

Solid Waste Management Planning in Nevada



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What we will cover today!

- ⇒ Regulatory program
- ⇒ Government roles
- ⇒ Solid waste management planning
- ⇒ Nevada's solid waste management plan
- ⇒ Local solid waste planning



Regulatory Program

- ⇒ US EPA approved Nevada to enforce the federal municipal landfill regulations
- ⇒ Nevada Revised Statutes and Nevada Administrative Code govern solid waste management in Nevada
- ⇒ The NRS & NAC are available online at: <http://www.ndep.nv.gov>
- ⇒ Local ordinances



Planning requirements

- ⇒ Every municipality or district board of health must develop a plan to manage solid waste
 - Entire process of storage, collection, transportation, processing, recycling and disposal of solid waste
- ⇒ Plans must be updated every 5 years
- ⇒ Every plan must be approved by the Division



Government roles- Solid waste management authorities

- ⇒ Southern Nevada Health District
- ⇒ Washoe County District Health Department
- ⇒ NDEP in all other areas of the state
- ⇒ Each authority is responsible for
 - Regulating the solid waste management system
 - Implementing municipal landfill regulations
 - Compliance inspections and enforcement



Other governmental roles

- ⇒ State Government
 - Statewide planning
 - Implement a program for recycling
 - Public information and education
 - Review of Health District solid waste programs
- ⇒ Municipal Governments
 - Develop a solid waste management plan
 - Adopt ordinances
 - Enter franchise agreements and establish contracts
- ⇒ Tribal Lands
 - Solid waste disposal is regulated by EPA, Region IX



Solid waste management planning

- ⇒ The plan should lay the groundwork for solid waste source reduction, reuse, recycling, collection, transfer, and disposal initiatives in the municipality from 200X through 20XX
- ⇒ Assess the future waste stream
 - Current waste composition, generation, disposal, and source
 - Population and economic trends
 - Changing waste generation patterns
- ⇒ The plan should establish goals and objectives for the operational and financial management of its SWM system
- ⇒ Schedule/program for carrying out plan

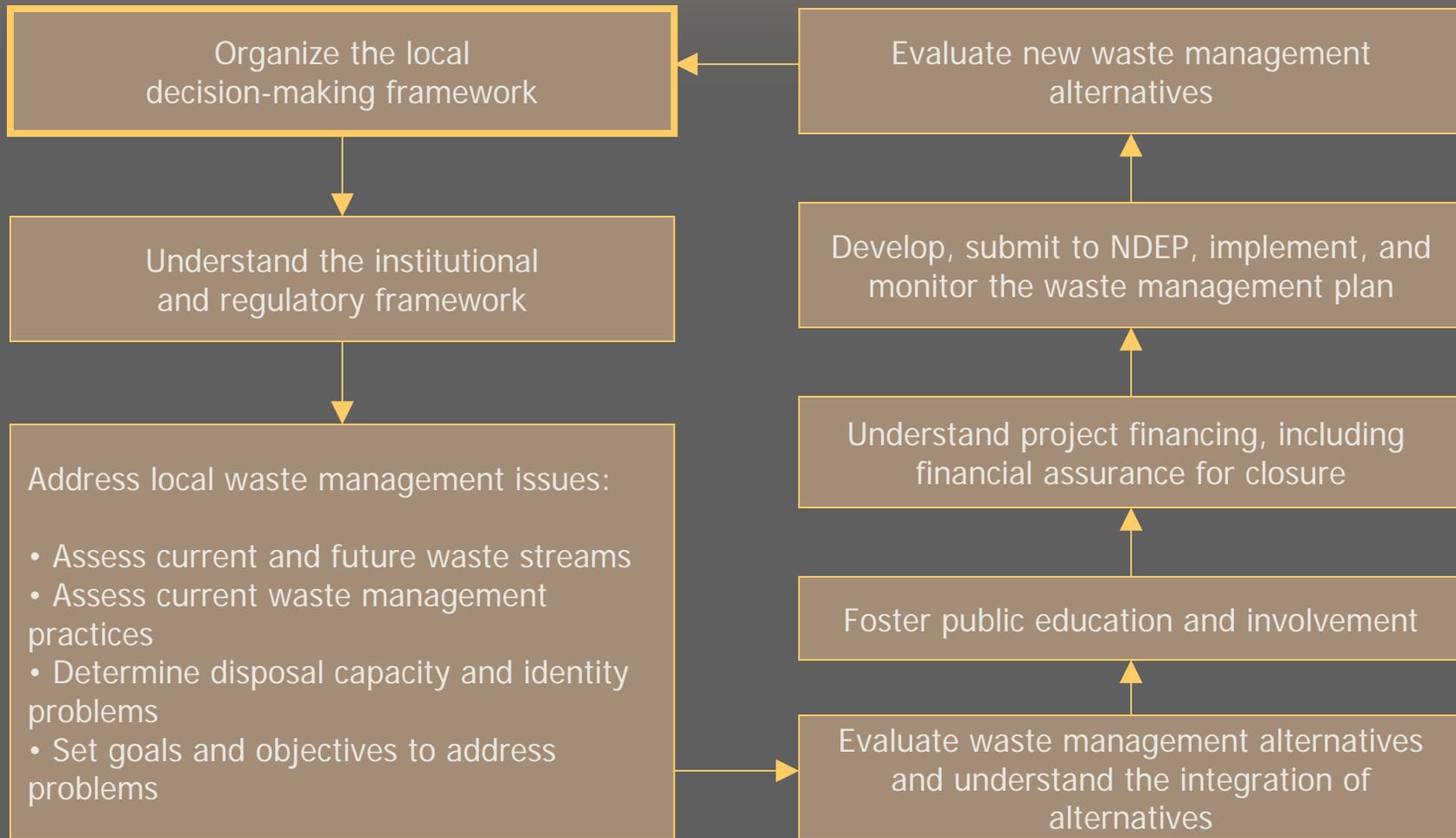


SW management planning - continued

- ⇒ Assess current infrastructure to manage the waste
 - Current landfill capacity
 - Collection and transfer
 - Recycling
- ⇒ Identify issues with waste disposal (e.g. illegal dumping, open burning)
- ⇒ Identify service provided to remote communities
- ⇒ Recycling - source reduction
- ⇒ Know the regulatory requirements
- ⇒ Recommend policy or regulatory changes and infrastructure improvements to address key issues



SW management plan development - Model



Overview of Nevada's Solid Waste Management Plan Development

- ⇒ Plan adopted by the State Environmental Commission on December 4, 2007
- ⇒ Long development process
 - 2004 plan
 - Conducted workshops and public notice
 - Rewrote plan to address comments
 - 2007 plan
 - Similar workshops and public notice
 - Final plan drafted for consideration by the SEC



SWMP public participation

⇒ Website

- NDEP is utilizing the web to disseminate information
- www.ndep.nv.gov

⇒ Stakeholder surveys

- NDEP mailed out a survey on various solid waste issues to gather information on the issues of concern

⇒ Other activity

- NDEP organized recycling summits to involve the industry and public in the process of advancing recycling in Nevada



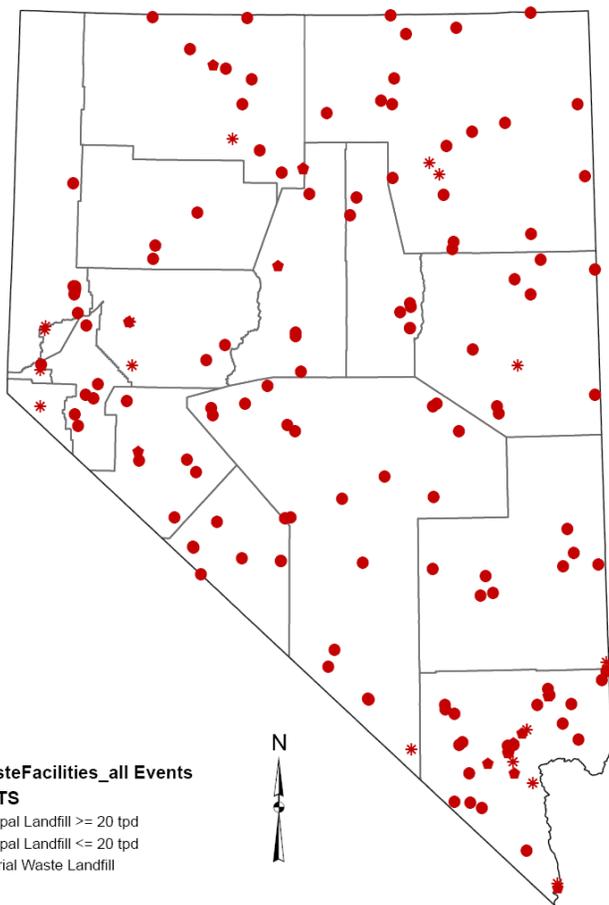
The intent of the State's plan

- ⇒ Fulfill the statutory requirement
- ⇒ Provide guidance and information to support;
 - Adoption of SW regulations by the SEC
 - Efforts of the NDEP before the Nevada Legislature regarding the allocation of SW program resources.
 - Development and implementation of SWMPs and ordinances administered by Nevada's municipal Governments
 - Activities by other stakeholders who provide SW services to the communities, businesses and residents of Nevada



Solid waste trends...

1992 LANDFILLS

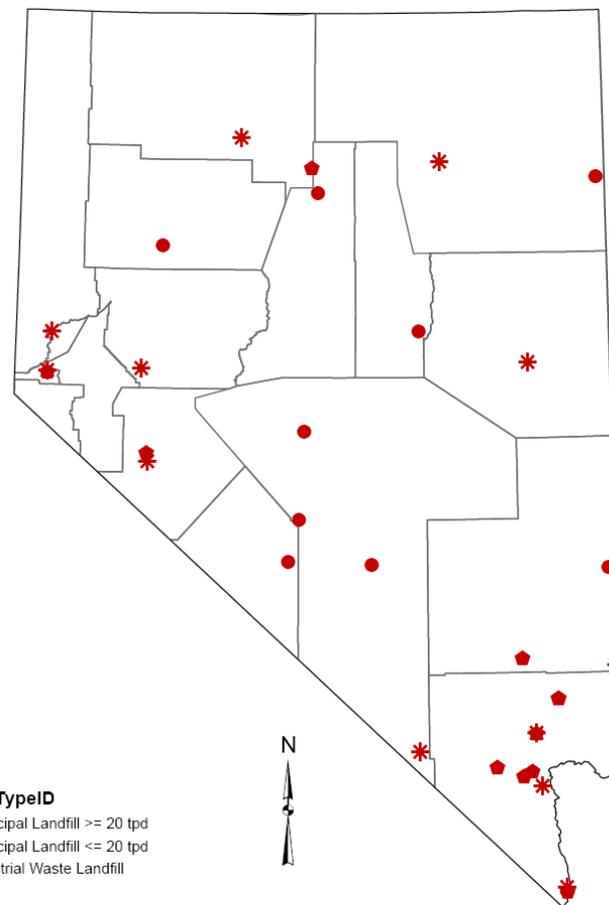


Legend
SolidWasteFacilities_all Events
CLASS_TS
* Municipal Landfill >= 20 tpd
● Municipal Landfill <= 20 tpd
◆ Industrial Waste Landfill



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Map prepared by Orlin Olson, Solid Waste Branch
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Compiled in 2004, Prepared 2004

2006 LANDFILLS

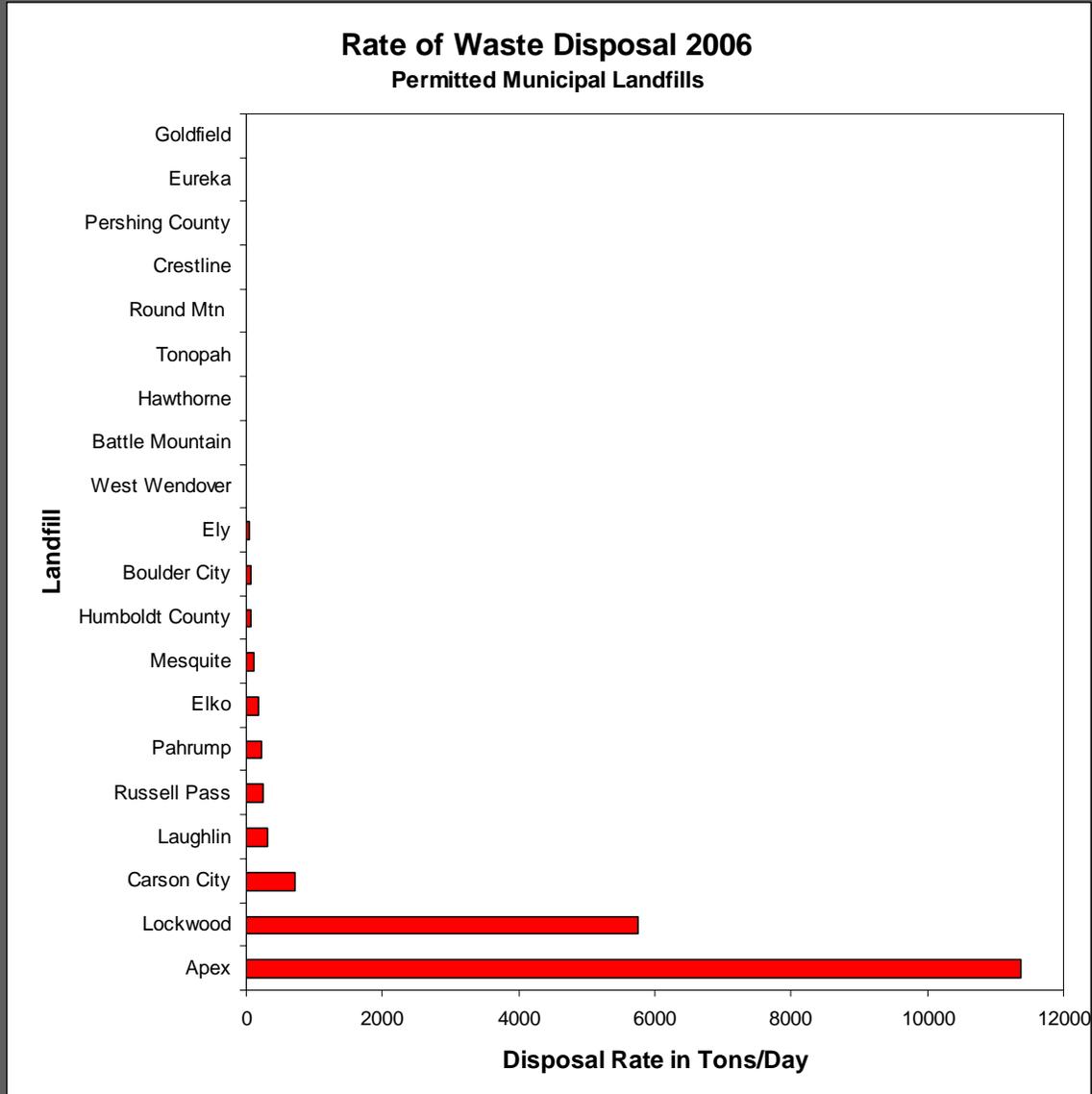


Legend
FacilityTypeID
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● Municipal Landfill <= 20 tpd
◆ Industrial Waste Landfill

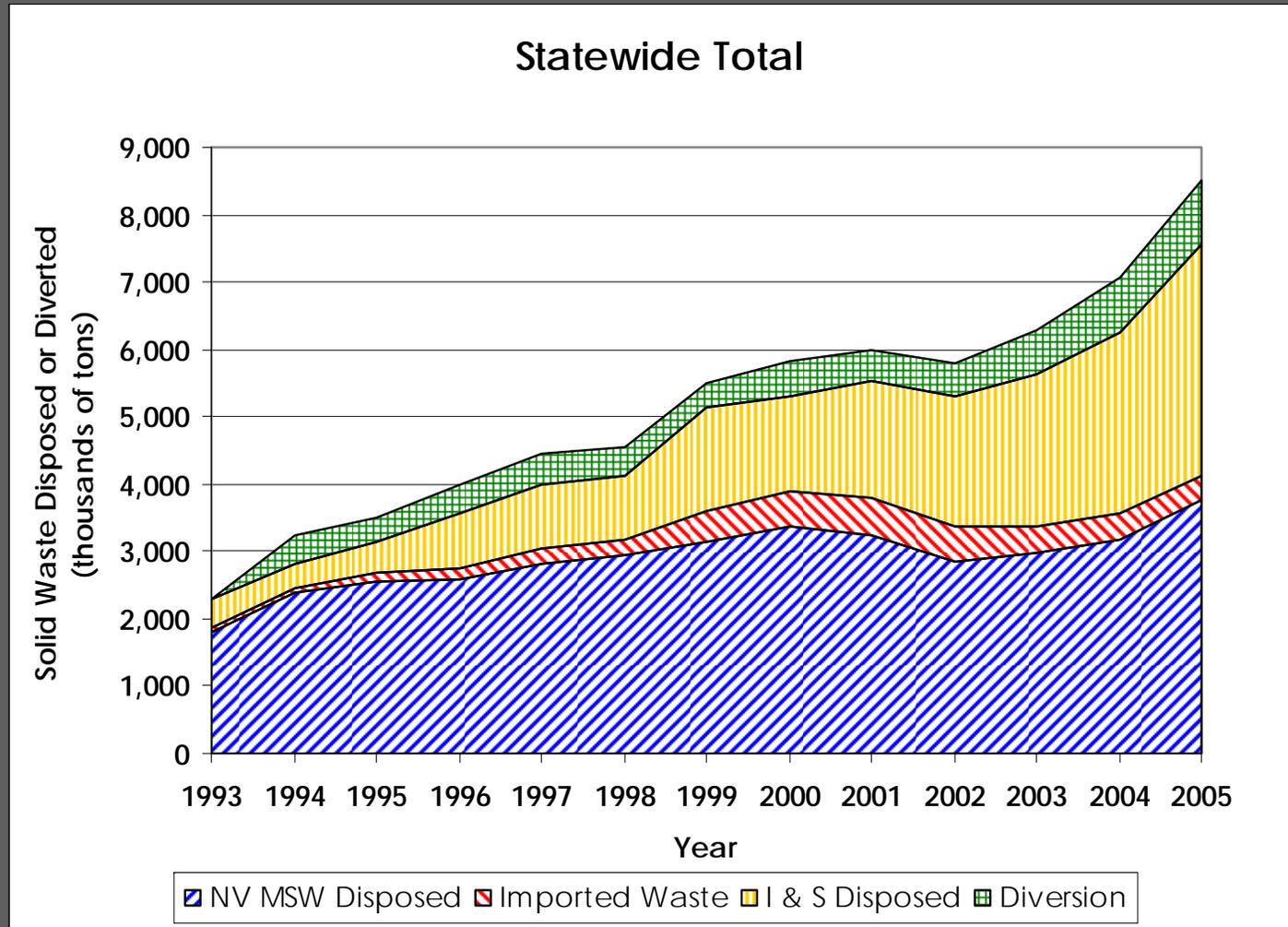


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Map prepared by Orlin Olson, Solid Waste Branch
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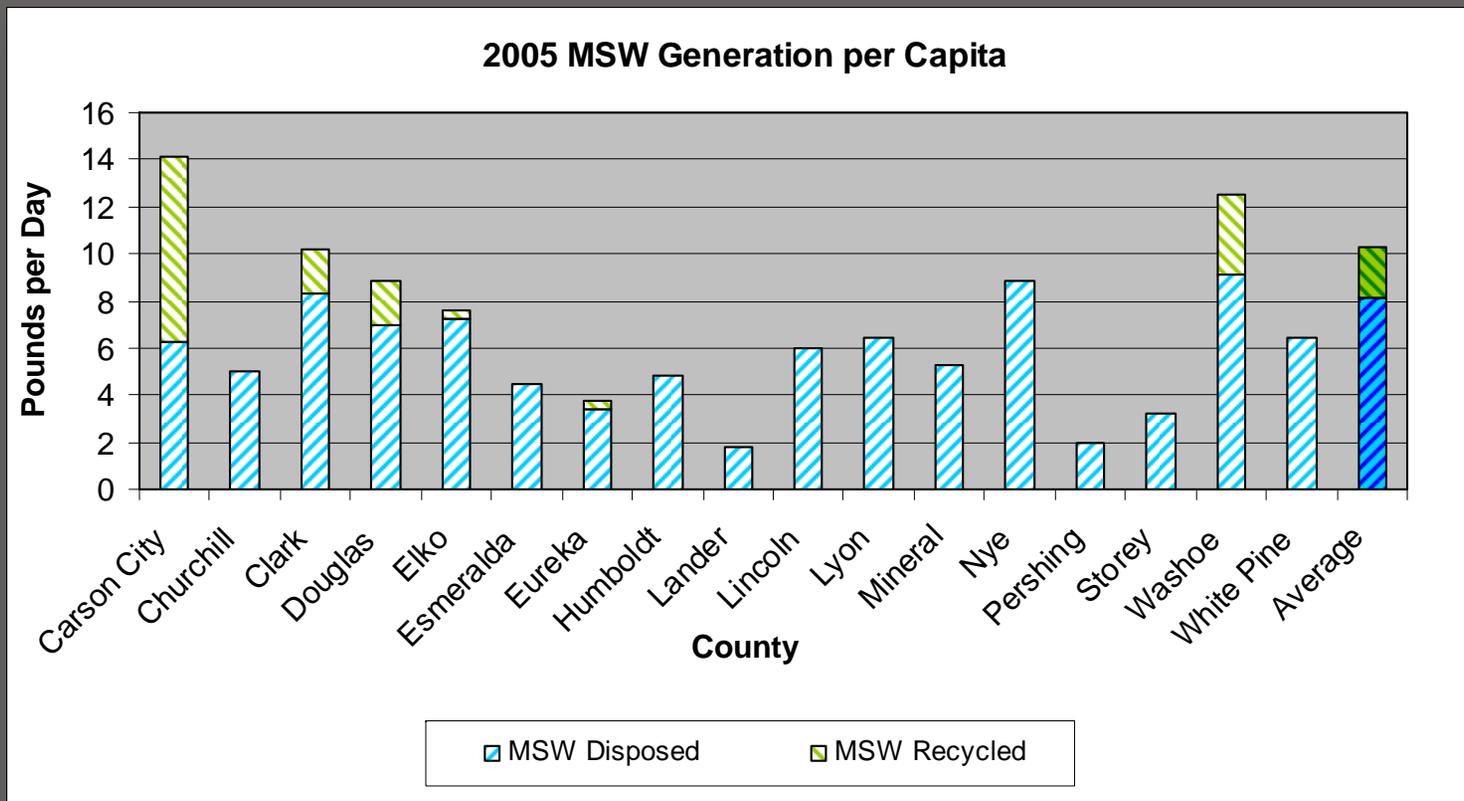
Solid waste trends...



Solid waste trends...



Solid waste trends...



Assessment of Municipal Solid Waste Management Systems

- ⇒ Map and profile for each County
 - Map shows infrastructure for year 2007
 - Profile provides information on:
 - Local solid waste planning authority
 - Population and solid waste trends (1993 – 2005)
 - Active municipal waste landfills
 - Solid waste and recyclables collection services
 - Recycling drop-off sites
 - Household hazardous waste collection services



Solid waste management system

Elko County

Solid Waste Profile

LOCAL SOLID WASTE PLANNING:

Responsible Agency: Elko County
Plan Date: March 15, 1995

POPULATION AND SOLID WASTE TRENDS:

	1993	1995	1997	1999	2001	2003	2005
Population	39,399	42,316	48,543	45,727	46,668	45,805	47,586
MSW disposed in County (tons)	9,826	36,035	37,886	47,010	71,912	50,507	63,731
Industrial/special disposed (tons)	4,448	13,036	10,536	17,043	5,264	11,426	11,647
Imported waste disposed (tons)	0	0	0	140	967	817	1,191
Municipal waste generated (tons)	9,826	36,035	37,886	47,010	71,912	50,507	62,524
Recycled (tons)	107	918	9,616	8,392	8,758	0	3,475
MSW generated/capita (lbs./day)	1.38	4.79	5.36	6.64	9.47	6.04	7.60

Notes: Data in tons per year as reported to NDEP, population from NV State Demographer

ACTIVE MUNICIPAL SOLID WASTE LANDFILLS:

Site Name	Estimated Owner/Operator	Landfill Class	Tons/day (2005)	Closure
Elko Regional Landfill	City of Elko	I	177	2022
West Wendover LF	City of West Wendover	II	30	2030

SOLID WASTE/RECYCLABLES COLLECTION SERVICES:

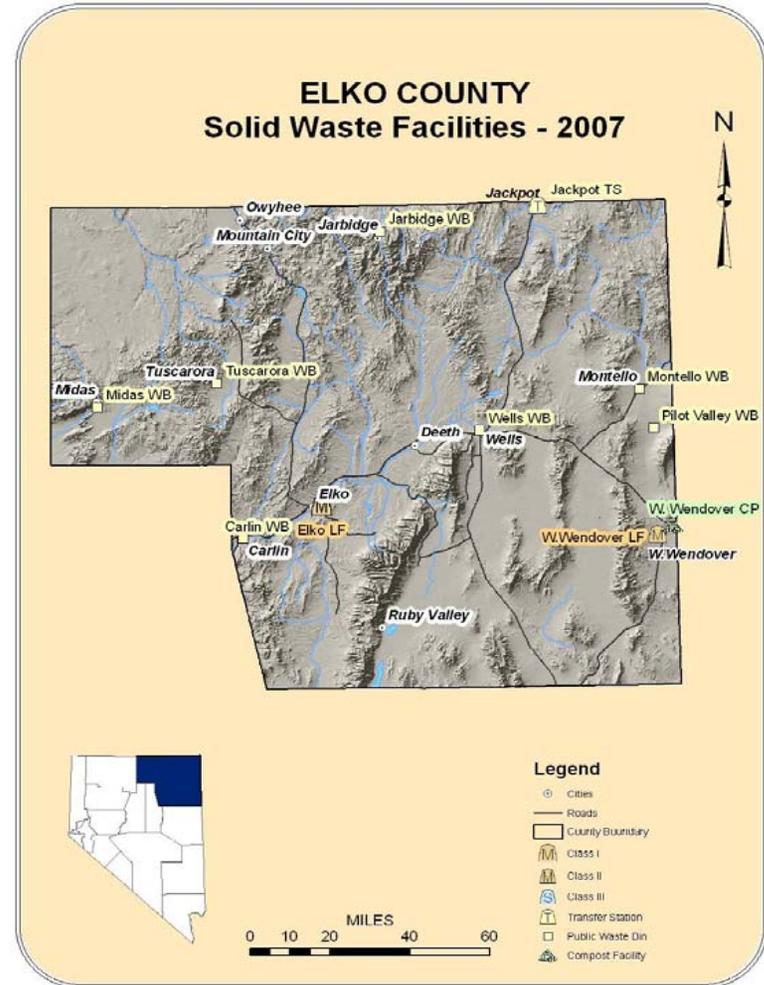
Municipality	Hauler	Exclusive Franchise	Mandatory Collection	Collection Frequency	Curbside Recycling
Elko	Elko Sanitation	No	No	Weekly	None
Elko County	Ruby Mountain Disposal	No	No	Weekly	None

NUMBER OF RESIDENTIAL RECYCLING DROP-OFF SITES for:

Office Paper	Card-board	News-paper	Al/Tin Cans	Glass	Plastics Btl. only	Yard Waste	Used Oil	Sites that accept 3 or more different types of materials
0	2	0	1	0	0	0	2	2

HOUSEHOLD HAZARDOUS WASTE COLLECTION SERVICES:

Owner/Operator	Type of Service	Materials Accepted
City of Elko LF	Drop-off during business hours	Oil, Antifreeze, Vehicle batteries



Solid waste management issues

- ⇒ The plan discusses issues and provides future considerations to improve the SW management system
- ⇒ The issues are grouped under:
 - Landfills
 - Recycling and Waste prevention
 - Importation of SW
 - Rural SW management
 - Illegal dumping and open burning
 - State and local funding



Solid waste management issues - continued

➔ Example - Landfills

■ Issue

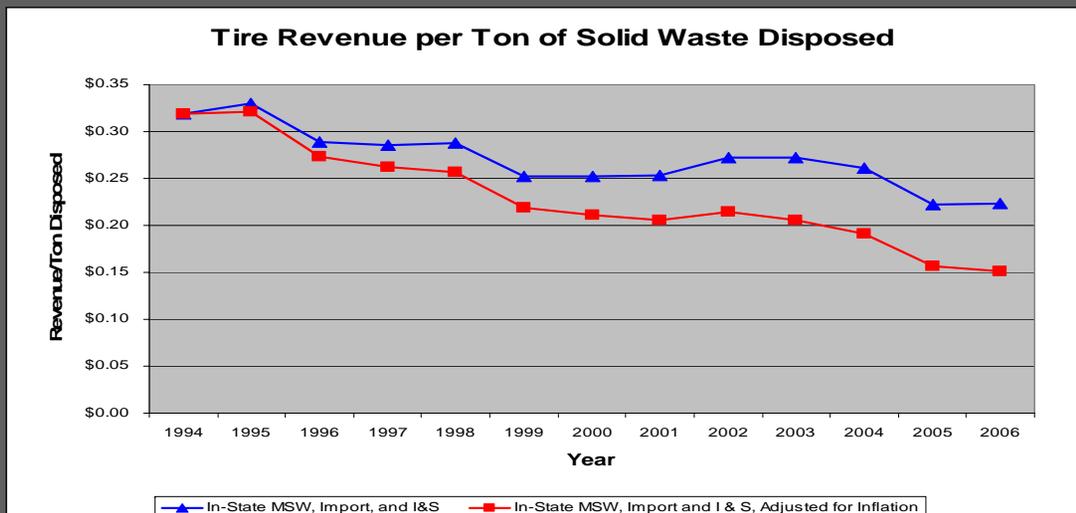
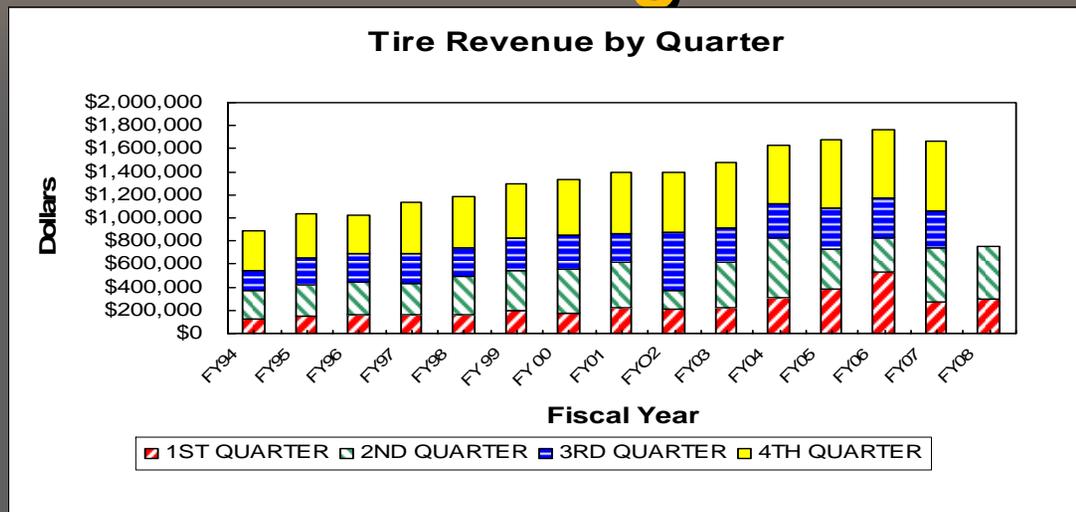
- Landfill liner requirements criteria have come into question

■ Future consideration

- In reviewing proposals to use an alternative liner design, the SWMA's should conduct a comprehensive detailed engineering evaluation to ensure protection of the environment



State and local funding



Local solid waste planning

- ⇒ Municipalities (Counties) need to focus on updating and implementing their solid waste management plans
- ⇒ Utilize the State plan as a guide. Feel free to use the map and profile (appendix 3), if applicable
- ⇒ Do not overlook the rural communities within the local jurisdiction
- ⇒ Illegal dumping is a persistent problem. Combating the issue through SW management planning, public education, and coordinated enforcement will help.



Basic elements of a SW management plan

- ⇒ Jurisdiction
- ⇒ Collection & transportation
- ⇒ Disposal
- ⇒ Special waste management
- ⇒ Controlling litter and illegal dumping
- ⇒ Waste reduction and recycling
- ⇒ Household hazardous waste
- ⇒ Implementation schedule



Whose plans are up to date

- ⇒ Esmeralda – January 2007
- ⇒ Eureka - September 2006
- ⇒ Lander - July 2006
- ⇒ Lyon - October 2003
- ⇒ Nye - October 2003
- ⇒ Pershing – October 2003
- ⇒ White Pine – August 2006



In closing

- ⇒ NDEP can provide guidance with development of your plan
- ⇒ Nevada Rural Water Association is available to assist local governments and tribes with planning
- ⇒ Use the MODEL to help you through the planning process
- ⇒ The plan should cover the entire process of storage, collection, transportation, processing, recycling, and disposal of solid waste
- ⇒ Use the NDEP municipal SWMP checklist as a basic outline
 - Jurisdiction, collection, disposal, special wastes, illegal dumping, recycling and household hazardous waste reduction, implementation schedule
- ⇒ This presentation will be on the NDEP – Bureau of Waste Management website at <http://ndep.nv.gov/bwm/solid.htm>



Questions

NDEP Website *www.ndep.nv.gov*

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