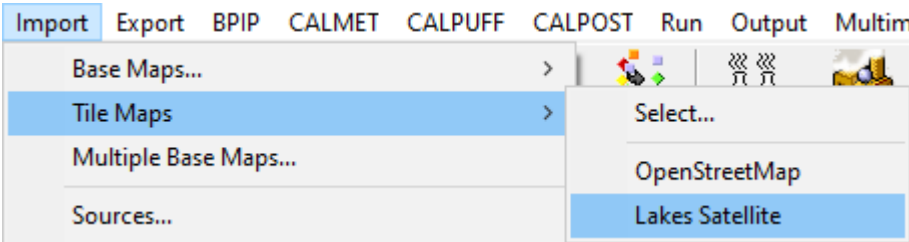
February 20, 2020

### New Features

Topic	Feature Description
<p><b>Models</b></p>	<p><b>Support for New Version 7 BETA Release Executables</b></p> <p><b>CALPUFF View Version 9.0</b> now supports the following BETA Version 7 system executables released on February 6, 2020:</p> <ul style="list-style-type: none"> <li>• CALPUFF Version 7.3.2, Level 200113</li> <li>• CALPOST Version 7.2.0, Level 150720</li> <li>• POSTUTIL Version 7.1.0, Level 190930</li> <li>• CALSUM Version 7.1.0, Level 190131</li> </ul>  <p>The <b>Models Check</b> utility searches for the updated executables and associated parameterization files as a separate <b>Version 7.3 (Beta)</b> in the <b>Model Version</b> selection.</p>  <p><b>Note:</b> You must download the updated Version 7 system BETA models from the <a href="#">Exponent web site</a> as the model executables are not included in the CALPUFF View installation. Follow the CALPUFF View Model Download Instructions document for specific installation information.</p>

Topic	Feature Description
<p><b>CALPUFF</b></p>	<p><b>New Agricultural Spraying Source Type (CALPUFF 7.3.2)</b></p> <p>CALPUFF Model Version 7.3.2 includes a new <b>SPRAY source type</b>. Designed to handle output from the U.S. Department of Agriculture (USDA) ADISP model, this source models emissions produced during aerial spraying activities as a set of line sources. Spray inputs are provided as an <b>external source file (SPEMARB.DAT)</b>.</p>  

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<p><b>Land Use Creator</b></p>	<p><b>Support for Shapefile Land Use Data</b></p> <p>Shapefile land use data, including GeoBase Land Use data available from Natural Resources Canada’s Geogratis FTP archive, can now be imported to the <b>Land Use Creator</b> utility to generate land use data files compatible with CALPUFF View’s Geophysical Processor. This includes a utility for modelers to define land use codes for each shapefile attribute.</p>  <table border="1" data-bbox="462 682 1063 1144"> <thead> <tr> <th>Attribute Value</th> <th>Land Use Code</th> <th>Select Land Use</th> </tr> </thead> <tbody> <tr> <td>11</td> <td>92</td> <td>92 - Glaciers</td> </tr> <tr> <td>12</td> <td>91</td> <td>91 - Perennial Snowfields</td> </tr> <tr> <td>20</td> <td>51</td> <td>51 - Streams and Canals</td> </tr> <tr> <td>31</td> <td>91</td> <td>91 - Perennial Snowfields</td> </tr> <tr> <td>32</td> <td>74</td> <td>74 - Bare Exposed Rock</td> </tr> <tr> <td>33</td> <td></td> <td></td> </tr> <tr> <td>34</td> <td></td> <td></td> </tr> <tr> <td>52</td> <td></td> <td></td> </tr> <tr> <td>81</td> <td></td> <td></td> </tr> <tr> <td>82</td> <td></td> <td></td> </tr> <tr> <td>83</td> <td></td> <td></td> </tr> <tr> <td>100</td> <td></td> <td></td> </tr> <tr> <td>110</td> <td></td> <td></td> </tr> <tr> <td>120</td> <td></td> <td></td> </tr> <tr> <td>121</td> <td></td> <td></td> </tr> <tr> <td>122</td> <td></td> <td></td> </tr> <tr> <td>211</td> <td></td> <td></td> </tr> <tr> <td>212</td> <td></td> <td></td> </tr> <tr> <td>213</td> <td></td> <td></td> </tr> <tr> <td>221</td> <td></td> <td></td> </tr> </tbody> </table>	Attribute Value	Land Use Code	Select Land Use	11	92	92 - Glaciers	12	91	91 - Perennial Snowfields	20	51	51 - Streams and Canals	31	91	91 - Perennial Snowfields	32	74	74 - Bare Exposed Rock	33			34			52			81			82			83			100			110			120			121			122			211			212			213			221		
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<p><b>Land Use Creator</b></p>	<p><b>Import List Updated with Additional Formats</b></p> <p>In addition to the existing USGS NLCD, GLCC, CORINE, and EOSD data formats, <b>USGS CTG</b>, <b>Generic</b>, and <b>Shapefile</b> land use files can now be imported directly to the <b>Land Use Creator</b> utility.</p>  <pre data-bbox="446 1585 917 1869"> Formats (*.bin, *.dat, *.img, *.shp, *.tiff, *.tif, *.txt) USGS NLCD92/01 GeoTIFF (*.tiff, *.tif) USGS NLCD92 BIN Files (*.bin) LULC GLCC (*.img) LULC CTG/Generic (*.dat, *.txt) CORINE GeoTIFF (*.tiff, *.tif) EOSD GeoTIFF (*.tiff, *.tif) Landuse Shapefiles (*.shp) All Files (*.*)                     </pre>																																																															

Topic	Feature Description
<p><b>Land Use Data</b></p>	<p><b>Added CORINE 2012 Support</b></p> <p>Automated downloads of CORINE land use data (covering Europe) have been updated to the <b>2012 data products</b>. This includes WebGIS functions in the <b>Geophysical Processor</b> and <b>Land Use Creator</b> utility.</p>  <p>The screenshot shows a 'WebGIS' menu with the following items: USGS NLCD 1992 (CONUS 30m), USGS NLCD 2001 (CONUS, AK, HI, PR 30m), USGS NLCD 2006 (CONUS 30m), USGS NLCD 2011 (CONUS, AK 30m), EOSD (Canada 25m), CORINE CLC2012 - (Europe 100m) (circled in red), CORINE CLC2012 - (Europe 250m) (circled in red), GLCC (Global ~1km) - Auto-Detection, GLCC (Africa ~1km), GLCC (Australia Pacific ~1km), GLCC (Eurasia (Optimized for Asia) ~1km), GLCC (Eurasia (Optimized for Europe) ~1km), GLCC (North America ~1km), and GLCC (South America ~1km).</p>
<p><b>Tile Maps</b></p>	<p><b>Direct Server Selection from Import Menu</b></p> <p>The <b>Import   Tile Maps</b> menu has been expanded to allow automatic import of <b>OpenStreetMap</b> and <b>Lakes Satellite</b> layers from the menu itself.</p> <p>The <b>Import Tile Maps</b> dialog for setting display options or selecting additional servers can be opened via the <b>Select...</b> option.</p>  <p>The screenshot shows the 'Import' menu with options: Base Maps..., Tile Maps (selected), Multiple Base Maps..., and Sources... The 'Tile Maps' sub-menu is open, showing 'Select...', 'OpenStreetMap', and 'Lakes Satellite' (highlighted).</p>

Topic	Feature Description
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**CALPUFF**

**Ozone Stations – Statistics & Graph**

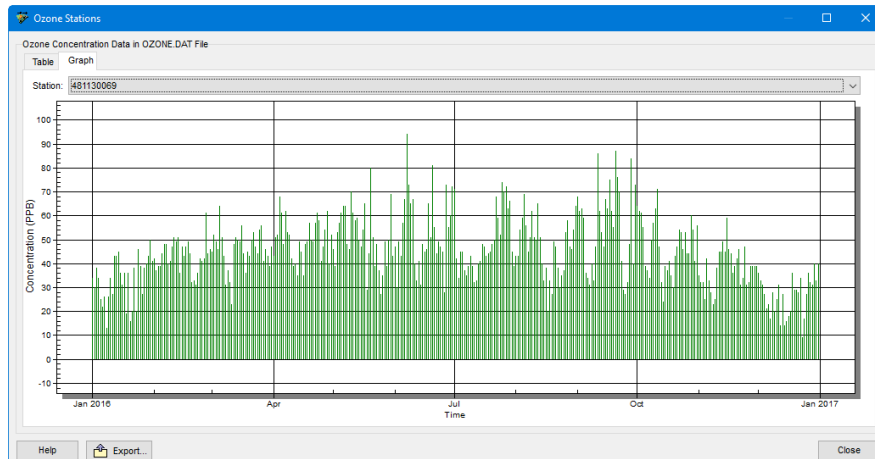
The Ozone Stations dialog has been updated to provide additional information.

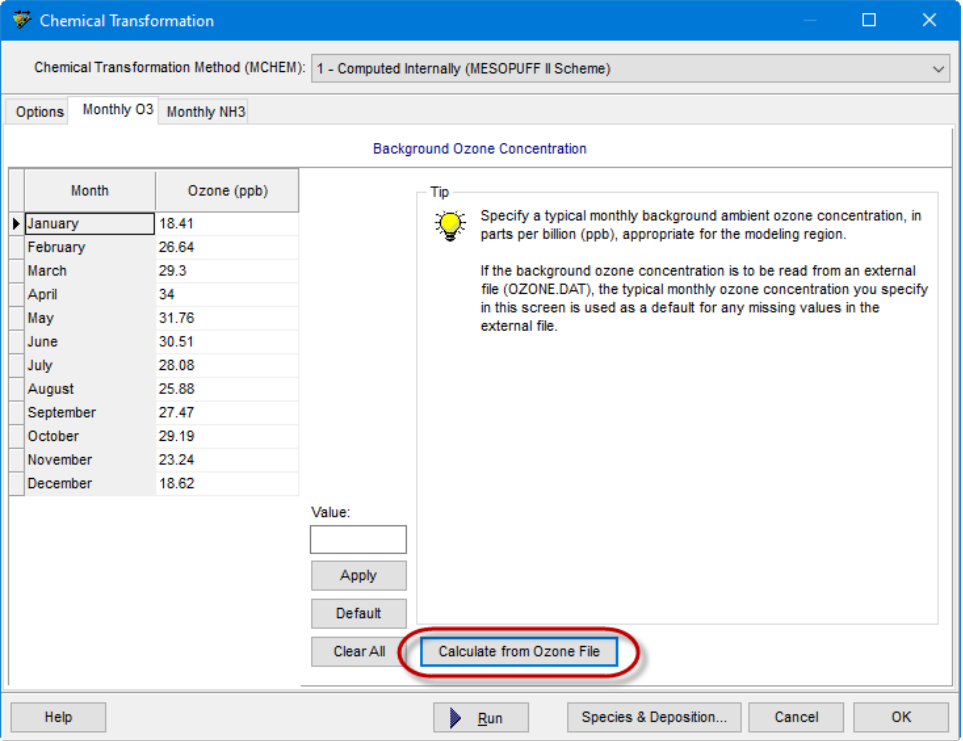
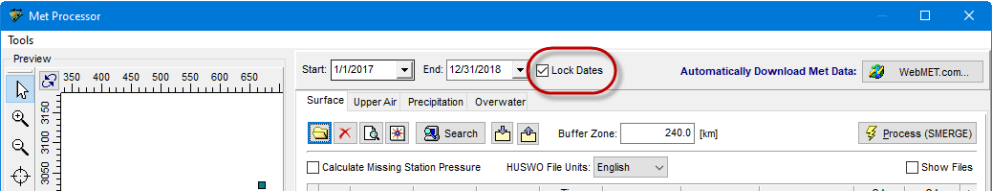
- The **Table** view displays additional data including Total Hours, percent of missing data, period average and monthly average concentrations.

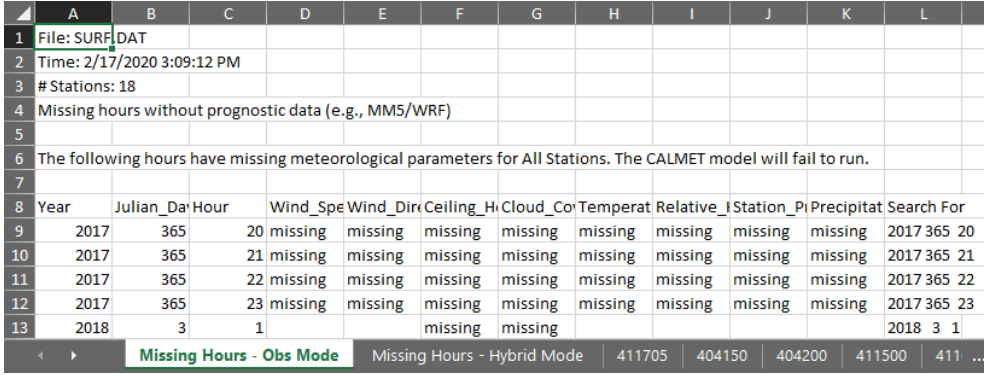
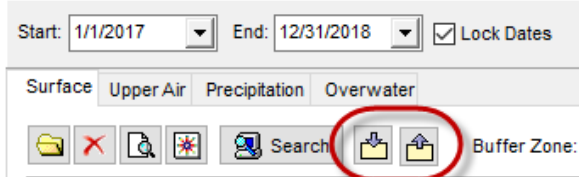
The screenshot shows the 'Ozone Stations' dialog box with the 'Table' view selected. It displays a list of 48 stations with columns for ID, X (km), Y (km), Total Hours, % Missing, Total Avg (PPB), and monthly averages from Jan to Dec. The table data is as follows:

#	ID	X (km)	Y (km)	Total Hours	% Missing	Total Avg (PPB)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	050199991	-9.104	-90.964	8784	12.4	34.08	24	29	30	30	27	24	21	18	23	22	21	18
2	051010002	-18.808	92.356	8784	0.4	34.57	32	37	39	42	38	37	30	28	33	37	35	29
3	051130003	-105.017	-59.877	8784	0.3	36.76	34	39	42	44	38	37	35	31	36	40	37	29
4	051190007	65.763	-26.795	8784	2.5	25.97	23	28	29	33	31	31	27	22	26	24	22	16
5	051191002	67.594	-17.964	8784	0.1	30.15	28	33	35	37	34	33	27	23	30	32	28	21
6	051430005	-100.426	131.381	8784	0.4	29.48	26	31	32	37	34	33	30	26	28	30	26	22
7	051430006	-105.195	112.801	8784	0.2	27.78	27	32	32	35	31	27	26	23	24	27	26	23
8	220150008	-70.376	-272.927	8784	11.6	27.70	24	26	36	35	34	26	28	24	25	27	25	22
9	220170001	-80.820	-256.526	8784	5.2	25.87	26	31	34	33	31	24	24	19	21	25	25	20
10	220730004	89.654	-275.682	8784	11.0	27.07	26	31	35	33	32	29	20	19	25	27	26	22
11	280110001	210.886	-136.622	8784	36.6	31.70	0	0	34	37	39	33	27	24	30	31	0	0
12	290770036	-26.809	250.296	8784	42.0	31.22	0	0	0	37	34	34	29	28	28	29	0	0
13	290970004	-126.431	249.201	8784	41.8	31.71	0	0	0	36	35	35	30	27	26	30	0	0
14	292130004	-19.833	189.418	8784	41.9	27.13	0	0	0	36	30	29	23	22	24	25	0	0
15	400019009	-150.932	84.506	8784	11.8	31.59	29	35	35	38	34	32	30	29	30	33	30	25
16	400219002	-179.290	96.487	8784	32.7	29.15	0	43	32	36	32	29	27	27	28	28	25	18
17	400370144	-302.469	127.677	8784	9.5	32.62	26	34	34	37	36	35	35	34	31	33	30	24
18	400690324	-335.596	-80.819	8784	40.7	29.62	0	0	0	37	33	32	31	27	27	30	28	23
19	400719010	-358.936	224.215	8784	29.3	32.65	0	33	32	35	35	37	35	31	30	33	27	23

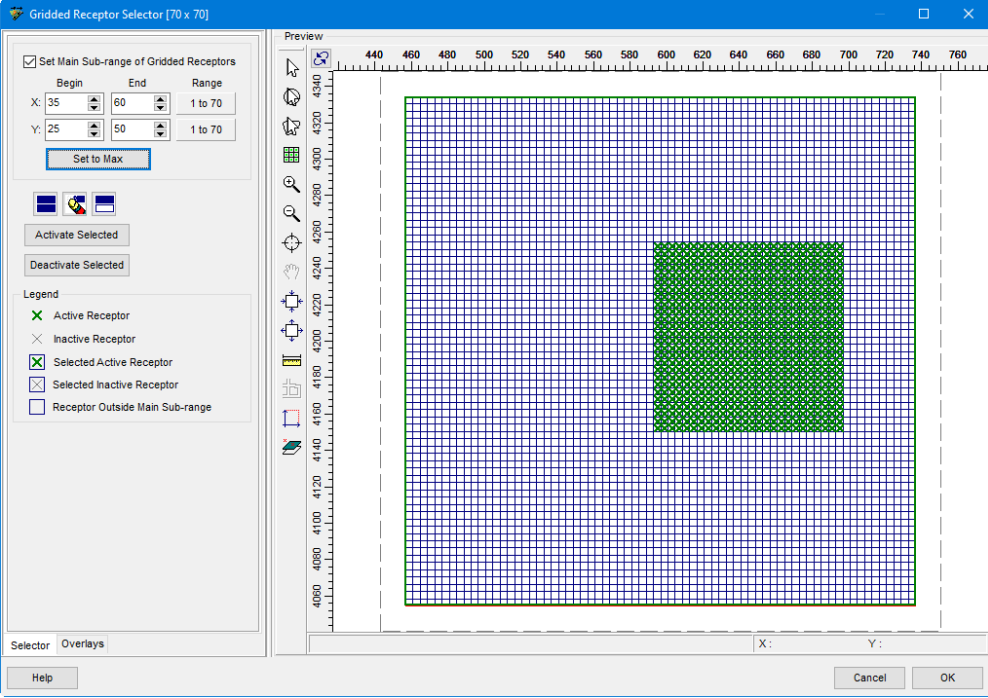
- Table data can be **exported to Excel** spreadsheet.
- A new **Graph** display which shows a line graph of hourly data values.

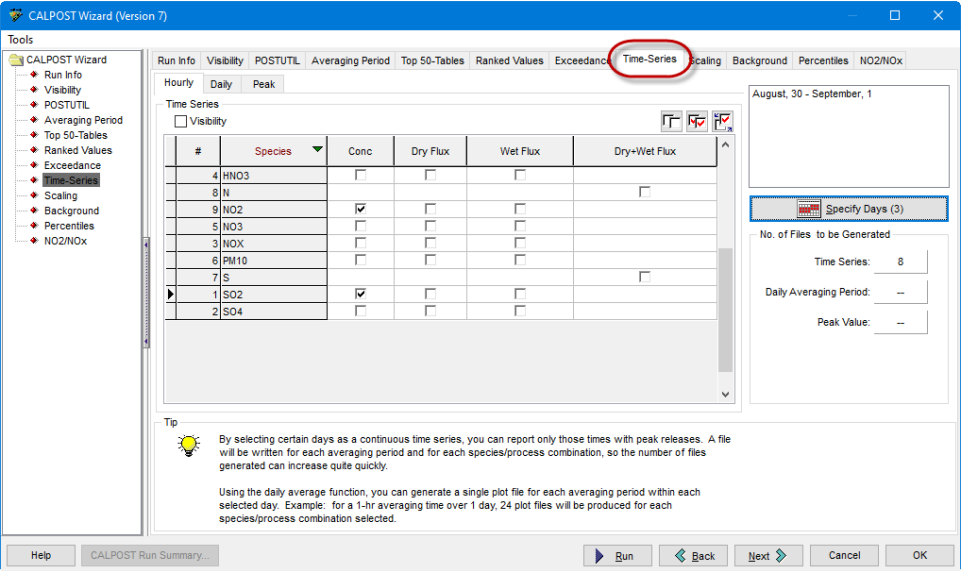


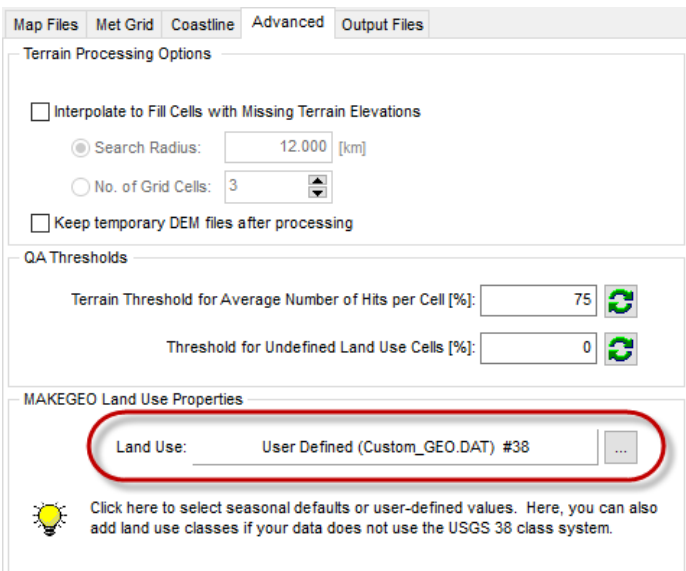
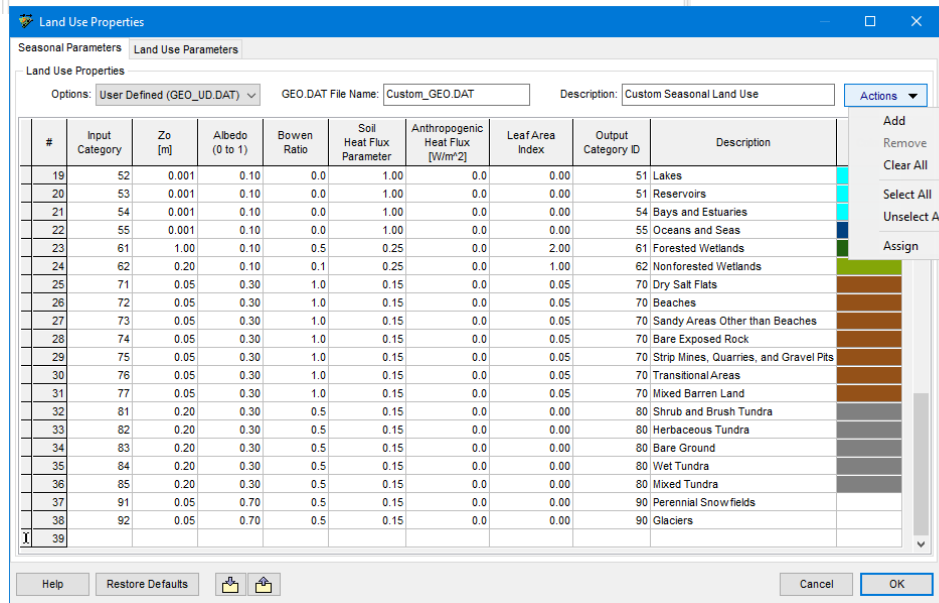
Topic	Feature Description
<p><b>CALPUFF</b></p>	<p><b>Calculate Monthly Ozone from Hourly Background</b></p> <p>When an hourly background ozone file is provided, data in the Monthly O3 tab of the Chemical Transformation options can be calculated using data from the file itself. In this case, data from the Monthly O3 tab will be used to fill gaps in the hourly data file.</p> 
<p><b>Met Processor</b></p>	<p><b>Added Lock Dates Option</b></p> <p>A new checkbox added to the <b>Met Processor</b> gives users the ability to lock the <b>Start</b> and <b>End</b> dates for processing their Surface, Upper Air, Precipitation, and Overwater observations. This option overrides the application's default behavior of reading dates from the specified files.</p> 

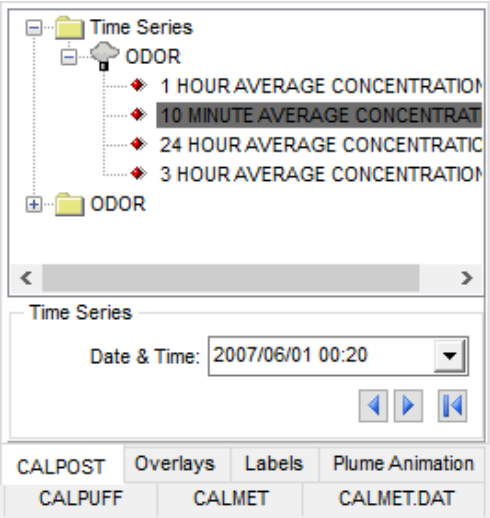
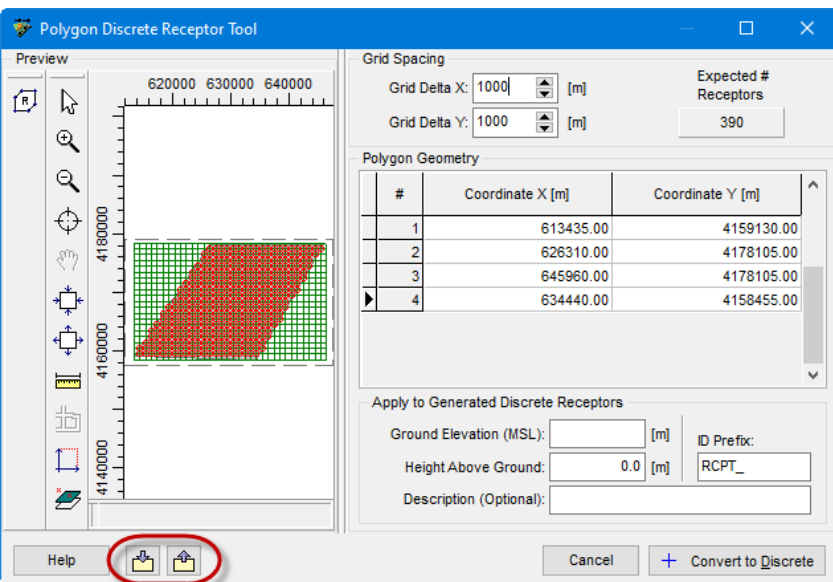
Topic	Feature Description
<p><b>Met Processor</b></p>	<p><b>New SURF.DAT Automated QA Spreadsheet</b></p> <p>After a successful run of the surface meteorological data preprocessor (SMERGE), CALPUFF View now generates a quality assurance spreadsheet (<b>SURF.DAT_QA.xlsx</b>) detailing the dates and times of missing data variables. Missing data are detailed by variable (e.g., wind speed, wind direction, temperature, etc.) with missing counts detailed for each individual meteorological station.</p> <p>The spreadsheet includes separate worksheets summarizing missing data for projects containing only station data or those using station data and prognostic data.</p>  <p>The screenshot shows a spreadsheet with columns for Year, Julian Date, Hour, and various meteorological parameters (Wind Speed, Wind Direction, Ceiling Height, Cloud Cover, Temperature, Relative Humidity, Station Pressure, Precipitation). Rows 9-13 show data for the years 2017 and 2018, with 'missing' values in several columns. A 'Missing Hours - Obs Mode' tab is selected at the bottom.</p>
<p><b>Met Processor</b></p>	<p><b>TD-3505 (ISHD) Surface Met Data Processing Improvements</b></p> <p><b>SMERGE v5.57</b> (EPA Approved) &amp; <b>v5.7.0</b> (V6 &amp; V7) nominally support the NCEI TD-3505 Integrated Surface Hourly ASCII data format. However, the TD-3505 data format has changed over the years, and SMERGE is currently unable to read and process all the data variables listed in the files.</p> <p>CALPUFF View now includes internal routines to bypass the unrecognized variables so SMERGE can produce a valid SURF.DAT file using TD-3505 input data.</p>
<p><b>Met Processor</b></p>	<p><b>Export Station Information</b></p> <p>Station information for all sections of the <b>Met Processor</b> can now be exported to a Microsoft Excel spreadsheet template.</p>  <p>The screenshot shows a dialog box with 'Start' and 'End' date pickers set to 1/1/2017 and 12/31/2018, and a checked 'Lock Dates' option. Below are tabs for 'Surface', 'Upper Air', 'Precipitation', and 'Overwater'. At the bottom, there are icons for file operations, with the 'Export' icon (a folder with an arrow) circled in red. A 'Search' button and a 'Buffer Zone:' label are also visible.</p>



Topic	Feature Description
<p><b>CALPOST</b></p>	<p><b>New Gridded Receptor Selector</b></p> <p>The <b>Select Gridded Subset</b> tool in the <b>CALPOST Options   Run Info</b> settings has been updated with a graphical display of the active or inactive gridded receptors. The new layout includes selection tools, Overlays control with Tile Maps and base map layers, and easy-to-use buttons for activating or deactivating receptors.</p> 
<p><b>CALPOST</b></p>	<p><b>Percentiles Updated to Show Valid Averaging Periods</b></p> <p>Long-term averaging periods (i.e., Run Length, 1-Year) were removed from the CALPOST Options Percentiles settings. These were not valid because CALPOST only produces a single output value with these periods.</p> <p><b>Averaging Period</b></p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> 1-Hour</li> <li><input checked="" type="checkbox"/> 24-Hour</li> <li><input checked="" type="checkbox"/> Time-Step</li> <li><input checked="" type="checkbox"/> 3-Hour</li> <li><input checked="" type="checkbox"/> User-Defined (8-Hour)</li> </ul>

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<p><b>CALPOST</b></p>	<p><b>Selected Days Renamed to Time Series</b></p> <p>For clarity, the former <b>Selected Days</b> tab was renamed <b>Time Series</b> to better describe the features of these model options.</p>  <p>The screenshot shows the 'CALPOST Wizard (Version 7)' window with the 'Time Series' tab selected. The 'Time Series' tab is circled in red. The window contains a table for selecting species and flux types, and a 'Specify Days (3)' section on the right. The table has columns for '#', 'Species', 'Conc', 'Dry Flux', 'Wet Flux', and 'Dry+Wet Flux'. The 'Specify Days (3)' section has a 'No. of Files to be Generated' field with a value of 8, and 'Daily Averaging Period' and 'Peak Value' fields set to '--'. A tip at the bottom explains that selecting certain days as a continuous time series can report only those times with peak releases.</p>																																																																																															
<p><b>CALPOST</b></p>	<p><b>Expanded Background Data File Maker Utility Import Options</b></p> <p>The BACK.DAT File Maker utility will now accept <b>monthly</b> or <b>daily average data</b> in CSV format for generating hourly background data files to run in CALPOST. Daily values are copied and written to all hours of the given day, while monthly values are applied to all hours of the assigned month.</p> <table border="1" data-bbox="446 1291 901 1858"> <thead> <tr> <th></th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Year</td> <td>Month</td> <td>Day</td> <td>Concentration</td> </tr> <tr> <td>2</td> <td>2016</td> <td>1</td> <td>1</td> <td>18</td> </tr> <tr> <td>3</td> <td>2016</td> <td>1</td> <td>2</td> <td>20</td> </tr> <tr> <td>4</td> <td>2016</td> <td>1</td> <td>3</td> <td>19</td> </tr> <tr> <td>5</td> <td>2016</td> <td>1</td> <td>4</td> <td>19</td> </tr> <tr> <td>6</td> <td>2016</td> <td>1</td> <td>5</td> <td>21</td> </tr> <tr> <td>7</td> <td>2016</td> <td>1</td> <td>6</td> <td>22</td> </tr> <tr> <td>8</td> <td>2016</td> <td>1</td> <td>7</td> <td>18</td> </tr> <tr> <td>9</td> <td>2016</td> <td>1</td> <td>8</td> <td>17</td> </tr> <tr> <td>10</td> <td>2016</td> <td>1</td> <td>9</td> <td>18</td> </tr> <tr> <td>11</td> <td>2016</td> <td>1</td> <td>10</td> <td>19</td> </tr> <tr> <td>12</td> <td>2016</td> <td>1</td> <td>11</td> <td>19</td> </tr> <tr> <td>13</td> <td>2016</td> <td>1</td> <td>12</td> <td>19</td> </tr> <tr> <td>14</td> <td>2016</td> <td>1</td> <td>13</td> <td>20</td> </tr> <tr> <td>15</td> <td>2016</td> <td>1</td> <td>14</td> <td>22</td> </tr> <tr> <td>16</td> <td>2016</td> <td>1</td> <td>15</td> <td>23</td> </tr> <tr> <td>17</td> <td>2016</td> <td>1</td> <td>16</td> <td>21</td> </tr> <tr> <td>18</td> <td>2016</td> <td>1</td> <td>17</td> <td>20</td> </tr> </tbody> </table>		A	B	C	D	1	Year	Month	Day	Concentration	2	2016	1	1	18	3	2016	1	2	20	4	2016	1	3	19	5	2016	1	4	19	6	2016	1	5	21	7	2016	1	6	22	8	2016	1	7	18	9	2016	1	8	17	10	2016	1	9	18	11	2016	1	10	19	12	2016	1	11	19	13	2016	1	12	19	14	2016	1	13	20	15	2016	1	14	22	16	2016	1	15	23	17	2016	1	16	21	18	2016	1	17	20
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Topic	Feature Description
<p><b>Geophysical Processor</b></p>	<p><b>Land Use Properties Updates</b></p> <p>The <b>MAKEGEO Land Use Properties</b> settings under the <b>Advanced</b> tab has been enhanced with the following options:</p> <ul style="list-style-type: none"> <li>• Added <b>GEO.DAT File Name</b> field. The user can rename the file when using the <b>User Defined Options</b>.</li> <li>• Moved the previous buttons to a single <b>Actions</b> menu</li> </ul>  

Topic	Feature Description
<p><b>Tree View</b></p>	<p><b>Updated Time Series Display on CALPOST Tree View</b></p> <p>When visualizing Time Series output on the CALPOST Tree View, the time steps are now shown with their real date &amp; time for improved usability.</p> 
<p><b>Receptors</b></p>	<p><b>Import / Export Options Added to Polygon Discrete Receptor Tool</b></p> <p>Coordinate pairs can now be imported from or exported to CSV files for easy access when using the tool. Coordinates can be exported using either meter or kilometer units.</p> 

Topic	Feature Description
<b>Coastlines</b>	<p><b>Updated Coastline Data (GSHHG) via WebGIS</b></p> <p>The Coastline data inputs in the Geophysical Processor and CALPUFF options have been updated to the latest available release of the Global Self-consistent, Hierarchical, High-resolution Geography Database (GSHHG) shoreline database <b>Version 2.3.7</b> as published to the National Centers for Environmental Information website.</p> <p><b>Note:</b> GSHHG Version 2.3.7 will only work in the <b>Version 7 modeling system Geophysical Processor</b>. The Version 6 and EPA-Approved systems will continue to use Version 1.5.</p>
<b>Multimedia</b>	<p><b>Record Animation Option - Default Codec</b></p> <p>When using the <b>Record Animation</b> option, the default video compression Codec has been reset to the <b>Intel IYUV codec</b>. The previous default (Microsoft Video 1) is not supported by Windows' default media player application which could lead to 'Can't play' errors when attempting to play CALPUFF View AVI files.</p>
<b>Installation</b>	<p><b>Digital Signature Included</b></p> <p>Lakes Environmental is digitally signing our commercial product installations for additional security.</p>

## Fixed Issues

Topic	Issue Description																																													
<b>Import</b>	<p><b>Improved Handling of CALPUFF Input Parameters When Importing Existing Files</b></p> <p>When importing an existing CALPUFF input file to CALPUFF View, additional checks were added to make sure all model keywords are imported correctly.</p>																																													
<b>Sources</b>	<p><b>External Sources Incorrectly Visualized with False Projection Coordinates</b></p> <p>When External Source Files used map projections containing false easting and northing coordinates, the external sources were incorrectly placed due to a conversion which read the false coordinate values as meters instead of kilometers. This has been corrected.</p>																																													
<b>Receptors</b>	<p><b>Ring Receptors Angle Bounds Applied</b></p> <p>When specifying angles for Ring Receptors, the values are now bounded to 0-360 degrees.</p>																																													
<b>CALPOST Options</b>	<p><b>Variable Order NO<sub>2</sub>/NO<sub>x</sub> Concentrations</b></p> <p>When using the “Specify 14 NO<sub>2</sub>/NO<sub>x</sub> ratios that vary with NO<sub>x</sub> concentration” option on CALPOST’s NO<sub>2</sub>/NO<sub>x</sub> conversion, CALPUFF View now allows the NO<sub>x</sub> Concentrations to be entered in any order. These will be automatically written in ascending order in the CALPOST input file.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <p><input checked="" type="checkbox"/> NO<sub>2</sub> Source</p> <p><input type="radio"/> Use NO<sub>2</sub> Directly (NO<sub>2</sub> must be in CALPUFF Species List)</p> <p><input type="radio"/> Specify a Single NO<sub>2</sub>/NO<sub>x</sub> Ratio</p> <p><input checked="" type="radio"/> Specify 14 NO<sub>2</sub>/NO<sub>x</sub> ratios that vary with NO<sub>x</sub> concentration</p> <p>Ratio: <input type="text" value="1.00"/> [0.0 to 1.0] (where NO<sub>2</sub> = NO<sub>x</sub> * Ratio)</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td style="width: 15%;"></td> <td style="width: 5%;">1.0</td> <td style="width: 5%;">65.0</td> <td style="width: 5%;">5.0</td> <td style="width: 5%;">60.0</td> <td style="width: 5%;">10.0</td> <td style="width: 5%;">55.0</td> <td style="width: 5%;">15.0</td> <td style="width: 5%;">50.0</td> <td style="width: 5%;">20.0</td> <td style="width: 5%;">45.0</td> <td style="width: 5%;">25.0</td> <td style="width: 5%;">40.0</td> <td style="width: 5%;">30.0</td> <td style="width: 5%;">35.0</td> </tr> <tr> <td>NO<sub>x</sub> Concentrations (ug/m<sup>3</sup>)</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>NO<sub>2</sub>/NO<sub>x</sub> Ratios</td> <td>0.9</td><td>0.1</td><td>0.8</td><td>0.2</td><td>0.7</td><td>0.3</td><td>0.6</td><td>0.4</td><td>0.5</td><td>0.5</td><td>0.5</td><td>0.5</td><td>0.5</td><td>0.5</td> </tr> </table> </div>		1.0	65.0	5.0	60.0	10.0	55.0	15.0	50.0	20.0	45.0	25.0	40.0	30.0	35.0	NO <sub>x</sub> Concentrations (ug/m <sup>3</sup> )															NO <sub>2</sub> /NO <sub>x</sub> Ratios	0.9	0.1	0.8	0.2	0.7	0.3	0.6	0.4	0.5	0.5	0.5	0.5	0.5	0.5
	1.0	65.0	5.0	60.0	10.0	55.0	15.0	50.0	20.0	45.0	25.0	40.0	30.0	35.0																																
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NO <sub>2</sub> /NO <sub>x</sub> Ratios	0.9	0.1	0.8	0.2	0.7	0.3	0.6	0.4	0.5	0.5	0.5	0.5	0.5	0.5																																

## Known Issues

Topic	Issue Description
<b>CALPOST Options</b>	<b>Background Data Files Not Accepted in EPA-Approved Version</b>  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.
<b>CALPUFF</b>	<b>Buoyant Line Source with Variable Emission Factors Not Recognized</b>  A bug in the CALPUFF model version 7.2.1 prevents the model from properly recognizing buoyant line source IDs when variable emission factors are included. The issue is addressed in CALPUFF 7.3.2.
<b>CALPUFF</b>	<b>Sub-Hourly External Source Files with Different Time Steps</b>  CALPUFF model version 7.2.1 is unable to process external source files with different sub-hourly time steps.