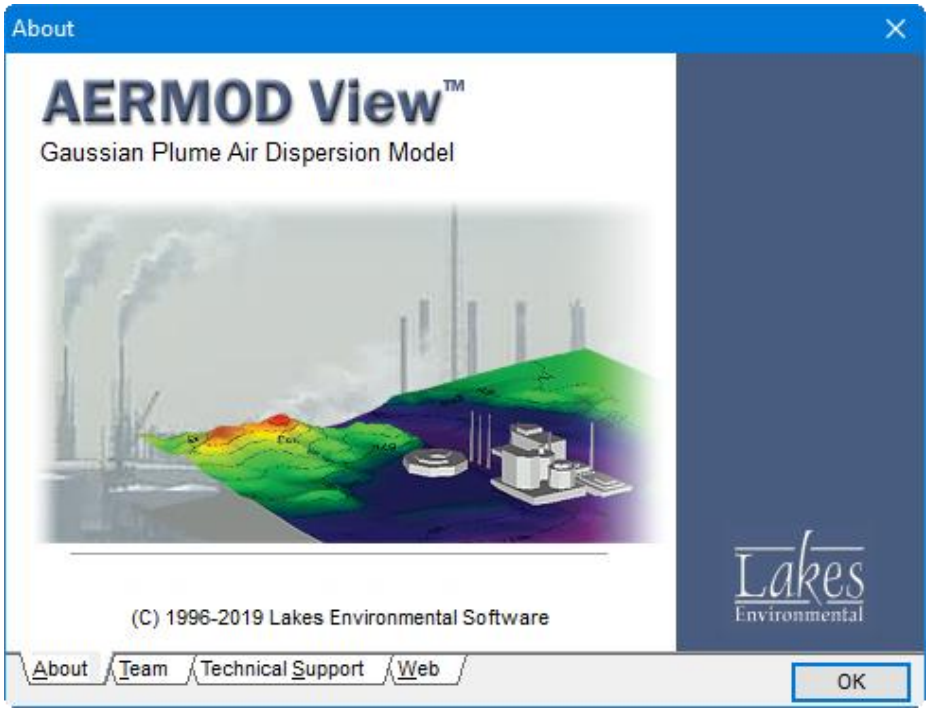
AERMOD View™

Gaussian Plume Air Dispersion Model - AERMOD

Release Notes

Versions 9.6.x, 9.7, and 9.8



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

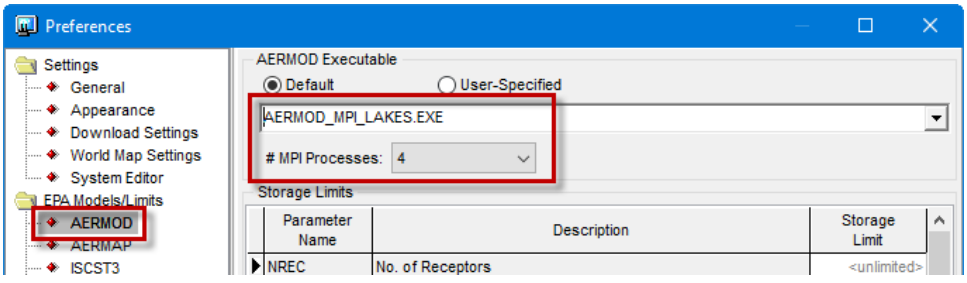
Lakes Environmental

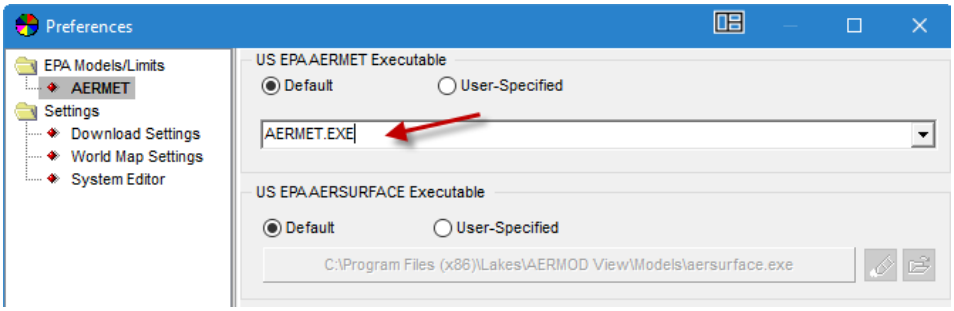
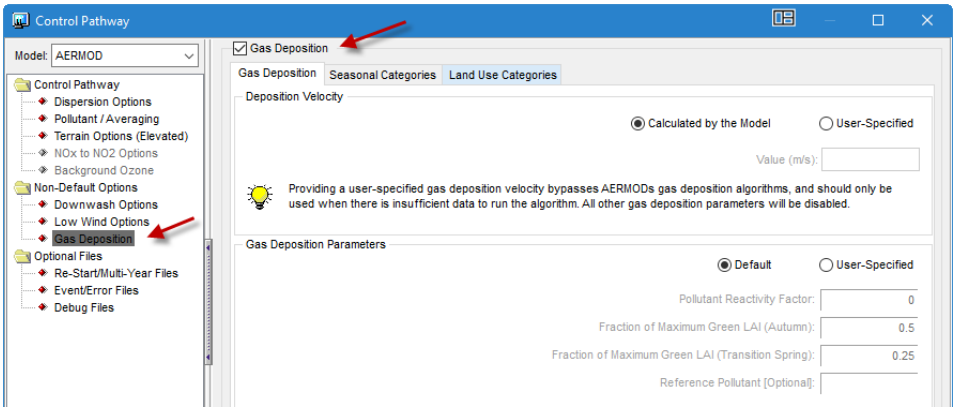
AERMOD View™ Version 9.8

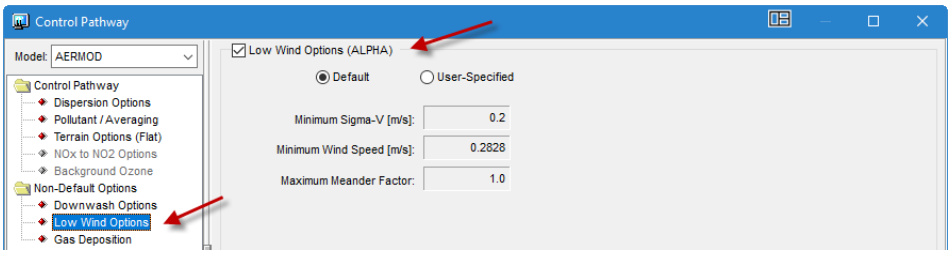
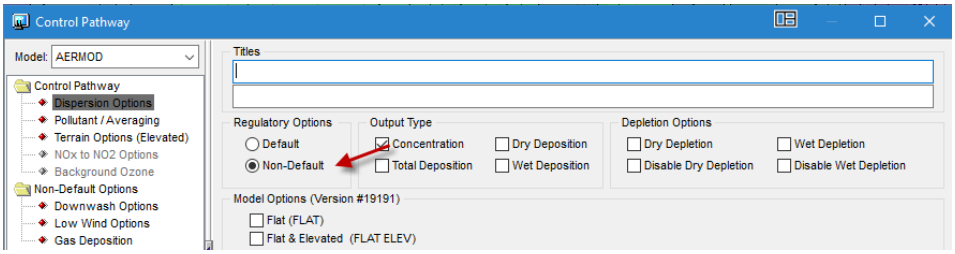
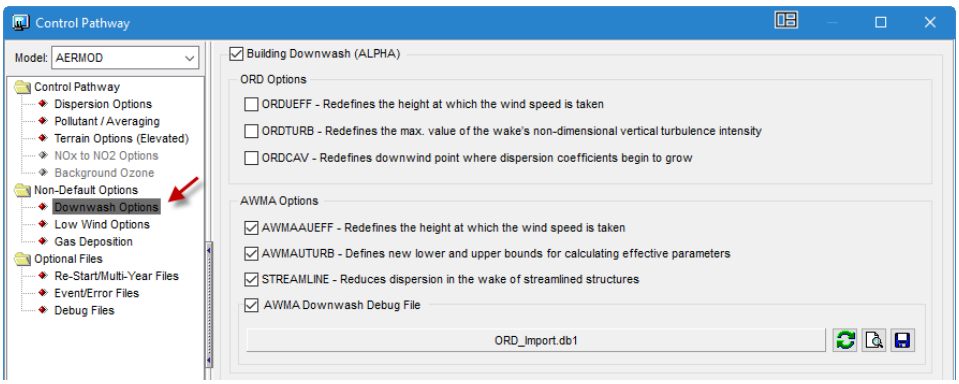
Release Notes

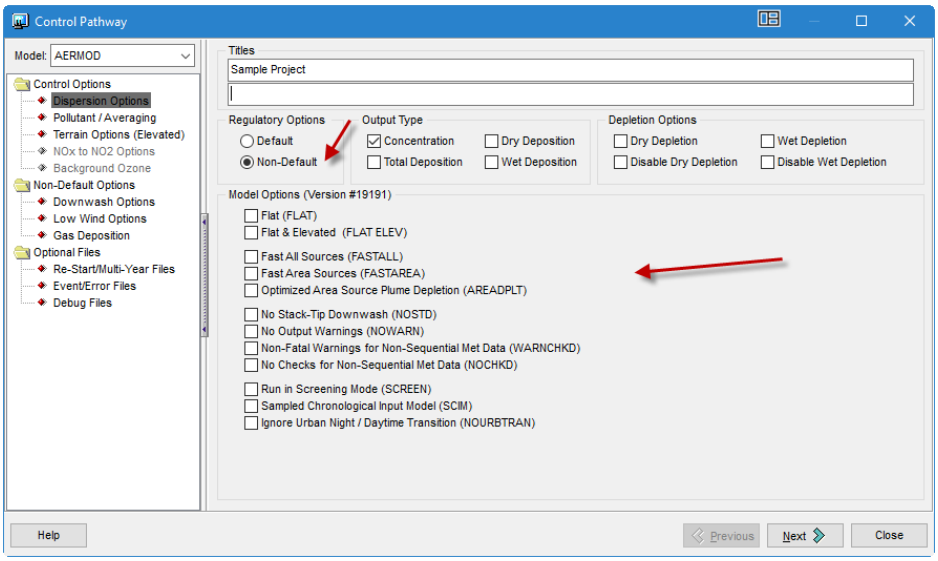
October 8, 2019

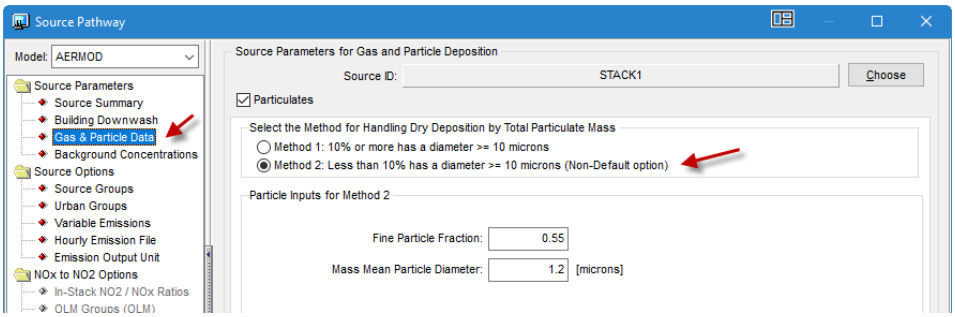
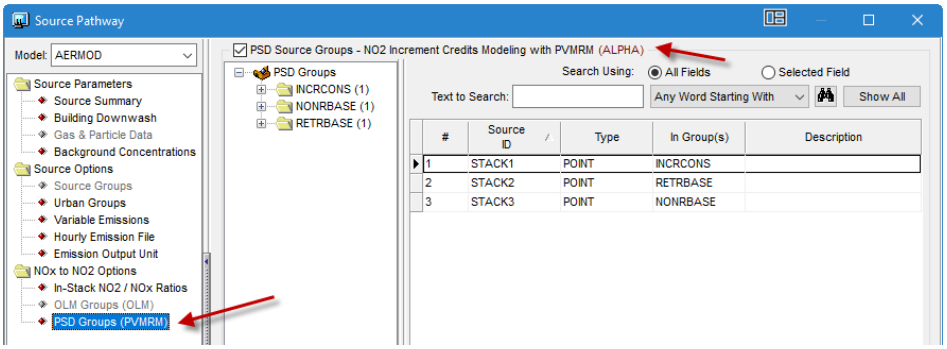
New Features

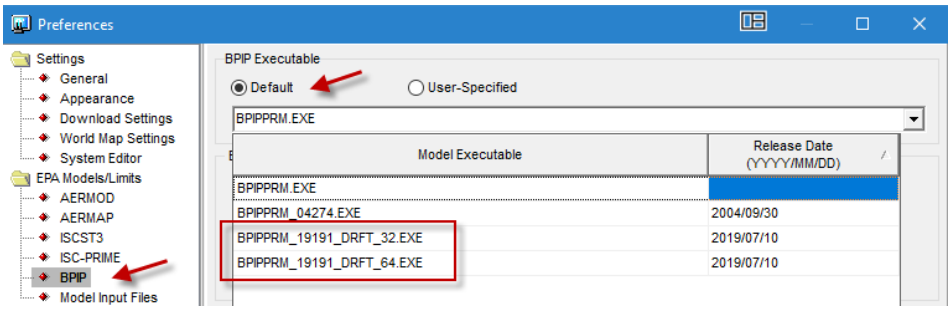
Topic	Feature Description
AERMOD	**Latest Release of US EPA AERMOD Model Available – Dated 19191** The following US EPA Models were released in August 21, 2019 and are incorporated into AERMOD View Version 9.8: 1. AERMOD.EXE is the latest version 19191 (32-Bit Version) 2. AERMOD_19191_X32.EXE – The same as above (32-Bit Version) 3. AERMOD_19191_X64.EXE – 64-Bit Version See the Model Change Bulletin for a list of changes and bug fixes: https://www3.epa.gov/ttn/scram/models/aermod/aermod_mcb14_v19191.pdf
AERMOD MPI	**New Version of Lakes AERMOD MPI 19191 (Parallel Version)** A new version of the Lakes AERMOD MPI for the US EPA Model Version 19191 is now available (AERMOD_MPI_Lakes_19191.exe). Install includes 64-bit and 32-bit versions. You can specify to use this model under the **Preferences** dialog. **Note:** AERMOD_MPI_LAKES_19191.EXE or AERMOD_MPI_LAKES.EXE will run the latest version of the AERMOD model (19191) in parallel mode using up to a maximum of 8 cores. 

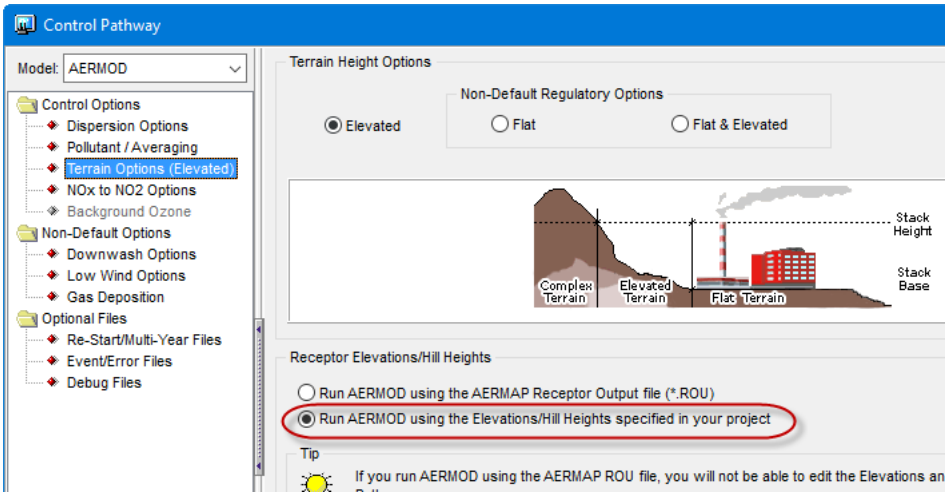
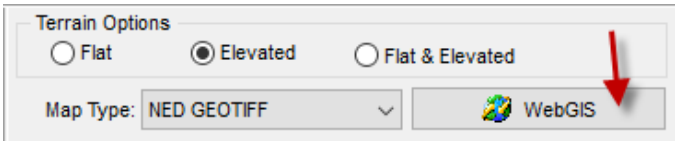
Topic	Feature Description
AERMET	**Latest Release of US EPA AERMET Model Available – Dated 19191** On August 21, 2019, the US EPA released the new version of **AERMET,** dated **19191.** Updates in the new version include 5 bug fixes which are described on the model change bulletin: https://www3.epa.gov/ttn/scram/7thconf/aermod/aermet_mcb9.pdf Lakes Environmental updated **AERMET View** to include support for model version 19191. • AERMET.EXE is the latest version 19191 (32-Bit Version) • AERMET_19191_X32.EXE – The same as above (32-Bit Version) • AERMET_19191_X64.EXE – 64-Bit Version 
Control Pathway	**Gas Deposition Options – ALPHA** The status of the **Gas Deposition** options was changed under the AERMOD Model Version 19191 from **Non-Default** to **ALPHA**. The deposition algorithms will undergo more evaluation before the US EPA can change its status again. In AERMOD View, the **Gas Deposition Options** are now available under a new location: **Control Pathway – Gas Deposition** page. The **Non-Default** option must be selected first to enable the access to this page. 

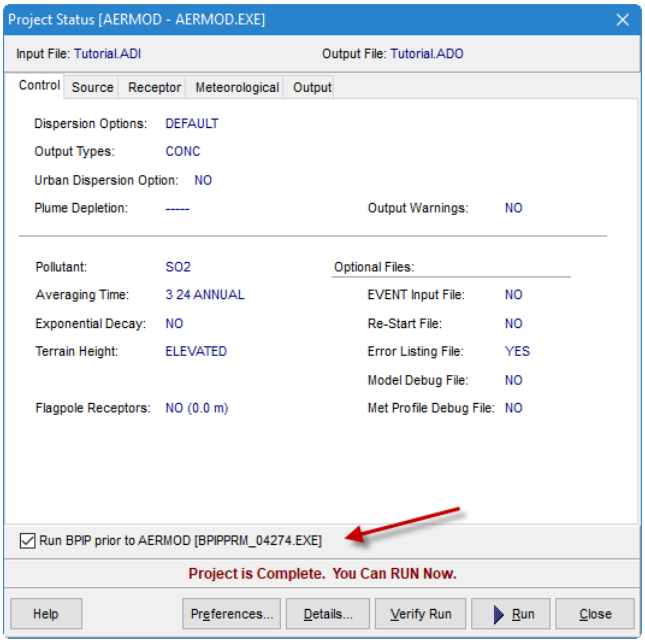
Topic	Feature Description
Control Pathway	**Low Wind Options - ALPHA** The **Low Wind Options** were moved to a new location (**Control Pathway – Low Wind Options** screen) and its layout was improved by introducing the **Default** and **User-Specified** options. 
Control Pathway	**New Building Downwash Options - ALPHA** AERMOD Model Version 19191 introduces, under the Control Pathway, two distinct sets of **ALPHA** building downwash options. These are research grade options made available for testing and evaluation purposes and implemented by EPA's Office of Research and Development (**ORD**) and Air & Waste Management Association (**AWMA**). These new options require the user to select the **Non-Default** option first and are available under the **Control Pathway – Downwash Options** page.  

Topic	Feature Description
Control Pathway	**New Layout for Control Pathway - Non-Default Options** The **Model Options** section under the **Control Pathway – Dispersion Options** screen have a new layout as seen in image below. 
Source Pathway	**New Roadway Source Type Introduced – RLINE - BETA** AERMOD Model Version 19191 introduces a new source type "**RLINE**" to model roadways or similar line-type releases. The algorithms used for this new source type are from the R-LINE model version 1.2 (www.cmascenter.org/r-line). In AERMOD View, this source is identified with the following toolbar button:  See below more information on the RLINE Source: 1. Non-Default BETA option 2. Must be used with FLAT terrain 3. Has the same parameters as the LINE Source 4. Can be specified in AERMOD View as a line with multiple segments.

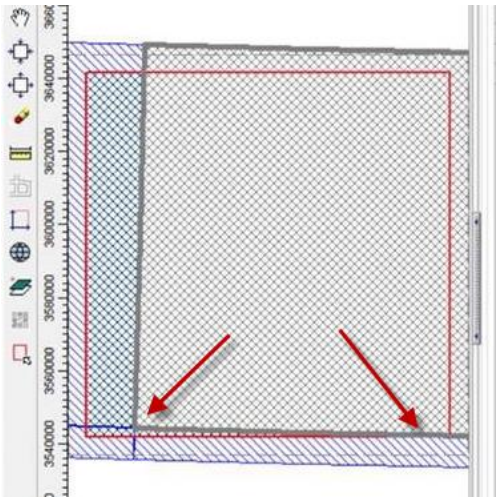
Topic	Feature Description
Source Pathway	**METHOD 2 Particle Deposition – ALPHA** The status of the **METHOD 2 Particle Deposition** option was changed under the AERMOD Model Version 19191 from **Non-Default** to **ALPHA**. The deposition algorithms will undergo more evaluation before the US EPA can change its status again. 
Source Pathway	**BUOYANT LINE Source with Urban Option – ALPHA** The **BUOYANT LINE** Source can be used with the **DEFAULT** option for **Rural** dispersion. However, under AERMOD model version 19191, it is a **Non-Default ALPHA** option if used with the **Urban** dispersion option (URBANOPT).
Source Pathway	**PSD Groups (PVMRM) Option – ALPHA** The **PSD Groups (PVMRM)** option (PSDCREDIT) is a Non-Default **ALPHA** option under model versions 18081 and 19191. For earlier model versions, this was a **BETA** option. 

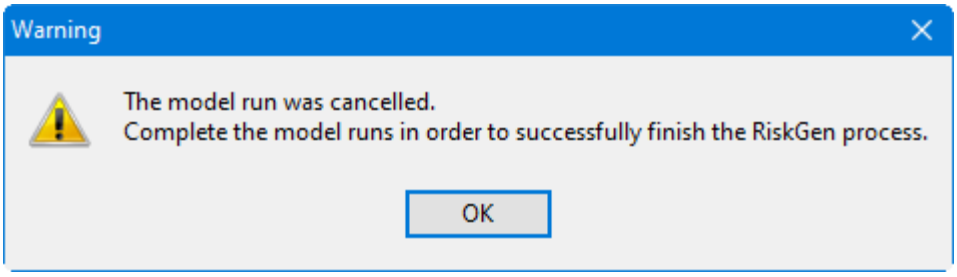
Topic	Feature Description
BPIP	**New US EPA BPIP Version Available as DRAFT– Dated 19191_DRFT** On August 21, 2019, the US EPA released a new version of the BPIP PRIME model as a DRAFT (19191_DRFT). This version is to facilitate testing of the ALPHA building downwash options (see item above). Two executables are available and can be selected from the **Preferences** dialog: 1) BPIPPRM_19191_DRFT_32.exe (32-bit) 2) BPIPPRM_19191_DRFT_64.exe (64-bit) See the Model Change Bulletin at: https://www3.epa.gov/ttn/scram/mcbs/BPIPPRM_MCB_v19191_DRFT.pdf  **Note:** Please note that version 19191_DRFT is **not** a replacement for BPIP PRIME version 04274 (BPIPPRM.EXE). This draft version should not be used in a regulatory context.
Buildings	**Unlimited Number of Building Coordinates to Import** The option to import Buildings from an Excel file (Import | Buildings… menu option) was limited to 256 columns of data. Therefore, building shapes with more than 123 pairs of X, Y coordinates could not be imported. This new release has no limit on the number of polygon X, Y points for a building that can be imported from an Excel file.

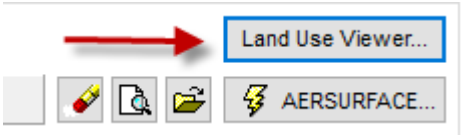
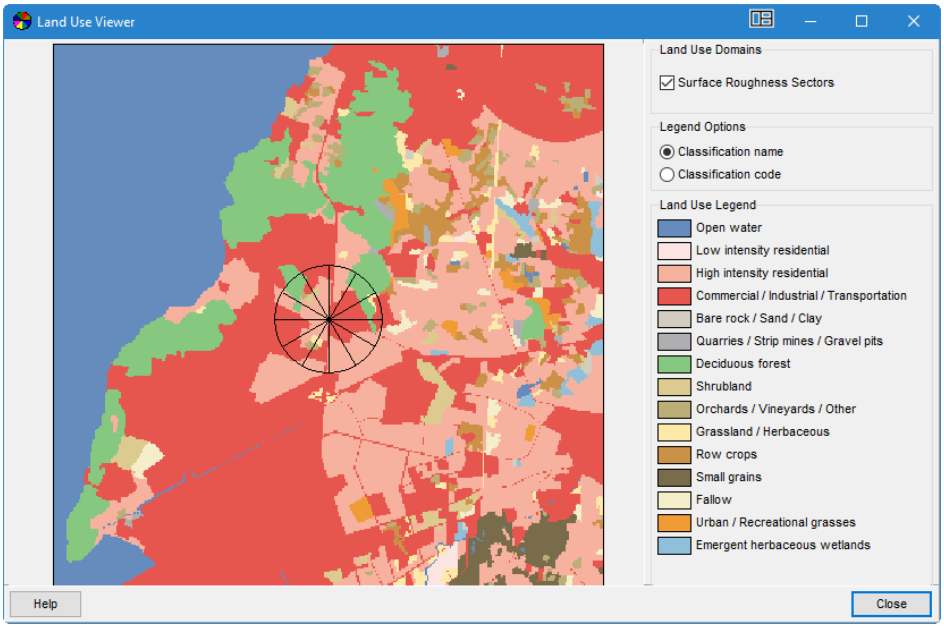
Topic	Feature Description
Terrain Processor	**Coordinate Conversion for OSNG Projection** For projects utilizing the **OSNG** map projection, a modification was made to the Terrain Processor which now internally converts all coordinates to UTM. This change was necessary to import correct terrain elevations at all known objects due to the differences in projection tilts at high latitudes. **Note:** This modification requires users to enable the **"Run AERMOD using the Elevations/Hill Heights specified in your project"** option on the **Control Pathway | Terrain Options** dialog. 
AERMAP	**Updates to the USGS NED Terrain Data Download** Recent changes to USGS data servers have directed download access for NED terrain data to new servers. Lakes Environmental made the necessary modifications to the WebGIS download routines for these files. 

Topic	Feature Description
AERMOD Run	**AERMOD Run – Project Status Dialog** The **Project Status** dialog is now also shown when the user selects the menu option **Run | Run AERMOD**. This makes the AERMOD Run options more consistent and allows the user the option to Run BPIP prior to AERMOD.  **Note:** The BPIP Executable, being used for the run, is now also shown in the **Project Status** dialog.

Fixed Issues

Topic	Issue Description
Input File	**BUOYLINE Source Input File Order** The US EPA updated their AERMOD Implementation Guide to include some additional modeling guidance. One item related to Buoyant Line sources recommends "users always list the BUOYLINE source last in the AERMOD input file" to prevent a bug in how the model handles other sources. AERMOD View now writes any Buoyant Line Sources (BUOYLINE) after any other type of source. **Note:** See section 7.1 of the AERMOD Implementation Guide, for more information about this US EPA AERMOD model bug: https://www3.epa.gov/ttn/scram/models/aermod/aermod_implementation_guide.pdf
Terrain Processor	**AERMAP Freezes During NED 1/3 Processing** Fixed freezing issue related to the processing of NED 1/3 terrain data. This happened in very few cases where tile edges where close to the selected domain edges. 
Buildings	**Application Freezes When Accessing Buildings** In very few cases, AERMOD View was occasionally freezing when attempting to modify parameters in the **Buildings Inputs** dialog. This issue has been resolved.

Topic	Issue Description
Multi-Chemical Utility	**Multi-Chemical Run Fails due to Spaces on Project Path** Projects with spaces on the name and or path failed to run with the Multi-Chemical utility when source IDs were greater than 8 characters. This issue has been fixed.
Multi-Chemical Utility	**Multi-Chemical Warning Messages** After successful completion of some Multi-Chemical runs, a warning was issued stating some years were not calculated. This issue has been resolved to remove the erroneous message.
RiskGen	**Improved Error Handling** In previous releases, cancelling model runs and exiting **Batcher** caused an error message to be issued as the utility tried to read incomplete output. A standard Warning message is now issued if runs are cancelled prematurely. 
AERSURFACE	**Executable for AERSURFACE Replaced by 32-Bit Version** The US EPA AERSURFACE executable version 19039_DRFT, introduced on AERMET View Version 9.7, was only compatible with 64-Bit Windows operating systems. This executable now can be used in 32-Bit and 64-Bit operating systems.

Topic	Issue Description
AERMET View	**Land Use Viewer Display Fix for 1992 Data** The **Land Use Viewer** tool displayed incorrect categories when running the AERSURFACE 19039_DRFT version with 1992 land use data. This issue has been fixed.  

Known Issues

Topic	Issue Description
AERMOD 16216r	**Receptor Order Bug** There is a bug in the US EPA's code related to receptor exclusion when calculating PRIME downwash effects. There exists the potential for model results to change based upon the order of receptors in the input file. This bug was resolved with the US EPA AERMOD 18081 model release.
New Project Wizard	**No Spaces in Project Name with ISC** The ISCST3 and ISC-PRIME models are included in AERMOD for backwards compatibility purposes. Due to limitations in their code, these models will issue a fatal error if the project name contains spaces or special characters.

Lakes Environmental Software
E-mail: support@webLakes.com
Web: www.webLakes.com

AERMOD View™ Version 9.7

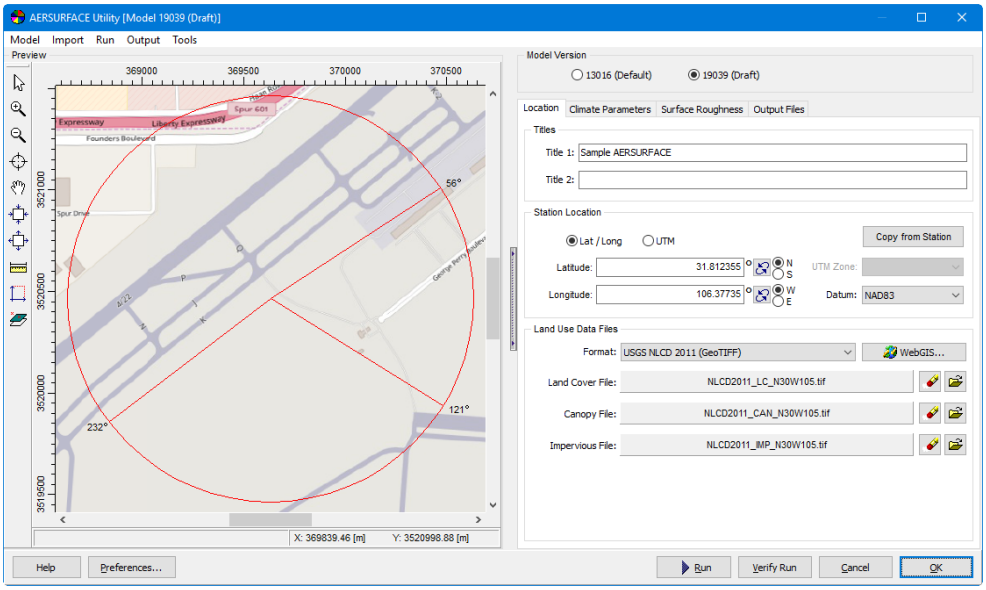
Release Notes

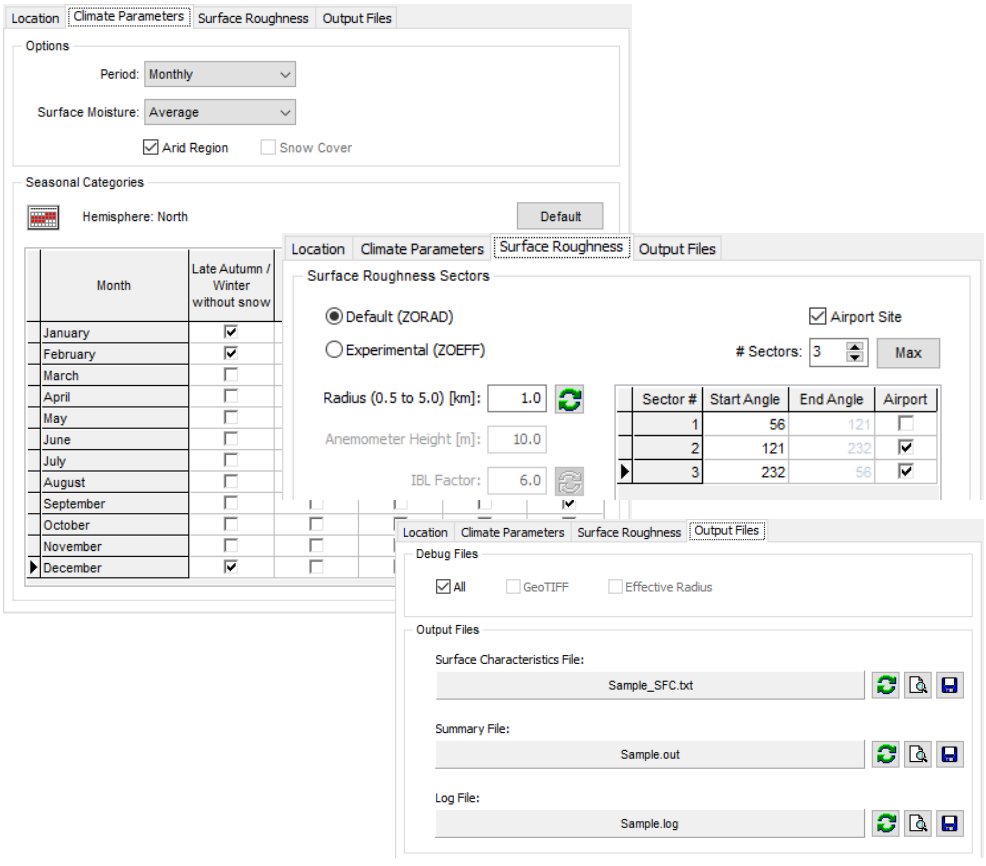
June 17, 2019

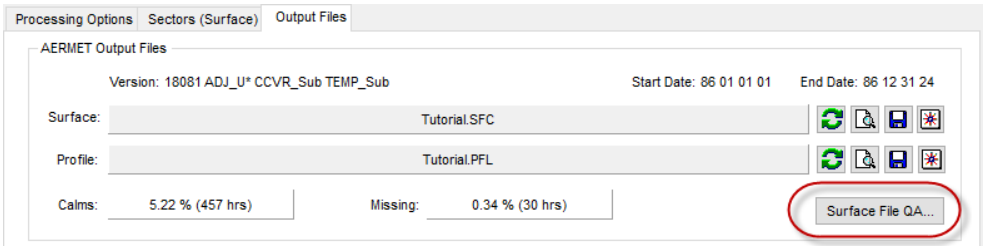
New Features

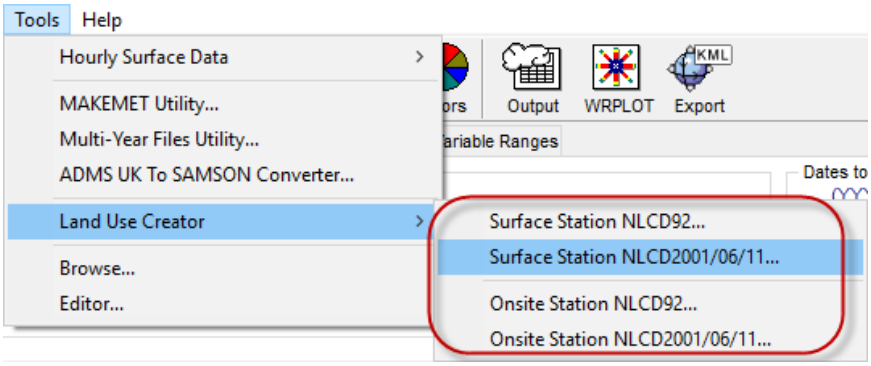
Topic	Feature Description
AERMET View	**New AERSURFACE 19039_DRFT Model & AERSURFACE Utility** On February 21, 2019, the US EPA released the new **AERSURFACE 19039_DRFT** tool. Updates in the new tool include: • Support for National Land Cover Database (NLCD) 2001, 2006, & 2011 GeoTIFF-format land cover data files which cover CONUS, Hawaii, Alaska, & Puerto Rico. • Addition of percent Canopy and percent Impervious data files for years corresponding to the selected land cover data. • Experimental surface roughness calculation methodology (ZOEFF) • Separation of airport selection by sector for surface roughness calculations. • Debug output files for data analysis **AERMET View's AERSURFACE utility** includes support for 19039_DRFT in addition to the existing regulatory version (13016). New features include: • Preview window with Tile Maps functionality for visually identifying surface roughness sectors • Automated data downloads via  of land cover, canopy, and impervious datasets (see note below) • Reformatted data inputs in easy-to-use tabs • Import capabilities for handling existing AERSURACE projects • Added preview of output files directly to the utility for easy review **NOTE:** *Download of NLCD data via WebGIS is limited to users* ***with a current maintenance agreement****.*

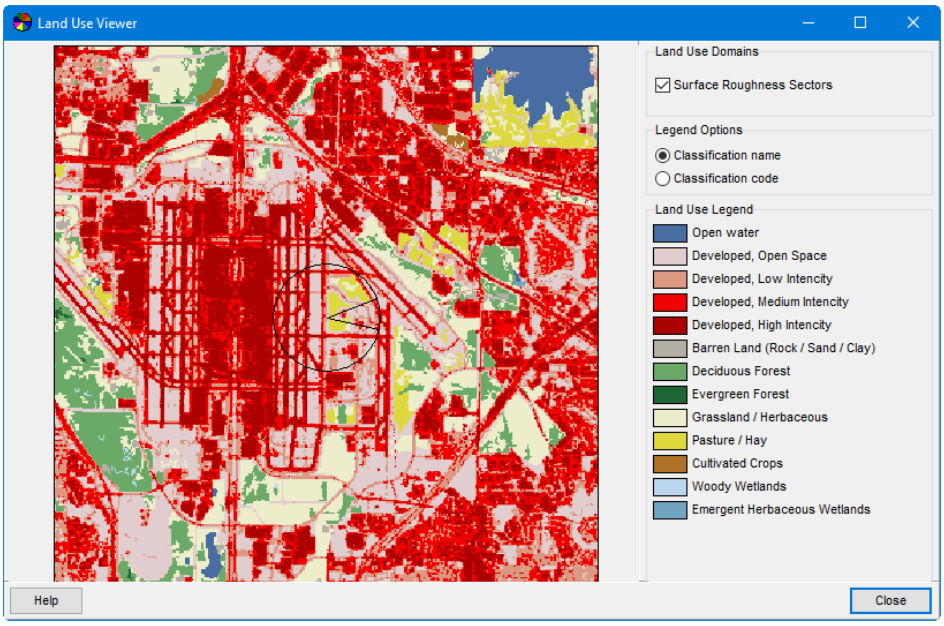
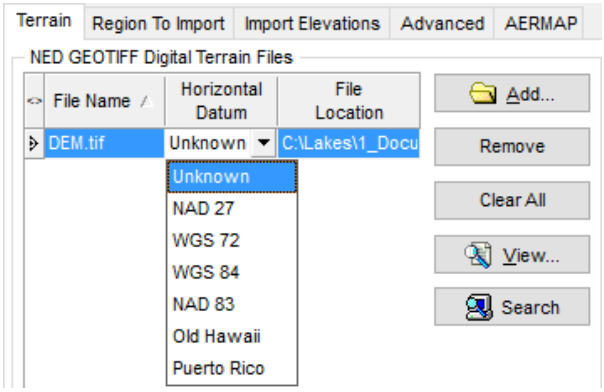
Topic	Feature Description
AERMET View	**New AERSURFACE 19039_DRFT Model & AERSURFACE Utility (Continued)**

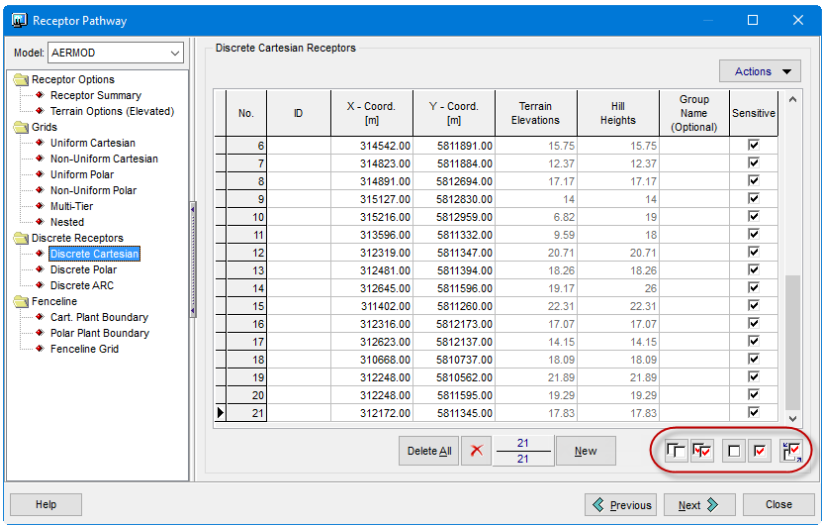
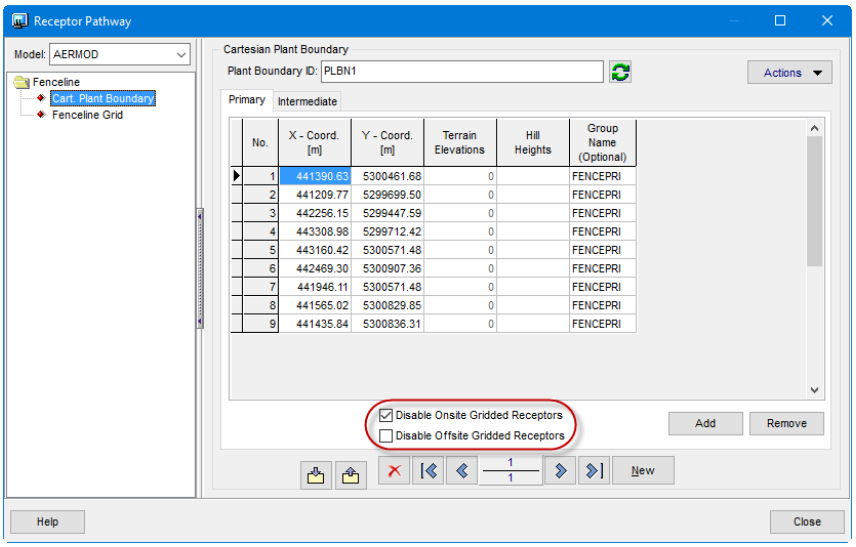


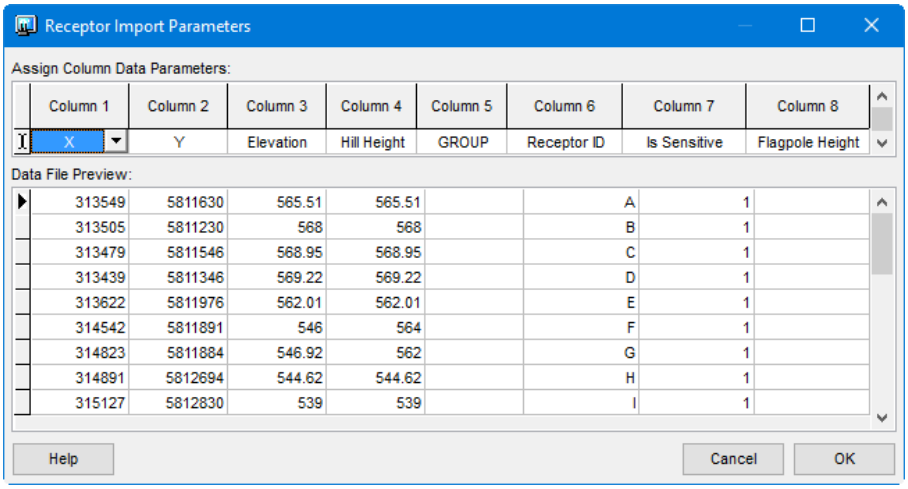


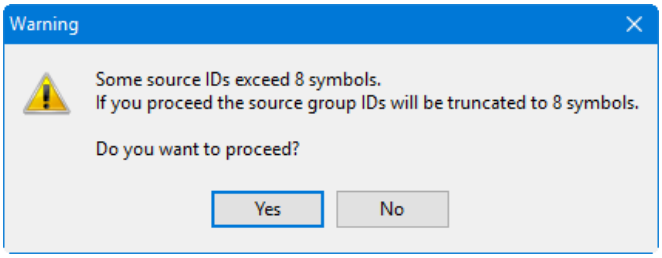
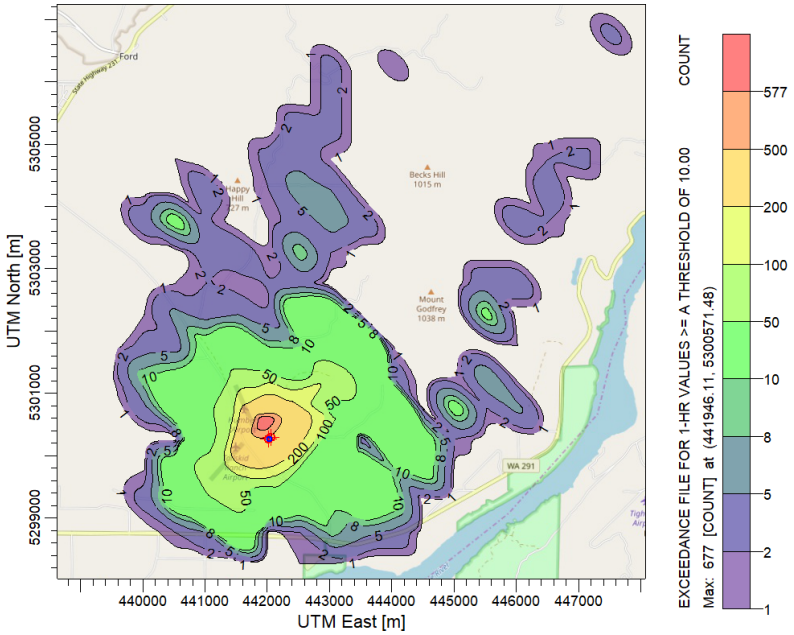
Topic	Feature Description
AERMET View	**QA Statistics Spreadsheet for Surface Met Data File (*.SFC)** A **Surface File QA** button has been added to the Output Files tab in AERMET View. This generates an Excel spreadsheet with quarterly data analysis of missing and calm hours. The data can be used to satisfy regulatory requirements for documenting data quality. The file includes counts and percentages of missing hours for met parameters including wind, temperature, cloud cover, humidity, pressure, and precipitation.  Surface Data File: Met_Terrain.SFC Latitude: 39.480N Longitude: 119.770W UA_ID: 3198 SF_ID: 23185 OS_ID: VERSION: 18081 OPTIONS: ADJ_U* CCVR_Sub TEMP_Sub 	Year	Period	Start Date	End Date	Total Hours	Missing Hours (hrs)	Missing Hours (%)	Calm Hours (hrs)	Calm Hours (%)	Missing Cloud Cover (hrs)	Missing Cloud Cover (%)	Missing Wind Speed (hrs)	Missing Wind Speed (%)	Missing Wind Direction
---	---	---	---	---	---	---	---	---	---	---	---	---	---
2010	Q1	2010/01/01	2010/03/31	2160	97	4.49	931	43.1	3	0.14	6	0.28	
2010	Q2	2010/04/01	2010/06/30	2184	148	6.78	481	22.02	0	0	3	0.14	
2010	Q3	2010/07/01	2010/09/30	2208	192	8.7	719	32.56	0	0	5	0.23	
2010	Q4	2010/10/01	2010/12/31	2208	107	4.85	960	43.48	12	0.54	16	0.72	
2010	**Total**	**2010/01/01**	**2010/12/31**	**8760**	**544**	**6.21**	**3091**	**35.29**	**15**	**0.17**	**30**	**0.34**	| | 2010	Total	2010/01/01	2010/12/31	8760	544	6.21	3091	35.29	15	0.17	30	0.34	
---	---	---	---	---	---	---	---	---	---	---	---	---	---	 Lakes Environmental Software E-mail: support@webLakes.com Web: www.webLakes.com

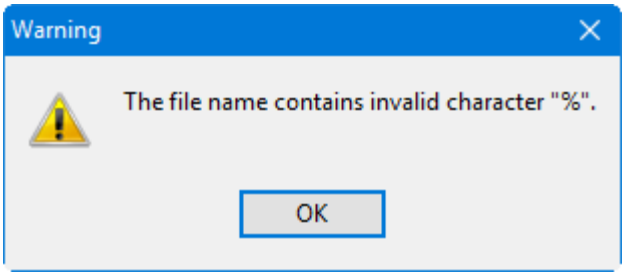
Topic	Feature Description
AERMET View	**Land Use Creator Updates** Several updates have been applied to the Land Use Creator for building digital land cover data files for use in the AERSURFACE utility. Updates include: • Addition of **NLCD 2001/06/11** GeoTIFF output format. This file uses a 20-category classification system (as compared to the 21-category system used in NLCD 1992).  • Updated **WebGIS** with new NLCD 2001, NLCD 2006, NLCD 2011, & CORINE (2012) land cover data. Note that newer NLCD data (01/06/11) can be imported to the 1992 output format of the Land Use Creator. 

Topic	Feature Description
AERMET View	**Addition of NLCD 2001/06/11 Data to Land Use Viewer** The Land Use Viewer now displays output from the new AERSURFACE 19039_DRFT with NLCD 2001/06/11 land cover categories. 
Terrain Processor	**Support for Non-US GeoTIFF Terrain Data Files** The Terrain Processor is now able to read and process terrain data files in GeoTIFF format **for locations outside the United States**. This includes the **Canadian Digital Elevation Model (CDEM)** data. Support is handled by setting the Horizontal Datum selection to "Unknown" for all non-USGS NED files. This forces AERMAP to read coordinates in the same datum as that identified for the project (**View | Map Projection** settings). 

Topic	Feature Description
Receptor Pathway	**Multi-Select Tools for Sensitive Receptors** To improve selection of discrete receptors as Sensitive, multi-select tools have been added to the Discrete Cartesian Receptors settings. 
Receptor Pathway	**Disable Gridded Receptors from Plant Boundary** Gridded receptors can now be disabled directly from within the Plant Boundary dialog. Application of either function will automatically remove all gridded receptor types. **Note:** Discrete receptors can be still removed via the **Actions | Remove Plant Receptors** menu option. 

Topic	Feature Description
Receptor Pathway	**Expanded Import / Export Options for Discrete Receptors** Support for the Receptor ID and Sensitive designation has been added to the **Export to CSV** and **Import from File** functions for Cartesian Discrete Receptors. Sensitive receptors are noted in the CSV file as enabled (1) or disabled (0). 
Source Pathway	**Import Variable Emissions Data from AERMOD Input Files** When importing sources from an existing AERMOD Input File, AERMOD View now imports Variable Emission factors (via the SO EMISFACT keyword).
Source Pathway	**Multi-Select Variable Emissions Scenarios** Users can now select multiple scenarios in the Variable Emissions settings in order to delete them together instead of one-by-one.

Topic	Feature Description
Source Pathway	**Character Limit to Auto-Generated Source Groups** The AERMOD model limits source groups to no more than 8 characters while source IDs can have up to 12 characters. When using the Auto-Generated Source Groups utility, an issue could appear when naming groups by source ID due to the character restriction. AERMOD View now issues a warning in this situation so users can adjust group names accordingly. 
Output Pathway	**Zero Values Added to Exceedance Count Contour Plot** The contour plot of exceedances generated by AERMOD View after analyzing the Threshold Violation file (MAXIFILE) now includes 0 values at receptors with no exceedances. This produces a smoother contour plot.  *Smoothed Exceedance Count Contour Plot*

Topic	Feature Description
Output Pathway	**Auto-Processing Percentiles** When the Percentiles functionality is enabled, AERMOD View will now processing this output automatically before the display of any warning dialogs.
Projects	**Warnings for Invalid Characters** When starting a new project or saving an existing project, AERMOD View will now warn users who attempt to use invalid characters in the project name. These include apostrophes (‘), quotation marks (“), and percent symbols (%). 
Project Status	**Updated Warnings in Details** The messages presented in Details for projects with warnings and potential errors have been updated to reflect all project data.

Fixed Issues

Topic	Issue Description
Import	**Import Sources from Excel** Fixed an issue where AERMOD View was unable to recognize some XLSX files.
Import	**Buildings from BPIP Input File** An issue prevented AERMOD View from importing buildings from existing BPIP input files if the building IDs contained spaces. This has been resolved.
Control Pathway	**ALPHA Keyword Application** The ALPHA keyword was incorrectly written to the model input file for 18081 model runs when the Non-Default options were enabled and the Adjusted Surface Friction Velocity (ADJ_U*) option selected.
Sources	**Maintain Existing Source Ranges When Removing Individual Sources** In functions that support specification of source ranges (e.g., Source Groups, PSD Groups, In-Stack NO2/NOx Ratios, etc.), ranges will be preserved after removal of the first or last Source ID within the range. Previously, the entire range was removed from the project setup. Modelers are strongly encouraged to validate source range selections.
Sources	**Buoyant Line Emission Rate** The emission rate label for Buoyant Line sources was updated in the Source List and Multi-Chem Run utility to show the proper **g/s** label. This change was to the label only as values were processed as g/s in previous versions.
Source Pathway	**Default Urban Groups Option** The default setting for Urban Groups was restored to the “Single Urban Group (ALL Sources)” setting.
Source Pathway	**Hourly Emission File Maker Utility Support for ISC Model** The File Maker utility was updated to fully support ISCST3 & ISC-PRIME projects. The utility now prepares EMI files with two-digit years instead of four-digits and reads meteorological data from the ISC-specific meteorological data file.

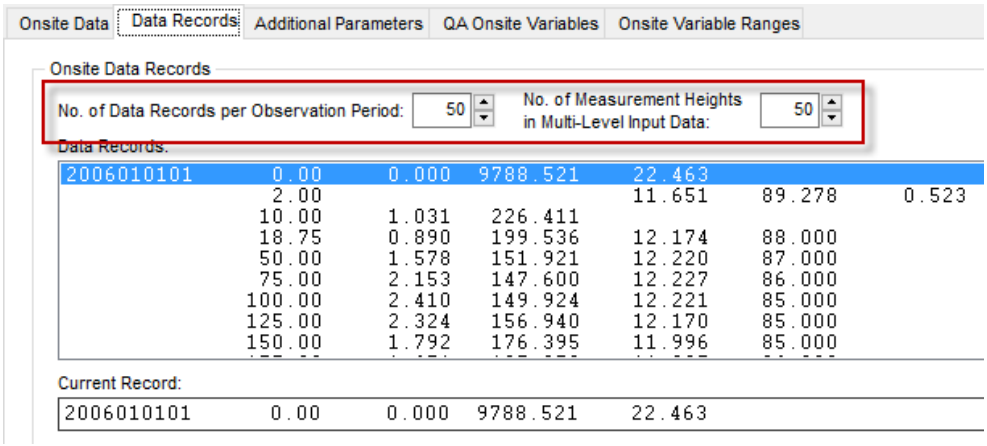
Topic	Issue Description
Overlays	**Cartesian Plant Boundary Layer Order** The Cartesian Plant Boundary layer was added as the bottom-most layer in the Overlays Tree View. This has been corrected so the layer is visible by default.
Project Status	**Resized Long Project Names** Extremely long project names would overrun the Input File and Output File headings on the Project Status window. This has been updated to truncate the file names accordingly.
Multimedia	**Default Codec** When using the Record Animation option, the default video compression Codec has been reset to the Intel IYUV codec. The previous default (Microsoft Video 1) is not supported by the Windows default media player application which could lead to 'Can't play' errors when attempting to view AERMOD View AVI files.
Batcher	**Corrected Meteorological Data Error Message** The Bad Format message for meteorological data files that could not be found was corrected to point to the correct files.

AERMOD View™ Version 9.6.5

Release Notes

September 28, 2018

Fixed Issues

Topic	Issue Description
AERMET View	**Onsite Data Records Limits Increased** To fully support prognostic model (WRF or MM5) output generated by the US EPA MMIF utility, the number of data records per observation period and number of multi-level measurement heights accepted by AERMET View were increased to 50. 
AERMET View	**Project Status Update** Corrected an erroneous message in Project Status that did not recognize an AERSURFACE output file in the Sectors tab without the user first reviewing the tab.
AERMET View	**Upper Air Estimator** A minor adjustment was made to the code to prevent unexpected shutdown of the Upper Air Estimator in rare cases.

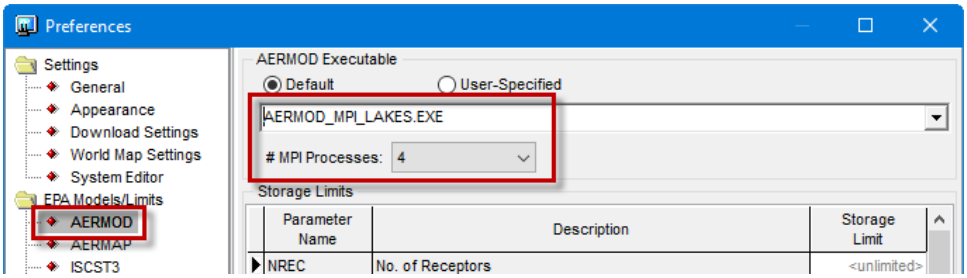
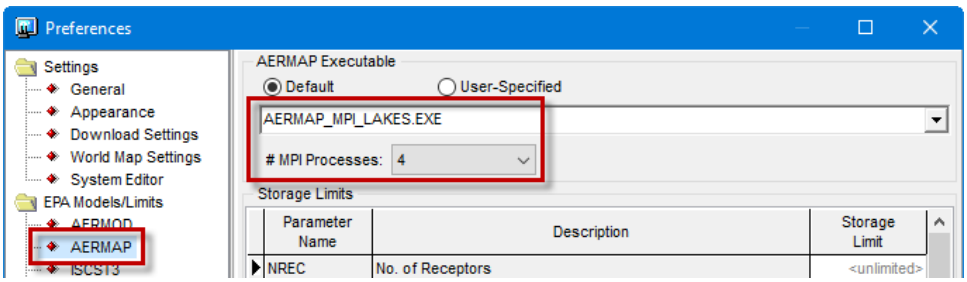
AERMOD View™ Version 9.6

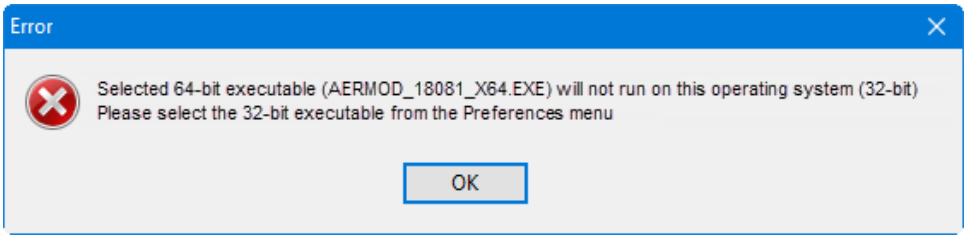
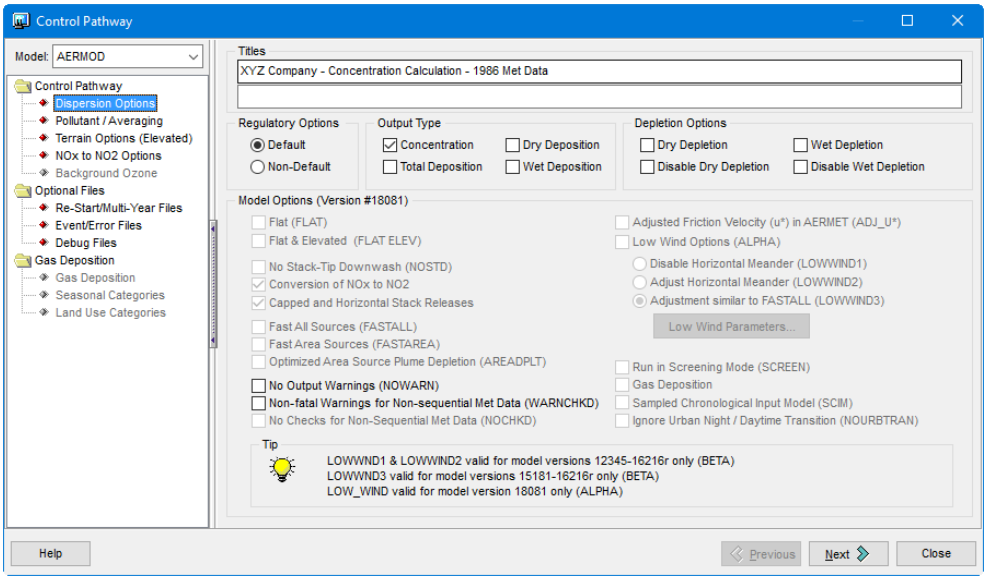
Release Notes

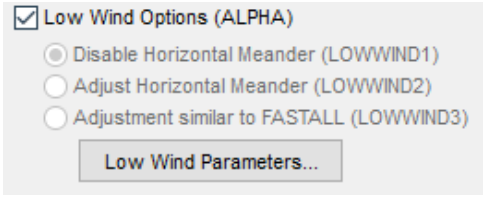
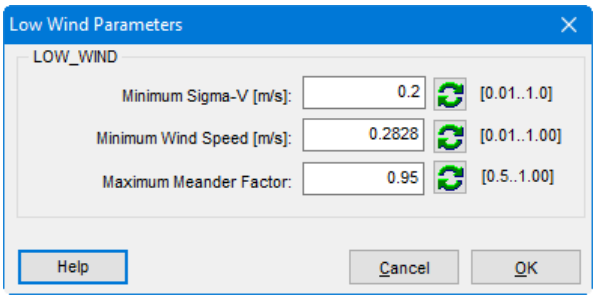
May 30, 2018

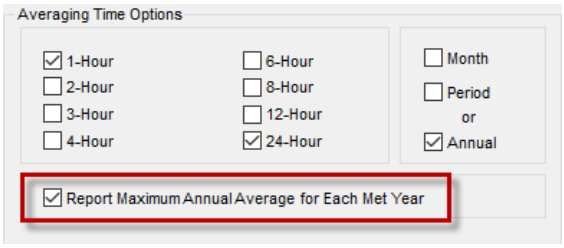
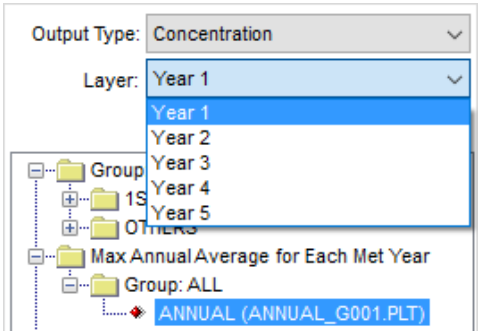
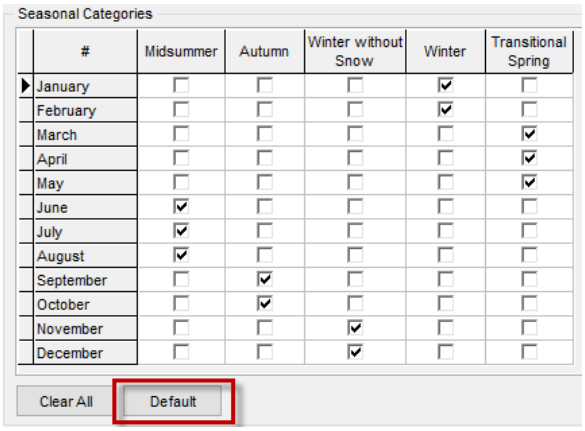
New Features

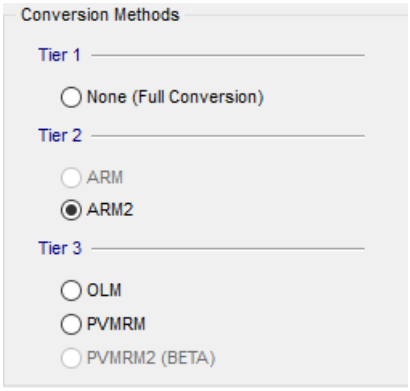
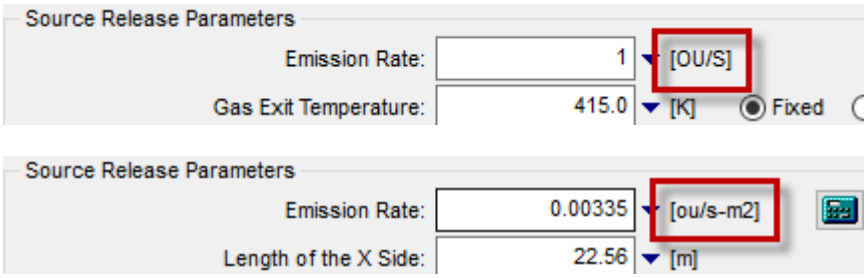
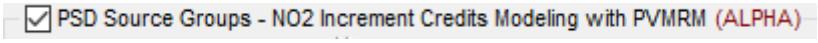
Topic	Feature Description
Models	**Latest Releases of US EPA Models Available** The following US EPA Models were released in April 2018 and are incorporated into AERMOD View & AERMET View Version 9.6: 4. AERMOD Model 18081 5. AERMET Model 18081 6. AERMAP Model 18081 **Note:** Installation includes both **64-bit** (X64) and **32-bit** (X32) compiled executables. Select the appropriate version for your operating system.
Models	**Removal of Outdated Model Executables** The AERMOD model has been in wide use since its 2005 promulgation as a preferred regulatory air dispersion model in the United States. Since that time, there have been over a dozen model releases by the U.S. EPA. Some of these releases contained significant updates to model routines and changes to calculation methodology. We have removed several outdated model executables from the installation to promote the current state of science while maintaining backwards compatibility for regulatory applications. The **supported** models include both EPA and MPI versions of the following: • AERMOD 12345, 13350, 14134, 15181, 16216r, 18081 • AERMET 12345, 13350, 14134, 15181, 16216, 18081 • AERMAP 18081 • BPIP-PRIME 04274 • AERSURFACE 13016 • AERMINUTE 15272

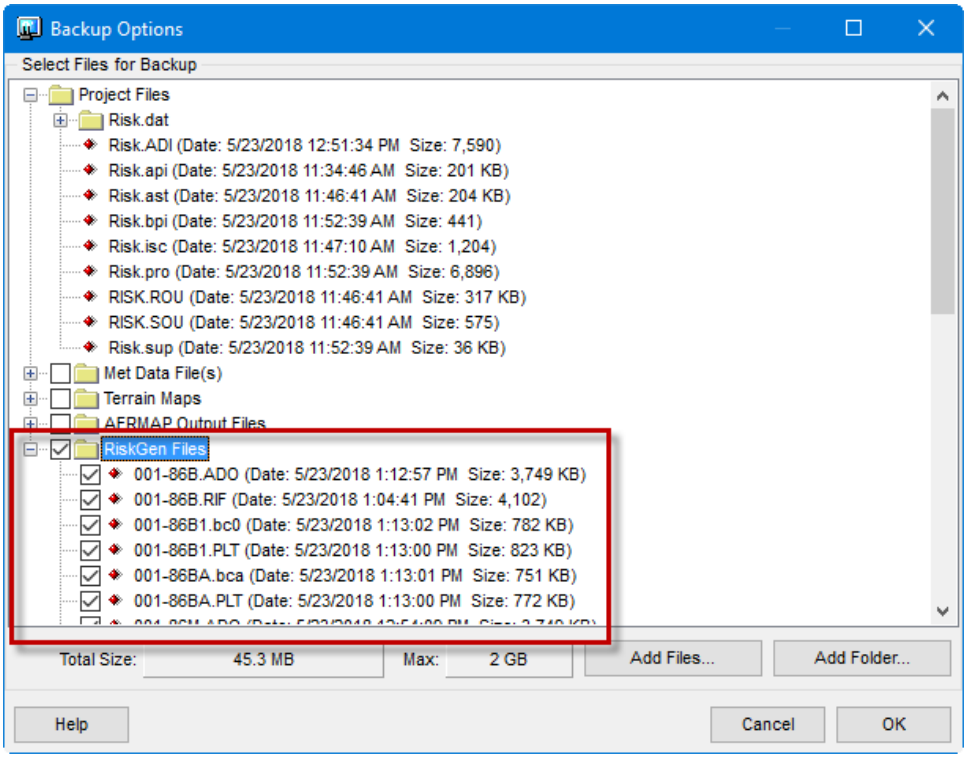
Topic	Feature Description
AERMOD MPI	**New Version of Lakes AERMOD MPI 18081 (Parallel Version)** A new version of the Lakes AERMOD MPI for the US EPA Model Version 18081 is now available (AERMOD_MPI_Lakes_18081.exe). Install includes 64-bit and 32-bit versions. You can specify to use this model under the **Preferences** dialog. **Note:** AERMOD_MPI_LAKES_18081.EXE or AERMOD_MPI_LAKES.EXE will run the latest version of the AERMOD model (18081) in parallel mode using up to a maximum of 8 cores. 
AERMAP MPI	**New Version of Lakes AERMAP MPI 18081 (Parallel Version)** A new version of the Lakes AERMAP MPI for the US EPA Model Version 18081 is now available (AERMAP_MPI_Lakes_18081.exe). Install includes 64-bit and 32-bit versions. You can specify to use this model under the **Preferences** dialog. **Note:** AERMAP_MPI_LAKES_18081.EXE or AERMAP_MPI_LAKES.EXE will run the latest version of the AERMAP model (18081) in parallel mode using up to a maximum of 8 cores. 

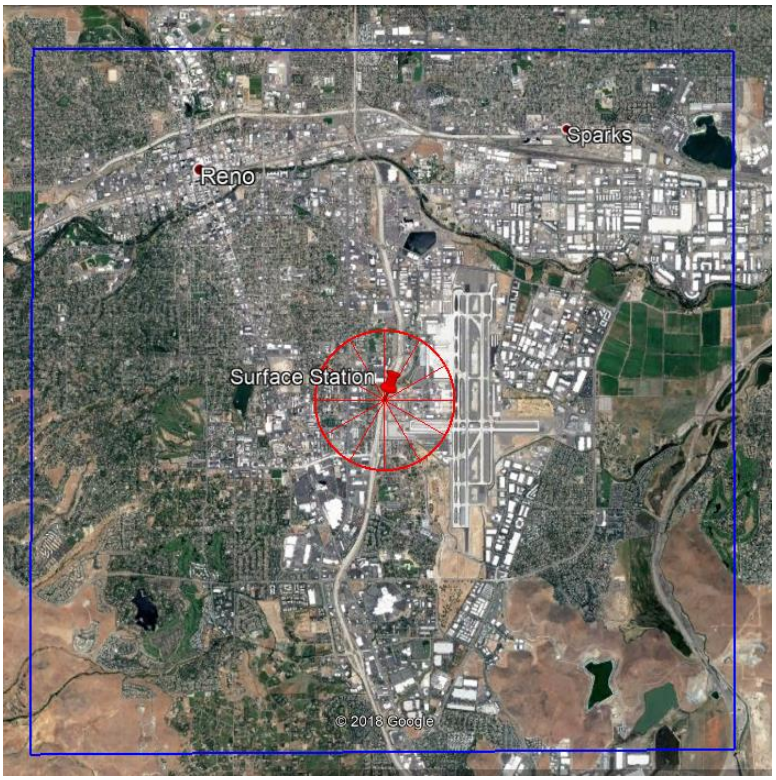
Topic	Feature Description
Models	**Operating System Check** To support proper model execution, error checks have been added to ensure users running 32-bit operating systems do not accidentally use 64-bit executables. 
Control Pathway	**Updated Dispersion Options** The **Dispersion Options** have been reorganized to support the AERMOD 18081 model changes and maintain backwards compatibility for model versions 16216r and earlier. The **Model Options** group heading still confirms which version of the model is selected in **Preferences**, and options are enabled or disabled according to the model version and regulatory status (Default or Non-Default). 

Topic	Feature Description
Control Pathway	**New ALPHA Model Keyword** The US EPA has added a new **ALPHA** keyword in AERMOD 18081 to distinguish research / experimental model options (ALPHA) from community-vetted options under consideration for promulgation (BETA). The ALPHA keyword will be automatically written to the model input file if a user selects an ALPHA option. Current ALPHA options are: • New option for handling low wind speeds (**LOW_WIND**) • Modeling NO2 increment credits with PVMRM (**PSDCREDIT**) **Note:** No BETA options exist in AERMOD 18081.
Control Pathway	**New Low Wind Options** The LOWWIND1-3 model options have been replaced with the new **LOW_WIND** model keyword accessible via the Low Wind Parameters button.   The new keyword allows modification of the Minimum Sigma-V, Minimum Wind Speed, and Maximum Meander Factor to improve model performance in stable, low wind speed conditions.

Topic	Feature Description
Control Pathway	**No Multi-Year Average When Reporting Maximum Annual Average For Each Met Year** The 'Report Maximum Annual Average For Each Met Year' option only produces the individual year results in AERMOD 18081. Previous model versions included the multi-year average values in the model-generated POSTFILE. Multi-year average concentrations are still available via the annual average Contour Plot file.  
Control Pathway	**Default Seasonal Categories** A Default button has been added to the Seasonal Categories dialog for Gas Deposition modeling. Default selections are based on the Hemisphere selected in **View | Map Projection**. 

Topic	Feature Description
Control Pathway	**Removal of NO2 Ambient Ratio Method (ARM)** AERMOD 18081 no longer supports the Ambient Ratio Method (ARM) for NOx to NO2 conversion. Results can be replicated by selecting ARM2 and setting the Minimum and Maximum ratios to the same value.  If importing an existing AERMOD input file containing the ARM option, a warning message will be issued.
Source Pathway	**Emissions Units for Odor** When 'Odor Units' is selected on the **Emission Output Units** options, the displayed units for Emission Rate in the Source Release Parameters will now be labeled as OU/S or OU/s-m**2. 
Source Pathway	**Updated PSD Groups Header** The header of the PSD Source Groups option for PVMRM now reflects the model option's status as an **ALPHA** option. 

Topic	Feature Description
RiskGen	**Project Management** Project files generated via the RiskGen utility are now stored in a project sub-folder <project_name>**.RSK**. This provides better organization of project files and makes it easier to find data when needed.
Project Backup	**RiskGen Files Included** AERMOD View's integrated project backup utility now includes all files produced via the RiskGen utility in support of modeling analyses for human health risk assessment. 
Project Status	**Variable Emissions Scenario Check** Project Status now issues a warning if sources are not included with a variable emissions scenario.

Topic	Feature Description
AERMET View	**Upper Air Estimator** The Upper Air Estimator utility has been updated for the AERMET 18081 model.
AERMET View	**New KML Export Objects** When exporting AERMET View project data to Google Earth, all projects now display sectors in accordance with the recommendations of Section 3.1.2 of the U.S. EPA's AERMOD Implementation Guide. This includes: • 10km x 10km area for calculating albedo & Bowen ratio • 1km radius for calculating surface roughness 

Fixed Issues

Topic	Issue Description
Terrain Processor	**Downloading NED Data for Projects with Existing Tiles** NED 1 and NED 1/3 tiles will now be successfully downloaded from WebGIS even if existing tiles are already present in the project folder. Previous versions would issue an error if NED data already existed in the project folder.
Control Pathway	**Default Minimum NO2/NOx Ratio for ARM2** The default value for the ARM2 Minimum NO2/NOx Ratio model option has been reset to 0.50 in accordance with regulatory guidance.
Meteorology Pathway	**Loading File Information** The Surface Met Data and Profile Met Data groups of the Met Input Data options will complete all of the Start Date, End Date, Version, Calms, and Missing fields when the Surface and/or Profile files are input and the corresponding file exists in the same location. 
Receptor Pathway	**Flagpole Heights Option** Two issues involving the Flagpole Heights option were resolved: 1. When importing receptors from an AERMOD input file with the Flagpole Heights option enabled, Hill Heights were incorrectly applied to the Flagpole Heights column for discrete receptors. 2. Individual flagpole heights are now applied to onsite receptors.
Reports	**Sensitive Receptor Summary Report** This report was updated to include all sensitive receptors in the report. The previous release only reported the first four sensitive receptors.

Topic	Issue Description
Reports	**Results Summary Peak Date Update** The Results Summary report was modified to remove any date and hour information from Deposition results. Those values are specific to concentration results only in AERMOD's contour plot file.
AERMET View	**Warnings List Updated** When using the "Read Mixing Heights from Onsite Data" option, the application issued an incorrect warning message stating that Upper Air data was missing. This warning no longer appears.
AERMET View	**AERSURFACE File Option Retained** The "Use AERSURFACE File Instead of Sector & Surface Parameters" option would become disabled if the user left and returned to the Sectors tab. While the model always used the user-specified selection, the selection is now properly retained within the interface.
AERMET View	**Onsite QA Table Updated** Values on the Onsite Variable Ranges table were corrected to match Table B-4 of the US EPA AERMET user's guide.
AERMET View	**Upper Air Estimator Fix** In very rare instances, the Upper Air Estimator encountered an early termination due to solar elevation angle. This has been fixed for AERMET version 16216 and later.
WRPLOT View	**Wind Classes Table** When supplying new values to the Wind Classes table, the From column would not automatically update when switching units from m/s to knots. This has been fixed.

Lakes Environmental Software
E-mail: support@webLakes.com
Web: www.webLakes.com