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Report to the Rural Services and Wairarapa Committee
from Steve Blakemore, Manager, Planning and Resources

Motuwaireka Lagoon Water Quality Improvement

1. Purpose

To obtain Committee approval of possible steps towards investigating improvement to the water quality of Riversdale's Motuwaireka Lagoon

2. Background

- 2.1 Over the past year staff have conducted an investigation of water quality within the catchment of the Motuwaireka Stream. The outcomes of this study are presented in a separate report in this agenda.
- 2.2 Water quality has been an issue for almost thirty years and the community is keen to see a positive improvement programme put in place that will eventually allow children to again safely bathe in the lagoon.

3. Discussion

- 3.1 Matters identified in the previous report fall under four main headings

3.1.1 Backwater Lagoon Improvement

It is suspected that the sludge in the bed of this stagnant water contains contaminants including septic tank material. Safe removal and disposal of this material should allow for considerable rejuvenation of the water.

At the same time steps need to be taken to ensure there is no future risk of contamination by sewage or greywater.

Means of improving the hydraulics of the backwater could be investigated to see if the water can be moved through the system more frequently. Costs and possible sources of funding would need to be identified and reported back.

3.1.2 **Main Lagoon Outlet**

It may be feasible to improve water quality in the lagoon through timely deepening of the outlet to the sea. Ideally this should be undertaken just prior to the summer swimming season, coincidental with a fresh in the stream. This could be investigated, and if feasible, perhaps undertaken initially on a trial basis with the results monitored.

Again costs and possible funding sources would need to be explored.

3.1.3 **Reticulated Sewage Scheme**

Currently, waste disposal in the settlement is by individual septic tanks. Whilst this is a permitted activity for most dwellings, there appear to be seven facilities serving larger numbers of people, five of which are close to the lagoon and backwater. These activities are likely to require consent under the Discharges to Land Plan.

To meet this requirement, considerable capital expenditure is likely to be required that would be obviated if a reticulated scheme proceeds.

Masterton District Council consultants have investigated and reported on options for collection and treatment systems. Recently an updating of the benefit to cost ratios was made and the break even point was almost achieved.

Whilst the Motuwaireka Stream study has not identified septic tank contamination as a specific problem to the stream, there are valid grounds for implementing a scheme in terms of environmental and public health issues, aside from any specific benefit to cost considerations.

If a scheme does not proceed, alternative treatment and disposal requirements are likely to be required for the seven larger activities. This individual approach would be detrimental to future action on a community scheme. These are costs that should be ideally incorporated within an integrated community scheme.

3.1.4 **Riparian Planting**

With a relatively small catchment at low altitude, the Motuwaireka has good potential for establishing riparian plantings. The existence of an active community group at Riversdale undertaking environmental projects gives the potential for a 'Stream Care Group' to play an active part in achieving such a programme. This fits well with the Council's environmental initiatives currently getting underway.

Planning is beginning shortly on the possible methods that will be used for developing riparian strips alongside waterways in the region. The possibility of some planting in the Motuwaireka catchment could be looked at as one of the earlier areas to be commenced. Again, further reporting back on methods and funding is required.

- 3.2 As measures are progressively implemented, water quality monitoring should be undertaken to establish trends and long term effectiveness of the measures. This could be added to the water quality baseline monitoring programme.

4. Communications

Further communication and discussion is intended with Masterton District Council, the Riversdale Community, and landowners as appropriate. In these discussions it will need to be emphasised that no particular actions can be commenced until there is agreement on funding, timing, etc. It will also need to be stressed that none of the actions suggested in this report are presently included in any current budgets or work plans.

5. Recommendation

1. *That the Committee supports the following actions arising from this report:*

- 1.1 *A study of the hydraulics of the backwater lagoon be made and possible measures to upgrade and maintain its water quality identified.*
- 1.2 *Investigation of the feasibility and benefits of targeted mechanical deepening of the lagoon outlet to the sea be made with the objective of improving 'flushing' of the lagoon and backwater.*
- 1.3 *A firm timeframe from Masterton District Council be sought for the construction and commencement of a reticulated sewage scheme for Riversdale/Orui;*

or in the absence of such a commitment;

Establishment of a date by which all major activities at Riversdale/Orui will require consent for sewage discharge under Rule 8 of the Regional Plan for Discharge to Land. As part of this process, ensuring that there is no risk of waterway contamination through breakdown or malfunction of sewage and greywater disposal systems.

- 1.4 *Consideration of a riparian planting proposal in the catchment.*
2. *That actions under 1. be subject to further reporting back and recommendation to the Committee as appropriate*
3. *That Council representatives meet with Masterton District Council and Riversdale Community representatives to present the findings of the study and to discuss possible implementation of the matters raised in the report.*

Report prepared by:

Approved for submission by:



S D Blakemore
Manager, Planning and Resources



Colin Wright
Divisional Manager, Wairarapa