Managing Future Demands

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Efficient Gravel Road Maintenance
The Grading Debate

- Cyclic Grading Programs
  
  Predetermined grading program

  or

- Reactive Programs
  
  Grade roads which are out of specification
2009 Contract Model

- Fence to Fence Contract
- Partnership Model
- Cost Plus Agreed Margin
- Improved Customer Service
- Reduced Costs
Improving Customer Service

Number of Public Calls Jan 2008 - April 2011

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Explaining Away the Problems

• Our climate – hot & dry or freezing
• Unrealistic expectations of our customers
• It’s a few people who just want sealed roads
• City people moving into the District
Reducing Costs

Maintenance Costs 2011/12

Cost $1,000's

- Structures
- Signs
- Drainage
- Lighting
- Sealed roads
- Network Management
- Environmental Maintenance
- Unsealed Roads

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Identifying the Problem

- What were the calls for
- Who was calling
- How often did the road need grading
- How often were they getting graded
- Lengths graded per month/grader
Myth Busting

• Most calls were for grading
  • Not for gravel, dust or freeze/thaw

• They were from lots of people

• They were for lots of roads
  • But some more often than others

• They were from all areas of the District
Differences in Focus

**Council**
Manage Customer Demand
- More resources at peak times
- Need to be in many places at same time
- Grading method slow and thorough

**Contractor**
Manage Cost Efficiency
- Plant and labour optimisation
- Optimise establishment
- Fast grading method
Changing Perspective

• Improved Council understanding of cost drivers
• More graders = more $$$
• Less graders with less down time = $$$ saving

• Improved Contractors understanding of Customers
• Get to the problem roads more often
• Spend longer grading each road
Joint Focus

Planned programs targeted to demand, Optimise plant use over year

Predictability of Demand

- Traffic volume
- Traffic type
- Asset life cycles
- Weather
- Topography
- Metal type
- Events on network
- Tourist operator routes
- Farming calendar
## Grading Smarter

### Grade less and target to demand

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<tr>
<th>ONRC</th>
<th>Classification</th>
<th>Number of Grades</th>
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<tr>
<td><strong>Access</strong></td>
<td>Major</td>
<td>8 or 10 grades per annum</td>
</tr>
<tr>
<td></td>
<td>Intermediate</td>
<td>6 or 4 grades per annum</td>
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<tr>
<td><strong>Access Low Volume</strong></td>
<td>Minor</td>
<td>3 grades per annum</td>
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<td></td>
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<td>2 grades per annum</td>
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<tr>
<td></td>
<td>Track</td>
<td>1 grade per annum</td>
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The Results

• We told the public that we were making changes
• The programs were available on the web
• Grading length reduced by 33%
• Public calls reduced by 64%
• Feedback that roads are best they have ever been
ARRB Roughometer
Lessons Learnt

- Need to be able to accommodate the unexpected
- Allow some down time each month
- Monitor program, costs, and calls monthly
- Review and update program annually
- Communication is key
Which Gives the Best Outcome?

• Cyclic Grading Programs

  Predetermined grading program, targeted to predicted demand

  instead of

• Reactive Programs

  Grade Roads when they are out of specification