Research Division, Nevada Legislative Counsel Bureau

POLICY AND PROGRAM REPORT

General Environmental Issues and Matters Concerning Lake Tahoe

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The health of Nevada's environment and the preservation and conservation of its most critical natural resources contribute significantly to quality of life and economic prosperity. Clean air and water, open space, recreational opportunities, and scenic beauty make Nevada a desirable place to live and visit.

Historically, Nevada was known to have limited environmental regulations when compared with other more populous states. In recent decades, however, Nevada has undertaken significant State-sponsored programs to improve and protect its natural environment and to address new and changing federal regulations, particularly since passage of the federal Clean Air and Clean Water Acts in the early 1970s—some of the first laws ever written that establish a national framework for protecting the environment.

In addition to statewide environmental programs and regulations, Nevada shares responsibility for the preservation of Lake Tahoe with the State of California. Situated in the heart of the Sierra Nevada, one-third of the Lake Tahoe Basin is in the State of Nevada and two-thirds is in the State of California. Regulatory responsibility for the Lake Tahoe Basin rests with the Tahoe Regional Planning Agency (TRPA), originally established in 1969.

AIR QUALITY

Air pollution can come from a variety of sources. These include "stationary sources" such as factories, power plants, and smelters; "smaller

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sources" such as dry cleaners and degreasing operations; "mobile sources" such as cars, trucks, buses, and planes; and "natural sources" such as dust and wildfires.

In Nevada, the State Department of Conservation and Natural Resources (DCNR) has primary authority for the control of air pollution. Within the Department, Nevada's Division of Environmental Protection (NDEP) (*Nevada Revised Statutes* [NRS] 232.090) and the State Environmental Commission (SEC) (NRS 232.090 and NRS 445B.200) work together on the adoption of regulations and the implementation of programs to maintain and improve air quality.

Nevada's Division of Environmental Protection is charged with enforcement responsibility for the federal Clean Air Act. Within NDEP, the Bureau of Air Pollution Control has jurisdiction over all air quality programs in Nevada with the exception of Clark and Washoe Counties. The Bureau of Air Pollution Control also has jurisdiction over fossil fuel-fired power plants that generate steam for electricity production. The Bureau of Air Quality Planning is responsible for ambient air quality monitoring, mobile sources, regional haze, and smoke management.

Nevada's air pollution control laws are found in Chapter 445B ("Air Pollution") of NRS. With regard to air pollution, NRS 445B.100 acknowledges that it is the policy of the State of Nevada "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." The air pollution statutes were added to NRS by the Nevada Legislature in 1971, following passage by Congress of the Clean Air Act in 1970.

Federal Clean Air Requirements

The foundation for most of the federal clean air requirements and standards is the federal Clean Air Act, which became law in 1970 and was most recently amended in 1990. Many of the Clean Air Act programs are driven by the National Ambient Air Quality Standards, which identify and set minimum standards for several harmful pollutants. The six principal air pollutants (known as "criteria" pollutants) are carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO_2), ozone (O_3), particulate matter or "dust" (with an aerodynamic size less than or equal to 10 microns, or PM-10, and 2.5 microns, or PM-2.5), and sulfur dioxide (SO_2).

The Clean Air Act also recognizes that states should take the lead in carrying out the Act and deciding how best to meet the air quality standards because pollution control problems often require an understanding of local industries, geography, weather, transportation patterns, and other regional influences on air quality.

In addition to setting standards, states are required to develop State Implementation Plans (SIPs) to direct implementation of air quality regulations of the United States Environmental Protection Agency (EPA) and attainment of the National Ambient Air Quality Standards. A SIP contains regulations and measures that will be used to clean up areas in violation of air quality standards and to address pollution control in other areas to maintain air quality.

As part of these SIPs, states are divided into air quality control regions and attainment areas designated at the county level. If monitoring in a control region shows that air quality has fallen below any of the air quality standards, the EPA designates that control region as a nonattainment area for that particular pollutant and a SIP must be prepared. If a SIP is required of a local jurisdiction, the county prepares the SIP and submits it to NDEP for review and approval. Once approved by NDEP, the SIP is then submitted to the EPA for federal review and approval. The following website for the EPA has pollutant-specific information about the nonattainment status of counties nationwide: http://www.epa.gov/oaqps001/greenbk/ancl2.html.

Local Air Quality Programs

Air quality programs in Clark County are managed by the Department of Air Quality. In Washoe County, these programs are managed by the Air Quality Management Division of the Washoe County Health District. Up-to-date information on air quality in Clark and Washoe Counties is available on the following websites: http://www.clarkcountynv.gov/depts/airquality/pages/default.aspx and http://airnow.gov/index.cfm?action=airnow.local_city&mapcenter=0&cityid=121.

Air Pollution Control Laws

Emission Credits

One method of controlling pollutants is the sale of emission credits or allocations, commonly referred to as a "cap and trade" program. The DCNR is authorized to collect money from the sale of emission credits or allocations for any pollutant, and any money collected is to be deposited in the Account for the Management of Air Quality in the State General Fund (NRS 445B.235). The State's air pollution policy includes periodic retirement of a portion of any emission credits and allocations that would otherwise be available for banking or sale.

Vehicle Emissions Programs

An important goal of Nevada's air pollution control laws is reducing vehicle emissions to improve air quality, especially in populated areas with air quality concerns. In Nevada, this is accomplished through the "smog check program," with fees deposited in the Pollution Control Account.

The Vehicle Emissions Programs are authorized under NRS 445B.770, which requires the SEC to adopt regulations in designated areas, for the control of emissions from motor vehicles in Clark and Washoe Counties. In all other counties, the SEC has the option to adopt regulations if the Commission determines that it is feasible and practicable to carry out an emissions testing program, and if carrying out the program is deemed necessary to achieve or maintain air quality standards.

Nevada's Pollution Control Account

The Pollution Control Account is created in the State General Fund by NRS 445B.830. The Department of Motor Vehicles (DMV) deposits money in the Account that is collected from fees for licensing and renewing licenses of smog check facilities. Also deposited in the Account are fees collected for forms certifying emission control compliance. At this time, only the urbanized areas of Clark and Washoe Counties have smog check programs; thus, the money in the Account comes mainly from the owners of automobiles in these two areas.

The Account is administered by the DMV as follows.

- One-sixth of the money received from the issuance of emission test certificates is distributed quarterly to local governmental agencies in nonattainment or maintenance areas for air pollution (Clark and Washoe Counties).

- Pursuant to legislative appropriation or with the approval of the Interim Finance Committee, money is available to air pollution control agencies in the following priority order:

    1. The DMV (for administration of the program);

    2. The DCNR (for NDEP's statewide air quality control programs);

    3. The State Department of Agriculture (for its fuels testing program under Chapter 590 ["Motor Vehicle Fuel, Petroleum Products and Antifreeze"] of NRS);

    4. Local governmental agencies in nonattainment or maintenance areas for air pollution; and

    5. The TRPA (for air quality programs at Lake Tahoe).

- Following these deductions, money remaining in the Account in excess of $1 million is to be distributed directly, on an annual basis, to local governmental agencies in nonattainment or maintenance areas in an amount proportionate to the number of forms issued to emission testing stations, for programs related to the improvement of air quality.

Efforts to Encourage the Use of Alternative Fuels

In addition to the air pollution control laws in Chapter 445B of NRS, Nevada encourages the use of alternative fuels. Chapter 486A ("Alternative Fuels; Clean-Burning Fuels") of NRS was added by the Legislature in 1991 and took aim at reducing, especially in metropolitan areas, the contaminants resulting from the combustion of conventional fuels in motor vehicles. In 2001, the Legislature added NRS 486A.200, which authorized an incentive program for the use of clean-burning fuel. As a result, NDEP developed the "Alternative Fueled Vehicles in Fleets Program" to reduce motor vehicle-related pollution by converting fleet vehicles to use cleaner burning fuels. State and local government fleets in Clark and Washoe Counties operating ten or more vehicles are regulated under this program.

Alternative fueled vehicles are also exempt from emissions testing and benefit from a reduced special fuels tax rate (NRS 366.190).

Greenhouse Gas Emissions

"Greenhouse gases" are defined as carbon dioxide (CO_2), hydrofluorocarbons (HFCs), methane (CH_4), nitrous oxide (N_2O), nitrogen trifluoride (NF_3), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). On May 21, 2010, President Barack Obama requested that the EPA and the U.S. Department of Transportation's National Highway Traffic Safety Administration (NHTSA) work together to develop a national program that would improve the fuel economy of and reduce greenhouse gas emissions from U.S. light-duty vehicles for model years 2017-2025. President Obama's proposal

expands the first phase of the national program, which established coordinated greenhouse gas emissions and fuel economy standards for model years 2012-2016. The EPA is proposing national greenhouse gas emissions standards under the Clean Air Act, and the NHTSA is proposing Corporate Average Fuel Economy (CAFE) standards under the Energy Policy and Conservation Act as amended by the Energy Independence and Security Act. In July 2011, President Obama announced an agreement with major automakers and other stakeholders on fuel efficiency goals for the next phase of light-duty greenhouse gas emissions and CAFE standards.

WATER QUALITY

*(**NOTE:** This report will address the issue of water quality as an environmental issue in Nevada. The topic of water quantity will be addressed in another report dealing with natural resources.)*

Growing public awareness and concern for controlling water pollution led to enactment of the Federal Water Pollution Control Act Amendments of 1972. As amended in 1977, this law became known as the Clean Water Act. It establishes the basic structure for regulating discharges of pollutants into the waters of the U.S. and gives the EPA authority to implement pollution control programs such as setting wastewater standards for industry. The Clean Water Act also continues requirements to set water quality standards for all contaminants in surface waters. Under this Act, it is unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a permit is obtained.

The Nevada Water Pollution Control Law is set forth in NRS 445A.300 through 445A.730, and establishes Nevada's compliance with the federal Clean Water Act. The SEC has the authority to adopt regulations to carry out the provisions of the Nevada Water Pollution Control Law, including standards of water quality and amounts of waste that may be discharged into the waters of the State. Administration and implementation of these regulations are the responsibility of NDEP. Legislation enacted in 2009 authorizes NDEP to award subgrants for set-aside programs authorized by the federal Safe Drinking Water Act.

An important aspect of the Clean Water Act is the Total Maximum Daily Load (TMDL). A TMDL is an assessment of the amount of pollutant a water body can receive and not violate water quality standards. In other words, a TMDL determines how much pollutant load a lake or stream can assimilate. It is the sum of the allowable loads of a single pollutant from all contributing point and nonpoint sources. A "point source" is a discharge from discernible points, including pipes, ditches, channels, and tunnels; a "nonpoint source" is a discharge over a wide area of land not from a specific location (such as runoff).

The Clean Water Act requires each state to:

- Identify waters not meeting water quality standards;
- Set priorities for TMDL development of "impaired" water bodies; and
- Develop a TMDL for each pollutant for each listed body of water.

The Act also requires the EPA to approve or disapprove submissions by the states.

Water quality in Nevada generally is affected by agriculture and municipal and industrial sources. Overall, water quality generally has been improving in Nevada due to the removal of many point sources and more stringent standards being implemented on other point sources. Most exceedances are seasonal and of a natural condition. As for nonpoint sources, improvements are anticipated as a result of promoting public awareness, improved grazing and irrigation practices, erosion control measures, and implementation of Best Management Practices.

Hydraulic Fracturing

Hydraulic fracturing, or "fracking," is a process where millions of gallons of water, which are combined with some sand and chemicals, are pumped underground to break apart rock and release natural gas. The practice has gained national attention in recent years amid concerns over potential environmental risks. The 2013 Legislature enacted Senate Bill 390 (Chapter 466, *Statutes of Nevada*) to require the Division of Minerals of the Commission on Mineral Resources and NDEP to develop jointly a hydraulic fracturing program on or before July 1, 2014 (NRS 522.119). The program was developed and approved as part of a major update to the State's oil and gas regulations in 2014, and included assessing the effects of hydraulic fracturing on the waters of Nevada, requiring disclosure of chemicals used in hydraulic fracturing, and providing for public notice concerning fracturing activities. Senate Bill 44 (Chapter 36, *Statutes of Nevada 2015*) increased the statutory limit on the fees prescribed by the Commission on Mineral Resources for permits to drill a well in search of oil and natural gas from $200 to $5,000 for a well that is intended to be hydraulically fractured and to $2,000 for a well not intended to be hydraulically fractured.

Perchlorate

Nearly 90 percent of the drinking water for southern Nevada comes from the Colorado River via Lake Mead. This vital source of drinking water is under constant scrutiny to maintain water quality. Perchlorate, a toxic chemical used in rocket fuel and explosives, was first detected in Lake Mead in 1997. Perchlorate was produced from World War II through the 1990s at two sites in Henderson, one owned by Kerr-McGee LLC and the other by American Pacific Corporation (APC). Kerr-McGee stopped making the chemical in 1998, and a cleanup project began in 1999 (the project is ongoing). The site owned by APC was destroyed by an explosion in 1988. If ingested in high doses, perchlorate can decrease function of the thyroid gland and result in hypothyroidism or possibly thyroid tumors.

Although perchlorate is not regulated under the federal Safe Drinking Water Act, NDEP established 18 parts per billion (ppb) as a provisional action level based upon EPA guidance standards established in 1999 for perchlorate in drinking water. In 2005, the National Research Council recommended a reference dose of 0.0007 milligrams/kilogram/day, which translates to a Drinking Water Equivalent Level (DWEL) of 24.5 ppb. As a result of cleanup efforts, Lake Mead has seen decreased levels of perchlorate.

Nitrates

A water quality issue in recent years has been the level of nitrates in the groundwater of some outlying valleys where septic tanks have leaked, threatening the drinking water in individual water wells. Where standards are exceeded, NDEP may require development of a community sewage system and elimination of the use of individual septic tanks, such as in the case of Spanish Springs north of Reno.

Clean Water Act Versus Safe Drinking Water Act

It is important to note that the Clean Water Act and the Safe Drinking Water Act are two different pieces of federal legislation. The Clean Water Act pertains to water quality as an environmental issue, while the Safe Drinking Water Act addresses drinking water quality and public water systems as a health issue. A "public water system" is a system that provides the public with piped water for human consumption, if the system has 15 or more service connections or regularly serves 25 or more persons.

In Nevada, primary enforcement responsibility for the Safe Drinking Water Act rests with NDEP, which is responsible for licensing and monitoring public water systems consistent with national drinking water standards. The Division also administers Nevada's Drinking Water State Revolving Fund to provide free technical assistance and low-interest loans to private and public water systems to ensure compliance with the Safe Drinking Water Act. State financial assistance for drinking water systems was created by the Nevada Legislature in 1991 to provide grants to water purveyors to pay for costs of capital improvements to publicly owned water systems as required by the State Board of Health or the Safe Drinking Water Act. The grant program seeks to enable communities to comply with health regulations and to ensure that the costs of improvements do not overwhelm or cripple the system.

In the past decade, changes to federal drinking water standards impacted certain Nevada communities that had to improve their water treatment facilities to meet higher standards. One example is the national standard for arsenic that was changed by the EPA from 50 ppb to 10 ppb, effective on January 23, 2006. New water treatment plants were constructed in Fallon and Fernley in order to bring their drinking water into compliance with the new national standard for arsenic.

MERCURY

Mercury is a naturally occurring metal that can contaminate air, water, and soil. In Nevada, the largest source of atmospheric mercury is from the processing of gold in mining operations. Historically, mining has also resulted in mercury contamination of certain lakes and rivers in Nevada. Ingestion of methylmercury by eating contaminated fish or other exposures to mercury may have negative health impacts, including nervous system damage.

The Clean Water Act requires that states develop a list of water bodies ("List of Impaired Waters") needing additional work beyond existing controls to achieve or maintain water quality standards. There are several water bodies included on the 2012 list developed by NDEP for exceeding the

allowable level of certain contaminants. The Carson River from New Empire to the Carson Sink is included on the National Priorities List (Superfund) due to mercury contamination from historic mining activities, so it is jointly managed by NDEP and the EPA Region 9. The list may be viewed online at: http://www.epa.gov/superfund/superfund-national-priorities-list-npl.

The Division of Public and Behavioral Health, Department of Health and Human Services, has issued species-specific health advisories for waters where a fish species has an average methylmercury level above 1 ppm, based on the Federal Drug Administration mercury action level. The health advisories recommend no consumption of the following species in northern Nevada waters:

- Fish from Lahontan Reservoir and the Carson River from Dayton downstream to the reservoir;
- White bass from Little and Big Washoe Lakes;
- Wipers and walleye (and only one 8-ounce meal per month from all other fish) from Rye Patch Reservoir;
- Walleye from Chimney Dam Reservoir; and
- Largemouth bass or northern pike from Comins Lake.

In 2006, NDEP implemented the Nevada Mercury Air Emissions Control Program to reduce emissions at precious metal mining facilities processing mercury-containing ore by means of thermal treatment that may result in mercury emissions. Prior to this regulatory program, Nevada had implemented a voluntary mercury reduction program for Nevada gold mines that reduced annual emissions by 82 percent over three years.

THE NEVADA BROWNFIELDS PROGRAM

Brownfield properties are vacant or abandoned properties that are unused or underutilized due to environmental contamination from past use. Examples typically include former automotive, railroad, or light industrial sites. The Bureau of Corrective Actions, NDEP, implements the Nevada Brownfields Program, also referred to as the Land Recycling Program.

The Nevada Brownfields Program was created in 1999 to model the federal Small Business Liability Relief and Brownfields Revitalization Act of 2002. Nevada's program is codified in NRS 459.610 through 459.658. The intent of the program is to provide incentives for people voluntarily to remediate and use environmentally contaminated property while providing protection from liability for additional, future cleanup costs. In other words, the program encourages the revitalization of vacant, unproductive, and environmentally contaminated lands throughout Nevada.

Nevada's program allows the owner, prospective or innocent purchaser of contaminated property, or the owner of contiguous property to reach an agreement with NDEP to undertake corrective cleanup actions. The property owner can obtain a certificate as a result of the agreement, releasing the

property owner from liability for contamination occurring before the cleanup took place. However, the relief from liability does not limit the State's authority to require a specified action or cleanup by persons who are responsible for the actual contamination.

To implement the Brownfields Program, the State of Nevada received a $2 million grant from the EPA. These funds are being used in the Brownfields Revolving Loan Fund, a revolving loan administered by NDEP to provide no- or low-interest grants to eligible recipients. Payments from these grants have been leveraged to make additional loans. Nevada's program also provides for recovery by the State of a portion of the cleanup costs if the State funded the cleanup effort at the property and that cleanup increased the land's value.

In 2005, the Legislature adopted the Uniform Environmental Covenants Act, which is codified in Chapter 445D ("Environmental Covenants [Uniform Act]") of NRS, to allow for the recordation of long-term institutional controls on remediated properties. The Act provides for a perpetual real estate interest, known as an environmental covenant, to be recorded for the purpose of giving notice of use restrictions on the land when ownership is transferred. Giving notice of any such restrictions facilitates future enforcement for the protection of both public and private interests.

An environmental covenant stays with the property unless limited to a specific duration or terminated by various means. However, while an environmental covenant may restrict uses of real property authorized by zoning or by another law, the covenant cannot authorize a use that is otherwise prohibited by law or a recorded instrument with priority over the covenant.

MINING AND MINE RECLAMATION

In 2012, gold prices and production contributed to Nevada's mining industry setting an all-time record in the value of mineral output, which was $10.437 billion, not including oil and geothermal resources. According to the Nevada Bureau of Mines and Geology's Special Publication P-26, *Major Mines of Nevada 2014*, Nevada produced approximately 73 percent of U.S. gold in 2014. The publication further noted that the State was also the nation's leading producer of barite, lithium compounds, and magnesium compounds. Copper ranked second only to gold in terms of value in 2014.

Additionally, Nevada is second only to California in producing geothermal power. In 2014, there were 22 geothermal electric generating plants in 16 locations that sold approximately 2.7 million megawatt hours of electricity (enough power to supply nearly 244,000 homes). Finally in 2014, approximately 316,426 barrels of oil were produced from oil fields in Eureka and Nye Counties.

The economic significance of mining is especially great in rural areas where mining activities are centered. In 2014, there were, on average, 14,413 Nevadans directly employed in the mineral industry at an average salary of $88,634. This is the highest average salary of any employment sector in the State.

State Oversight of Mining

The 2011 Legislature passed S.B. 493 (Chapter 449, *Statutes of Nevada*) to create the Mining Oversight and Accountability Commission whose duties include oversight of the activities of

the various State agencies that have responsibility for the environmental regulation, operation, safety, and taxation of mines and mining in this State (Chapter 514A ["Mining Oversight and Accountability Commission"] of NRS).

The following agencies are subject to supervision by the Oversight Commission and must submit annual reports to the Oversight Commission:

- Nevada Tax Commission and Department of Taxation;
- Division of Industrial Relations of the Department of Business and Industry;
- Commission on Mineral Resources and its Division of Minerals;
- Bureau of Mines and Geology of the Nevada System of Higher Education; and
- NDEP of the DCNR.

The Department of Taxation is required to report annually to the Oversight Commission on the expenses and deductions of each mining operation in the State and must submit a comprehensive audit program for each mining operator at the first meeting of the Oversight Commission. In addition, the Oversight Commission may ask the Legislative Commission to direct the Legislative Auditor to undertake an audit or investigation of the supervised entities with respect to mining issues.

The Division of Minerals administers programs and activities to further the responsible development and production of the State's mineral resources. The Division regulates drilling operations of oil, gas, and geothermal wells; administers a program to identify, rank, and secure dangerous conditions at abandoned mines; and manages the State Reclamation Bond Pool. The statutes relating to the programs administered by the Division of Minerals generally are found in Chapter 513 ("Commission on Mineral Resources"), Chapter 517 ("Mining Claims, Mill Sites and Tunnel Rights"), Chapter 519A ("Reclamation of Land Subject to Mining Operations or Exploration Projects"), Chapter 522 ("Oil and Gas"), and Chapter 534A ("Geothermal Resources") of NRS.

Mining regulation, mine closure, and mine reclamation are the responsibility of NDEP and its Bureau of Mining Regulation and Reclamation. The Regulation Branch is responsible for ensuring that the quality of Nevada's water resources is not adversely impacted by active mining operations. The Mining Closure Branch regulates mines in closure, ensuring chemical stabilization of all components. Finally, the Mining Reclamation Branch ensures that land disturbed by mining and exploration activities is returned to a productive post-mining land use. Statutory authority for these programs is found in NRS 445A.300 through 445A.730 ("Water Pollution Control") and Chapter 519A ("Reclamation of Land Subject to Mining Operations or Exploration Projects") of NRS.

Mine Reclamation

Mine reclamation is an important environmental issue, especially in rural Nevada. In 1991, the State Reclamation Bond Pool was created to ensure that sufficient resources exist in the event a mining company goes bankrupt and cannot pay to reclaim the land. In Nevada, mine operators are required

to obtain a reclamation permit and to file a surety with NDEP or a federal land manager. The Bond Pool is administered by the Division of Minerals; however, NDEP is responsible for reviewing the mine operator's estimate of the cost for reclamation to determine whether the estimate is reasonably sufficient to conduct all required reclamation.

The 2013 Legislature enacted Assembly Bill 346 (Chapter 305, *Statutes of Nevada*) to require that reclamation plans for mining operations and exploration projects must, if feasible, provide for at least one point of public nonmotorized access to the water level of a pit lake that has a predicted filled surface area of more than 200 acres. Such access must be provided when the pit reaches at least 90 percent of its predicted maximum capacity. Any owner of a pit lake may make the final determination on the ultimate use of the property, but testimony advocating for the bill noted this may facilitate potential recreational uses in the future.

Toxics Release Inventory

Another important environmental issue relative to mining is the Toxics Release Inventory (TRI). On December 4, 1984, extremely toxic methyl isocyanate gas escaped from a Union Carbide Corporation chemical plant in Bhopal, India, in what is considered one of the worst industrial disasters in history, resulting in thousands of deaths and long-term disabilities for survivors. Then in 1985, a chemical release occurred at a similar plant in West Virginia, providing additional impetus for federal action. Congress enacted the federal Emergency Planning and Community Right-to-Know Act of 1986 to inform communities and residents of potential chemical hazards in their area by requiring certain businesses to report the locations and quantities of designated chemicals stored on-site and to allow state and local planning for chemical emergencies. The legislation included the TRI Program, which has expanded significantly since its inception. It now includes 594 individual chemicals combined with chemical categories for an inventory of 689 listed chemicals, and covers many industries beyond manufacturing, such as the mining industry.

According to the data reported in the EPA's *2014 TRI Factsheet for Nevada*, there were 134 facilities in Nevada reporting a total of 496.4 million pounds of toxic chemical releases during 2014.

LAKE TAHOE

The natural beauty and outstanding water quality at Lake Tahoe have resulted in ongoing efforts to preserve and enhance the natural environment within the Lake Tahoe Basin. More than 100 years ago, conservationists voiced concern about the impacts of logging, tourism, and other development on the Lake's environment. While their efforts to designate the Basin as a national forest or national park failed, they continued lobbying for environmental protection. The States of Nevada and California began discussions about how best to protect the Lake.

The debate climaxed in the 1960s after two decades of rapid growth. The governors and lawmakers of Nevada and California approved the Tahoe Regional Planning Compact that created a regional planning agency to oversee development at Lake Tahoe. In 1969, the U.S. Congress ratified the agreement and created the TRPA. With ratification of the Compact, the TRPA was the first bistate regional environmental planning agency in the country.

The early years of the Agency were beset with controversy as procedures and regulations were established and imposed and people adjusted to this new level of regulation and bureaucracy. Specifically, the basic structure of the TRPA's Governing Board, as well as a voting system through which a project could be "deemed approved" unless a majority of the Board's representatives in each state voted to deny the project, proved unworkable in achieving the objectives of the Compact. Other controversies centered on provisions for the location and control of gaming, inadequate requirements for establishing planning standards, and criteria for environmental evaluations.

During the 1970s, the governors and lawmakers of both states again debated about how to amend the bistate Compact to address these controversies. Finally in 1980, the Compact was revised to give the TRPA authority to adopt environmental quality standards (called thresholds) and to enforce ordinances designed to achieve those thresholds.

National attention was again turned to Lake Tahoe in 1997, with the Lake Tahoe Presidential Forum. President Bill Clinton issued an Executive Order designed to ensure increased coordination and cooperative efforts in planning and implementing environmental measures in the Basin. Among the efforts is the Environmental Improvement Program (EIP), an integrated plan for identifying the projects, continuing programs, and studies necessary to achieve environmental goals at Lake Tahoe. Funding for projects identified in the EIP called for an initial investment of $908 million, while the allocation for projects funded by the State of Nevada on the Nevada side of the Basin was $82 million.

Following the Presidential Forum, Nevada Governor Bob Miller signed a Memorandum of Understanding pledging the State's support for carrying out its full $82 million share of the EIP. At the time, the State of Nevada already had a portion of this amount allocated for EIP projects. The remainder was approved in the 1999 Legislative Session, with authorization of the sale of $53.2 million in bonds staggered throughout the life of the EIP. General obligation bonds have been authorized each session since 1999 to fund the implementation of the EIP, and the final installment of these bonds was authorized in 2007. The 2009 Legislature authorized the issuance of not more than $100 million in general obligation bonds for the State of Nevada's apportioned share of the costs of the EIP for the next decade. The bonds are to be issued between July 1, 2009, and June 30, 2020.

In every regular session since 1985, with one exception, the Nevada Legislature has authorized an interim committee to oversee the activities associated with the TRPA and the bistate Compact. In 2003, the Nevada Legislature created the Legislative Committee for the Review and Oversight of the Tahoe Regional Planning Agency and the Marlette Lake Water System as a statutory committee (NRS 218E.555).

Scientists noticed Lake Tahoe's water clarity beginning to decrease in 1968, when a white Secchi disk the size of a dinner plate could be seen as far as 102.4 feet below the water's surface. Water clarity declined to 64.1 feet by 1997, and the declining trend appears to have slowed or even improved in recent years as the 2014 measurement was 77.8 feet.

Increased Focus by California and Nevada on the Tahoe Regional Planning Compact

The 2011 Legislature passed S.B. 271 (Chapter 530, *Statutes of Nevada*) in the final minutes of the Session, and it was signed by Governor Brian Sandoval. The bill provided for the withdrawal of

the State of Nevada from the Compact, if the TRPA Governing Board did not adopt an updated Regional Plan and certain amendments to the Compact were not enacted by California and ratified by Congress by October 1, 2015. The bill authorized the Governor to issue a proclamation extending this withdrawal to October 1, 2017. The Nevada TRPA (NRS 278.792) would assume the duties and powers of regulating environmental and land-use matters on the Nevada side of the Lake Tahoe Basin, should the withdrawal occur.

California Governor Jerry Brown and Nevada Governor Brian Sandoval attended the 15th Annual Lake Tahoe Summit (Summit) held on Tuesday, August 16, 2011, along with Leo M. Drozdoff, P.E., Director, DCNR, and John Laird, Secretary, California Natural Resources Agency. At the Summit, the governors announced a renewed commitment to Lake Tahoe by the States of California and Nevada, which culminated in an informal bistate consultation group convening on several occasions throughout the spring and summer of 2012. The bistate consultation group worked to reach a consensus among the various stakeholders in Lake Tahoe on some of the outstanding issues of the update of the TRPA's Regional Plan, and it concluded its work with the presentation of a document of recommendations to the TRPA Governing Board.

The update to the Lake Tahoe Regional Plan was adopted by the Governing Board on December 12, 2012, and both states enacted legislation relevant to their continued support of the TRPA in 2013. Senate Bill 229 (Chapter 424, *Statutes of Nevada 2013*) repeals most of the provisions of S.B. 271. Governor Brown signed S.B. 630 (Chapter 762, *California Statutes*) on October 11, 2013, relevant to a mutual agreement with Nevada regarding the TRPA. Governor Sandoval issued a proclamation, dated December 19, 2013, acknowledging the California legislation satisfied the requirement set forth in Sections 7 and 9 of S.B. 229. The two states committed, again, to working together through the TRPA, and the threat of withdrawal from the TRPA was averted.

Area Plans

The 2012 update to the Lake Tahoe Regional Plan increases the TRPA's focus on key environmental goals, while providing a means for other regulatory agencies in the region to take over more of the local permitting via the adoption of Area Plans. Chapter 13 of the *Code of Ordinances*, which is the document compiling the laws and ordinances used to implement the goals and policies of the Regional Plan, sets forth the provisions relevant to Area Plans. An Area Plan that has been adopted by the local government and approved by the TRPA's Governing Board will allow the Regional Plan policies to be implemented at a smaller scale and with greater flexibility. Information about the status of the development and adoption of Area Plans is available on the TRPA website: http://www.trpa.org.

Reauthorization of the Lake Tahoe Restoration Act (LTRA)

More than 78 percent of the land in the Lake Tahoe Basin is owned by the federal government. Starting in 2000, the first LTRA (H.R. 3388 and S. 1925) authorized the federal share of funding, $300 million, for the Lake Tahoe Environmental Improvement Program (EIP) for a decade; however, the reauthorization of the LTRA has been attempted unsuccessfully since 2009. Legislation was

introduced in both houses of the U.S. Congress on November 3, 2009, (H.R. 4001 and S. 2724) to reauthorize the LTRA. The identical measures included a $415 million appropriation over eight years to enable the Chief of the U.S. Forest Service, the Director of the U.S. Fish and Wildlife Service, and the Administrator of the EPA, in cooperation with the TRPA and the States of California and Nevada, to fund, plan, and implement significant new environmental restoration and forest management activities in the Lake Tahoe Basin, an endeavor generally known as the Lake Tahoe EIP. Both bills died, and the four Senators representing California and Nevada subsequently co-sponsored S. 432, which was introduced on March 2, 2011. The legislation introduced in 2011 also included a $415 million appropriation, but it was to be spread over ten years. Despite previous failed attempts, the Lake Tahoe Restoration Act is again pending before Congress in the form of H.R. 3692 and S. 1724; both were introduced in 2015 for consideration by the 114th Congress. United States Representative Tom McClintock (R-CA) and U.S. Representative Mark Amodei (R-NV) introduced H.R. 3382 on July 29, 2015, to authorize a lesser amount ($60 million from 2016 through 2025) with a limited focus on the Aquatic Invasive Species Program and forest fuel reduction projects. Representative McClintock released a statement that the smaller price tag on H.R. 3382 would fit within the budget parameters set by Congress and increase the prospect of passage; however, the measure was still pending at the time this publication was drafted.

WEBSITES AND ADDITIONAL REFERENCES

The following websites contain additional information and further detail on the programs and topics described in this report. In some cases, such as the EPA and NDEP sites, information is available for multiple subjects including air quality, water quality, brownfields, mining regulation, and more.

- NDEP: http://www.ndep.nv.gov/.
- Division of Minerals: http://minerals.nv.gov/.
- TRPA: http://www.trpa.org.
- EPA: http://www.epa.gov.

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GLOSSARY OF COMMON ACRONYMS

As with any policy area, acronyms are common in environmental and natural resources subjects. Following is a list of the most common acronyms one might expect to encounter:

AML ..... abandoned mine lands

BLM ..... Bureau of Land Management, U.S. Department of the Interior

BMP..... Best Management Practices

CAA ..... Clean Air Act of 1990

CAFE ..... Corporate Average Fuel Economy

CFR ..... *Code of Federal Regulations*

CWA ..... Clean Water Act of 1977

DCNR ..... State Department of Conservation and Natural Resources

DMV ..... Department of Motor Vehicles

DOI ..... U.S. Department of the Interior

DWEL ..... Drinking Water Equivalent Level

EA ..... environmental assessment

EIP ..... Environmental Improvement Program

EIS ..... Environmental Impact Statement

EPA ..... U.S. Environmental Protection Agency

ESA ..... Endangered Species Act of 1973

NAAQS ..... National Ambient Air Quality Standards

NDEP ..... Nevada's Division of Environmental Protection

NEPA ..... National Environmental Policy Act of 1969

NHTSA ..... National Highway Traffic Safety Administration, U.S. Department of Transportation

SEC ..... State Environmental Commission

SIPs ..... State Implementation Plans

TMDL ..... Total Maximum Daily Load

TRI ..... Toxics Release Inventory

TRPA ..... Tahoe Regional Planning Agency

USDA ..... U.S. Department of Agriculture