GDOT Overview

Maintenance Challenges

April 15, 2010

Georgia Department of Transportation

ROUGH ROADS AHEAD

Georgia Department of Transportation

Life Cycle of a Road

Design
Construction
Initial Deterioration
Visible Deterioration
Disintegration and Failure

Initial Deterioration

Treatment for Initial Deterioration

Treatment for Initial Deterioration

Treatment for Initial Deterioration

Visible Deterioration

Treatment for Visual Deterioration

Treatment for Visual Deterioration

Phase of Pavement Treatment

1 1/2" RIDING SURFACE MIX
(12.5 MM SUPERPAVE ASPHALTIC PAVEMENT)

2" TO 3" BINDER MIX
(19 MM SUPERPAVE ASPHALTIC PAVEMENT)

4" TO 6" BASE MIX
(25 MM SUPERPAVE ASPHALTIC PAVEMENT)

GOOD BASE MATERIAL

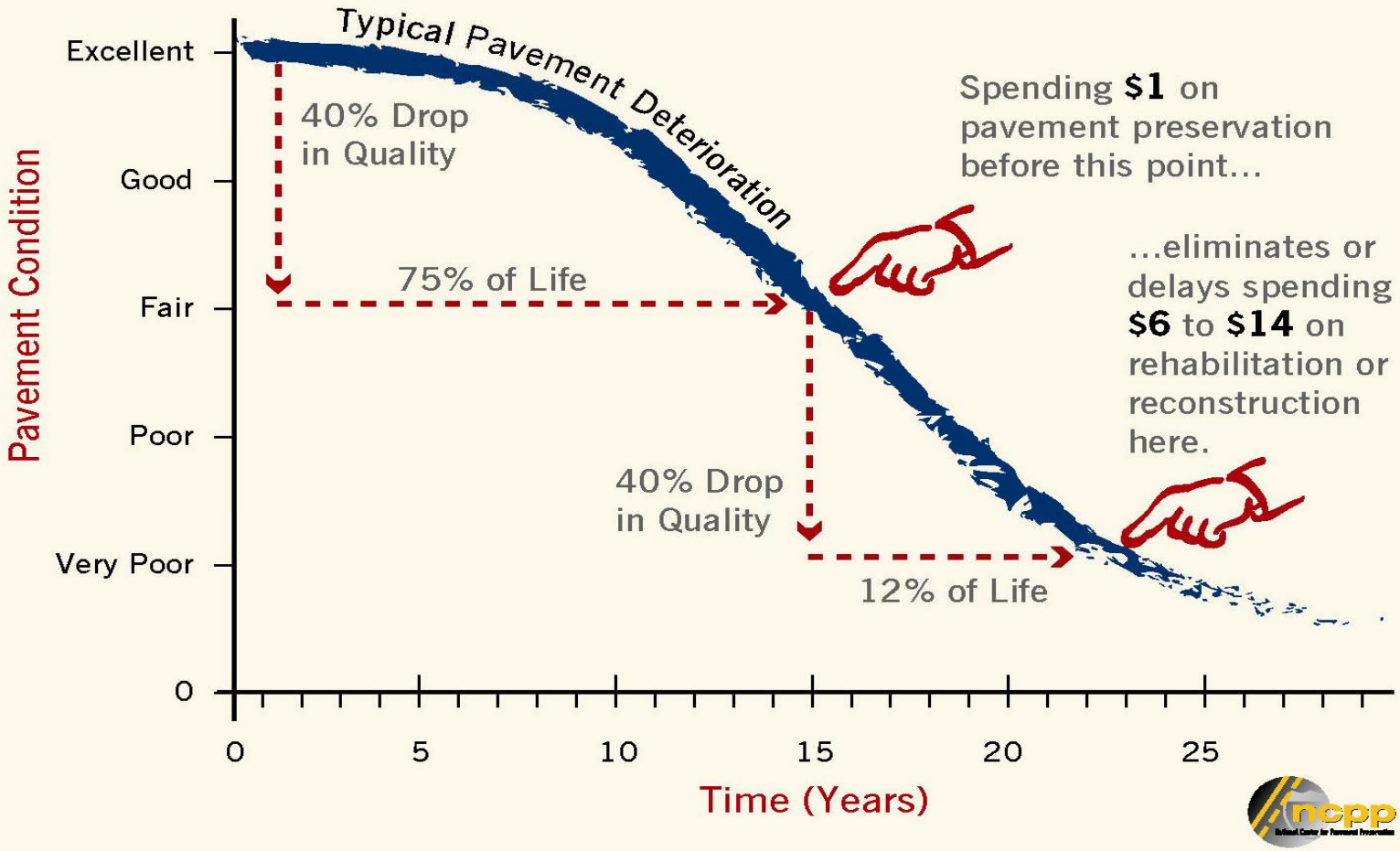
Disintegration and Failure

Treatment for Disintegration and Failure

Treatment for Disintegration and Failure

Phase of Pavement Treatment

PAVEMENT PRESERVATION IS COST EFFECTIVE



Source: National Center for Pavement Preservation.

Preservation Example

10 Mile section of Roadway

Life cycle of 1 lane of that road

Pavement Maintenance Needs Asphalt and Concrete

- 2327 centerline miles
- 12.8 % of the system
- Total identified needs of $1.1 Billion

Routine Maintenance

- Motor Fuel Dollars only

Guardrail Repair

Guardrail Maintenance Needs

- 1099 Guardrail Deficiencies System Wide
- Approximately 110,000 Linear Feet
- $2.3 Million (Motor Fuel Dollars)

Drainage Maintenance

Sign Maintenance

Litter Removal

Mowing

Shoulder Maintenance

Rest Areas and Welcome Centers

Bridge Maintenance

Routine Bridge Maintenance Needs

- 6825 Routine Bridge Maintenance Needs
- $50 Million/ Year for 10 years

Emergency Response

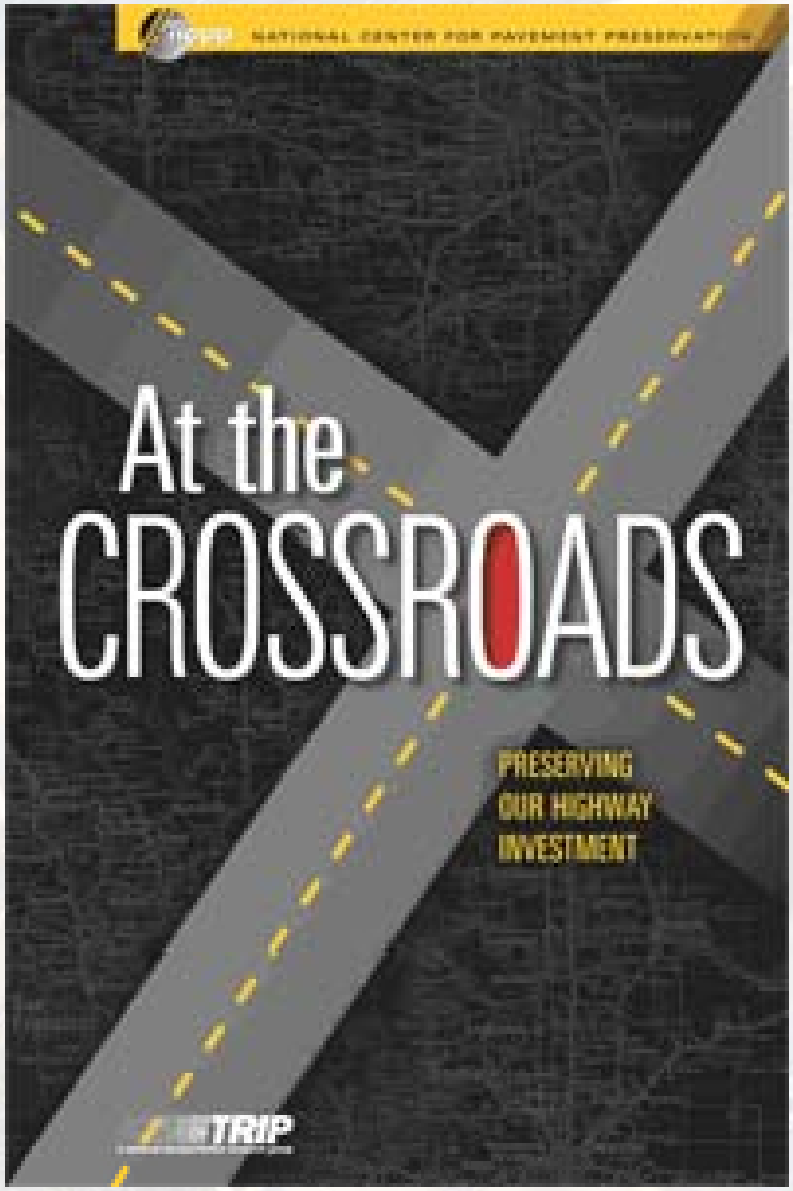
FY 2010 Emergency Work

$ 5.3 Million spent this FY

Tornado?

Hurricane?

Flood?


NATIONAL CENTER FOR PAVEMENT PRESERVATION
At the
CROSSROADS
PRESERVING
OUR HIGHWAY
INVESTMENT
TRIP

Current Roadways Maintained

- 18,100 centerline miles on the State Route System
- 47,648 Lane Miles

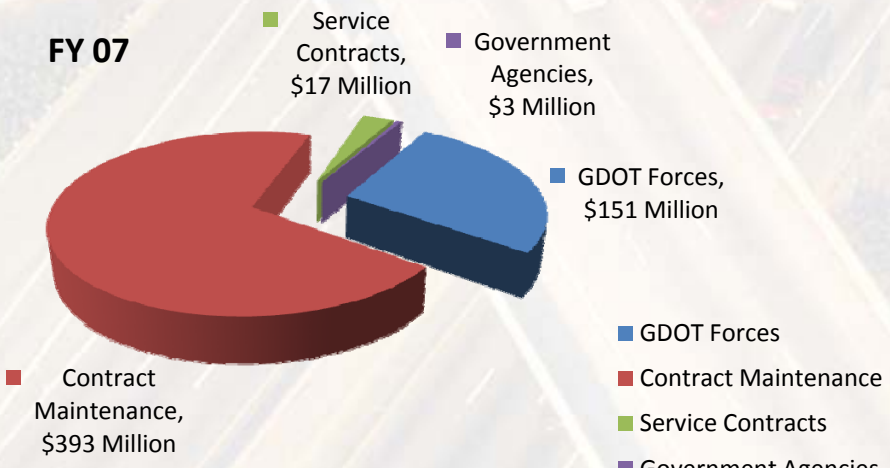
Maintenance Employees per lane Mile

YEAR	NUMBER OF LANE MILES (% Increase over 1978)	NUMBER OF MAINT. PERSONNEL
1978	39,791 (0.0%)	?
1988	42,961 (8.0%)	3,069
1998	45,862 (15.3%)	2,803
2008	47,648 (19.7%)	2,042
2010	47,648 (19.7%)	1,733

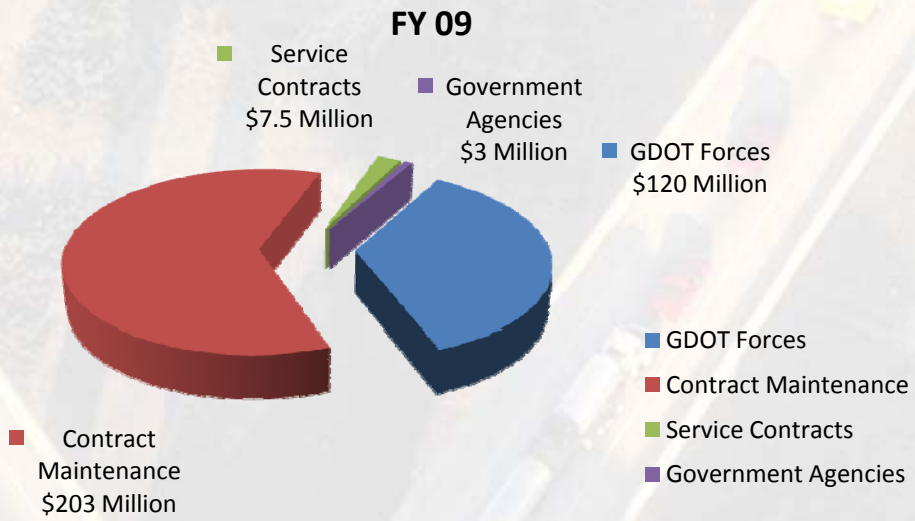
14 lane miles/employee

27.5 lane miles/employee

Maintenance Funds



$564 Million



$333.5 Million

Other challenges for Maintenance

Cost

Increased Traffic /

More Crashes

More Miles

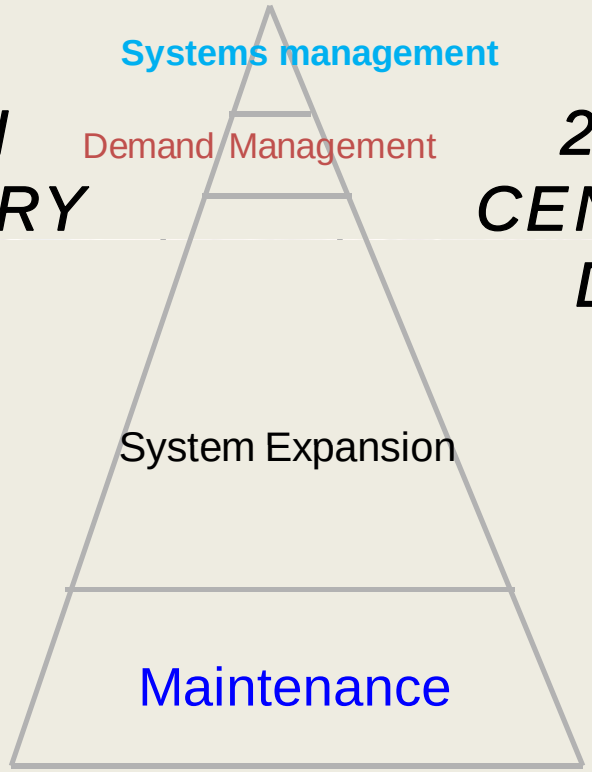
System Age

More Litigation

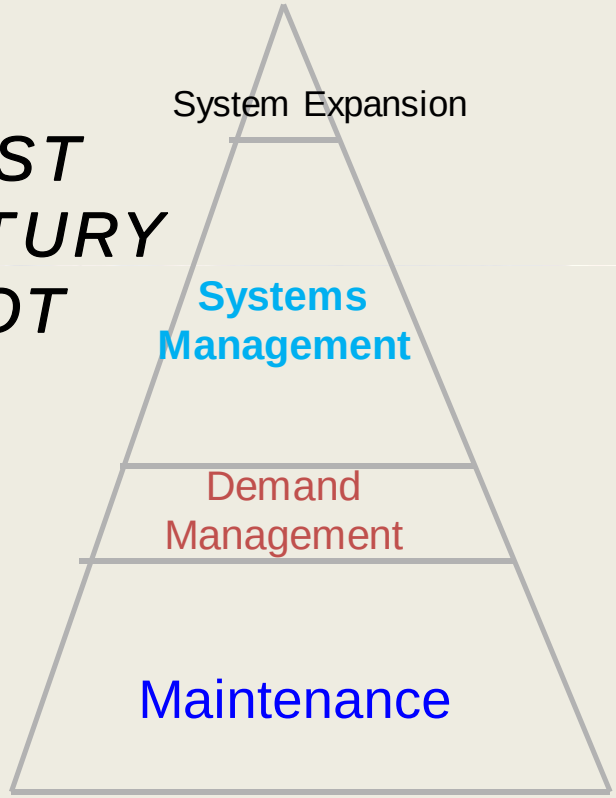
Needs

The Future DOT

20TH CENTURY DOT



21ST CENTURY DOT



Future of Maintenance

"We as transportation stewards of the system have no choice but to drive home the message that maintaining an acceptable condition for our highways – preserving the system – is vital to our country's future."

Allen D. Biehler, Secretary Pennsylvania DOT

Questions