## BEFORE A HEARINGS PANEL OF THE GREATER WELLINGTON REGIONAL COUNCIL

UNDER	the Resource Management Act 1991 ("the Act")
IN THE MATTER OF	resource consent applications to Greater Wellington Regional Council pursuant to section 88 of the Act to discharge contaminants to land, air and water
ВҮ	South Wairarapa District Council
FOR	the proposed staged upgrade and operation of the Martinborough Wastewater Treatment Plant

# BRIEF OF EVIDENCE OF MARK ALLAN ALLINGHAM ON BEHALF OF SOUTH WAIRARAPA DISTRICT COUNCIL

## SWDC STRATEGIC ASSET MANAGEMENT

### DATED 17 APRIL 2015

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# BRIEF OF EVIDENCE OF MARK ALLAN ALLINGHAM ON BEHALF OF SOUTH WAIRARAPA DISTRICT COUNCIL

- 1. My full name is Mark Allan Allingham.
- 2. I am the Group Manager of Infrastructure and Services (GMIS) for the South Wairarapa District Council (SWDC). I have over 25 years in Civil Construction and maintenance in New Zealand and Australia, including over 16 years of experience in Local Government engineering and asset management. I hold an Honours Degree in Transport Logistics and a Diploma of Asset Management.
- 3. I have significant experience in project management and infrastructure development gained on projects I have contributed to and been directly responsible for throughout New Zealand and Australia and have a thorough understanding of Government procurement of infrastructure and its operations and asset management. Throughout my career I have been recognised with awards for both logistics and procurement in local government. In particular, I gained the Australia Procurement Award for Innovation in 2008 as well as The Caterpillar Overseas Study Award studying systems in the US where wastewater was treated to potable standards. Last year I received the Australian Emergency Services Medal for my work in three of the major Victorian Bushfires, including "Black Saturday" in February 2009, which claimed 173 lives.
- 4. I have been the GMIS at SWDC since May 2010 at which time the programme for the three urban waste water treatment plant consent renewals was in development. The development and conclusion of this work was part of my management brief.
- 5. I have read the Code of Conduct for Expert Witnesses in section 5 of the Environment Court's Practice Note (2011). I agree to comply with that Code of Conduct. Except where I state that I am relying upon the specified evidence of another person, my evidence in this statement is within my area of expertise. I have not omitted to consider material

facts known to me that might alter or detract from the opinions which I express.

# SCOPE OF EVIDENCE

- 6. My evidence in respect of this hearing is intended to describe the proposed operation of the Martinborough WWTP under the new consent. I also outline how the proposed activities are necessary to achieve the asset management obligations and strategies of SWDC, including in particular the proposed staging of the upgrades.
- 7. My evidence is structured as follows:
  - (a) Introduction and overview
  - (b) Background to the proposal
  - (c) Existing Plant and the need for the long term upgrade
  - (d) The proposed activity
  - (e) Land treatment
  - (f) Submissions Timing of the proposed stages
  - (g) Management Plans and Compliance
  - (h) Term of Consent
  - (i) Conclusion
- 8. The resource consent applications seek to provide for the construction, operation and maintenance of the proposed upgrade to the Martinborough Wastewater Treatment Plant (MWWTP).
- 9. In this evidence I provide a general background to the project and discuss Council's Waste Water Strategy. This Strategy provides the framework for the proposal (as well as the proposed upgrades at Featherston and Greytown WWTP's). I also consider this programme of upgrades in the context of Council's wider asset management responsibilities. I will also comment on the development and improvements resulting from the proposed Martinborough upgrade, and

the importance of long term certainty from an asset management perspective.

#### **INTRODUCTION & OVERVIEW**

- 10. The proposed activity includes the ongoing operation, maintenance, and upgrade of the Martinborough Wastewater Treatment Plant including the staged move to the discharge (and further treatment) of treated wastewater to land. These are described in detail in the Description and Assessment of Effects that accompanies the application, and are summarised in the other evidence.
- 11. The consents required for MWWTP are one of three suites of consents currently being sought by SWDC for waste water plant upgrade and discharge from each of the three municipal wastewater treatment plants (Martinborough, Featherston, and Greytown). As the GMIS, the upgrade planning, this consent application process, the resultant capital improvement plan and long term renewal and asset management is part of my responsibility. This plan and all resultant and supplementary work sit within a framework of capital improvement and renewal programs for the SWDC which is outlined in the councils Long Term Plan and 30 year infrastructure strategy. I have been directly involved in the development of these processes, which span all of Councils responsibilities, significant projects, and expenditure.
- 12. The implementation of the proposed upgrade at MWWTP (as with the other two plants) has been staged. The staging for MWWTP was determined firstly in consideration of the other two urban waste water plant upgrade projects to develop a district wide wastewater asset upgrade programme; and secondly, in consideration of identified critical potable urban water renewal and upgrade requirements required over the current LTP planning period to meet national drinking water standards. The Wastewater Programme was then prioritised against known existing environmental and cultural constraints to provide a best practicable option for each plant.

- Staging is also impacted by forecast increases associated with some of Council's other legislative obligations. In particular the following are relevant in the current funding planning process:
  - (a) Changes in road funding (subsidy) models and required engineering standards
  - (b) Increases in capital costs for head works for water races and achieving increasing environmental requirements
  - (c) Civil defence preparedness costs post the Christchurch earthquakes, and
  - Increased costs associated with building standard compliance due to earthquake strengthening requirements on existing community assets and social infrastructure.
- 14. Population growth and infrastructure demand affect both capital investment and the demand for infrastructure. From an asset management perspective, with relatively flat population growth projections, SWDC will plan for and build major asset renewals or new infrastructure with little redundant capacity.
- 15. Taking this a little further, investment in infrastructure must take into consideration demand, future affordability, technology and the effect of expenditure on other projects, so as to ensure that it is both sustainable and effective. SWDC manage our assets for their full-lifecycle using integrated planning and underlying data about their condition to ensure maintenance, replacement and renewal decisions are sound and in line with best practice and estimated lifespan. This approach is taken for the suite of assets under council control where assets will be replaced based upon condition, life and effectiveness, and interdependent on the priority of other critical and social infrastructure assets. This in effect means that investment in one asset will directly impact upon the upgrade of other assets. The priorities for all assets are interrelated,

and investment in each must be weighed up to achieve an appropriate balance of legislative obligations and desired community outcomes.

- 16. It will be difficult to reduce infrastructure related costs in future if population actually declines and an increased number of households with lower fixed incomes results, which will almost certainly lead to serious affordability issues. A population decline over the term of this consent is within the lower bounds of the population projections adopted by Council.
- 17. The adopted decision of SWDC to transition to land-based treatment for treated wastewater resolves most of the risk of redundancy of infrastructure in situations where extensive and expensive hard infrastructure (e.g. membrane plants) are constructed.
- 18. In addition, and equally importantly, the strategic move to land disposal by SWDC is expected to achieve the following:
  - (a) limits the burden of depreciation,
  - (b) prevents the costs of obsolescence,
  - (c) produces a long term revenue stream (from the sale of "cutand-carry" feed pasture)
  - (d) recognises cultural values of tangata whenua, and
  - (e) provides for targeted and sustainable environmental improvement.
- 19. The strategic staging of the projects outlined in the consent applications ensures these benefits can be achieved whilst representing prudent asset management practice and cash flow management.
- 20. A key principle of the Local Government Act is that....*a local authority* should ensure prudent stewardship and the efficient and effective use of its resources in the interests of its district or region, including by planning effectively for the future management of its assets.<sup>1</sup> Council's are required

<sup>&</sup>lt;sup>1</sup> Section 14(1) (g)

under the Local Government Act 2002 Amendment Act 2014 to provide Infrastructure strategies within specified constraints. These include the following:

- (a) <u>Must cover at least 30 years</u> therefore the staging of the upgrade expenditure on all three WWTP's needs to be viewed in the long term and in combination, not in isolation.
- (b) <u>Manage the timing of investment for growth, to avoid constraints on growth from limited infrastructure capacity while minimising the costs to the community of underutilised infrastructure capacity this covers all infrastructure inclusive of amenities, transport and waters. Importantly this requires Council to ensure that redundant capacity is avoided in its planning and programming.</u>
- (c) <u>What level of investment is needed to maintain, renew and</u> <u>replace existing assets</u> - this is a critical point as the new infrastructure staging over time will require maintenance and renewal, staging prevents future expenditure "bubbles".
- (d) how to balance service level expectations with affordability in the context of demographic changes such as depopulation and aging - By managing asset level of service ("LOS") as an integrated "whole" rather than by individual asset class council will maintain the general amenity and derivability of the asset portfolio. For example where the solid waste system improved drastically it was also off set with a reduction in Berm Mowing retaining the resultant "general" LOS satisfaction. With increased costs in wastewater through the increased LOS to the community and increased costs, savings throughout the non-wastewater related areas would be required.
- (e) Level of investment, if any, is needed to improve the level of service provided by those assets - There is investment required in all areas of council's assets including but not

limited to pensioner housing, roads and libraries. By implementing a "Just-in-time" approach to upgrade and renewal council ensures there is no redundancy or lost capital in its renewal programs. With the numerous small portfolios of assets inspected regularly for investment needs and close community feedback council ensures that LOS are met or adjusted along with community expectations.

#### THE EXISTING PLANT AND THE NEED FOR THE LONG-TERM UPGRADE

- 21. The MWWTP is located at the end of Dublin Street, Martinborough, accessed via an adjoining private property. The site is located approximately 1km to the north-west of the Martinborough urban boundary and 1.8km straight-line distance from the town centre.
- 22. The current system utilises a facultative oxidation pond based method initially constructed in 1975 and added maturation cells with a floating wetland media and ultra-violet sterilisation. This discharges to the Ruamahanga via the existing constructed discharge channel.
- 23. The existing discharge to water consent (WAR97079[30753]) expired on 10 July 2012. A new consent is therefore required to enable continued operation of the plant and the discharge to air consent (WAR970079[20870]) expires on 10 July 2022.
- 24. Overall, the existing plant operates well and generally within the intent of the existing consents. It is acknowledged that a 'significant noncompliance' was issued by GWRC in 2014 due to noncompliance with conditions and technical non-compliances resulting from not having confirmed upgrade proposals. The only complaint recorded has been in relation to the physical location of the public health warning sign.
- 25. The need for the upgrade is not driven in this instance by population growth. The principal reason for upgrade at MWWTP is to achieve the outcomes of SWDC's long term wastewater strategy, which seeks to achieve the following:

- (a) limits the burden of depreciation,
- (b) prevents the costs of obsolescence,
- (c) produces a long term revenue stream
- (d) recognises cultural values of tangata whenua, and
- (e) provide an environmental improvement.
- 26. In Martinborough, as distinct from Featherston and (less so) Greytown, remedying and mitigating adverse environmental effects of the discharge is not the key driver. Although there are some adverse effects, these are localised and are primarily limited to low flow situations.

### BACKGROUND TO THE PROPOSED ACTIVITY

- 27. In 2010 the Council discussed various options for the upgrade of the all waste water plants and determined that the preferred option for long term disposal was to utilise land disposal. This was primarily due to;
  - (a) Being the preferred long-term option for the community
  - (b) Recognising and providing for cultural values
  - (c) The least effect on environment
  - (d) The least adverse effect on public health and recreational amenity
- 28. This strategy was widely publicised and disseminated to SWDC residents with a summary sent to all ratepayers, in the media including a copy in the free local paper, the Wairarapa News. Meetings were held in all communities for open public attendance. This included discussion on the general direction of the strategy, the desire where possible to go to land and also outlined the main prohibiting factors.
- 29. Throughout this time, SWDC continued to make improvements and investigated alternative technologies and approaches to attempt to

mitigate potential adverse effects for all three plants. This included: UV sterilisation on the Martinborough and Featherston Plants and the installation of floating wetlands on the maturation cells specifically in Martinborough.

- 30. In August 2013, following a technical review of options (refer Evidence of Mr Kevan Brian), the Council evaluated various options for the upgrade of three waste water treatment plants. This included the specific investigation of the feasibility of combined schemes across the three plants, and combining schemes with Carterton. Due to the distances between the plants and urban areas, the costs of combining schemes associated with pumping and piping were prohibitive, being significantly greater than both mechanical treatment and land treatment at each existing plant independently.
- 31. An independent assessment of treatment options, including a high-level multi-criteria analysis was undertaken, and subsequent consideration undertaken determined that land disposal was best practicable long-term option for the MWWTP. This analysis is described in detail in the evidence of Mr Kevan Brian. This aligned well with the Council's long term strategic objective of full land treatment.
- 32. Land treatment options were independently assessed (by Lowe Environmental Impact ("LEI")) to investigate at the suitability of land within a workable radius of the plant and containing soils of characteristics and size suitable for land treatment based on discharge volumes. The outcome of this review is reported in detail in the AEE, and described in the evidence of Ms Katie Beecroft.
- 33. The primary critical factor in the SWDC decision was the availability of existing suitable land already owned by SWDC, comprised of the land adjacent to the MWWTP, and at Pain Farm. A technical review was conducted on these areas which determined suitability to treat targeted volumes of discharge. Additional preliminary investigations were also undertaken at the Martinborough Golf Club, which is also owned by

SWDC. This provides an alternative and/or additional area of available suitable land should this be required in future.

- 34. The ability to logically stage the land treatment works and infrastructure in conjunction with works at the other two plants in an affordable manner was also a primary factor. Land treatment and the scalability of irrigation infrastructure provided significant advantages in this respect.
- 35. SWDC has also recently changed the way in which the day-to-day operational performance of the plant is managed. The MWWTP is managed and operated by CityCare Limited ('CityCare') under the terms of an Operations and Maintenance Contract ('OMC') signed in October 2012. The contractor is required to ensure that the MWWTP is operated in strict compliance with relevant resource consents. Compliance with conditions of consent is part of the contractor's own performance assessment. This operational change provides Council with greater opportunity to effectively manage the operational performance of the plants on a day to day basis, and focus more on strategic asset management.
- 36. The following are constantly monitored and/or inspected daily:
  - (a) Outlet flows
  - (b) UV transmissivity of effluent
  - (c) UV dosage
- 37. Input (or influent) volumes are relatively high on a national level for the size of the population being served by the plant. A cause of the high influent flow is from rainfall inflow and groundwater infiltrating the system (referred to as 'inflow and infiltration', or '1/1'). The system suffers from some I/I during wet periods, but this is less of an issue ion Martinborough than the other two urban areas. The causes of I/I are principally from:
  - (a) The deteriorating condition of underground pipework; and

- (b) The cross connection of rainwater downpipes with foul sewer connection.
- 38. I/I will be investigated within the next 5-10 years, but it is indicated I/I levels are not a critical constraint in Martinborough, and therefore investment will be deferred.
- 39. A population increase in Martinborough of 8.4% has occurred since the 2001 Census (Statistics NZ) however the population projections are predicted to be effectively "zero-growth" through to 2031. This is taken from assessment of Statistics New Zealand (SNZ) population projections (high, medium and low). In recent years Council has adopted the SNZ's medium-range projection for planning purposes and this has served well over the period since 2001. The most recent projection was based on the 2013 census, showing a projection of 0.2% growth to 2031.
- 40. Significant growth is not expected in Martinborough urban area beyond 2031 based on current internal migration trends. In the event unforeseen growth is experienced, the land treatment proposal has the ability to be expanded simply, either through increased storage capacity, or extending the land treatment area (subject to appropriate consents).

## THE PROPOSED ACTIVITY

- 41. The proposal is described in detail within the application and other evidence.
- 42. Primary treatment will continue to be provided from the existing oxidation pond and tertiary treatment by UV disinfection over the term of the consent.
- 43. A three-stage 'deferred discharge' programme (excluding the short Stage 1A) based on the following:
  - (a) **Stage 1B** Commence discharge of c.24% of annual flow (c.52,000 m3 per annum) by irrigation to 5.3ha of existing

Council owned land adjacent to the WWTP, retaining the balance discharge to Ruamahanga River (commence by November 2017);

- (b) Stage 2A Increase discharge to land to c.42% of annual flow (c.93,000m3 per annum) by irrigation to Pain Farm, retaining balance discharge to Ruamahanga River (no later than end of 2030)
- (c) Stage 2B Provide additional storage to increase facility total storage to 90th percentile annual flow, with final 10th percentile discharge to Ruamahanga only where required and during high-flow conditions only (targeted minimum flow of 3xMAF (no later than end of 2035)
- 44. Stage 1B and 2A land discharge will be targeted to drier weather periods, which generally coincide with lower river flows. This will maximise the mitigation of potential adverse effects on water quality. A river discharge "cut-off" of half-median flow will apply at both these stages, meaning that no discharge is anticipated directly to the river during these stages. In order to accommodate this, a deficit irrigation scheme has been proposed for Stage 1B, while a non-deficit irrigation regime can be applied at the larger Pain Farm from Stage 2B.
- 45. Enhancement and optimisation works will be undertaken prior to this as Stage 1A, including plant inlet screening to remove debris prior to the oxidation pond to reduce maintenance and improve sludge management. Screened solids will be collected and disposed of at an appropriately approved and consented landfill facility.

#### LAND DISPOSAL

46. During the term of my employment with the council, a clear and consistent policy direction has been the desire to "go to land" with its waste water treatment.

- 47. The concept prior to the detailed review and analysis was that land treatment while being seen as an environmental and cultural suitable solution, could produce cut-and-carry cropping. This would not only optimise nutrients uptake by selected crops, but would mitigate risks to ground water whilst at the same time providing an income stream.
- 48. The proposal combines using a non-deficit and deficit regime on council land adjacent to the ponds and Pain Farm respectively. Deficit irrigation results in irrigation seldom being applied during winter months when the soil is most susceptible to damage due to wet conditions.
- 49. The relative effect of nitrogen on surface water quality from non-deficit irrigation on the land adjacent to the ponds has been assessed and found to be less than if the land was used for a typical farming operation.
- 50. The staged Combined Land and Water Discharge will ensure that by Stage 1B and certainly Stage 2A the treated waste water will be applied to land (or stored in the system) when the river flow is at low levels and discharged into the Ruamahanga River at times of higher flow where the potential adverse effects are mitigated.

## SUBMISSIONS – Timing of Proposed Stages

- 51. Some submitters have requested the land treatment programme be implemented much sooner than proposed. This would require investing in the upgrades sooner than currently proposed, and result in either significant affordability issues for the community, or a significant reduction in services across other assets and services in the shorter term. The only alternative would likely have been to delay works at two sites in favour of a single site, which would delay upgrades at Greytown and/or Featherston for 10 or 20 years. This was not a preferred option for Council from a social, health or economic wellbeing perspective..
- 52. The proposed staging has the advantage that it first targets avoiding or significantly reducing discharge when the river is at low flows. It then

progressively moves to further reduce discharge to the river at higher flows. Over time, cultural imperatives are also able to be met.

- 53. The Council's advice on water quality and aquatic ecology is that the discharge is not causing significant adverse effects on aquatic life after reasonable mixing. Accordingly, there is no environmental urgency for the subsequent more costly parts of the upgrade (stages 2A and 2B).
- 54. Council is committed to the upgrade project, and if possible, the subsequent stages would be pulled forward in the programme. The stages outlined are "maximums", not targets. If additional subsidy or funding becomes available or technological or operational changes make Stage 2A & 2B feasible earlier, Council will investigate and take that opportunity where it is not at the expense of other services, and where it meets community objectives.
- 55. Reviews in funding models and industry initiatives are constantly being reviewed. The current annual reporting proposed as a condition of consent will require a brief update of the state of these aspects to GWRC on no less than an annual basis in order to confirm that the proposal remains the best practicable option at MWWTP.
- 56. Some concern was also raised by submitters in terms of the proposed 35year term of consent, in particular in relation to the ongoing Ruamahanga Whaitua process. As outlined in the evidence of Mr Geange, GWRC has the ability under the RMA to retrospectively apply policy and regulatory changes resulting from such reviews, where appropriate. While this does create some uncertainty for SWDC, the importance of this process is understood.
- 57. Mr Crimp has outlined in his evidence the importance of certainty to SWDC in terms of long term planning and certainty for such significant investment within a small Council. From an asset management perspective, long term certainty is important for efficient use and planning of assets. Short term consents will increase both costs and reduce certainty in operation and long-term planning.

#### MANAGEMENT PLANS AND COMPLIANCE

- 58. The proposal includes provision for the development of a suite of management plans which will guide the ongoing operation of the plant, as well as clearly outline the detailed design for upgrades and land treatment. These are required by the conditions of consent proposed. Council is committed to ensuring these are prepared in a timely manner and in a comprehensive manner. To this end, the current conditions require the management plans to be:
  - (a) Prepared by an appropriately qualified person;
  - (b) Prepared in consultation with stakeholders through the Community Liaison Group, and ion particular with iwi;
  - (c) Approved by GWRC prior to implementation.
- 59. The Conditions specify clear timeframes within which this process must occur, or SWDC will be in breach of its consents.
- 60. Compliance with the conditions of consents is taken seriously by SWDC, and is now my responsibility in my current role. It is acknowledged that technical non-compliances have occurred with previous consents, and in acknowledging that specific conditions have been put in place requiring the implementation of a robust compliance monitoring system in-house, and having an identified person responsible for monitoring and reporting overall compliance. I see this as particularly important in the first 24 months while conditions are being implemented and systems being put in place. That said, it is critical that monitoring requirements are reasonable, and not "monitoring for the sake of monitoring". Council accepts its responsibilities and obligations for monitoring the effects of its activities, but not for arbitrary data collection and assessment as a "nice to have". The cost of doing so is prohibitive to this Council's restricted operational budgets.
- 61. Also, as noted earlier, the responsibility for day to day operation and performance has now been clearly defined within a professional services contract. CityCare, a specialist infrastructure operation service

provider, are required under contract to monitor performance against conditions, and report any anomalies or risks. Failure to do so can have severe financial implications on them under the contract. I was personally involved in the drafting of the contract, and have confidence in its requirements in this respect.

- 62. We have also proposed a condition requiring a site meeting between GWRC, the SWDC contractor, and SWDC as the consent holder as one of the first requirements of the consent. This will ensure that expectations are clearly outlined, and relationships formed for the successful implementation of the consent.
- 63. I am very confident that this contractual responsibility on Councils contractor, in conjunction with the internal compliance systems to be implemented within SWDC at the higher level, will be effective in ensuring compliance is monitored, and that any risk of non-compliance is swiftly identified, reported, and rectified.
- 64. On the matter of compliance, I note the recommendation within the s42A report that the effluent discharge quality parameters be reduced and that in-stream water-quality monitoring parameters be introduced. From an operational perspective, Council cannot support or accept consent where compliance standards are included within conditions of consent that are not able to be met. To accept such a restrictive compliance framework would be setting Council on a certain course to fail, and necessarily enforcement action. This is particularly concerning where there is little evidence that there is any actual environmental effect at these levels. Managing the actual effects of the activity on the environment is important, but equally important is recognition of the significant improvement the proposal brings.

#### **TERM OF CONSENT**

65. The s42A report recommends a term of consent reduced to 25 years from the proposed 35 years. The consent term needs to afford Council the certainty of achieving the long term goal of achieving 100% disposal to land. The shorter the consent period the greater the risk of shorterterm and/or reactive responses and the diversion from the council strategic vision.

- 66. The certainty of a longer consent term enables the pre-planning and procurement of services and materials well in advance. It supplies surety to consultants and contractors who can supply better rates knowing the work is committed over the long term and not let as "piece work", that is the entire project is not broken into small pieces and tendered year-by-year. This provides continuity and retained intellectual capital, as well as financial saving through the use of collaborative logistics over the "one shot deals" of commodity logistics, in effect enabling 35 year partnerships not 2-to-3 year supply contracts.
- 67. If the consent is broken into its stages, the consent term needs to extend at least to the commencement of the next stage, not an arbitrary midpoint.
- 68. The 5-year remaining consent period recommended at the conclusion of the physical works at Stage 2b is unworkable for Council. In order to enable the current programme to work (including the Featherston and Greytown programmes) there needs to be certainty as to the full extent of operations out to the 35-year term. If this is untenable, the workable alternative from an asset management perspective is a consent which provides for Stage 1b to be operated until the intended start of Stage 2a (2030??) with a separate consent process to provide for both stages at Pain Farm. That would allow the Council to obtain the security of a long term consent for stages 2a and 2b before proceeding with those stages. It would also allow for the monitored impacts and improvements resulting from stages 1a and 1b to be integrated into planning for the longer term.
- 69. The period from conclusion of works for one phase to the start of the next is critical in data collection, operational set up and will also be required for the development of the next consent for the next stage. Sufficient time must be made available. In this suite of consents, the

programme has been specifically developed across all three sites, and any forced change in one will necessarily affect the others.

70. Aside from the operational considerations in the timing of the consent expiry against the operational phases, which need to be aligned for effective functioning of implementation, there is added cost in the consent acquisition process itself. Any decrease in cost through this process is a benefit to the council and the communities it serves.

# CONCLUSION

- 71. The MWWTP requires replacement resource consents in order to lawfully continue operating and providing the Martinborough urban community with critical wastewater services.
- 72. SWDC has had a long standing desire at a political level to utilise land disposal and treatment as the best environmental, cultural and economic disposal method.
- 73. To achieve this vision across all three waste water plants and simultaneously ensure that the programme is sustainable in combination with its infrastructure needs, staging of works is essential.
- 74. The staging will also deliver initial upgrades in primary filtration and through irrigation to the adjacent land achieve a 24% reduction in direct discharge to surface water (all during low flows), by November 2017.
- 75. The adoption of deficit and non-deficit irrigation systems takes a "horses for courses" approach ensuring the best methods for the best outcomes are achieved.
- 76. The term of 35 years will provide certainty to all with the comprehensive suite of conditions, and the development process outlined for the management plans will also ensure a collaborative approach to consent implementation and long term operation of the plant.

77. Alternatively if the Council is not granted a 35 year consent, although offering less certainty, the project is well defined and consent can readily be granted for at least stages 1A and 1B.

Mark Allingham

17 April 2015