

INTEGRATING MAINTENANCE AND ASSET MANAGEMENT

Transportation Asset Management Peer Exchange

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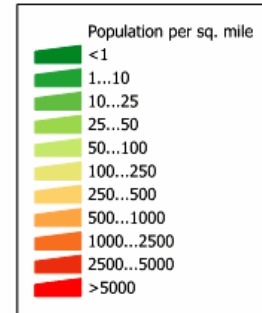
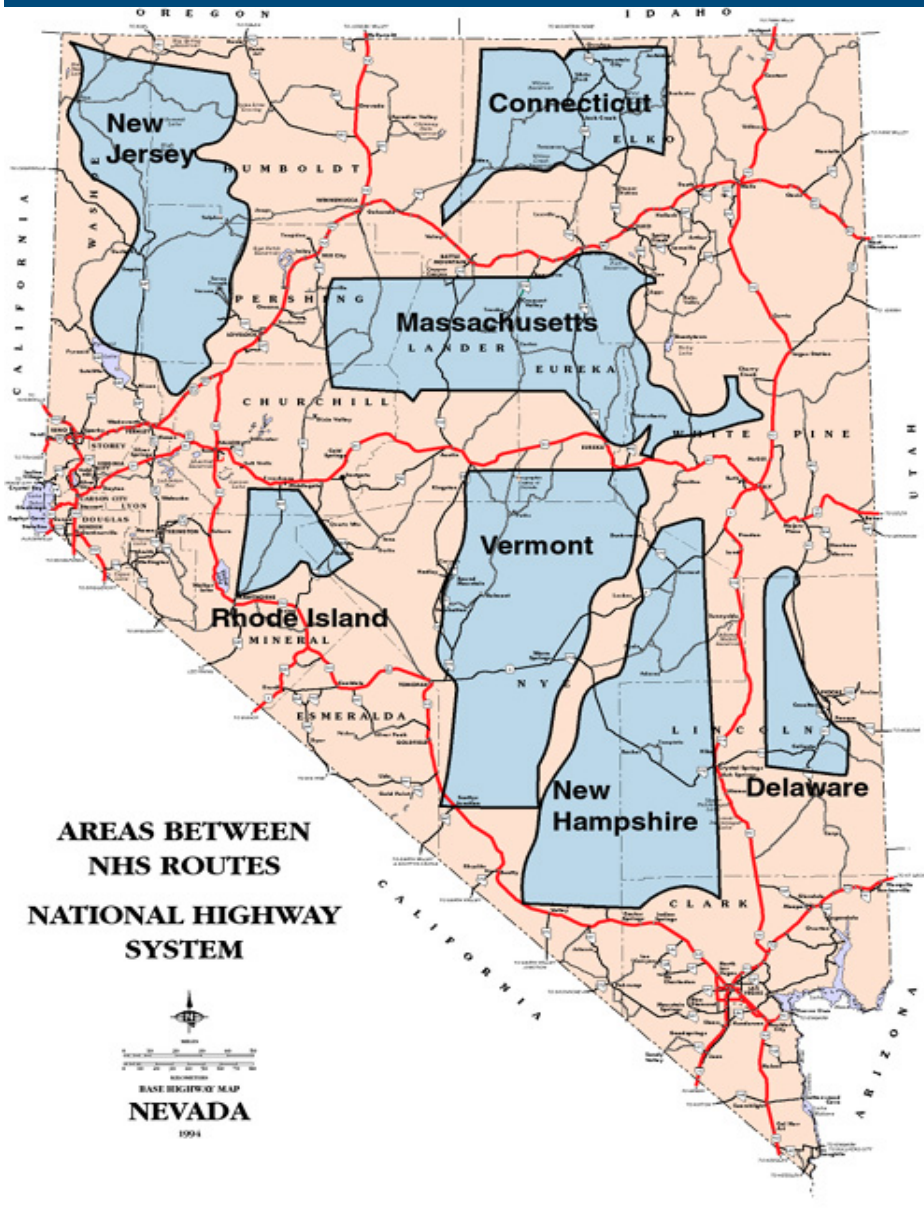
Chief Maintenance and Asset Management Engineer

Nevada Department of Transportation

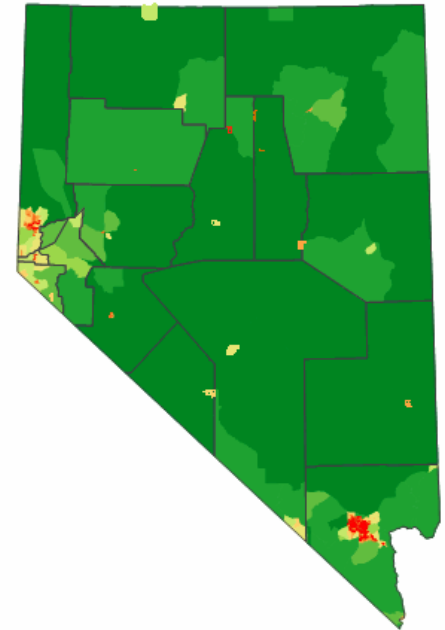


PRESENTATION OUTLINE

- Background Information
- Asset Management Principles
- Asset Management Practices in Maintenance
- TAMP Efforts
- Paradigm Shift
- Looking Ahead



Source: U. S. Census Bureau
Census 2000 Summary File 1
population by census tract.



NDOT maintained system is
5384 centerline miles (clm)

Total NHS 2549 clm

Local NHS 154 clm

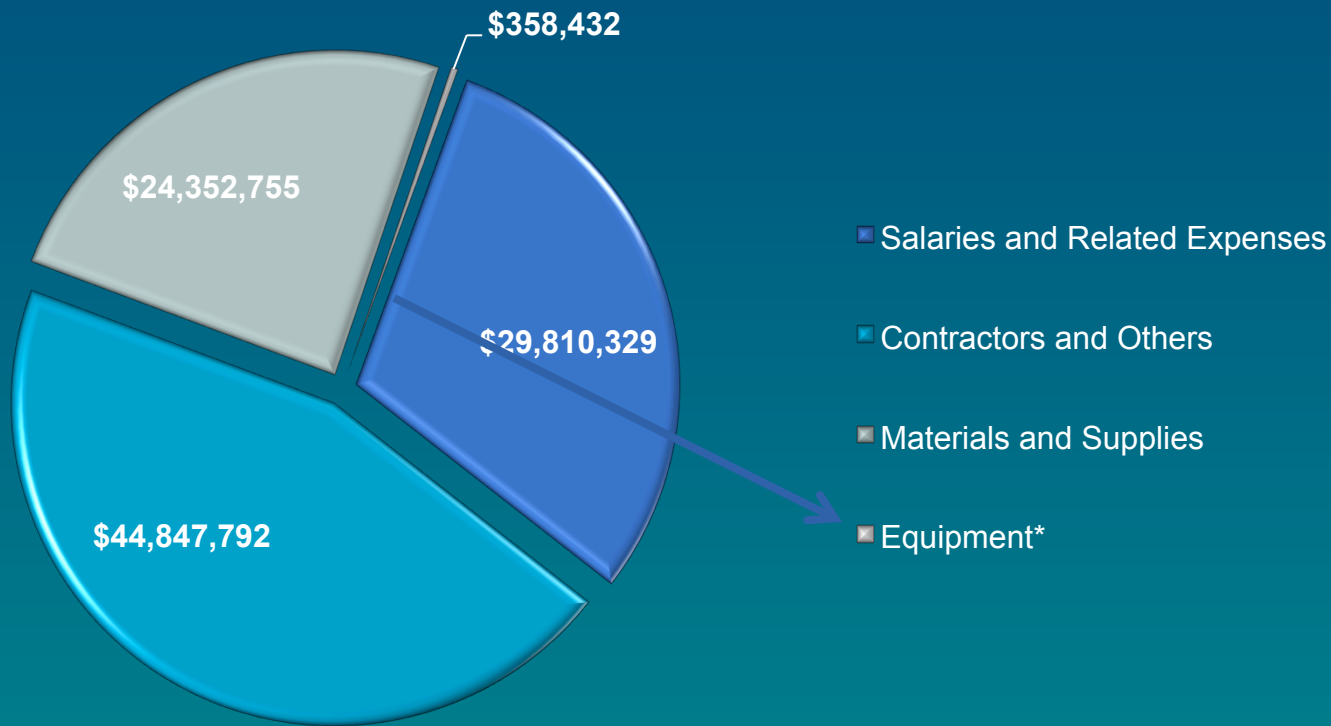
1972 public bridges

1116 NDOT bridges



MAINTENANCE COSTS

Fiscal Year 2012



Department Total Expenditures
\$825,524,510

*Non-rental equipment



ASSET MANAGEMENT PRINCIPLES

- Strategic approach to managing transportation infrastructure.
- Focuses on business processes for resource allocation and utilization.
- Better decision making based on quality information and well-defined objectives.



ASSET MANAGEMENT CONCEPTS IN MAINTENANCE (1)

- Data Collection/ Data Management
 - MMS
 - Asset Inventory
 - Condition Surveys
- Performance Measures
 - New MQA Program (implemented in 2012)
 - Pavement and Bridge (Department)
 - Equipment and Facilities

ASSET MANAGEMENT CONCEPTS IN MAINTENANCE (2)

- Preventive Maintenance Programs
- MQA – Maintenance Achievement Program
- Sign Management
- Facility Management

TAMP EFFORTS (1)

- 2008
 - I.S. Steering Committee begin TAM efforts
 - TAM Core Team formed/ Self Assessment initiate
 - Regional Workshop on TAM, Las Vegas, NV
- 2009
 - Self Assessment Complete
 - TAM Strategic/Implementation Plan focusing on data needs



TAMP EFFORTS (2)

2010 – Limited Resources/ Efforts

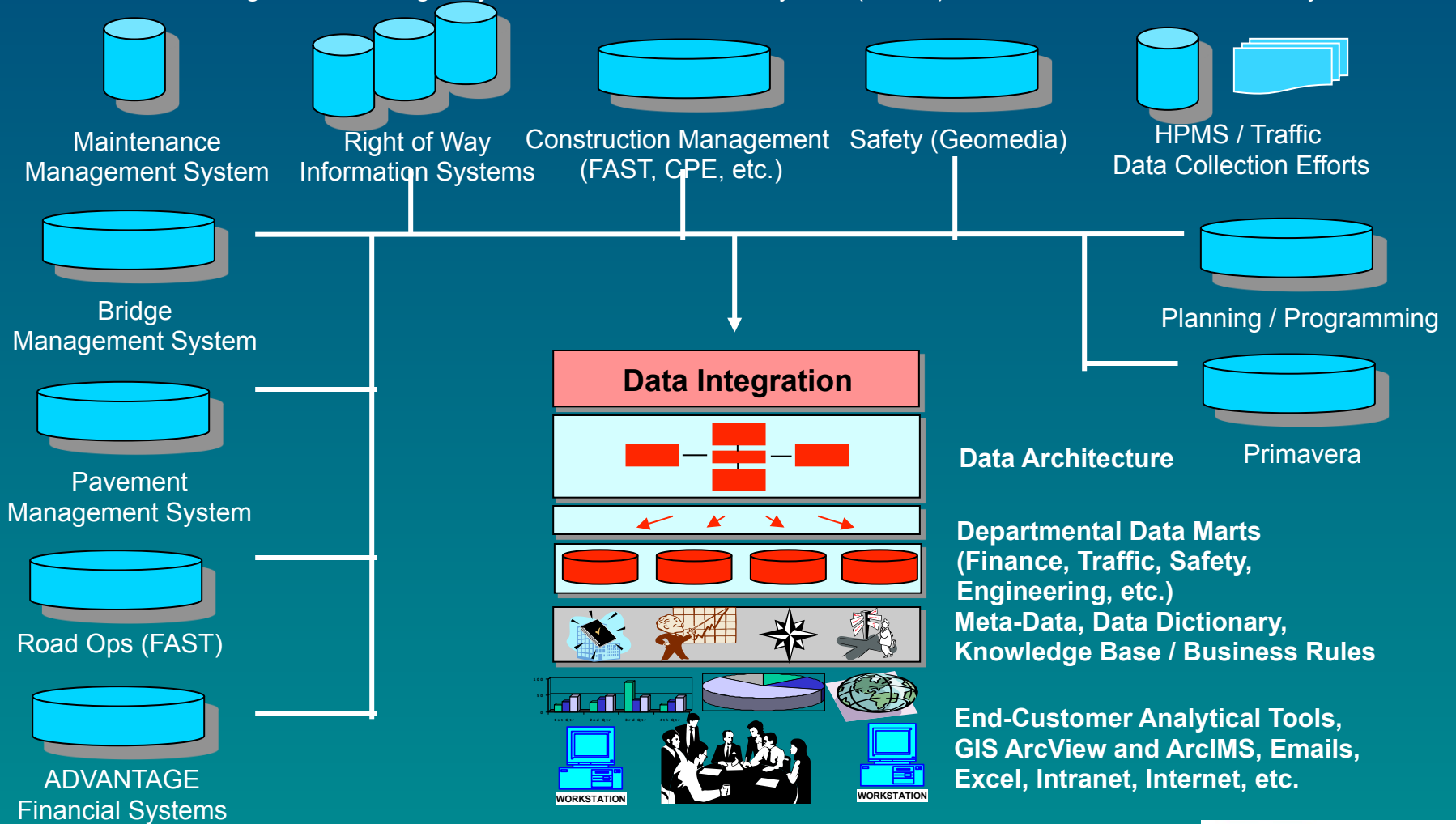
2011 – Strategic Data Group
(Data Maturity score 2-3)

- Data Governance
- Core Data Integration



DATA INTEGRATION / DATA WAREHOUSE

Environmental Planning / Permits / Highway Closures & Restriction System (HCRS) / Alternate Route Information System / etc.



EXECUTIVE INFORMATION / DECISION SUPPORT



TAMP EFFORTS (3)

2012 – Renewed efforts towards the development of TAMP due to MAP-21 Requirements

- Observer state FHWA's TAMP Development Project (LA, NY, MN)

2013 – Development of TAMP Plan

- 2 FTE's for Asset Management
- NHI Introduction to TAM
- Data Integration Workshop



PARADIGM SHIFT

Transform maintenance program

Proactive programs

Long term, system performance management

Maintenance actively manages asset conditions, supported by TAMP



WHAT'S DIFFERENT?

■ *OLD PROCESS*

- ✓ Tactical
- ✓ Reactive
- ✓ Compartmental & Piecemeal
- ✓ Stove Pipes
- ✓ Basic Tools
- ✓ “Slice” in Time
- ✓ Deficiencies
- ✓ Retiring Backlog
- ✓ Look Backwards

■ *NEW PROCESS*

- ✓ Strategic
- ✓ Proactive
- ✓ Integrated and Systematic
- ✓ Interdisciplinary
- ✓ Advanced Systems
- ✓ Continuous Assessment
- ✓ Focus on Outcome
- ✓ Systems Approach
- ✓ Forward Looking





QUESTIONS?

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