Cycling planning and infrastructure program delivery in Department of Transport and Main Roads

Innovation and future directions

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Agenda

1. Strategic direction
2. Planning the network
3. Prioritising routes
4. Analysing options
5. Allocating funds
6. Designing and building
7. Evaluating use
8. What next?
Strategic direction

Delivering the Principal Cycle Network (PCN)

1. Plan the network
2. Prioritise routes
3. Analyse options
4. Allocate funds
5. Design and build
6. Evaluate use

Community needs

Queensland Cycle Strategy 2011-2021
Planning the network

Delivering the Principal Cycle Network (PCN)

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Identify principal cycle network

- Region-wide plans
- Developed jointly between the department and local governments
- Identify ‘core cycle network’ of existing and future routes in urban areas
- Focussed on the commuter cycle network
- Trigger the state’s Cycling Infrastructure Policy.
Principal cycle network plan status

• Seven plans developed:
  - Downs South West
  - South East Queensland
  - Wide Bay Burnett
  - Central Queensland
  - Mackay Isaac Whitsunday
  - North Queensland
  - Far North Queensland.

• 48 local governments areas covered.
Prioritising routes

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Delivering the Principal Cycle Network (PCN)
Why prioritise the PCN?

- Advances the PCN by prioritising network and providing guidance for delivery
- Priority routes identified have greatest impact to the cycle network – ‘More cycling more often on safe, direct, and connected cycle routes’
- Agreed view between the department and local governments (transparency)
- Feeds a pipeline of potential projects that could receive funding over the next 10 years.
Prioritisation process

**PHASE 1** Generate Cycle Benefit Index (CBI) To identify priority areas

**PHASE 2** Apply supplementary route analysis
Quantitative analysis to identify priority routes

**PHASE 3** Local Government and Department and Transport and Main Roads Consultation
Qualitative analysis to moderate priority route map & produce 10 year Action Plan

Audit
Identify Principal Cycle Network

Implement through local & state infrastructure programs

Confirm & endorse priority routes map
Development of priority route maps

• Supplementary route analysis

**Quantitative analysis**

- **Safety**
  - Crash data

- **Demand**
  - Cycle counts
  - Population within catchment

- **Connectivity**
  - Trip attractors/generators
  - Topography

**Qualitative analysis**

- **Strategic Importance**
  - Local and State Government priorities
  - Community interests

- **Network Enhancement**
  - Missing links

- **Implementation**
  - Feasibility
  - Opportunity
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Analysing options
Implementing priority routes

Key actions to implement highest priority routes:

• Options analysis projects, funded by the Transport System Planning Program
• Partner with local government to accelerate their planning on priority routes.
Allocating funds

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Funding mechanisms

Policies and strategies
- Regional Planning
- Queensland Cycle Strategy
- Transport Planning & Coordination Act

Transport and land use policies
- Planning Schemes
- Local Bicycle Plans

Principal Cycle Network Plan
- Relevant Transport Plans (IRTPs/Area Strategies)
- PCNP Action Plans
- Detailed plans/feasibility studies

Delivery Mechanisms
- Conditioning development – under Sustainable Planning Act
- Cycle Network Program Grants
- Local Government Investment
- Transport Infrastructure Development Scheme
- Cycling Infrastructure Policy
- Capital Investments by TMR (QTRIP)

Outcomes
- Facilities constructed by private development
- Local Government Cycle Infrastructure projects
- Transport and Main Roads cycle infrastructure projects
Cycle Network Local Government Grants program

From 2006 – June 2016 the Grants program has delivered:

• 375 projects
• 392 kilometres of infrastructure
• For $115.1 million.

Schulz Canal Green Bridge - Delivered by Brisbane City Council

Mallawa Drive/Nineteenth Avenue roundabout upgrade - Delivered by City of Gold Coast Council
Transport and Main Roads Capital Works program

From 2006 – June 2016 the Capital works program has delivered:

- 17 projects
- 30 kilometres of infrastructure
- For $67 million
Assessment process

Multi-criteria analysis → Panel assessment → Technical assessment

Program published in QTRIP
Cycling Infrastructure Policy

• The policy requires that on principal cycle network routes, the department will explicitly provide for cycling in transport infrastructure projects.

• Examples
  - Bruce Highway, Mackay
    ▪ Bike lanes and path in an intersection upgrade
  - Moreton Bay Rail Link, South East Queensland
  - Shared path along a new rail line
  - Ross River Road, Townsville
    ▪ Bike lanes in a reseal project.
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Designing and building
Supporting best practice

• Transport and Main Roads Regions/Districts and local governments are responsible for cycling infrastructure design and delivery

• Cycling program supports best practice via:
  - Technical guidance development, research
  - Training and capability
  - Technical assessments
    - Program guidelines
    - Design checks
    - Final inspections.
Technical governance

Including:

- Austroads guides
- Technical Notes:
  - TN 128 Selection and Design of Cycle Tracks
  - TN 133 Widths of Shared paths and separated bicycle paths
Upcoming training

18 – 21 October, Gold Coast

- RPD308 Pedestrian Crossing Facilities and TGSI Design.
- Separated Cycle Tracks Masterclass.
- RPD418 Designing for Pedestrians and Cyclists.
- Pedestrian and Cycling Provision for Planners and Managers.
Technical assessment

- Program Guidelines:
  - Cycling Works
  - Cycle Network Local Government Grants
- Design Checks
- Final inspections
Evaluating use

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Evaluation

- Cycling Program currently developing Benefit-Cost Ratio (BCR) analysis method and tools
  - Pre and post evaluation of projects
  - High level results – BCRs generally greater than two
  - More data required to improve.
Data sources

- **Surveys**
  - National Cycling Participation Survey.

- **Counts**
  - Rolling program of cycle and pedestrian counts.

- **Data counters**
  - Rationalising fixed data counters
  - Aiming for regular reporting of counts.

- **Strava**
  - Shows use of the network
  - Evaluate impacts of new links.
Strava Heatmap

- Free online user-sourced data
- Useful indicator of where people are cycling (and walking/running)
- Represents approximately 5-10% of all bicycle use
- Only state-wide source of data.
Strava: 2014 versus 2015

“Slider” tool enables comparisons of network between the last two years

North Brisbane Bikeway 2014

North Brisbane Bikeway 2015 after Stage 1A-1 opened
What next?

Thank you