

## TAHLIA GRIFFIN

### Qualifications

Bachelor of Science (Chemistry and Environmental Science), University of Melbourne

Currently undertaking Graduate Diploma in Asset Management



Tahlia is a principal consultant, having worked on various leading edge projects over the last 8 years. Tahlia's strategic approach and problem-solving skills are invaluable to any asset management project. She has great enthusiasm and drive and she shows this within every project she does.

Tahlia's communication skills have provided her with the ability to work directly with clients on a daily basis and allows her to take a lead role on numerous asset management projects.

Tahlia enjoys her role as an asset management practitioner, assisting organisations in the development and improvement of their asset management capability. "It's great to see that you have made a difference – the work is very rewarding."

Tahlia's strengths include asset management plans (she has produced over 50 to date), asset criticality and risk, asset management data reviews, process development and asset management maintenance planning.

Tahlia has worked in various industries including water, roads, ports, government, parks and facilities.

### Criticality

#### **Westernport Water, Review of Water and Sewer Linear Asset Criticality Framework and Overall Business Case**

Tahlia undertook a review of Westernport Waters proposed criticality framework and business case for the water plan renewals. The business case was for water and sewer linear assets and used environmental, social and economic factors in its equations. The review involved analysing all aspects of the business case including the criticality criteria, performance criteria, risk matrices and calculations and testing the overall business pragmatically.

#### **MidCoast Water Criticality of Sewer and Water Linear Assets, 2013**

Tahlia lead the production of the criticality framework for sewer and water linear assets. The criteria considered social, environmental and economic factors and the items for assessment under each category. The project went as far as identifying the sources of data considering the GIS as a very useful tool for much of the inputs required.

### Areas of Experience

- **Asset management plans**
- **Asset management policy**
- **Asset management strategy development**
- **Infrastructure risk management**
- **Criticality Frameworks and Assessments**
- **Business Case Development and Review**
- **Asset management improvement planning**
- **Data management and reviews**
- **Asset management audits**
- **Asset management system reviews**
- **Asset management planning**
- **Maintenance strategies and planning**
- **Training and capability building**
- **Due diligence**

### **MidCoast Water Criticality of SPS's and Reservoirs, 2012**

Tahlia lead the production of a criticality framework for MidCoast Water. It included the development of all criteria, weighting factors and calculation of the overall consequence of failure. A pilot project was run initially to test the criteria with the view to extending it if deemed plausible. Sewer pump stations and water reservoirs were assessed as part of the pilot and all assessments were undertaken in conjunction with the MidCoast operators to maximise coverage and collect data for input. The response from the team was very positive and people could see the benefit in the project.

### **Goulburn Valley Water, Completion of Criticality for Above Ground Assets, 2011**

Tahlia worked with Sandy on the completion of criticality assessment for above ground assets including water and sewer. The project involved the development of the criticality criteria as well as undertaking the assessment with the Goulburn Valley Water Operations team to identify the most critical assets within their region. A criticality manual was produced as part of this work which included all the criteria and results of the assessment.

### **Westernport Water, Completion of Criticality for Sewer Linear Assets, 2009**

Tahlia lead this project in the development of the criticality criteria for sewer below ground assets. It was a large project which analysed the criticality of sewer mains at a segment level. The criteria considered environmental, social and economic factors and were agreed in accordance with the Westernport team. GIS and other tools were used to gather data for the assessment.

### **Westernport Water, Completion of Criticality for Above Ground Assets, 2008**

Tahlia lead this project in the completion of criticality assessment for above ground assets including water and sewer. The project involved the development of the criticality criteria as well as undertaking the assessment with the Westernport Water Operations team to identify the most critical assets within their region. A criticality manual was produced as part of this work which included all the criteria and results of the assessment.

### **Asset Management Effectiveness Review - Water Corporation Western Australia, 2009 and 2012**

This project involved the completion of an effectiveness review for the asset management system.

The outcomes of the review are reported to the Economic Regulation Authority (ERA). Tahlia provided support to Sandy in the completion of an impartial audit of WaterCorp's asset management effectiveness under the ERA guidelines. This audit covered all aspects of asset management with a large focus on risk which included the assessment of system risk, asset risk and criticality within the organisation.

The primary deliverables were a:

- Detailed review plan identifying the activities, milestones and timing of activities;
- Draft review report outlining the auditor's findings and recommendations;
- Post review implementation plan; and

- Final review report suitable for submission to the ERA.

### **M&E Strategy, Yarra Valley Water**

This project involved the development of a renewal and maintenance model to assist YVW to respond to the regulator regarding future mechanical and electrical infrastructure expenditure and completion of the Water Plan. Tahlia's role was the collection and assembly of the raw data, development of the criticality framework, running the model and identifying the expenditure options and report production. She also assisted the project manager in the management of the project.

### **West Derwent Pipeline Condition Assessment, Hobart Water**

The West Derwent Pipeline project was a leading edge project and a first of its kind as it incorporated the integration of site data collection through to the development of a long term strategy for the management of the pipeline. Tahlia's role was to:

- Support our infrastructure specialists in developing the processes and models to be used in the project;
- Undertake a life-cycle analysis and risk assessment of the pipeline to support optimised decision making analysis; and
- Develop the asset criticality and risk framework.

### **City of Casey, Capital Evaluation Business Case and Project Justification**

Development of a business case for the justification and prioritisation of capital projects within Council. This considered the social, economic and environmental factors impacting the projects. Projects were also prioritised by using the consequence of not undertaking the project and the effect this would have on the future and ongoing operations of Council. Tahlia's role was to lead the development of the business case, to test it with various pilot projects, to update given feedback, to regularly report to the project manager and to produce an outcome that best suited all departments and types of projects within Council.

### **Capital Evaluation Framework Development, Warringah Council**

Warringah City Council requested that a capital evaluation framework be developed that met their internal requirements and also satisfied Council's future direction. The work involved the development and testing of the framework which considered all aspects of social, environmental and economic factors. It also used the consequence of failure to prioritise the projects. Tahlia's role was to assist in the development of the framework.

### **Asset Management Plans**

*All plans that we produce have a section on criticality which considers approach taken, criteria used and results found.*

### **Wannon Water, Asset Class Plans**

Tahlia has recently been working closely with Wannon Water personnel to produce 16 asset class plans for their water and wastewater network. Part of her role was to mentor the new employees so that once trained they could take over the production of the next set of plans and continue the work for the business. The mentoring program was completed in February 2013 and was very successful and now Wannon embark on production of the remaining plans with confidence.

### **Central Goldfields Shire Council, Asset Management Assistance**

Tahlia worked with Central Goldfields Shire Council to improve their AM capabilities by working alongside the assets manager and asset engineer. Activities that have been completed to date are as follows:

- Demand Management workshop with interested staff members;
- Developed a risk infrastructure risk register;
- Review and sensitivity analysis of the Maloney Model;
- Asset management plan review support.

#### **Westernport Water, Water AM Plan**

Tahlia developed a Water Asset Management Plan for Westernport Water that identified their current life cycle issues as well as looked at the demand and improvements around their water operations. Current practices were captured, risk analysed and levels of service developed.

#### **City of Stonnington, Asset Management Plans**

Tahlia worked closely with Council to produce 4 asset management plans including:

- Roads;
- Drainage;
- Open Space; and
- Buildings.

#### **Wyndham City Council, Asset Management Plans**

Tahlia completed 4 asset management plans for Wyndham. A very interesting exercise considering the growth in that area. The project was very rewarding and great outcomes were achieved. The 4 plans were:

- Roads;
- Drainage;
- Open Space; and
- Facilities.

#### **City of Greater Dandenong, Asset Management Plans**

Tahlia produced 3 asset management plans for Dandenong working closely with the team through a series of workshops to build a detailed and effective plan relevant to each asset group. The plans included:

- Buildings;
- Roads; and
- Drainage.

#### **City of Melton, Road Management Plan**

Tahlia reviewed the Road Management Plan for MSC initially in 2009 and again recently at the end of 2013. This required the update of operational and maintenance intervention levels and activities as well as the review of current management tactics in place to manage Melton Shires road network.

#### **Macedon Ranges Shire Council, Road Asset Management Plan**

Tahlia undertook a complete review and update of Council's Road Asset Management Plan. This included updating the document to portray Council's current Asset Management practices, levels of service, demand management strategies and risk management processes.

#### **Moorabool Shire Council, Asset Management Assistance**

Tahlia worked with Moorabool Shire Council to improve their AM capability and to improve the depth of output within their asset

management plans. This work includes defining hierarchies and business rules for the provision of road infrastructure. Other activities involve demand analysis of drainage assets, defining Levels of Service and contributing to the identification of risk through the use of a risk infrastructure risk register. All activities are intended to be included in the current asset management plan.

#### **Macedon Ranges Shire Council, Asset Management Plan Production**

Tahlia worked closely with Macedon Ranges to produce 3 asset management plans which included:

- Drainage;
- Buildings; and
- Open Space.

#### **Melton Shire Council, Road Asset Management Plan**

Tahlia worked with Melton Shire Council (MSC) to update their existing Road Asset Management Plan. This entails working closely with various MSC employees to gain the required understanding and information so that solid outcomes can be achieved within the plan.

#### **Moorabool Shire Council, Building Asset Management Plan**

Tahlia was instrumental in the development of an asset management plan for buildings. This plan was very detailed in its approach to buildings asset management and included detailed analysis of the demand on impacts on infrastructure including the prediction of future assets required by the Council. A star system approach was used for the identification of levels of service. Risk was developed with the Council to achieve the most beneficial and manageable outcome for Council.

#### **Westernport Water, Asset Management Plan Development**

Tahlia was responsible for producing a Waste Water Asset Management Plan for all waste water assets at WRWC. The project involved extensive consultation with over a quarter of the organisations personnel in order to gather sufficient information to develop a robust plan. The plan included LOS, demand analysis, life cycle planning, risk management and financial analysis.

#### **Moorabool Shire Council, Drainage Asset Management Plan**

Tahlia was instrumental in the development of an asset management plan for drainage. This plan was very detailed in its approach to drainage asset management and included detailed analysis of the demand on impacts on infrastructure including the prediction of future assets required by the Council. Risk was developed with the Council to achieve the most beneficial and manageable outcome for Council.

#### **Nillumbik Shire Council, AM Plan Production**

Tahlia undertook the production of 4 asset management plans for Nillumbik Shire Council. The project involved the development of a road, building, drainage and reserves AM Plan. The plans captured the current organisation activities of the Shire as well as document the Council's risk management processes, demand predictions and produce an improvement program for ongoing advancement of the plans and asset management within the organisation. The plans forecasted future expenditure and identified the renewal gap for all asset groups.

#### **Macedon Ranges, Assistance with Asset Management**

This project consisted of the production of an Asset Management Plan Production Flow Charts to assist Macedon with the production of their asset management plans. 8 flow charts were produced explaining in a step-by-step approach how to write an asset management plan, what information is required under each section and where that information can be sourced. The project also involved the review of Macedon's Road Asset Management Plan providing advise where required.

#### **Moorabool Shire Council, Road AM Plan**

Tahlia was responsible for reviewing this plan. She provided support to detail the outcomes of the plan and ensured appropriate outcomes for the client. She reviewed the financial forecasts and identified the funding gap.

#### **Asset Management Plan Production, Shire of Yarra Ranges**

Tahlia produced 5 asset management plans for Yarra Ranges Shire Council consisting of:

- Roads, Footpaths and Kerb and Channel;
- Buildings;
- Land Improvements;
- Drainage; and
- Bridges and Major Culverts.

Tahlia worked closely with members of the Council to obtain the relevant information required to complete satisfactory plans. Her role was project manager; liaising with the project team, tracking the project and coordinating all on site visits and running subsequent meetings to gain information and data

#### **Asset Management Plan Development, Broken Hill City Council**

Unlike the production of asset management plans for other clients, this project involved both the production of the building and roads plans as well as the incorporation of systems and processes into Council. Tahlia played a primary role in the collection of building and roads condition data as well as the production of sections of the plan. She also assisted in the lifecycle analysis for the road and building assets.

#### **Asset Management Plan Development, City of Yarra**

This project involved the production of asset management plans for Fleet, public artwork and office equipment. Tahlia wrote the Public Artwork asset management plan and supported the project manager in the production of the other two asset management plans.

#### **Buildings Asset Management Support, City of Yarra**

This work involved providing advice to the City of Yarra on their building hierarchy and the content of their building asset register. Tahlia assisted the project manager in the identification of the appropriate data to support the register.

#### **Wastewater AM Plan - East Gippsland**

Tahlia whilst working for Maunsell Australia, produced the wastewater asset management plan for East Gippsland. This involved a series of interviews and information gathering and interpretation to develop a sound outcome.

### **Data Projects**

#### **Westernport Water, Hierarchy, Data Framework and Data Collection**

Tahlia has been working with WW consistently for 5 years assisting

them to develop their asset management, AMS and data management and configuration. She assisted them with the production and application of their asset hierarchy. She also produced a data framework document for below ground assets, which later transformed into the AC/DC process. She created material for the collection of the asset attribute information compiled through many meetings with personnel to ensure that appropriate data would be collected, considering the resources, time and cost associated with the collection of data. The viability was weighed up against the need and intended use of the data. Her work has not been limited to these areas as Tahlia produced an operations and maintenance (O&M) manual template for the further production of the O&M manuals for the business, which considered O&M data components relevant and useful to the field operations. Tahlia has also guided the production of an operations and maintenance plan (planned maintenance) for water and wastewater assets using criticality results, current data and working closely with the operations team. This document is being fully utilised and advances in proactive operations and maintenance are being achieved.

### **South Gippsland Water, Hierarchy, Data Framework and Data Collection**

Tahlia worked closely with SGW to develop an asset hierarchy document consistent to their current approaches. Tahlia also worked with SGW to deliver a data framework document for all asset groups, justifying the data requirement, source, field type and collection mechanism. This document is quite detailed for each asset group and considers data such as performance, valuation, planning, spatial and common attribute data. Based on SGW requirements Tahlia then guided SGW through the process of collecting the available asset data in the field.

### **Goulburn Valley Water, Data Interrogation, Hierarchy Definition and System Implementation**

Tahlia provided assistance to GVW, supporting them on the AMS implementation. Having done similar work before, Tahlia undertook a data interrogation exercise to prepare the Corporation for system set-up and data migration. Tahlia assisted in the hierarchy definition and corresponding data preparation. Her role was to advise and direct based on her data management and system implementation skills. She was responsible for working with GVW to deliver cleansed data sets ready for data migration.

### **Gippsland Water, Data and Process Audits (Reporting and Works Management)**

Tahlia undertook an audit of the Gippsland Water's process and data sets for reporting and works management. Her role involved interviewing and working with the Corporations personnel to establish an understanding and a way forward in regards to the current data and process configuration.

### **City of Ballarat, Data Framework Tool-Kit Development**

Tahlia developed a data framework Tool-Kit which consisted of the production of data framework that identified all attributes requiring collection for every park asset type identified within City of Ballarat parks. The kit also included a condition manual for the collection of park assets as well as a condition proforma for the collection of the data highlighted in the framework. This documentation was

instrumental in the condition assessment of parks that followed this project.

## **Condition Projects**

*Condition is coupled with criticality to determine risk and so the understanding and connection between the two factors is very important in the overall understanding of prioritisation of renewals*

### **Condition Preparation, South Gippsland Water**

Tahlia lead the production of an asset management condition manual, data framework and asset hierarchy document for South Gippsland Water. These three documents were produced in preparation for asset condition assessments of all above ground assets within the Regions. The condition manual was produced in line with the operation personnel at South Gippsland Water and is designed to guide the assessment of condition for all the above ground assets. The data framework identifies the attributes required to be collected in the field and held within the Asset Management System it also includes attribute information to be recorded for valuation purposes. The asset hierarchy document identifies the structure of the assets and what assets are located at any given site.

### **Condition Preparation, Goulburn Valley Water**

Tahlia lead the production of an asset management condition manual, condition methodology and asset hierarchy document for Goulburn Valley Water. These documents were produced in preparation for asset condition assessments of all above ground assets within the Regions. The condition manual was produced in line with the operation personnel at Goulburn Valley Water and is designed to guide the assessment of condition for all the above ground assets.

### **Condition Preparation, Westernport Water**

Tahlia co-ordinated the collection of above ground data collection for valuation purposes including attributes and condition ratings to be stored in the asset register. Tahlia's prior work including the condition manual production and methodology were used within this process. As part of Tahlia's role she trained the field inspections on the methodology and condition collection process as well as audited the condition and data collected as the process was executed.

### **15yr Renewal Forecasts and Condition Audit, University of Newcastle**

This project involved the production of a strategic plan to assist the University with its long term financial forecasts for over 200 buildings on 3 campuses. This was achieved by applying a strategic approach to the collection of facility condition data and using the data to generate future works and maintenance activities. Tahlia's role involved the development of the strategic framework, business processes, and tools. Tahlia was also responsible for the project delivery, coordination and management of the data input.

### **Port of Melbourne Corporation (PoMC), Condition Manual Production**

Maunsell was commissioned by the Port of Melbourne Corporation to develop a condition manual for all PoMC assets, including above and below ground assets. Tahlia's role was to facilitate the development of the condition criteria and produce the condition manual.



### **Casey Hospital, Condition Audits**

This project involved a review of the maintenance contracts at the Casey Hospital, completion of the audit report and a review of the asset management system's use and data stored in the system. Tahlia assisted Connell Wagner in undertaking a risk workshop, developing the criticality framework for the hospital and facilitating the condition assessment and report production.

### **SBS, Condition Framework Production and Assessments**

Tahlia was involved in this project in several areas. Tahlia was involved with the production of the condition assessment material produced for undertaking the assessment for a team of over 12 auditors. Her role was to inform and guide the auditors through the process of undertaking the audit. Tahlia undertook all the fabric and fixture condition audits for the two storey SBS building. She was also heavily involved in the production of the condition assessment report.

### **Condition Assessment of Elevated Structures, Parks Victoria**

Parks Victoria required condition assessments of its elevated structures throughout Victoria. To achieve this, a condition framework was developed that supported PV's internal framework and also supported the asset management system. Tahlia's role on this project was to provide support in the report production and the collation of the condition information.

### **Affiliations**

- Member, Australian Water Association