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**The Nevada Division of Environmental  
Protection Portion of the Nevada State  
Implementation Plan for the  
2010 Sulfur Dioxide Primary NAAQS:  
Demonstration of Adequacy**

**PUBLIC COMMENT DRAFT**

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## Acronyms and Abbreviations

BART	Best available retrofit technology
CAA	Clean Air Act
CFR	Code of Federal Regulations
FIP	Federal implementation plan
FR	Federal Register
NAAQS	National ambient air quality standard
NDEP	Nevada Division of Environmental Protection
NAC	Nevada Administrative Code
NRS	Nevada Revised Statute
NSR	New source review
PM <sub>2.5</sub>	Particulate matter less than or equal to a nominal 2.5 microns in aerodynamic diameter
PM <sub>10</sub>	Particulate matter less than or equal to a nominal 10 microns in aerodynamic diameter
PSD	Prevention of significant deterioration
RH	Regional haze
SIP	State implementation plan
SO <sub>2</sub>	Sulfur dioxide
US EPA	U.S. Environmental Protection Agency

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## Introduction and Background

Sections 110(a)(1) and 110(a)(2), which are generally called the “infrastructure” state implementation plan (SIP) requirements of the Clean Air Act (CAA), require states to submit a plan to the U.S. Environmental Protection Agency (US EPA) demonstrating their ability and authority to implement, maintain, and enforce each newly promulgated or revised national ambient air quality standard (NAAQS). Section 110(a)(1) addresses the timing requirement for the submission of infrastructure SIPs. States are required to submit a statewide infrastructure SIP to the US EPA not later than 3 years after promulgation of a new or revised NAAQS.

Section 110(a)(2) lists the elements, (A) through (M), that generally must be addressed in an infrastructure SIP. Many of the section 110(a)(2) elements relate to the general information and authorities that constitute the infrastructure of a state’s air quality management program. The required elements include: enforceable emission limitations, an ambient air monitoring program, an enforcement program, air quality modeling capabilities, and confirmation of adequate personnel, resources and legal authority.

The federally enforceable applicable SIP for Nevada is compiled in 40 CFR Part 52 Subpart DD. This *Demonstration of Adequacy* addresses the Nevada Division of Environmental Protection’s (NDEP) authority to implement, maintain and enforce the 2010 primary sulfur dioxide (SO<sub>2</sub>) NAAQS for the NDEP’s jurisdiction. The following table demonstrates how the NDEP, through its SIP and state programs, addresses each of the applicable requirements of section 110(a)(2). Although some of the SIP provisions cited may not be in state regulation, they are incorporated into title V operating permits and are federally enforceable.

Per US EPA direction, the NDEP has developed the table in accordance with US EPA’s October 14, 2011 guidance for the 2008 lead NAAQS (US EPA, Memorandum to Regional Air Division Directors, 10/14/11. *Guidance on Infrastructure State Implementation Plan (SIP) Elements Required Under Sections 110(a)(1) and 110(a)(2) for the 2008 Lead (Pb) National Ambient Air Quality Standards (NAAQS)*. Stephen D. Page). The description of each required element is taken from the guidance. We have also relied on US EPA’s recent action on Nevada’s ozone and fine particulate matter infrastructure SIPs (77 FR 64737). The statutory and regulatory provisions of the applicable SIP referenced in the table were previously submitted to US EPA with Nevada’s nitrogen dioxide infrastructure SIP (January 18, 2013).

The following support documents are appended:

APPENDIX A:	Non-SIP Provisions Cited in Elements A and J
APPENDIX B:	Ambient Air Monitoring Network Plan 2012
APPENDIX C:	Interstate Transport Analysis for the 2010 SO <sub>2</sub> Primary NAAQS
APPENDIX D:	May 30, 2007 Letter to the US EPA Region 9 Administrator
APPENDIX E:	Evidence of Public Participation (in progress)

## Nevada Applicable State Implementation Plan Provisions for the 2010 SO<sub>2</sub> Primary NAAQS: Nevada Division of Environmental Protection Jurisdiction

SECTION 110(a)(2) ELEMENT	CURRENT PROGRAMS AND PROVISIONS IN THE NEVADA APPLICABLE SIP <sup>1</sup>
(A)	<p><u>Emission limits and other control measures:</u> Each such plan shall [ . . . ] include enforceable emission limitations and other control measures, means, or techniques (including economic incentives such as fees, marketable permits, and auctions of emissions rights), as well as schedules and timetables for compliance, as may be necessary or appropriate to meet the applicable requirements of this chapter.</p> <p><i>The dominant source sector for sulfur dioxide (SO<sub>2</sub>) emissions is fossil fuel combustion at power plants and other industrial facilities. Smaller sources of SO<sub>2</sub> emissions include industrial processes such as extracting metal from ore as well as the burning of high sulfur containing fuels by locomotives, large ships, and nonroad equipment. The Nevada applicable SIP includes enforceable emission limits and other control measures, means, or techniques, as well as schedules for compliance to support element (A) in Nevada Administrative Code (NAC):</i></p> <ul style="list-style-type: none"> <li>• <i>Article 8.2.1 “No person shall cause, suffer, allow or permit the emission of sulfur compounds cause by the combustion of fuel in excess of...”</i></li> <li>• <i>Article 8.2.2 “For the purpose of Article 8, “sulfur emission” means the sulfur portion of the sulfur compounds emitted.”</i></li> <li>• <i>445B.2204 “Sulfur emission” defined.</i></li> <li>• <i>445B.22043 Sulfur emissions: Calculation of total feed sulfur.</i></li> <li>• <i>445B.22047 Sulfur emissions: Fuel-burning equipment.</i></li> <li>• <i>445B. 2205 Sulfur emissions: Other processes which emit sulfur.</i></li> <li>• <i>445B.22067 Open burning.</i></li> <li>• <i>445B.2207 Incinerator burning.</i></li> <li>• <i>445B. 22083 Construction, major modification or relocation of plants to generate electricity using steam produced by burning of fossil fuels.</i></li> <li>• <i>445B.22095 Emission limitation for BART.</i></li> <li>• <i>445B.22096 Control measures constituting BART; limitations on emissions.</i></li> <li>• <i>445B.22097 Standards of quality for ambient air.</i></li> </ul>

<sup>1</sup> The NDEP requests that as provisions in Nevada’s current applicable SIP are replaced or removed through subsequent approvals by US EPA of updated provisions submitted by the NDEP, US EPA also replace or remove those provisions in this SO<sub>2</sub> infrastructure SIP.

SECTION 110(a)(2) ELEMENT	CURRENT PROGRAMS AND PROVISIONS IN THE NEVADA APPLICABLE SIP <sup>1</sup>
	<ul style="list-style-type: none"> <li>• 445B.308 Prerequisites and conditions for issuance of certain operating permits; compliance with applicable state implementation plan.</li> <li>• 445B.310 Environmental evaluation: Applicable sources and other subjects; exemption.</li> <li>• 445B.311 Environmental evaluation: Contents; consideration of good engineering practice stack height.</li> </ul> <p>The following provisions have not been submitted as part of Nevada’s SIP, but are in the NAC and further support this element requirement (see Appendix A):</p> <ul style="list-style-type: none"> <li>• 445B.22057 Allowable emissions of sulfur from specific sources: Units Numbers 1, 2 and 3 of Reid Gardner Power Station</li> <li>• 445B.2206 Allowable emissions of sulfur from specific sources: Unit Number 4 of Reid Gardner Power Station</li> <li>• 445B.22063 Allowable emissions of sulfur from specific sources: North Valmy Power Station</li> <li>• 445B.2208 Emission of hydrogen sulfide from certain facilities for generating electricity from geothermal brine).</li> <li>• 445B.221 Adoption by reference and applicability of certain provisions of federal law and regulations</li> </ul> <p>Finally, the NDEP does not have a SIP-based program to prevent significant deterioration of air quality; however, pursuant to 40 CFR 52.21(u), the US EPA has delegated its responsibility for implementation of the federal prevention significant deterioration (PSD) program to the NDEP as it existed on July 20, 2011. The PSD program provides a permitting review system to assure that the best controls available are selected before construction of a new major stationary source or modification of an existing major stationary source.</p>
(B)	<p><u>Ambient air quality monitoring/data system:</u> Each such plan shall [ . . . ] provide for establishment and operation of appropriate devices, methods, systems, and procedures necessary to (i) monitor, compile, and analyze data on ambient air quality, and (ii) upon request, make such data available to the Administrator.</p>
	<p>The NDEP commits to an ambient air quality monitoring program in its CAA section 105 grant work plan. The NDEP operates an air quality monitoring network that collects ambient air quality data that are compiled, analyzed, and reported to US EPA in accordance with 40 CFR 58. The network comprises federally-approved monitors that measure PM<sub>10</sub>, PM<sub>2.5</sub> and ozone. The NDEP submitted its 2012 Annual Monitoring Network Plan to US EPA on June 30, 2012 (Appendix B). US EPA indicated in a letter received by the NDEP on February 28, 2013 that the details of the NDEP’s monitoring network, except for five items that they did not act on, meet the requirements set forth under 40 CFR Part 58.10</p>

<b>SECTION 110(a)(2) ELEMENT</b>	<b>CURRENT PROGRAMS AND PROVISIONS IN THE NEVADA APPLICABLE SIP<sup>1</sup></b>
<p><i>US EPA's new monitoring requirements for SO<sub>2</sub> (75 FR 35520, June 22, 2010) do not require monitoring for SO<sub>2</sub> within the NDEP's jurisdiction, as no areas within NDEP's jurisdiction meet the requirements for monitors to be placed in Core Based Statistical Areas based on a population weighted emissions index for the areas.</i></p>	
(C)	<p><u>Programs for enforcement, PSD, and NSR:</u>                  Each such plan shall [ . . . ] include a program to provide for the enforcement of the measures described in subparagraph [element] (A), and regulation of the modification and construction of any stationary source within the areas covered by the plan as necessary to assure that national ambient air quality standards are achieved, including a permit program as required in parts C and D of this subchapter.</p>
<p><i>The Nevada applicable SIP contains the following provisions that provide enforcement authority.</i></p> <p><i>NRS:</i></p> <ul style="list-style-type: none"> <li>• <i>445B.210 Powers of Commission.</i></li> <li>• <i>445B.230 Powers and duties of Department.</i></li> <li>• <i>445B.450 Notice and order by Director; hearing; alternative procedures.</i></li> <li>• <i>445B.460 Injunctive relief.</i></li> <li>• <i>445B.640 Levy and disposition of administrative fines; additional remedies available; penalty.</i></li> </ul> <p><i>NAC:</i></p> <ul style="list-style-type: none"> <li>• <i>445B.225 Prohibited conduct: Concealment of emissions.</i></li> <li>• <i>445B.227 Prohibited conduct: Operation of source without required equipment; removal or modification of required equipment; modification of required procedure.</i></li> <li>• <i>445B.229 Hazardous emissions: Order for reduction of emissions.</i></li> <li>• <i>445.667 Excess emissions: Scheduled maintenance; testing; malfunctions.</i></li> <li>• <i>445B.250 Notification of planned construction or reconstruction.</i></li> <li>• <i>445B.252 Testing and sampling.</i></li> <li>• <i>445.694 Emission discharge information.</i></li> <li>• <i>445B.275 Violations: Acts constituting; notice.</i></li> <li>• <i>445B.277 Stop orders.</i></li> <li>• <i>445B.308 Prerequisites and conditions for issuance of certain operating permits; compliance with applicable state implementation plan.</i></li> </ul>	

SECTION 110(a)(2) ELEMENT	CURRENT PROGRAMS AND PROVISIONS IN THE NEVADA APPLICABLE SIP <sup>1</sup>
	<ul style="list-style-type: none"> <li>• 445B.310 Environmental evaluation: Applicable sources and other subjects; exemption.</li> <li>• 445B.311 Environmental evaluation: Contents; consideration of good engineering practice stack height.</li> <li>• Article 13 General Provisions for the Review of New Sources.</li> </ul> <p>In addition, the NDEP has full delegation from the US EPA of the federal PSD program as it existed on July 20, 2011 at 40 CFR 52.21.</p>
(D)(i)	<p><u>Interstate transport provisions:</u> Each such plan shall [...] contain adequate provisions: (i) prohibiting, consistent with the provisions of this subchapter, any source or other type of emissions activity within the State from emitting any air pollutant in amounts which will, (I) contribute significantly to nonattainment in, or interfere with maintenance by, any other State with respect to any such national primary or secondary ambient air quality standard, or (II) interfere with measures required to be included in the applicable implementation plan for any other State under part C of this subchapter to prevent significant deterioration of air quality or to protect visibility.</p>
(D)(i)(I)	<p><i>Gina McCarthy, Assistant Administrator of the US EPA issued a memo on November 19, 2012 to EPA Air Division Directors, Regions 1-10, regarding states' and US EPA's obligations with respect to the requirements of (D)(i)(I). Ms. McCarthy notes:</i></p> <p><i>"I would also like to note that the recent CSAPR decision made certain holdings regarding the requirement for states to submit SIPs addressing the provisions of Clean Air Act section 110(a)(2)(D)(i)(I), the good neighbor provision that addresses upwind emissions linked to NAAQS attainment problems in downwind states. The decision states that a SIP cannot be deemed deficient for failing to meet the good neighbor obligation before the EPA quantifies that obligation. Although we have filed a petition for rehearing of the Court's decision, including this element of the decision, and although the mandate for that decision has not yet been issued, we intend to act in accordance with the decision during the pendency of the appeal. Therefore, at this time the EPA does not intend to make findings that states failed to submit SIPs to comply with section 110(a)(2)(D)(i)(I). To the extent that states may inquire about their obligations to submit SIPs addressing this provision, we believe it would be appropriate to convey that at this time we do not intend to make such findings with respect to section 110(a)(2)(D)(i)(I)."</i></p> <p><i>Because US EPA has not informed Nevada of its contribution to any SO<sub>2</sub> NAAQS attainment problem in downwind states, the NDEP concludes that it is not obligated to address this requirement at this time. Nevertheless, the NDEP did conduct an interstate transport analysis, which is presented in Appendix C. Based on this analysis, the State of Nevada concludes that sulfur dioxide</i></p>

SECTION 110(a)(2) ELEMENT	CURRENT PROGRAMS AND PROVISIONS IN THE NEVADA APPLICABLE SIP <sup>1</sup>
	<p><i>emissions from Nevada do not contribute to nonattainment or interfere with maintenance of the 2010 SO<sub>2</sub> standard or the previous SO<sub>2</sub> standards in any other state. Nevada commits to continue to review new air quality information as it becomes available to ensure that this negative declaration is still supported by such information.</i></p> <p><u>(D)(i)(II)</u>  <i>New major sources and major modifications in Nevada are subject to PSD. The NDEP does not have a SIP-based program to prevent significant deterioration of air quality; however, pursuant to 40 CFR 52.21(u), the US EPA has delegated its responsibility for implementation of the federal PSD program to the NDEP as it existed on July 20, 2011 thus meeting the requirements of (D)(i)(II). The visibility requirements of subsection (D)(i)(II) are addressed by the “Nevada Regional Haze State Implementation Plan.” US EPA finalized approval of most of the Nevada regional haze SIP on March 26, 2012 (77 FR 17334). US EPA approved in part and disapproved in part the remaining portion of the regional haze SIP on August 23, 2012 (77 FR 50936). In the same action, US EPA promulgated a FIP replacing the disapproved provisions of the State plan.</i></p>
(D)(ii)	<p><u>Interstate and international transport provisions:</u>                      Each such plan shall [ . . . ] contain adequate provisions: (ii) insuring compliance with the applicable requirements of CAA sections 115 or 126 that involve SO<sub>2</sub> emissions (relating to interstate and international pollution abatement).</p>
	<p><u>CAA section 115</u>  <i>The requirements of section 115 do not apply, because there are no actions pending against Nevada.</i></p> <p><u>CAA section 126</u>  <i>The requirements of section 126 (b) and (c) do not apply, because there are no petitions pending against Nevada. The following provisions (NAC) of the Nevada applicable SIP address the CAA section 126(a) requirements regarding notification to affected nearby states of major proposed new or modified sources. [see also elements (J) and (M)]:</i></p> <ul style="list-style-type: none"> <li>• <i>445B.325 Operating permits: Termination, reopening and revision, revision, or revocation and reissuance.</i></li> <li>• <i>445B.3364 Operating permit to construct: Action by Director on application; notice; public comment and hearing.</i></li> <li>• <i>445B.3395 Action by Director on application; notice; public comment and hearing; objection by Administrator; expiration of permit.</i></li> <li>• <i>445B.3425 Minor revision of permit.</i></li> <li>• <i>445B.344 Significant revision of permit.</i></li> <li>• <i>445B.3441 Administrative revision of permit to incorporate conditions of certain permits to construct.</i></li> </ul>

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	<ul style="list-style-type: none"> <li>• 445B.3457 Action by Director on application; notice; public comment and hearing; expiration of permit.</li> </ul> <p><i>In addition, although the NDEP does not have a SIP-based program to prevent significant deterioration of air quality, pursuant to 40 CFR 52.21(u), the US EPA has delegated its responsibility for implementation of the federal prevention significant deterioration (PSD) program to the NDEP as it existed on July 20, 2011. The federal PSD program also addresses the section 126(a) notification requirements.</i></p>
(E)	<p><u>Adequate personnel, funding and authority:</u> Each such plan shall [ . . . ] provide:</p> <ul style="list-style-type: none"> <li>(i) necessary assurances that the state (or, except where the Administrator deems inappropriate, the general purpose local government or governments, or a regional agency designated by the state or general purpose local governments for such purpose) will have adequate personnel, funding, and authority under state (and, as appropriate, local) law to carry out such implementation plan (and is not prohibited by any provision of federal or state law from carrying out such implementation plan or portion thereof),</li> <li>(ii) requirements that the state comply with the requirements respecting state boards under section 128, (See section 40 CFR 52.1182, <a href="http://edocket.access.gpo.gov/cfr_2004/julqtr/pdf/40cfr52.1180.pdf">http://edocket.access.gpo.gov/cfr_2004/julqtr/pdf/40cfr52.1180.pdf</a>)</li> <li>(iii) necessary assurances that, where the state has relied on a local or regional government, agency, or instrumentality for the implementation of any plan provision, the state has responsibility for ensuring adequate implementation of such plan provision.</li> </ul>
	<p><i>NRS 445B.205, “Department designated as State Air Pollution Control Agency,” designates the Department of Conservation and Natural Resources as the air pollution control agency for the State of Nevada for the purposes of the CAA insofar as it pertains to state programs. Within the Department, pursuant to NAC 445B.053 (“Director” defined), the Director has assigned the NDEP responsibility to manage air quality planning and air pollution control programs for the State and to act on his behalf for the purposes of adoption, revision and submittal of state plans (see Appendix D).</i></p> <p><i>The specific statutes in the Nevada applicable SIP that deal with personnel, funding, authority to support SIP requirements, CAA section 128 requirements, and state responsibility for implementing the SIP include NRS:</i></p> <ul style="list-style-type: none"> <li>• 232A.020 Residency requirement for appointment; terms of members; vacancies; qualification of member appointed as representative of general public; gubernatorial appointee prohibited from serving on more than one board, commission or similar body.</li> <li>• 281A.150 “Public employee” defined.</li> </ul>

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	<ul style="list-style-type: none"> <li>• 281A.160 “Public officer” defined.</li> <li>• 281A.400 General requirements: exceptions.</li> <li>• 281A.410 Limitations on representing or counseling private persons before public agencies; disclosure required by certain public officers.</li> <li>• 281A.420 Requirements regarding disclosure of conflicts of interest and abstention from voting because of certain types of conflicts; effect of abstention on quorum and voting requirements; exceptions. 445B.200 Creation and composition; Chairman; quorum; compensation of members and employees; disqualification; technical support.</li> <li>• 445B.210 Powers of Commission.</li> <li>• 445B.220 Additional powers of Commission.</li> <li>• 445B.225 Power of Commission to require testing of sources.</li> <li>• 445B.230 Powers and duties of Department.</li> <li>• 445B.235 Additional powers of Department.</li> <li>• 445B.240 Power of representatives of Department to enter and inspect premises.</li> <li>• 445B.245 Power of Department to perform or require test of emissions from stacks.</li> <li>• 445B.300 Operating permit for source of air contaminant; notice and approval of proposed construction; administrative fees; failure of Commission or Department to act.</li> <li>• 445B.450 Notice and order by Director; hearing; alternative procedures.</li> <li>• 445B.460 Injunctive relief.</li> <li>• 445B.500 Establishment and administration of program; contents of program; designation of air pollution control agency of county for purposes of federal act; powers and duties of local air pollution control board; notice of public hearings; delegation of authority to determine violations and levy administrative penalties; cities and smaller counties; regulation of certain electric plants prohibited.</li> <li>• 445B.510 Commission may require program for designated area.</li> <li>• 445B.520 Commission may establish or supersede county program.</li> <li>• 445B.530 Commission may assume jurisdiction over specific classes of air contaminants.</li> <li>• 445B.540 Restoration of superseded local program; continuation of existing local program.</li> <li>• 445B.560 Plan or procedure for emergency.</li> <li>• 445B.570 Confidentiality and use of information obtained by Department; penalty.</li> </ul>

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	<ul style="list-style-type: none"> <li>• 445B.580 Officer of Department may inspect or search premises; search warrant.</li> <li>• 445B.640 Levy and disposition of administrative fines; additional remedies available; penalty for failure to pay administrative fine.</li> </ul> <p>Further, Section 12 (“Resources”) of the Nevada applicable SIP, updated effective October 23, 2012 (77 FR 64737), provides information concerning funding and personnel supporting the functions of the three air pollution control agencies administering CAA programs in Nevada: the NDEP, Clark County Department of Air Quality, and Washoe County Health District Air Quality Management Division.</p> <p>The Nevada Legislature approves the NDEP air programs’ funding and personnel resources requests every two years. The air programs receive funding from fees paid by regulated businesses, motor vehicle registration fees, and federal grants. The NDEP’s State Fiscal Year 2012 budget is in excess of \$7 million with 54 approved full-time equivalent staff positions in the air programs.</p>
(F)	<p><u>Stationary source monitoring and reporting:</u> Each such plan shall [ . . . ] require, as may be prescribed by the Administrator:</p> <ul style="list-style-type: none"> <li>(i) the installation, maintenance, and replacement of equipment, and the implementation of other necessary steps, by owners or operators of stationary sources to monitor emissions from such sources,</li> <li>(ii) periodic reports on the nature and amounts of emissions and emissions-related data from such source, and</li> <li>(iii) correlation of such reports by the state agency with any emission limitations or standards established pursuant to this chapter, which reports shall be available at reasonable times for public inspection.</li> </ul>
	<p>Nevada’s applicable SIP provides a system for monitoring emissions from stationary sources and the submittal of periodic emission reports in NAC:</p> <ul style="list-style-type: none"> <li>• 445B.063 “Excess emissions” defined.</li> <li>• 445B.252 Testing and sampling.</li> <li>• 445B.256 Monitoring systems: Calibration, operation, and maintenance of equipment.</li> <li>• 445B.257 Monitoring systems: Location.</li> <li>• 445B.258 Monitoring systems: Verification of operational status.</li> <li>• 445B.259 Monitoring systems: Performance evaluations.</li> <li>• 445B.260 Monitoring systems: Components contracted for before September 11, 1974.</li> <li>• 445B.261 Monitoring systems: Adjustments.</li> </ul>

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	<ul style="list-style-type: none"> <li>• 445B.262 Monitoring systems: Measurement of opacity.</li> <li>• 445B.263 Monitoring systems: Frequency of operation.</li> <li>• 445B.264 Monitoring systems: Recordation of data.</li> <li>• 445B.265 Monitoring systems: Records; reports.</li> <li>• 445B.267 Alternative monitoring procedures or requirements.</li> <li>• 445B.275 Violations: Acts constituting; notice.</li> <li>• 445B.308 Prerequisites and conditions for issuance of certain operating permits; compliance with applicable state implementation plan. [See paragraph (a) of subsection (7).]</li> <li>• 445B.315(3) Contents of operating permits: Exception for operating permits to construct; required conditions.</li> <li>• 445B.3368 Additional requirements for application; exception.</li> <li>• 445B.346 Required contents of permit.</li> </ul> <p>NRS 445B.570 is also supportive of the portion of the CAA section 110(a)(2)(F)(iii) requirement pertaining to the public availability of reports.</p> <p>Ambient air quality monitoring data and trends are reported annually in the Nevada Air Quality Trend Report. This report indirectly correlates stationary source emissions with the NAAQS. It is available for public inspection on the NDEP's web site at <a href="http://ndep.nv.gov/baqp/monitoring/docs/trend.pdf">http://ndep.nv.gov/baqp/monitoring/docs/trend.pdf</a>. Additionally, the state submits stationary source emissions data to US EPA for publication in the annual National Emission Inventory, which is also available for public inspection.</p>
(G)	<p><u>Emergency episodes:</u> Each such plan shall provide for authority comparable to that in section 303 of this title and adequate contingency plans to implement such authority.</p>
	<p>Emergency powers are provided in Nevada's current SIP in:</p> <ul style="list-style-type: none"> <li>• NRS 445B.560 Plan or procedure for emergency.</li> <li>• NAC 445B.229 Hazardous emissions: Order for reduction or discontinuance.</li> <li>• NAC 445B.230 Plan for reduction of emissions.</li> </ul> <p>The provisions cited above are adequate to constrain any sources of SO<sub>2</sub> emissions, as necessary, in an emergency situation.</p>

SECTION 110(a)(2) ELEMENT	CURRENT PROGRAMS AND PROVISIONS IN THE NEVADA APPLICABLE SIP <sup>1</sup>
	<p><i>40 CFR 52.1471 lists the classification of air quality control regions for certain criteria pollutants. The NDEP has jurisdiction over four of the five counties in the “Northwest Nevada Intrastate” region, which is classified as a priority III area for SO<sub>2</sub>. Priority III areas are not required to prepare emergency episode plans (51.152(c)). The NDEP also has jurisdiction over the “Nevada Intrastate” region, which is classified as a priority IA area. Priority IA means an area that has exceeded the ambient air concentration threshold for episode plans because of a single point source. In this case, the point source that caused the exceedances was the Kennecott copper smelter in McGill, Nevada. Kennecott was located in the Steptoe Valley in White Pine County. The smelter caused violations of the NAAQS between 1975 and 1977; it ceased operation in 1983 and was completely demolished by 1993. The area was redesignated attainment on April 12, 2002 (67 FR 17939).</i></p> <p><i>Because the SO<sub>2</sub> source responsible for the priority IA classification no longer exists and because the single nonattainment area in the Nevada Intrastate region was redesignated attainment, the NDEP requests that USEPA change the classification of the Nevada Intrastate air quality control region to priority III. Lacking that action by USEPA, the NDEP requests pursuant to 40 CFR 51.152(d) that the USEPA exempt the Nevada Intrastate region from the requirement to develop an emergency episode plan.</i></p> <p><i>The NDEP further requests that USEPA remove paragraphs (a) and (b) of section 1475 of 40 CFR 52, “Control strategy and regulations: Sulfur oxides.” Section 1475 was added to the CFR in 1975 “. . . to promulgate substitute regulations for the control of SO<sub>2</sub> at the Kennecott Copper Corporation Smelter, McGill, Nevada . . .” because Nevada’s SIP to control of emissions of sulfur oxides from the Kennecott smelter was disapproved (40 CFR 5508). Section 1475 no longer applies since the Kennecott smelter is nonexistent and the area was redesignated attainment.</i></p>
(H)	<p><u>Future SIP revisions:</u> Each such plan shall [. . .] provide for revision of such plan—</p> <ul style="list-style-type: none"> <li>(i) from time to time as may be necessary to take account of revisions of such national primary or secondary ambient air quality standard or the availability of improved or more expeditious methods of attaining such standard, and</li> <li>(ii) except as provided in paragraph (3)(C), whenever the Administrator finds on the basis of information available to the Administrator that the plan is substantially inadequate to attain the national ambient air quality standard which it implements or to otherwise comply with any additional requirements established under this chapter (CAA).</li> </ul>
	<p><i>NRS 445B.205, “Department designated as State Air Pollution Control Agency,” designates the Department of Conservation and Natural Resources as the air pollution control agency for the State of Nevada for the purposes of the CAA insofar as it pertains to state programs. Within the Department, pursuant to NAC 445B.053 (“Director” defined), the Director has assigned the NDEP Administrator responsibility to manage air quality planning and air pollution control programs for the State and to act on his</i></p>

SECTION 110(a)(2) ELEMENT	CURRENT PROGRAMS AND PROVISIONS IN THE NEVADA APPLICABLE SIP <sup>1</sup>
	<p><i>behalf for the purposes of adoption, revision and submittal of state plans (see Appendix D). The NDEP commits to submit appropriate SIP revisions in response to changes in the NAAQS, availability of improved methods for attaining the NAAQS, or in response to a US EPA finding that the SIP is substantially inadequate.</i></p> <p><i>Other NRS that may provide support for this element include:</i></p> <ul style="list-style-type: none"> <li>• <i>445B.135 “Federal Act” defined.</i></li> <li>• <i>445B.210 Powers of Commission.</i></li> <li>• <i>445B.220 Additional powers of Commission.</i></li> <li>• <i>445B.500 Establishment and administration of program; contents of program; designation of air pollution control agency of county for purposes of federal act; powers and duties of local air pollution control board; notice of public hearings; delegation of authority to determine violations and levy administrative penalties; cities and smaller counties; regulation of certain electric plants prohibited.</i></li> </ul>
(I)	<p><u>Nonattainment area plan or plan revision under Part D:</u> Each such plan shall [ . . . ] in the case of a plan or plan revision for an area designated as a nonattainment area, meet the applicable requirements of part D of this subchapter (relating to nonattainment areas).</p>
	<p><i>US EPA considers this element of 110(a)(2) to be outside the scope of infrastructure SIP actions because it pertains to plan requirements for nonattainment areas. Therefore, US EPA does not expect infrastructure SIP submissions to address this element (US EPA, Memorandum to Regional Air Division Directors, 10/14/11. Guidance on SIP Elements Required Under Sections 110(a)(1) and (2) for the 2008 Lead (Pb) National Ambient Air Quality Standards (NAAQS). S. Page).</i></p>
(J)	<p><u>Consultation with government officials, public notification, PSD and visibility protection:</u> Each such plan shall [ . . . ] meet the applicable requirements of section 121 of this title (relating to consultation), section 127 of this title (relating to public notification), and part C of this subchapter (relating to prevention of significant deterioration of air quality and visibility protection).</p>
	<p><u>CAA Section 121</u> <i>Section 11 of the Nevada applicable SIP, “Intergovernmental Relations,” describes the process for consultation among the three air pollution control agencies administering CAA programs in Nevada: NDEP, Clark County Department of Air Quality, and Washoe County Health District’s Air Quality Management Division, as well as for regional planning and transportation agencies that also have certain air-quality-planning-related responsibilities. It identifies the applicable state and local provisions governing consultation; describes provisions relevant to consultation in permitting new or modified stationary sources; and, for Clark County,</i></p>

<b>SECTION 110(a)(2) ELEMENT</b>	<b>CURRENT PROGRAMS AND PROVISIONS IN THE NEVADA APPLICABLE SIP<sup>1</sup></b>
	<p><i>Washoe County and the Lake Tahoe Basin, addresses consultation's role in transportation planning and conformity to the Nevada applicable SIP.</i></p> <p><i>Together with Section 11, the following SIP provisions fulfill the requirements of CAA section 121.</i></p> <p><i>NRS:</i></p> <ul style="list-style-type: none"><li><i>• 445B.220 Additional powers of Commission.</i></li><li><i>• 445B.235 Additional powers of Department.</i></li><li><i>• 445B.500 Establishment and administration of program; contents of program; designation of air pollution control agency of county for purposes of federal act; powers and duties of local air pollution control board; notice of public hearings; delegation of authority to determine violations and levy administrative penalties; cities and small counties; regulation of certain electric plants provided.</i></li><li><i>• 445B.503 Local air pollution control board in county whose population is 400,000 or more: Cooperation with regional planning coalition and regional transportation commission; prerequisites to adoption or amendment of plan, policy or program.</i></li><li><i>• 445B.510 Commission may require program for designated areas.</i></li></ul> <p><i>NAC:</i></p> <ul style="list-style-type: none"><li><i>• 445B.325 Operating permits: Termination, reopening and revision, revision, or revocation and reissuance.</i></li><li><i>• 445B.3364 Operating permit to construct: Action by Director on application; notice; public comment and hearing.</i></li><li><i>• 445B.3395 Action by Director on application; notice; public comment and hearing; objection by Administrator; expiration of permit.</i></li><li><i>• 445B.3425 Minor revision of permit.</i></li><li><i>• 445B.344 Significant revision of permit.</i></li><li><i>• 445B.3441 Administrative revision of permit to incorporate conditions of certain permits to construct.</i></li><li><i>• 445B.3447 Class I general permit.</i></li><li><i>• 445B.3457 Action by Director on application; notice; public comment and hearing; expiration of permit.</i></li></ul> <p><i>The following provisions have not been submitted as part of Nevada's SIP, but are in state law or regulation and further support this element requirement (see Appendix A).</i></p>

SECTION 110(a)(2) ELEMENT	CURRENT PROGRAMS AND PROVISIONS IN THE NEVADA APPLICABLE SIP <sup>1</sup>
	<p><i>NRS Chapter 445B, Air Pollution:</i></p> <ul style="list-style-type: none"> <li>• <i>445B.100 Declaration of public policy.</i></li> </ul> <p><i>NRS Chapter 233B, Nevada Administrative Procedure Act, requires notification and provision of comment opportunities to all parties affected by proposed regulations:</i></p> <ul style="list-style-type: none"> <li>• <i>233B.060 Notice of adoption, amendment or repeal of permanent or temporary regulation; adoption of permanent regulation after adoption of temporary regulation.</i></li> <li>• <i>233B.0603 Contents and form of notice of intent to adopt, amend or repeal permanent or temporary regulation; solicitation of comments from public or affected businesses.</i></li> <li>• <i>233B.061 Proposed permanent or temporary regulation: Public comment; workshop; public hearing; applicability of Open Meeting Law.</i></li> </ul> <p><i>Additionally, NAC 445B.221, “Adoption by reference and applicability of certain provisions of federal law and regulations,” adopts the federal PSD requirements by reference and thereby includes requirements to consult with affected land managers on PSD-related actions.</i></p> <p><u><i>Section 127</i></u></p> <p><i>The NDEP maintains a web site, <a href="http://ndep.nv.gov/">http://ndep.nv.gov/</a>, which describes the state’s air quality planning and air pollution control programs and includes public information pages with public notices and news releases. The Nevada Air Quality Trend Report (<a href="http://ndep.nv.gov/baqp/monitoring/docs/trend.pdf">http://ndep.nv.gov/baqp/monitoring/docs/trend.pdf</a>) is published annually and includes a discussion of air quality trends with respect to the NAAQS. Furthermore, the NDEP continues to be in compliance with US EPA monitoring requirements for the SO<sub>2</sub> NAAQS; no ambient air quality monitoring is required in the NDEP jurisdiction. The single nonattainment area in the NDEP’s jurisdiction was designated in 1978 in the Steptoe Valley in White Pine County. The Steptoe Valley was redesignated attainment in two separate actions: the northern and southern portions on May 14, 1982 (47 FR 20773) and the central valley on April 12, 2002 (67 FR 17939). The copper smelter that caused violations of the NAAQS between 1975 and 1977 ceased operation in 1983 and was completely demolished by 1993.</i></p> <p><u><i>Part C</i></u></p> <p><i>The NDEP does not have a SIP-based program to prevent significant deterioration of air quality; however, pursuant to 40 CFR 52.21(u), the US EPA has delegated its responsibility for implementation of the federal prevention significant deterioration (PSD) program to the NDEP as it existed on July 20, 2011. With respect to visibility protection, according to the US EPA’s</i></p>

SECTION 110(a)(2) ELEMENT	CURRENT PROGRAMS AND PROVISIONS IN THE NEVADA APPLICABLE SIP <sup>1</sup>
	<p><i>interpretation of the CAA, this sub-element of element (J) does not need to be addressed (US EPA Memorandum 10/14/11, Guidance on SIP Elements Required Under Sections 110(a)(1) and (2) for the 2008 Lead (Pb) National Ambient Air Quality Standards (NAAQS). S. Page). For informational purposes, the NDEP submitted a regional haze SIP to US EPA on November 18, 2009. US EPA approved the entire RH SIP, with the exception of certain requirements for BART for nitrogen oxides at NV Energy’s Reid Gardner Generating Station (77 FR 17334). On August 23, 2012, US EPA approved in part and disapproved in part the remaining portion of the regional haze SIP (77 FR 50936). In the same action, US EPA promulgated a FIP replacing the disapproved provisions of the State plan.</i></p>
(K)	<p><u>Air quality modeling/data:</u> Each such plan shall [ . . . ] provide for— (i) the performance of such air quality modeling as the Administrator may prescribe for the purpose of predicting the effect on ambient air quality of any emissions of any air pollutant for which the Administrator has established a national ambient air quality standard, and (ii) the submission, upon request, of data related to such air quality modeling to the Administrator.</p>
	<p><i>Nevada’s applicable SIP provides provisions for the environmental evaluation of stationary sources in:</i></p> <ul style="list-style-type: none"> <li>• <i>NAC 445B.308 Prerequisites and conditions for issuance of certain operating permits; compliance with applicable state implementation plan.</i></li> <li>• <i>NAC 445B.310 Environmental evaluation: Applicable sources and other subjects; exemption.</i></li> <li>• <i>NAC 445B.311 Environmental evaluation: Contents; consideration of good engineering practice stack height.</i></li> <li>• <i>Article 13 General Provisions for the Review of New Sources.</i></li> </ul> <p><i>Finally, the NDEP does not have a SIP-based program to prevent significant deterioration of air quality; however, pursuant to 40 CFR 52.21(u), the US EPA has delegated its responsibility for implementation of the federal prevention significant deterioration (PSD) program to the NDEP as it existed on July 20, 2011.</i></p>
(L)	<p><u>Permitting fees:</u> Each such plan shall require the owner or operator of each major stationary source to pay to the permitting authority, as a condition of any permit required under this chapter, a fee sufficient to cover— (i) the reasonable costs of reviewing and acting upon any application for such a permit, and (ii) if the owner or operator receives a permit for such source, the reasonable costs of implementing and enforcing the terms and conditions of any such permit (not including any court costs or other costs associated with any enforcement action), until such fee requirement is superseded with respect to such sources by the Administrator’s approval of a fee</p>

<b>SECTION 110(a)(2) ELEMENT</b>	<b>CURRENT PROGRAMS AND PROVISIONS IN THE NEVADA APPLICABLE SIP<sup>1</sup></b>
	program under subchapter (title) V of this chapter.
	<i>US EPA approved the NDEP’s permitting fee program under title V of the CAA (66 FR 63188, December 5, 2001. Thus, a separate program to satisfy element (L) is not required.</i>
(M)	<u>Consultation/participation by affected local entities:</u> Each such plan shall [. . .] provide for consultation and participation by local political subdivisions affected by the plan.
	<p><i>The following applicable SIP provisions provide a framework for consultation in the development of SIPs or SIP revisions.</i></p> <p><i>NRS:</i></p> <ul style="list-style-type: none"> <li>• <i>445B.210 Powers of Commission.</i></li> <li>• <i>445B.220 Additional powers of Commission.</i></li> <li>• <i>445B.235 Additional powers of Department; deposit of money collected from sale of emission credits or allocations; Department to develop regulations concerning public participation in determination of amount of emission credits or allocations available for sale.</i></li> </ul> <p><i>Section 11 of the Nevada applicable SIP, “Intergovernmental Relations,” describes the process for consultation among the three air pollution control agencies administering CAA programs in Nevada: NDEP, Clark County Department of Air Quality, and Washoe County Health District’s Air Quality Management Division, as well as for regional planning and transportation agencies that also have certain air-quality-planning-related responsibilities. For each area, SIP Section 11 identifies the applicable state and local provisions governing consultation and notification to affected entities, including for those parts of the SIP related to permitting new and modified major sources and transportation planning, as appropriate. By the very nature of delegating air program responsibilities to Clark County and Washoe County, and cooperating with the Tahoe Regional Planning Agency, while retaining SIP revision authority at the state level, Nevada has instilled a process for developing, implementing, and enforcing the SIP that relies upon the involvement of such local political subdivisions.</i></p> <p><i>The Nevada applicable SIP further provides authority and functionality to the primary agencies in Clark and Washoe counties to engage local political subdivisions in air quality planning. It also includes provisions to supersede a county program, if such program is found inadequate by the State Environmental Commission. These authorities are found in NRS:</i></p> <ul style="list-style-type: none"> <li>• <i>445B.500 Establishment and administration of program; contents of program; designation of air pollution control agency of county for purposes of federal act; powers and duties of local air pollution control board; notice of public hearings; delegation of authority to determine violations and levy administrative penalties; cities and smaller counties; regulation of</i></li> </ul>

<b>SECTION 110(a)(2) ELEMENT</b>	<b>CURRENT PROGRAMS AND PROVISIONS IN THE NEVADA APPLICABLE SIP<sup>1</sup></b>
	<p><i>certain electric plants prohibited.</i></p> <ul style="list-style-type: none"><li>• <i>445B.503 Local air pollution control board in county whose population is 700,000 or more: Cooperation with regional planning coalition and regional transportation commission; prerequisites to adoption or amendment of plan, policy or program.</i></li><li>• <i>445B.510 Commission may require program for designated area.</i></li><li>• <i>445B.520 Commission may establish or supersede county program.</i></li></ul>

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## **APPENDIX A**

### **Non-SIP Provisions Cited in Elements A and J**

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## APPENDIX A

### Non-SIP Provisions Cited in Elements A and J

#### Nevada Administrative Code

##### Chapter 445B, Air Controls (August 2012 codification):

**NAC 445B.22057 Allowable emissions of sulfur from specific sources: Units Numbers 1, 2 and 3 of Reid Gardner Power Station.** ([NRS 445B.210](#)) The allowable emission of sulfur from fossil fuel-fired power generating units Numbers 1, 2 and 3 of NV Energy's Reid Gardner Station, located in Air Quality Control Region 13, Basin 218, California Wash, must not be greater than 0.275 pounds per million Btu's (0.495 kilograms per million kg-cal).

[Environmental Comm'n, Air Quality Reg. § 8.2.1.3 + § 16.1.3.5, eff. 1-1-83]—(NAC A 9-19-90; R065-03, 10-30-2003; R096-05, 10-31-2005)

**NAC 445B.2206 Allowable emissions of sulfur from specific sources: Unit Number 4 of Reid Gardner Power Station.** ([NRS 445B.210](#)) The allowable emission of sulfur from fossil fuel-fired power generating unit Number 4 of NV Energy's Reid Gardner Station, located in Air Quality Control Region 13, Basin 218, California Wash, must not be greater than 0.145 pounds per million Btu's (0.261 kilograms per million kg-cal). The efficiency of the capture of sulfur must be maintained at a minimum of 85 percent, based on a 30-day rolling average.

(Added to NAC by Environmental Comm'n, eff. 8-22-86; A by R096-05, 10-31-2005)

**NAC 445B.22063 Allowable emissions of sulfur from specific sources: North Valmy Power Station.** ([NRS 445B.210](#)) The allowable emission of sulfur from fossil fuel-fired power generating unit Number 2 NV Energy's North Valmy Station, located in Air Quality Control Region 147, Basin 64, Clovers Area, must not be greater than 0.3 pounds per million Btu's (0.540 kilograms per million kg-cal). The efficiency of the capture of sulfur must be maintained at a minimum of 70 percent, based on a 30-day rolling average.

(Added to NAC by Environmental Comm'n, eff. 8-22-86; A 9-25-87; R096-05, 10-31-2005)

**NAC 445B.2208 Emission of hydrogen sulfide from certain facilities for generating electricity from geothermal brine.** ([NRS 445B.210](#)) The emission of hydrogen sulfide from the facilities for generating electricity from geothermal brine at the Oxbow Geothermal Corporation's geothermal power plant in Air Quality Control Region 147, Basin 128, Dixie Valley, may not exceed 249 short tons (225.9 metric tons) per year.

(Added to NAC by Environmental Comm'n, eff. 10-18-88)—(Substituted in revision for NAC 445B.387)

**NAC 445B.221 Adoption by reference and applicability of certain provisions of federal law and regulations.** ([NRS 445B.210](#))

1. Title 40 C.F.R. §§ 51.100(s), 51.100(nn) and 51.301 and Appendix S of 40 C.F.R. Part 51 are hereby adopted by reference as they existed on July 1, 2010.

2. Title 40 C.F.R. § 51.165 is hereby adopted by reference as it existed on July 1, 2002.

3. Appendices M and W of 40 C.F.R. Part 51 are hereby adopted by reference as they existed on July 1, 2010.

4. Title 40 C.F.R. § 52.21 is hereby adopted by reference as it existed on July 18, 2011.

5. Appendix E of 40 C.F.R. Part 52 is hereby adopted by reference as it existed on July 1, 2011.

6. The following subparts of 40 C.F.R. Part 60 are hereby adopted by reference:

(a) Subpart A, except §§ 60.4, 60.8(b)(2), 60.8(b)(3), 60.8(g) and 60.11(e), as it existed on July 1, 2011;

(b) Section 60.21 of Subpart B, as it existed on July 1, 2011;

(c) Subparts C, Cb, Cc, Cd, Ce, D, Da, Db, Dc, E, Ea, Eb, Ec, F, G, H, I, J, K, Ka, Kb, L, M, N, Na, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AAa, BB, CC, DD, EE, GG, HH, KK, LL, MM, NN, PP, QQ, RR, SS, TT, UU, VV,

VVa, WW, XX, BBB, DDD, FFF, GGG, GGGa, HHH, III, JJJ, KKK, LLL, NNN, OOO, PPP, QQQ, RRR, SSS, TTT, UUU, VVV, WWW, AAAA, CCCC, DDDD, EEEE, FFFF and KKKK as they existed on July 1, 2011;

(d) Subpart HHHH, except §§ 60.4105(b)(2), 60.4106, 60.4120 to 60.4142, inclusive, 60.4153(a) and (b) and 60.4176, as it existed on June 9, 2006; and

(e) Subparts IIII and JJJJ as they existed on August 29, 2011.

7. Appendices A, B and F of 40 C.F.R. Part 60 are hereby adopted by reference:

(a) Appendix A as it existed on July 1, 2010; and

(b) Appendices B and F as they existed on July 1, 2011.

8. Subparts A, C, D, E, F, H, I, J, K, L, N, O, P, Q, R, T, V, W, Y, BB and FF of 40 C.F.R. Part 61 are hereby adopted by reference as they existed on July 1, 2010.

9. Appendix B of 40 C.F.R. Part 61 is hereby adopted by reference as it existed on July 1, 2010.

10. The following subparts of 40 C.F.R. Part 63 are hereby adopted by reference:

(a) Subpart A as it existed on July 1, 2010;

(b) Subparts B, C, F, G, H, I, J, L, M, N, O, Q, R, S, T, U, W, X, Y, AA, BB, CC, DD, EE, GG, HH, II, JJ, KK, LL, MM, OO, PP, QQ, RR, SS, TT, UU, VV, WW, XX, YY, CCC, DDD, EEE, GGG, HHH, III, JJJ, LLL, MMM, NNN, OOO, PPP, QQQ, RRR, TTT, UUU, VVV, XXX, AAAA, CCCC, DDDD, EEEE, FFFF, GGGG, HHHH, IIII, JJJJ, KKKK, MMMM, NNNN, OOOO, PPPP, QQQQ, RRRR, SSSS, TTTT, UUUU, VVVV, WWWW, XXXX, YYYY, ZZZZ, AAAAA, BBBB, CCCC, DDDD, EEEE, FFFF, GGGG, HHHH, JJJJ, KKKK, LLLL, MMMM, NNNN, PPPP, QQQQ, SSSS, WWWW, YYYYY, ZZZZ, BBBB, CCCC, DDDD, EEEE, FFFF, GGGG, HHHH, JJJJ, LLLL, MMMM, NNNN, OOOO, PPPP, QQQQ, RRRR, SSSS, TTTT, VVVV, XXXXX, ZZZZ, AAAAA, BBBB, CCCC and EEEEE, as they existed on July 1, 2011; and

(c) Subpart WWWW as it existed on October 19, 2011.

11. Appendix A of 40 C.F.R. Part 63 is hereby adopted by reference as it existed on July 1, 2011.

12. Title 40 C.F.R. Part 72 is hereby adopted by reference as it existed on July 1, 2011. If the provisions of 40 C.F.R. Part 72 conflict with or are not included in [NAC 445B.001](#) to [445B.3689](#), inclusive, the provisions of 40 C.F.R. Part 72 apply.

13. Title 40 C.F.R. Part 76 is hereby adopted by reference as it existed on July 1, 2011. If the provisions of 40 C.F.R. Part 76 conflict with or are not included in [NAC 445B.001](#) to [445B.3689](#), inclusive, the provisions of 40 C.F.R. Part 76 apply.

14. Title 42 of the United States Code, section 7412(b), List of Hazardous Air Pollutants, is hereby adopted by reference as it existed on October 1, 1993.

15. The *Standard Industrial Classification Manual*, 1987 edition, published by the United States Office of Management and Budget, is hereby adopted by reference. A copy of the manual may be obtained, free of charge, from the United States Department of Labor at the Internet address <http://www.dol.gov>.

16. A copy of the publications which contain the provisions adopted by reference in subsections 1 to 14, inclusive, may be obtained from the:

(a) Division of State Library and Archives of the Department of Administration for 10 cents per page.

(b) Government Printing Office, free of charge, at the Internet address <http://www.gpoaccess.gov/nara/index.html>.

17. The following standards of ASTM International are hereby adopted by reference:

(a) ASTM D5504, "Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Chemiluminescence," set forth in Volume 05.06 of the *2008 Annual Book of ASTM Standards*. A copy of ASTM D5504 is available by mail from ASTM International, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428-2959, by telephone at (610) 832-9585 or at the Internet address <http://www.astm.org>, for the price of \$40.

(b) ASTM D2234 and D2234M, "Standard Practice for Collection of a Gross Sample of Coal," set forth in Volume 05.06 of the *2008 Annual Book of ASTM Standards*. A copy of ASTM D2234 and D2234M is available by mail from ASTM International, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428-2959, by telephone at (610) 832-9585 or at the Internet address <http://www.astm.org>, for the price of \$40.

(c) ASTM D2013, "Standard Practice for Preparing Coal Samples for Analysis," set forth in Volume 05.06 of the *2008 Annual Book of ASTM Standards*. A copy of ASTM D2013 is available by mail from ASTM International, 100

Barr Harbor Drive, West Conshohocken, Pennsylvania 19428-2959, by telephone at (610) 832-9585 or at the Internet address <http://www.astm.org>, for the price of \$46.

(d) ASTM D6784, "Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method)," set forth in Volume 11.07 of the 2008 *Annual Book of ASTM Standards*. A copy of ASTM D6784 is available by mail from ASTM International, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428-2959, by telephone at (610) 832-9585 or at the Internet address <http://www.astm.org>, for the price of \$46.

(e) ASTM D2015, "Standard Test Method for Gross Calorific Value of Coal and Coke by the Adiabatic Bomb Calorimeter," dated April 10, 2000. A copy of ASTM D2015 is available for purchase at the IHS Standards Store, 15 Inverness Way East, M/S A110B, Englewood, Colorado 80112, or at the Internet address <http://global.ihs.com>, for the price of \$56.

(f) ASTM D3286, "Standard Test Method for Gross Calorific Value of Coal and Coke by the Isoperibol Bomb Calorimeter," dated July 10, 1996. A copy of ASTM D3286 is available for purchase at the IHS Standards Store, 15 Inverness Way East, M/S A110B, Englewood, Colorado 80112, or at the Internet address <http://global.ihs.com>, for the price of \$56.

(g) ASTM D1989, "Standard Test Method for Gross Calorific Value of Coal and Coke by Microprocessor Controlled Isoperibol Calorimeters," dated July 10, 1997. A copy of ASTM D1989 is available for purchase at the IHS Standards Store, 15 Inverness Way East, M/S A110B, Englewood, Colorado 80112, or at the Internet address <http://global.ihs.com>, for the price of \$56.

18. For the purposes of the provisions of 40 C.F.R. Parts 60, 61 and 63, adopted by reference pursuant to this section, the Director may not approve alternate or equivalent test methods or alternative standards or work practices.

19. Except as otherwise provided in subsections 12 and 13, the provisions adopted by reference in this section supersede the requirements of [NAC 445B.001](#) to [445B.3689](#), inclusive, for all stationary sources subject to the provisions adopted by reference only if those requirements adopted by reference are more stringent.

20. For the purposes of this section, "administrator" as used in the provisions of 40 C.F.R. Part 60, except Subpart B § 60.21 and Subpart HHHH §§ 60.4101 to 60.4105, inclusive, 60.4107 to 60.4114, inclusive, 60.4151 to 60.4173, inclusive, and 60.4175, and Parts 61 and 63, adopted by reference pursuant to this section, means the Director.

(Added to NAC by Environmental Comm'n, eff. 10-19-83; A 12-5-84; 10-15-85; 8-22-86; 10-22-87; 10-18-88; 9-19-90; 9-4-92; 10-29-93; 12-13-93; 3-29-94; 10-30-95; R105-97, 3-5-98; R126-98, 11-2-98; R022-99, 9-27-99; R103-02, 12-17-2002; R198-03, 4-26-2004; R125-04, 9-24-2004; R037-05, 10-31-2005; R189-05 & R206-05, 5-4-2006; R151-06 & R162-06, 9-18-2006; R057-07, 10-31-2007; R143-07, 1-30-2008; R076-08, 8-26-2008; R190-08, 4-23-2009; R088-09, 11-25-2009; R040-10, 7-22-2010; R014-11 & R015-11, 10-26-2011; R129-11, 5-30-2012)

## **Nevada Revised Statutes**

### **Title 18 Chapter 233B, Nevada Administrative Procedure Act:**

#### **NRS 233B.060 Notice of adoption, amendment or repeal of permanent or temporary regulation; adoption of permanent regulation after adoption of temporary regulation.**

1. Except as otherwise provided in subsection 2 and [NRS 233B.061](#), before adopting, amending or repealing:

(a) A permanent regulation, the agency must, after receiving the approved or revised text of the proposed regulation prepared by the Legislative Counsel pursuant to [NRS 233B.063](#), give at least 30 days' notice of its intended action, unless a shorter period of notice is specifically permitted by statute.

(b) A temporary regulation, the agency must give at least 30 days' notice of its intended action, unless a shorter period of notice is specifically permitted by statute.

2. Except as otherwise provided in subsection 3, if an agency has adopted a temporary regulation after notice and the opportunity for a hearing as provided in this chapter, it may adopt, after providing a second notice and the opportunity for a hearing, a permanent regulation, but the language of the permanent regulation must first be approved or revised by the Legislative Counsel and the adopted regulation must be approved by the Legislative Commission or the Subcommittee to Review Regulations appointed pursuant to subsection 6 of [NRS 233B.067](#).

3. If the Public Utilities Commission of Nevada has adopted a temporary regulation after notice and the opportunity for a hearing as provided in this chapter, it may adopt a substantively equivalent permanent regulation without further notice or hearing, but the language of the permanent regulation must first be approved or revised by the Legislative Counsel and the adopted regulation must be approved by the Legislative Commission or the Subcommittee to Review Regulations.

(Added to NRS by 1965, 964; A 1973, 621; 1975, 1157, 1413; 1977, 1386, 1547, 1549; 1981, 186; 1983, 1123, 1244; 1995, 130; [1997, 1973](#); [2007, 871](#); [2009, 2284](#))

**NRS 233B.0603 Contents and form of notice of intent to adopt, amend or repeal permanent or temporary regulation; solicitation of comments from public or affected businesses.**

1. The notice of intent to act upon a regulation required pursuant to [NRS 233B.060](#) must:

(a) Include:

(1) A statement of the need for and purpose of the proposed regulation.

(2) If the proposed regulation is a temporary regulation, either the terms or substance of the proposed regulation or a description of the subjects and issues involved.

(3) If the proposed regulation is a permanent regulation, a statement explaining how to obtain the approved or revised text of the proposed regulation prepared by the Legislative Counsel pursuant to [NRS 233B.063](#).

(4) A statement of the estimated economic effect of the regulation on the business which it is to regulate and on the public. These must be stated separately and in each case must include:

(I) Both adverse and beneficial effects; and

(II) Both immediate and long-term effects.

(5) A statement identifying the methods used by the agency in determining the impact on a small business prepared pursuant to subsection 3 of [NRS 233B.0608](#).

(6) The estimated cost to the agency for enforcement of the proposed regulation.

(7) A description of any regulations of other state or local governmental agencies which the proposed regulation overlaps or duplicates and a statement explaining why the duplication or overlapping is necessary. If the regulation overlaps or duplicates a federal regulation, the notice must include the name of the regulating federal agency.

(8) If the regulation is required pursuant to federal law, a citation and description of the federal law.

(9) If the regulation includes provisions which are more stringent than a federal regulation that regulates the same activity, a summary of such provisions.

(10) The time when, the place where and the manner in which interested persons may present their views regarding the proposed regulation.

(b) If the proposed regulation is a temporary regulation, state each address at which the text of the proposed regulation may be inspected and copied.

(c) Include an exact copy of the provisions of subsection 2 of [NRS 233B.064](#).

(d) Include a statement indicating whether the regulation establishes a new fee or increases an existing fee.

(e) Be mailed to all persons who have requested in writing that they be placed upon a mailing list, which must be kept by the agency for that purpose.

(f) Be submitted to the Legislative Counsel Bureau for inclusion in the Register of Administrative Regulations created pursuant to [NRS 233B.0653](#). The publication of a notice of intent to act upon a regulation in the Register does not satisfy the requirements for notice set forth in paragraph (e).

2. The Attorney General may by regulation prescribe the form of notice to be used.

3. In addition to distributing the notice to each recipient of the agency's regulations, the agency shall also solicit comment generally from the public and from businesses to be affected by the proposed regulation.

(Added to NRS by 1983, 1124; A 1995, 130, 239; [1997, 184, 1390](#); [2005, 1479](#); [2007, 872](#))

**NRS 233B.061 Proposed permanent or temporary regulation: Public comment; workshop; public hearing; applicability of Open Meeting Law.**

1. All interested persons must be afforded a reasonable opportunity to submit data, views or arguments upon a proposed regulation, orally or in writing.

2. Before holding the public hearing required pursuant to subsection 3, an agency shall conduct at least one workshop to solicit comments from interested persons on one or more general topics to be addressed in a proposed

regulation. Not less than 15 days before the workshop, the agency shall provide notice of the time and place set for the workshop:

(a) In writing to each person who has requested to be placed on a mailing list; and

(b) In any other manner reasonably calculated to provide such notice to the general public and any business that may be affected by a proposed regulation which addresses the general topics to be considered at the workshop.

3. With respect to substantive regulations, the agency shall set a time and place for an oral public hearing, but if no one appears who will be directly affected by the proposed regulation and requests an oral hearing, the agency may proceed immediately to act upon any written submissions. The agency shall consider fully all written and oral submissions respecting the proposed regulation.

4. An agency shall not hold the public hearing required pursuant to subsection 3 on the same day that the agency holds the workshop required pursuant to subsection 2.

5. Each workshop and public hearing required pursuant to subsections 2 and 3 must be conducted in accordance with the provisions of [chapter 241](#) of NRS.

(Added to NRS by 1983, 1125; A 1989, 571; [1997, 185](#); [2005, 1407](#); [2007, 873](#); [2009, 2284](#))

## **Title 40 Chapter 445B, Air Pollution:**

### **NRS 445B.100 Declaration of public policy.**

1. It is the public policy of the State of Nevada and the purpose of [NRS 445B.100](#) to [445B.640](#), inclusive, to achieve and maintain levels of air quality which will protect human health and safety, prevent injury to plant and animal life, prevent damage to property, and preserve visibility and scenic, esthetic and historic values of the State.

2. It is the intent of [NRS 445B.100](#) to [445B.640](#), inclusive, to:

(a) Require the use of reasonably available methods to prevent, reduce or control air pollution throughout the State of Nevada;

(b) Maintain cooperative programs between the State and its local governments; and

(c) Facilitate cooperation across jurisdictional lines in dealing with problems of air pollution not confined within a single jurisdiction.

3. The quality of air is declared to be affected with the public interest, and [NRS 445B.100](#) to [445B.640](#), inclusive, are enacted in the exercise of the police power of this State to protect the health, peace, safety and general welfare of its people.

4. It is also the public policy of this State:

(a) To provide for the integration of all programs for the prevention of accidents in this State involving chemicals, including, without limitation, accidents involving hazardous air pollutants, highly hazardous chemicals, highly hazardous substances and extremely hazardous substances; and

(b) Periodically to retire a portion of the emission credits or allocations specified in [NRS 445B.235](#) that may otherwise be available for banking or for sale pursuant to that section.

(Added to NRS by 1971, 1191; A 1993, 2851; [2007, 1023, 3311](#))

## **APPENDIX B**

### **Ambient Air Monitoring Network Plan 2012**

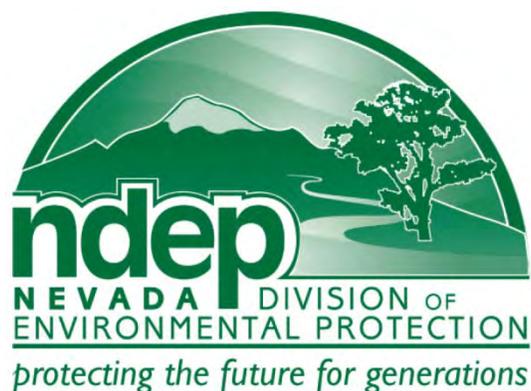
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B.1 AMBIENT AIR QUALITY NETWORK PLAN 2012

B.2 EPA FEBRUARY 28, 2013 REVIEW LETTER

# **AMBIENT AIR MONITORING NETWORK PLAN**

**2012**



## **STATE OF NEVADA DIVISION OF ENVIRONMENTAL PROTECTION BUREAU OF AIR QUALITY PLANNING**

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## Acronyms and Abbreviations

CAA:	Clean Air Act
AQS:	Air Quality System
BAQP:	Bureau of Air Quality Planning
BAM:	Beta Attenuation Monitor
CFR:	Code of Federal Regulations
CO:	Carbon Monoxide
DCNR:	Department of Conservation and Natural Resources
FEM:	Federal Equivalent Method
FRM:	Federal Reference Method
IMPROVE:	Interagency Monitoring of Protected Visual Environments
NAAQS:	National Ambient Air Quality Standard
NAC:	Nevada Administrative Code
NDEP:	Nevada Division of Environmental Protection
O <sub>3</sub> :	Ozone
PM:	Particulate Matter (2.5 or 10 microns)
SLAMS:	State and Local Air Monitoring Station
SPMS:	Special Purpose Monitoring Station
USEPA:	United States Environmental Protection Agency

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## **Overview**

The monitoring program of the Nevada Division of Environmental Protection (NDEP) operates an ambient air quality monitoring network of gaseous and particulate pollutant monitors. The monitors are located in small communities throughout rural Nevada. In the metropolitan areas of Reno and Las Vegas; the Washoe County District Health Department, Air Quality Management Division and the Clark County Department of Air Quality and Environmental Management operate and maintain their respective monitoring networks separate from NDEP and submit their Network Plan independently to the United States Environmental Protection Agency (USEPA).

NDEP regulates air quality to protect public health and the environment. Monitoring data is a crucial component of regulations used to determine compliance with the USEPA primary and secondary air quality standards. Other important uses of these monitors include: support and issuance of air quality forecasts, support of long-term health assessments, and tracking long-term air quality both to gauge effectiveness of emission control and abatement strategies and to quantify accuracy of ambient pollutant monitoring.

## **Goals**

NDEP created an ambient air quality monitoring program to provide useful and accurate information on air quality, which is used to evaluate the success of the State's air quality programs. The Clean Air Act of 1970, and subsequent amendments, defines air quality standards for various air pollutants necessary to protect the public from injurious pollution concentrations. Air pollution concentrations that exceed the National Ambient Air Quality Standard (NAAQS) can cause a public health hazard, nuisance, annoyance, or damage to flora, fauna and personal property.

The NAAQS, published by the USEPA, can be found in 40 Code of Federal Regulations (CFR) Part 50, which defines the levels of air quality necessary to protect human health and welfare. An area is considered to be in nonattainment for a pollutant if it has violated the NAAQS for that pollutant. The CFR includes procedures for evaluating measured air quality

against the NAAQS. State air quality standards can be found in Nevada Administrative Code (NAC) 445B.22097.

## **Background**

The State of Nevada has three jurisdictions which independently manage their own air programs as designated by statute: Department of Conservation and Natural Resources (DCNR), Division of Environmental Protection (NDEP), Bureau of Air Quality Planning (BAQP); Washoe County District Health Department, Air Quality Management Division; and Clark County Department of Air Quality and Environmental Management.

State agencies that conduct ambient air monitoring using State and Local Air Monitoring Stations (SLAMS) or Special Purpose Monitoring Stations (SPMS), must use Federal Reference Methods (FRM) or Federal Equivalent Methods (FEM) that comply with federal quality assurance requirements listed in 40 CFR 58, Appendix A. In conjunction with the Network Plan, a BAQP quality assurance plan was developed to form the framework for planning, implementing, assessing and reporting work performed by the BAQP and for implementing quality assurance and quality control protocols.

The Ambient Air Monitoring Program Quality Assurance Project Plan (QAPP) was developed to address quality management as well as quality assurance. The QAPP defines the policies, procedures, specifications, standards, and documentation necessary to: 1) provide data of adequate quality to meet monitoring objectives, and 2) minimize loss of air quality data due to malfunctions or out-of-control conditions. As part of the QAPP, the Quality Management Plan (QMP) describes the organizational structure, functional responsibilities of management and staff, lines of authority, and required interfaces between planning, implementing, assessing and reporting activities involving environmental data operations.

Additionally, the BAQP has developed ambient monitoring guidelines in order to ensure that ambient air quality data collected, at regulated facilities in the State, are of the highest quality and conform to federal requirements for quality assurance listed under 40 CFR 58.

Ambient air quality monitoring data must be certified on an annual basis as accurate and complete. The certification process begins with the complete submittal of all SLAMS data to the federal Air Quality System (AQS) for the calendar year. Submittal of data into AQS for 2010 has been accomplished. BAQP is planning on completing the entry of 2011 data into AQS by the May 1, 2012, deadline. Precision and accuracy reports and certification of that data should also be submitted within that time frame.

### **Network Design**

There are currently nine ambient air quality monitoring stations in Nevada under the jurisdiction of NDEP. Air quality monitoring is represented entirely by SLAMS. The ozone monitoring conducted by NDEP is done on a seasonal basis from April 1 to October 31 of each year. The EPA's approval of a seasonal ozone monitoring schedule for NDEP is documented in Appendix A. There are two meteorological stations, one in Carson City and the other in Pahrump. These are used to confirm the local meteorological data from the monitoring stations.

In addition to these three independent monitoring networks, air quality monitoring is conducted through the Interagency Monitoring of Protected Visual Environments (IMPROVE) network by the federal land management agencies. There are two IMPROVE monitoring sites in Nevada, at the Jarbidge Wilderness area and Great Basin National Park, Lehman Caves.

The following table shows the locations and types of monitors operated by NDEP.

**Table 1: NDEP’S Ambient Air Monitoring Network**

Location	Ozone	Carbon Monoxide	PM10
Elko			1 (SLAMS)
Fallon	1 (SLAMS)		
Stateline- Harvey’s		1 (SLAMS)	
Fernley	1 (SLAMS)		
Carson City-5th Street	1(SLAMS)		
Pahrump-Church Site			1 (SLAMS)
Pahrump-Manse Elementary			1 (SLAMS)
Pahrump-Glen Oaks			1 (SLAMS)
Pahrump-Linda Street			1 (SLAMS)
Total	3	1	5

SLAMS – State and Local Air Monitoring Station

### **Minimum Monitoring Requirements**

The USEPA provides minimum site requirements for ozone and particulate matter based on metropolitan statistical area (MSA) population. The NDEP’s air monitoring network meets or, in most cases, exceeds the minimum network requirements. The monitors currently required in the NDEP monitoring network by the USEPA are located in Stateline (CO), Carson City (O<sub>3</sub>), Fallon (O<sub>3</sub>), Fernley (O<sub>3</sub>) and Pahrump (PM<sub>10</sub>). The Stateline monitoring site is a continuation of a highest concentration site started by the California Air Resources Board (CARB). Through a Maintenance Plan with USEPA, monitoring and maintenance of this site was assumed by NDEP in August 2006. The four PM<sub>10</sub> monitoring sites in Pahrump are required through a Memorandum of Understanding (MOU) between NDEP, USEPA, Nye County and the Town of Pahrump. Otherwise, according to 40 CFR Part 58 Appendix D: Tables D-4 and D-5; sections 4.2, 4.3.2, 4.3.3, 4.4.2 and 4.5, additional monitoring for criteria pollutants is not presently required. The following table outlines the minimum required monitors within the NDEP ambient air monitoring network.

**Table 2: Minimum Monitoring Requirements by Pollutant**

Pollutant	Minimum # of Monitors Required	# of Monitors Active	# of Monitors needed	Location	MSA/CSA	County(ies)	County Pop. (2009)	Design Values
Ozone	3	3	0	Carson City	Carson City MSA	Carson City	55,176	66 ppb (2009-2011)
				Fallon	Fallon MSA	Churchill	24,897	59 ppb (2009-2011)
				Fernley	Rural	Lyon	52,641	64 ppb (2009-2011)
CO	1	1	0	South Lake Tahoe	Sacramento-Arden-Truckee CSA	Douglas	45,464	3.1 ppm (2010-2011)
Lead*	0	0	0	N/A	N/A	N/A	N/A	N/A
SO2*	0	0	0	N/A	N/A	N/A	N/A	N/A
NO2*	0	0	0	N/A	N/A	N/A	N/A	N/A
PM10	4	5	0	Elko (1)	Elko MSA	Elko	47,896	0.8 (2009-2011)
				Pahrump (4)	Pahrump MSA/Las Vegas-Paradise-Pahrump CSA	Nye	44,324	Manse = 2.5 Church = 0.0 Glen Oaks = N/A Linda Street = 0.0 (2009-2011)
Total	8	9	0					

\*Based on 40 CFR Part 58 Appendix D: Tables D-4 and D-5; sections 4.2, 4.3.2, 4.3.3, 4.4.2 and 4.5, additional monitoring for criteria pollutants is not presently required. Additionally, based on the 2008 Lead NAAQS Final Rule, 2010 SO<sub>2</sub> NAAQS Final Rule and the 2010 NO<sub>2</sub> NAAQS Final Rule, NDEP is not required to monitor for these criteria pollutants.

### Changes in Monitoring Network

Over the next 12 months, two significant changes will occur throughout the monitoring network that will impact data submittal for the 2012 year. NDEP will be relocating the ozone monitor currently located at the Carson City Maintenance Yard, to a comparable location 2.5 miles west at a vacant lot with access from Carson Street. This move is necessitated by the city of Carson City re-purposing use of this location. Currently, there are plans and agreements for NDEP to begin moving equipment to this new site with objective to gain 9 months of collocated data until March 2013, which is the approximate date that the NDEP must move from the Carson City Maintenance Yard. The USEPA will be notified when data collection and submittal at the new monitoring site is commenced. The second change will be the removal of the Stateline CO monitor. The NDEP plans to discontinue CO monitoring

at Stateline (located at Harvey's Resort and Hotel on Hwy 50) by June 30, 2012. The NDEP concludes that 33 years of clean data, all of it under 80 percent of the NAAQS and most recently at 34 percent, with on-going downward trends is sufficient evidence of continued attainment through 2024 and satisfies 40 CFR 58.14 requirements for discontinuance.

In 2011, NDEP was informed that we had to relocate our PM<sub>10</sub> monitor located at the Manse School in Pahrump due to the school closing. In February 2011, NDEP submitted a letter to the EPA requesting approval to relocate the monitor. In March of 2011, NDEP received approval to move the existing monitor to the Nye County School District building. However, the Pahrump School District found a new use for the school allowing NDEP to remain at the existing site. At this time, NDEP will continue to monitor at the Manse School. If needed, NDEP has access to the Nye County School District building for our back-up site.

For the next year, NDEP will be evaluating the need to establish a PM<sub>2.5</sub> monitoring network. Over the next five years, through 2017, NDEP will evaluate our current network to determine if any new sites or monitors need to be added to the existing monitoring network.

### **Purpose of Monitors**

The purpose of the Nevada Air Monitoring Network is to provide useful and accurate information on air quality, which is used to evaluate the success of the State's air quality programs. To accomplish this task, the NAAQS is used to identify the criteria pollutants: CO (Carbon Monoxide), Pb (Lead), NO<sub>2</sub> (Nitrogen Dioxide), O<sub>3</sub> (Ozone), particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), and SO<sub>2</sub> (Sulfur Dioxide). Measuring pollutant concentrations in outdoor air and comparing the measured concentrations to corresponding standards help to classify ambient air quality status of an area as either attainment or nonattainment. The NAAQS is broken down into primary and secondary standards. Primary standards are those established to protect public health. Secondary standards are those established to protect the public welfare from adverse pollution effects on soils, water, vegetation, man-made materials, animals, weather, visibility, climate, property, and the economy. The scientific criteria upon which the standards are based are reviewed periodically by the USEPA, who may reestablish or change the standards according to its findings.

A pollutant measurement that is greater than the ambient air quality standard for its specific averaging time is called an exceedance. This is not necessarily a synonym for a violation; for each pollutant there are specific rules about how many exceedances are allowed in a given time period before a pattern of exceedances is considered to be a violation of the NAAQS. A violation may result in regulatory action to clean-up the area's air. Exceptions are made to allow for certain limited exceedances of the standard that may occur, for example, during an unusual weather pattern or wildfire (exceptional events). Regulatory action is typically reserved for cases where the exceedances are too large or too frequent.

Historically, ambient air quality monitoring by BAQP has looked at trends in air quality to aid in the local planning process. Traffic, wood burning stoves, and growth related activities have prompted air quality monitoring in specific areas around the State. Data from these sites has led to public education and outreach to communities identifying the potential health effects caused by air pollutants in the environment. Ordinances controlling surface area disturbances and other related activities that produce dust have also been implemented with the help of the monitoring sites.

## **Overview of Monitored Parameters**

### **Carbon Monoxide (CO)**

CO is a poisonous gas that, when introduced into the bloodstream, inhibits the delivery of oxygen to body tissue. The health risk is greatest for individuals with cardiovascular disease.

### **Ozone (O<sub>3</sub>)**

Ground-level ozone, or photochemical smog, is not emitted into the atmosphere as ozone, but rather is formed by the reactions of other pollutants. The primary pollutants entering into this reaction, VOCs and oxides of nitrogen, create ozone in the presence of sunlight. Ozone is a strong irritant of the upper respiratory system and also causes damage to crops.

### **Particulate Matter (PM<sub>10</sub>)**

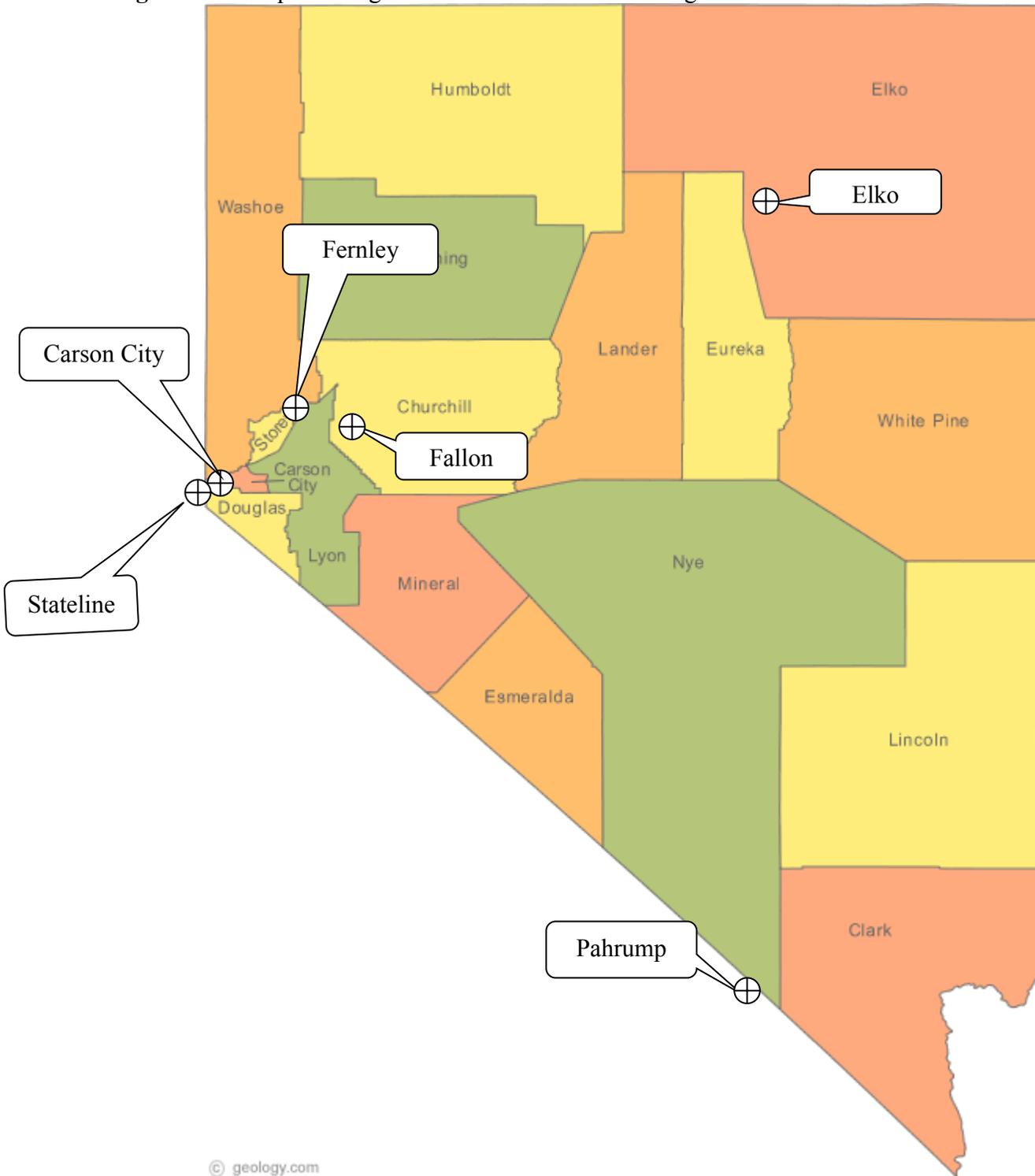
Particulate matter with an aerodynamic diameter of 10 microns or less is emitted from transportation and industrial sources. Exposure to particle pollution is linked to a variety of significant health problems ranging from aggravated asthma to premature death in people with heart and lung disease.

**Fine Particulate Matter (PM<sub>2.5</sub>)**

Fine particulate matter with a diameter of 2.5 microns or less is created primarily from industrial processes and fuel combustion. These particles are breathed deeply into the lungs. Exposure to particle pollution is linked to a variety of significant health problems ranging from aggravated asthma to premature death in people with heart and lung disease.

## Site Map

**Figure 1:** A map showing the locations of the monitoring stations maintained in NDEP's network.



<sup>1</sup> Map template from:  
<http://geology.com/state-map/maps/nevada-county-map.gif>

## Elko: Detailed Site Information

Prior to 1992 the location for this sampler was the fire station at 723 Railroad Street (ID #32-007-003) in a commercial area. In November of 1992 this continuous PM<sub>10</sub> monitoring site was relocated to the roof of the State offices at 850 Elm Street in a predominantly residential area. The monitoring objective was to determine typical concentration/population oriented. The manual sampler was replaced with a continuous (TEOM) PM<sub>10</sub> monitor in December 1998. In September 2008, the TEOM monitor was closed and a new BAM 1020 monitor was sited at the Elko Grammar School #2.

<b>Site Name</b>	<b>Elko</b>
<b>AQS ID</b>	<b>32-007-0005</b>
<b>GIS Coordinates</b>	<b>Lat +40.838350 Long -115.766029</b>
<b>Location</b>	<b>Elko Grammar School #2</b>
<b>Address</b>	<b>1055 7<sup>th</sup> Street</b>
<b>County</b>	<b>Elko</b>
<b>Distance to Road</b>	<b>18 Meters</b>
<b>Traffic Count</b>	<b>1400 AADT (2009) Station #0070203</b>
<b>Groundcover</b>	<b>Asphalt</b>
<b>Representative Area</b>	<b>Elko MSA</b>
<b>Pollutant</b>	<b>PM10 /81102</b>
<b>Monitor Objective</b>	<b>Typ. Conc./Population Oriented</b>
<b>Spatial Scale</b>	<b>Neighborhood</b>
<b>Sampling Method</b>	<b>Met One BAM-1020</b>
<b>Analysis Method</b>	<b>EQPM-0798-122</b>
<b>Start Date</b>	<b>09/25/2008</b>
<b>Operation Schedule</b>	<b>Continuous</b>
<b>Sampling Season</b>	<b>All Year</b>
<b>Probe Height</b>	<b>2.6 Meters</b>
<b>Dist. fm. supporting structure</b>	<b>Vertical Distance =1.2 meters</b>
<b>Dist. fm. obstructions on roof</b>	<b>N/A</b>
<b>Distance fm. trees</b>	<b>27 Meters</b>
<b>Distance to furnace or incinerator flue</b>	<b>N/A</b>
<b>Unrestricted airflow</b>	<b>360 degrees</b>
<b>Probe material</b>	<b>N/A</b>
<b>Residence time</b>	<b>N/A</b>
<b>Changes in the next 18 months?</b>	<b>No</b>
<b>Suitable for PM 2.5 comparison?</b>	<b>N/A</b>
<b>Frequency of flow rate verification</b>	<b>Monthly</b>
<b>Frequency of one point QC check (gaseous)</b>	<b>N/A</b>
<b>Last Annual Performance Evaluation (Gaseous)</b>	<b>N/A</b>
<b>Last two semi-annual flow rate audits for PM</b>	<b>12/12/11 05/02/2012</b>

Figure 2: Elko Grammar School #2, 1055 7th Street, Elko, NV. PM 10 Monitor

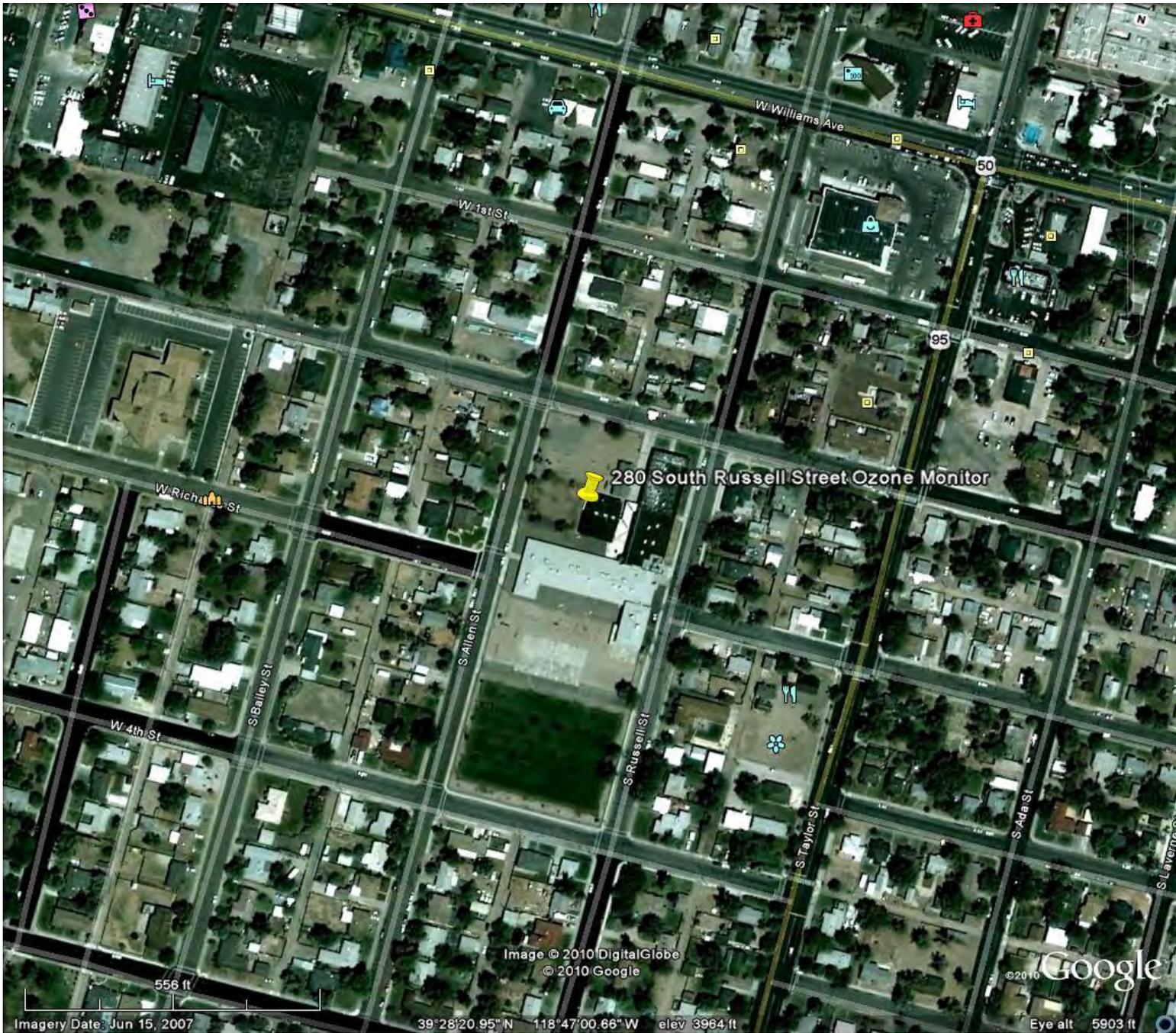


## Fallon: Detailed Site Information

The ozone monitoring site at 280 South Russell Street is at the West End Elementary School in a residential neighborhood that may be affected by agricultural operations surrounding the City of Fallon. The monitoring objective is to determine typical concentration/population orientation. PM<sub>10</sub> sampling commenced at this site in May 1993 and was discontinued at the end of June 1998. Monitoring for ozone began in October 1999 as an ozone transport site downwind of Reno and Fernley

<b>Site Name</b>	<b>Fallon</b>
<b>AQS ID</b>	<b>32-001-0002</b>
<b>GIS Coordinates</b>	<b>Lat +39.472471 Long -118.783624</b>
<b>Location</b>	<b>West End of Elementary School</b>
<b>Address</b>	<b>280 South Russell Street</b>
<b>County</b>	<b>Churchill</b>
<b>Distance to Road</b>	<b>65 Meters</b>
<b>Traffic Count</b>	<b>410 AADT (2009) Station #0010135</b>
<b>Groundcover</b>	<b>Dirt and Gravel</b>
<b>Representative Area</b>	<b>Fallon MSA</b>
<b>Pollutant</b>	<b>O3/44201</b>
<b>Monitor Objective</b>	<b>Typ. Conc./Population Oriented</b>
<b>Spatial Scale</b>	<b>Neighborhood</b>
<b>Sampling Method</b>	<b>Teledyne API Model 400E</b>
<b>Analysis Method</b>	<b>EQOA-0992-087</b>
<b>Start Date</b>	<b>10/01/1999</b>
<b>Operation Schedule</b>	<b>Seasonal</b>
<b>Sampling Season</b>	<b>April thru October</b>
<b>Probe Height</b>	<b>3.2 Meters</b>
<b>Dist. fm. supporting structure</b>	<b>1 meter from wall</b>
<b>Dist. fm. obstructions on roof</b>	<b>N/A</b>
<b>Distance fm. Trees</b>	<b>Greater than 10 meters</b>
<b>Distance to furnace or incinerator flue</b>	<b>N/A</b>
<b>Unrestricted airflow</b>	<b>180 Degrees</b>
<b>Probe material</b>	<b>Teflon</b>
<b>Residence time</b>	<b>10 seconds</b>
<b>Changes in the next 18 months?</b>	<b>No</b>
<b>Suitable for PM 2.5 comparison?</b>	<b>N/A</b>
<b>Frequency of flow rate verification</b>	<b>N/A</b>
<b>Frequency of one point QC check (gaseous)</b>	<b>Semi-monthly</b>
<b>Last Annual Performance Evaluation (Gaseous)</b>	<b>09/22/2011</b>
<b>Last two semi-annual flow rate audits for PM</b>	<b>N/A</b>

Figure 3: West End Elementary School, 280 S. Russell Street, Fallon, NV. Ozone Monitor



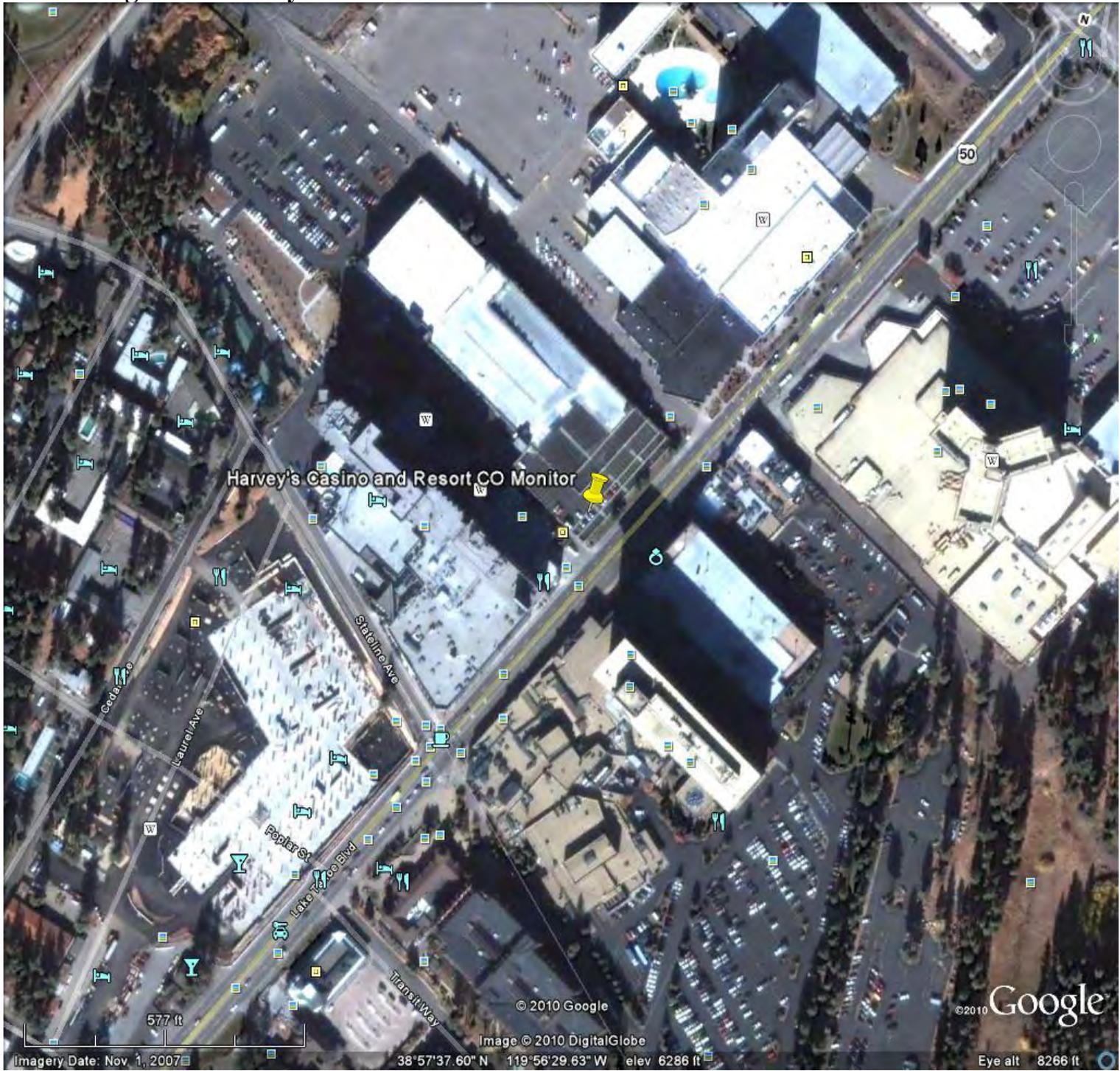
## Harvey's Casino and Resort: Detailed Site Information

This is a "micro-scale" monitoring site for carbon monoxide in the core of the Stateline casino hotel area at Lake Tahoe. The site is designed to monitor the highest CO concentrations at Lake Tahoe, and is, taken to be representative of the California and Nevada sides of the south shore casino district. Monitoring at this site began in October 1999 and was previously conducted by the California Air Resources Board by multi-agency cooperative agreement. Starting in July of 2006, NDEP took over the monitoring responsibility for this site under a maintenance agreement with EPA.

<b>Site Name</b>	<b>Harvey's Casino and Resort</b>
<b>AQS ID</b>	<b>32-005-0009</b>
<b>GIS Coordinates</b>	<b>Lat +38.960579 Long -119.941351</b>
<b>Location</b>	<b>1<sup>st</sup> Level of parking garage facing HWY</b>
<b>Address</b>	<b>Stateline NV 89449</b>
<b>County</b>	<b>Douglas</b>
<b>Distance to Road</b>	<b>9 Meters</b>
<b>Traffic Count</b>	<b>24,000 AADT (2009) Station # 0050044</b>
<b>Groundcover</b>	<b>Paved, asphalt and grass</b>
<b>Representative Area</b>	<b>Sacramento-Arden Arcade-Truckee CSA or rural MSA</b>

<b>Pollutant</b>	<b>CO/42101</b>
<b>Monitor Objective</b>	<b>Highest Concentration</b>
<b>Spatial Scale</b>	<b>Micro</b>
<b>Sampling Method</b>	<b>API Teledyne 300M</b>
<b>Analysis Method</b>	<b>N/A</b>
<b>Start Date</b>	<b>10/01/1999</b>
<b>Operation Schedule</b>	<b>Continuous</b>
<b>Sampling Season</b>	<b>All Year</b>
<b>Probe Height</b>	<b>2.5 Meters</b>
<b>Dist. fm. supporting structure</b>	<b>1 Meter Horizontally</b>
<b>Dist. fm. obstructions on roof</b>	<b>N/A</b>
<b>Distance fm. trees</b>	<b>4 Meters</b>
<b>Distance to furnace or incinerator flue</b>	<b>N/A</b>
<b>Unrestricted airflow</b>	<b>180 Degrees</b>
<b>Probe material</b>	<b>Teflon</b>
<b>Residence time</b>	<b>5 Seconds</b>
<b>Changes in the next 18 months?</b>	<b>Yes (Discontinuation)</b>
<b>Suitable for PM 2.5 comparison?</b>	<b>N/A</b>
<b>Frequency of flow rate verification</b>	<b>N/A</b>
<b>Frequency of one point QC check (gaseous)</b>	<b>Semi-monthly</b>
<b>Last Annual Performance Evaluation (Gaseous)</b>	<b>03/26/2012</b>
<b>Last two semi-annual flow rate audits for PM</b>	<b>N/A</b>

Figure 4: Harvey's Casino and Resort Lake Tahoe NV. CO Monitor



## Fernley Intermediate School: Detailed Site Information

Ozone monitoring is done at the Fernley Intermediate School which is located at 320 Hardie Lane. This is an area of mainly residential and agricultural use. There has recently been a large growth of industry both upwind and downwind of this site. Monitoring for PM<sub>10</sub> at this site commenced on May 1995, to determine the agricultural and industrial source impacts and population exposure. PM<sub>10</sub> sampling was discontinued in November 1998. Ozone monitoring began at this site July 2007. However, ozone monitoring (SPMS) was previously conducted at the Fernley Volunteer Fire Department starting in October 1997 and discontinued on October 2003.

<b>Site Name</b>	<b>Fernley</b>
<b>AQS ID</b>	<b>32-019-0006</b>
<b>GIS Coordinates</b>	<b>Lat +39.602787 Long -119.247741</b>
<b>Location</b>	<b>Fernley Intermediate School</b>
<b>Address</b>	<b>320 Hardie Lane</b>
<b>County</b>	<b>Lyon</b>
<b>Distance to Road</b>	<b>119 Meters</b>
<b>Traffic Count</b>	<b>1300 AADT (2009) Station # 0190119</b>
<b>Groundcover</b>	<b>Paved, cement, gravel and dirt</b>
<b>Representative Area</b>	<b>Rural (Micropolitan Statistical Area)</b>
<b>Pollutant</b>	<b>O3/44201</b>
<b>Monitor Objective</b>	<b>Typ. Conc./Population Oriented</b>
<b>Spatial Scale</b>	<b>Urban</b>
<b>Sampling Method</b>	<b>Teledyne API Model 400E</b>
<b>Analysis Method</b>	<b>EQOA-0992-087</b>
<b>Start Date</b>	<b>07/06/2007</b>
<b>Operation Schedule</b>	<b>Continuous</b>
<b>Sampling Season</b>	<b>April to October</b>
<b>Probe Height</b>	<b>7 Meters</b>
<b>Dist. fm. supporting structure</b>	<b>Vertical Distance above 2.1 Meters</b>
<b>Dist. fm. obstructions on roof</b>	<b>N/A</b>
<b>Distance fm. trees</b>	<b>15 Meters</b>
<b>Distance to furnace or incinerator flue</b>	<b>N/A</b>
<b>Unrestricted airflow</b>	<b>360 Degrees</b>
<b>Probe material</b>	<b>Teflon</b>
<b>Residence time</b>	<b>4 Seconds</b>
<b>Changes in the next 18 months?</b>	<b>No</b>
<b>Suitable for PM 2.5 comparison?</b>	<b>N/A</b>
<b>Frequency of flow rate verification</b>	<b>N/A</b>
<b>Frequency of one point QC check (gaseous)</b>	<b>Semi-monthly</b>
<b>Last Annual Performance Evaluation (Gaseous)</b>	<b>09/22/2011</b>
<b>Last two semi-annual flow rate audits for PM</b>	<b>N/A</b>

**Figure 5: Fernley Intermediate School, 320 Hardie Lane Fernley NV PM 2.5/Ozone Monitor**

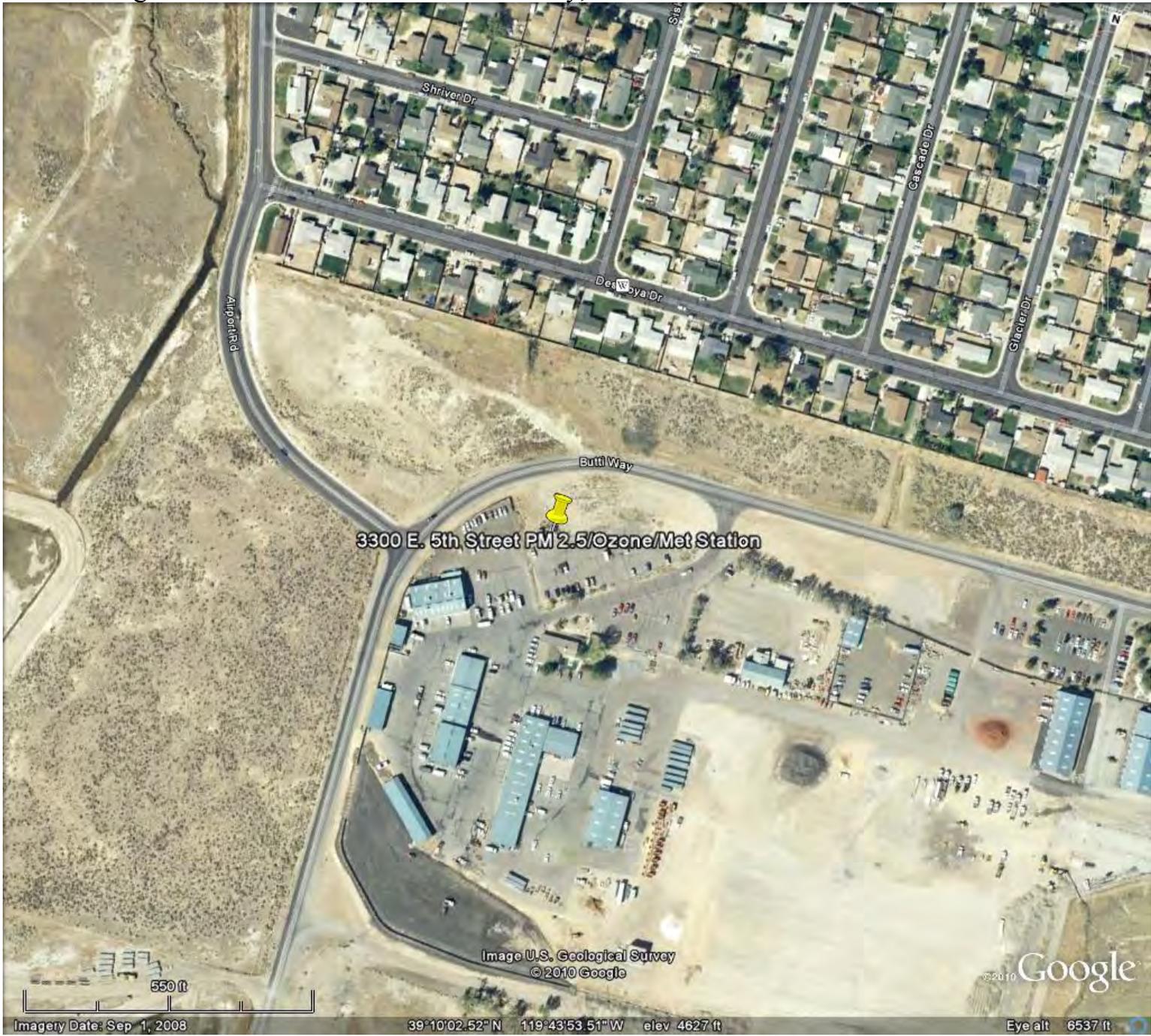


### 3300 E. 5<sup>th</sup> Street: Detailed Site Information

This site is located at 3300 East Fifth Street near the Carson City Public Works Department maintenance yard in a transition area, adjacent to wetlands, the City yard, sewage treatment plant, residential neighborhood and the new highway extension of US 395. The pollutants monitored included carbon monoxide and ozone (through 1989) and PM<sub>10</sub> (March 1991- February 1997). The monitoring objective is to determine typical concentration/population oriented. In 2007, an existing meteorological station was restarted, and as previously stated, the ozone monitor from Long Street site was relocated to East Fifth Street. At the end of 2009, the PM<sub>2.5</sub> was relocated to this monitoring site.

<b>Site Name</b>	<b>East 5<sup>th</sup>. Street</b>	
<b>AQS ID</b>	<b>32-510-0002</b>	
<b>GIS Coordinates</b>	<b>Lat +39.167247 Long -119.731702</b>	
<b>Location</b>	<b>Carson City</b>	
<b>Address</b>	<b>3300 East 5<sup>th</sup> Street</b>	
<b>County</b>	<b>Carson</b>	
<b>Distance to Road</b>	<b>10 Meters</b>	
<b>Traffic Count</b>	<b>3,500 AADT (2009) Station #0250116</b>	
<b>Groundcover</b>	<b>Dirt – Asphalt Parking Lot</b>	
<b>Representative Area</b>	<b>Carson City MSA</b>	
<b>Pollutant</b>	<b>Ozone/44201</b>	
<b>Monitor Objective</b>	<b>Typ. Conc./ Population Oriented</b>	
<b>Spatial Scale</b>	<b>Neighborhood</b>	
<b>Sampling Method</b>	<b>Teledyne API Model 400E</b>	
<b>Analysis Method</b>	<b>EQOA-0992-087</b>	
<b>Start Date</b>	<b>1/1/1989</b>	
<b>Operation Schedule</b>	<b>April – October</b>	
<b>Sampling Season</b>	<b>Seasonal</b>	
<b>Probe Height</b>	<b>10 Meters</b>	
<b>Dist. fm. supporting structure</b>	<b>Vertical distance above 7 meters</b>	
<b>Dist. fm. obstructions on roof</b>	<b>N/A</b>	
<b>Distance fm. trees</b>	<b>N/A</b>	
<b>Distance to furnace or incinerator flue</b>	<b>N/A</b>	
<b>Unrestricted airflow</b>	<b>360 Degrees</b>	
<b>Probe material</b>	<b>Teflon</b>	
<b>Residence time</b>	<b>6 Seconds</b>	
<b>Changes in the next 18 months?</b>	<b>Yes</b>	
<b>Suitable for PM 2.5 comparison?</b>	<b>N/A</b>	
<b>Frequency of flow rate verification</b>	<b>N/A</b>	
<b>Frequency of one point QC check (gaseous)</b>	<b>Semi-monthly</b>	
<b>Last Annual Performance Evaluation (Gaseous)</b>	<b>9/28/2011</b>	
<b>Last two semi-annual flow rate audits for PM</b>	<b>N/A</b>	

Figure 6: 3300 E. Fifth Street Carson City, NV Ozone/Met Site



## Church: Detailed Site Information

The Church Site began operation in 2004 to complement the existing three other sites in the Pahrump monitoring network. Monitoring is accomplished with a continuous beta attenuated monitor located in the southeast corner of the Catholic Church. This site represents the southern-most monitoring in Pahrump Valley. The monitoring objective of this site is a significant source of PM<sub>10</sub>. The surrounding area represents residential with little commercial, some native desert with a mix of dirt and paved roads.

<b>Site Name</b>	<b>Church</b>
<b>AQS ID</b>	<b>32-023-0013</b>
<b>GIS Coordinates</b>	<b>Lat + 36.159639 Long -115.996263</b>
<b>Location</b>	<b>Pahrump</b>
<b>Address</b>	<b>781 E. Gamebird</b>
<b>County</b>	<b>Nye</b>
<b>Distance to Road</b>	<b>100 Meters</b>
<b>Traffic Count</b>	<b>1,100 AADT (2009) Station #0230010</b>
<b>Groundcover</b>	<b>Desert</b>
<b>Representative Area</b>	<b>Pahrump MSA; Las Vegas – Paradise – Pahrump MSA</b>

<b>Pollutant</b>	<b>PM10/81102</b>
<b>Monitor Objective</b>	<b>Significant Sources – Dry lake bed 6 miles to the south</b>
<b>Spatial Scale</b>	<b>Urban</b>
<b>Sampling Method</b>	<b>Met One BAM 1020</b>
<b>Analysis Method</b>	<b>EQPM-0798-122</b>
<b>Start Date</b>	<b>2/14/2004</b>
<b>Operation Schedule</b>	<b>Continuous</b>
<b>Sampling Season</b>	<b>All Year</b>
<b>Probe Height</b>	<b>4 Meters</b>
<b>Dist. fm. supporting structure</b>	<b>Vertical distance above 2 meters</b>
<b>Dist. fm. obstructions on roof</b>	<b>N/A</b>
<b>Distance fm. trees</b>	<b>50Meters</b>
<b>Distance to furnace or incinerator flue</b>	<b>N/A</b>
<b>Unrestricted airflow</b>	<b>360 Degrees</b>
<b>Probe material</b>	<b>Aluminum</b>
<b>Residence time</b>	<b>N/A</b>
<b>Changes in the next 18 months?</b>	<b>No</b>
<b>Suitable for PM 2.5 comparison?</b>	<b>N/A</b>
<b>Frequency of flow rate verification</b>	<b>Monthly</b>
<b>Frequency of one point QC check (gaseous)</b>	<b>N/A</b>
<b>Last Annual Performance Evaluation (Gaseous)</b>	<b>N/A</b>
<b>Last two semi-annual flow rate audits for PM</b>	<b>11/3/2011 5/7/2012</b>

Figure 7: Church Site, 781 E. Gamebird Pahrump, NV PM 10 Monitor



## Manse Elementary: Site Detailed Information

The Manse site represents the monitoring objective for highest concentrations of PM<sub>10</sub> in Pahrump. This site replaces the Community Pool site, which at the time it was operating, represented the highest concentrations of PM<sub>10</sub> in Pahrump. Located at 1020 E. Wilson Road, the Manse Elementary site is located on the roof of the school and monitors for PM<sub>10</sub> using the continuous beta attenuation monitor. The area adjacent to this site represents mostly commercial, some residential, and is adjacent to the busiest activity area of Pahrump. This site is located downwind from residential construction developments that have cleared large parcels of ground for building, as well as agricultural areas that cultivate large areas of farm-ground and raise livestock. Roads surrounding this site are both paved and dirt.

<b>Site Name</b>	<b>Manse Elementary</b>
<b>AQS ID</b>	<b>32-023-0014-81102-1</b>
<b>GIS Coordinates</b>	<b>Lat +36.212787 Long -115.994802</b>
<b>Location</b>	<b>Pahrump</b>
<b>Address</b>	<b>1020 E. Wilson Road</b>
<b>County</b>	<b>Nye</b>
<b>Distance to Road</b>	<b>50 Meters</b>
<b>Traffic Count</b>	<b>11,000 AADT (2006) Station #0230006</b>
<b>Groundcover</b>	<b>Gravel Schoolyard</b>
<b>Representative Area</b>	<b>Pahrump MSA; Las Vegas – Paradise – Pahrump MSA</b>

<b>Pollutant</b>	<b>PM10/81102</b>
<b>Monitor Objective</b>	<b>Highest Concentrations</b>
<b>Spatial Scale</b>	<b>Neighborhood</b>
<b>Sampling Method</b>	<b>Met One BAM 1020</b>
<b>Analysis Method</b>	<b>EQPM-0798-122</b>
<b>Start Date</b>	<b>11/17/2005</b>
<b>Operation Schedule</b>	<b>Continuous</b>
<b>Sampling Season</b>	<b>All Year</b>
<b>Probe Height</b>	<b>3.0 Meters</b>
<b>Dist. fm. supporting structure</b>	<b>Vertical distance above 1 meter</b>
<b>Dist. fm. obstructions on roof</b>	<b>N/A</b>
<b>Distance fm. trees</b>	<b>10 Meters</b>
<b>Distance to furnace or incinerator flue</b>	<b>N/A</b>
<b>Unrestricted airflow</b>	<b>360 Degrees</b>
<b>Probe material</b>	<b>Aluminum</b>
<b>Residence time</b>	<b>N/A</b>
<b>Changes in the next 18 months?</b>	<b>No</b>
<b>Suitable for PM 2.5 comparison?</b>	<b>N/A</b>
<b>Frequency of flow rate verification</b>	<b>Monthly</b>
<b>Frequency of one point QC check (gaseous)</b>	<b>N/A</b>
<b>Last Annual Performance Evaluation (Gaseous)</b>	<b>N/A</b>
<b>Last two semi-annual flow rate audits for PM</b>	<b>11/3/2011 5/7/2012</b>

Figure 8: Manse Elementary, 1020 E. Wilson Road Pahrump, NV PM 10 Monitor



## Glen Oaks: Site Detailed Information

The Willow Creek site was started in 2003 and was located at 1500 Red Butte on the roof of a building in which irrigation equipment for the golf course is housed. The monitoring objective of this site was to measure typical concentrations/population oriented of PM<sub>10</sub> using the beta attenuated monitor. The surrounding area adjacent to this site is fairway/golf course and residential structures. Due to closure of the golf course, the Willow Creek site was relocated to the Glen Oaks sewer treatment plant in 2009. The Glen Oaks site is a short distance away from the existing golf course site and the monitoring objective did not change.

<b>Site Name</b>	<b>Glen Oaks</b>
<b>AQS ID</b>	<b>32-023-0012</b>
<b>GIS Coordinates</b>	<b>Lat +36.193469 Long -116.007584</b>
<b>Location</b>	<b>Pahrump</b>
<b>Address</b>	<b>145 Glen Oaks St.</b>
<b>County</b>	<b>Nye</b>
<b>Distance to Road</b>	<b>200 Meters</b>
<b>Traffic Count</b>	<b>1,100 AADT (2009) Station #0230010</b>
<b>Groundcover</b>	<b>Grass/Gravel</b>
<b>Representative Area</b>	<b>Pahrump MSA; Las Vegas – Paradise – Pahrump MSA</b>

<b>Pollutant</b>	<b>PM10/81102</b>
<b>Monitor Objective</b>	<b>Typ. Conc./ Population Oriented</b>
<b>Spatial Scale</b>	<b>Neighborhood</b>
<b>Sampling Method</b>	<b>Met One BAM 1020</b>
<b>Analysis Method</b>	<b>EQPM-0798-122</b>
<b>Start Date</b>	<b>11/20/2003</b>
<b>Operation Schedule</b>	<b>Continuous</b>
<b>Sampling Season</b>	<b>All Year</b>
<b>Probe Height</b>	<b>6.0 Meters</b>
<b>Dist. fm. supporting structure</b>	<b>Vertical distance above 2 meters</b>
<b>Dist. fm. obstructions on roof</b>	<b>N/A</b>
<b>Distance fm. trees</b>	<b>12 Meters</b>
<b>Distance to furnace or incinerator flue</b>	<b>N/A</b>
<b>Unrestricted airflow</b>	<b>360 Degrees</b>
<b>Probe material</b>	<b>Aluminum</b>
<b>Residence time</b>	<b>N/A</b>
<b>Changes in the next 18 months?</b>	<b>No</b>
<b>Suitable for PM 2.5 comparison?</b>	<b>N/A</b>
<b>Frequency of flow rate verification</b>	<b>Monthly</b>
<b>Frequency of one point QC check (gaseous)</b>	<b>N/A</b>
<b>Last Annual Performance Evaluation (Gaseous)</b>	<b>N/A</b>
<b>Last two semi-annual flow rate audits for PM</b>	<b>11/3/2011 5/7/2012</b>

Figure 9: 145 Glen Oaks St., Pahrump, NV PM10 Monitor



## Linda Street: Site Detailed Information

The Linda Street site was started in 2003 and is located at 8825 North Linda Street. The beta attenuated monitor is located on the roof of an old railroad box car and represents not only the northern-most site in the Pahrump monitoring network, but the most rural area. There is some residential surrounding this site, but mainly native desert vegetation with little or no surface disturbances. The monitoring objective for this site is general background levels of PM<sub>10</sub> in Pahrump.

<b>Site Name</b>	<b>Linda Street</b>
<b>AQS ID</b>	<b>32-023-0011-81102-1</b>
<b>GIS Coordinates</b>	<b>Lat +36.349408 Long -116.031976</b>
<b>Location</b>	<b>Pahrump</b>
<b>Address</b>	<b>8825 N. Linda</b>
<b>County</b>	<b>Nye</b>
<b>Distance to Road</b>	<b>20 Meters</b>
<b>Traffic Count</b>	<b>2,200 AADT (2008) Station #0230008</b>
<b>Groundcover</b>	<b>Desert</b>
<b>Representative Area</b>	<b>Pahrump MSA; Las Vegas – Paradise – Pahrump MSA</b>

<b>Pollutant</b>	<b>PM10/81102</b>
<b>Monitor Objective</b>	<b>General Background</b>
<b>Spatial Scale</b>	<b>Urban</b>
<b>Sampling Method</b>	<b>Met One BAM 1020</b>
<b>Analysis Method</b>	<b>EQPM-0798-122</b>
<b>Start Date</b>	<b>5/3/2003</b>
<b>Operation Schedule</b>	<b>Continuous</b>
<b>Sampling Season</b>	<b>All Year</b>
<b>Probe Height</b>	<b>6.7 Meters</b>
<b>Dist. fm. supporting structure</b>	<b>Vertical distance above roof 3 meters</b>
<b>Dist. fm. obstructions on roof</b>	<b>N/A</b>
<b>Distance fm. trees</b>	<b>10 Meters</b>
<b>Distance to furnace or incinerator flue</b>	<b>N/A</b>
<b>Unrestricted airflow</b>	<b>360 Degrees</b>
<b>Probe material</b>	<b>Aluminum</b>
<b>Residence time</b>	<b>N/A</b>
<b>Changes in the next 18 months?</b>	<b>No</b>
<b>Suitable for PM 2.5 comparison?</b>	<b>N/A</b>
<b>Frequency of flow rate verification</b>	<b>Monthly</b>
<b>Frequency of one point QC check (gaseous)</b>	<b>N/A</b>
<b>Last Annual Performance Evaluation (Gaseous)</b>	<b>N/A</b>
<b>Last two semi-annual flow rate audits for PM</b>	<b>11/3/2011 5/7/2012</b>

Figure 10: 8825 N. Linda Pahrump, NV PM 10 Monitor



Appendix A.  
Ozone Seasonality Approval Letter



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105-3901

FEBRUARY 6, 2002

STEVE

RECEIVED  
FEB 13 2002

Mr. Chester Sergent, Supervisor  
Ambient Air Monitoring Branch  
Bureau of Air Quality Planning  
Division of Environmental Protection  
Department of Conservation and Natural Resources  
333 W. Nye Lane, Room 138  
Carson City, NV 89706

Dear Mr. <sup>Chest</sup>Sergent:

I have received your letter of January 29, 2002 requesting permission to adjust the ozone monitoring season from year round to April 1 through October 31. We have reviewed the information you provided and approve your request to reduce the ozone monitoring season.

One issue that needs to be addressed is ensuring that EPA's AIRS database is updated to reflect this change in the ozone monitoring season. Failure to do so will result in AIRS showing incomplete ozone data capture rates for the Carson City, Fernley and Fallon monitoring sites. Please have your staff contact our AIRS database manager, Jim Forrest, at (415) 947-4135 to discuss the appropriate procedure for making this change. Please feel free to contact me at (415) 947-4128 if you have any questions.

Sincerely,

Robert S. Pallarino  
Technical Support Office  
Air Division

cc: Colleen Cripps, DCNR/DEP  
Jim Forrest, US EPA

**Appendix B.  
Manse PM10 Monitor Relocation Approval**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street  
San Francisco, CA 94105-3901  
**MAR 22 2011**

Nevada  
Environmental Protection

**MAR 25 2011**

BAPC/BAQP

**RECEIVED**

MAR 25 2011

ENVIRONMENTAL PROTECTION

Mr. Daren Winkelman, Supervisor  
Ambient Air Quality Monitoring Program  
Bureau of Air Quality Planning  
Nevada Division of Environmental Protection  
901 South Stewart Street, Suite 4001  
Carson City, NV 89701

RE: Response to discontinuation and relocation request of Manse Elementary SLAMS PM<sub>10</sub> monitor (AQS ID: 32-023-0014-81102-1)

Dear Mr. Winkelman: <sup>Daren</sup>

On February 24, 2011 we received your official request for the discontinuation of the PM<sub>10</sub> monitor at Manse Elementary School (AQS ID: 32-023-0014-81102-1) and the subsequent relocation of the PM<sub>10</sub> monitor to the nearby Nye County School District office.

After a visit to the proposed relocation site and upon our review of the documentation you have provided, pursuant to 40 CFR 58.14, we approve your selection of the Nye School District building for replacement of the current Manse Elementary School site. Specifically, we have determined that your request meets the provisions under 40 CFR 58.14(c)(6), namely that logistical problems beyond NDEP's control make it impossible to continue operation at the current site and that the replacement site is a nearby location with the same scale of representation. We request that you list the official site address as 208 Dahlia Street, Pahrump, NV 89048 with GPS coordinates (in decimal degrees): 36.212989, -115.996875.

Thank you for your cooperation throughout this process and please feel free to contact Elfego Felix (415) 947-4141 from my staff or myself (415) 972-3851 with any questions or concerns in regards to this matter.

Sincerely,

Matthew Lakin, Manager  
Air Quality Analysis Office

## **Appendix C. Comment Submittal Information**

The proposed 2012 Ambient Air Monitoring Network Plan is posted on the NDEP website for review and comment for thirty (30) days.

Comments may be emailed to  
Daren Winkelman ([dwinkelman@ndep.nv.gov](mailto:dwinkelman@ndep.nv.gov))  
or mailed to,  
Daren Winkelman  
Ambient Monitoring Program  
Bureau of Air Quality Planning  
901 S. Stewart Street, Suite 4001  
Carson City, Nevada 89701



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105

February 28, 2013

Mr. Rob Bamford, Chief  
Bureau of Air Quality Planning  
Nevada Division of Environmental Protection  
901 S. Stewart, Suite 4001  
Carson City, NV 89701

Dear Mr. Bamford:

Thank you for your submission of the State of Nevada, Division of Environmental Protection, Bureau of Air Quality Planning's 2012 Ambient Air Monitoring Network Plan in July 2012. Based on the information provided in the Plan, EPA approves NDEP's 2012 Plan, except for the five specific items listed in Attachment B where we are not taking action. On December 11, 2012 EPA also approved and provided a separate notification for the relocation of State and Local Air Monitoring Station (SLAMS) ozone monitoring at 3300 E. 5th Street (Site ID: 32-510-0002) to 2601 S. Carson Street in Carson City, NV.

Annual network plans are important documents for regulatory purposes (e.g., State Implementation Plans, designations and redesignations) and public information, in addition to the myriad uses by the air districts. EPA is revising the review process for annual network plans to specifically check and document the comprehensive set of items that are required to be included in the annual network plans per 40 CFR 58.10 in a consistent manner. We have created a checklist that lists all these items and have included it as Attachment A. While the items in the checklist are required by EPA regulations, we acknowledge that we have not specifically requested some of this information in previous annual network plan reviews. We recognize that your plan may not have all the items that we have currently identified and hope to work with you on the inclusion of these items in future plans. To facilitate these changes, EPA has provided detailed feedback in the checklist where information should be included or revised in next year's plan.

Please note that we cannot approve portions of the annual network plan for which the information in the plan is insufficient to judge whether the requirement has been met, or for which the information, as described, does not meet the requirements as specified in 40 CFR 58.10 and the associated appendices. Accordingly, we are not acting on the specific portions of your agency's annual network plan listed in Attachment B.

In addition to the checklist and list of specific plan elements where EPA Region 9 is not taking action, enclosed are additional detailed comments on the plan (Attachment C). All of the comments in Attachments A, B, and C should be addressed in next year's network plan.

EPA also received the comments provided on NDEP's plan by Mr. John Mosley, Environmental Director of the Pyramid Lake Paiute Tribe. EPA supports Mr. Mosley's suggestion that in NDEP's evaluation of their PM<sub>2.5</sub> network, it would be a good idea to examine concentrations from nearby monitoring that has recently been conducted. Although this suggestion does not require a change to NDEP's current network plan, we recommend addressing the recommendation as part of NDEP's next 5-year network assessment.

If you have any questions regarding this letter or the enclosed comments, please feel free to contact me at (415) 972-3851 or Elfego Felix at (415) 947-4141.

Sincerely,

/s/

Matthew Lakin, Manager  
Air Quality Analysis Office

Enclosures:

- A. Annual Air Monitoring Network Plan Checklist
- B. Elements where EPA is Not Taking Action
- C. Additional Detailed Comments

cc: Daren Winkelman, NDEP  
Mike Elges, NDEP

## Attachment A: Annual Air Monitoring Network Plan Checklist

Year: 2012

Agency: Nevada Division of Environmental Protection: Bureau of Air Quality Planning

40 CFR 58.10(a)(1) requires that each Annual Network Plan (ANP) include information regarding the following types of monitors: SLAMS monitoring stations including FRM, FEM, and ARM monitors that are part of SLAMS, NCore stations, STN stations, State speciation stations, SPM stations, and/or, in serious, severe and extreme ozone nonattainment areas, PAMS stations, and SPM monitoring stations.

40 CFR 58.10(a)(1) further directs that, "The plan shall include a statement of purposes for each monitor and evidence that siting and operation of each monitor meets the requirements of appendices A, C, D, and E of this part, where applicable." On this basis, review of the ANPs is based on the requirements listed in 58.10 along with those in Appendices A, C, D, and E.

Please note that this checklist summarizes many of the requirements of 40 CFR Part 58, but does not substitute for those requirements, nor do its contents provide a binding determination of compliance with those requirements. The checklist is subject to revision in the future and we welcome comments on its contents and structure.

### Key:

White = meets the requirement

Grey = Requirement not applicable for this year's plan

Yellow = does not meet or cannot judge the requirement – action requested in next year's plan or outside the ANP process

Green = meets the requirement but action requested to improve next year's plan

	ANP requirement	Citation within 40 CFR 58	Was the info submitted? <sup>1</sup> If yes, page #s. Flag if incorrect <sup>2</sup> ?	Does the information provided <sup>3</sup> meet the req? <sup>4</sup>	Notes
1.	Submit plan by July 1 <sup>st</sup>	58.10 (a)(1)	Yes	Yes.	Electronic plan submitted on July 2, please aim to submit by or prior to July 1.
2.	Statement of purpose for each monitor	58.10 (a)(1)	Yes, p.10-26	Yes	
3.	30-day public comment / inspection period	58.10 (a)(1), 58.10 (a)(2)	Yes, cover letter & p.30	Yes	
4.	Modifications to SLAMS network – case when we are not approving actual system modifications (i.e., we will do it outside the ANP process <sup>5</sup> )	58.10 (a)(2) 58.10(e)	Yes, p.5-6	Yes	-At this time, EPA is not acting on the approval of the Harvey's Stateline CO monitor closure because it is the last monitor in the maintenance area and under 40 CFR 58.14(c)(3), a SIP with a specific reproducible approach to monitoring must first be approved. -EPA approves the Carson City site relocation from 3300 East 5 <sup>th</sup> Street to 2601 S. Carson Street. A separate letter documenting this approval was emailed on 12/12/2012 and should be referenced in next year's plan.
5.	Modifications to SLAMS network – case when we are approving actual system modifications per 58.14(c)	58.10 (a)(2) 58.10 (b)(5) 58.10(e) 58.14 (c)	N/A	N/A- no such modifications were found in EPA's review.	
6.	Does plan include documentation (e.g., attached approval letter) for system modifications that have been approved since last ANP approval?		Yes, p.29	Yes	
7.	NCore plan submitted to Admin. by 7/1/2009	58.10 (a)(3)	N/A		
8.	NCore site operational by 1/1/2011	58.10 (a)(3)	N/A	N/A- NDEP does not operate an NCore site.	
9.	Pb plan for ≥1.0 tpy sources submitted by 7/1/2009	58.10 (a)(4)	N/A		

<sup>1</sup> Response options: N/A (Not Applicable), Yes, No, Incomplete, Incorrect. The responses "Incomplete" and "Incorrect" assume that some information has been provided.

<sup>2</sup> To the best of our knowledge.

<sup>3</sup> Assuming the information is correct

<sup>4</sup> Response options: N/A (Not Applicable) – [reason], Yes, No, Insufficient to Judge.

<sup>5</sup> See 58.14(c)

	<b>ANP requirement</b>	<b>Citation within 40 CFR 58</b>	<b>Was the info submitted?<sup>1</sup> If yes, page #s. Flag if incorrect<sup>2</sup>?</b>	<b>Does the information provided<sup>3</sup> meet the req?<sup>4</sup></b>	<b>Notes</b>
10.	Pb site for $\geq 1.0$ tpy sources operational by 1/1/2010	58.10 (a)(4)	N/A		
11.	Pb plan for 0.5-1.0 tpy submitted by 7/1/2011	58.10 (a)(4)	N/A		
12.	Pb site for 0.5-1.0 tpy sources operational by 12/27/2011	58.10 (a)(4)	N/A	N/A- no Pb monitoring requirement.	
13.	NO <sub>2</sub> plan for area-wide and RA40 sites submitted by 7/1/2012	58.10 (a)(5)	N/A	N/A- no requirement for NO <sub>2</sub> monitoring.	
14.	NO <sub>2</sub> area-wide and RA40 sites operational by 1/1/2013	58.10 (a)(5)	N/A		
15.	NO <sub>2</sub> plan for near-road sites submitted by 7/1/2012	58.10 (a)(5)	N/A	N/A- no requirement for NO <sub>2</sub> monitoring.	
16.	NO <sub>2</sub> near-road sites operational by ? (N/A until 2013 or 2014 plans)	58.10 (a)(5)	N/A		
17.	SO <sub>2</sub> plan for PWEI sites submitted by 2011	58.10 (a)(6)	N/A		
18.	SO <sub>2</sub> sites operational by 1/1/2013	58.10 (a)(6) and 58.13(d)	N/A		
19.	CO plan for 2015 near-road sites submitted by 7/1/2014	58.10 (a)(7) and 58.13(e)(1)	N/A		
20.	CO sites for first phase of CO monitors operational by 1/1/2015	58.10 (a)(7) and 58.13(e)(1)	N/A		
21.	CO plan for 2017 near-road sites by 7/1/2016	58.10 (a)(7) and 58.13(e)(2)	N/A		
22.	CO sites for first phase of CO monitors operational by 1/1/2017	58.10 (a)(7) and 58.13(e)(2)	N/A		
23.	AQS site identification number for each site	58.10 (b)(1)	Yes, p.10-26	Yes	
24.	Location of each site: street address and geographic coordinates	58.10 (b)(2)	Yes, p.10-26	Yes	Please include a street address for Harvey's Casino and Resort site on p.14.
25.	Sampling and analysis method(s) for each measured parameter	58.10 (b)(3)	Yes, p.10-26	Yes	The CO SLAMS monitor at Harvey's Casino listed on p.14 does not appear to report an accurate FRM or FEM instrument code. Upon follow-up

	ANP requirement	Citation within 40 CFR 58	Was the info submitted? <sup>1</sup> If yes, page #s. Flag if incorrect <sup>2</sup> ?	Does the information provided <sup>3</sup> meet the req? <sup>4</sup>	Notes
					clarification with the agency, EPA has verified that a typo was reported for the CO monitor and that it is indeed a designated FRM or FEM. Please ensure this typo is corrected in next year's plan.
26.	Operating schedule for each monitor (see items 62-66)	58.10 (b)(4)	Yes	Yes	(see items 62-66)
27.	Any proposals to remove or move a monitoring station within a period of 18 months following plan submittal	58.10 (b)(5)	Yes	Yes	
28.	Scale of representativeness for each monitor as defined in Appendix D	58.10(b)(6); App D	Yes, p.10-26	Yes	
29.	Identification of sites suitable and sites not suitable for comparison to the annual PM2.5 NAAQS as described in Part 58.30	58.10 (b)(7)	N/A	N/A- No PM <sub>2.5</sub> monitors identified.	
30.	MSA, CBSA, CSA or other area represented by the monitor	58.10 (b)(8)	Yes, 10-26	Yes	-For Elko and Fallon, please clarify that MSA stands for Micropolitan Statistical Area (p.10 & 12) -For Harvey's Casino and Resort, please modify "rural MSA" to read "Gardnerville Ranchos Micropolitan Statistical Area"(p.14) -Fernley should be Reno-Sparks-Fernley CSA and Fernley Micropolitan Statistical Area (p.16) -For the Carson City site, please clarify the MSA stands for Metropolitan Statistical Area (p.18) -For Pahrump sites, please clarify that Pahrump is a Micropolitan Statistical Area and that Las Vegas-Paradise-Pahrump is a CSA (p.20-26)
31.	Designation of any Pb monitors as either source-oriented or non-source-oriented	58.10 (b)(9)	N/A	N/A- no current requirement	
32.	Any source-oriented Pb site for which a waiver has been granted by EPA RA	58.10 (b)(10)	N/A	N/A- no current requirement	
33.	Any Pb monitor for which a waiver has been requested or granted by EPA RA for us of Pb-PM10 in lieu of Pb-TSP	58.10 (b)(11)	N/A	N/A- no current requirement	
34.	Identification of required NO2 monitors as either near-road or area-wide	58.10 (b)(12)	N/A		
35.	Document how states and local agencies provide for	58.10 (c)	N/A	N/A- No PM <sub>2.5</sub>	

	<b>ANP requirement</b>	<b>Citation within 40 CFR 58</b>	<b>Was the info submitted?<sup>1</sup> If yes, page #s. Flag if incorrect<sup>2</sup>?</b>	<b>Does the information provided<sup>3</sup> meet the req?<sup>4</sup></b>	<b>Notes</b>
	the review of changes to a PM2.5 monitoring network that impact the location of a violating PM2.5 monitor. <sup>6</sup>			monitors identified.	
36.	Plan to modify the network that complies with findings of the 5-year network assessment. [Note: recommended to be submitted on year of network assessment or year after.]	58.10 (e) 58.14 (a)	N/A- Only applies to year of or after 5-year network assessment		
37.	Precision/Accuracy reports submitted to AQS	58.16(a); App A, 1.3 and 5.1.1	Yes, p.3	Yes	NDEP states that they intend to submit this information for the 2011 data year by May 1, 2012.
38.	Annual data certification submitted	58.15 App. A 1.3	Yes, p.3	Yes	
39.	Frequency of flow rate verification for manual PM samplers audit	App A 3.3.2	N/A	N/A- No PM <sub>2.5</sub> monitors identified.	All PM10 monitoring done with continuous instruments.
40.	Frequency of flow rate verification for automated PM analyzers audit	App A 3.2.3	Yes, p.10, 20, 22, 24, 26	Yes	
41.	Frequency of one-point flow rate verification for Pb samplers audit	App A 3.3.4.1	N/A		
42.	Frequency of one-point QC check (gaseous)	App. A 3.2.1	Yes, p.12, 14, 16, 18.	Yes	EPA found all gaseous sites are listed as having semi-monthly one-point QC checks. Checks are required at least once every two weeks unless agencies have been approved for an alternative schedule. Upon further follow-up with NDEP, the agency has clarified that these checks do occur at least once every two weeks.  Please adjust next's year's plan to report the accurate schedule.
43.	Date of last Annual Performance Evaluation (gaseous)	App. A 3.2.2	Yes, p.12, 14, 16, 18	Yes	
44.	Dates of last two semi-annual flow rate audits for PM monitors	App A, 3.2.4 and 3.3.3	Yes, p.10, 20, 22, 24, 26	Yes	
45.	Dates of last two semi-annual flow rate audits for Pb	App A	N/A	N/A- no current	

<sup>6</sup> The affected state or local agency must document the process for obtaining public comment and include any comments received through the public notification process within their submitted plan.

	ANP requirement	Citation within 40 CFR 58	Was the info submitted? <sup>1</sup> If yes, page #s. Flag if incorrect <sup>2</sup> ?	Does the information provided <sup>3</sup> meet the req? <sup>4</sup>	Notes
	monitors	3.3.4.1		requirement	
46.	PM2.5 co-location	App A 3.2.5	N/A	N/A- No PM <sub>2.5</sub> monitors identified.	
47.	Distance between co-located monitors	App. A 3.2.5.6	N/A	N/A- No collocated monitors identified.	
48.	Manual PM10 method co-location met? (note: continuous PM10 does not have this requirement)	App A 3.3.1	N/A	N/A- no current requirement	NDEP currently operates all continuous instruments
49.	Pb co-location	App A 3.3.4.3	N/A	N/A- no current requirement	
50.	PM10-2.5 co-location (note: only applies to Fresno and Phoenix NCore sites)	App A 3.3.6	N/A	N/A- no current requirement	
51.	Required # of PM2.5 PEP audits	App A 3.2.7	N/A	Yes - EPA requirement <sup>7</sup>	
52.	Required # of Pb PEP audits	App A 3.3.4.4	N/A	Yes - EPA requirement <sup>8</sup>	
53.	Required # of NPAP audits (or approved equivalent)	App A 2.4		Yes - EPA requirement <sup>9</sup>	
54.	Instrument/monitoring method code for each monitor: is it reported properly? Is it reported correctly (i.e., appropriate method code for regulatory monitors)?	App C 2.4.1.2	Yes, p.10-26	Yes	Method codes lists for FEM & FRM instruments are published on EPA AMTIC website available at: <a href="http://www.epa.gov/ttnamti1/files/ambient/criteria/reference-equivalent-methods-list.pdf">http://www.epa.gov/ttnamti1/files/ambient/criteria/reference-equivalent-methods-list.pdf</a>
55.	Placeholder for: Optional request to have PM2.5 continuous instruments treated as non-FEMs and therefore not comparable to NAAQS?	Proposed rule and memo			
56.	Start date for each monitor	Required to determine if other req. (e.g., min # and co-lo) are met	Yes, p.10-22	Yes	
57.	Instrument monitor type for each monitor	Required to	Yes, p.4	Yes	

<sup>7</sup> EPA has reviewed EPA documentation to confirm that these requirements have been met for the area in question.

<sup>8</sup> EPA has reviewed EPA documentation to confirm that these requirements have been met for the area in question.

<sup>9</sup> EPA has reviewed EPA documentation to confirm that these requirements have been met for the area in question.

	ANP requirement	Citation within 40 CFR 58	Was the info submitted? <sup>1</sup> If yes, page #s. Flag if incorrect <sup>2</sup> ?	Does the information provided <sup>3</sup> meet the req? <sup>4</sup>	Notes
		determine if other req. (e.g., min # and co-lo) are met			
58.	Monitoring objective for each instrument	App D 1.1 58.10 (b)(6)	Incorrect, p.10-26	Insufficient to judge.	The current "Monitor Objective" rows should be changed to "Site Type." Monitor Objective refers to one or more of three basic monitoring objectives: (1) provide air pollution data to the general public in a timely manner, (2) support compliance with ambient air quality standards and emissions strategy development, and (3) support air pollution research studies. See attachment D of the 2012 Annual Monitoring Network Plan memo sent by EPA R9 for further guidance. Please add correct monitor objective for each monitor in next year's plan.
59.	Site type for each instrument	App D 1.1.1	Yes, p.10-26	Yes	-Information was submitted as "Monitor Objective." Please change row name to "Site Type." -Church site on p.20 should be changed to "Source Oriented" site type if the purpose of the monitor is targeted to capture the dry lake bed source described in the plan. -See related check#58 above.
60.	Instrument parameter code for each instrument	Required to determine if other req. (e.g., min # and co-lo) are met	Yes, p.10-26	Yes	Recommend modifying "Pollutant" row name to read "Pollutant/Parameter Code" in order to clarify that the Parameter code is also being reported.
61.	Instrument parameter occurrence code for each instrument	Required to determine if other req. (e.g., min # and co-lo) are met	N/A	N/A- NDEP operates one parameter at each site.	EPA recommends the reporting of Parameter Occurrence Code (POC) as separate line in the detailed site information tables. This will be especially useful for any collocations that may be established in the future.

	ANP requirement	Citation within 40 CFR 58	Was the info submitted? <sup>1</sup> If yes, page #s. Flag if incorrect <sup>2</sup> ?	Does the information provided <sup>3</sup> meet the req? <sup>4</sup>	Notes
					See Attachment C of the 2012 Annual Monitoring Network Plan memo sent by EPA R9 for suggested format to report POC.
62.	Sampling season for ozone (note: date of waiver approval must be included if the sampling season deviates from requirement)	App D, 4.1(i)	Yes, p.12, 16, 18, 28	Yes	"Operation Schedule" row should be adjusted to "continuous" for current ozone monitors. "Sampling Season" row should be adjusted to "April 1 – October 31" for current ozone monitors at Carson City, Fernley, and Fallon.
63.	Sampling schedule for PM2.5 - applies to year-round and seasonal sampling schedules (note: date of waiver approval must be included if the sampling season deviates from requirement)	58.12(d) App D 4.7	N/A	N/A- No PM <sub>2.5</sub> monitors identified.	
64.	Sampling schedule for PM10	58.12(e) App D 4.6	Yes, p.10, 20, 22, 24, 26	Yes	
65.	Sampling schedule for Pb	58.12(b) App D 4.5	N/A	N/A- no current requirement	
66.	Sampling schedule for PM10-2.5	58.12(f) App D 4.8	N/A	N/A- no current requirement	
67.	Minimum # of monitors for O3 [Note: should be supported by MSA ID, MSA population, DV, # monitors, and # required monitors]	App D, 4.1(a) and Table D-2	Yes, p.5	Yes	
68.	Identification of max. conc. O3 monitor(s)	App D 4.1 (b)	Yes, p.5	Yes	Ozone design values are reported for each of the sites in NDEP's network, however a site capturing maximum ozone concentration for the Carson City MSA is not currently specified. Please label the site with the highest design value as the maximum concentration in next year's plan. For this year's plan for example, that site would be the Carson City 5 <sup>th</sup> Street site.
69.	Minimum monitoring requirements met for near-road NO2	App D 4.3.2	N/A		
70.	Minimum monitoring requirements met for area-wide NO2	App D 4.3.3	N/A		
71.	Minimum monitoring requirements met for RA-40 NO2	App D 4.3.4	N/A		
72.	Minimum monitoring requirements met for SO2	App D 4.4	N/A	N/A- no current	

	ANP requirement	Citation within 40 CFR 58	Was the info submitted? <sup>1</sup> If yes, page #s. Flag if incorrect <sup>2</sup> ?	Does the information provided <sup>3</sup> meet the req? <sup>4</sup>	Notes
				requirement	
73.	Minimum monitoring requirements met for CO	App D 4.2	N/A		
74.	Minimum monitoring requirements met for Pb	App D 4.5 58.13(a)	N/A	N/A- no current requirement	
75.	Minimum # of monitors for PM2.5 [Note: should be supported by MSA ID, MSA population, DV, # monitors, and # required monitors]	App D, 4.7.1(a) and Table D-5	No	Insufficient to judge	-PM2.5 minimum monitoring requirements are not specified. The Carson City Metropolitan Statistical Area is above the 50,000 population threshold and may require a SLAMS site. Please specify PM2.5 minimum monitoring requirements and include supporting information in next year's plan. -Please also include detailed site information for any SPM PM2.5 monitoring.
76.	Required PM2.5 sites represent community-wide air quality at neighborhood or urban scale	App D 4.7.1(b)	N/A	N/A- No PM <sub>2.5</sub> monitors identified.	
77.	For PM2.5, is at least one site in a population-oriented area of expected maximum concentration	App D 4.7.1(b)(1)	N/A	N/A- No PM <sub>2.5</sub> monitors identified.	
78.	If >1 SLAMS PM2.5 required, is there a site in an area of poor air quality	App D 4.7.1(b)(2)	N/A	N/A- No PM <sub>2.5</sub> monitors identified.	
79.	Minimum monitoring requirements for continuous PM2.5	App D 4.7.2	N/A	N/A- No PM <sub>2.5</sub> monitors identified.	
80.	Requirements for PM2.5 background and transport sites	App D 4.7.3	No	Insufficient to judge	-This requirement may be met by sites operated by other agencies in Nevada or outside of the state if comparable. Please clarify how this requirement is being met in next year's plan.
81.	Are PM2.5 Chemical Speciation requirements met for official STN sites?	App D 4.7.4	N/A	N/A- no current requirement	
82.	Spatial Averaging for comparison to Annual NAAQS: are intended CMZs defined and met criteria in 40 CFR 50 App N?	App D 4.7.5	N/A		
83.	Minimum # of monitors for PM10	App D, 4.6 (a) and Table D-4	Yes, p.5	Yes	
84.	Minimum monitoring requirements met for PM10-2.5 mass	App D 4.8	N/A	N/A- no current requirement	
85.	Distance of site from nearest road	App E 6	Yes, p.10-26	Yes	
86.	Traffic count of nearest road	App E	Yes, p.10-26	Yes	

	ANP requirement	Citation within 40 CFR 58	Was the info submitted? <sup>1</sup> If yes, page #s. Flag if incorrect <sup>2</sup> ?	Does the information provided <sup>3</sup> meet the req? <sup>4</sup>	Notes
87.	Groundcover	App E 3(a)	Yes, p.10-26	Yes	
88.	Probe height	App E 2	Yes, p.10-26	Yes	
89.	Distance from supporting structure	App E 2	Yes, p.10-26	Yes	
90.	Distance from obstructions on roof	App E 4(b)	Yes, p.10-26	Yes	For future obstructions that may exist, please include distance and height of obstruction.
91.	Distance from obstructions not on roof	App E 4(a)	No	Insufficient to judge	Please include in next year's network plan information on any potential obstructions not on roof. Please ensure that distance and height for any potential obstruction is specified.
92.	Distance from trees	App E 5	Yes, p.10-26	No for CO monitor at Harvey's.  Yes- all others	90% of the monitoring path must be at least 10 meters or further from the drip line of trees. The trees at Harvey's are only 4 meters away.  Per 40 CFR 58, App.E 5(c) please clarify whether any trees or shrubs are located between the probe and the roadway.
93.	Distance to furnace or incinerator flue	App E 3(b)	Yes, p.10-26	Yes	
94.	Unrestricted airflow	App E, 4(a) and 4(b)	Yes, p.10-26	Yes	
95.	Probe material (if applicable)	App E 9	Yes, p.10-26	Yes	
96.	Residence time (if applicable)	App E 9	Yes, p.10-26	Yes	

### Public Comments on Annual Network Plan

Were comments submitted to the S/L/T agency during the public comment period?

**Yes. John Mosley, Environmental Director, Pyramid Lake Paiute Tribe**

Were any of the comments substantive?

**No, with respect to the annual network plan, however EPA believes Pyramid Lake raises a good suggestion to NDEP with their #3 listed comment. In NDEP's evaluation of their PM2.5 monitoring network, as part of the next 5-year network assessment, it would be a good idea to examine concentrations from nearby monitoring.**

**Attachment B: Annual Air Monitoring Network Plan Items where EPA is Not Taking Action**

We are not acting on the portions of annual network plans where either EPA Region 9 lacks the authority to approve specific items of the plan, or EPA has determined that a requirement is either not met or information in the plan is insufficient to judge whether the requirement has been met.

- System modifications (e.g., site closures or moves) are subject to approval per 40 CFR 58.14(c). Information provided in the plan was insufficient for EPA to approve the following system modification listed in the plan per the applicable requirement: discontinuation of the Stateline CO monitor (page 5-6). Therefore, we are not taking action on this item as part of this year’s annual network plan.
- EPA identified items in you agency’s annual network plan where a requirement was not being met or information in the plan was insufficient to judge whether the requirement was being met based on 40 CFR 58.10 and the associated appendices. Therefore, we are not acting on of the following items:

Item	Checklist Row (Attachment A)	Issue
Minimum # of monitors for PM2.5	75	Insufficient information to judge
Requirements for PM2.5 background and transport sites	80	Insufficient information to judge
Monitoring objective for each instrument	58	Insufficient information to judge
Distance from obstructions not on roof	91	Insufficient information to judge
Distance from trees	92	Not meeting requirement in one instance

Additional information for each of these items is included in Attachment A.

## Attachment C: Additional Detailed Comments

- [Item 24] A numbered street address was not specified for the Harvey's monitor. EPA suggests providing the address of the building the monitor resides on top of.
- [Item 25] Please correct the typo for the sampling and analysis method reported for the CO monitor at Harvey's (p.14) in order to clarify that the instrument is of FRM or FEM designation.
- [Item 30] Please clarify when MSA stands for Micropolitan Statistical Area versus Metropolitan Statistical Area. Please also include relevant CSA when appropriate.
- [Item 42] Please adjust next year's one-point gaseous instrument QC checks to reflect the accurate schedule that should be listed as at least once every two weeks. Currently, the schedule is reported as semi-monthly.
- [Item 59] Although information describing site type is provided in the plan, this is mislabeled as "Monitor Objective." Please re-label these rows in next year's plan to read Site Type. For further guidance on the monitoring objective versus site type, please refer to Attachment D of the Annual Network Plan Memo sent by EPA Region 9 in May 2012.
- [Item 60] In order to clarify that both the pollutant and parameter code are reported in the detailed site tables (p.10-26), EPA recommends that the rows labeled "Pollutant" get re-labeled to read "Pollutant/Parameter code." A separate row to report only the parameter code may also be an option.
- [Item 61] It is suggested that the parameter occurrence code for each instrument at each monitoring site is specified in next year's plan.
- [Item 62] The rows labeled as "Operation Schedule" for the ozone monitoring sites should be adjusted from "seasonal" to read "continuous." The rows labeled "Sampling Season" should specify the days of the sampling season (i.e. April 1<sup>st</sup> – October 31<sup>st</sup>).
- [Item 68] NDEP's plan reports ozone design values for each of their SLAMS ozone sites in operation (see page 5). Based on the design values reported, the Carson City 5<sup>th</sup> Street site should be labeled as the maximum concentration site in the network. Please ensure future plans specify the maximum concentration site for ozone. This maximum/highest concentration designation should be reported as the Site Type.
- [Items 90 & 91] For future plans, as necessary, report any obstructions (on and off the roof) by providing a distance from the probe/inlet, as well as height of the obstruction.
- [General] EPA recommends that NDEP report detailed information for meteorology tower parameters operated by the agency and incorporate the details into the site tables found on pages 10-26. Examples of helpful detailed site information to provide include:

instrument manufacturer and model, start date, siting, and QA/QC information, as applicable.

## **APPENDIX C**

### **Interstate Transport Analysis for the 2010 Sulfur Dioxide Primary National Ambient Air Quality Standard**

**PUBLIC COMMENT DRAFT**

**APRIL 19, 2013**

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DRAFT

## APPENDIX C

### Interstate Transport Analysis for the 2010 Sulfur Dioxide Primary National Ambient Air Quality Standard

#### C.1 INTRODUCTION

Section 110(a)(2)(D)(i)(I) of the Clean Air Act (CAA) requires each state to prohibit emissions that contribute significantly to nonattainment in, or interfere with maintenance by, any other state with respect to any primary or secondary national ambient air quality standard (NAAQS). The Nevada Division of Environmental Protection (NDEP) evaluated the impact of transport of sulfur dioxide (SO<sub>2</sub>) emissions from Nevada sources to sensitive receptor areas in nearby states, other western states and eastern states. The NDEP used the U.S. Environmental Protection Agency (USEPA) map of preliminary nonattainment areas for the 2012 SO<sub>2</sub> NAAQS (<http://www.epa.gov/airquality/sulfurdioxide/designations/prelimmap.html>) and the US EPA 2011 Design Value Report for Sulfur Dioxide (<http://www.epa.gov/airtrends/values.html>) to identify receptor areas, i.e., air quality planning areas that are nonattainment or maintenance for the 2010 or previous SO<sub>2</sub> NAAQS or areas that have monitored values approaching the NAAQS.

In evaluating the possible impact of SO<sub>2</sub> transport from Nevada sources, the NDEP reviewed other states' state implementation plan (SIP) submittals, 2010 SO<sub>2</sub> NAAQS designation requests and responses and associated technical support documents, wind rose plots, 2008 National Emissions Inventory (NEI) data, and Clean Air Status and Trends Network (CASTNET, <http://epa.gov/castnet/javaweb/index.html>) monitoring data. CASTNET sites are located in areas where urban influences are minimal; they are considered representative of regional background SO<sub>2</sub> levels. The NDEP reviewed five years (2007-2012) of CASTNET data collected at six national parks and one national monument: Nevada (Great Basin National Park), Utah (Canyonlands National Park), Montana (Glacier National Park), Colorado (Mesa Verde National Park), and Arizona (Grand Canyon National Park, Petrified Forest National Park, Chiricahua National Monument) (<http://java.epa.gov/castnet/clearsession.do>). The SO<sub>2</sub> data for each of the seven CASTNET monitoring sites examined show low background SO<sub>2</sub> levels throughout the year. Both average weekly and seasonal SO<sub>2</sub> concentrations from the CASTNET sites were low, below 2 ppb, indicating that the regional SO<sub>2</sub> background concentrations are relatively low, which in turn implies that the bulk of the SO<sub>2</sub> in the urban receptor areas is locally generated and not a regional or transport phenomenon.

#### C.2 TRANSPORT TO NONATTAINMENT RECEPTORS IN NEARBY STATES

The NDEP identified nonattainment receptors in two adjacent states: Arizona and Utah.

##### C.2.1 Arizona

The nearest nonattainment receptors to Nevada are the Hayden and Miami SO<sub>2</sub> planning areas located in portions of Gila and Pinal Counties, Arizona. USEPA indicated in its February 6, 2013 120-day letter to the Governor of Arizona that it intends to designate Hayden and Miami

nonattainment for the 2010 SO<sub>2</sub> standard, in accordance with the Governor's recommendation. In the 2002 *Hayden SO<sub>2</sub> Nonattainment Area State Implementation and Maintenance Plan* Arizona states, "Emissions inventories from all sources in the Hayden nonattainment area indicate that although there are other sources of SO<sub>2</sub> emissions, the ASARCO smelter is the primary source for SO<sub>2</sub> emissions and comprises more than 99 percent of total SO<sub>2</sub> emissions in the area." (<http://www.azdeq.gov/environ/air/plan/download/haydensip.pdf>, p.27). Similarly, the 2002 *Miami SO<sub>2</sub> Nonattainment Area State Implementation and Maintenance Plan* notes, "Emissions inventories from all sources in the Miami nonattainment area indicate that although there are other sources of SO<sub>2</sub> emissions, the Miami smelter is the primary source for SO<sub>2</sub> emissions and comprises more than 99 percent of total SO<sub>2</sub> emissions in the area." (<http://www.azdeq.gov/environ/air/plan/download/miamisip.pdf>, p.25). The emissions inventories for Hayden and Miami support the position that the elevated SO<sub>2</sub> levels in Hayden and Miami are predominantly caused by local emission sources and not transport.

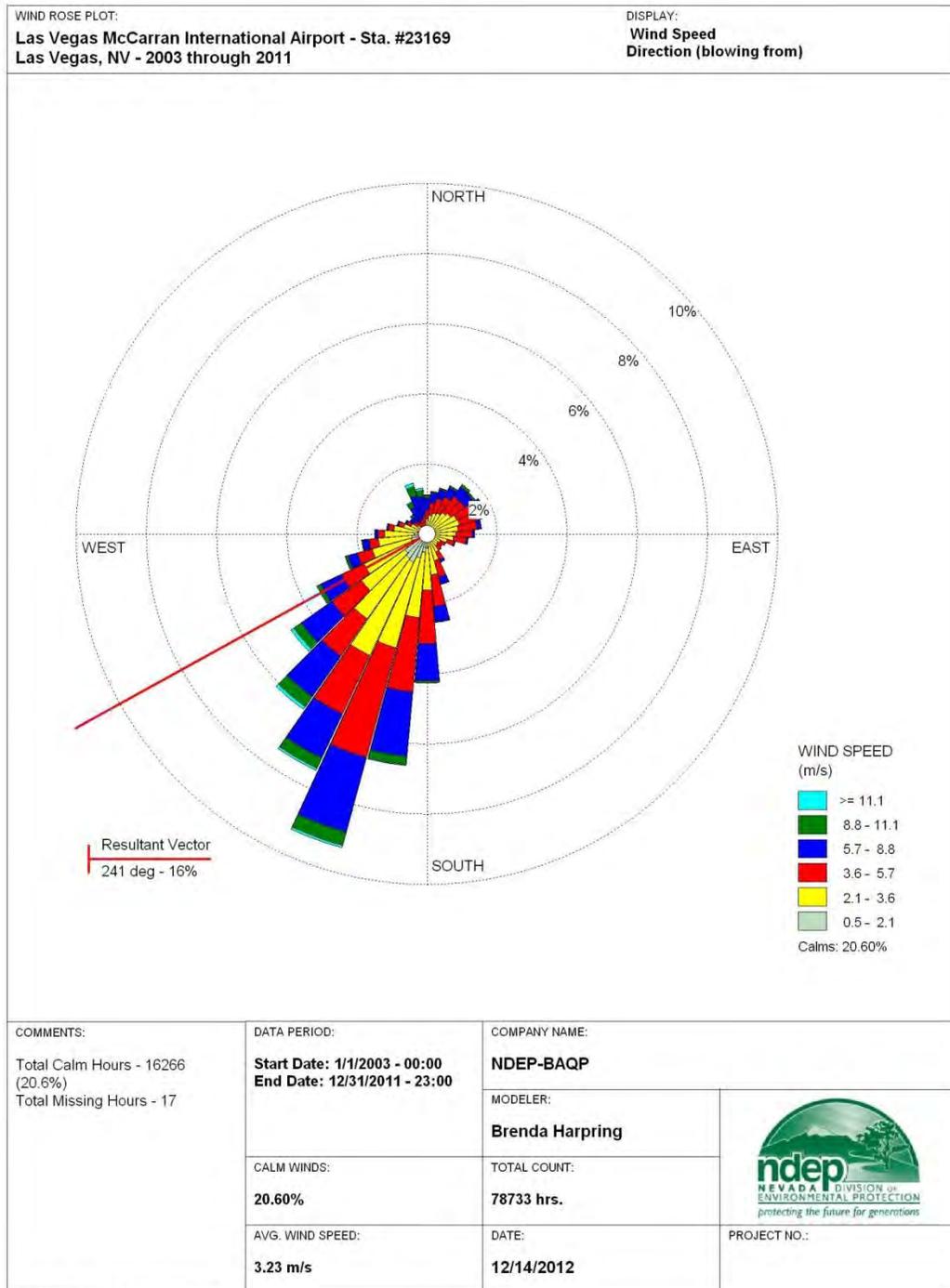
The Hayden SO<sub>2</sub> planning area is situated in part of Gila and Pinal Counties, while the Miami SO<sub>2</sub> planning area is located within Gila County. These air quality planning areas are less than 50 kilometers apart. USEPA's 2008 National Emission Inventory shows emissions from the Gila and Pinal Counties total 29,470 tons (<http://www.epa.gov/air/emissions/index.htm>). The closest SO<sub>2</sub> source in Nevada to the Hayden/Miami area is the Reid Gardner Generating Station (RGGS) in Las Vegas. RGGS is approximately 330 miles from Hayden and 305 miles away from Miami and emitted 940.69 tons of SO<sub>2</sub> in 2008 or about three percent of the emissions from the receptor areas.

Meteorological data at the McCarran International Airport in Las Vegas for 2003 through 2011 indicate that the prevailing winds in Las Vegas are from the south-southwest (Figure C.1). We can assume that winds leaving the Las Vegas area would blow mainly north-northeast, and not toward the Hayden/Miami area, which lies southeast of Las Vegas. Wind data from the Phoenix Sky Harbor International Airport for 2003 through 2011 show that the prevailing winds in Phoenix come mainly from the east and to a lesser degree from the west (Figure C.2). Thus, it is reasonable to conclude that locations southeast of the Phoenix area such as Hayden and Miami are not significantly influenced by winds from Nevada.

With respect to Arizona, the NDEP finds that emissions from Nevada do not significantly contribute to nonattainment of the 2010 SO<sub>2</sub> NAAQS, based on the following evidence: (1) technical information indicating that elevated SO<sub>2</sub> levels in Hayden/Miami were predominantly cause by local emission sources, (2) insignificant SO<sub>2</sub> emissions from RGGS compared to local sources, (3) CASTNET data indicating that regional background levels of SO<sub>2</sub> are generally low, and (4) meteorological data showing that the prevailing winds do not blow from Nevada toward the Hayden and Miami receptors.

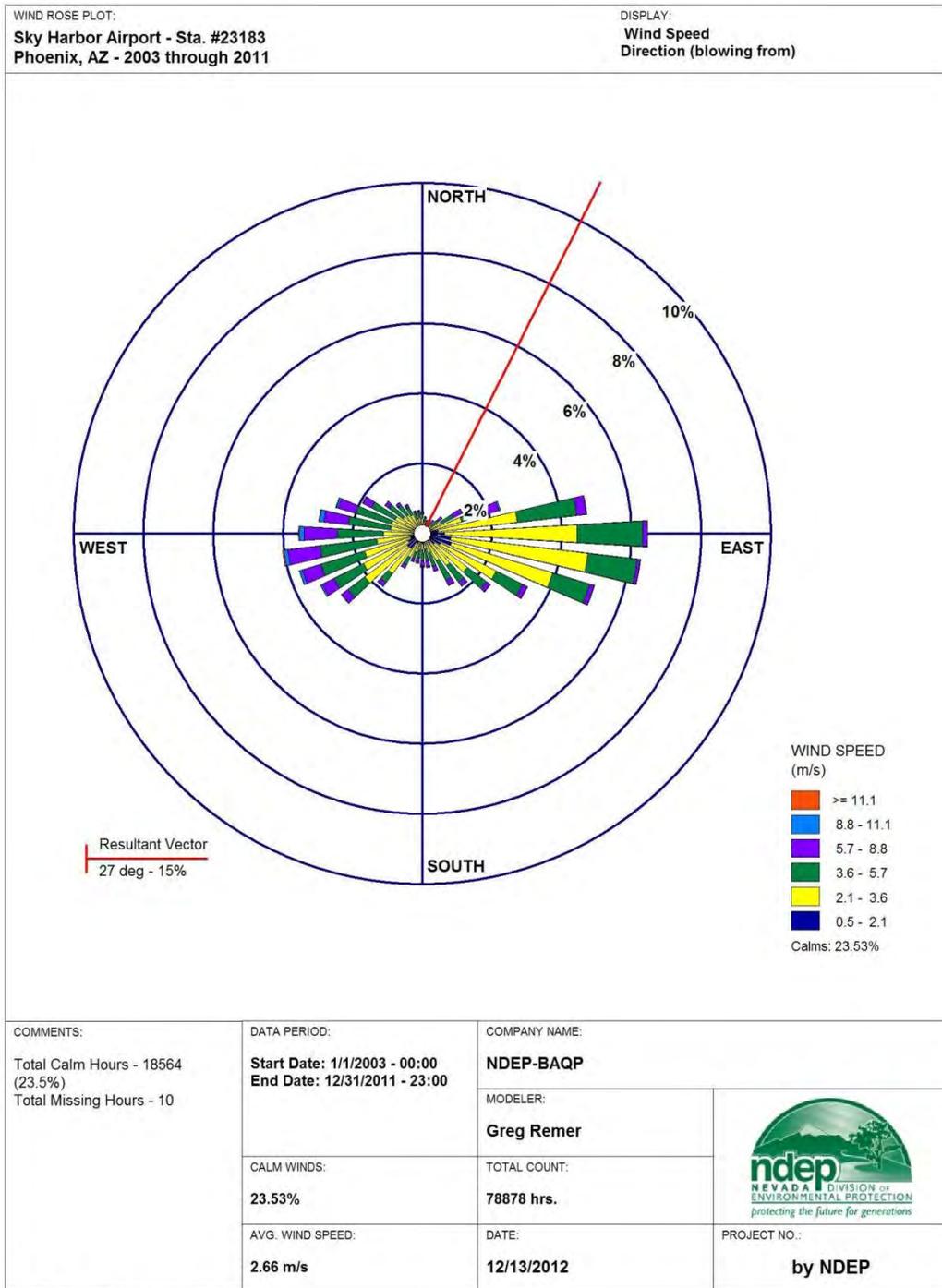
**FIGURE C.1**

LAS VEGAS, NEVADA WIND ROSE PLOT, 2003-2011



WRPLOT View - Lakes Environmental Software

**FIGURE C.2**  
**PHOENIX, ARIZONA WIND ROSE PLOT, 2003-2011**



WRPLOT View - Lakes Environmental Software

### **C.2.1 Utah**

Although Salt Lake County and Tooele County, Utah are still designated nonattainment for the 24-hour and annual 1971 SO<sub>2</sub> standard, there have been no recorded violations of the SO<sub>2</sub> NAAQS since 1981 (<http://www.airquality.utah.gov/Planning/SIP/SIPPDF/Secixb6.pdf>). Utah's October 25, 2011 letter to USEPA with area designation recommendations for the 2010 SO<sub>2</sub> NAAQS confirms Utah's long history of clean data: "Because Salt Lake County remains a nonattainment area for the initial 1971 SO<sub>2</sub> NAAQS, Utah has a long-standing and robust SO<sub>2</sub> monitoring network in Salt Lake County, extending into neighboring Davis County. For the past 29 years, at none of those monitoring stations has the ambient SO<sub>2</sub> concentration ever violated either the initial or revised standard." ([http://www.epa.gov/so2designations/recletters/R8\\_UT\\_rev\\_rec.pdf](http://www.epa.gov/so2designations/recletters/R8_UT_rev_rec.pdf)). EPA's 120-day letter to Utah regarding responding to the Governor's letter confirms continued clean data throughout Utah through 2011 ([http://www.epa.gov/so2designations/eparesp/08\\_UT\\_resp.pdf](http://www.epa.gov/so2designations/eparesp/08_UT_resp.pdf)). The NDEP concludes that no areas in Utah are in danger of exceeding the 2010 SO<sub>2</sub> NAAQS.

The NDEP concludes that emissions from Nevada do not significantly contribute to nonattainment of the 2010 SO<sub>2</sub> NAAQS in Utah, based on the following evidence: (1) monitoring data indicating that elevated SO<sub>2</sub> levels in the Salt Lake-Tooele Counties nonattainment area ceased decades ago, and (2) CASTNET data demonstrating that regional background levels of SO<sub>2</sub> are even lower than the low SO<sub>2</sub> levels at identified receptors.

## **C.3 TRANSPORT TO NONATTAINMENT RECEPTORS IN WESTERN STATES**

The NDEP identified two nonattainment receptors in one distant western state: Montana.

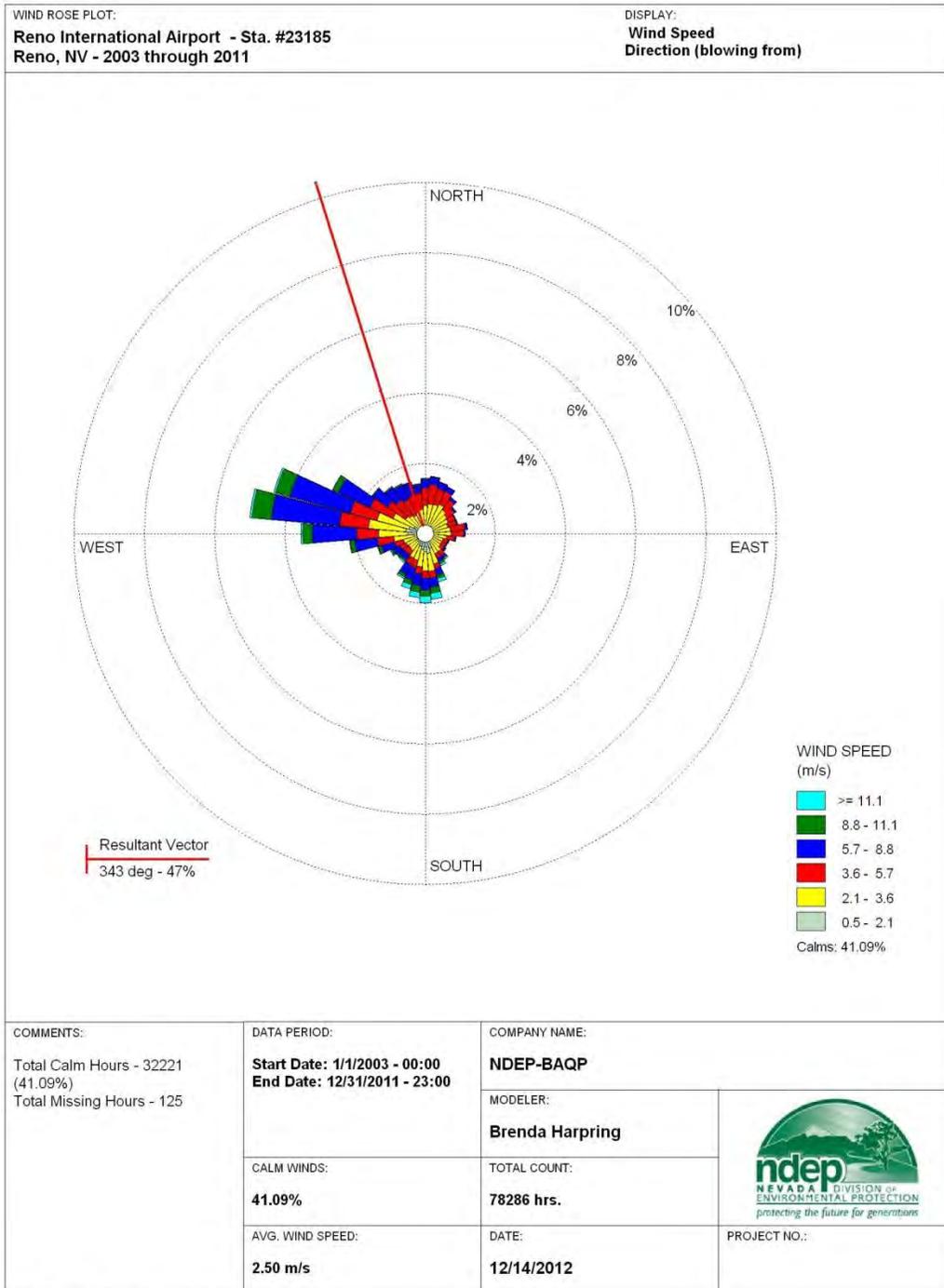
### **C.3.1 Billings and Laurel Area, Montana**

In its February 6, 2013 120-day letter, the USEPA notified the Governor of Montana of its intent to designate Yellowstone County nonattainment for the 2010 SO<sub>2</sub> NAAQS. Within Yellowstone County, all of the facilities that emit SO<sub>2</sub> are located in the Billings and Laurel areas. Billings and Laurel are 15 miles apart. There are seven industrial point sources that are significant emitters of SO<sub>2</sub> in the Billings/Laurel area: three petroleum refineries; a sugar beet processing plant; a coal-fired electrical generating station; a sulfur recovery plant; and a petroleum coke-fired electrical/steam co-generation facility. Total emissions from these seven sources averaged about 8000 tpy during 2008, 2009 and 2010. ([http://www.epa.gov/airquality/sulfurdioxide/designations/recletters/R8\\_MT\\_rec.pdf](http://www.epa.gov/airquality/sulfurdioxide/designations/recletters/R8_MT_rec.pdf))

The closest SO<sub>2</sub> source in Nevada to the Billings/Laurel receptor area is the North Valmy Generating Station, which is jointly owned by NV Energy and Idaho Power. Valmy is over 540 miles from the receptor area. In 2008, Valmy emitted 8130 tons of SO<sub>2</sub>. The NDEP reviewed meteorological data for Reno International Airport from 2003 through 2011 to indicate the prevailing wind direction for potential transport to the Montana nonattainment receptors (Figure C.3). The data indicate that the prevailing winds at Reno are mainly from the west-northwest. We can assume winds leaving the Reno area would blow east or southeast, not toward the Montana SO<sub>2</sub> nonattainment receptors which lie northeast of Reno and Valmy.

**FIGURE C.3**

RENO, NEVADA WIND ROSE PLOT, 2003-2011



WRPLOT View - Lakes Environmental Software

Nevada relies on the following evidence to support a finding that emissions from Nevada do not significantly contribute to nonattainment of the 2010 SO<sub>2</sub> NAAQS at the Billings/Laurel receptor area: (1) the overwhelming contribution of seven significant local emission sources to high SO<sub>2</sub> levels in the Billings/Laurel area, (2) CASTNET data indicating that regional background levels of SO<sub>2</sub> are generally low during the time periods of elevated SO<sub>2</sub> at the receptors, (3) the significant distance from the state of Nevada to the nonattainment receptors in Montana, and (4) the prevailing winds at Nevada emission sources not blowing toward the receptor area.

### **C.3.2 East Helena, Montana**

In 1978, East Helena (in Lewis and Clark County), Montana was designated nonattainment for the 1971 SO<sub>2</sub> standard. In 1995, USEPA approved Montana's SO<sub>2</sub> attainment demonstration SIP for East Helena. The SIP was developed in consultation with the ASARCO primary lead smelter, the only significant source of SO<sub>2</sub> emissions in the East Helena nonattainment area (60 FR 5313, January 27, 1995). The ASARCO smelter shut down in 2001. According to the 2008 NEI, Lewis and Clark County emitted only 28 tons of SO<sub>2</sub> from all source sectors combined in 2008 (<http://www.epa.gov/air/emissions/index.htm>). USEPA has not proposed to designate East Helena nonattainment for the 2010 SO<sub>2</sub> standard.

Nevada's closest significant source to the receptor area is the North Valmy Generation Station, which is approximately 480 miles away. Valmy emitted 8130 tons of SO<sub>2</sub> in 2008. The NDEP reviewed meteorological data for Reno International Airport from 2003 through 2011 as a general indication of the prevailing wind direction for potential transport to the East Helena receptor (Figure C.3). The data indicate that the prevailing winds at Reno are mainly from the west-northwest. We can assume winds leaving the Reno area would blow east or southeast, not toward East Helena, which is northeast of Reno and Valmy.

Nevada relies on the following evidence to support a finding that emissions from Nevada do not significantly contribute to nonattainment or maintenance of the SO<sub>2</sub> NAAQS in East Helena: (1) information indicating that SO<sub>2</sub> levels were predominantly caused by a local emission source that has since been shut down, (2) CASTNET data indicating that regional background levels of SO<sub>2</sub> are even lower than concentrations currently monitored in Helena, Montana, (3) the significant distance from the state of Nevada to the nonattainment receptor in Montana, and (4) the prevailing winds at Nevada emission sources not blowing toward the receptor area.

## **C.4 TRANSPORT TO MAINTENANCE RECEPTORS IN NEARBY STATES**

The NDEP identified maintenance receptors in one adjacent state: Arizona.

### **C.4.1 Arizona**

There are four maintenance areas for the 1971 SO<sub>2</sub> NAAQS in Arizona: the Ajo, Douglas, Morenci, and San Manuel SO<sub>2</sub> planning areas. In 2001-2002, Arizona submitted redesignation requests and maintenance plans for all four areas. The emission inventories in those plans show that nearly all of the SO<sub>2</sub> emissions in those areas came from the various copper smelters located these maintenance areas (<http://www.azdeq.gov/environ/air/plan/>). Only one smelter remains operational and is located in the San Manuel SO<sub>2</sub> planning area. There have been no recorded

monitoring violations of the SO<sub>2</sub> NAAQS in any of these areas since the mid-1980s. Furthermore, USEPA has not proposed to designate San Manuel nonattainment for the 2010 SO<sub>2</sub> standard.

The RGGS in Las Vegas is the closest SO<sub>2</sub> source in Nevada to the receptor areas. RGGS is approximately 300 miles from Arizona's nearest maintenance receptor. Meteorological data at the McCarran International Airport in Las Vegas for 2003 through 2011 indicate that the prevailing winds in Las Vegas are from the south-southwest (Figure C.1). We can assume that winds leaving the Las Vegas area would blow mainly north-northeast, and not toward the maintenance areas, which lie south-southeast of Las Vegas. Meteorological data from the Phoenix Sky Harbor International Airport for 2003 through 2011 show that the prevailing winds in Phoenix come mainly from the east and to a lesser degree from the west (Figure C.2). Thus, it is reasonable to conclude that the maintenance areas southeast of the Phoenix area are not significantly influenced by emissions from Nevada.

Based on the following evidence, the NDEP concludes that emissions from Nevada do not significantly interfere with the maintenance of the SO<sub>2</sub> NAAQS in Ajo, Douglas, Morenci, or San Manuel: (1) technical information indicating that elevated SO<sub>2</sub> levels in the maintenance areas were predominantly caused by local emission sources, (2) CASTNET data indicating that regional background levels of SO<sub>2</sub> are generally low, (3) the significant distance from the state of Nevada to the receptors, and (4) meteorological data showing that the prevailing winds do not blow from Nevada toward the maintenance receptors.

## **C.5 TRANSPORT TO MAINTENANCE RECEPTORS IN WESTERN STATES**

The NDEP identified maintenance receptors in one distant western state: New Mexico.

### **C.5.1 New Mexico**

Grant County, New Mexico was designated nonattainment in 1978 and redesignated attainment in 2003. There have been no monitored violations of the SO<sub>2</sub> NAAQS since 1975. New Mexico attributes past violations to the Hurley smelter located directly outside the town of Hurley ([http://www.nmenv.state.nm.us/aqb/Control\\_Strat/sip/Grant\\_Text.pdf](http://www.nmenv.state.nm.us/aqb/Control_Strat/sip/Grant_Text.pdf)). As a consequence of emission controls placed on the smelter, Grant County had only 18 tons of SO<sub>2</sub> emissions in 2008 (<http://www.epa.gov/air/emissions/index.htm>). USEPA has not proposed to designate Grant County nonattainment for the 2010 SO<sub>2</sub> standard ([http://www.epa.gov/so2designations/eparesp/06\\_NM\\_resp.pdf](http://www.epa.gov/so2designations/eparesp/06_NM_resp.pdf)).

The RGGS in Las Vegas is the closest SO<sub>2</sub> source in Nevada to the Grant County maintenance area, approximately 570 miles away. RGGS emitted 940.69 tons of SO<sub>2</sub> in 2008. Meteorological data at the McCarran International Airport in Las Vegas indicate that the prevailing winds in Las Vegas are from the south-southwest (Figure C.1). We can assume that winds leaving the Las Vegas area would blow mainly north-northeast and not southeasterly toward Grant County.

Absent CASTNET data for New Mexico, the NDEP reviewed five years (2007-2012) of data from four national parks between Nevada and New Mexico to determine SO<sub>2</sub> background in New

Mexico. These sites include the Mesa Verde National Park in Colorado, and the Grand Canyon National Park, Petrified Forest National Park, and Chiricahua National Monument in Arizona. Both average weekly and seasonal SO<sub>2</sub> concentrations from these National Park Service sites were low, below 2 ppb, indicating that the regional SO<sub>2</sub> background concentrations are relatively low, which in turn implies that the bulk of the SO<sub>2</sub> in the urban receptor areas is locally generated and not a regional or transport phenomenon.

Nevada relies on the following evidence to support a finding that emissions from Nevada do not significantly interfere with the maintenance of the 2010 SO<sub>2</sub> NAAQS in Grant County, New Mexico: (1) technical information indicating that elevated SO<sub>2</sub> levels in maintenance area were predominantly caused by the Hurley smelter, (2) the significant distance from the state of Nevada to the receptor area, and (3) representative air quality data indicating that regional background levels of SO<sub>2</sub> are generally low.

## **C.6 TRANSPORT TO NONATTAINMENT/MAINTENANCE RECEPTORS IN EASTERN STATES**

The NDEP also considered potential SO<sub>2</sub> transport from Nevada emission sources to the nearest nonattainment or maintenance receptors located in the eastern, midwestern, and southern states. The nonattainment receptor nearest to Nevada is Jackson County, Missouri. The USEPA has proposed to designate Jackson County, Missouri nonattainment for the 2010 SO<sub>2</sub> NAAQS ([http://www.epa.gov/airquality/sulfurdioxide/designations/eparesp/07\\_MO\\_resp.pdf](http://www.epa.gov/airquality/sulfurdioxide/designations/eparesp/07_MO_resp.pdf)). Jackson County is over 1000 miles away from the border of Nevada.

The NDEP evaluated the relative magnitude of SO<sub>2</sub> emissions in Nevada to SO<sub>2</sub> emissions in Missouri. The 2008 NEI indicates that SO<sub>2</sub> emissions in Nevada are less than 5 percent of the SO<sub>2</sub> emissions in Missouri (<http://www.epa.gov/air/emissions/index.htm>). Specifically, the 2008 NEI shows 16,813 tons of SO<sub>2</sub> from Nevada sources, compared to 415,204 tons of SO<sub>2</sub> from Missouri sources (34,693 tons SO<sub>2</sub> in Jackson County).

The NDEP believes the following factors support a finding that emissions from Nevada do not significantly contribute to nonattainment of the 2010 SO<sub>2</sub> NAAQS at the Jackson County receptor: (1) the relatively small magnitude of the emissions inventory of SO<sub>2</sub> in Nevada compared to Missouri, combined with (2) the relatively long distance of the state of Nevada from the receptor. These factors also support a qualitative conclusion that emissions from Nevada sources do not significantly contribute to nonattainment or interfere with the maintenance of these NAAQS at any of the other receptors farther east.

## **C.7 CONCLUSION**

The preceding analysis indicates that sulfur dioxide nonattainment (current, and impending for the 2010 NAAQS) and maintenance areas in adjacent and nearby states, as well as other western and eastern states are generally the result of documented local emission sources, which in some cases have ceased operation since the time of designation. Furthermore, the receptor areas the NDEP identified for the 2010 SO<sub>2</sub> NAAQS are a considerable distance from Nevada sources. Based on these factors and the above evaluation, the State of Nevada concludes that sulfur dioxide emissions from Nevada do not contribute to nonattainment or interfere with maintenance

of the 2010 SO<sub>2</sub> standard or the previous SO<sub>2</sub> standards in any other state. Nevada commits to continue to review new air quality information as it becomes available to ensure that this negative declaration is still supported by such information.

DRAFT

## **APPENDIX D**

**May 30, 2007 Letter to the US EPA Region 9 Administrator**

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ALLEN BIAGGI  
Director

JIM GIBBONS  
Governor

KAY SCHERER  
Deputy Director

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**STATE OF NEVADA**  
**Department of Conservation and Natural Resources**  
**OFFICE OF THE DIRECTOR**

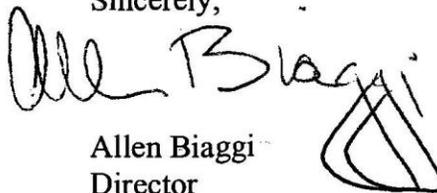
May 30, 2007

Wayne Natri  
Regional Administrator  
ORA-1, USEPA Region 9  
75 Hawthorne Street  
San Francisco CA 94105

Dear Mr. Natri:

Nevada Revised Statutes 445B.205 designates the Department of Conservation and Natural Resources (Department) as the air pollution control agency for the State of Nevada for the purposes of the Clean Air Act insofar as it pertains to State programs. Within the Department, the Division of Environmental Protection has responsibility to manage the air quality planning and air pollution control programs for the State of Nevada. Therefore, pursuant to Nevada Administrative Code 445B.053, I am hereby assigning the Administrator of the Nevada Division of Environmental Protection, or the Deputy Administrator acting on his behalf, to be my official designee for the purposes of the Clean Air Act, including, but not limited to, adoption, revision and submittal of state plans and state implementation plans.

Sincerely,

  
Allen Biaggi  
Director

cc Michael Dayton, Chief of Staff, Office of the Governor  
Jodi Stephens, Deputy Chief of Staff, Office of the Governor  
Leo Drozdoff, Administrator, NDEP  
Colleen Cripps, Deputy Administrator, NDEP  
Tom Porta, Deputy Administrator, NDEP  
Deborah Jordan, Director, EPA Air Division, Region IX  
Jefferson Wehling, ORC, EPA Region IX