TOWN OF DIDSBURY
BY-LAW 2019 – 06 (Off-Site Levy)

BEING A BY-LAW OF THE TOWN OF DIDSBURY, IN THE PROVINCE OF ALBERTA TO PROVIDE FOR THE IMPOSITION AND PAYMENT OF A LEVY, TO BE KNOWN AS AN "OFF-SITE LEVY", IN RESPECT OF LAND(S) THAT IS TO BE DEVELOPED OR SUBDIVIDED.

Whereas Section 648(1) of the *Municipal Government Act*, R.S.A. 2000, c. M-26 as amended, provides that a Council of a municipality may enact a Bylaw to provide for the imposition and payment of Off-Site Levies in respect to lands that are to be developed or subdivided and to authorize agreements to be entered into in respect of the payment of those levies for the purposes of paying for all or part of, among other things:

a. new or expanded facilities for the storage, transmission, treatment or supplying of water;
b. new or expanded facilities for the treatment, movement or disposal of sanitary sewage;
c. land required for or in connection with any facilities described above.

And whereas the Town of Didsbury has undertaken a study which identifies Off-Site Levy eligible municipal infrastructure projects and contains detailed calculations to establish the Off-Site Levies provided for in this Bylaw, a copy of which is attached hereto and forms part of this Bylaw as Schedule "B";

And whereas the Council of the Town of Didsbury deems it desirable to impose the Off-Site Levies provided for herein and to authorize agreements in respect of the payment of those levies;

And whereas the calculation of the Off-Site Levies provided for in this Bylaw has been determined in consultation with affected land owners and representatives of the development industry as required by the Off-Site Levies Regulation, AR 187/2017;

Now therefore, the Municipal Council of the Town of Didsbury, in the Province of Alberta, duly assembled, hereby enacts as follows:

1) Definitions

For the purposes of this by-law the following definitions shall apply:

(a) **"Construction Price Index (CPI)"** shall mean CPI for the metropolitan area of Calgary as defined by Construction price indexes, by selected metropolitan areas - New housing price indexes (monthly) completed by Statistics Canada.

(b) "**Council**" shall mean the Council of the Town of Didsbury.

(c) "**Development**" shall mean:

(1) the carrying out of any construction on, over or under land; or

(2) the making of a change in the use of the land, building or premises.

(d) "**Environmental Reserve**" shall mean the land designated as environmental reserve under Division 8 of the *Municipal Government Act.*

(e) "**Municipal Reserve**" shall mean the land designated as municipal reserve under Division 8 of the *Municipal Government Act.*

(f) "**Subdivision**" shall mean the division of a parcel by an instrument pursuant to the *Municipal Government Act.*

2) Establishment of Levy

(a) An Off-Site Levy is hereby imposed and shall be collected in respect of all lands within the municipal boundaries of the Town of Didsbury which are to be subdivided or developed and for which no Off-Site Levy has previously been paid.

(b) Off-Site Levies will not be imposed and collected on lands within the municipal boundaries of the Town of Didsbury where the lands remain completely unserviced by the Town.

3) Object of Levy

(a) The objects, principles and criteria of this Off-Site Levy Bylaw shall be in accordance with the following:

i) This Bylaw creates an Off-Site Levy to provide funds for the capital cost of infrastructure required for or impacted by subdivision or development.

ii) The object of this Bylaw is to pay for all or part of the capital costs of the following infrastructure:

(1) New or expanded facilities for the storage, transmission, treatment or supplying of water; and

(2) New or expanded facilities for the treatment, movement or disposal of sanitary sewage.

iii) This Bylaw does not impose an Off-Site Levy for new or expanded roads required for or impacted by a subdivision or development and Off-Site Levy funds collected under this Bylaw shall not be used for new or expanded roads required for or impacted by a subdivision or development.

iv) The imposition and collection of Off-Site Levies on subdivision and development in new growth areas will provide capital to fund the infrastructure required for growth. All beneficiaries of development, which is defined as all Developable Land within the municipal boundaries of the Town, shall contribute on an equitable basis related to the degree of benefit.

v) Off-site infrastructure is required to maintain sustainable, cost effective and orderly growth.

vi) The calculation of the Off-Site Levy shall be an open and transparent process.

vii) The Off-Site Levy is intended to allow the Town to recover the cost of infrastructure required for growth:

(1) Using financing strategies that remain sustainable;

(2) Facilitating development by reducing risk on early developers and ensuring future developers share the costs of the infrastructure and facilities from which they benefit; and

(3) Promoting cost effective and orderly development.

viii) The Off-Site Levy will help promote orderly development by:

(1) Providing off-site infrastructure, once the appropriate planning is in place, and when warranted by development; and

(2) Encouraging contiguous development.

4) Amount of Levy

(a) The Off-Site Levies hereby imposed shall be calculated in accordance with Schedules "A" and "B" of this Bylaw.

(b) The Schedules referred to in this Bylaw are incorporated into and form part of this Bylaw.

(c) The Chief Administrative Officer or his or her designate shall review this Bylaw and report to Council annually so that the levies provided for herein, and the information utilized to calculate those levies, is kept current.

(d) The Off-Site Levy shall be adjusted on January 1st of each successive year after the passing of this Bylaw by a percentage equal to the year to year percentage change in the Construction Price Index – Calgary Region.

5) Imposition of Levy

(a) Where it is determined that a Development Agreement is appropriate for any application for development or subdivision, the Applicant or the Owner, as the case may be, shall enter into a Development Agreement with the Town and such Development Agreement shall ensure that provision be made for the payment of the Off-Site Levies imposed by this Bylaw.

(b) Each Development Agreement and each Development Permit or Subdivision Approval entered into or issued by the Town in respect of lands within the municipal boundaries of the Town shall make provision for payment of all Off-Site Levies imposed by this Bylaw.

6) Payment of Levy and Development Agreements

(a) Off-Site Levies payable pursuant to Development Agreements entered into pursuant to this Bylaw shall, as determined by the Town, be made payable in accordance with one of the following Off-Site Levy payment models:

i) Off-Site Levies shall be paid to the Town of Didsbury at the time of the signing of the Development Agreement;

ii) Off-Site Levies shall be paid to the Town of Didsbury in three (3) installments:

(1) Thirty three (33%) of the levies shall be paid by the Developer at the time of the signing of the Development Agreement;

(2) Thirty three (33%) of the levies shall be paid by the Developer prior to Town's approval of the last Construction Completion Certificate (as defined in the Development Agreement); and

(3) Thirty four (34%) of the levies shall be paid by the Developer prior to the Town's approval of the last Final Acceptance Certificate (as defined in the Development Agreement);

subject to the security requirement set out below;

iii) In the case of a subdivision approval, the Off-Site Levies shall be paid by the Developer at the time the Developer applies for a Development Permit, subject to the security requirement set out below;

iv) In exceptional circumstances, Off-Site Levies may be paid to the Town of Didsbury at some other time as may be approved by the Chief Administrative Officer, subject to the security requirement set out below.

(b) The Development Agreement will specify the specific Off-Site Levy payment model applicable to the Developer.

(c) In the event all or a portion of the Off-Site Levies are to be paid to the Town of Didsbury at a time later than the signing of the Development Agreement pursuant to 6(a) of this Bylaw, the Development Agreement shall provide for security in a form and amount acceptable to the Town in order to secure payment of the Off-Site Levies.

(d) The failure, refusal or neglect to make any payment of an Off-Site Levy when due pursuant to a Development Agreement, shall be a debt owing to the Town by the Applicant or Owner, as the case may be. This provision shall not, in any way, affect any other remedy available to the Town for late or non-payment of an Off-Site Levy pursuant to the *Municipal Government Act,* or any other enactment.

(e) Off-Site Levies shall be calculated by the hectare based on the Developable Area, which includes the lands which are the subject of the subdivision or development permit application but excludes land designated as environmental reserve, land designated as municipal reserve and road right of ways.

(f) The Chief Administrative Officer's decision with respect to the calculations and payment of Off-Site Levies under this Bylaw is final.

7) Accounting

(a) All funds collected pursuant to this Bylaw shall be accounted for in a special fund and expended only as permitted under the provisions of the *Municipal Government Act*.

8) Review

(a) This Bylaw shall be reviewed annually.

9) Transition

(a) This Bylaw applies to:

i) Any subdivision where the date of a valid signed development agreement occurs on or after the date this bylaw comes into force; and

ii) Any development where the date of issuance of a development permit occurs on or after the date this bylaw comes into force.

10) Schedules

(a) Schedules A & B form part of this Bylaw.

11) General

(a) Nothing in this Bylaw precludes the Town from:

i) Imposing further or different Off-Site Levies, duly enacted by Bylaw on any land in respect of which the Town has not collected the Off-Site Levies imposed under this Bylaw or any previous Off-Site Levy Bylaw authorized by statute.

ii) Imposing Development fees for infrastructure not identified in this Off-site Levy Bylaw.

12) Enactment

(a) This Bylaw shall come into force and effect once the bylaw receives Third & Final Reading.

13) Rules of Interpretation

(a) The headings of this bylaw are for reference purposes only and do not form a part of the Bylaw.

(b) This Bylaw shall come into effect upon the date of final passing by Council at Third and Final Reading.

(c) Upon the coming into force of this Bylaw, Bylaw 2011-10 is hereby repealed.

Read a first time this 28th day of May, 2019

Read a second time this 28th day of May, 2019

Read a third and final time by unanimous consent this 28th day of May, 2019

TOWN OF DIDSBURY, ALBERTA

Mayor

Chief Administrative Officer

Town of Didsbury
Bylaw – 2019 – 06
Schedule "A"

Final Report- Town of Didsbury Off-Site Levies- 2019 Update

a) **By-law No. 2019 shall** come into force and effect when the bylaw is approved

Off-site Levy Per Hectare

Year	2019 ($/ha)
Water	$ 7,815.00
Wastewater	$ 57,757.00
Total	$ 65,572.00

Off-site Levy Per Acre

Year	2019 ($/acre)
Water	$ 3,162.63
Wastewater	$ 23,373.52
Total	$ 26,536.15

*For the purpose of calculations, one (1) hectare is equivalent to 2.4710436922532532 acres.

Town of Didsbury

Bylaw No. 2019 - 06
Schedule "B"

Town of Didsbury Final Report - Off-Site Levies- 2010 Update

July 21, 2010

BEST SMALL & MEDIUM

Our Reference: 25293

Town of Didsbury
2037 – 19 Avenue, Box 790
Didsbury, Alberta
T0M 0W0

Attention: Brittany Hutton, Manager of Planning and Infrastructure

Dear Brittany:

Reference: Town of Didsbury
Off-Site Levies – 2010 Update

Enclosed is the final report for the Town's Off-Site Levies - 2010 Update. We trust that it meets your needs.

The key objective of this project is to review the off-site levy rates charged by the Town and update rates as required based on the Town's Infrastructure Study Update as completed by ISL in 2008. This report provides the background documentation for the Town of Didsbury to update its Off-Site Levy Bylaw. The rates can be included as a schedule to the Bylaw and can be revised annually if desired by the Town.

We sincerely appreciate the opportunity to undertake this project on your behalf. Should you have any questions or concerns, please do not hesitate to contact the undersigned at (403) 254-0544.

Sincerely,

Wes Stambaugh, P.Eng.
General Manager

ISL Engineering and Land Services Ltd.
#1, 6325 - 12 Street SE, Calgary, AB T2H 2K1
T. 403.254.0544 F. 403.254.9186

Corporate Authorization

This document entitled "Off-Site Levies – 2010 Update" has been prepared by ISL Engineering and Land Services Ltd. (ISL) for the use of the Town of Didsbury. The information and data provided herein represent ISL's professional judgment at the time of preparation. ISL denies any liability whatsoever to any other parties who may obtain this report and use it, or any of its contents, without the express written consent of ISL.

July 21, 2010

Geoffrey Schulmeister, P. Eng.
Water Resources Manager

PERMIT TO PRACTICE

ISL Engineering and Land Services Ltd.

Signature _____

Date July 21, 2010

PERMIT NUMBER: P 4741

The Association of Professional Engineers, Geologists and Geophysicists of Alberta

Table of Contents

1.0 Introduction and Background

The Town of Didsbury (the Town) has engaged ISL Engineering and Land Services Ltd. (ISL) to undertake an off-site levy review in order to ensure up to date rates are used and adequate capital is collected from the developers to fund off-site infrastructure required to support growth. The Town previously updated its off-site levy rates in 2006 while ISL was simultaneously preparing the Town's Infrastructure Study (ISL, 2006). At the time of this update, additional water storage, pumping, and distribution infrastructure upgrades as well as wastewater conveyance infrastructure upgrades were added to the Town's off-site levy bylaw. The cursory review did not include any road or wastewater treatment infrastructure.

In 2008, the Town annexed a substantial amount of additional land, increasing the total future development to around 15.5 quarter sections, an increase of 10 quarter sections from the 2006 review. As a result, the Town engaged ISL to update the Town Infrastructure Study. The resultant document, the Town of Didsbury Infrastructure Study – 2008 Update (ISL, 2009), reviewed water supply and distribution, wastewater collection and treatment, stormwater management, and roadway infrastructure in the context of the expanded growth area. Consequently, the Town has decided to update its off-site levies to include the additional annexation areas as well as adding items such as wastewater treatment and future roadways, which were not part of the 2006 review.

2.0 Literature Review

One of the tasks of the Off-Site Levies Update was to perform a review of the existing Town of Didsbury Off-Site Levy Bylaw, the Municipal Government Act (MGA), and the neighbouring municipalities' off-site levy bylaws. A brief summary of the reviews follow.

2.1 Existing Off-Site Levy Bylaw

The existing bylaw was based on the work completed to date on the Infrastructure Study (ISL, 2006). The review identified future annexed lands and the infrastructure required to service those lands. Some of the findings in the report are listed below:

- 5.5 additional quarter sections of future development in annexed areas;
- Included in the review were water supply and distribution, as well as preliminary sanitary sewage conveyance and treatment upgrades;
- Excluded from the review were comprehensive sanitary sewage conveyance system upgrades, stormwater management system upgrades, and roadway upgrades;
- Total Off-Site Levy rates implemented by the Town were $2,950.53 per dwelling unit based on 3 people per dwelling unit.
- Off-site levies were calculated by the acre: gross acreage less environmental and municipal reserves.

2.2 Municipal Government Act

The governing authority for the off-site levies bylaw is the Municipal Government Act (MGA), which states in Section 648, that the off-site levy may be used to pay for all or part of the capital cost of any or all of the following:

- new or expanded facilities for the storage, transmission, treatment or supplying of water;
- new or expanded facilities for the treatment, movement, or disposal of sanitary sewage;
- new or expanded storm sewer drainage facilities;
- new or expanded roads required for or impacted by a subdivision or development;
- land required for or in connection with any facilities, described above.

2.3 Off-Site Levy Bylaws from Surrounding Municipalities

The review of the surrounding municipalities' off-site levy bylaws is intended to create a benchmark for the Town of Didsbury and included the following municipalities:

- Town of Carstairs;
- Town of High River;
- Town of Innisfail;
- Town of Olds;
- Town of Sundre;
- Town of Sylvan Lake.

Table 2.1 below provides a brief overview of the current rates and significant policies of interest, which may currently be under review. It is important to note that Carstairs and Sundre do not include Transportation in their off-site levies while High River does not include Stormwater.

Table 2.1 Summary of Surrounding Municipalities for Bylaw Comparison

Town	Off-Site Levies/Area (Water, Sanitary, Storm, Transportation)		Calculated Equivalent Rates ($/ha)	
	Min	Max	Min	Max
Carstairs	$ 2,000/lot Res: $ 7,570/acre Ind: $ 4,513/acre		$ 2,000/lot Res: $ 18,705/ha Ind: $ 11,151/ha	
High River	$ 29,999/acre	$ 69,437/acre	$ 74,128/ha	$ 171,581/ha
Innisfail	$ 8,610/ha	$ 48,463/ha	$ 21,003/ha	$ 48,463/ha
Olds	$ 8,500/acre	$ 23,000/acre	$ 15,750/ha	$ 56,834/ha
Sundre	Res: $63,104/ha Ind:$44,120/ha	Res: $68,053/ha Ind: $44,120/ha	Res: $63,104/ha Ind: $44,120/ha	Res: $68,053/ha Ind: $44,120/ha
Sylvan Lake	$ 1,475/EDU	$ 27,509/EDU	$ 1,475/EDU	$ 27,509/EDU

1. EDU = equivalent dwelling unit; Sylvan Lake has developed a unit rate based on varying densities and lots per area.

3.0 Growth Projections / Future Developable Lands

The existing population of Didsbury is 4,599, according to the 2008 Census. The Town's new annexation area encompasses roughly 15.5 quarter sections of land (1,102 ha), representing a net increase of roughly 10 quarter sections (647.5ha) over the Town's previous annexation plans. ISL, under the direction of the Town, assumed the full build-out of the current planned developments by 2013, following which, growth in the annexation area would be at a rate of 3% per annum, increasing the current population from 4,599 to a 25 year horizon population of 14,000 to 19,000, depending on the status of the Copperwood Development. For the purpose of this report, calculations were based on full build-out conditions.

3.1 Net Developable Area

Didsbury's new annexation area covers roughly 1,102 ha of total gross area. It is understood that not all of the annexed land can be developed. Areas may be dedicated as road right of ways, environmental reserves, and possibly municipal reserves. Therefore, under direction from the Town, the net developable area for this off-site levy review is estimated as 70% of the total gross area.

ISL has reviewed the total annexed area and has divided these potential development areas by quadrants and benefiting areas in the Table 3.1 below and a map showing these areas in Figure 3.1.

Table 3.1 Net Developable Areas

Quadrant	Benefiting Area	Land Use Classification	Area, ha	
			Gross	Net
NW	*Total*	*Industrial*	*338.3*	*236.8*
	A		64.7	45.3
	B		64.7	45.3
	C		64.8	45.4
	D		61.1	42.8
	E		59.6	41.7
	F		23.4	16.4
NE	*Total*	*Residential*	*165.0*	*115.5*
	G		64.7	45.3
	H		73.4	51.4
	I		26.9	18.8
SW	*Total*	*Residential*	*293.4*	*205.4*
	J		64.7	45.3
	K		64.7	45.3
	L		39.3	27.5
	M		41.8	29.3
	N		15.7	11.0
	O		67.2	47.0
SE	*Total*	*Residential*	*305.7*	*214.0*
	P		48.0	33.6
	Q		64.7	45.3
	R		65.2	45.6
	S		127.8	89.5
Future Development			**1102.4**	**771.7**

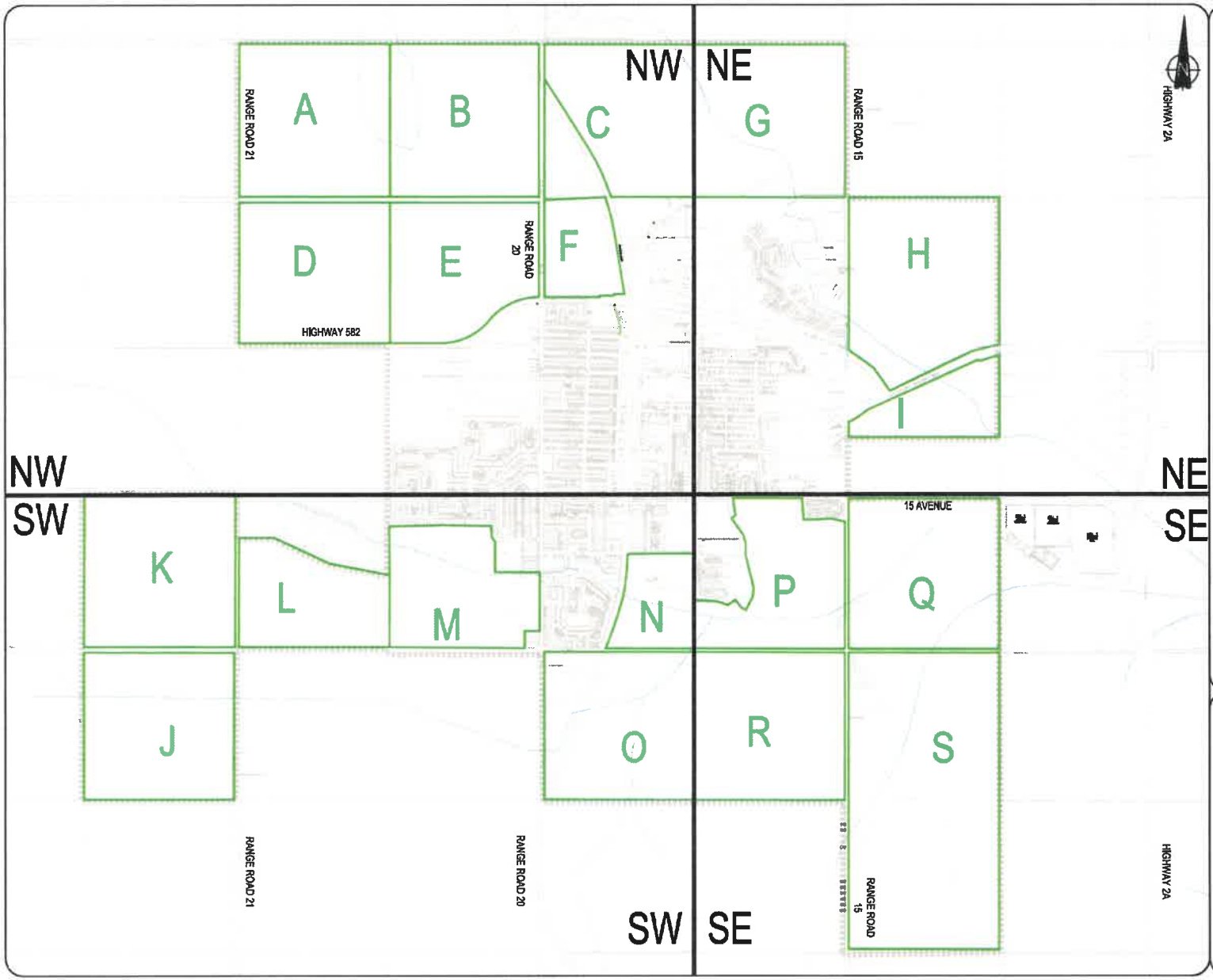


Figure 3.1

Legend

- ANNEXED TOWN BOUNDARY
- BENEFITING AREA BOUNDARY
- A — BENEFITING AREA
- NW — QUADRANT

TOWN OF DIDSBURY
Off-Site Levy Bylaw
2010 Review

BENEFITING AREAS

0 200 400 600 800
1:20,000

ISL Engineering and Land Services

4.0 Off-Site Levies Assumptions

4.1 Assumptions

Didsbury's off-site levies will be charged to any new or incremental development in town which will impact the need for upgrades in infrastructure, including the following:

- water supply and distribution;
- sanitary sewer collection and treatment;
- future roadway growth, including railway and creek crossings (not including the land acquisition).

Excluded from the off-site levies is the storm infrastructure. The storm infrastructure would be required to be provided by each individual development or as per development agreements between the Town and each respective Developer if any off-site infrastructure was required.

Other assumptions included within this update are the following:

- The Fieldstone subdivision, area M on Figure 3.1, has an expired Development Agreement and will be included in the water supply and distribution, and sanitary sewer off-site levy calculations.
- Road right of ways were assumed to be lands dedicated by developers, hence, land acquisition for the roadway infrastructure upgrades were not included in the off-site levies at this time. It is also noted that the Town plans to complete a detailed Transportation Master Plan, which was not included within the scope of this project.
- Other potential stakeholders may include Mountain View County (the County). It will be at the discretion of the Town to discuss potential cost and maintenance sharing agreements with the County as initial discussions suggest the County may require roadway upgrading to support development, but would be unlikely to share the cost unless development was also occurring in the County within the vicinity.
- Potential grant funding of infrastructure is currently included in this report. It is assumed that the Water and Wastewater Partnership Grants, Alberta Municipal Water/Wastewater Partnership (AMWWP) will contribute 40% of the water reservoir and lagoon capital costs. Other provincial grants are estimated to contribute 25% of the capital costs for the water and wastewater conveyance, as well as the future entire roadway infrastructure. It will be at the discretion of the Town to include these potential municipal infrastructure grants.
- Oversizing considerations will not be detailed herein. Details into potential endeavours to assist will be detailed by the Town in the formal off-site levy policy and/or future development agreements.
- The net developable area for this off-site levy review is estimated at 70% of the total gross area.
- No interest or carrying charges have been included at this stage.

5.0 Costing Details

5.1 Water Infrastructure Upgrades

In order to facilitate Didsbury's community growth, the following are recommended upgrades to be included in the Off-Site Levy Bylaw, based on the Infrastructure Study Update (ISL, 2009). Note that the upgrades that solely benefit the existing parts of the Town are not included in the levy. The locations of each upgrade are shown on Figure 5.1. A detailed breakdown of all water upgrades can be found in Appendix A, Table A1.

5.1.1 Supply and Distribution Infrastructure

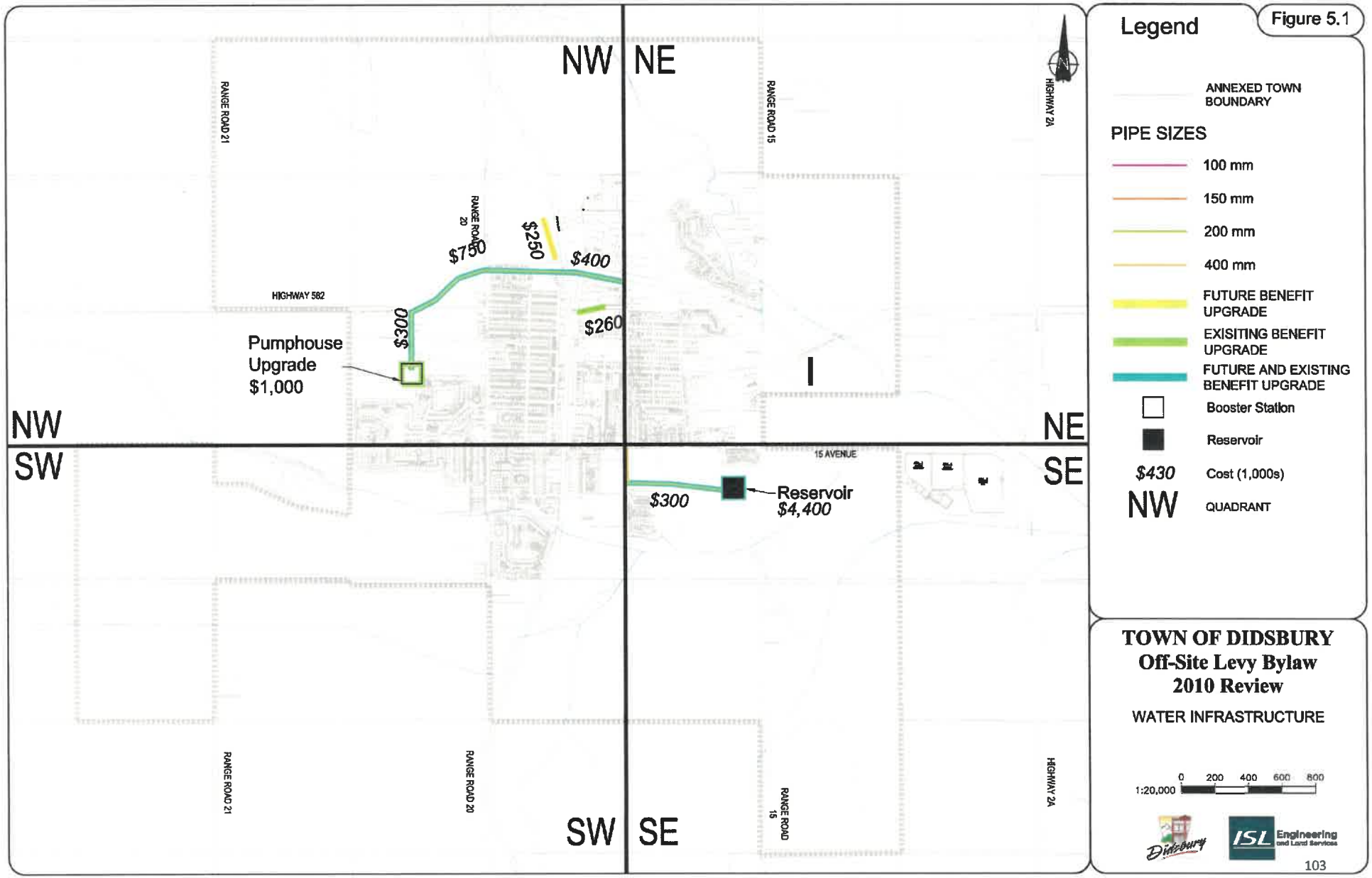
The key future upgrades and enhancements for the supply and distribution infrastructure include the construction of a new supply line, trunk watermain, watermain on CMI property, and a watermain along 24th Avenue and are summarized as follows:

- New Supply Line
  - Construction of a 300mm watermain connecting the new reservoir to the distribution system at 15th Avenue and 16th Street.
    - Estimated cost of $ 300,000;
    - Cost sharing was determined by volume shared, roughly 6% benefit the existing parts of the Town and 94% benefit future development.
- New Trunk Watermain along Secondary Highway 582 Bypass
  - Construction of a new 400mm trunk watermain from the existing pumphouse to 16th Street along the Secondary Highway 582 bypass to improve fire flows in the existing parts of the Town.
    - Estimated cost of $ 1,450,000;
    - Cost would likely be borne by the Town initially, though benefit to future development areas be substantiated and included in off-site levy calculations.
- New Watermain on CMI Property
  - Construction of a new 400mm watermain on the CMI property, connecting the 400mm stub to the south and the 300mm stub to the east.
    - Estimated cost of $ 250,000;
    - This is located on private land and the majority of the benefits and hence, cost would be borne by the developer. The Town may consider assistance with oversize costs.
- New Watermain along 24th Avenue
  - Connect the 150mm watermain along 19th Street east to a 200mm watermain located north of 23rd Avenue to improve fire flows.
    - Estimated cost of $ 260,000;
    - These upgrades benefit the existing parts of Town. The costs would be borne by the Town and not included in Off-Site Levies.

5.1.2 Storage Infrastructure

The key future upgrades and enhancements for the storage infrastructure include the construction of a new reservoir and upgrades to the existing pumphouse.

- New Reservoir
  - According to the Infrastructure Study Update (ISL, 2009), there is a need to construct a new reservoir and pumphouse in the southeast quadrant of the Town. Based on the calculations completed during the Infrastructure Update, the reservoir was initially sized for the 10 year growth horizon, providing an additional storage of 8,000m^3 of water storage. The pumphouse should include new duty pumps as well as a fire pump.


NW
NE
SW
SE
RANGE ROAD 21
RANGE ROAD 20
RANGE ROAD 15
HIGHWAY 582
HIGHWAY 2A
15 AVENUE
$750
$250
$400
$260
$300
Pumphouse
Upgrade
$1,000
$300
Reservoir
$4,400
Legend
ANNEXED TOWN BOUNDARY
PIPE SIZES
100 mm
150 mm
200 mm
400 mm
FUTURE BENEFIT UPGRADE
EXISITING BENEFIT UPGRADE
FUTURE AND EXISTING BENEFIT UPGRADE
Booster Station
Reservoir
$430
Cost (1,000s)
NW
QUADRANT
Figure 5.1
TOWN OF DIDSBURY
Off-Site Levy Bylaw
2010 Review
WATER INFRASTRUCTURE
0 200 400 600 800
1:20,000
Didsbury
ISL Engineering and Land Services

- Estimated cost for the upgrade is $ 4,400,000.
- Cost sharing was determined by volume shared, roughly 6% benefit the existing Town and 94% benefit future development.

- Existing Pumphouse Upgrades
  - Installation of a new fire pump and improved distribution pumping capacity.
    - Estimated cost of $ 1,000,000.
    - These upgrades benefit the existing Town. The costs would be borne by the Town and are not included in off-site levy calculations.

5.1.3 Costs and Rates

Table 5.1 below summarizes the cost sharing for the water infrastructure.

Table 5.1 Water Infrastructure Cost Sharing

Upgrade	Cost Sharing (%)	
	Existing Town	Developers
New Supply Line	6	94
New Trunk Watermain	6	94
New Watermain on CMI Property*	0**	100
New Watermain along 24th Avenue*	100	0
New Reservoir	6	94
Existing Pumphouse Upgrades*	100	0

* Not included in levy.
** Potential for oversize cost sharing.

There are grants applied to the costs through the AMWWP and other provincial grants. The AMWWP is assumed to contribute 40% of the capital cost for the water reservoir. The other provincial grants are assumed to contribute 25% of the capital costs for the water conveyance system. The rates for the water infrastructure are split showing the uniform and benefiting area rates as well as grant contribution as shown in Table 5.2.

Table 5.2 Water Infrastructure Rates

Quadrant	Net Area, ha	Without Grant Contribution		With Grant Contribution	
		Total Cost, $	Rates, $/ha	Total Cost, $	Rates, $/ha
Future Development	771.7	6,031,000	7,815	3,902,850	5,058
NW	*236.8*				
NE	*115.5*				
SW	*205.4*				
SE	*214.0*				
Existing Town	*Total*	*1,629,000*	-	*1,182,150*	-

5.2 Wastewater Infrastructure Upgrades

In order to facilitate future community growth, the following are the recommendations to be included in the Off-Site Levy Bylaw. Didsbury may consider imposing a policy and/or future development agreements regarding oversizing, however, the oversize policy will not be discussed within this report. The locations of each upgrade are shown on Figure 5.2. A detailed breakdown of all sanitary upgrades can be found in Appendix A, Table A2.

5.2.1 Collection Infrastructure

The recommended upgrades to meet future development needs for Didsbury's wastewater collection system and servicing future servicing were reviewed by quadrant.

- Northwest and Northeast Servicing
  - The most effective wastewater servicing concept developed in the Infrastructure Study – 2008 Update (ISL, 2009), is where the northwest part of Town is serviced east around the north end of Town and the northeast service around the east end, to the lagoons with common downstream servicing. This will be referred to as the North Trunk Sewer and has the corollary benefit of improving existing system capacity.
    - North Trunk Sewer
      - Estimated cost of $ 6,820,000.
- Southwest Servicing
  - The southwest part of Town is serviced east around the south end of Town to the lagoons. This concept would be integrated with servicing the existing southeast part of Town. The Fieldstone area plus areas north of the coulee, south of Deer Coulee Ranch, would be serviced to the existing south trunk sewer with the remainder of the area serviced to this new trunk sewer, referred to as the Southwest Trunk Sewer.
    - Southwest Trunk Sewer
      - Estimated cost of $ 4,720,000.
- Southeast Servicing
  - The southeast part of Town is serviced in three ways. The northwestern part of the area would be serviced to the existing south trunk sewer. The central part of this area would be integrated with servicing for the southwest part of the above noted Southwest Trunk Sewer. This sewer would incorporate overflows from the existing south trunk sewer upstream and downstream of the siphons. The southeastern part of this area would have a separate trunk directly to the lagoons with an alignment along or in another coulee in the extreme southeast with this new trunk sewer referred to as the Southeast Trunk Sewer.
    - Southeast Trunk Sewers
      - Estimated cost of $ 1,530,000.

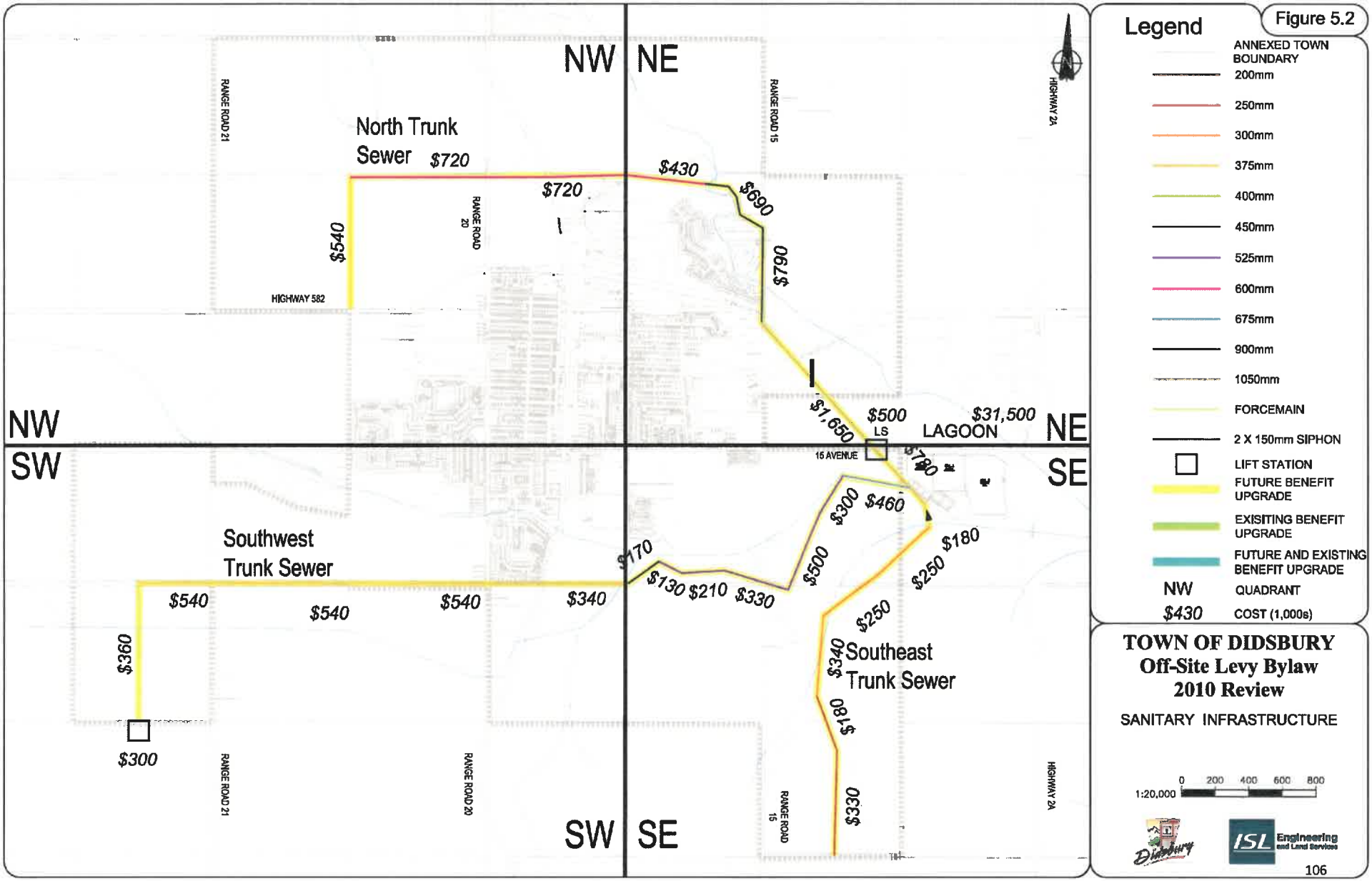
5.2.2 Treatment Infrastructure

The recommended treatment facility to meet the short to medium term growth needs of Didsbury is an expanded lagoon system.

- Lagoon System
  - A staged construction anaerobic/facultative lagoon system was recommended within the Infrastructure Study – 2008 Update (ISL, 2009) consisting of 47,200m^3 of anaerobic cells, 253,000m^3 of facultative cells, and 1,980,000m^3 of storage cells.
    - Estimated cost of $ 31,500,000.

5.2.3 Costs and Rates

Given that the new trunk sewers are generally being constructed to benefit future growth and development, the costs will be borne by the developers through off-site levies. However, in the event development does not start at the downstream end of each sewer


NW
NE
SW
SE
North Trunk Sewer
$720
$720
$430
$690
$790
$540
$1,650
$500
LS
LAGOON
$31,500
15 AVENUE
$180
$300
$460
$180
$250
$250
$340
$180
$330
Southwest Trunk Sewer
$540
$540
$540
$340
$170
$130
$210
$330
$500
$360
$300
Southeast Trunk Sewer
RANGE ROAD 21
RANGE ROAD 20
RANGE ROAD 15
HIGHWAY 582
HIGHWAY 2A
Legend
ANNEXED TOWN BOUNDARY
200mm
250mm
300mm
375mm
400mm
450mm
525mm
600mm
675mm
900mm
1050mm
FORCEMAIN
2 X 150mm SIPHON
LIFT STATION
FUTURE BENEFIT UPGRADE
EXISITING BENEFIT UPGRADE
FUTURE AND EXISTING BENEFIT UPGRADE
NW QUADRANT
$430 COST (1,000s)
Figure 5.2
TOWN OF DIDSBURY
Off-Site Levy Bylaw
2010 Review
SANITARY INFRASTRUCTURE
0 200 400 600 800
1:20,000
ISL Engineering and Land Services
106

and proceed upstream, the Town may either choose to front the trunk sewer construction costs or require an upstream developer to fund the trunk sewer with the Town contributing an amount to be negotiated with the developer.

There are grants applied to the costs through the AMWWP and other provincial grants. The AMWWP is assumed to contribute 40% of the capital cost for the lagoon. The other provincial grants are assumed to contribute 25% of the capital costs for the wastewater conveyance system, as shown in Table 5.3 below.

Table 5.3 Wastewater Infrastructure Rates

Quadrant	Net Area, ha	Without Grant Contribution		With Grant Contribution	
		Total Cost, $	Rates, $/ha	Total Cost, $	Rates, $/ha
Future Development	771.7	*44,570,000*	*57,757*	*28,702,500*	*37,195*
NW	*236.8*				
NE	*115.5*				
SW	*205.4*				
SE	*214.0*				

5.3 Roadway Infrastructure

In order to facilitate future community growth, the following are the recommended upgrades to be included in the Off-Site Levy Bylaw. It is noted that Didsbury may in the future undertake a Transportation Master Plan and other transportation impact assessments to refine these upgrades with more detailed analysis. The following considerations for the off-site levy calculations will mainly focus on upgrading major arterial roadways, railway, creek and coulee crossings, based on the Town's Roadway Growth Plan in the Infrastructure Study – 2008 Update (ISL, 2009). The acquisition of the land has not been included with these off-site levies. A map showing the locations of the upgrades can be found on Figure 5.3.

5.3.1 Roadway Upgrades

Since Didsbury has annexed additional land, there are many roads which require upgrades to accommodate for future growth. The arterial roadway upgrades, which have been included in the off-site levies, are to provide major traffic movement within the Town, access to commercial properties, and ultimately two or four lanes of traffic, depending on the location.

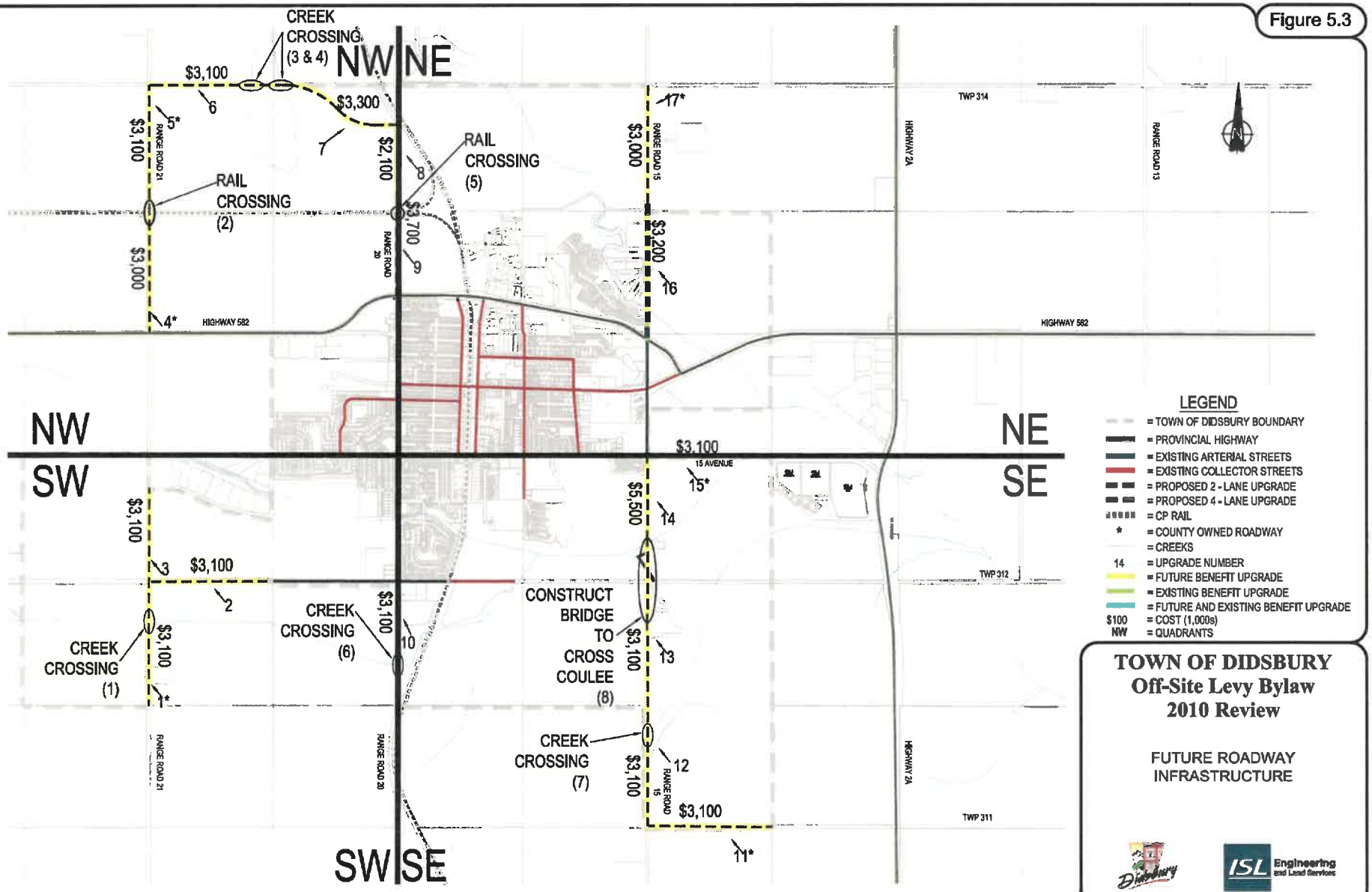
The upgrades have been split up into 17 separate segments in order to evaluate cost sharing between developments. Of these segments, there are three segments within the current town boundaries and six segments currently under jurisdiction of Mountain View County. These roadways are recommended in order to allow access to future developments, with costs shared by the developers. There is a roadway upgrade required for access to the Valarosa subdivision where the cost will be borne by the Town.

It is noted that roads could be funded through off-site levies or alternatively, paid for by developers as part of Development Agreements where a cost split between multiple developers and/or the Town could be independently defined.

5.3.2 Railway, Creek and Coulee Crossings

Railway, creek, and coulee crossings were reviewed and identified as key future infrastructure upgrades. Railway crossings will consist mainly of upgrades; creek

Figure 5.3



TOWN OF DIDSBURY
Off-Site Levy Bylaw
2010 Review

FUTURE ROADWAY INFRASTRUCTURE

ISL Engineering and Land Services

crossings will generally involve a large culvert or similar structures; and coulee crossings may require a formal bridge. The total crossings identified consist of two railway crossings, five creek crossings, and one coulee crossing as shown on Figure 5.3.

5.3.3 Costs and Rates

Cost estimates for the roadway improvements can vary depending on drainage systems, topography, and costs of construction. Unit costs have been developed in the Town's Infrastructure Study – 2008 Update (ISL, 2009) in order to facilitate high-level planning. It is assumed these unit costs include paving of urban arterial roadways, as well as curb and gutter drainage (local storm sewers not included).

- Two Lane Undivided: $ 3.7 Million / km
- Four Lane Undivided: $ 6.7 Million / km
- Four Lane Divided: $ 7.2 Million / km
- Minor Creek Crossings: $ 500,000 per carriageway
- Improved Rail Crossing: $ 200,000 per carriageway
- Coulee Crossing: $ 1 Million

There are grants applied to the costs through provincial grants. The provincial grants are assumed to contribute 25% of the capital costs for the roadway infrastructure upgrades. A summary of the rates for all roadway improvements are shown in Table 5.4 below. A detailed overview of all the roadway improvements and related costs are broken down in Appendix A, Table A3.

Table 5.4 Roadway Infrastructure Rates

Quadrant	Net Area, ha	Without Grant Contribution		With Grant Contribution	
		Total Cost, $	Rates, $/ha	Total Cost, $	Rates, $/ha
Future Development	771.7	57,070,500	73,956	42,803,875	55,467
NW	*236.8*				
NE	*115.5*				
SW	*205.4*				
SE	*214.0*				
Existing Town	*Total*	*592,000*	-	*444,000*	-

5.4 Summary of Rates

Off-site levy rates can be broken down using uniform or benefiting area rates. There are grants applied to the costs through the AMWWP and other provincial grants. The AMWWP is assumed to contribute 40% of the capital cost for the water reservoir and the wastewater lagoon. The other provincial grants are assumed to contribute 25% of the capital costs for the water and wastewater conveyance system, as well as the entire roadway infrastructure.

5.4.1 Uniform Rates

Uniform rates may be advantageous in situations where growth is to commence in a gradual fashion, developing near the edge of the existing Town boundaries rather than sporadic growth, which could be driven by varying costs per area. It is noted that there is a total cost incurred to the existing Town without and with grant contributions of $2,221,000 and $1,626,150, respectively. The summary of the Uniform Rates are found in Table 5.5 below.

Table 5.5 Summary – Uniform Rates

Upgrade	Rates, $/ha	
	Without Grant Contribution	*With Grant Contribution*
Water	*7,815*	*5,058*
Sanitary	*57,757*	*37,195*
Transportation	*73,956*	*55,467*
Total	*139,529*	*97,720*

Based on input from the Town, uniform rates will be employed for off-site levy calculations.

5.5 Timing of Off-Site Levy Collection

In the previous Town of Didsbury Off-Site Levy Bylaw, it was noted that the levies shall be paid at the time of subdivision registration endorsement, sale of the land, or at issuance of development/ building permit unless other arrangements have been made within the signed development agreement. If the off-site levies are not paid within 30 days of the time of land sale of the second last lot, they may be added to the tax roll of the last lot owned by the Developer.

5.5.1 Surrounding Municipalities for Comparison

During the review of the surrounding municipalities, the timing of the off-site levy collection was noted and is summarized in the Table 5.7 below.

Table 5.6 Summary of Surrounding Municipalities for Bylaw Comparison

Town	Off-Site Levy Collection Timing
Carstairs	*Insufficient Information*
High River	*Insufficient Information*
Innisfail	*Paid prior to issuance of Development Agreement*
Olds	*Payment at Time of Development Agreement or Lot Sale within 3 years (refer to Bylaw)*
Sundre	*Paid in full prior to endorsing the registering of a subdivision plan.*
Sylvan Lake	*Paid upon the issuance of Building/Development Permit or before subdivision lien is registered pursuant to Land Titles Act, whichever date is earliest.*

The Town and surrounding municipalities have enforced these protocols to ensure a regulated time for payment of the off-site levies. These policies compare to the existing Town's protocol as follows:

- In most cases these municipalities require payment prior to the commencement of construction in developable land which coincides with the previous Town's policy.
- The surrounding municipalities have not included circumstances where payment has not been received, whereas the Town has discussed these circumstances in their previous bylaw.

It is at the Town's discretion to determine which methodology to utilize in the Off-Site Levy Bylaw.

6.0 Conclusion and Recommendations

6.1 Conclusions

The Town of Didsbury off-site levies will be charged to any development that will benefit from upgraded infrastructure to service their developments, including:

- water supply and distribution,
- sanitary sewage collection and treatment, and
- future roadway infrastructure.

Infrastructure excluded from the levies includes:

- stormwater infrastructure.

Off-site levy rates can be broken down using uniform or benefiting area rates. Potential grant funding of infrastructure is currently included within this report. It is assumed that the Water and Wastewater Partnership Grants, Alberta Municipal Water/Wastewater Partnership (AMWWP) will contribute 40% of the water reservoir and lagoon capital costs. Other provincial grants will contribute 25% of the capital costs for the water and wastewater conveyance, as well as the future entire roadway infrastructure. It will be at the discretion of the Town to determine how to include these potential municipal infrastructure grants.

Previous payment and timing of the Off-Site Levies were to be paid at the time of subdivision registration endorsement, sale of the land, or at issuance of development/ building permit unless other arrangements have been made within the signed development agreement. If the off-site levies are not paid within 30 days of the time of land sale of the second last lot, they may be added to the tax roll of the last lot owned by the Developer. Comparing this payment and timing policy to the surrounding municipalities, the Town follows the municipalities and has determined consequences for potential lack of payment within the appropriate timeframe.

6.2 Recommendations

Recommendations related to the Town's off-site levy update are as follows:

1. On the basis of the calculations and assumptions documented above, the Town should consider implementing off-site levies at a rate of $97,720/ha in the development of an updated off-site levy bylaw for the Town.
2. The Town should consider the suitability of the recommended rates for its purposes.
3. The Town should consider if the inclusion of grants at the above noted percentages is acceptable.
4. The Town should determine which timing methodology to utilize in the Off-Site Levy Bylaw.
5. The Town should consider an oversizing and/or endeavour to assist policy and/or future development agreements, where a developer has front-ended major infrastructure with other benefiting areas.
6. The Town should review the Off-Site Levy once a year in order to update the assumptions, costing, and schedules.

7.0 References

ISL Engineering and Land Services Ltd. 2006. Town of Didsbury Off-Site Levy Update.

ISL Engineering and Land Services Ltd. 2009. Town of Didsbury Infrastructure Study – 2008 Update.

Corvus Business Advisors. 2008. Town of Calmar Off-Site Levy Rates Study.

Government of Alberta. 2009. Municipal Government Act.

Appendix A

Detailed Tables

Table A1 Water Infrastructure

Quadrant	Benefitting Area	Area, ha		New Supply Line[1]	New 400mm Trunk Watermain along HWY 582[1]	400mm Watermain on CMI Property[2]	150mm Watermain along 24th Ave	New Reservoir[1]	Ex. Pumphouse Upgrades	*Total*
		Gross	Net	$ 300,000	$ 1,450,000	$ 250,000	$ 260,000	$ 4,400,000	$ 1,000,000	*$ 7,660,000*
NW	Total	**338.3**	**236.8**	**$ 86,539**	**$ 418,272**	**$ 250,000**	**$ -**	**$ 1,269,239**	$ -	*$ 2,024,050*
	A	64.7	45.3	$ 16,551	$ 79,995	$ -	$ -	$ 242,742	$ -	*$ 339,288*
	B	64.7	45.3	$ 16,551	$ 79,995	$ -	$ -	$ 242,742	$ -	*$ 339,288*
	C	64.8	45.4	$ 16,576	$ 80,118	$ -	$ -	$ 243,118	$ -	*$ 339,812*
	D	61.1	42.8	$ 15,630	$ 75,544	$ -	$ -	$ 229,236	$ -	*$ 320,409*
	E	59.6	41.7	$ 15,246	$ 73,689	$ -	$ -	$ 223,608	$ -	*$ 312,543*
	F	23.4	16.4	$ 5,986	$ 28,932	$ 250,000	$ -	$ 87,792	$ -	*$ 372,710*
NE	Total	**165.0**	**115.5**	**$ 42,208**	**$ 204,005**	**$ -**	**$ -**	**$ 619,049**	**$ -**	***$ 865,262***
	G	64.7	45.3	$ 16,551	$ 79,995	$ -	$ -	$ 242,742	$ -	*$ 339,288*
	H	73.4	51.4	$ 18,776	$ 90,751	$ -	$ -	$ 275,383	$ -	*$ 384,911*
	I	26.9	18.8	$ 6,881	$ 33,259	$ -	$ -	$ 100,924	$ -	*$ 141,064*
SW	Total	**293.4**	**205.4**	**$ 75,053**	**$ 362,758**	**$ -**	**$ -**	**$ 1,100,782**	**$ -**	***$ 1,538,593***
	J	64.7	45.3	$ 16,551	$ 79,995	$ -	$ -	$ 242,742	$ -	*$ 339,288*
	K	64.7	45.3	$ 16,551	$ 79,995	$ -	$ -	$ 242,742	$ -	*$ 339,288*
	L	39.3	27.5	$ 10,053	$ 48,590	$ -	$ -	$ 147,446	$ -	*$ 206,090*
	M	*41.8*	*29.3*	$ 10,693	$ 51,681	$ -	$ -	$ 156,826	$ -	*$ 219,200*
	N	15.7	11.0	$ 4,016	$ 19,411	$ -	$ -	$ 58,903	$ -	*$ 82,331*
	O	67.2	47.0	$ 17,190	$ 83,086	$ -	$ -	$ 252,122	$ -	*$ 352,398*
SE	Total	**305.7**	**214.0**	**$ 78,200**	**$ 377,965**	**$ -**	**$ -**	**$ 1,146,930**	**$ -**	***$ 1,603,095***
	P	48.0	33.6	$ 12,279	$ 59,347	$ -	$ -	$ 180,087	$ -	*$ 251,713*
	Q	64.7	45.3	$ 16,551	$ 79,995	$ -	$ -	$ 242,742	$ -	*$ 339,288*
	R	65.2	45.6	$ 16,679	$ 80,613	$ -	$ -	$ 244,618	$ -	*$ 341,910*
	S	127.8	89.5	$ 32,692	$ 158,011	$ -	$ -	$ 479,482	$ -	*$ 670,185*
Future Development	Total	**1102.4**	**771.7**	$ 282,000	$ 1,363,000	$ 250,000	$ -	$ 4,136,000	$ -	***$ 6,031,000***
	per Net Area	-	-	$ 365	$ 1,766	$ -	$ -	$ 5,360	$ -	*$ 7,815*
Existing Town		-	-	$ 18,000	$ 87,000	$ -	$ 260,000	$ 264,000	$ 1,000,000	***$ 1,629,000***

1. Cost Sharing: Town = 6%, Future Development 94%. (Based on Infrastructure Study - 2008 Update - Final Report, ISL)

2. Potential for Oversize Recovery (Based on Infrastructure Study - 2008 Update - Final Report, ISL)

Table A2 Wastewater Infrastructure

Collection System[1] – North Trunk

Quadrant	Benefiting Area	Area, ha Gross	Area, ha Net	$ 540,000	$ 720,000	$ 720,000	$ 430,000	$ 690,000	$ 790,000	$ 1,650,000	$ [illegible]	$ 780,000
NW	Total	338.3	236.8	$ 540,000	$ 720,000	$ 720,000	$ 430,000	$ 572,395	$ 549,163	$ 1,109,070	$ 336,082	$ 524,288
	A	64.7	45.3	$ -	$ 251,262	$ 147,933	$ 88,349	$ 117,605	$ 112,832	$ 212,110	$ 64,276	$ 100,270
	B	64.7	45.3	$ -	$ -	$ 147,933	$ 88,349	$ 117,605	$ 112,832	$ 212,110	$ 64,276	$ 100,270
	C	64.8	45.4	$ -	$ -	$ 148,161	$ 88,485	$ 117,787	$ 113,007	$ 212,438	$ 64,375	$ 100,425
	D	61.1	42.8	$ 273,355	$ 237,282	$ 139,701	$ 83,433	$ 111,062	$ 106,554	$ 200,308	$ 60,699	$ 94,691
	E	59.6	41.7	$ 266,645	$ 231,456	$ 136,272	$ 81,385	$ 108,335	$ 103,938	$ 195,390	$ 59,209	$ 92,366
	F	23.4	15.4	$ -	$ -	$ -	$ -	$ -	$ -	$ 76,714	$ 25,247	$ 36,265
NE	Total	165.0	115.5	$ -	$ -	$ -	$ -	$ 117,605	$ 240,837	$ 540,930	$ 168,918	$ 255,712
	G	64.7	45.3	$ -	$ -	$ -	$ -	$ 117,605	$ 112,842	$ 212,110	$ 64,276	$ 100,270
	H	73.4	51.4	$ -	$ -	$ -	$ -	$ -	$ 128,004	$ 240,642	$ 72,919	$ 113,753
	I	26.9	18.8	$ -	$ -	$ -	$ -	$ -	$ -	$ 88,188	$ 26,724	$ 41,689
SW	Total	293.4	205.4	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	J	64.7	45.3	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	K	64.7	45.3	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	L	39.3	27.5	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	M	41.8	29.3	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	N	15.7	11.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	O	67.2	47.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
SE	Total	305.7	214.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	P	48.0	33.6	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Q	64.7	45.3	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	R	65.2	45.6	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	S	127.8	89.5	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Future Development	Total	1102.4	771.7	$ 540,000	$ 720,000	$ 720,000	$ 430,000	$ 690,000	$ 790,000	$ 1,650,000	$ 500,000	$ 780,000
	Per Ben. Net Area	-	-	$ 6,391	$ 5,[illegible]	$ 4,266	$ 1,951	$ 2,597	$ 2,491	$ 4,683	$ 1,419	$ 2,214

Collection System[1] – Southwest Trunk

Quadrant	Benefiting Area	$ 300,000	$ 360,000	$ 540,000	$ 540,000	$ 540,000	$ 340,000	$ 170,000	$ 130,000	$ 210,000	$ 330,000	$ 500,000	$ 300,000	$ 460,000
NW	Total	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	A	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	B	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	C	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	D	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	E	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	F	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
NE	Total	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	G	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	H	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	I	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
SW	Total	$ 300,000	$ 360,000	$ 540,000	$ 540,000	$ 540,000	$ 340,000	$ 170,000	$ 130,000	$ 210,000	$ 227,599	$ 344,846	$ 175,739	$ 269,467
	J	$ 300,000	$ 360,000	$ 270,000	$ 207,101	$ 207,101	$ 130,397	$ 43,716	$ 33,430	$ 54,002	$ 58,528	$ 88,679	$ 45,192	$ 69,295
	K	$ -	$ -	$ 270,000	$ 207,101	$ 207,101	$ 130,397	$ 43,716	$ 33,430	$ 54,002	$ 58,528	$ 88,679	$ 45,192	$ 69,295
	L	$ -	$ -	$ -	$ 125,797	$ 125,797	$ 79,206	$ 25,554	$ 20,306	$ 32,802	$ 35,551	$ 53,865	$ 27,451	$ 42,091
	M	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	N	$ -	$ -	$ -	$ -	$ -	$ -	$ 10,608	$ 8,112	$ 13,104	$ 14,202	$ 21,519	$ 10,966	$ 16,815
	O	$ -	$ -	$ -	$ -	$ -	$ -	$ 45,465	$ 34,722	$ 56,089	$ 60,789	$ 92,105	$ 46,938	$ 71,972
SE	Total	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 102,401	$ 155,154	$ 124,261	$ 190,533
	P	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 43,421	$ 65,789	$ 33,527	$ 51,409
	Q	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 45,192	$ 69,295
	R	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 58,980	$ 89,364	$ 45,541	$ 69,830
	S	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Future Development	Total	$ 300,000	$ 360,000	$ 540,000	$ 540,000	$ 540,000	$ 340,000	$ 170,000	$ 130,000	$ 210,000	$ 330,000	$ 500,000	$ 300,000	$ 460,000
	Per Ben. Net Area	$ 6,624	$ 7,949	$ 5,962	$ 4,573	$ 4,573	$ 2,879	$ 965	$ 738	$ 1,192	$ 1,292	$ 1,958	$ 998	$ 1,530

Collection System[1] – Southeast Trunk; Lagoon[1]; Total Collection System; Total

Quadrant	Benefiting Area	SE Trunk $ 330,000	SE Trunk $ 180,000	SE Trunk $ 340,000	SE Trunk $ 250,000	SE Trunk $ 250,000	SE Trunk $ 180,000	Lagoon[1] $ 31,500,000	Total Collection System – North Trunk $ 6,820,000	Total Collection System – Southwest Trunk $ 4,720,000	Total Collection System – Southeast Trunk $ 1,530,000	Total $ 44,570,000
NW	Total	$ -	$ -	$ -	$ -	$ -	$ -	$ 9,666,591	$ 5,500,998	$ -	$ -	$ 15,167,589
	A	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,848,739	$ 1,054,637	$ -	$ -	$ 2,903,376
	B	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,848,739	$ 843,375	$ -	$ -	$ 2,692,114
	C	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,851,597	$ 844,679	$ -	$ -	$ 2,696,275
	D	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,745,873	$ 1,307,085	$ -	$ -	$ 3,052,958
	E	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,703,012	$ 1,274,997	$ -	$ -	$ 2,978,008
	F	$ -	$ -	$ -	$ -	$ -	$ -	$ 668,632	$ 136,225	$ -	$ -	$ 804,857
NE	Total	$ -	$ -	$ -	$ -	$ -	$ -	$ 4,714,713	$ 1,319,002	$ -	$ -	$ 6,033,716
	G	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,848,739	$ 607,094	$ -	$ -	$ 2,455,833
	H	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,097,333	$ 555,308	$ -	$ -	$ 2,652,641
	I	$ -	$ -	$ -	$ -	$ -	$ -	$ [illegible]	$ 156,600	$ -	$ -	$ 925,242
SW	Total	$ -	$ -	$ -	$ -	$ -	$ -	$ 8,383,518	$ -	$ 4,147,651	$ -	$ 12,531,269
	J	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,848,739	$ -	$ 1,867,442	$ -	$ 3,716,181
	K	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,848,739	$ -	$ 1,207,442	$ -	$ 3,056,181
	L	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,122,959	$ -	$ 569,420	$ -	$ 1,692,379
	M	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,194,394	$ -	$ -	$ -	$ 1,194,394
	N	$ -	$ -	$ -	$ -	$ -	$ -	$ 448,612	$ -	$ 95,326	$ -	$ 543,939
	O	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,920,174	$ -	$ 408,021	$ -	$ 2,328,195
SE	Total	$ 330,000	$ 180,000	$ 340,000	$ 250,000	$ 250,000	$ 180,000	$ 8,735,078	$ -	$ 572,349	$ 1,530,000	$ 10,837,427
	P	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,371,553	$ -	$ 194,146	$ -	$ 1,565,699
	Q	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,848,739	$ -	$ 114,487	$ -	$ 1,963,226
	R	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,863,026	$ -	$ 263,716	$ -	$ 2,126,742
	S	$ 330,000	$ 180,000	$ 340,000	$ 250,000	$ 250,000	$ 180,000	$ 3,651,760	$ -	$ -	$ 1,530,000	$ 5,181,760
Future Development	Total	$ 330,000	$ 180,000	$ 340,000	$ 250,000	$ 250,000	$ 180,000	$ 31,500,000	$ 6,820,000	$ 4,720,000	$ 1,530,000	$ 44,570,000
	Per Ben. Net Area	$ 3,689	$ 2,012	$ 3,801	$ 2,795	$ 2,795	$ 2,012	$ 40,820	$ 19,358	$ 15,679	$ 17,103	$ 57,757

1 Infrastructure Study - 2004 Update - Final Report, ISL 2009

Table A3 Transportation

Quadrant	Benefitting Area	Area, ha		Roadways Projects, km																Crossings								Total		
				1*	2	3	4**	5*	6	7	8	9**	10	11*	12	13	14**	15*	16	17*	1	2	3	4	5	6	7	8			
		Gross	Net	0.82	0.82	0.82	0.79	0.83	0.82	0.89	0.57	0.54	0.82	0.82	0.82	0.82	0.81	0.82	0.84	0.81	Creek	Rail	Creek	Creek	Rail	Creek	Creek	Major	Roadways	Crossings	Total
NW	Total	338.3	236.8	$ -	$ -	$ -	$ 2,923,000	$ 3,071,000	$ 3,022,900	$ 3,281,900	$ 2,101,600	$ 3,624,700	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 100,000	$ 500,000	$ 500,000	$ 200,000	$ -	$ -	$ -	$ 18,025,100	$ 1,400,000	$ 19,425,100
	A	64.7	45.3	$ -	$ -	$ -	$ -	$ 1,579,441	$ 3,022,900	$ 1,640,950	$ 1,050,800	$ 1,104,134	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 102,852	$ -	$ 250,000	$ -	$ -	$ -	$ -	$ 8,398,225	$ 352,862	$ 8,751,087
	B	64.7	45.3	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,640,950	$ 1,050,800	$ 1,104,134	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 249,807	$ 250,000	$ 99,923	$ -	$ -	$ -	$ 3,795,884	$ 599,730	$ 4,395,614
	C	64.8	45.4	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 250,193	$ -	$ 100,077	$ -	$ -	$ -	$ -	$ 350,270	$ 350,270
	D	61.1	42.8	$ -	$ -	$ -	$ -	$ 2,923,000	$ 1,491,559	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 97,138	$ -	$ -	$ -	$ -	$ -	$ 4,414,559	$ 97,138	$ 4,511,897
	E	59.6	41.7	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,017,100	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,017,100	$ -	$ 1,017,100
	F	23.4	16.4	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 399,331	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 399,331	$ -	$ 399,331
NE	Total	165.0	115.5	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,122,800	$ 2,416,100	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,538,900	$ -	$ 5,538,900
	G	64.7	45.3	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,463,035	$ 2,416,100	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,879,135	$ -	$ 3,879,135
	H	73.4	51.4	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,659,765	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,659,765	$ -	$ 1,659,765
	I	26.9	18.8	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
SW	Total	293.4	205.4	$ 3,015,500	$ 3,026,600	$ 3,022,900	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,015,500	$ -	$ -	$ -	$ -	$ -	$ -	$ 500,000	$ -	$ -	$ -	$ -	$ 500,000	$ -	$ -	$ 12,080,500	$ 1,000,000	$ 13,080,500
	J	64.7	45.3	$ 3,015,500	$ 1,160,765	$ 1,159,346	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 500,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,335,611	$ 500,000	$ 5,835,611
	K	64.7	45.3	$ -	$ 1,160,765	$ 1,159,346	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,320,111	$ -	$ 2,320,111
	L	39.3	27.5	$ -	$ 705,070	$ 704,208	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,409,279	$ -	$ 1,409,279
	M	41.8	29.3	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	N	15.7	11.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,015,500	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,015,500	$ -	$ 3,015,500
	O	67.2	47.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 500,000	$ -	$ -	$ -	$ 500,000	$ 500,000
SE	Total	305.7	214.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,034,000	$ 3,015,500	$ 3,015,500	$ 5,427,000	$ 3,034,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 500,000	$ 1,000,000	$ 17,526,000	$ 1,500,000	$ 19,026,000
	P	48.0	33.6	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 852,130	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 852,130	$ -	$ 852,130
	Q	64.7	45.3	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,148,500	$ 3,034,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 251,067	$ 4,182,600	$ 251,067	$ 4,433,667
	R	65.2	45.6	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,018,708	$ 1,157,476	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 253,007	$ 2,176,184	$ 253,007	$ 2,429,191
	S	127.8	89.5	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,034,000	$ 3,015,500	$ 1,996,792	$ 2,268,795	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 500,000	$ 495,925	$ 10,315,087	$ 995,925	$ 11,311,013
Future Development	Total	1102.4	771.7	$ 3,015,500	$ 3,026,600	$ 3,022,900	$ 2,923,000	$ 3,071,000	$ 3,022,900	$ 3,281,900	$ 2,101,600	$ 3,624,700	$ 3,015,500	$ 3,034,000	$ 3,015,500	$ 3,015,500	$ 5,427,000	$ 3,034,000	$ 3,122,800	$ 3,008,100	$ 500,000	$ 200,000	$ 500,000	$ 500,000	$ 200,000	$ 500,000	$ 500,000	$ 1,000,000	$ 53,170,500	$ 3,900,000	$ 57,070,500
	Per Ben. Nal Area	-	-	$ 66,582	$ 25,630	$ 25,598	$ 68,342	$ 34,874	$ 66,745	$ 30,232	$ 23,202	$ 24,379	$ 274,386	$ 33,915	$ 33,708	$ 22,321	$ 25,361	$ 66,991	$ 32,304	$ 53,347	$ 11,040	$ 2,271	$ 5,516	$ 5,520	$ 2,200	$ 10,029	$ 5,589	$ 5,544	$ 80,500	$ 8,639	$ 73,956
Existing Town		-	-	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 592,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 592,000	$ -	$ 592,000
																				$ 3,008,100	$ 500,000	$ 200,000	$ 500,000	$ 500,000	$ 200,000	$ 500,000	$ 500,000	$ 1,000,000	$ 53,170,500	$ 3,900,000	$ 57,070,500

* County owned Road

** 4 Lane Undivided

Notes:

All prices do not include land acquisition

2 Lane Undivided at $3.7M/km, unless otherwise stated. 4 Lane Undivided at $6.7M/km

Table A4 SUMMARY - REDUCED

Quadrant	Benefitting Area	Area, ha		Offsite Levies							
				Total without Grants				Total with Grants			
		Gross	Net	Water	Wastewater	Transportation	Total	Water[1]	Wastewater[2]	Transportation[3]	Total
NW	**Total**	**338.3**	**236.8**	**$ 2,024,050**	**$ 15,167,589**	**$ 19,425,100**	**$ 36,616,738**	**$ 1,327,651**	**$ 9,925,703**	**$ 14,568,825**	**$ 25,822,179**
	A	64.7	45.3	$ 339,288	$ 2,943,376	$ 8,751,087	$ 12,033,751	$ 218,054	$ 1,930,221	$ 6,563,315	$ 8,711,591
	B	64.7	45.3	$ 339,288	$ 2,692,114	$ 4,395,614	$ 7,427,016	$ 218,054	$ 1,741,775	$ 3,296,710	$ 5,256,540
	C	64.8	45.4	$ 339,812	$ 2,696,275	$ 350,270	$ 3,386,357	$ 218,391	$ 1,744,467	$ 262,703	$ 2,225,561
	D	61.1	42.8	$ 320,409	$ 3,052,958	$ 4,511,697	$ 7,885,064	$ 205,922	$ 2,027,838	$ 3,383,773	$ 5,617,532
	E	59.6	41.7	$ 312,543	$ 2,978,008	$ 1,017,100	$ 4,307,652	$ 200,866	$ 1,978,054	$ 762,825	$ 2,941,746
	F	23.4	16.4	$ 372,710	$ 804,857	$ 399,331	$ 1,576,898	$ 266,364	$ 503,348	$ 299,499	$ 1,069,210
NE	**Total**	**165.0**	**115.5**	**$ 865,262**	**$ 6,033,716**	**$ 5,538,900**	**$ 12,437,878**	**$ 556,089**	**$ 3,818,080**	**$ 4,154,175**	**$ 8,528,344**
	G	64.7	45.3	$ 339,288	$ 2,455,833	$ 3,879,135	$ 6,674,256	$ 218,054	$ 1,564,564	$ 2,909,351	$ 4,691,969
	H	73.4	51.4	$ 384,911	$ 2,652,641	$ 1,659,765	$ 4,697,317	$ 247,375	$ 1,674,881	$ 1,244,824	$ 3,167,080
	I	26.9	18.8	$ 141,064	$ 925,242	$ -	$ 1,066,306	$ 90,659	$ 578,635	$ -	$ 669,294
SW	**Total**	**293.4**	**205.4**	**$ 1,538,593**	**$ 12,531,269**	**$ 13,080,500**	**$ 27,150,362**	**$ 988,828**	**$ 8,140,909**	**$ 9,810,375**	**$ 18,940,112**
	J	64.7	45.3	$ 339,288	$ 3,716,181	$ 5,835,611	$ 9,891,079	$ 218,054	$ 2,509,825	$ 4,376,708	$ 7,104,587
	K	64.7	45.3	$ 339,288	$ 3,056,181	$ 2,320,111	$ 5,715,579	$ 218,054	$ 2,014,825	$ 1,740,083	$ 3,972,962
	L	39.3	27.5	$ 206,090	$ 1,692,379	$ 1,409,279	$ 3,307,747	$ 132,450	$ 1,100,840	$ 1,056,959	$ 2,290,250
	M	*41.8*	*29.3*	$ 219,200	$ 1,194,394	$ -	$ 1,413,594	$ 140,876	$ 716,636	$ -	$ 857,512
	N	15.7	11.0	$ 82,331	$ 543,939	$ 3,015,500	$ 3,641,770	$ 52,913	$ 340,662	$ 2,261,625	$ 2,655,200
	O	67.2	47.0	$ 352,398	$ 2,328,195	$ 500,000	$ 3,180,593	$ 226,480	$ 1,458,120	$ 375,000	$ 2,059,600
SE	**Total**	**305.7**	**214.0**	**$ 1,603,095**	**$ 10,837,427**	**$ 19,026,000**	**$ 31,466,522**	**$ 1,030,282**	**$ 6,817,808**	**$ 14,269,500**	**$ 22,117,590**
	P	48.0	33.6	$ 251,713	$ 1,565,699	$ 852,130	$ 2,669,542	$ 161,771	$ 968,542	$ 639,097	$ 1,769,410
	Q	64.7	45.3	$ 339,288	$ 1,963,226	$ 4,433,667	$ 6,736,180	$ 218,054	$ 1,195,108	$ 3,325,250	$ 4,738,413
	R	65.2	45.6	$ 341,910	$ 2,126,742	$ 2,429,191	$ 4,897,843	$ 219,739	$ 1,315,602	$ 1,821,893	$ 3,357,235
	S	127.8	89.5	$ 670,185	$ 5,181,760	$ 11,311,013	$ 17,162,957	$ 430,716	$ 3,338,556	$ 8,483,259	$ 12,252,532
Future Development	**Total**	**1102.4**	**771.7**	$ 6,031,000	$ 44,570,000	$ 57,070,500	$ 107,671,500	$ 3,902,850	$ 28,702,500	$ 42,802,875	$ 75,408,225
	Per Ben. Net Area	-	-	$ 7,815	$ 57,757	$ 73,956	$ 139,529	$ 5,058	$ 37,195	$ 55,467	$ 97,720
Existing Town	**Total**	-	-	$ 1,629,000	$ -	$ 592,000	$ 2,221,000	$ 1,182,150	$ -	$ 444,000	$ 1,626,150

1. Water - Grant covers 40% of Reservoir and 25% of conveyance.

2. Wastewater - Grant covers 40% of Lagoon and 25% of conveyance.

3. Transportation - Grant covers 25% of all infrastructure.