

PROJECT: Omaha WWTP Consultative Group

DATE: 13/06/2015

REPORT VS

PREPARED BY:

ATTACHMENTS:

Present	Apology	Copy	Name	
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<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	David Stone (Omaha Shorebirds Protection Trust)	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Dean Grice	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Denis O'Callahan	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Elizabeth Foster (Whangateau Harbourcare Group)	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Fiona McKenzie (Manuhiri Kaitiaki Charitable Trust)	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Graham Painter (Omaha Beach Community)	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hugh McKergow (Whangateau Residents & Ratepayers)	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ian McDonald (Whangateau Harbourcare Group)	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Ines Curin (Point Wells Community & Ratepayers)	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	John Cranston	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	John Laurence	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	John Linton (Omaha Beach Golf Club)	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Keith McSporran (Omaha Shorebirds Protection Trust)	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Mark Barnett	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Mike Bradbury (Point Wells Community & Ratepayers)	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Neville Johnson (Matakana Community Group)	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Noelene Cranston	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Raewyn Morrison (Forest & Bird Mid North Branch)	
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<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Theo Verryt	
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<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	David Wilson (Department of Conservation)	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Megan Beard (Auckland Council)	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Chrissy Henley (Auckland Council)	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Mark James (Aquatic Environmental Sciences)	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Phil Mitchell (Mitchell Partnerships)	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Andre Stuart (Watercare)	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Vila Souvannavong (Watercare)	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Nicholas Woodley (Watercare)	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Michael Stewart (Streamlined Environmental)	
Agenda/Actions			Responsibility	Due by

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<p>Introduction and Updates</p> <p>Due to the length of time since the last meeting on 28 February, Watercare briefly ran through the minutes from that previous meeting as a refresher. There was also a separate meeting with some Consultative Group members on 26 March, and the outcomes from that were also briefly run through.</p> <p>Updates on previous matters included:</p> <ul style="list-style-type: none"> • Septic tanks: Sampling has been extended to Quintal Road bridge. Wastewater is treated in ponds and then discharged to land. Copies of consents have been obtained from Auckland Council. • Watercare are holding off another year to clear the pines behind the Omaha WWTP site • Two control sites (monitoring bores) have been added at the northern golf course area 	<p>Nicholas Woodley</p>	
<p>Investigation Plan Progress Presentation</p> <p>Mark James gave a presentation, first briefly going over the background of the project and outcomes of Stage 1 of the investigation plan again, followed by updates of Stage 2 of the investigation plan. This included the following:</p> <p>Groundwater</p> <ul style="list-style-type: none"> • The installation of 13 new bores would be finished as of today (Saturday 13/6). This excludes the bores located on DOC land which Watercare are still waiting on approval for. • There is high organic matter / peat in some of these bore sites • Nicholas showed to the Consultative Group, two river stones which were found 11m deep below the sand dunes, during the drilling at MS06 site. This could be indicative of an ancient river and high permeability in the area. <p>Nutrient Processes and Loadings</p> <ul style="list-style-type: none"> • Denitrifying and nitrification assays were undertaken to help complete analyses of nutrient loadings to the Harbour. • In the past, only literature values had been used • A question was raised as to whether this covered phosphorus. Mark confirmed that it does. • Samples from new bores will complete the analyses • The “Omaha Beach Nitrogen Accounting Model” schematic has been completed and was shown to the group. <p>Microbial and Contaminants</p> <ul style="list-style-type: none"> • NIWA are carrying out a microbial assessment for Watercare. They are currently collating and reviewing existing data. • Sampling of the WWTP inflow and UV treated effluent is about to start weekly for 5 weeks, which covers various analytes <ul style="list-style-type: none"> ○ Watercare are currently reviewing this and may only look at 	<p>Mark James</p>	

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<p>a few – the sampling is expensive</p> <ul style="list-style-type: none"> • It was discussed amongst the group that it would be good to compare the sampling measurements against another sizeable WWTP for context. Watercare’s Mangere WWTP or one overseas? <ul style="list-style-type: none"> ○ Norovirus is not measured at Mangere WWTP ○ Virus information for Mangere WWTP will be provided at the next meeting • Emerging contaminants are covered in Michael Stewart’s presentation to follow <p>Wetlands / Forests</p> <ul style="list-style-type: none"> • Little information was available so a survey was conducted to record vegetation and fauna – Wildlands report is up on the project website • Results included no indications of poor plant health, likely nitrogen limited – which means the forest can take up more nitrogen <ul style="list-style-type: none"> ○ There would be weed species for example, if there was too much nitrogen • No surface water in forest/wetlands during the summer <ul style="list-style-type: none"> ○ Site visit during the winter – it was commented by the Consultative Group that it’s very different in winter with a lot of surface water • Further information on groundwater/nutrients required to assess effects <p>Hydrodynamics</p> <ul style="list-style-type: none"> • The hydrodynamic model has been completed to show the movement of particles <ul style="list-style-type: none"> ○ This is theoretical, and a “particle” is to mean a drop of water or a molecule of nutrient • Particle concentrations during a 7 day period are ecologically insignificant as you move out of the harbour – you wouldn’t really detect it • Stage 3 will run the model with realistic nutrient inputs <p>Water Quality Surface Waters</p> <ul style="list-style-type: none"> • Sampling has continued at Ti Point, the causeway, and drains, for data collation <ul style="list-style-type: none"> ○ 12 months of data has been obtained from the causeway, and 6 months of data from the drains ○ Longer time series is needed • A few extra sampling points have been recently added • Flows from drains HA1 and HA11 end up at WQ4, this is not a control site. <p>Benthic Habitats</p>	<p>Andre Stuart</p>	

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<ul style="list-style-type: none"> • Question raised in relation to mangroves: Does rising sedimentation match sea level rises? • Removal of mangroves: Resource consent required? <ul style="list-style-type: none"> ○ Some Consultative Group members advised it's allowed for certain areas, and for seedlings up to 40cm – pulled out by hand or snipped <p>Fish and Birdlife</p> <ul style="list-style-type: none"> • Bird survey undertaken in March 2015 • 16 indigenous birds observed • Good habitat but mangroves are expanding <p>Stage 3 Work Plan</p> <ul style="list-style-type: none"> • Forestry management strategies – Initial discussions with Scion Forestry Research; Require nutrient and water balances • Prepare assessment of effects <p>End - Questions</p> <ul style="list-style-type: none"> • Sampling on the beach? / Tag any other nutrients which may end up on the beach? (Looked at movement of groundwater of spit to harbour but not to beach) <ul style="list-style-type: none"> ○ Extra sampling sites have been added which includes groundwater and surface water at the beach ○ Indicators: Algae growth, during low tide as nutrients come in from the land and stream flows; no sea lettuce present (high nitrogen indicative) which causes problems, therefore a “healthy harbour”. • Contaminants from Point Wells? Septic tank leaching, E.coli <ul style="list-style-type: none"> ○ Sampling is being carried out • Micro-beads (from soaps, moisturisers) / nanoparticles – Does the system filter it? Something to consider as part of emerging contaminants for assessment. <ul style="list-style-type: none"> ○ Nanoparticles are covered in Michael Stewart's presentation 		
<p>Emerging Contaminants Presentation</p> <p>Streamlined Environmental were commissioned to assess available literature and confirm a list of emerging contaminants to look at for the receiving environment of the Whangateau Harbour. The outcome of this was to then be presented to the Consultative Group.</p> <p>In Michael Stewart's absence, Mark James gave this presentation, which included the following discussion points:</p> <ul style="list-style-type: none"> • Emerging contaminants can be diffuse or point source <ul style="list-style-type: none"> ○ Wastewater treatment plants and pipeline discharges are major points sources • Tremblay and Northcott's report of 72 emerging contaminants for wastewater monitoring is too large and not representative enough 	<p>Michael Stewart/ Mark James</p>	

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<p>(“T&N List”)</p> <ul style="list-style-type: none"> • After a risk-based assessment was performed, a high-risk priority list of 39 emerging contaminants was then confirmed (“Focused List”) • These two T&N and Focused lists were then validated and combined (through assessment of NZ relevance and literature) to make an “Initial List” of 41 emerging contaminants • The “Final List” of 26 emerging contaminants is what Streamlined Environmental recommends to the Consultative Group for monitoring. <ul style="list-style-type: none"> ○ This is an international and local list ○ There are no NZ recognised standards (central government issue) ○ There needs to be a national approach... ○ Auckland Council should have a review mechanism included in the consent application process ○ A harbour list rather than a wastewater list would be ideal to give a snapshot of the harbour. Wider scope. ○ Approximately \$5k per round (not sample) to measure analytes. We need to reduce this list. Even more (approx. \$7k) to measure a virus, so we have to make sure it will be present for monitoring ○ Environmental risk, for example fish reproduction • Analytical laboratory capability for recommended list is in the progress of being finalised. Michael is to discuss these results at a future Consultative Group meeting. • Next steps are to measure emerging contaminants in Omaha WWTP effluent, assess potential risks to receiving environment, and decide on a pragmatic way forward based on these results 	<p>Michael Stewart</p>	
<p>Other Questions</p> <ul style="list-style-type: none"> • Progress on consent application? <ul style="list-style-type: none"> ○ It has been lodged and placed on hold while this investigative work is going on. Once results are completed we can then progress. ○ Operating under an expired consent but the RMA allows this 		
<p>Next Steps</p> <p>Overall, good progress has been made.</p> <p>The next meeting is scheduled for Saturday 29 August.</p> <p>This will be an overview of the completed reports, which will be available for access on the project website.</p> <p>Nicholas to send an email reminder of the information going up on the website so the Group can look through these before the next meeting.</p>	<p>All</p> <p>Nicholas Woodley</p>	

