
From: Brian Grover
Sent: Tuesday, October 3, 2017 4:56 PM
To: 'andrew.yancey@lw.com' <andrew.yancey@lw.com>
Subject: RE: GHG and AQ Files for Newland EIR

Andrew,

Attached please find a memorandum which addresses your request to the County on July 14, 2017 (below). While Dudek and the County maintain that these materials are not “public records,” we understand that Latham and Watkins has threatened to initiate litigation against the County under the Public Records Act, and Dudek has elected to provide these files to avoid costly and time-consuming litigation. Please note that in doing so, we do not waive our rights concerning the proprietary nature of the files. We also caution Latham and Watkins – and any third-party user – to adhere to the explanation of the proper use of these files, which is outlined in the memorandum. The misuse of this information could result in inaccurate or misleading findings.

Here is the Sharefile link to download the associated modeling files that are mentioned in the memorandum:
<https://dudek.sharefile.com/d-scfaf078734746b3a>

Please let me know if you have any trouble accessing the files.

Thanks,

Brian

Brian P. Grover, AICP, LEED GA
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 *please consider the environment before printing this email*

From: Andrew.Yancey@lw.com [mailto:Andrew.Yancey@lw.com]

Sent: Friday, July 14, 2017 12:00 PM

To: Smith, Ashley

Cc: Slovick, Mark; CHRISTOPHER.GARRETT@LW.com

Subject: GHG and AQ Files for Newland EIR

Ashley – For the Newland Draft EIR, could you provide the unlocked Excel spreadsheets supporting all emission calculations in Appendices G and K and electronic input and output files for all CalEEMod, AERMOD, and HARP runs? These do not appear to be available from the documents posted online, and they are necessary for an analysis of the Project's GHG and air quality emissions impacts. Thank you very much. Please let me know if you have any questions.

Andrew D. Yancey

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Latham & Watkins LLP

MEMORANDUM

To: Andrew Yancey, Latham & Watkins
From: Jennifer Reed, Air Quality Services Manager, Dudek
Subject: Public Records Act Request for the Newland Sierra Project – Air Quality and Greenhouse Gas Modeling Materials
Date: October 3, 2017
cc: Brian Grover, Project Manager, Dudek; David Deckman, Senior Air Quality Specialist, Dudek; Jennifer Sucha, Air Quality Specialist, Dudek
Attachments: List of Electronic Modeling Files (refer to Sharefile transmittal for actual files)

1 INTRODUCTION

Dudek understands that a Public Records Act request from Latham & Watkins asks for “unlocked Excel spreadsheets supporting all emission calculations in Appendices G and K and electronic input and output files for all CalEEMod, AERMOD, and HARP runs.” “Appendices G and K” refer to two Technical Appendices included in the Draft Environmental Impact Report (DEIR) for the Newland Sierra Project; and, specifically, Appendix G, the Air Quality Technical Report, and Appendix K, the Greenhouse Gas Emissions Technical Report.

The requested electronic input and output files are not “field notes, resource documents, or supplemental technical studies used in the preparation of the technical study/EIR,” which are the materials Dudek traditionally provides to the County of San Diego (County) pursuant to the County’s standard Memorandum of Understanding form. An example of “field notes” is found in Appendix A to our Noise Technical Report, which contains our field measurement data and associated notes. An example of “resource documents” is found in the documents used as resources in the preparation of our technical reports, and those resources have been cited in the References section of each technical report. Examples of “supplemental technical studies” are the silica dust analysis or the health risk assessment — both of which are included as appendices to our Air Quality Technical Report. Instead, Latham & Watkins has requested our internal electronic input and output files, which do not fall under any of the aforementioned categories.

We do not consider such files to be “public records.” Nonetheless, we understand that Latham & Watkins has threatened to initiate litigation against the County under the Public Records Act in

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an effort to obtain our internal files. We have decided to provide Latham & Watkins with our internal electronic files to avoid costly and time-consuming litigation. In doing so, however, we do not waive our rights concerning the proprietary nature of our electronic files, nor our position that our internal files do not constitute “public records” as defined in the Public Records Act. We also caution Latham & Watkins (and any third-party end user) to adhere to Dudek’s explanation of the proper use of these files, which is set forth below. (The misuse of the information could result in inaccurate or misleading findings.)

The following items, which comprise the electronic modeling files requested by Latham & Watkins, are included as part of the October 3, 2017 transmittal to Latham & Watkins via Sharefile and listed in Attachment 1 to this memorandum. Also provided below, beginning in Section 2, is a description and detailed list of the specific electronic files and how they were used:

California Emissions Estimator Model (CalEEMod) Version 2016.3.1 Files:

- CalEEMod – Construction: Input file, output files
- CalEEMod – Operation: Input files, output files

American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) and Hotspots Analysis and Reporting Program Version 2 (HARP 2) Files:

- AERMOD – Construction: Input files, output files, plotfiles (input to HARP 2)
- AERMOD – Operation: Input files, output files, plotfiles (input to HARP 2)
- HARP 2 – Construction: Input files, output files
- HARP 2 – Operation: Input files, output files

Excel Workbooks:

- Construction Schedule and Assumptions
- Combined Construction Emission Calculations
- Construction Diesel Particulate Matter (DPM)
- Interstate 15 and Deer Springs Road (estimated motor vehicle Toxic Air Contaminant (TAC) emissions)
- Gas Station (estimated gasoline TAC emissions)
- Blasting Emissions
- Rock Crushing Emissions
- Energy Intensity Factor Adjustment 2020

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Due to the complexity and intricate nature of the modeling required for this Project, this memorandum serves as a “road map” to assist the reviewer in understanding what models and software were used, the general approach to each modeling exercise, and how to appropriately use the files provided.

Notably, if the following explanations, instructions and processes are not followed precisely, the emissions estimates calculated by any third-party reviewer could be different than the results disclosed in the DEIR. To adequately replicate the process undertaken when the analysis was originally prepared and presented in the Project’s Air Quality Technical Report (DEIR, Appendix G) and Greenhouse Gas Emissions Technical Report (DEIR, Appendix K), Latham & Watkins and any third-party reviewer must follow Dudek’s explanations and instructions, and adhere to the methodologies used for each analysis. Failure to do so will result in emissions estimates and other results that differ from those disclosed in the DEIR and relevant appendices.

CalEEMod, in particular, has functionality issues. For example, when a native (original) input file is re-loaded into the model, the original inputs will sometimes be over-ride with default values without notification to the user. When this happens, and the model is then run without the original inputs, the emission estimates are calculated incorrectly and do not reflect the original model run. As a result, a third party reviewer may not achieve the same results by simply uploading the input file and hitting “go.” Instead, each input must be checked in the model to ensure that no custom inputs were over-ridden following the input file upload process. If the model is run without carefully checking that each and every input matches the analysis that was originally conducted, the results may come out differently.

Similarly, in the event of a third party review, extreme care should be taken to ensure that all pathways to auxiliary files are correct. For example, the AERMOD input file will look for the meteorological data in a specific location. Also, several of the HARP 2 files direct the program to specific locations to find the relevant files. If those locations are not correctly identified, errors could occur. Electronic file names, as they are provided as part of this transmittal, should also not be altered because altering file names could result in errors when loading the files.

Finally, the methodology and approach for each type of analysis for which these models and files were used are described in extensive detail in the Project’s Air Quality Technical Report (DEIR, Appendix G) and GHG Emissions Technical Report (DEIR, Appendix K). Because these methodological descriptions are provided in such detail, and additional inputs/support is provided in the technical appendices of Appendix G and Appendix K of the DEIR, additional explanation is not provided in this memorandum. Therefore, reference should be made to the

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appropriate DEIR appendices for information relevant to the analyses completed with the files provided with this memorandum.

2 CRITERIA AIR POLLUTANT EMISSIONS

Construction Emissions

The construction schedule and construction parameters, prepared by Fuscoe Engineering, are provided in a stand-alone Excel workbook. Pertinent construction assumptions from this workbook were inputted into CalEEMod to assist in estimating construction emissions. This file is included as Appendix A to Appendix G of the Project’s DEIR:

- Construction Schedule and Assumptions_Fuscoe.xlsx

As stated in Sections 3.1.1 and 3.2.1 of Appendix G (Air Quality Technical Report) of the Project’s DEIR, the CalEEMod, Version 2016.3.1, was used to estimate construction-related criteria air pollutant emissions for the Project. The following CalEEMod input and output files were used in estimating and reporting criteria air pollutant emissions associated with construction of the Project, which are disclosed in Section 4.2.1.2 of Appendix G of the Project’s DEIR:

- Construction_INPUT¹
- Construction_Annual_OUTPUT
- Construction_Summer_OUTPUT
- Construction_Winter_OUTPUT

A single CalEEMod input file, as listed above, was used to run the model to estimate construction emissions. This input and associated model run generated annual, summer and winter output files, which are also listed above. The annual output file was used to identify the Project’s diesel particulate matter (DPM) by construction year, which was used to inform the construction health risk assessment (HRA), as described below in Section 4 of this memorandum.

Since CalEEMod does not account for emissions associated with blasting and rock crushing activities, and because the Project would require this particular type of construction activity,

¹ “Construction_INPUT” is the same file used for both the criteria air pollutant and GHG emissions analysis.

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these emissions were estimated primarily using Excel spreadsheets and emission factors from the U.S. Environmental Protection Agency’s (EPA) *Compilation of Air Pollutant Emission Factors* (AP-42) as described in detail in Section 3.1.3 of DEIR Appendix G. The emissions from diesel engine-generators that would be used to power the rock crushing equipment were estimated using “generator” emission factors for the appropriate horsepower rating from CalEEMod, as also described in Section 3.1.3 of DEIR Appendix G. These files were provided in Appendix D of DEIR Appendix G, and were used in estimating criteria air pollutant emissions associated with blasting and rock crushing activities:

- Blasting Emissions.xlsx
- Rock Crushing Emissions.xlsx

These two Excel workbook files are stand-alone calculation worksheets and were not used as inputs into another model.

Operational Emissions

As stated in Section 3.2.1 of DEIR Appendix G, CalEEMod was used to estimate operational-related criteria air pollutant emissions for the Project. The following files were used to estimate the maximum Project-generated operational emissions in 2027:

Input file:

- 2027 Op_INPUT

Output files:

- 2027 Op_Smr_OUTPUT
- 2027 Op_Wtr_OUTPUT

Combined Construction and Operational Emissions

In addition to estimating year-by-year construction emissions and operational emissions in 2027, Section 4.2.2 of Appendix G includes an analysis of the combined construction and operational emissions associated with on-site residential units that would become operational while subsequent construction of future phases of the Project are on-going. These combined construction and operational emissions were estimated by year (i.e., 2021 through 2027). In addition to the construction and 2027 operational input and output files (listed previously), the following files were used to estimate combined construction and operational emissions by year:

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Input files:

- 2021 Op_INPUT
- 2022 Op_INPUT
- 2023 Op_INPUT
- 2024 Op_INPUT
- 2025 Op_INPUT
- 2026 Op_INPUT

Output files:

- 2021 Op_Smr_OUTPUT
- 2021 Op_Wtr_OUTPUT
- 2022 Op_Smr_OUTPUT
- 2022 Op_Wtr_OUTPUT
- 2023 Op_Smr_OUTPUT
- 2023 Op_Wtr_OUTPUT
- 2024 Op_Smr_OUTPUT
- 2024 Op_Wtr_OUTPUT
- 2025 Op_Smr_OUTPUT
- 2025 Op_Wtr_OUTPUT
- 2026 Op_Smr_OUTPUT
- 2026 Op_Wtr_OUTPUT

During each calendar year (2021-2027), it was determined how many residential units and other land uses would be operational. That calendar year's operational emissions were added to the emissions from construction activity that would simultaneously be occurring in that same year.

3 GREENHOUSE GAS EMISSIONS

Construction GHG Emissions

As discussed above, the construction schedule and construction parameters, prepared by Fuscoe Engineering, are provided in a stand-alone Excel workbook. Pertinent construction assumptions from this workbook were inputted into CalEEMod to assist in estimating construction emissions. This file is included as Appendix B to Appendix K of the Project’s DEIR:

- Construction Schedule and Assumptions_Fuscoe.xlsx

As stated in Section 5.1.1 of Appendix K (Greenhouse Gas Emissions Technical Report) of the Project’s DEIR, CalEEMod was used to estimate construction-related GHG emissions for the Project. However, in addition to modeling the construction conditions provided by Fuscoe Engineering, one-time sequestration loss (i.e., vegetation removal) on the Project site was calculated as described in Section 6.1 of Appendix K. This vegetation change was calculated in a separate model run and only the vegetation change GHG emissions were taken from this output file; therefore, model defaults for all settings *except* vegetation were retained. As such, the construction schedule and all other construction and operational inputs that are shown in this CalEEMod output file (Vegetation Change Annual_OUTPUT) are not relevant and should not be taken into consideration during review, as these parameters and emissions were not used. A separate model run (Construction_Annual_OUTPUT) was conducted to analyze the specific construction parameters of the Project.

The following input and output files were used in estimating GHG emissions associated with construction of the Project, which are disclosed in Section 6.1 of Appendix K of the Project’s DEIR:

Input files:

- Construction_INPUT²
- Vegetation Change_INPUT

Output files:

- Construction_Annual_OUTPUT
- Vegetation Change Annual_OUTPUT

² “Construction_INPUT” is the same file used for both the criteria air pollutant and GHG emissions analysis.

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The total GHG emissions by year were inserted into an Excel workbook and the GHG emissions from the rock crushing engine-generators were added to the years when the generators would be in operation. The combined construction emissions are provided in the following Excel workbook:

- Combined Construction GHG Calculations.xlsx

Operational GHG Emissions

As stated in Section 5.2 of Appendix K (Greenhouse Gas Emissions Technical Report) of the Project's DEIR, CalEEMod was used to estimate operational-related GHG emissions for the Project. Operational GHG emissions were evaluated by land use. Each land use proposed under the Project was modeled individually, and the additive emissions were presented in Section 6.2 of DEIR Appendix K. All modeled land uses include the project design features described in Table 15 of Appendix K and these inputs are described in Section 5.2 of Appendix K. Modeled land uses include single-family residential, multifamily residential, age-qualified units, commercial, parks and asphalt, and school. In addition to individual modeled land uses, the Project as a whole was modeled without inclusion of the project design features, to allow the reader to see the comparison between Project GHG emissions with *and* without project design features.

The following input and output files were used in estimating GHG emissions associated with operation of the Project, which are disclosed in Section 6.2 of Appendix K of the Project's DEIR:

Input files:

- 2021 Buildout Op Without PF_INPUT
- 2021 Age Qualified Units Op WITH PF_INPUT
- 2021 Commercial Op WITH PF_INPUT
- 2021 Multifamily Op WITH PF_INPUT
- 2021 Parks_Aspphalt Op WITH PF_INPUT
- 2021 School Op WITH PF_INPUT
- 2021 Single Fam Op WITH PF_INPUT

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Output files:

- 2021 Buildout Op Without PF Anl_OUTPUT
- 2021 Age Qualified Units Op WITH PF Anl_OUTPUT
- 2021 Commercial Op WITH PF Anl_OUTPUT
- 2021 Multifamily Op WITH PF Anl_OUTPUT
- 2021 Parks_Asphalt Op WITH PF Anl_OUTPUT
- 2021 School Op WITH PF Anl_OUTPUT
- 2021 Single Fam Op WITH PF Anl_OUTPUT

Additionally, the energy intensity factor in CalEEMod was adjusted to determine the appropriate energy intensity factor for the year 2020 considering existing and projected SDG&E energy portfolio mix, which was conservatively applied to the year 2021 operations, as shown in the following worksheet:

- Energy Intensity Factor Adjustment 2020.xlsx

The complete operational GHG inventory is tabulated in the following Excel workbook, which includes all modeled land uses described above:

- Final GHG Calcs Combined.xlsx

4 HEALTH RISK ASSESSMENTS

Construction Health Risk Assessment

As stated in Section 3.1.4 of Appendix G (Air Quality Technical Report) of the Project's DEIR, the EPA-approved dispersion model, AERMOD, and HARP 2 were used to estimate construction-related health risk for the Project. More specifically, using plotfiles generated by AERMOD, the HARP 2 Risk Assessment Standalone Tool (RAST) was used to estimate cancer risk at two locations: the maximally-exposed on-site and off-site residential receptors.

The following input and output files were used in estimating health risk associated with construction of the Project, which are disclosed in Section 4.4.1.2.2 of Appendix G of the Project's DEIR:

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AERMOD Files

- MM10.ADI: AERMOD input file
- MM10.ROU: AERMOD receptor file
- MM10.ADO: AERMOD output file
- Escondido_10-12.SFC and Escondido_2010thru2012_v14134.PFL: AERMOD meteorological data files
- 01H1GALL.PLT and AN00GALL.PLT: AERMOD output plotfiles for hourly and annual averaging periods (input to HARP 2)

HARP 2/RAST Files

- On-SiteHRAInput.hra: RAST input file for on-site residential receptor
- On-SitePolDB.csv: RAST input file for on-site residential receptor
- On-SiteGLCList.csv³: RAST ground-level concentration of DPM for on-site residential receptor
- On-SiteOutput.txt: Informational summary of RAST parameters
- On-SiteCancerRisk.csv: RAST output file for on-site residential receptor cancer risk
- On-SiteNCChronicRisk.csv: RAST output file for on-site residential receptor noncancer chronic risk
- Off-SiteHRAInput.hra: RAST input file for off-site residential receptor
- Off-SitePolDB.csv: RAST input file for on-site residential receptor
- Off-SiteGLCList.csv: RAST ground-level concentration of DPM for off-site residential receptor
- Off-SiteOutput.txt: Informational summary of RAST parameters
- Off-SiteCancerRisk.csv: RAST output file for off-site residential receptor
- Off-SiteNCChronicRisk.csv: RAST output file for on-site residential receptor noncancer chronic risk

³ Files denoted as *.csv are comma-delimited files but are readable by Excel. Thus, they may appear with an Excel icon in the file listing.

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Operational Health Risk Assessment

As stated in Sections 3 and 4 of Appendix C (Health Risk Assessment) to DEIR Appendix G (Air Quality Technical Report), AERMOD and HARP 2 were used to estimate health risk for future residents of the Project due to motor vehicle emissions from Interstate 15 and Deer Springs Road and gasoline emissions from a nearby gas station.

The following Appendix C input and output files from September 2015 are available in their native format:

AERMOD Files

- Escondido_201X_v14134.SFC⁴ and Escondido_201X_v14134.PFL: One set of meteorological data files for each year for AERMOD
- 01H1G001.PLT to 01H1G006.PLT and 01H1GALL.PLT: One set per meteorological year of hourly plotfiles for six sources and all sources generated by AERMOD to be used as input to HARP 2
- PE00G001.PLT to PE00G006.PLT and PE00GALL.PLT: One set per meteorological year of period (annual) plotfiles for six sources and all sources generated by AERMOD to be used as input to HARP 2

HARP 2 Files

- NS SCHOOLS 201X_GLCLIST.csv, NS SCHOOLS 201X_GLCPathway LIST.csv, NS SCHOOLS 201X_IMPORTEMS .csv, NS SCHOOLS 201X_IMPORTPLOT.csv, and NS SCHOOLS 201X_Pathway1.csv: HARP 2 input files for school receptors – one set per meteorological year⁴ of emission rates for each source, exposure pathways, and other information to run HARP 2
- NEWLAND SIERRA 201X_GLCLIST.csv, NEWLAND SIERRA 201X_GLCPathway LIST.csv, NEWLAND SIERRA 201X_IMPORTEMS.csv, NEWLAND SIERRA 201X_IMPORTPLOT.csv, and NEWLAND SIERRA 201X_Pathway1.csv: HARP 2 input files for residential receptors – one set per meteorological year⁴ of emission rates for each source, exposure pathways, and other information to run HARP 2 for unmitigated conditions; one set for 2010 mitigated condition

⁴ “201X” indicates 2010, 2011, or 2012.

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- 9yrSchoolCancer.csv, 9yrSchoolChronic.csv, 9yrSchoolAcute.csv: HARP 2 output files for cancer risks, chronic hazard indices, and acute hazard indices for unmitigated conditions
- 30yr-Cancer.csv, 30yr-Chronic.csv, 30yr-Acute.csv: HARP 2 output files for cancer risks, chronic hazard indices, and acute hazard indices for the unmitigated condition and corresponding files for 9-year and 70-year periods
- 30yrCancer-Mit.csv, 30yr-ChronicMit.csv, 30-yrAcuteMit.csv: HARP 2 output files for cancer risks, chronic hazard indices, and acute hazard indices for the mitigated condition and corresponding files for 9-year and 70-year periods

In the process of locating files for this transmittal, it was discovered that the following Appendix C input and output files from September 2015 were no longer available in their native format, because those files were inadvertently not saved by the air quality analyst who conducted the modeling; and that person has since left Dudek's employment to work for a public agency.

AERMOD Files

- *.ADI: AERMOD input files (a single input file was available in PDF format)
- *.ROU: Receptor file of XY (geographic) coordinates and elevations for residential and school receptors
- *.ADO: AERMOD output files for residential and school receptors

To provide the *.ADI, *.ROU and *.ADO electronic files requested, the single available PDF-formatted AERMOD input file (*.ADI) was converted into six text files (three each for the residential and school receptors corresponding to three years of meteorological data) and properly formatted for use with AERMOD corresponding to each meteorological data year (2010, 2011, and 2012). The receptor files (*.ROU) were replicated using the receptor data included in the AERMOD-generated plotfiles and the receptor locations contained therein were incorporated into the AERMOD input files. The AERMOD output files, while generated by AERMOD and provided herein, are not needed to run HARP 2, which relies on AERMOD-generated plotfiles.

The following AERMOD and HARP input files reflect the modeling parameters, inputs, and receptor locations used in the DEIR's September 2015 HRA. The files highlighted in bold text are those that were replicated with AERMOD or HARP 2 for the reasons discussed above.

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School Receptors

AERMOD Files

- **NS_School.ADI:** AERMOD input, including receptor locations from the *.ROU file
- Escondido_201X_v14134.SFC⁵ and Escondido_201X_v14134.PFL: One set of meteorological data files for each year for AERMOD

HARP 2 Files

- **NS SCHOOL_GLCLIST.CSV, NS SCHOOL_GLCPathwayLIST.CSV, NS SCHOOL_IMPORTEMS.CSV, NS SCHOOL_IMPORTPLOT.CSV, NS SCHOOL_Pathway1.CSV, and NS SCHOOL_INPUT.adm:** HARP 2 input files for school receptors – one set per meteorological year of hourly and annual emission rates, exposure pathways, and other information to run HARP 2
- Additional miscellaneous HARP 2 files too numerous to enumerate

Residential Receptors

AERMOD Files

- **NS_Ops.ADI:** AERMOD input file, including receptor locations from the *.ROU file
- Escondido_201X_v14134.SFC and Escondido_201X_v14134.PFL: One set of meteorological data files for each year for AERMOD

HARP 2 Files

- **NS OPS_GLCLIST.CSV, NS OPS_GLCPathwayLIST.CSV, NS OPS_IMPORTEMS.CSV, NS OPS_IMPORTPLOT.CSV, NS OPS_Pathway1.CSV, and NS OPS_INPUT.adm:** HARP 2 input files for residential receptors – one set per meteorological year of hourly and annual emission rates, exposure pathways, and other information to run HARP 2 for unmitigated condition; one set for 2010 mitigated condition
- Additional miscellaneous HARP 2 files too numerous to enumerate

When running the replicated files shown in bold text above, Dudek used AERMOD Version 14134, the same version of the model that used for the September 2015 HRA. The resultant

⁵ “201X” indicates 2010, 2011, or 2012.

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AERMOD plotfiles were input into HARP 2 and the cancer risks, chronic hazard indices, and acute hazard indices were generated using the same approach that the DEIR reported in order to replicate the full set of electronic files. The following files, which are again highlighted in bold text, are the replicated output files from AERMOD and HARP 2:

School Receptors

AERMOD Files

- **NS_School.ADO**: AERMOD output file – one set per meteorological year
- **01H1G001.PLT to 01H1G006.PLT and 01H1GALL.PLT**: Hourly plotfiles for six sources and all sources generated by AERMOD to be used as input to HARP 2
- **PE00G001.PLT to PE00G006.PLT and PE00GALL.PLT**: Period plotfiles for six sources and all sources generated by AERMOD to be used as input to HARP 2

HARP 2 Files

- **9yr-School-Output.txt**: Informational summary of HARP 2 parameters
- **9-yrSchoolCancer.xlsx, 9-yrSchoolChronic, 9-yrSchoolAcute**: HARP 2 output files for cancer risk, chronic hazard index, and acute hazard index
- Additional miscellaneous HARP 2 files too numerous to enumerate

Residential Receptors

AERMOD Files

- **NS_Ops.ADO**: AERMOD output file – one set per meteorological year
- **01H1G001.PLT to 01H1G006.PLT and 01H1GALL.PLT**: Hourly plotfiles for six sources and all sources generated by AERMOD to be used as input to HARP 2
- **PE00G001.PLT to PE00G006.PLT and PE00GALL.PLT**: Period plotfiles for six sources and all sources generated by AERMOD to be used as input to HARP 2

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HARP 2 Files

- **30yr-Output.txt:** Informational summary of HARP 2 parameters
- **30yrCancer.xlsx, 30yrChronic, 30yrAcute:** HARP 2 output files for cancer risk, chronic hazard index, and acute hazard index for unmitigated and mitigated conditions and corresponding files for 9-year and 70-year periods
- Additional miscellaneous HARP 2 files too numerous to enumerate

The combination of original and replicated, native files produced HRA results for the chronic and acute hazard indices that are the same as those reported in Section 4.2 of Appendix C to DEIR Appendix G. The 30-year cancer risk results decreased slightly from those reported in Section 4.1 for residential uses. These results demonstrate that the combination of original and replicated, native files provide a reasonably accurate representation of the modeling summarized in Appendix C to DEIR Appendix G, with the DEIR reporting slightly more impactful results than now calculated.

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ATTACHMENT 1: LIST OF ELECTRONIC MODELING FILES

Subject: Public Records Act Request for the Newland Sierra Project – Air Quality and Greenhouse Gas Modeling

Date: October 3, 2017

1 CalEEMod CRITERIA AIR POLLUTANTS

Construction

Input

- Construction_INPUT.xls

Outputs

- Construction_Summer_OUTPUT.xls
- Construction_Winter_OUTPUT.xls
- Construction_Annual_OUTPUT.xls

Operation

Inputs

- 2021 Op_INPUT.xls
- 2022 Op_INPUT.xls
- 2023 Op_INPUT.xls
- 2024 Op_INPUT.xls
- 2025 Op_INPUT.xls
- 2026 Op_INPUT.xls
- 2027 Op_INPUT.xls

Outputs

- 2021 Op_Smr_OUTPUT.xls
- 2021 Op_Wtr_OUTPUT.xls
- 2022 Op_Smr_OUTPUT.xls
- 2022 Op_Wtr_OUTPUT.xls
- 2023 Op_Smr_OUTPUT.xls
- 2023 Op_Wtr_OUTPUT.xls
- 2024 Op_Smr_OUTPUT.xls
- 2024 Op_Wtr_OUTPUT.xls
- 2025 Op_Smr_OUTPUT.xls

- 2025 Op_Wtr_OUTPUT.xls
- 2026 Op_Smr_OUTPUT.xls
- 2026 Op_Wtr_OUTPUT.xls
- 2027 Op_Smr_OUTPUT.xls
- 2027 Op_Wtr_OUTPUT.xls

2 CalEEMod GREENHOUSE GAS EMISSIONS

Construction

Inputs

- Construction_INPUT.xls
- Vegetation Change_INPUT.xls

Outputs

- Construction_Annual_OUTPUT.xls
- Vegetation Change Annual_OUTPUT.xls

Operation

Inputs

- 2021 Age Qualified Units Op WITH PF_INPUT.xls
- 2021 Buildout Op Without PF_INPUT.xls
- 2021 Commercial Op WITH PF_INPUT.xls
- 2021 Multifamily Op WITH PF_INPUT.xls
- 2021 Parks_Aspphalt Op WITH PF_INPUT.xls
- 2021 School Op WITH PF_INPUT.xls
- 2021 Single Fam Op WITH PF_INPUT.xls

Outputs

- 2021 Age Qualified Units Op WITH PF Anl_OUTPUT.xls
- 2021 Buildout Op Without PF Anl_OUTPUT.xls
- 2021 Commercial Op WITH PF Anl_OUTPUT.xls
- 2021 Multifamily Op WITH PF Anl_OUTPUT.xls
- 2021 Parks_Aspphalt Op WITH PF Anl_OUTPUT.xls
- 2021 School Op WITH PF Anl_OUTPUT.xls
- 2021 Single Fam Op WITH PF Anl_OUTPUT.xls

3 EXCEL WORKBOOKS

- Blasting Emissions.xlsx
- Combined Construction GHG Calculations.xlsx
- Construction Schedule and Assumptions_Fuscoe.xlsx

- Construction DPM.xlsx
- Energy Intensity Factor Adjustment 2020.xlsx
- Final GHG Calcs Combined.xlsx
- Rock Crushing Emissions.xlsx

4 HRA CONSTRUCTION

AERMOD

Main Folder

- MM10.ADI
- MM10.ADO
- MM10.ROU

MET Data

- Escondido_10-12.SFC
- Escondido_2010thru2012_v14134.PFL

PLT Files

- 01H1GALL.PLT
- AN00GALL.PLT

HARP 2

Main Folder

- Off-SiteCancerRisk.csv
- Off-SiteGLCList.csv
- Off-SiteHRAInput.hra
- Off-SiteNCChronicRisk.csv
- Off-SiteOutput.txt
- Off-SitePolDB.csv
- On-SiteCancerRisk.csv
- On-SiteGLCList.csv
- On-SiteHRAInput.hra
- On-SiteNCChronicRisk.csv
- On-SiteOutput.txt
- On-SitePolDB.csv

5 HRA OPERATION

AERMOD

NS_Ops 2010 – 14134

Main Folder

- NS_Ops.ADI
- NS_Ops.ADO

MET Data

- Escondido_2010_v14134.PFL
- Escondido_2010_v14134.SFC

PLT Files

- 01H1G001.PLT to 01H1G006.PLT (multiple)
- 01H1GALL.PLT
- PE00G001.PLT to PE00G006.PLT (multiple)
- PE00GALL.PLT

NS_Ops 2011 – 14134

Main Folder

- NS_Ops.ADI
- NS_Ops.ADO

MET Data

- Escondido_2011_v14134.PFL
- Escondido_2011_v14134.SFC

PLT Files

- 01H1G001.PLT to 01H1G006.PLT (multiple)
- 01H1GALL.PLT
- PE00G001.PLT to PE00G006.PLT (multiple)
- PE00GALL.PLT

NS_Ops 2012 – 14134

Main Folder

- NS_Ops.ADI
- NS_Ops.ADO

MET Data

- Escondido_2012_v14134.PFL
- Escondido_2022_v14134.SFC

PLT Files

- 01H1G001.PLT to 01H1G006.PLT (multiple)
- 01H1GALL.PLT
- PE00G001.PLT to PE00G006.PLT (multiple)
- PE00GALL.PLT

NS_School 2010 – 14134

Main Folder

- NS_School.ADI
- NS_School.ADO

MET Data

- Escondido_2010_v14134.PFL
- Escondido_2010_v14134.SFC

PLT Files

- 01H1G001.PLT to 01H1G006.PLT (multiple)
- 01H1GALL.PLT
- PE00G001.PLT to PE00G006.PLT (multiple)
- PE00GALL.PLT

NS_School 2011 – 14134

Main Folder

- NS_School.ADI
- NS_School.ADO

MET Data

- Escondido_2011_v14134.PFL
- Escondido_2011_v14134.SFC

PLT Files

- 01H1G001.PLT to 01H1G006.PLT (multiple)
- 01H1GALL.PLT
- PE00G001.PLT to PE00G006.PLT (multiple)
- PE00GALL.PLT

NS_School 2012 – 14134

Main Folder

- NS_School.ADI
- NS_School.ADO

MET Data

- Escondido_2012_v14134.PFL
- Escondido_2012_v14134.SFC

PLT Files

- 01H1G001.PLT to 01H1G006.PLT (multiple)
- 01H1GALL.PLT
- PE00G001.PLT to PE00G006.PLT (multiple)
- PE00GALL.PLT

HARP 2

NS Ops - 2010

Main Folder

- 9yrAcute.csv
- 9yrCancer.csv
- 9yrChronic.csv
- 30yrAcute.csv
- 30yrCancer.csv
- 30yrChronic.csv
- 70yrAcute.csv
- 70yrCancer.csv
- 70yrChronic.csv
- NS OPS_Input.adm

Data

- NS OPS_GLCLIST.csv
- NS OPS_GLCPathwayLIST.csv
- NS OPS_IMPORTEMS.csv
- NS OPS_IMPORTPLOT.csv
- NS OPS_Pathway1.csv

GLC

- Miscellaneous files

HRA

- Miscellaneous files

PLT

- Same plot files provided under “AERMOD”

NS Ops - 2011

Main Folder

- 9yrAcute.csv

Memorandum – Attachment 1: List of Electronic Modeling Files

Subject: Public Records Act Request for the Newland Sierra Project – Air Quality and Greenhouse Gas Modeling Materials

- 9yrCancer.csv
- 9yrChronic.csv
- 30yrAcute.csv
- 30yrCancer.csv
- 30yrChronic.csv
- 70yrAcute.csv
- 70yrCancer.csv
- 70yrChronic.csv
- NS OPS_Input.adm

Data

- NS OPS_GLCLIST.csv
- NS OPS_GLCPathwayLIST.csv
- NS OPS_IMPORTEMS.csv
- NS OPS_IMPORTPLOT.csv
- NS OPS_Pathway1.csv

GLC

- Miscellaneous files

HRA

- Miscellaneous files

PLT

- Same plot files provided under “AERMOD”

NS Ops - 2012

Main Folder

- 9yrAcute.csv
- 9yrCancer.csv
- 9yrChronic.csv
- 30yrAcute.csv
- 30yrCancer.csv
- 30yrChronic.csv
- 70yrAcute.csv
- 70yrCancer.csv
- 70yrChronic.csv
- NS OPS_Input.adm

Data

- NS OPS_GLCLIST.csv
- NS OPS_GLCPathwayLIST.csv
- NS OPS_IMPORTEMS.csv
- NS OPS_IMPORTPLOT.csv
- NS OPS_Pathway1.csv

GLC

- Miscellaneous files

HRA

- Miscellaneous files

PLT

- Same plot files provided under “AERMOD”

NS Ops Mit - 2010

Main Folder

- 9yrAcute.csv
- 9yrCancer.csv
- 9yrChronic.csv
- 30yrAcute.csv
- 30yrCancer.csv
- 30yrChronic.csv
- 70yrAcute.csv
- 70yrCancer.csv
- 70yrChronic.csv
- NS OPS_Input.adm

Data

- NS OPS_GLCLIST.csv
- NS OPS_GLCPathwayLIST.csv
- NS OPS_IMPORTEMS.csv
- NS OPS_IMPORTPLOT.csv
- NS OPS_Pathway1.csv

GLC

- Miscellaneous files

HRA

- Miscellaneous files

PLT

- Same plot files provided under “AERMOD”

NS School - 2010

Main Folder

- 9-yrSchoolAcute.csv
- 9-yrSchoolCancer.csv
- 9-yrSchoolChronic.csv
- NS School_Input.adm

Data

- NS School_GLCLIST.csv
- NS School_GLCPathwayLIST.csv
- NS School_IMPORTEMS.csv
- NS School_IMPORTPLOT.csv
- NS School_Pathway1.csv

GLC

- Miscellaneous files

HRA

- Miscellaneous files

PLT

- Same plot files provided under “AERMOD”

NS School - 2011

Main Folder

- 9-yrSchoolAcute.csv
- 9-yrSchoolCancer.csv
- 9-yrSchoolChronic.csv
- NS School_Input.adm

Data

- NS School_GLCLIST.csv
- NS School_GLCPathwayLIST.csv
- NS School_IMPORTEMS.csv
- NS School_IMPORTPLOT.csv
- NS School_Pathway1.csv

GLC

- Miscellaneous files

HRA

- Miscellaneous files

PLT

- Same plot files provided under “AERMOD”

NS School - 2012

Main Folder

- 9-yrSchoolAcute.csv
- 9-yrSchoolCancer.csv
- 9-yrSchoolChronic.csv
- NS School_Input.adm

Memorandum – Attachment 1: List of Electronic Modeling Files

Subject: Public Records Act Request for the Newland Sierra Project – Air Quality and Greenhouse Gas Modeling Materials

Data

- NS School_GLCLIST.csv
- NS School_GLCPathwayLIST.csv
- NS School_IMPORTEMS.csv
- NS School_IMPORTPLOT.csv
- NS School_Pathway1.csv

GLC

- Miscellaneous files

HRA

- Miscellaneous files

PLT

- Same plot files provided under “AERMOD”