

2017 Stormwater Victoria Conference, Lorne.

How Much Do You Know About Your Assets?



Suite 22, 2 Enterprise Drive, Bundoora Vic 3083

Phone 03 9466 5200 info@rapidmap.com.au www.rapidmap.com.au

How Much Do You Know About Your Assets ?



Introduction

- Stormwater drainage networks are critical assets which, when properly designed and maintained, ensure that adequate drainage is achieved and flooding is prevented.
- Stormwater assets typically comprise about 25% of a Council's asset base, yet it's amazing that many Councils have very poor drainage network data.
- Accurate data for stormwater drainage networks does not seem to be a priority for many Councils.
- Why not?
- Is it all too hard?
- Out of sight out of mind?



How Much Do You Know About Your Assets ?



What Do You Know?

- It seems typical for many Councils to have poor, out of date data for their stormwater drainage assets.
- In our experience, the number of stormwater assets is often underestimated by around 30%.
- That may not sound much, but it could mean \$30m, \$50m, \$80 million worth of assets is not being accounted for!
- In one extreme example there were almost 90% additional pits.
- Imagine how that affects valuation, maintenance budgets, planning etc.!



How Much Do You Know About Your Assets ?



What Data Do You Have?

- Some Councils have stormwater assets in a range of disparate datasets. This often includes a mixture of spreadsheets and incomplete GIS layers.
- The data will probably come from various sources, over a number of years and is probably not up to date.
- Sometimes the only information available is in old as-constructed drawings or even design plans, in hard copy or possibly scanned PDFs.
- Not really a handy management tool!



How Much Do You Know About Your Assets ?



Can You Trust the Data You Have?

- We generally find that the quality of existing stormwater data is very poor.
- Asset locations are can be very inaccurate, pits are in the wrong positions, shown in the middle of the road instead of on the kerb,
- Often easement pits are located in the wrong property. As if accessing assets on private property wasn't hard enough already!
- The connectivity of the network can be wrong or incomplete.
- Pipes are linked to the wrong pits, pipes bypass pits and link to pits further down the street.
- Flow directions can be wrong.



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Can You Trust the Data You Have?

- Sometimes the levels for pits and pipe inverts can be out by 10m. Which suggests to me they have been captured with inadequate GPS equipment or they are ellipsoidal heights rather than AHD heights.
- Asset attribute data is often wrong, inconsistent, incomplete or very limited.
- All this makes the task of efficiently managing your stormwater drainage assets extremely difficult.
- Certainly much harder than it needs be!



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What is the Solution?

- For effective management of stormwater drainage network assets, a detailed pit and pipe survey should be undertaken.
- Data capture for stormwater drainage networks must be accurate, efficient and complete.
- Importantly it must be affordable.
- If the estimated cost exceeds annual budgets, staged data capture of catchments or townships allows Councils to allocate sufficient budget annually to achieve this over a number of years.



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What to Include?

- This is not a time for short cuts or cost cutting.
- It is important to including accurate pit locations, and accurate AHD levels of pits and pipe inverts.
- Other critical requirements are to establish full network connectivity, and flow directions.
- Detailed attributes should be captured for pits including pit type, material, depth, dimensions, condition, lid type, access information, and defects.
- For pipes material, diameter/dimensions, connecting pit IDs, invert levels, grade (calculated), condition and defects.



How Much Do You Know About Your Assets ?



Should You Collect All Assets?

- Asset ownership raises some interesting questions. Some of the assets may belong to other authorities such as VicRoads or Melbourne Water.
- Should you exclude these assets?
- It raises the interesting conundrum - Valuation v Modelling
- For valuation purposes you may feel that these assets belong to someone else.
- For modelling purposes you need to include all connected assets.
- For the optimum benefit, collect all connected assets, work with the other authorities to identify ownership, include an attribute for ownership and exclude these identified assets from the valuation.



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What is the Outcome?

- Detailed stormwater drainage survey provides:
 - Accurate stormwater drainage GIS layers;
 - An accurate up-to-date Asset Register for asset management.



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What Do You Get From This?

- Quality data allows asset managers to make well-informed decisions about future maintenance and upgrade programs;
- Prioritise maintenance requirements;
- Prioritise any additional condition investigations, e.g. CCTV;
- Carry out detailed stormwater modelling and flood modelling;
- Accurately assess network capacity and identify any network deficiencies;
- Utilise accurate data for design purposes;
- Calculate accurate asset valuation, depreciation and remaining useful life;
- Establish realistic lifecycle costs;
- Determine long term renewal, replacement and maintenance requirements;
- Respond to flooding events, chemical or fuel spills etc.



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Who Do You Talk To?

- Talk to RapidMap!
- Come and see us at booth 7, we would be happy to discuss your needs.
- You can benefit from our extensive experience:
 - Call us on 03 9466 5200
 - Email enquiries to info@rapidmap.com.au
 - Or visit our website: www.rapidmap.com.au

