

# Towong Shire Council

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## Domestic Wastewater Management Plan

Working Draft  
September 2015

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## 1. Introduction

The Towong Shire Domestic Wastewater Management Plan (DWMP) is a plan that recommends a set of strategies and actions that are intended to improve the management of domestic wastewater within Towong Shire. The DWMP seeks to:

- Ensure that *future* wastewater management only occurs on land that has adequate capacity to manage wastewater and is undertaken so that there is an acceptable future risk to public health and the environment; and
- Improve *existing* wastewater management across the municipality, particularly in identified high risk areas to reduce the risk to public health and the environment from existing development.

The DWMP maps out a suite of strategies and associated actions across a five year time horizon, after which time the strategic direction for onsite wastewater management within the municipality will need to again be reviewed.

The recommended actions are framed within the following strategic themes:

*Strategy 1 - Land Capability Assessments*

*Strategy 2 - Land Use Planning*

*Strategy 3 - Improved Wastewater Treatment Options and Practices*

*Strategy 4 - Data Management*

*Strategy 5 – Communication and Education*

*Strategy 6 - Monitoring and Compliance*

*Strategy 7 – High Risk Towns and Catchments*

The specific actions have been prioritised based on risk to public health and the environment using the outputs of the risk assessment process outlined in the *Towong Shire Domestic Wastewater Management Plan Background Paper*. The *Towong Shire Domestic Wastewater Management Plan Background Paper* also provides the context and rationale for the DWMP recommendations.

## 2. Domestic Wastewater Management Plan Principles

A number of principles underpin the actions contained within the DWMP. These are:

### Protection of public and environmental health

Domestic wastewater poses a risk to the public health and the environment. The DWMP seeks to provide a strategic approach to domestic wastewater management that is intended to improve:

- The protection of public health;
- The quality of the environment;
- Community amenity; and
- The protection of important natural resources.

Scientific and Merits Based Decision Making

Decisions about waste water system selection, sizing and siting needs to be based on actual environmental conditions rather than adopting a ‘one size fits all approach’ to minimum lot size or wastewater land application areas. The DWMP advocates an approach whereby all wastewater systems are designed to match intrinsic environmental conditions. This approach should ensure that future un-sewered rural residential development within each study area only proceeds on land that has an acceptable capacity for on-site waste water management.

Prioritisation of high risk areas

Due to the number of on-site systems across the Shire and the resources available for domestic wastewater management, prioritisation of actions needs to occur. Accordingly, strategies contained in this DWMP are prioritised with an emphasis on high risk areas. The key high risk areas identified by the DWMP are:

- Towns:
  - Bethanga;
  - Mitta Mitta; and
  - Eskdale.
- Catchments:
  - Lake Hume Environs; and
  - Bethanga Creek.

The risk evaluation process within the *Towong Shire Domestic Wastewater Management Plan Background Paper* establishes which risks are significant in their potential to impact on the performance of wastewater systems. The development of risk mitigation measures by the DWMP seeks to ensure any residual risk is reduced to an acceptable level.

Flexibility

The wastewater management environment is dynamic with perpetual change due to the development of new technologies and changes to the regulatory environment. The strategy promulgated by the DWMP must be flexible to enable adjustment of priorities to such changes. Actions have been allocated a priority according to the following time frames:

| Priority | Time Frame                |
|----------|---------------------------|
| High     | Years 1 - 2               |
| Medium   | Years 2 - 4               |
| Low      | Years 4+                  |
| Ongoing  | Continuous implementation |

Proactive Management Regime

Historically the management of domestic wastewater issues has been reactive within Towong Shire. The commitment of Council to undertake a monitoring and compliance program that has a focus on high risk areas will ensure Council has a more proactive approach to wastewater management than in the past. This should ensure problems are prevented or at the very least identified early before they present a risk to people or the environment.

Improved Communication and Knowledge

Council's on-site wastewater management records and information are incomplete. Improving wastewater management information is central to many of the recommendations contained within the DWMP. It is also recognised that consultation with the community and other stakeholders is essential to help ensure that the many strategies are adequately implemented. Council must ensure constructive ongoing communication with all stakeholders, in particular the community of Towong Shire.

### 3. Domestic Wastewater Management Plan Strategies

#### 3.1 Strategy 1 - Mandatory Land Capability Assessments

The whole of Towong Shire is considered to be a declared open potable water supply catchment. In such contexts, the *Australian Drinking Water Guidelines* promulgates a multi-barrier approach to water quality protection and risk management. The use of multiple barriers is underpinned by a risk based approach which prioritises management of hazards at their source. This inherently implies that risk management should happen at the catchment level first. The prioritising of catchment planning is seen as being more effective in providing improved environmental and public health outcomes and is ultimately also more cost effective than relying on water treatment processes later in the water supply chain. Maximum protection of source waters is seen as an obligation for land use planning to minimise risks and possible adverse environmental and public health outcomes. The need to obtain a Land Capability Assessment across the whole of the municipality prior to giving approval to any future un-sewered development is seen as the best way of deploying such a catchment level response.

Site specific land capability assessments are required to evaluate the suitability of each site to manage wastewater consistent with *Australian Standard AS/NZS 1547:2012*. They form a critical component of the overall risk assessment process by ensuring individual wastewater management system design and on-going management are matched to intrinsic environmental conditions and for identifying possible hazards and the potential risks associated with these hazards at a property scale.

Without land capability assessment there is a chance that constraints will not be adequately recognised and if wastewater system design, installation practice and land application system management are not framed to match intrinsic environmental conditions, there is an increased risk of failure or unsatisfactory performance of the system over time which may cause an undesirable and unfavourable impact on the environment or public health. It is important that land capability assessments, particularly for risky sites, be system design documents in addition to being site assessments.

The requirement to obtain a land capability assessment is needed to produce the outcomes desired by the *Ministerial Guidelines Planning Permit Applications in Open, Potable Water Supply Catchment Areas (November 2012)* by demonstrating whether a proposal presents an acceptable risk to the catchment and whether wastewater management can occur in accordance with:

- *State Environment Protection Policy (Waters of Victoria)*
- *Publication 891.3 Guidelines for Environmental Management Code of Practice – Onsite Wastewater Management*; and
- *Australian Standard AS/NZS 1547:2012 Onsite Domestic Wastewater Management*.

Because there is often significant spatial variation in the environmental conditions for wastewater management over relatively small distances, a generic model or broad scale tool for land capability assessment that can be used as a proxy for site specific land capability assessments is not considered appropriate within Towong Shire. The need for field based land capability assessment is further reinforced by the importance of vertical separation between the site of land application and the watertable or impermeable layer. Because pathogens are capable of moving much larger distances in saturated conditions, such constraints need to be identified through site investigation.

This DWMP recommends that there be a mandatory requirement to obtain a Land Capability Assessment that is based on actual environmental conditions for future un-sewered development. This approach is supported by the current *Code of Practice* and should ensure that all such development within the municipality only proceeds on land that has an acceptable capacity for on-site waste water

management. It should also promote a consistent, scientific and merits based approach to on-site wastewater management that provides low enduring risk to public health and the environment.

| <b>Table 1:<br/>Mandatory requirement for Land Capability Assessment for all future un-sewered development.</b> |   | <b>Strategy is to be deployed at:</b>                                |  |                 |
|---|---|--|--|-----------------|
| <b>Action Number</b>  | <b>Action</b>   | <b>Responsibility</b>  | <b>Resources</b>   | <b>Priority</b> |
| 1.1   | Provision of preplanning application advice and information   | Planning staff, Environmental Health Officers                        | LCA fact sheet   | Ongoing         |
| 1.2   | Improve website information to explain what land capability assessments are and why they are needed   | Planning staff, Environmental Health Officers Communications officer | Webpage / facebook page  | Medium          |
| 1.3   | Staff land capability assessment training   | Chief Executive Officer  | Budget training allocation                                       | Ongoing         |
| 1.4   | Provide minimum requirement standards for land capability assessment practitioners in relation to the preparation of land capability assessments based on MAV model | Planning Manager, Environmental Health Officers                      | MAV model LCA, relevant Australian Standard and EPA publications | High            |

### 3.2 Strategy 2 - Land Use Planning

#### Municipal Strategic Statement

The Municipal Strategic Statement (MSS) establishes the strategic planning framework for the municipality and shows how it supports and implements the State Planning Policy Framework. It provides the strategic basis for the application of zones, overlays and particular provisions within the Towong Planning Scheme. The MSS was last reviewed in 2014 and this MSS acknowledges the declared open potable water supply catchment status of Towong Shire and the implications of this for on-site domestic wastewater management.

Future reviews of the MSS should ensure that it adopts a strategic position that:

- Acknowledges the declared catchment status of the municipality and prioritises water quality protection;
- Supports the deployment of statutory mechanisms to manage wastewater in key areas such as the performance based Restructure Overlay (RO) in unsewered small towns and the Development Plan Overlay (DPO) over green-field rural living areas;
- Avoids the rezoning of land where there is the unacceptable risk of adverse environmental and public health outcomes; and
- Includes the DWMP as a 'Reference Document'.

#### Local Planning Policy Framework (LPPF)

Clause 22.08 of the Towong Planning Scheme LPPF contains a Local Planning Policy that relates to effluent disposal and water quality and applies to all development that is unable to be serviced with reticulated sewerage. This policy seeks to ensure the environment and public health is not affected by un-sewered development. This policy provides a robust basis for making decisions about un-sewered development and potentially could be used to satisfy 'Category 3' of Guideline 1 of the *Ministerial Guidelines for Planning Permit Applications in Open, Potable Water Supply Catchment Areas* which

requires that the 1:40 ha dwelling density and subdivision rule can be waived where a catchment policy has been prepared for the catchment and endorsed by the relevant water corporation(s).

Review of this policy is recommended to ensure it remains in-step with the current regulatory environment including changes to State Planning Policy. The policy should be amended to reinforce the mandatory system upgrade requirement for situations where a planning consent is provided for a proposal that increases wastewater loads and the existing system is inadequate for those additional loads or cannot comply with current standards.

#### Restructure Overlay (RO)

The Restructure Overlay which applies to all un-sewered small towns provides an effective statutory mechanism for controlling future development in these small towns. In 2012, Amendment C23 to the Towong Planning Scheme changed the Restructure Overlay to include a more scientific and merits based assessment option as an alternative to the rigid prescriptions of the individual Restructure Plans. These changes have proven to be a progressive enhancement to the overlay. The Restructure Overlay should be retained with the recently implemented performance based alternative to the Restructure Plan prescriptions.

#### Environmental Significance Overlay (ESO)

The Towong Planning Scheme does not at present contain an Environmental Significance Overlay (ESO) in relation to the area declared as an open potable water supply catchment.

Within the Victorian Planning Provisions, the ESO seeks to:

- Identify areas where the development of land may be affected by environmental constraints; and
- Ensure that development is compatible with identified environmental values.

The ESO provides scope for a planning permit trigger, thereby ensuring all development that generates wastewater requires a planning permit. The difficulty for Towong Shire is that the whole of the municipality is a declared open potable water supply catchment and the blanket deployment of the ESO across the shire could increase the number of planning permits generated with little benefit in some instances. An alternative could be the deployment of the ESO within the high risk catchments as identified by the DWMP or to develop a schedule to the ESO with a waiver from needing a planning permit for development that does not generate wastewater.

#### Future Rural Living Areas

The DWMP supports the rural living rezoning promulgated by the *Towong Shire Settlement Strategy* and *Towong Shire Rural Land Use Study* but requires the deployment of appropriate mechanisms to reduce the risk of adverse environmental and public health outcomes.

It is recommended that the areas to be rezoned be included within a Development Plan Overlay (DPO) containing a Schedule that requires the following to be undertaken prior to the issue of a planning permit to use and develop the land for rural living purposes:

- Determination of the status of waterways within the study area to ascertain which are considered to be 'determined waterways' pursuant to the *Water Act 1989*. This will enable the identification of which waterways require the application of the setbacks of Table 5 of EPA Publication 891.3 *Code of Practice – Onsite Wastewater Management*;
- Identification of site specific constraints via land capability assessment which may influence system selection, design and siting; and

- Use of site-specific land capability assessments as design documents in order to inform land application area sizing, overall system design, lot yield/dwelling density and lot configuration using the methodology and techniques articulated by the following:
  - EPA publication No. 746.1 *Land Capability Assessment for Onsite Domestic Wastewater Management*;
  - *Publication 891.3 Guidelines for Environmental Management Code of Practice – Onsite Wastewater Management*; and
  - *Australian Standard AS/NZS 1547:2012 Onsite Domestic Wastewater Management*.

The Development Plan must be submitted for approval prior to the issue of any development consent and show:

- Key environmental features and constraints as identified by the individual Land Capability Assessments waterway setbacks (including Lake Hume) pursuant to Table 5 of *EPA Publication 891.3*;
- Areas inappropriate for on-site wastewater management because of inherent site constraints;
- Proposed building envelopes; and
- Land application areas sited and sized according to the methodology of *AS/NZS 1547:2012* and *EPA Publication 891.3 Code of Practice – Onsite Wastewater Management* with notional equivalent sized backup land application areas.

The advantage of the *Development Plan Overlay* is that it can mandate the requirement for a detailed site-and-soil evaluation before the issue of any development consent.

Overall, in the areas proposed for rural living the acceptable residual public health and environmental risk can be achieved through a combination of:

- Desktop landscape scale land capability assessment based on published soil and land survey information at the rezoning stage;
- Site specific Land Capability assessments via the DPO at the planning approvals stage; and
- Implementation of a resourced monitoring and compliance program.

The risk management process provided by this process causes the 'stratification' of the rezoned areas by creating four risk-based spatial components (*Figure 1*). These are:

1. Parts of the each area to be rezoned with *no obvious constraints* where subsequent site specific land capability assessment informs individual system sizing;
2. *Constrained areas* where subsequent site specific land capability assessment informs system sizing, siting and design based on *AS/NZS 1547:2012* to satisfactorily reduce risk;
3. *Constrained areas* where subsequent site specific land capability assessment recommends excluding such areas from on-site wastewater management; and
4. *Constrained areas where on-site waste water management is not possible* and where further investigation is not required. Such areas are those where *Code of Practice* buffers cannot be achieved.



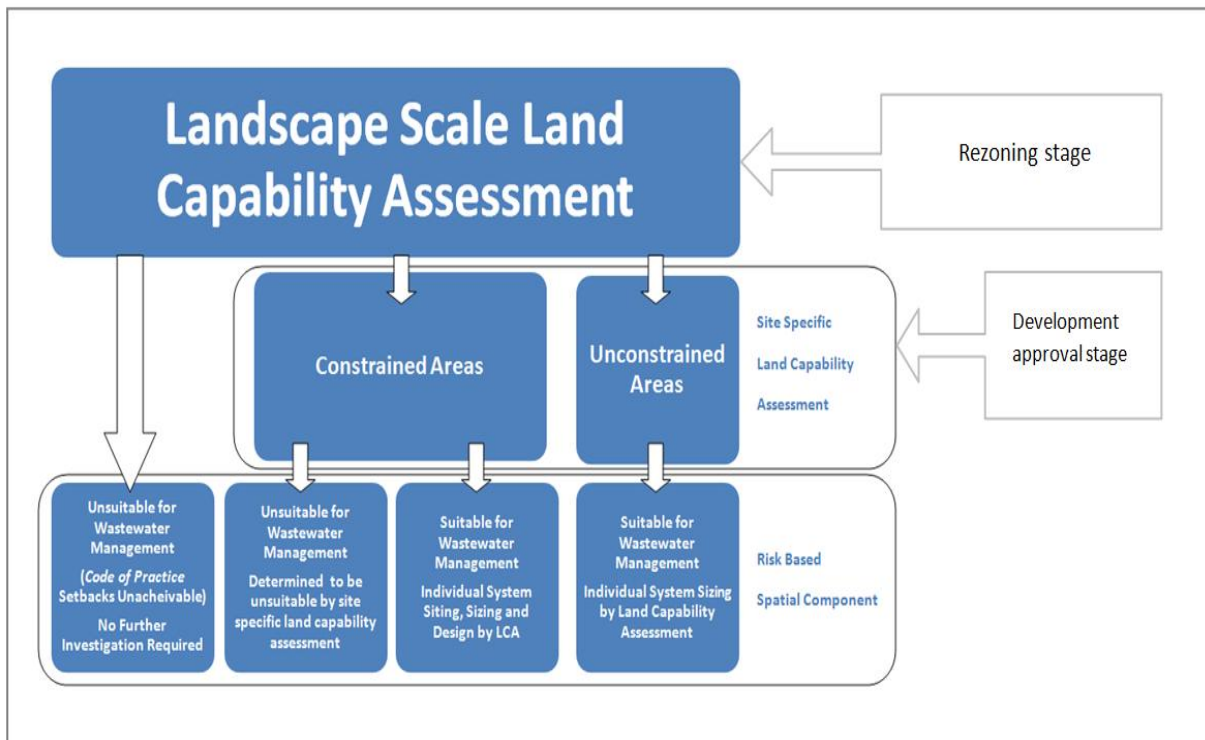


Figure 1: Risk related spatial components and land capability sieving process

External Planning Referrals

Pursuant to Clause 66.02-5 of the Towong Planning Scheme, within a Special Water Supply Catchment any planning application to use, subdivide or consolidate land, to construct a building or construct or carry out works, or to demolish a building or carry out works the application must be referred to the relevant water board or water supply authority.

To reduce the work load for Council and Goulburn Murray Water (GMW) a referral Memorandum of Understanding (MoU) was initiated in 2013 that identifies the types of applications that can be dealt with by Council without referral and the standard permit conditions to use in these instances. Copies of the issued permit are then provided to GMW pursuant to Section 66 of the Planning and Environment Act. The Towong Shire Council - GMW MoU has been operating well and should be retained.

Ministerial Guidelines for Open Potable Water Supply Catchments

The Ministerial guidelines relating to Planning permit applications in open, potable water supply catchment areas apply to all open potable water supply catchments declared to be special water supply catchment areas under Division 2 of Part 4 of the *Catchment and Land Protection Act 1994*. These guidelines must be addressed where a planning permit is required to use land for a dwelling or to subdivide land and they require that:

- The density of dwellings should be no greater than one dwelling per 40 hectares (1:40 ha); and
- Each lot created in the subdivision should be at least 40 hectares in area.

There exists scope to relax these restrictions where:

- A 'Catchment Policy' has been prepared for the catchment and endorsed by the relevant water corporations following consultation with relevant local governments, government agencies and affected persons; or
- The water corporation(s) is satisfied that the relevant Council has prepared, adopted and is implementing a Domestic Wastewater Management Plan (DWMP) in accordance with the DWMP requirements.

This DWMP recommends a suite of actions to address the 1:40 ha dwelling density and subdivision requirements of the *Ministerial Guidelines*. Section 7 of the DWMP provides a summary of these actions.

| Action Number | Action   | Responsibility                          | Resources   | Priority | Location   |
|---------------|--|---|---|----------|--|
| 2.1           | Review MSS at prescribed intervals   | Manager Planning                        | Strategic planning resources  | Ongoing  | Whole municipality                                 |
| 2.2           | Implement, review and seek water and catchment authority endorsement of relevant Local Planning Policy   | Manager Planning                        | Strategic planning resources and water authorities  | Medium   | Whole municipality                                 |
| 2.3           | Mandatory requirement for land capability assessments for all planning applications for development that will generate wastewater  | Planning and Environmental Health staff | Council staff to assess all LCA's<br><br>Training required for Council staff  | Ongoing  | Whole municipality                                 |
| 2.4           | Deploy Environmental Significance Overlay (ESO)  | Manager Planning                        | Strategic planning resources  | Low      | Whole municipality / High risk catchments priority |
| 2.5           | Retain and implement performance based Restructure Overlay (RO) on un-sewered small towns  | Manager Planning                        | Statutory planning resources and GMW  | Ongoing  | Un-sewered small towns                             |
| 2.6           | Deploy the Development Plan Overlay (DPO) with LCA and wastewater requirements on all new rural living areas   | Manager Planning                        | Include as part of proposed Rural Living Zone amendment   | Medium   | Proposed rural living areas                        |
| 2.7           | Introduce a mandatory system upgrade requirement via the Local Planning Policy or Local Law where a planning consent is provided for a proposal that increases wastewater loads and the existing system is considered inadequate for the additional loads or the cannot comply with current standards. | Manager Planning                        | Strategic planning resources to undertake planning scheme amendment<br><br>Amendment is supported by current Council Plan | Medium   | Whole municipality                                 |
| 2.8           | Retain the referral MoU with GMW with post DWMP adoption agreement about application referrals.  | Manager Planning                        | GMW and Towong Planning staff   | Ongoing  | Whole municipality                                 |
| 2.9           | Develop and implement process internal referral of planning applications to Environmental Health Officer   | Manager Planning                        | Planning Environmental Health staff   | Ongoing  | Whole municipality                                 |

### 3.3 Strategy 3 - Improved Wastewater Treatment Options and Practices

The thrust of this strategy is that in instances where existing systems are performing poorly or cannot comply with present-day standards, Council should endeavour to reduce the risk to public health and the environment by seeking to improve the performance or require the upgrade of such systems.

#### Environment Protection Act Requirements

Section 53 of the *Environment Protection Act* relates to the compliance with permit conditions and maintenance of systems and requires a person to comply with a permit and any conditions relating to the approval of the system. It compels an owner or occupier of the land on which a system is located to maintain the system in accordance with the requirements specified in the permit issued by Council for that system. Where a permit is issued under this act, Council has the power to enforce compliance with conditions imposed including the maintenance and functioning of the systems.

#### Landowner and Occupier Reporting of Inspections and Maintenance

Mandatory reporting in relation to inspection and maintenance of all systems must be undertaken at the owner or occupiers responsibility and all systems must be maintained according to the relevant EPA Certificate of Approval or as directed by Towong Shire Council. All landowners or occupiers must submit a maintenance report prepared by a suitably qualified professional or servicing agent. The report must be submitted to Council within 30 days of the maintenance inspection or servicing action. The enforcement of this requirement is to be achieved through two mechanisms:

- If a permit is in place it will be enforced as the Environment Protect Act allows; or
- If no permit is in place, through the relevant Local Law.

Council may issue of monetary fines to those landowners not complying with Council and EPA mandatory status reporting and regular maintenance requirements.

#### System Improvements

Scope exists to remedy a failing system within the *Public Health and Wellbeing Act 2008*. Under this legislation, Council has capacity to initiate enforcement action seeking a land owner or occupier to rectify a nuisance where an improvement order has been issued pursuant to Section 61 and 62 of the Act. The following improvement options may be available for implementation where Council finds that systems are failing:

- Treatment of clogged absorption fields with gypsum;
- System modification enable treatment all wastewater types;
- Increasing the volume of septic tanks;
- Increasing the size of land application areas;
- Increasing waterway setbacks;
- Installation of secondary wastewater treatment systems;
- Consolidation of land in common ownership where possible; and
- Reduction in water usage.

#### Local Law

Council needs to consider the introduction a Local Law to ensure the appropriate inspection and maintenance of systems, including the routine de-sludging of such systems in accordance with *Code*

of *Practice* requirements. The Local Law relating to the operation and maintenance of on-site wastewater systems should include the following requirements:

1. An owner or occupier of land on which a on-site wastewater system is located must ensure that the system operates and is inspected and maintained so that it does not:
  - a) Cause a nuisance to others because of odour;
  - b) Cause a nuisance to others because of discharge;
  - c) Cause or could cause a risk of public health; and
  - d) Cause or potentially cause environmental degradation.
  
2. An owner or occupier of land on which a septic tank is installed must:
  - a) Make the system available for inspection by an authorised officer when requested to do so; and
  - b) Have the system inspected, serviced and maintained by a suitably qualified professional or servicing agent including the submission to Council of a regular maintenance reports as required by EPA Certificates of Approval. The owner/occupier of the land must submit the report to Council within 30 days of the maintenance inspection or maintenance servicing. Normal debt collecting will commence in the case of non compliance with the issue of a Local Law infringement as per Council debt collection policy.
  
3. If an authorised officer considers that an on-site wastewater system is not operating or being maintained in accordance with subclause 1, the owner or occupier of the land on which the system is located may be required to modify the system or undertake specific as maintenance as directed to ensure compliance with the standards prescribed in the *Code of Practice for Onsite Wastewater Management* and the *Australian Standard AS/NZA 1547*.

#### Routine System De-sludge in High Risk Towns

According to the *Code of Practice for Onsite Wastewater Management*, a well-functioning septic tank typically only needs to be de-sludged once every 3 to 8 years, depending on the size of the tank. The *Code* suggests that a septic tank connected to a home with a frequently used dishwasher will need to be pumped out at an interval that is in the lower end of this range, typically around once every 3-4 years, whilst than a home with no dishwasher connected is likely to require de-sludging at least once every 6 years. This Plan recommends a shire-wide de-sludging regime consistent with the guidance from the *Code of Practice*.

Whilst a Local Law can compel land owners to de-sludge in accordance with the *Code*, it is recommended that a Council coordinated de-sludging program be implemented in the high risk towns of Bethanga, Mitta Mitta and Eskdale. This approach is likely yield better overall results and would be more cost effective than individual land owners in these towns arranging for their own individual pump out.

#### General Improvements

Other general wastewater improvement options within Towong Shire include:

- Improved management of stormwater contaminated by sullage in key townships; and
- Identification of areas where reticulated sewerage is the preferred option and refer to North East Water for further feasibility investigation and preparation of a Sewerage Management Plan (in accordance with section 33 of SEPP Water of Victoria). In this regard, the three highest risk towns identified by this Plan are:
  - Bethanga;

- Mitta Mitta; and
- Eskdale.

| <b>Table 3:<br/>Improved wastewater treatment options and practices</b> |  |   |   |                 |   |
|---|--|---|---|-----------------|---|
| <b>Action Number</b>  | <b>Action</b>  | <b>Responsibility</b>   | <b>Resources</b>  | <b>Priority</b> | <b>Location</b>                         |
| 3.1   | Review stormwater management plan to identify, prioritise and implement opportunities for stormwater improvements in high risk towns.  | Director Technical Services   | Budget allocation for stormwater management plan review and subsequent infrastructure provision   | Medium          | Bethanga, Mitta Mitta and Eskdale       |
| 3.2   | Introduce a Local Law to ensure the satisfactory performance, inspection and maintenance of systems, including routine de-sludging in accordance with the <i>Code of Practice</i> .  | Director Technical Services   | Legal advice, Local Laws staff  | High            | Whole of Municipality                   |
| 3.3   | Introduce a mandatory system upgrade requirement via the Local Planning Policy where a proposal seeks to increase wastewater loads and the existing system is inadequate for those additional loads or cannot comply with current standards. | Manager Planning<br><br>Chief Executive Officer                             | Strategic planning resources to undertake planning scheme amendment or Local Laws review  | Medium          | Whole Municipality                      |
| 3.4   | Implement a Council coordinated routine de-sludge program for high risk towns with a recurrence interval consistent with the <i>Code of Practice</i> .   | Director Technical Services   | Technical Services staff and contractor   | Ongoing         | Bethanga<br>Mitta Mitta<br>Eskdale      |
| 3.5   | Ensure approval to use onsite wastewater systems is withheld until the requirements of Section 1.8.5 of the <i>Code of Practice</i> are satisfied.   | Environmental Health Staff  | Environmental Health Officer and Development Services Administration staff  | Ongoing         | Whole Municipality                      |
| 3.6   | Require system upgrade or replacement when system failure is observed through the monitoring and compliance process.   | Chief Executive Officer   | Implementation will involve Environmental Health, Development Services administration staff and Local Laws staff.   | High            | Whole Municipality                      |
| 3.7   | Mandatory land owner / occupier maintenance reporting and enforcement of certificate of approval and approval to use conditions including sampling, servicing and routine maintenance such as de-sludging.                                   | Chief Executive Officer   | Environmental Health Staff, database  | Medium          | Whole of municipality                   |
| 3.8   | Investigate and implement centralised or decentralised whole of town options for the high risk settlements of Bethanga, Mitta Mitta and Eskdale  | Chief Executive Officer,<br>Director Technical Services<br>North east Water | Financial commitment to fund scoping studies and subsequent implementation<br><br>Council technical services staff<br><br>External funding sources will need to be identified | Medium          | Bethanga,<br>Mitta Mitta<br>and Eskdale |

### 3.4 Strategy 4 - Data Management

Overall, the quality of data relating to existing wastewater systems across the municipality is not complete or reliable and needs to be improved. Despite the overall data deficiencies, some data exists for the three highest risk towns of Bethanga, Eskdale and Mitta Mitta. The development of a wastewater treatment system database is fundamental to the deployment of a monitoring and compliance program and is pivotal for the implementation of many of the strategies contained in this DWMP such as the implementation of a domestic wastewater management charge.

It is recommended that Council implement the following approaches to improve on-site wastewater treatment system data:

- Development of a shire-wide data base or register of existing on-site wastewater systems that is actively and routinely updated. The database could contain the following attribute data:
  - Property identifier (property number), address and owner details;
  - MGA coordinates of the system;
  - Lot size;
  - System details such as system type and age;
  - Any history of system failure such as off-site discharges;
  - Proximity to sensitive receiving environments;
  - Connection to reticulated water;
  - Maintenance records with regard to the original Certificate of Compliance and EPA standards;
  - History of de-sludging activity; and
  - Date of next inspection.
- Integration between the wastewater database and Council's property and rates management system;
- Improve on-site wastewater system spatial data utilising the attribute data contained within the database. This will ensure ease of access to the data and facilitate the easy and routine updating of the database. This spatial data should be available to planning, technical services and environmental health staff via existing GIS platforms;
- Requirement for 'as constructed' plans to be provided for all new systems;
- Develop and make available a list of EPA certified on-site wastewater systems; and
- Better capture and recording of maintenance reports together with the results of the monitoring and compliance program. This needs to be in a form that facilitates reporting to the EPA.

Water quality data should be gathered by water authorities to understand the extent to which on-site wastewater management is contributing to water reduced water quality. It will also enable measurement of water quality over time to gauge whether DWMP actions are improving water quality.

| <b>Table 4:<br/>On-site wastewater data management</b> |   |                                |   |                 |  |
|--|---|--------------------------------|---|-----------------|--|
| <b>Action No.</b>                                      | <b>Action</b>   | <b>Responsibility</b>          | <b>Resources</b>  | <b>Priority</b> | <b>Location</b>                                    |
| 4.1  | Develop a shire-wide data base of existing on-site wastewater systems that is actively and routinely updated.   | Chief Executive Officer        | Utilising existing Council records  | High            | Whole municipality                                 |
| 4.2  | Develop on on-site wastewater system spatial data set that integrates with database   | Chief Executive Officer        | Geographic Information Systems Officer<br>GIS Platform  | High            | Whole municipality                                 |
| 4.3  | Acquire data collection hardware for the recording of field information   | IT and Chief Executive Officer | Geographic Information Systems Officer  | High            | Whole municipality                                 |
| 4.4  | Require as constructed plans at time of system installation   | Environmental Health Officer   | Development Services administration staff to ensure plans are provided and adequately captured by information systems | Ongoing         | Whole municipality                                 |
| 4.5  | Property system to include information advising whether the property relies on on-site wastewater management  | Chief Executive Officer        | IT, Rates and Development Services administration staff to populate Lynx with required information                    | Low             | Whole municipality                                 |
| 4.6  | Ensure the 2009 property assessments of Eskdale, Mitta Mitta and Bethanga are: <ul style="list-style-type: none"> <li>Placed on property files;</li> <li>Included in the shire-wide data base; and</li> <li>Linked to the wastewater GIS to enable rapid retrieval of information</li> </ul>  | Chief Executive Officer        | GIS and Development Services administration staff   | Medium          | Whole municipality                                 |
| 4.7  | Ensure accurate annual returns pursuant to section 53(O) of EP Act 1970 that include: <ol style="list-style-type: none"> <li>the number of permits issued for septic tank systems;</li> <li>the number of septic tank systems disconnected;</li> <li>the number of septic tank systems inspected; and</li> <li>the number of septic tank systems which have been in use within the municipality during the financial year.</li> </ol> | Chief Executive Officer        | Environmental Health Staff  | Medium          | Whole municipality                                 |
| 4.8  | Obtain water quality data through monitoring of key waterways to identify whether domestic wastewater is contributing to water quality decline and to gauge the impact of DWMP strategies on water quality over time.   | GMW, NECMA                     | GMW, NECMA resources  | Ongoing         | Whole municipality with emphasis on main waterways |

### 3.5 Strategy 5 – Communication, Training and Education

The general community awareness of on-site wastewater management issues is low. Many householders do not know the location of their wastewater systems, nor how they should be managed. There needs to be a process of raising community awareness to assist the community to understand, accept and help implement the recommendations of this Plan.

It is essential that householders are made aware of:

- How on-site wastewater systems operate;
- Land owner obligations;
- Household practices to improve system performance;
- Indicators of failing systems;
- Impacts of failing systems;
- The monitoring and compliance program; and
- The requirement for routine de-sludging.

Education of new property owners is important because typically new homebuyers do not receive specific information about the type or condition of wastewater treatment on properties. Better information to homebuyers could allow them to assess the current system and be informed of its performance. In this regard, it is suggested that Council include a standard clause in its land information certificates that informs potential homebuyers via the Section 32 vendor statement that the property has an onsite domestic wastewater system and recommending that the prospective owner have the system assessed prior to property settlement to determine the requirements to maintain or upgrade the system to meet EPA regulations.

| <b>Table 5:<br/>Improve community awareness and understanding of on-site wastewater issues</b> |  |  |   |                 |                           |
|--|--|--|---|-----------------|---------------------------|
| <b>Action Number</b>   | <b>Action</b>  | <b>Responsibility</b>                                  | <b>Resources</b>  | <b>Priority</b> | <b>Location</b>           |
| <b>5.1</b>   | <p>Development of a general wastewater fact sheet that is routinely updated, addressing issues such as:</p> <ul style="list-style-type: none"> <li>• How on-site wastewater systems operate;</li> <li>• Land owner obligations;</li> <li>• Household practices to improve system performance;</li> <li>• Indicators of failing systems; and</li> <li>• Impacts of failing systems.</li> </ul> <p>The fact sheet should be:</p> <ul style="list-style-type: none"> <li>• Included with rates notices;</li> <li>• Available on Council's website;</li> <li>• Available at Council offices; and</li> <li>• Provided with planning permits issued for development reliant upon on-site wastewater management.</li> </ul> | Chief Executive Officer and Environmental Health staff | <p>Environmental Health staff to provide sheet content</p> <p>Rates, customer service, environmental health, planning and communications staff responsible for disseminating fact sheet</p> | <b>Medium</b>   | All un-sewered properties |



|     |   |  |   |         |                               |
|-----|---|--|---|---------|-------------------------------|
| 5.2 | Community consultation and information systems as part of the DWMP review process   | Chief Executive Officer  | Environmental Health Officers, Planning staff   | High    | Key sites across municipality |
| 5.3 | Media items about general or specific wastewater management issues  | Chief Executive Officer  | Environmental Health Officers and communications staff  | Low     | Whole municipality            |
| 5.4 | Provide wastewater management information sheets to new property owners.<br>Rates/property staff to advise Environmental Health staff when a change of home ownership occurs for an un-sewered property and fact sheets are sent to new property owner                        | Chief Executive Officer<br>Director<br>Community and Corporate Services      | Rates, Environmental Health and Development services administration staff   | Medium  | Whole municipality            |
| 5.5 | Development of specific wastewater fact sheets in relation to the following: <ul style="list-style-type: none"> <li>The monitoring and compliance program;</li> <li>Local Laws requirement for routine system de-sludging; and</li> <li>Septic Tank Permit process</li> </ul> | Chief Executive Officer and Environmental Health staff                       | Environmental Health staff to provide sheet content<br><br>Rates, customer service, environmental health, planning and communications staff responsible for disseminating fact sheet. | Medium  | All un-sewered properties     |
| 5.6 | Use Council's website to provide: <ul style="list-style-type: none"> <li>Information on wastewater system approvals process;</li> <li>Land capability assessments; and</li> <li>Access to fact sheets.</li> </ul>   | Chief Executive Officer, Environmental Health staff and communications staff | Environmental Health staff to provide sheet content<br><br>Rates, customer service, environmental health, planning and communications staff responsible for disseminating fact sheet. | Medium  | Whole municipality            |
| 5.7 | Insertion of standard Clause in Land Information Certificates to alert purchasers to the existence of an on-site system   | Director<br>Community and Corporate Services                                 | Property Officer  | Medium  | Whole municipality            |
| 5.8 | Ongoing training and professional development for Environmental Health and Planning staff   | Chief Executive Officer  | Training budget allocation  | Ongoing |                               |

### 3.6 Strategy 6 - Monitoring and Compliance

The on-going effective operation of on-site domestic wastewater systems are largely impacted by the presence or absence of robust institutional mechanisms, such as an actively enforced and implemented monitoring and compliance program. This is because there is clear temporal dimension with respect to the effective operation of individual systems, with each system having a finite operating life. Because much of the risk to human health stems from ageing and failing wastewater disposal systems, such systems should be quickly detected and remedied. A key strategy of the DWMP is to ensure that on-site systems in high risk areas are being monitored to make sure that they are operating properly and are being regularly maintained.

For on-site wastewater systems to be effective, they must comply with permit conditions and maintenance standards. Currently the responsibilities for monitoring and compliance are only carried out in a reactive way as a response to complaints and existing systems cannot be monitored effectively due to the lack of resources and records. A program to systematically monitor and enforce compliance is required to ensure sensitive receiving environments are not exposed to failing systems. The key components of the monitoring and compliance program are:

- Database and GIS Development  
Development and on-going maintenance of a wastewater system data base is required with associated spatial information that includes the identification of system type, age, condition, approvals, maintenance history, inspection findings and location with data obtained through combination of field inspection and examination of existing records.
- Implementation of Sustainable Funding Model  
Development of a sustainable and legal 'user pays' funding model to support the program. This would involve development and application of a service rate / charge pursuant to Sections 162 and 163 of the *Local Government Act 1989*.
- Encouraging Changes in Practice Through Positive Education  
Implementation of a positive education campaign about the program that could include correspondence about compliance checks, factsheets and general information about system operation and maintenance and how land owners can improve operational performance.
- Amnesty Period  
An initial amnesty period should be provided prior to the commencement of property inspections to enable land owners to take steps to undertake system maintenance or improvements.
- Staged Monitoring Program in High Risk Areas  
The monitoring program is to comprise a staged five-year monitoring cycle (20% of systems checked per annum) involving the inspection of all aerated wastewater treatment systems and all systems in the identified high risk areas of:
  - Mitta Mitta
  - Eskdale
  - Lake Hume environs; and

- Bethanga Creek catchment

It is likely that using this approach, the total number of systems that would be included in the monitoring and compliance program would be approximately **580**. This represents approximately **32%** of all on-site wastewater systems within the municipality.

It is likely that system assessment will involve four categories of observed system performance:

- Category 1 (Very Low Risk)  
No performance issues. No follow up required.
- Category 2 (Low Risk)  
Minor performance issues.  
Education and advice letter seeking the repair of the identified problem.
- Category 3 (Medium risk)  
Performance issues with potential for risk to human health.  
Letter and follow-up inspection requiring the remedy of the identified problem.
- Category 4 (High Risk)  
Major performance issues. Failing system that is a risk to environment and community. In this category the emphasis is on the least cost option to fix problem and obtaining compliance with the *Code* where possible.

The staged nature of the program would enable the highest risk systems to be checked first. This would initially involve AWTS and older systems (pre 1990) in the high risk towns and catchments and also those properties within the high risk towns and catchments which have systems inside current *Code of Practice* setbacks. The program could then progressively shift to the lower risk properties within the identified high risk towns and catchments.

- Coordinated Pump-out in High Risk Towns  
If Council opts for a regular coordinated de-sludge of all systems in Bethanga, Mitta Mitta and Eskdale at a recurrence interval consistent with the current *Code of Practice*, the routine pump out will provide the opportunity to identify performance issues at each site and therefore an additional inspection under the monitoring and compliance program would not be necessary in these towns. This approach would reduce the number of properties required to be inspected as part of the monitoring and compliance program to approximately **360** or **20%** of all Towong Shire on-site systems.

- Compliance, Communication and Inspection Follow Up  
 Post inspection follow up with land owners may be necessary depending on the findings of the inspection. Appropriate policy and procedures for dealing with non-compliance such as requiring the upgrade of failing systems needs to be finalised prior to the commencement of the inspection program.
- Landowner and Occupier Reporting of Inspections and Maintenance  
 Mandatory reporting to Council of inspections and maintenance of all systems undertaken at the owner or occupiers responsibility to ensure all systems are maintained according to the relevant EPA Certificate of Approval or as directed by Towong Shire Council.
- Local Law  
 Introduction of a Local Law to ensure the satisfactory maintenance of systems, including routine de-sludging in accordance with *Code of Practice* requirements.
- Process for Hardship Cases  
 A process needs to be developed for those instances where system upgrade is the recommended course of action arising from the inspection process and where there is genuine financial difficulties that might be a barrier to being able to achieve the required outcome. This might include the sourcing of funding where available or the reduction or waiving of fees and charges.
- Communication of the Results of Monitoring Program  
 The results of monitoring and compliance program must be provided to key stakeholders as required by the *Ministerial Guidelines for Planning Permit Applications in Open Potable Water Supply Catchment Areas*.
- Independent Audit  
 An independent audit by an accredited auditor (water corporation approved) of the monitoring and compliance program is to occur on a triennial basis with the results of audit being provided to stakeholders as soon as possible after the relevant assessment.
- Resourcing  
 The necessary budget and resource allocations must be made to enable the implementation of the monitoring and compliance program. Council is to demonstrate to the relevant stakeholders the quantum of the budget and resource commitment in line with the requirements of the *Ministerial Guidelines for Planning Permit Applications in Open Potable Water Supply Catchment Areas*.

| <b>Table 6:<br/>Monitoring and Compliance Program Implementation Timing</b> |                  |
|---|------------------|
| <b>Key Program Step</b>   | <b>Timing</b>    |
| Database and GIS development  | Year 1           |
| Resources allocation within budget process                                  | Year 1           |
| Introduction of cost recovery funding model                                 | Year 1           |
| Amnesty period  | Year 1           |
| Implementation of Local Law   | Year 1           |
| Community education   | Year 1 - ongoing |
| Staged monitoring program in nominated high risk areas                      | Year 1 – ongoing |
| Pump out program in accordance with <i>Code of Practice</i>                 | Year 1 - ongoing |
| Database and GIS maintenance  | ongoing          |
| Reporting and Audit   | ongoing          |

### 3.7 Strategy 7 - High Risk Areas

#### Bethanga

Bethanga is a priority township because of the concentration of systems, ageing and split systems, proximity of sensitive receiving environments, small lots sizes and potential for additional growth within the catchment. Any actions aimed at addressing the wastewater challenges at Bethanga should ultimately focus on a long term 'whole of town' solution, however, some interim on-site system improvements will be necessary to improve the wastewater management situation before a longer term, whole of town solution can be implemented.

Whilst the divergence of community attitudes has been a stumbling block in the past for the implementation of a whole of town solution, it is strongly recommended that an options study and concept design be completed for a long term wastewater servicing option for the whole of Bethanga. Options may include a traditional centralised sewerage scheme, or a decentralised wastewater management system. This study should also provide concept designs and indicative costs for sustainable long term whole of town wastewater servicing options. For Bethanga the issue of stormwater needs to be considered in parallel with the whole of town sewage solutions, and should be integrated into both treatment and re-use option analysis. It is possible that the township's location in moderate to steep sub-catchment limits the potential to utilise extensive surface wetland treatment systems in the control and remediation of the stormwater.

Bethanga is considered the highest priority existing town within Towong Shire as a consequence of the risk assessment process undertaken by the DWMP process. For this reason, the implementation of interim management measures is not considered appropriate solution for more than five years and should only be considered if there is insufficient funding available within this time horizon to implement a whole of town solution.

|  | <b>Action</b>  | <b>Priority</b> | <b>Responsibility</b>                     |
|--|--|-----------------|---|
| <b>Interim Wastewater Management Options</b> | Implementation of Restructure Overlay Requirements<br><i>(Strategy 2)</i>  | Ongoing         | Towong Shire Council and GMW              |
|  | Develop database that includes the information obtained from the 2009 Bethanga individual property assessments<br><i>(Strategy 4)</i>                | High            | Towong Shire Council                      |
|  | Implement community education actions<br><i>(Strategy 5)</i>   | High            | Towong Shire Council                      |
|  | Stormwater infrastructure improvement<br><i>(Strategy 3)</i>   | Medium          | Towong Shire Council                      |
|  | Mandatory land capability assessment requirement for new development<br><i>(Strategy 1)</i>  | Ongoing         | Towong Shire Council                      |
|  | Introduce mandatory system upgrade for the redevelopment of non <i>Code of Practice</i> compliant properties<br><i>(Strategy 3)</i>                  | Medium          | Towong Shire Council                      |
|  | Introduce a Local Law to ensure the satisfactory inspection and maintenance of systems.<br><i>(Strategy 3)</i>                                       | High            | Towong Shire Council                      |
|  | Implementation of monitoring and compliance program<br><i>(Strategy 6)</i>   | High            | Towong Shire Council                      |
|  | Implement a Council coordinated routine de-sludge program<br><i>(Strategy 3)</i>   | Ongoing         | Towong Shire Council                      |
| <b>Long Term Whole of Town Options</b>       | Commence interagency options study and concept design for whole of town decentralised or conventional centralised system<br><i>(Strategy 3)</i>      | High            | Towong Shire Council and North East Water |
|  | Implementation of a whole of town decentralised or conventional centralised system including detailed design and construction<br><i>(Strategy 3)</i> | Medium          |   |

### Mitta Mitta

Mitta Mitta is heavily constrained by the proximity of waterways and is characterised by having a high proportion of split systems, ageing systems and small lot sizes. The concentration of ageing systems at the confluence of the Mitta Mitta River and Snowy Creek combined with the recreational use of the waterways make Mitta Mitta a priority township, second only to Bethanga.

Like Bethanga, any actions aimed at addressing the wastewater challenges at Mitta Mitta should be directed at providing a long term ‘whole of town’ solution such as traditional reticulated sewerage or a decentralised wastewater system. In the interim, improvements may be necessary to improve the wastewater management situation before a long term, whole of town solution can be implemented. It is strongly recommended that an options study and concept design be completed for a long term wastewater servicing option for Mitta Mitta. Options may include a traditional centralised sewerage scheme or more likely a decentralised wastewater management system. This study should also provide concept designs and indicative costs for sustainable long term whole of town wastewater servicing options.

Given the concentration of systems, the age and proximity to waterways used for drinking water and recreation, the implementation of interim management measures is not considered appropriate long term solution for Mitta Mitta. They should only be considered if there is insufficient funding available within the next five years to investigate a whole of town solution.

|  | <b>Action</b>  | <b>Priority</b> | <b>Responsibility</b>                     |
|--|--|-----------------|---|
| <b>Interim Wastewater Management Options</b> | Implementation of Restructure Overlay requirements<br><i>(Strategy 2)</i>  | Ongoing         | Towong Shire Council and GMW              |
|  | Develop database that includes the information obtained from the 2009 Mitta Mitta individual property assessments<br><i>(Strategy 4)</i>             | High            | Towong Shire Council                      |
|  | Implement community education actions<br><i>(Strategy 5)</i>   | High            | Towong Shire Council                      |
|  | Stormwater infrastructure improvement actions<br><i>(Strategy 3)</i>   | Medium          | Towong Shire Council                      |
|  | Mandatory land capability assessment requirement for new development<br><i>(Strategy 1)</i>  | Ongoing         | Towong Shire Council                      |
|  | Introduce mandatory system upgrade for the redevelopment of non <i>Code of Practice</i> compliant properties<br><i>(Strategy 3)</i>                  | Medium          | Towong Shire Council                      |
|  | Introduce a Local Law to ensure the satisfactory inspection and maintenance of systems, including routine de-sludging.<br><i>(Strategy 3)</i>        | High            | Towong Shire Council                      |
|  | Implementation of monitoring and compliance program<br><i>(Strategy 6)</i>   | High            | Towong Shire Council                      |
|  | Implement a Council coordinated routine de-sludge program<br><i>(Strategy 3)</i>   | On-going        | Towong Shire Council                      |
| <b>Long Term Whole of Town Options</b>       | Commence interagency options study and concept design for whole of town decentralised or conventional centralised system<br><i>(Strategy 3)</i>      | Medium          | Towong Shire Council and North East Water |
|  | Implementation of a whole of town decentralised or conventional centralised system including detailed design and construction<br><i>(Strategy 3)</i> | Low             |   |

### Eskdale

Eskdale is constrained by the proximity of the Little Snowy Creek and has a high proportion of ageing and split systems with typically small lot sizes. The recent provision of reticulated water has potentially exacerbated wastewater management issues by contributing to increased wastewater loads.

The risk management process undertaken by this DWMP suggests that whilst it is a high risk township, Bethanga and Mitta Mitta are nevertheless are higher priority townships. Whilst the DWMP recommends some interim actions until a long-term 'whole of town' solution can be developed, it is anticipated that these interim measures will have a longer time horizon than at Bethanga and Mitta Mitta where there is greater urgency to provide 'whole of town' solutions.

|  | <b>Action</b>  | <b>Priority</b> | <b>Responsibility</b>        |
|--|--|-----------------|------------------------------|
|  | Implementation of Restructure Overlay requirements<br><i>(Strategy 2)</i>  | Ongoing         | Towong Shire Council and GMW |
|  | Develop database that includes the information obtained from the 2009 Eskdale individual property assessments<br><i>(Strategy 4)</i> | High            | Towong Shire Council         |
|  | Implement community education actions  | High            | Towong Shire                 |

|  |   |         |   |
|--|---|---------|---|
| <b>Interim Wastewater Management Options</b> | (Strategy 5)  |         | Council                                   |
|  | Storm water infrastructure improvement actions (Strategy 3)   | Medium  | Towong Shire Council                      |
|  | Mandatory land capability assessment requirement for new development (Strategy 1)   | Ongoing | Towong Shire Council                      |
|  | Introduce mandatory system upgrade for the redevelopment of non <i>Code of Practice</i> compliant properties (Strategy 3)           | Medium  | Towong Shire Council                      |
|  | Introduce a Local Law to ensure the satisfactory inspection and maintenance of systems, including routine de-sludging. (Strategy 3) | High    | Towong Shire Council                      |
|  | Implementation of monitoring and compliance program (Strategy 6)  | High    | Towong Shire Council                      |
|  | Implement a Council coordinated routine de-sludge program (Strategy 3)  | Ongoing | Towong Shire Council                      |
| <b>Long Term Whole of Town Options</b>       | Commence options study and concept design for whole of town decentralised or conventional centralised system (Strategy 3)           | Low     | Towong Shire Council and North East Water |

### Other Un-Sewered Settlements

The township risk profile of these settlements suggests that ‘whole of town’ centralised or decentralised systems are not able to be justified on a cost-benefit basis. These towns exhibit modest growth rates and already contain the Restructure Overlay which provides an excellent safeguard within the new development approvals process. Enduring risk mitigation can be provided by mix of measures aimed at improving the performance of existing systems and ensuring new development complies with statutory requirements.

**Table 10:  
Other Un-sewered Settlements**

|  | Action  | Time Frame | Responsibility               |
|--|---|------------|------------------------------|
| <b>Long Term Wastewater Management Options</b> | Implementation of Restructure Overlay requirements (Strategy 2)   | Ongoing    | Towong Shire Council and GMW |
|  | Develop database that includes system details (Strategy 4)  | High       | Towong Shire Council         |
|  | Implement community education actions (Strategy 5)  | High       | Towong Shire Council         |
|  | Stormwater infrastructure improvement actions (Strategy 3)  | Medium     | Towong Shire Council         |
|  | Mandatory land capability assessment requirement for new development (Strategy 1)   | Ongoing    | Towong Shire Council         |
|  | Introduce mandatory system upgrade for the redevelopment of non <i>Code of Practice</i> compliant properties (Strategy 3)           | Medium     | Towong Shire Council         |
|  | Introduce a Local Law to ensure the satisfactory inspection and maintenance of systems, including routine de-sludging. (Strategy 3) | High       | Towong Shire Council         |



## High Risk Catchments

The DWMP risk assessment process suggests that the catchments with the highest risk ratings are:

- Bethanga Creek  
This catchment has a high risk rating because of existing dwelling densities (the township of Bethanga is located within the catchment), the likely poor existing wastewater management practices, proximity of sensitive receiving environments and the direct risk of contamination to ground and surface waters. This catchment also has potential for additional un-sewered development in the future which could enhance public health and environmental risks; and
- Lake Hume Environs  
The proximity of the Lake and scope for additional rural living development elevates the risk level of this catchment area.

In these catchments the interplay of multiple risk factors elevates the risk to environmental and public health. Across these catchments there are a total of **432** on-site systems and this represents approximately **24%** of all Towong Shire on-site systems.

For all other catchments, there is unlikely to be significant increases to existing dwelling densities. Beyond the 40 minute travel contour from Albury – Wodonga there is little pressure for land use change and there is little likelihood for land use change that might cause an increase in the number of on-site systems in all catchments. In this regard, according to the *Victoria in the Future* projections, by 2031 it is anticipated that there will be only a 0.2% change in the Towong Shire population and a 0.3% increase in the number households. Given these fundamental population and settlement trends wastewater management policy direction provided by the DWMP is directed toward improving wastewater management from existing development in the landscape and guiding future development in those catchments where some growth can be expected over the life of the Plan (Bethanga Creek and Lake Hume Environs catchments).

**Table 11:  
High Risk Catchments**

|                      | Action  | Time Frame | Responsibility               |
|----------------------|---|------------|------------------------------|
| Long Term Wastewater | Implementation of Restructure Overlay requirements<br>(Strategy 3)  | Ongoing    | Towong Shire Council and GMW |
|                      | Review and implement the Local Planning Policy<br>(Strategy 2)  | Medium     | Towong Shire Council and GMW |
|                      | Develop on-site waste water system database<br>(Strategy 4)   | High       | Towong Shire Council         |
|                      | Implement community education actions<br>(Strategy 5)   | High       | Towong Shire Council         |
|                      | Stormwater infrastructure improvement actions<br>(Strategy 3)   | Medium     | Towong Shire Council         |
|                      | Mandatory land capability assessment requirement for new development<br>(Strategy 1)  | Ongoing    | Towong Shire Council         |
|                      | Introduce mandatory system upgrade for the redevelopment of non <i>Code of Practice</i> compliant properties<br>(Strategy 3)  | Medium     | Towong Shire Council         |
|                      | Introduce a Local Law to ensure the satisfactory inspection and maintenance of septic systems, including routine de-sludging. | High       | Towong Shire Council         |

|                           |  |         |                              |
|---------------------------|--|---------|------------------------------|
| <b>Management Options</b> | <i>(Strategy 3)</i>  |         |                              |
|                           | Deploy ESO to provide a planning permit trigger for un-sewered development<br><i>(Strategy 2)</i>  | Low     | Towong Shire Council         |
|                           | In the areas proposed for rural living to ensure unsewered rural living development only proceeds on land with a satisfactory capacity for on-site wastewater management employ a combination of: <ul style="list-style-type: none"> <li>Landscape scale land capability assessments based on published soil and land survey information at the rezoning stage; and</li> <li>Site specific Land Capability assessments via the DPO at the planning approvals stage;</li> </ul> <i>(Strategy 2)</i> | Medium  | Towong Shire Council         |
|                           | Mandatory requirement for land capability assessments for all planning applications for development that will generate wastewater<br><i>(Strategy 1)</i>   | Ongoing | Towong Shire Council         |
|                           | Implementation of monitoring and compliance program.<br><i>(Strategy 6)</i>  | High    | Towong Shire Council         |
|                           | Introduce a mandatory system upgrade requirement where a consent is provided for a proposal that increases wastewater loads and the existing system is considered inadequate for the additional loads or the cannot comply with current standards.<br><i>(Strategy 3)</i>  | High    | Towong Shire Council         |
|                           | Retain the planning referral MoU with GMW .<br><i>(Strategy2 )</i>   | High    | Towong Shire Council and GMW |
|                           | Water quality monitoring<br><i>(Strategy 4)</i>  | Ongoing | GMW, NECMA                   |

#### 4. Implementation of the Plan

The safe and effective management of wastewater has costs and these costs have historically not been fully recognised, considered and accounted for. The implementation of this Plan will require a financial commitment from both Council and key stakeholders. Whilst property owners in un-sewered areas will benefit from the implementation of this Plan, there is also a clear benefit to the rest of the municipality through the incremental improvement in water quality and catchment health and a reduction in risks to human health over time. There are broader regional and state-wide benefits that will accrue from the Plan, particularly for water authorities responsible for the provision of safe drinking water which stand to benefit from the improved management of un-sewered areas.

The progressive implementation of the DWMP is to be undertaken in accordance with the specific action prioritizations indicated by the Plan (refer to *Strategies 1 to 7* of DWMP). In addition to the deployment of adequate staff and financial resources, successful implementation of the DWMP will require:

- Ongoing Staff Training and Development

Pivotal in the deployment of the DWMP is the need for adequate human resources and ensuring that these staff members are familiar with the technical aspects of on-site wastewater management and the associated regulatory environment.
- Identifying External Funding Sources

A range of State and Federal funds exist which could provide scope for the funding of projects that seek to improve the management of water and wastewater. Council will need to be proactive in seeking external project funding to assist in the delivery of DWMP actions. Those stakeholders who benefit from this Plan have an obligation to make a contribution to the

implementation of the plan. In this way the beneficiaries of the Plan should be key contributors.

- Cost Recovery Domestic Wastewater Management Charge  
The cost of implementing the monitoring and compliance program will require a charge to be applied to property owners to recover costs associated with the administration and operation of the program. Issues key to resolve in relation to the property owner charge include:
  - Determining which properties should be included in the charge. Some options include:
    - Applying the charge universally to all un-sewered properties;
    - Using a charge has a differential rate relating to the recurrence of interval of monitoring. In this scenario, the charge would be greater for higher risk properties; and
    - All properties across the shire pay the charge as benefits from the DWMP will be shared by the whole community.
  - Calculating the quantum of the charge. This will be influenced by which properties are to be charged, whether other Council revenue is used to cross-subsidise the monitoring and compliance program and whether an 'in house' or external contractor model is employed.
  
- Inclusion within the Council Plan  
The Council Plan is to include the implementation of the DWMP as a key strategic item to demonstrate Council's commitment to deliver the Plan.

## 5. Domestic Wastewater Management Plan Reporting and Review

DWMP implementation progress is to be monitored through a combination of:

1. An annual internal progress review of DWMP actions.

This internal progress review is intended to provide:

- An assessment of progress on actions;
- An adjustment of priorities if necessary;
- Greater transparency for the community in relation to expenditure of the property wastewater charge and overall Plan progress; and
- Opportunity to communicate the results of monitoring and compliance program to key stakeholders as required by the *Ministerial Guidelines for Planning Permit Applications in Open Potable Water Supply Catchment Areas*.

2. Independent audit

The independent audit by an accredited auditor (water corporation approved) of DWMP progress and outcomes is to occur on a triennial basis with the results of audit being provided to stakeholders as soon as possible after the assessment as required by the *Ministerial Guidelines for Planning Permit Applications in Open Potable Water Supply Catchment Areas*.

A full review of the DWMP is recommended five years after its adoption by Council. This commitment to review the DWMP should be included within the *Council Plan*.

## 6. Compliance with the Ministerial Guidelines for Planning Permit Applications in Open Potable Water Supply Catchment Areas

According to the 2012 *Ministerial Guidelines for Planning Permit Applications in Open Potable Water Supply Catchment Areas*, a DWMP will be considered an acceptable basis for a relaxation of Guideline 1 (1:40 hectare dwelling density rule) where certain DWMP requirements are satisfied. This DWMP contains a suite of strategies and subsequent actions that are intended to satisfy the requirements of the *Ministerial Guidelines*. A summary of these is presented in *Table 14*.

| <b>Table 12:<br/>How the DWMP meets the requirements of the Ministerial Guidelines for Planning Permit Applications in Open Potable Water Supply Catchment Areas</b>  |  |
|---|--|
| <b>Requirements of the Guidelines</b>   | <b>Relevant DWMP Strategy / Section</b>  |
| The DWMP must be prepared or reviewed in consultation with all relevant stakeholders including: <ul style="list-style-type: none"> <li>• Other local governments with which catchment/s are shared;</li> <li>• EPA; and</li> <li>• Local water corporation/s.</li> </ul>                              | This DWMP has been prepared with relevant required local government and agency consultation.   |
| The DWMP must comprise a strategy, including timelines and priorities, to: <ul style="list-style-type: none"> <li>• Prevent discharge of wastewater beyond property boundaries; and</li> <li>• Prevent individual and cumulative impacts on groundwater and surface water beneficial uses.</li> </ul> | Strategy 1<br>Strategy 2<br>Strategy 3<br>Strategy 4<br>Strategy 5<br>Strategy 6<br>Strategy 7 |
| Effective monitoring of the condition and management of onsite treatment systems, including but not limited to compliance by permit holders with permit conditions and the <i>Code</i> .  | Strategy 6<br>Strategy 7   |
| The results of monitoring being provided to stakeholders as agreed by the relevant stakeholders.  | Strategy 6; and<br>Section 5 – Domestic Wastewater Management Plan Reporting and Review        |
| Enforcement action where non-compliance is identified.  | Strategy 6   |
| Process of review and updating (if necessary) of the DWMP every 5 years.  | Strategy 6; and<br>Section 5 – Domestic Wastewater Management Plan Reporting and Review        |
| Independent audit by an accredited auditor (water corporation approved) of implementation of the DWMP, including of monitoring and enforcement, every 3 years with the results of audit being provided to stakeholders after the assessment.  | Strategy 6; and<br>Section 5 – Domestic Wastewater Management Plan Reporting and Review        |
| Councils to demonstrate that suitable resourcing for implementation, including monitoring, enforcement, review and audit, is in place.  | Strategy 6; and<br>Section 4 - Implementation of the Plan                                      |

## References

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