## **ATTACHMENT TO AGENDA ITEM**

## **Ordinary Meeting**

### 15 September 2015

Agenda Item 6.1	Shepparton East Drainage Scheme - Notice To Declare			
Attachment 1	Schedule A - Apportionment Report - 14 March 2015119			
Attachment 2	Schedule B - Proposed Scheme Contributing Properties - 9 April 2015129			
Attachment 3	Plan A - Catchment Area			

#### **Notice of Intention Report to Council**

#### Schedule A

# SHEPPARTON EAST STORMWATER DRAINAGE CONSTRUCTION SCHEME Apportionment Report April 2015

#### Construction of stormwater drainage system, Shepparton East

#### 1. Scheme Area Characteristics

#### 1.1 Properties involved within the scheme area:

All those lots that will discharge stormwater drainage into the proposed pipeline drainage system, or will otherwise discharge stormwater into the retardation and treatment basin on the property at 315 Doyles Road, Shepparton. The lots are a mix of sizes and uses including horticulture, residential and commercial.

The scheme area is as outlined in the attachment Plan A.

#### 1.2 Current zoning:

The scheme area includes lands zoned; Low Density Residential (LDRZ), Commercial 2 (C2Z), Industrial 1 (IN1Z), Farming (FZ), Public Use 6 – Local Government (PUZ6), Public Use – Service and Utility (PUZ1), and Road (RD1).

Refer attached Plan B, "Greater Shepparton Planning Scheme – Local Provision, Zones, Map 24".

#### 1.3 Current stormwater drainage standard:

The current stormwater drainage system is a mix of open drains and underground pipeline, discharging into the GMW rural drainage system. The GMW rural drainage system is based on the capacity required to remove rainfall runoff from the Rural Area from a 75mm rainfall event over the period of 24 hours within 5 days.

The outfall for the area is into the GMW Shepparton drain 3/2. Shepparton drain 3/2 runs east along the south side of the Midland Highway, turning south at the north-east corner of site 72 to run along the western boundary of the scheme area, connecting to the GMW Shepparton Drain 2 at the north side of Poplar Avenue.

The section of drain within the scheme area, which was formerly part of drain 3/2, is now under the management of council as part of the COGS & GMW Agreement for Drainage Transfer. It now services only the lands within the scheme area.

There is a pipeline drainage system along portion of Carroll Road and the north side of the Midland Highway, between Doyles Road and Carroll Road. The rest of the drainage network in the scheme area comprises open drains or channels.

The low density residential estates of Blossom Way and Davies Drive have been developed utilising sustainable stormwater management principles. The stormwater falling within the estates discharges into roadside swales and bio-retardation filters, where it is retained and receives primary treatment. It flows ultimately into an open drain connecting to the pipeline in Carroll Road. The rate of discharge from the residential area into the open drain is controlled to the rural rate of 1.2 litres/sec/ha, as required by GMW.

The rural horticultural properties to the north east of the catchment discharge stormwater via open drains through their properties and through adjoining properties. These open drains are designed to carry both the irrigation and rainfall run-off. Ultimately the drainage from the horticultural and residential lands discharges into the pipeline in Carroll Road. It is assumed these overland drains control discharge to 1.2 litres/sec/ha into the new drainage system.

The properties on the south side of the highway discharge into an open drain along the highway. Both this open drain and the pipeline on the northern side of the highway discharge into an open drain running south along Doyles Road (formerly part of drain 3/2). This drain discharges into Shepparton Drain 2.

#### 2. Reason for Construction

- 2.1 The objectives of the project are:
  - To provide an improved capacity to drain the stormwater from the scheme properties.
  - To provide a drainage system of adequate capacity to allow development of the properties in accordance with the relevant planning scheme zonings.
  - To provide control of the rate of discharge from the catchment at the point of outfall.
  - To provide initial treatment of the stormwater to enable ongoing discharge into the GMW drainage channel.
  - To provide improved amenity to the scheme properties through removal of open drains and surface water laying within open drains and road reserves.
  - To promote and provide for the development of the lands within the scheme area.
- 2.2 The purpose for the agreement between Council and GMW in transferring the drainage of this area to Council was recognition that the majority of this formerly rural area is now zoned within the Greater Shepparton Planning Scheme as other than rural use. Much of it has already been developed to industrial, commercial or residential use.

As GMW provides principally only a rural drainage system, it inhibits the ability of landowners to develop and maximise the value of their properties. As a consequence additional controls are required within the drained area to ensure that the GMW drains are not overloaded and that the quality of the water from intensive uses such as industrial and business are within the limits defined in the GMW policy 'Acceptance of Urban and Industrial Water into Goulburn Murray Water Drain' January 1997.

2.3 The scheme works are necessary as the existing drainage infrastructure within the area does not provide either the capacity to handle the discharge from all properties once developed, nor provides any quality control.

The existing infrastructure has therefore reached the end of its useful life and is to be replaced by an upgraded and integrated stormwater drainage system to allow the development of the area and to not compromise the service level provided by the GMW rural drainage system.

#### 3. Proposed Drainage Construction Standard

A drainage design (refer Attachment 3) has been provided by SPIIRE.

The existing open drains within the scheme area will be decommissioned following installation of the new pipeline drainage system. The drainage from the scheme area is to be discharged into a retardation basin located adjacent to the council depot in Doyles Road. The water in the retardation basin will be pumped at a controlled rate into the GMW Shepparton 3/2 drain running along the western boundary of the scheme area.

#### 3.1 Principal design assumptions;

- The scheme catchment will continue to discharge into the GMW rural drainage system.
- The pump from the retardation basin is designed to discharge into the GMW 3/2 drain at the allowable rate of 1.2 litres/sec/ha, (or 46 litres/sec) from the total scheme catchment.
- The pipeline is based generally on a capacity of no less than 1:10 year storm event at any point.
- All other open drains in the scheme area will be decommissioned.
- A point of connection to the underground pipeline is provided to each property by a pit adjacent to the title boundary.
- The existing pipeline in Carroll Road and the Midland Highway will be decommissioned.
- The retardation basin provides temporary storage capacity to a 1:100 year storm event for those lots within the catchment that have not installed onsite storage. The volume of the retardation basin is designed to temporarily contain and to retard the stormwater runoff from the catchment.
- The basin temporarily contains but does not retard the runoff from the low density residential and the large horticultural rural lands. These areas were required to provide onsite storage within the swales and road reserve for the 1 in 100 year storm event at the time of development. The outfall from these areas is currently restricted to 1.2 litres/s/ha (approximately 46 litres/s). The design outfall from those lots with onsite storage been increased to 100 litres/s/ha due to the duration of the inundation of the swales in the road reserve.
- The system capacity is based on development of the lands as allowed in accordance with the Greater Shepparton Planning Scheme zonings as currently apply.
- Drainage from the properties in a storm event greater than the capacity of any connection point can be retained within the road reserves until the drainage system can drain the area or the water will flow along the road reserve to enter the pipe system downstream.

#### 4. Scheme Cost

- 4.1 The scheme components include;
  - · Decommissioning of the existing open drains and pipelines,
  - · Construction of an underground drainage pipeline system and associated pits,
  - · Acquisition of easement over land for the pipe alignment,
  - Enhancement of an existing retardation and treatment basin, and
  - Pumped outfall into an adjacent GMW drain.
- 4.2 Scheme Cost Elements

Special Charge Schemes may include all relevant costs relating to the design, management and construction of the works. An estimate of construction cost, based on the design prepared by SPIIRE forms the basis of the scheme cost.

Additional scheme costs that will be included are:

- Any pre-purchase of materials to be utilised in the construction of the works,
- Any purchase of lands necessary to enable the works to be constructed,
- · Design of the works
- · Supervision and contract management of the works,
- · Administration of the scheme

As part of the 2008 agreement to transfer drainage responsibility to Council, Goulburn Murray Water provided \$20,000 to Council to support the decommissioning of the existing drains. The scheme cost will be reduced by this amount.

Vic Roads have agreed to contribute to the drainage scheme due to the increased area of seal and hence rate of rainfall run-off. Based on the increased rate of runoff Vic Roads will contribute \$681,818 to the cost of the scheme.

#### 4.3 Scheme Structures Considered

The scheme works have the following three principal purposes;

- providing drainage of stormwater away from each lot, at a rate commensurate with the potential development of the property
- treatment of the water to the standard required to enable discharge into the GMW rural drainage system,
- control of the discharge rate into the drainage channel to that required by the agreement with GMW to enable discharge into the GMW rural drainage system.

The structure of the scheme considered included;

- Provide a cost discount to those properties that provide treatment of the stormwater on site and retention of its discharge from site to the required 1.2 litres/sec/ha.
- Exclude as a beneficiary those properties that have installed treatment of the stormwater on site and retention of its discharge from site to the required 1.2 litres/sec/ha.
- Include all relevant costs of materials and easements incurred prior to the development of the scheme.
- Exclude those costs of materials and easements incurred prior to the development of the scheme.

It was determined that while some properties, including the residential estates have installed onsite retention and treatment drainage systems, all discharge their drainage into the open drains or pipes that are to be replaced by the scheme works. The current drains and pipes are disjointed in construction and not of adequate capacity to provide for the potential development of the catchment area.

Recent storm events have caused considerable concern to residents within the residential estate that the stormwater is being held for an unacceptable period in the road swales before it is able to disperse through the existing open drain outfall.

As a consequence it is clear that the replacement of the open drain with a pipeline will be of benefit to the residential properties. The current drainage from the residential estates discharge into the open channel outfall at 1.2 litres/sec/ha.

The pipeline has been designed to allow increased discharge from the residential estates of 2.6 litres/sec/ha. The connection between the estates and the new pipeline will be enlarged to allow the increased flow.

The costs incurred by Council in relation to the scheme works include;

- Acquisition of the easement for the main pipeline connection from the retention basin site to the Midland Highway at a cost of \$50,000,
- Purchase of pipes suitable for installation as part of the drainage system at a cost of \$394,585.
- Purchase of the land now the site of the retention basin. The site is portion of a larger lot purchased by Council. The proportional cost of the basin site was \$263,000.

#### 4.4 Principal scheme cost assumptions;

- The scheme cost will include associated costs such as the acquisition of easements across private property as required for the most efficient alignment of the pipeline.
- The retardation/treatment basin has been partially formed to obtain fill material for the
  construction of the adjacent Council depot, and to retard the runoff from the depot site.
  The basin is required to be enlarged to service the entire drainage catchment area. As
  the initial basin construction was for a separate purpose, only the additional excavation
  will form part of this scheme works and cost.
- Council purchased the land, which is the site of the retardation basin, in 2002. The
  portion of the purchase cost of the portion of the land to be occupied by the retardation
  basin is included in the cost of the scheme works.
- The cost of any items acquired prior to the scheme development will be retained at the 'as purchased' cost at the time the cost was incurred.
- The pipelines and pits adjacent to the title boundaries are a core component of the design and scheme cost.
- Any internal drainage alterations to connect properties to the new pits provided at title boundaries are treated as provisional items and part of the scheme cost. They will be costed directly to each property if/as installed.
- All design, contract administration and supervision and scheme administration costs are included in the scheme cost.

#### 4.5 Recommended Scheme Cost Structure

Scheme Cost Element	Scheme Cost
Total construction cost incl 15% contingency	\$3,572,794
Design and supervision of works, contract administration @ 5%	\$178,640
Scheme administration @ 1%	\$35,728
Acquisition of the easement through 316 Midland Highway	\$50,000
Purchase of the land containing the retardation basin	\$263,000
Total Scheme Costs	\$4,100,162
Scheme Cost Reductions	
GMW contribution to decommission drains	(\$20,000)
Vic Roads contribution to intersection drainage	(\$750,000)
Property drains (provisional item)	(\$310,030)
Council prior costs	(\$707,585)
Total Scheme Cost Reductions	(\$1,409,404)
Cost to be Recouped from Beneficiaries	\$2,293,945

The provisional item of \$310,029 for the re-direction of internal property drains to connect to the new pipeline will be allocated on a property basis and will not be part of the scheme cost.

#### 5. Properties to Include in Scheme

5.1 There are 77 separate and privately owned lots and 4 reserves under the management of a service authority within the proposed scheme area.

Each lot and reserve will be able to discharge stormwater drainage into the proposed drainage system. Each will be provided a direct point of access at a title boundary to the proposed drainage system and will be included as benefiting from the scheme works. The residential estates will be regarded as a single entity with one direct point of access.

There are 81 separate sites which are regarded as benefiting from the scheme works.

The roads within the scheme area include the Midland Highway, Doyles Road, Carroll Road, Davies Road and Blossom Way. The Midland Highway is a state highway while Doyles Road is a declared main road.

Vic Roads have determined to proceed with reconstruction of the roundabout intersection of the Midland Highway and Doyles Road. The drainage from the entire sections of highway and Doyle Road affected by the works will be connected back through the proposed drainage and retention system.

Vic Roads will contribute to the scheme based on the cost of works to drain the proposed intersection into the new drainage system.

The scheme cost apportioned to the balance of the highway and Doyles Road areas will be paid by Council as a community benefit.

Two of the other lots are reserves under the control of GMW. One is a small reserve set aside for drainage purposes and carries part of the open drain from the residential estate. It will contribute stormwater to the system so will be included. However, being a crown reserve, a scheme cost cannot be assigned to GMW for the works, hence its apportionment will be paid by Council.

Council owns the large site on the west side of Doyles Road, including the Council Depot and the retardation basin. This is a site of approximately 16.2ha and is likely to be developed differently across its area. It was divided into 4 areas of distinct characteristics for the purpose of the drainage design, one of which is the retardation basin area.

While the basin area contributes to the drainage catchment and hence to the scheme cost, it is effectively part of the scheme works and will not be regarded as a beneficiary of the scheme. The portion of the scheme cost due to the drainage from the retardation basin area will be apportioned across all benefiting sites.

The residential estates benefit from the improved drainage outfall capacity and should be included in the scheme as beneficiaries. Nevertheless a discount will be provided to those lots due to the on-site treatment of the stormwater and the retention within the road swales contributing to the capacity of the main retention basin ensuring management of the rate of discharge into the GMW drain.

The farming lands are retained in the drainage system as a matter of convenience as the northern portions of each currently drains to the north-west to the open drains which connect directly to the drainage system being upgraded. The highway frontage portion of the farming lots will continue to drain to the GMW drain to the south-west of the properties. It is considered not

efficient while the properties remain in the farming zone and are developed to horticultural purposes to require them to redirect all of their internal drainage to the highway frontage.

#### 6. Relative Special Benefit

6.1 The scheme works initially aim to provide a drainage system which is suitable for the development of each lot to its potential, having regard to the relevant land use zoning.

It is assumed that all lots discharging water through the proposed pipeline network will benefit from its construction on the basis that although most lots already have access to some form of drainage, this project is replacing that existing system in its entirety. It is providing a secure system of drainage that will allow ongoing discharge into the GMW drain.

The properties within the scheme area have not previously contributed to the construction of the drainage network outside of their properties. Council is therefore able to impose a special charge scheme under the Local Government Act 1989 and to levy a charge against the properties determined as benefiting from the works.

- 6.2 The Council agreement with GMW to assume ownership and management of the drainage system is based on ultimately discharging the stormwater into the GMW Shepparton Drain 2. As such the agreement provides that the GMW policy 'Acceptance of Urban and Industrial Water into Goulburn Murray Water Drain' January 1997 applies to both the quality of the water discharged into the GMW drain and to the rate of that discharge.
- 6.3 The design of the works is based on the capacity to drain the collective area of the benefitting properties assuming they all develop to their potential as allowed within the Greater Shepparton Planning Scheme. The pipeline design relates directly to the area and the rate of stormwater runoff from each. The basin design is based on retaining the overall runoff from the scheme area.

The overall scheme cost is broken down into three major components of the scheme works that will form the basis of the relative benefit. The benefit that each site gains is separately assessed for each component and a cost assigned to each site based on the relative benefit gained from each.

a). The construction of the pipeline network to carry the stormwater from each site to the point of discharge.

This component is assumed to be the main purpose of the works as the existing disjointed and incomplete network of open drains and pipelines does not have the capacity to adequately drain the scheme area to allow for the legitimate development of the lots and has therefore reached the end of its useful life.

The design capacity of the pipeline is a function of the peak discharge rate from all of the lots. For those properties that do not have on-site retention, the site discharge rate is calculated in litres/second as below;

Property area \* coefficient of runoff from the property \* intensity

Those sites that provide on-site retention discharge drainage into the pipeline network at a controlled rate of 1.2 litres/ha/sec. The site discharge is calculated in litres/second as below;

1.2 \* property area

The residential estates of Blossom Way and Davies Drive currently have on-site retention and are able currently to discharge at the controlled rate of 1.2 litres/ha/sec into the pipeline. Due to

7

resident concerns about prolonged inundation within the estates following rain, the design allows for an increase discharge rate from the estates of 2.6 litres/ha/sec. The increased possible discharge rate is 1.4 litres/ha/sec.

As these sites have already installed on-site retention, their effective impact on the pipeline design will be assumed to be the increased capacity of 1.4 litres/ha/sec. The discharge from each of the residential estate properties in litres/second is calculated as below;

1.4 \* property area

However due to the Those lots that have on-site retardation with a reduced and controlled rate of discharge cause a reduced flow in the pipeline, hence the on-site works will provide a benefit through reduced contribution to the cost of the pipeline.

The pipeline construction includes the pipeline networks, pits, property connections, pump station, acquisition of easement, portion of consultancy fees and scheme administration costs.

b). The construction of the retardation basin to control the rate of flow to enable the system to discharge into the GMW drain.

The capacity of the basin is a direct function of the total volume of stormwater runoff generated by all of the properties. The design discharge capacity of the pump from the basin into the drain is discounted for this scheme as the basin is sized to accommodate all of the drainage from the area.

The apportionment of the costs for this cost/benefit is a function of the area and the coefficient of runoff.

The retardation basin construction includes the land acquisition of the site, basin enlargement, fencing and signage, portion of consultancy fees and scheme administration costs.

c). The water treatment features within the basin to ensure the drainage maintains a quality to enable it to continue to be discharged into the GMW drain.

The capacity and cost of the treatment features relates to the volume of water passing through the basin. The apportionment of the cost/benefit is a direct function of the area and the coefficient of runoff of each lot.

The wetland treatment construction includes the plantings and control flow weir, portion of consultancy fees and scheme administration costs.

6.4 Drainage schemes may also provide protection from flooding of lands by lands upstream on the natural flow path. The general natural flow of unimpeded drainage in this scheme area is to the north-west, to a low area across the five most north-westerly properties. However the existing development of the area is such that the natural flow path has been interrupted and is captured by roads, drains and channels. The development type in the area is largely business and industrial, where the stormwater from the whole of the site is captured and directed to a designated point of discharge.

Due to the disruption of the natural flowpath, principally by roads, drains and channels, and the type of development within the scheme area, the protection from flooding as provided by the works will not be included as a separate benefit from the works.

The rate of discharge from the overall catchment into the GMW drain is restricted to 1.2l/sec/ha. Some sites have structural systems in place which captures and treats the stormwater before it leaves the site and/or restricts the drainage outfall to 1.2 litres/sec/ha.

However there has been increasing angst among residential estates landowners during heavy rain events of recent years at the extended duration of stormwater laying within road reserves before it can be finally drained. As a consequence the overall design has been increased to provide a discharge capacity at the connection of the residential estates to the new pipeline of 100l/sec/ha, or approximately 2.6 litres/sec/ha.

Planning permits have been issued to properties that require a financial contribution to a future urban drainage system. Those contributions that have been paid will be taken into account in the required contributions of each of those properties.

The planning permits may have required on-site detention to control the rate of drainage discharge. Some of these works have been constructed, either entirely or in part. Other permits have not been acted upon and they have been withdrawn or have lapsed.

Where lots have been developed and the planning approval requires on-site works relating to drainage retardation, if those works have not been carried out, then it is proposed that the scheme works will negate the need for those on-site works. The subsequent removal of these permit conditions will form part of the recommendations of this report.

Where the on-site works have been carried out such that the rate of discharge is controlled to 1.2l/sec/ha, provided these works are of a permanent nature and do not impede the further development of the property then the property will be provided a discount from the relevant component of the scheme works.

Those lots which currently do not provide any treatment of drainage prior to it leaving the property will be assumed to benefit fully from that component of the scheme works.

6.6 The design capacity of the pipeline depends on the area of land drained together with the allowable development of the land which determines the proportion of runoff against infiltration into the surface. These measures will be taken into account in the apportionment of costs between the benefiting properties.

SPIIRE has assessed the pipe system design and confirmed that despite some lots having onsite retention, the collective impact of that retention is not sufficient to reduce the design pipe sizes and cost.

6.7 Portion of the catchment is within the Land Subject to Inundation Overlay. The overlay requires referral of any development to the Goulburn Broken Catchment Management Authority (GBCMA). The principal issue under the overlay is the floor height of any building. The GBCMA has required floor levels of developed sites within the overlay area to be raised to 300mm above a determined height; this can be as much as 600mm above the natural surface.

The GBCMA has indicated that a study of the impact of the drainage system on the need for the overlay would need to be done before any commitment on the ongoing imposition of the overlay can be made. At the stage of development of the drainage scheme it cannot be presumed that the overlay will be removed as a consequence of the urban drainage system to be installed.

#### 6.8 Principal Scheme assumptions:

- All properties which are determined to benefit from the retardation basin will be liable to contribute to the cost of the retardation basin works.
- Each property will be provided access to the drainage system by connection to a pit
  adjacent to the title boundary. Diversion and re-connection to any existing internal drains
  will be carried out as a separate direct property cost.
- Treatment required of the water shall not apply to the low density residential area nor the rural horticultural lands, due to their provision of primary treatment on-site.
- The treatment required of the water shall apply to all other lands within the scheme area.
- The Inundation and Land Subject to Inundation Overlay (LSIO) cannot be assumed to be removed from the scheme area following construction of the new drainage works.
- Rezoning of some of the land in the scheme area may come about in the future. This scheme is based on the current zonings over the lands.
- Previous contributions made by developers of land within the scheme area, which were
  required as part of the planning approval for drainage upgrade works, are discounted, as
  discussed in this report, from the assessed liability of the relevant land(s).
- Council will contribute to the scheme for the drainage from the road reserves within the scheme area.
- Protection from flooding will not be a benefit provided by the scheme works.

Schedule B:
Proposed Scheme Contributing Properties

		,	ı
		Proportion of	
	Special	Total Special	Allocated
Property	Benefit	Benefit	Cost
12869 4	3	0.016	\$ 69,321
12870 2	3	0.016	\$ 159,412
12870 2	3	0.016	\$ 3,994
12881 9	3	0.016	\$ 3,994
12881 9	3	0.016	\$ 45,986
12881 9	3	0.016	\$ 54,275
12882 7	3	0.016	\$ 244,074
12884 3	3	0.016	\$ 2,792
12869 4	3	0.016	\$ 155,085
12870 2	3	0.016	\$ 82,374
12870 2	3	0.016	\$ 10,365
12881 9	3	0.016	\$ 9,545
12881 9	3	0.016	\$ 8,725
12881 9	3	0.016	\$ 7,040
12882 7	3	0.016	\$ 5,122
12884 3	3	0.016	\$ 5,122
12869 4	3	0.016	\$ 11,840
12870 2	2	0.0106	\$ 7,879
12870 2	2	0.0106	\$ 11,609
12873 6	3	0.016	\$ 14,346
12872 8	3	0.016	\$ 13,351
12871 0	3	0.016	\$ 24,185
12871 0	3	0.016	\$ 44,715
12871 0	3	0.016	\$ 6,142
27879 6	1	0.0053	\$ 788
27519 8	1	0.0053	\$ 789
27518 0	1	0.0053	\$ 790
27517 2	1	0.0053	\$ 790
27516 4	1	0.0053	\$ 839
27515 6	1	0.0053	\$ 889
27514 9	1	0.0053	\$ 895
27513 1	1	0.0053	\$ 874
27512 3	1	0.0053	\$ 1,009
27510 7	1	0.0053	\$ 799
27509 9	1	0.0053	\$ 787
27529 7	1	0.0053	\$ 786
27508 1	1	0.0053	\$ 786
27522 2	1	0.0053	\$ 786
27522 2	1	0.0053	\$ 786
27521 4	1	0.0053	\$ 788
27520 6	1	0.0053	\$ 787
27880 4	1		
		0.0053	
9573 7	1	0.0053	\$ 1,269
9562 0	1	0.0053	\$ 1,177

9561 2	1	0.0053	\$ 1,207
9560 4	1	0.0053	\$ 1,177
9559 6	1	0.0053	\$ 961
9558 8	1	0.0053	\$ 952
9557 0	1	0.0053	\$ 989
9556 2	1	0.0053	\$ 1,321
9555 4	1	0.0053	\$ 1,478
9554 7	1	0.0053	\$ 1,375
9535 6	1	0.0053	\$ 1,275
9551 3	1	0.0053	\$ 1,087
9549 7	1	0.0053	\$ 1,180
9547 1	1	0.0053	\$ 1,085
9545 5	1	0.0053	\$ 948
9563 8	1	0.0053	\$ 875
9541 4	1	0.0053	\$ 892
9539 8	1	0.0053	\$ 995
9537 2	1	0.0053	\$ 1,111
9534 9	1	0.0053	\$ 1,378
9592 7	1	0.0053	\$ 13,634
9670 1	1	0.0053	\$ 8,861
9734 5	1	0.0053	\$ 6,643
12990 8	3	0.016	\$ 135,044
12982 5	2	0.0106	\$ 3,219
12982 5	3	0.016	\$ 16,689
12982 5	3	0.016	\$ 18,796
25354 2	3	0.016	\$ 122,028
12986 6	3	0.016	\$ 94,577
12985 8	3	0.016	\$ 110,840
12989 0	3	0.016	\$ 8,555
12987 4	3	0.016	\$ 8,555
12988 2	3	0.016	\$ 8,555
12980 9	3	0.016	\$ 4,145
12980 9	3	0.016	\$ 13,320
		Total	\$ 1,612,254

Attachment 3 Plan A - Catchment Area

## SHEPPARTON EAST DRAINAGE SCHEME

