Land Use Planning and Road Safety

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Overview

- Transport futures
- Road safety performance
- Road safety policy
- Land use planning and road safety
Road Rules

- There are 1.5 million road safety experts in WA, all with a good solution for someone else to do
- Cemeteries are places for people who thought “it isn’t going to happen to me”
- The dumbest person you know can get a drivers license
- 95% of drivers think they’re better than average

Transport Futures

- Forecasts
  - road safety?
  - transport safety?
Perth’s Transport Future?

➢ By 2020 for Perth\(^1\) it is estimated that
  - population will increase by 13%
  - road freight transport will increase by 34%
  - traffic delays will increase by 28%
  - congestion costs will rise by 69%
    to $1.2 billion per annum

➢ Each year on WA roads
  - about 170 people die
  - about 3,000 are injured
  - about 50 people die in workplaces
  - crashes cost about $3 billion

Source:

Road Safety Trends

➢ The current national road safety trend is a 2.2% reduction in fatalities per year, but...

Sources: 1. BITRE July 2010, Road Deaths Australia
         2. Gargett, Nguyen & Cosgrove (2009), Fatality Rates, Australasian Transport Research Forum
WA Road Safety Forecast

Source: BITRE January 2011, Road Deaths Australia

Road Safety Strategy Evolution

- **Haddon's Matrix** (1970's)
  - **Phases**: precrash, crash, postcrash
  - **Factors**: human, vehicles & equipment, physical environment, socio-economic environment
  - **Results**: damage to people, vehicles & equipment, physical environment, society

- **Four E’s** (1920’s to 1990’s)
  - Engineering, Enforcement, Education, Encouragement

- **Safe Systems / Vision Zero** (2000’s)
Transport Safety Policy

- 'Externality' assessment
- Historical analysis
- Incident investigations
- No recent reform
- Micro-policy perspective, not mainstream policy
- Exceptions
  - WA 'Towards Zero'

Safe Systems

- Recognise that users make mistakes
- Recognise the limits of the human body to withstand energy
- Integration and collaboration between contributing parties and authorities
- Shared responsibility
Towards Zero deaths
Towards Zero injuries
Towards Zero crashes?
Towards Zero trauma?

Towards Zero V8’s?
Towards Zero large SUV’s?
Towards Zero lawyers?
Towards Zero enforcement?
Towards Zero blame shifting?

Towards Zero budget?
Transport Safety Future?

Upward Pressures
- transport demand
- vehicle power
- driver attitudes
- treatment costs

Downward Influences
- vehicle safety
- infrastructure quality
- safety awareness

Uncertainties
- diminishing returns
- congestion
- enforcement

The government's view of the economy could be summed up in a few short phrases:

*If it moves, tax it.*
*If it keeps moving, regulate it.*
*And if it stops moving, subsidize it.*

- Ronald Reagan

The community's view of the road safety?

Land use planning’s view of the road safety?
Policy Tool Selection

Desirable? Necessary? Valuable? Sufficient? Integrated, complementary or conflicting? Are there better alternatives?

Land Use Planners

Land Use Policy for Road Safety

- Transport Supply and Demand
  - Levels, Management
- Transport Alternatives
  - Safer modes, non-transport substitutes
- Spatial Arrangement
  - separation, integration, co-location
- Transport Integration
  - logistics management and optimisation, transit oriented development, mixed use development
A New Transport Planning Paradigm

**Current Perspective**
- microanalysis
- short term
- narrow focused
- detailed / fragmented
- historical
- quantitative
- separate mode view
- infrastructure solutions
- commodity view
- incremental & evolutionary
- environmental & social benefits largely ignored

**New Planning Paradigm**
- strategic
- holistic
- long term
- broad
- integrated
- multifaceted
- future oriented
- qualitative & quantitative
- customer view
- logistics chain analysis
- quantum change & revolutionary
- environmental & social benefits described

How do we improve what we've got?

How do we provide what we need?

There is nothing a Government hates more than to be well-informed; for it makes the process of arriving at decisions much more complicated and difficult.

Keynes
National Transport Policy

Weaknesses

- **Leadership**
  - No major policy improvements since truck charging and rail commercialisation in 1990's

- **Policy, Strategy and Planning**
  - Commonwealth Major Cities Unit
  - WA grain rail reform

- **Co-operation**
  - eg State - Commonwealth, State v State

- **Research**

- **Capability**
  - Skills, knowledge and experience
  - Data and information
  - Number of people

More Road Rules

- Doing more isn’t going to be enough
- The latest RTTF funding increase won’t be enough
- We *can* do better
  - We *must* do better
- Road safety is someone else’s responsibility
- Resources are available, *if* we’re creative
Land Use Planning and Road Safety

- Report road safety outcomes in land use plans
- Include road safety measures in land use plans and policies
- Collaborative research

Multi-disciplined
- Strong analytical base
- Independent
- Multimodal
**Effect of Driving Experience**

Source: C-MARC Presentation, Graduated Driver Licensing: Where to Next?, Senserrick, 2010

**Driver safety by age**

Source: Fact Sheet: Young Novice Drivers, SWOV (Netherlands Institute for Road Safety Research)
http://www.swov.nl/rapport/Factsheets/UK/FS_Young_drivers.pdf

Source: Older Driver Crash Rates in Relation to Type and Quantity of Travel
Keall & Frith, Traffic Injury Prevention, 2010
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