



# **District Plan Review**

## **Plan Change 47 Plan Your Town**

### **Infrastructure and Funding Paper**

**25 November 2016**



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## 1. Introduction

As part of the assessment of zoning and structure plan options for Plan Change 47, Council has examined the capital works that are required to service existing and proposed areas for development. The total costs of the capital works and how these works are funded are critical elements in determining the viability and efficiency of developing these areas.

In some cases, capital works will be fully attributable to growth costs. This means that there is no deficiency in the existing network or benefit to existing users and the full cost of the capital works for these new areas will therefore be included in Council's Development Contribution model. In many cases, however, there will be some benefit to existing users and in these cases, a proportion of the capital works will need to be funded through Council rates.

The following tables and commentary presents the assessment of capital works for the four identified structure plan areas, how these works are proposed to be funded from Development Contributions and public rates, and also the likely Development Contribution income that may be collected to reimburse the costs of the capital works.

Importantly, the tables show a comparison of the risk to Council in terms of funding expensive capital works and then the yield uptake within the serviced area not being fully realised. This can lead to significant underfunding from Development Contributions and may lead to lost opportunity costs as other areas cannot be upgraded given that capital budgets have been spent elsewhere.

A number of assumptions apply to the figures and any capital works programme will be subject to Council Long Term plan process and to the evolving development and infrastructure demand over time. Final decisions on funding will be through the Development Contributions Policy. Therefore, the tables and figures which have been prepared represent high level analysis and serve the primary objective of providing a comparative assessment of the viability and financial risk for each structure plan area.

This paper should be read in conjunction with the *Proposed Plan Change and Section 32 Report*. This provides the detailed description of the various structure plan areas, where these are located and the environmental costs and benefits which have been identified for each area. This paper therefore does not replicate this information and only seek to present more detailed information in relation to the capital costs, funding and financial risk summary which is contained within *Part E Review and Research Process* of the Section 32 report.

Section 2 of this paper presents the Summary Table from Part E for ease of reference. Sections 3 – 7 provide the detailed information on how the figures in the Summary Table have been calculated for each of the Structure Plan areas.

## 2. Summary Table

A Summary Table is presented in Part E of the Section 32 report to show a comparison of the costs and income for the respective structure plan areas.

This table is replicated in total here along with the explanatory notes for ease of reference.

<b>Table 1: Comparable Funding Costs for Structure Plan Areas</b>					
<b>Part E of Plan Change Report</b>					
	<b>Existing Precinct F</b>	<b>Eldonwood South</b>	<b>Tower Road</b>	<b>Horrell Road</b>	<b>Stirling Street</b>
<b>Capital Projects</b>	\$13.8m	\$6.0m	\$2.4m	\$1.3m	\$0.6m
<b>Growth Costs</b>	\$12.0m	\$4.7m	\$2.4m	\$0.8m	\$0.4m
<b>Rates/Public Cost</b>	\$1.8m	\$1.3m	\$0m	\$0.6m	\$0.2m
<b>DC Income 20 Years</b>	\$4.0m	\$3.9m	\$2.3m	\$0.8m	\$0.2m
<b>DC Deficit</b>	\$8.0m	\$0.8m	\$0.1m	\$0m	\$0.2m
<b>Combined Council Risk/Exposure</b>	\$9.8m	\$2.1m	\$0.1m	\$0.6m	\$0.4m

The following notes explain the nature of the information and figures within the Table 1:

<b>Term</b>	<b>Explanation</b>
Capital Projects	This is the estimated value of off-site and public infrastructure that would be required to provide reticulation and Council services to the area. Tables for each area are provided in the Section 32 report.
Growth Costs	The proportion of the capital costs which would need to be funded or provided by the developer.
Rates/Public Cost	The proportion of the capital costs not attributable to growth and to be funded by Council through rates, (i.e. providing increased water pressure to existing residences).
DC Income 20 years	This is the estimated Development Contribution income based on assessed yield uptake within the Structure Plan area and using a catchment based contribution model.
DC Deficit	This is the difference in the capital 'Growth Costs' for the Structure Plan area and the 'Developer Contribution Income 20 years' that would be collected within the Structure Plan area.
Combined Council Risk/Exposure	This is the combined value of the 'Rates/Public Cost' and the 'DC Deficit'.

### 3 Precinct F

Table 2 provides a summary of the Precinct F capital costs and the proportion of costs which are growth related based on the attached capital works schedule.

<b>Table 2: Precinct F - Development Contributions Calculations (\$000)</b>				
<b>Off Site Utility</b>	<b>Off Site Capital Works</b>	<b>% Growth Funded</b>	<b>Development Contribution Model</b>	<b>Residual Public Cost</b>
Wastewater	3,750	81%	3,037	713
Water	1,260	40%	504	756
Stormwater	5,800	100%	5,800	0
Roading	2,960	97.5%	2,664	296
<b>Total</b>	<b>13,770</b>	<b>87%</b>	<b>12,005</b>	<b>1,765</b>

#### Precinct F: Capital Works Schedule

Wastewater	Pump Stations x 2	400
	Downstream sewer mains	2,350
	Downstream Plant Upgrade	1,000
		<b>3,750</b>
Water	Bore, Treatment Plant and Storage	600
	Connection to Precinct F	660
		<b>1,260</b>
Stormwater	Overland Flow path (construction)	500
	Stormwater Pond/wetland (construction)	300
	Land purchase (retention ponds for catchment and associated infrastructure)	5,000
		<b>5,800</b>
Rooding	Station Road west Upgrade (kerb and channel, overlay and parking bays)	530
	Station Road east Upgrade (parking bays and pavement overlay)	1,030
	Hampton Terrace Upgrade (parking bays and pavement overlay)	190
	Smith St pavement overlay	260
	Intersection Upgrades - Firth Street/Station Road and Hinuera Road/Firth Street	115

Haig Road	335
Road Widening – Link Collector Road	500
	<b>2,960</b>

Precinct F is an existing Structure Plan area which forms part of the Operative District Plan. Overall, this area requires significant capital works to enable development and the potential yield of in excess of 700 lots raises significant issues as to whether the full development yield will be achieved.

The following notes and assumptions apply to the capital works and funding figures:

- 1) The development would need two pump stations as the sections near Haig Street would not be able to access the existing pump station.
- 2) The need for a rising falling main from Tower Road to the Wastewater treatment plant (WWTP) remains so a pumping station at Tower Road opposite the WWTP access road entrance would be required. (Costs for this should be split 50/50 although the Tower Road sewer would not go there for many years.)
- 3) The Council has commissioned a number of technical reports on the development and servicing options for Precinct F. These have helped to identify the upgrade requirements for this area and are materially different to the technical assessment which were original produced and presented to Council to support development in Precinct F.
- 4) A significant component of the capital costs is a preliminary land purchase budget of \$5m. This is a provisional costing based on land purchase for retention ponds and associated infrastructure including land within the Precinct F area.
- 5) The existing Development Contribution (DC) models include some upgrade works for Precinct F. These will need to be taken out of the model to establish a baseline DC model.
- 6) Reticulation within the development will be at the developers' cost.
- 7) The DC income within the Summary Table has been calculated using the following assumptions:
  - The baseline projection of 33 new dwellings per year in Matamata will be maintained over the planning period.
  - Assume 30% of all new dwellings each year will be built within Precinct F = 10 new dwellings per year.
  - To enable a comparison of DC income across the structure plan areas, an area specific DC has been calculated for each area based on the full yield within the area being developed and applying the DC value at year 1 of the planning period. This provides an area specific DC of \$19,907 per lot.
  - The DC income is therefore calculated on 10 dwellings per annum x 20 years x \$19,907 = \$3.98m.

## 4. Eldonwood South

Table 3 provides a summary of the Eldonwood South capital costs and the proportion of costs which are growth related based on the attached capital works schedule.

<b>Table 3: Eldonwood South - Development Contributions Calculations (\$000)</b>				
<b>Off Site Utility</b>	<b>Off Site Capital Works</b>	<b>% Growth Funded</b>	<b>Development Contribution Model</b>	<b>Residual Public Cost</b>
Wastewater	2,416	80%	1,933	483
Water	960	40%	384	576
Stormwater	100	100%	100	0
Roading	2,430	92%	2,187	195
<b>Total</b>	<b>5,906</b>	<b>80%</b>	<b>4,725</b>	<b>1,254</b>

### Eldonwood South: Capital Works Schedule

Wastewater	250mm pressure sewer from existing Wastewater pump station (WWPS) to proposed Tower Rd pump station	1,700
	New WWPS at Tower Road	500
	Upgrade existing WWPS pumps and power supply.	40
	WWTP capacity upgrade works	176
		<b>2,416</b>
Water	Firth St Upgrade from Station Road to Haig Road and upgrades of water mains in Beatty Road and Haig Street	660
	Bore, Treatment Plant and Storage	300
		<b>960</b>
Stormwater	Small ponds/wetlands for roading in Rural-Residential area only	100
		<b>100</b>
Roading	Station Road east Upgrade (parking bays and pavement overlay)	1030
	Hampton Terrace upgrade (parking bays and pavement overlay)	190
	Smith Street pavement overlay	260
	Intersection Upgrades - Firth/Station and Hinuera/Firth	115
	Haig Road	335
	Road Widening – Link Collector Road	500
		<b>2,430</b>

Eldonwood South provides an alternative zoning and Structure Plan to the existing Precinct F. It has been prepared with the objectives of reducing some of the capital costs and also to retain parts of the existing zoning.

The following notes and assumptions apply to the capital works and funding figures:

- 1) The residual Residential zoned land has good soakage; however, there will be considerable cost to the developer/landowner to install soakage trenches.
- 2) The roading network in the Rural–Residential area will need a storm water solution with either onsite ponds or soakage systems.
- 3) Reticulation within the development will be at the developers' cost.
- 4) The DC income within the Summary Table has been calculated using the following assumptions:
  - The baseline projection of 33 new dwellings per year in Matamata will be maintained over the planning period.
  - Assume 30% of all new dwellings each year will be built within Eldonwood South = 10 new dwellings per year.
  - To enable a comparison of DC income across the structure plan areas, an area specific DC has been calculated for each area. This is based on the full yield within the area being developed and applying the DC value at year 1 of the planning period. This provides an area specific DC of \$19,621 per lot.
  - The DC income is therefore calculated on 10 dwellings per annum x 20 years x \$19,621 = \$3.92m.



## 5 Tower Road

Table 4 provides a summary of the Tower Road capital costs and the proportion of costs which are growth related based on the attached capital works schedule.

<b>Table 4: Tower Road - Development Contributions Calculations (\$000)</b>				
<b>Off Site Utility</b>	<b>Off Site Capital Works</b>	<b>% Growth Funded</b>	<b>Development Contribution Model</b>	<b>Residual Public Cost</b>
Wastewater	1,193	100%	1,193	0
Water	475	99%	470	5
Stormwater	400	100%	400	0
Roading	330	100%	330	0
<b>Total</b>	<b>2,398</b>	<b>100%</b>	<b>2,393</b>	<b>5</b>

### **Tower Road: Capital Works Schedule**

Wastewater	Tower Rd Pump station (3 pumps)	480
	300mm Rising falling main WWPS to WWTP	550
	WWTP capacity upgrade works	163
		<b>1,193</b>
Water	Upgrade 200mm water main through Bridie Avenue to connect to internal reticulation in Tower Road block. Join internal reticulation to water main in Magnolia Street. Internal reticulation 200mm between Bridie Avenue and Magnolia Street. Bore, Treatment Plant and Storage.	175
		<b>475</b>
Stormwater	Extension to Tawari Street retention pond (land purchase and excavation)	<b>400</b>
Rooding	Parking bays (on Magnolia Drive, Findlater Street (west) and Ngaio Street	300
	Bridie Avenue pedestrian facilities	25
	Intersection signs and markings	5
		<b>330</b>

Tower Road is a new Structure Plan area for Matamata.

The following notes and assumptions apply to the capital works and funding figures:

- 1 Stage 1 will utilise the 200mm sewer main at Magnolia Street. The proposed WWPS at Tower Road will also be needed along with part of the internal trunk main for the area nearer to Bridie Avenue. WWPS cost shared with Eldonwood South assuming development occurs together.
- 2 Will connect to water main in Magnolia Street and Bridie Avenue. Internal trunk main 200mm diameter required subject to further investigations.
- 3 Tawari Pond Bore data shows sand in top 4.3m, peat/clay layer to 4.6m, followed by pumice sands. The solution will be a mixture of soakage and pipe work. Cost shown is for land purchase and excavation of pond area. All other costs would be the developers' responsibility. The southern lots will have on-site soakage.
- 4 Reticulation within the development will be at the developers' cost.
- 5 The DC income within the Summary Table has been calculated using the following assumptions:
  - The baseline projection of 33 new dwellings per year in Matamata will be maintained over the planning period.
  - Assume 20% of all new dwellings each year will be built within Tower Road = 6.6 new dwellings per year.
  - To enable a comparison of DC income across the structure plan areas, an area specific DC has been calculated for each area based on the full yield within the area being developed and applying the DC value at year 1 of the planning period. This provides an area specific DC of \$17,198 per lot. (Note, this figure has been calculated assuming that the Eldonwood South Structure Plan is also developed).
  - The DC income is therefore calculated on 6.6 dwellings per annum x 20 years x \$17,198 = \$2.27m.

## 6 Horrell Road

Table 5 provides a summary of the Horrell Road capital costs and the proportion of costs which are growth related based on the attached capital works schedule.

<b>Table 5: Horrell Road - Development Contributions Calculations (\$000)</b>				
<b>Off Site Utility</b>	<b>Off Site Capital Works</b>	<b>% Growth Funded</b>	<b>Development Contribution Model</b>	<b>Residual Public Cost</b>
Waste-water	n/a			
Water	n/a			
Stormwater	n/a			
Roading	1,300	58%	754	546
<b>Total</b>	<b>1,300</b>	<b>58%</b>	<b>754</b>	<b>546</b>

### **Horrell Road: Capital Works Schedule**

Wastewater	Nil – on site disposal	
Water	Nil – Rural residential area not supplied with public reticulation	
Stormwater	Nil – on site disposal	
Roading	Upgrade to Horrell Road intersection and associated works at Murray Road and pedestrian/cycle connections.	1,300 <b>1,300</b>

Horrell Road is a new Structure Plan area for Morrinsville.

The following notes and assumptions apply to the capital works and funding figures:

- 1) The only capital works required will be the roading upgrade works.
- 2) The DC income within the Summary Table has been calculated using the following assumptions:
  - The baseline projection of 30 new dwellings per year in Morrinsville (residential and rural catchment) will be maintained over the planning period.
  - Assume 10% of all new dwellings each year will be built within Horrell Road = 3 new dwellings per year.
  - To enable a comparison of DC income across the structure plan areas, an area specific DC has been calculated for each area based on the full yield within the area being developed and applying the DC value at year 1 of the planning period. This provides an area specific DC of \$12,430 per lot.
  - The DC income is therefore calculated on 3 dwellings p.a x 20 years x \$12,430 = \$0.75m.

## 7 Stirling Street

Table 6 provides a summary of the Stirling Street capital costs and the proportion of costs which are growth related based on the attached capital works schedule.

<b>Table 6: Stirling Street - Development Contributions Calculations (\$000)</b>				
<b>Off Site Utility</b>	<b>Off Site Capital Works</b>	<b>% Growth Funded</b>	<b>Development Contribution Model</b>	<b>Residual Public Cost</b>
Wastewater	110	100%	110	0
Water	155	44%	68	87
Stormwater	30	0%	0	30
Roading	341	71%	242	99
<b>Total</b>	<b>636</b>	<b>66%</b>	<b>420</b>	<b>216</b>

### **Stirling Street: Capital Works Schedule**

Wastewater	Connections into trunk main.	10
	WWTP capacity upgrade works	100
		<b>110</b>
Water	Connection to Hikutaia Street	10
	Stirling Street upgrade	145
		<b>155</b>
Stormwater	Discharge Consent	30
		<b>30</b>
Roading	Stirling Street upgrade to urban standard width. Hikutaia Street parking bays	149
		192
		<b>341</b>

Stirling Street is a new Structure Plan area for Te Aroha.

The following notes and assumptions apply to the capital works and funding figures:

- 1) Sewer costs are seen as being the responsibility of the developer. Connections limited to manholes on trunk main. The trunk main will need upsizing in the future as it is under stress in wet weather. This has not been included in the Long Term Plan, nor would it be a developer cost. WWTP capacity upgrade works.
- 2) Existing 100mm AC water main on Stirling Street leg is reported to be in poor condition. The main should be replaced with 150mm to comply with the MPDC Development Manual and to allow for branch lines and fire flows.
- 3) It was envisioned that the gullies would be used as drainage paths. The Railway culverts would have been designed for pre development runoff (Hamilton Street to Stirling St) for an unknown return period storm so this may not meet the 100yr event post development runoff. Developer will need to check culvert capacities, possibly Railway consent and obtain a Waikato Regional Council discharge consent.
- 4) Reticulation within the development will be at the developers' cost.
- 5) The DC income within the Summary Table has been calculated using the following assumptions:
  - The baseline projection of 16 new dwellings per year in Te Aroha will be maintained over the planning period.
  - Assume 20% of all new dwellings each year will be built within Stirling Street = 3.2 new dwellings per year.
  - To enable a comparison of DC income across the structure plan areas, an area specific DC has been calculated for each area. This is based on the full yield within the area being developed and applying the DC value at year 1 of the planning period. This provides an area specific DC of \$3,757 per lot.
  - The DC income is therefore calculated on 3.2 dwellings p.a x 20 years x \$3,757 = \$0.24m.