

EXECUTIVE SUMMARY

Nevada's Solid Waste Management Plan (*Plan*) provides a description of the existing framework for solid waste management within the applicable laws, regulations and infrastructure within the State. The *Plan* describes governmental roles and responsibilities, statewide trends in solid waste management, the assessment of Nevada's municipal solid waste management systems, and solid waste management issues and future considerations.

Nevada Revised Statute 444.570 requires the State Environmental Commission (SEC), in cooperation with governing bodies of Nevada's municipalities, to develop a statewide solid waste management system plan. The plan is reviewed and revised every five years. This *Plan* is intended to fulfill this requirement and to provide guidance, and information to support:

1. Adoption of solid waste management regulations by the SEC;
2. Efforts undertaken by the Nevada Division of Environmental Protection (NDEP) before the Nevada Legislature regarding the allocation of solid waste program resources;
3. Development and implementation of solid waste management plans and ordinances administered by Nevada's municipal governments; and
4. Activities by other stakeholders who provide solid waste services to the communities, businesses and residents of Nevada.

In Nevada, state and local governmental entities share certain roles and responsibility for solid waste regulations and program management. Governmental authority is defined in the Nevada Revised Statutes (NRS 444.440 – 444.645, see Appendix 5) and the Nevada Administrative Code (NAC 444.570 – 444.7499, see Appendix 6). The authority to regulate solid waste is assigned by statute to the Southern Nevada Health District in Clark County and to the Washoe County District Health Department in Washoe County. In all other areas of the State, the NDEP within the Department of Conservation and Natural Resources (DCNR) retains jurisdiction for solid waste regulations and program management. The regulatory programs implemented by the solid waste authorities primarily focus on the administration of the environmental protection standards for the collection and disposal of solid waste; the NDEP has additional responsibilities for statewide planning, public information and education. The local municipal governments are responsible for planning and implementing a municipal solid waste management system for all solid waste generated within their municipalities.

Statewide Trends: Statewide trends in solid waste management are discussed in Section 2 of the *Plan* under the headings of Landfills, Collection, Waste Generation and Recycling Rates, Importation, and Data Collection and Reporting.

Since the early 1990's, the trend in solid waste management has been moving toward a more regionalized infrastructure. While Nevada landfills range in size from very small (3 tons per day) to one of the largest in the country (over 11,000 tons per day), the two largest landfills (Apex in southern Nevada and Lockwood in the north) receive about 90% of all the waste disposed. Reflecting the State's unprecedented population growth, the amount of solid waste disposed in Nevada has steadily increased. The importation of solid waste to Nevada has also increased significantly in recent years, gaining 700% for the period 1993 to 2005. Moreover, the probability for waste importation to Nevada remains high, as existing and potential new landfills become positioned to accept larger amounts of imported waste.

Solid Waste Management System: Section 3 of the *Plan* presents an assessment of each county's solid waste management system. Each assessment (contained in Appendix 3) is composed of a county map showing solid waste facilities and a companion profile that describes the county's solid waste infrastructure and services. The assessments can be used as benchmarks for tracking solid waste system changes in each county, or for comparing one county's system to another's.

Solid Waste Management Issues: Section 4 of the *Plan* discusses solid waste management issues and future considerations. The issues are grouped under the headings of Landfills, Recycling and Waste Prevention, Importation of Solid Waste, Special Waste Management, Rural Solid Waste Management, Illegal Dumping and Open Burning, and State and Local Funding. Following each of the sections, the *Plan* provides future considerations to improve Nevada's solid waste management system.

Landfill Liner Requirements and more: Section 4.1 provides information about landfill liner requirements, bioreactor landfills, postclosure care timeframes, and conventional final cover designs.

Regarding landfill liner requirements, the *Plan* recognizes that site-specific conditions are important for making liner decisions. Nevertheless the *Plan* notes that further development of disposal infrastructure (with or without liners) must focus on careful assessment of landfill designs that are protective of the environment.

Another issue addressed in the *Plan* is the concept of “bioreactor” landfills. These landfills introduce liquids into the waste mass to promote waste decomposition. In Nevada, making these types of innovative landfill designs possible would require amending State regulations through adoption of certain USEPA rules.

Recycling and Waste Prevention: Recycling and waste prevention is discussed in Section 4.2 of the *Plan*. As way of background, in 1991 Assembly Bill 320 was enacted by the Nevada Legislature; the law set the stage for Nevada’s entrance into the world of recycling. State law now sets a recycling goal of 25% within each municipality that has a recycling program. Since Nevada began tracking recycling rates, the statewide rate has steadily increased to over 21%. Although rates in Washoe County and Carson City have surpassed the 25% goal, the rate in Clark County has remained below the goal.

NDEP continues to promote recycling in Clark County and has implemented measures to increase recycling activity. The Nevada Legislature passed a requirement for the large urban counties to promote recycling in the business community by providing information on the availability of recycling services when an application is received for a new or renewal business license. Another modification was a requirement for any county with a population greater than 40,000 to conduct a biennial review of its recycling program and submit its findings and proposed revisions to the NDEP for approval. Other statutory changes have been made to increase recycling at public buildings. Section 4.2.4 of the *Plan* provides items for future consideration to improve recycling.

Waste Importation: Solid waste importation is discussed in Section 4.3 of the *Plan*. As noted above the importation of solid waste in Nevada is increasing. Business interests and rural community development planners are marketing Nevada's waste disposal capacity to out-of-state customers. Given this trend and the US Supreme Court's prohibition against restrictions on the flow of waste, it appears Nevada will remain a "net" waste importer. Imported waste falls outside of Nevada's Tire Fee revenue, which is the revenue stream that funds statewide as well as certain local activities dedicated to implementing Nevada's solid waste management regulations. To defray the cost of managing and regulating solid waste, the 2005 Nevada Legislature did pass legislation to allow the State Environmental Commission (SEC) to establish fees for the disposal of solid waste or for the issuance of permits or other approvals by NDEP. While these fees would only be subject to solid waste management facilities within DCNR's jurisdiction (15 counties, excluding Clark and Washoe), the *Plan* notes that NDEP may (at some point in the future) petition the SEC to collect fees to defray the costs of managing and regulating solid waste.

Special Waste Management: The *Plan* discussed Special Waste Management in Section 4.4. Special Wastes require unique handling due to certain physical, chemical or biological characteristics of the waste. An example of an emerging Special Waste is mercury. NDEP has developed a webpage and an informational brochure that addresses the proper disposal of household waste mercury. The action was taken following incidents involving the spill of elemental mercury at local schools. It's worth noting here that household generated materials that have the characteristics of hazardous waste are exempt from hazardous waste regulation.

Other special wastes of concern are infectious and pharmaceutical wastes. Waste from medical and veterinary facilities are generally handled by medical waste services throughout the State, but services for home-generated infectious and pharmaceutical wastes are limited.

Electronic waste (E-waste) is a special waste that is currently receiving national attention. The volume of E-waste is rapidly growing and various components of this waste stream (e.g. TV screens, computer monitors, cell phones) have been identified in some states as hazardous wastes. As both industry and government seek to alleviate the problem on a national level, public education is needed in Nevada concerning proper recycling and disposal options. NDEP provides continued support for E-waste collection events. Section 4.4.6 provides items for future consideration concerning special waste management.

Rural solid Waste Management: The *Plan* discusses rural solid waste management in Section 4.5. Several municipalities in rural Nevada are struggling to provide the basic elements of a solid waste management system. Improving rural solid waste management may be accomplished through more coordinated planning efforts, enhancement of training programs for landfill operators, and public education. The State’s recycling and solid waste grant program can also help to supplement local government planning efforts and equipment acquisition. Section 4.5.1 provides items for future consideration.

Illegal Dumping and Open Burning: Illegal dumping and open burning is covered in Section 4.6 of the *Plan*. Illegal or open dumping is a persistent problem in both rural and urban areas of Nevada. Illegal dumping problems are fundamentally local in nature and combating the issue through a combination of solid waste management planning, public education, and coordinated enforcement will help reduce the problem. Local community groups have made great strides in controlling illegal dumping by coordinating community cleanup projects, involving the local government, and producing public information campaigns. Section 4.6.1 provides items for future consideration on illegal dumping and open burning.

State and Local Funding: Section 4.7, of the *Plan* evaluates the adequacy of the State Tire Fee; the fee funds the three solid waste management authorities in Nevada. Tire Fee revenues have decreased considerably when compared to the tonnage of waste disposed since the fee was established in 1991. At issue is the adequacy of NDEP’s portion of the fee to carry out State responsibilities for planning, public information/education, and solid waste management regulation in Nevada’s 15 counties. As well, the Tire Fee revenue may well be inadequate to support a “set aside” for recycling programs and local assistance grants for solid waste projects. As mentioned above, at some point in the future NDEP may be required to petition the SEC for authority to collect fees, pursuant to NRS 444.560 (Appendix 5), to defray the costs of managing and regulating solid waste within the State’s jurisdiction.

Nevada’s rural local governments may also require increased funding to support local waste management operations. Although local taxing authority may be available, the tax base for some communities may not be sufficient to generate needed revenues. In such locations, private solid waste companies may also not be profitable, leaving the municipality to face significant challenges

for meeting community solid waste needs in a manner that complies with all applicable environmental regulations. Section 4.7.3 provides items for future consideration.

Key Stakeholders: This *Plan* is intended to be a guide and an informational resource to support solid waste management laws, regulations and policies. Key users are the Nevada Legislature, NDEP, the Southern Nevada Health District, the Washoe County District Health Department, other state & local agencies, all municipal governments in Nevada and the State Environmental Commission. The *Plan* may also be useful to Nevada’s waste management service providers, including landfill operators, refuse collectors and recyclers, as well as solid waste generators, including all of Nevada’s industries, businesses and residents. Implementation of items in the *Plan* that are identified for “future consideration” could further enhance a sound program of solid waste management in Nevada.