

***Water, Wastewater, Stormwater
(and a few others)***

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Outline

- Legislative Environment
- Specific Characteristics
- Issues

Water Supply

- Legislation inconsistent and sometimes conflicting – No ‘Water Services Act’
- Over 130 Acts and Regulations
- Numerous local Acts – varying powers
- Over 1800 ‘Public Water Supplies’
- Implicit assumption that local authorities will be the provider of service
- Not correct!

Key Legislation

- Health Act
- Local Government Act
- Rating Powers Act
- Resource Management Act
- Building Act
- Fire Services Act
- Transit New Zealand Act

Customer Relationship

- With a few exceptions is not contractual
- 'Administrative' in nature
- No 'Terms and Conditions of Supply'
- 'Point of Supply' not stated in law and sometimes uncertain
- No national standards
- Cannot force connection but can charge for serviceable lots

Specific Characteristics

- Pollution transport network - less than 1% consumed
- Key Public Health function
- Integral with sewerage system
- Multipully redundant network passively managed
- Typical maximum pressures 1Mpa (10bar)
- Pressures dominated by topography
- Backflow will occur if not controlled

More Characteristics

- Has Fire Supply function
- Maintaining water quality can be a problem
- Damage can compromise health safety
- Need for hygiene separation of networks, personnel and equipment
- Backflow prevention necessary
- When fails can cause catastrophic failure

Issues

- NZ moving from water rich nation to one with localised scarcity
- Unquantified backlog investment
 - ◆ Water quality
 - ◆ Standards of Service
- Severe shortage of investment capital
- Conflicting roles for local authorities
 - ◆ Owner/customer's rep/RCA/regulator/operator

Sanitary Sewerage

- Legislation even worse than water
- Definition in LGA of 'Public' and 'Private' drains and body of Case Law
- Legislation doesn't differentiate between sewer and stormwater
- Also assumes local authorities only provider

Legislation

- Similar but have remaining 'Drainage Board Acts' with varying powers
- Point of Discharge not defined and some bylaws define it in road reserve
- Statutory requirement to keep a 'Drainage Record'

Customer Relationship

- As with water is administrative not contractual in most cases
- Councils can force connection to sewer
- Can charge for unconnected but serviceable lots
- Councils cannot use volumetric charge

Specific Characteristics

- Pollution transport
- Usually 'separate' systems
- Branch network with no redundancy
- Open Channel Flow – some pumping
- Route controlled by topography not constrained to road
- Continuous interconnected airspace
- Toxic environment
- Affected by rainfall 4 X ADWF typical

Issues

- Same problems with Council's conflicting roles
- Unquantified deferred investment
 - ◆ Effluent quality – biosolids
 - ◆ Urban growth
 - ◆ Some on-site systems suspect
- Same capital constraints
- Problems with effective regional planning

Stormwater

- Not a 'Utility' in normal sense
- Essentially a 'Public Good'
- Land Use problem
- Crossing watercourses
- Managing the effects of development
- Road itself part of the network

Legislation

- Land Drainage Act
- Resource Management Act
- Building Act
- Growing body of Case Law

Customer relationship

- No customers
- No billing mechanism
- Affect on properties greatly variable

Specific Characteristics

- Level of Service and Level of Protection
- Secondary Flow paths critical
- Multiple networks unconnected
- Determined by geography and topography
- Combination of channels, pipes streams and rivers
- Increasing use of detention structures
- Pumping expensive and limited

Issues

- Quality Issues
- Planning problems with incremental nature of land use change
- Climate change
- Changing customer expectations and demands for absolutes
- Funding particularly Transfund rules
- Protecting secondary flow paths

A Few Others

- Petrol
- LPG
- Methanol
- Ballast Water
- Industrial Water
- Medium Temperature Hot Water
- Tallow

QUESTIONS?




