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City of Courtenay

Review and Update of Development Cost Charges

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EXECUTIVE SUMMARY

This report presents proposed Development Cost Charges (DCCs) that reflect growth projections and DCC capital programs for the City of Courtenay. The report consists of the following parts.

- **Part 1** of the report outlines the purpose of the DCC review and includes information on the legislation enabling DCCs, DCCs levied by other jurisdictions, and the use of the DCC Best Practices Guide.
- In **Part 2**, the public consultation process is reviewed.
- **Part 3** outlines the guiding principles used to develop the DCC program and identify DCC recoverable costs. This part discusses the time frame for the DCC program, the explanation for applying DCCs on a community-wide or area-wide basis, the allocation of costs between existing and new development, the municipal assist factor, grant assistance and interim financing.
- In **Part 4**, growth projections for the City of Courtenay are presented. Based on a review of available land for development, the OCP, and discussions with staff, the growth for the different land uses is forecast.
- **Parts 5 to 9** summarize the costs of each DCC program (i.e. road, water, sanitary, storm and parks). The total capital costs for each service and the total DCC program costs are as follows:

Table 1
City of Courtenay
Total DCC Program Recoverable Costs

Service	Municipal Costs	DCC Recoverable Program Costs	Total Capital Costs
Road	\$30,116,803	\$12,432,529	\$42,549,331
Water	\$2,727,977	\$1,935,441	\$4,663,418
Sanitary Sewer	\$5,041,549	\$5,210,741	\$10,252,290
Storm Drainage	\$5,940,813	\$4,956,767	\$10,897,580
Park and Open Space	\$5,544,430	\$3,029,673	\$8,574,103

Parts 5 to 9 also show how the DCC rates are calculated using the information from Parts 3 and 4. The proposed DCC rates are shown in Table 2.

- **Part 10** includes information on implementation issues such as exemptions to the Bylaw, grace periods, DCC rebates and credits, as well as suggestions for monitoring and accounting related to the DCC Bylaw.



Table 2
City of Courtenay
Proposed DCC Rate Summary

	Transportation	Water	Sanitary Sewer	Storm drainage	Parks	Total Development Cost Charge	
Residential (Single Family)	\$2,770	\$456.08	\$1,427.30	\$1,445.01	\$972.55	\$7,071.17	Per unit
Residential (Multi-family)	\$15.57	\$3.22	\$10.08	\$4.34	\$6.87	\$40.07	Per sq metre floor area
Commercial/ Institutional (Other)	\$36.48	\$1.19	\$3.71	\$6.50	n/a	\$47.88	Per sq metre floor area
Congregate Care	\$7.78	\$1.61	\$5.04	\$2.17	n/a	\$16.60	Per sq metre floor area
Industrial	\$29,760.23	\$7,625.05	\$23,862.45	\$24,566.41	n/a	\$85,814.14	Per hectare

PART 1. BACKGROUND

Points Covered

- Purpose of this Review
- Legislative and Regulatory Background
- Bill 27
- DCCs Levied by Other Authorities
- DCC Best Practices Guide

1.1 Background and Purpose of this Review

The last review of the complete City of Courtenay Development Cost Charge (DCC) programs and rates was completed in June, 2005. The current DCC Bylaw No. 2426, 2005 was amended in 2000 (Congregate Care Development) and in 2011 and 2014 for secondary suites and carriage houses. Since the last update, a number of studies and projects have been completed and new geographic areas have been annexed into the City, including the area of South Courtenay. These changes, along with completed projects and updated capital costs to reflect current construction expenditures, have been incorporated into this update.

The current and proposed DCC Bylaw levies DCCs for roads, storm drainage, sanitary sewer, water, and parks. The current and proposed DCCs apply to single family residential, multi-family residential, commercial/institutional, and industrial. The DCCs are levied on a community-wide basis. Currently, most engineering infrastructure required to support growth is provided on a project by project basis as development is approved by the City of Courtenay. The engineering infrastructure developers are required to build is specific to meet their unique needs and satisfy municipal regulations.

The proposed program ensures that the people who will use and benefit from the services provided pay their share of the costs in a fair and equitable manner. A review of the potential for residential and non-residential development throughout Courtenay was completed as part of this DCC review. The proposed DCC program creates certainty by providing stable charges to the development industry and by allowing the orderly and timely construction of infrastructure.

It should be noted that the material provided in the background report is meant for information only. Reference should be made to the current Bylaw No. 2426, 2005 (and amendments) for the specific DCC rate for all development within the City until the City Council has adopted a new DCC Bylaw.

1.2 Legislative and Regulatory Background

Development cost charges are special charges collected by local governments to help pay for infrastructure expenditures required to service growth. The *Local Government Act (LGA)* provides the authority for municipalities to levy DCCs. The purpose of a DCC is to assist the municipality with accommodating development by providing a dedicated source of funding for the capital costs of:

- providing, constructing, altering or expanding sewage, water, storm drainage and transportation facilities (other than off-street parking); and
- providing and improving parkland.

Municipalities wanting to collect DCCs must adopt a DCC Bylaw that specifies the amount of the DCCs that will be collected. The charges may vary with respect to:

- different zones or different defined or specific areas;

- different uses;
- different capital costs as they relate to different classes of development; and,
- different sizes or different numbers of lots or units in a development.

Funds collected through DCCs must be deposited in a separate reserve account. These funds may only be used to pay for the capital costs of the works and short-term financing costs of a debt incurred for capital works identified in the DCC program. The costs for capital works include not only the actual construction of the works but also the planning, engineering and legal costs which are directly related to the works, as well as improving parkland if a parkland acquisition and development DCC is established.

1.3 Bill 27

On May 29, 2008 the Provincial Government enacted new legislation pertaining to DCCs. The legislative changes include the option for municipalities to exempt or waive DCCs for the following classes of “eligible development”:

- not-for-profit rental housing, including supportive living housing (similar provisions were in the previous legislation, but did not require a Bylaw to waive or reduce DCCs for not-for-profit rental housing);
- for-profit affordable rental housing;
- subdivisions of small lots designed to result in low greenhouse gas emissions; and
- developments designed to result in a low environmental impact.

If the City of Courtenay wishes to provide DCC waivers or reductions, it must adopt a DCC Waiver Bylaw that establishes definitions for each class of “eligible development”, corresponding rates of reduction, and requirements that must be met in order to obtain a waiver or reduction. Council, however, is not *obligated* to adopt any of these new provisions. To make up for any foregone DCC revenue, the City would have to secure alternate revenue sources.

Low impact or green development practices are not expected to have an impact on the City’s DCC program at this time (i.e., these practices are not expected to reduce the need for identified DCC projects); therefore, providing DCC waivers or reductions for this type of development would not likely reflect a decreased impact on infrastructure. Providing DCC waivers or reductions may not be effective incentives for development. In general, DCC costs are typically a fairly small portion of development costs, which have historically been driven by land costs.

There are other ways to encourage green development or affordable housing such as:

- subdivision and development servicing standards to formalize green infrastructure requirements;
- zoning regulations to encourage densification and affordable housing;
- grants to assist in development of affordable housing;
- utility rates to encourage water use reduction and stormwater best practices; and,
- housing agreements to ensure rental units are permitted within certain types of development.

The new legislation includes a mandatory requirement for Council to consider whether the new DCCs are excessive in relation to the capital cost of the servicing standards, will deter development, discourage the construction of reasonably priced housing on serviced land, or will discourage development designed to result in a low environmental impact.

Staff has reviewed the DCC capital program and the various classes of land use to determine whether development designed to result in low environmental impact is expected to be adversely affected by the DCC program. This issue will be discussed with Council and when additional information is available Council may revise the DCC Bylaw, if required at that time.

1.4 Use of DCC Best Practices Guide

The Ministry of Community, Sport and Cultural Development (the “Ministry”) has prepared a Development Cost Charge Best Practices Guide (the “Best Practices Guide”). The purpose of this document is to outline an accepted process to develop a DCC program. Municipalities that follow this recommended process qualify for streamlined Ministry review of their DCC program.

This report was developed in consideration of the Best Practices Guide, which was followed where it was appropriate to do so.

PART 2. PUBLIC PARTICIPATION

Points Covered

- Consultation Process

2.1 Public Participation Process

Although the *LGA* does not require a public participation process, the Best Practices Guide does suggest that an opportunity for public participation be included as part of the development of the DCC program. The purpose of such a process is to allow those who are interested in or affected by the proposed DCCs to offer comments and input. The Best Practices Guide does not set a recommended format to be followed for public participation; instead, the type of public participation to be used is decided by the municipality itself.

The City of Courtenay's consultation process consisted of information on the City's website and a public open house. The public open house was held on June 9, 2015 to discuss the proposed Courtenay DCC rates and background information. The public open house was advertised in the local newspaper for one week. In addition, a meeting notification was sent to individuals, companies or organizations that are active in the development industry in Courtenay.

The public information meeting was attended by approximately 40 people who reviewed information poster boards and talked to City staff and the consultants. Attendees included developers, professionals that work in the development industry, affordable housing providers and members of the general public. General comments from the attendees were:

- Proposed rate increase was too high;
- Assumption about growth rate was too low;
- Support for waivers for affordable housing; and,
- Questions about DCC projects and how the DCC system worked (i.e. which developers benefit).

Following the open house and until July 3, 2015, the City received 11 written correspondences from developers, business owners and not for profit organizations. A summary of this input is as follows:

- DCC rate increases will hurt the Valley's economy and slow construction (x5)
- Concern about the cumulative impact with potential increases to Comox Valley Regional District DCC rates (x3)
- Assumption of population growth used in the analysis is too low (x3)
- Do not support a large increase in DCCs (x3)
- Concern about competition for development with neighbouring municipalities (x2)
- Concern the update process is too quick (x2)
- Support the bylaw update to include South Courtenay projects
- Support phasing new rates in over several years
- Support for proposed DCC rates and waivers
- Support for DCC waivers for:
 - Affordable housing (x2);
 - Residential care; and,
 - High density residential and residential mixed use development in downtown.

In response to the feedback received from members of the development community and other interested parties, the City has revised the proposed DCC rates based on a higher expected growth over the next 20 years.

PART 3. DEVELOPING THE DCC PROGRAM AND COSTS -GUIDING PRINCIPLES

Points Covered

- Relationship to Other Municipal Documents
- DCC Time Frame
- Community-Wide and Area-Specific DCCs
- Recoverable Costs
- Grant Assistance
- Interim Financing
- Allocation of Costs
- Municipal Assist Factor
- Units of Charge

3.1 Relationship to Other Municipal and Government Documents

This DCC program has been developed to be consistent with the following legislation, plans, and policy guides:

- *Local Government Act*
- Development Cost Charges Best Practices Guide
- City of Courtenay Development Cost Charge Bylaw No. 2426, 2005
- City of Courtenay Development Cost Charges Background Report by Koers & Associates Engineering Ltd., June 2005
- City of Courtenay, Official Community Plan Bylaw No. 2387, 2005
- Zoning Bylaw, 2007
- South Courtenay Local Area Plan, 2009
- South Courtenay Sanitation and Potable Water System Expansion Draft Study by McElhanney, April 2011
- Buckstone Investments Short Term Servicing Study by McElhanney, November 2010
- 25 Year Vision for Multi-modal Transportation “Our Roads, Our Places” by Morrison Hershfield and O2 Planning and Design, April 2014
- Comox Valley Water System Updated Development Cost Charge Report by Koers and Associates Engineering Ltd, January 2006
- Comox Valley Sewerage System DCC Update Study, January 2012

3.2 DCC Time Frame

The first step in determining DCC costs is to set a time frame for the DCC program. The time frame for the City of Courtenay DCC program is to 2035. The capital expenditure forecasts include all of the DCC projects that need to be constructed to allow for anticipated development.

3.3 Community-Wide and Area-Specific DCC Charges

In a community-wide DCC, the same DCC rate is applied for each land use deemed to generate a similar or same capital cost burden regardless of the location of the development. An area-specific DCC typically divides the community into different areas according to geographic or other distinctive areas based on technical reasons. For example, it would be appropriate to establish an area-specific DCC for an area that is uniquely serviced by a series of specific water works, which can only service that particular area due to unique location of the area.

The questions we answered in concluding that a community-wide DCC is the best alternative for the City of Courtenay DCC include the following:

1. What does the Provincial DCC Best Practise Guide (BPG) recommend?
 - *The BPG recommends that all DCCs be established on a community-wide basis, unless a significant disparity exists between those who pay the DCC and benefiting users.*

2. How is the existing DCC Bylaw applied?
 - *The current DCC Bylaw is applied on a community-wide basis.*
3. Who benefits from the capital works in a direct or indirect manner?
 - *All development in the community.*
4. Is a community-wide DCC a fair manner to distribute the costs in relationship to the development of land throughout the City?
 - *Yes, since new development is projected to occur throughout the City and the capital cost burdens between neighbourhoods are similar.*
5. What are the cash flow implications of collecting area-specific DCCs vs. community-wide DCCs on a community the size of City of Courtenay with the specific City of Courtenay DCC capital program? How will the manner of DCC collection affect the City's ability to get the DCC program built?
 - *The community-wide DCCs give the most flexibility in terms of accumulating and spending DCC revenues. Area-specific DCCs can limit the amount of DCCs available to fund works throughout the City by having multiple DCC reserves with a small amount in different reserves, this can result in waiting a long time to collect a significant amount of DCCs to build any works in a timely manner.*
6. What are the typical complexities and costs of establishing the community -wide vs. area-specific DCC?
 - *Community-wide DCC would create bylaw simplicity, and therefore reduce the opportunity of errors when determining the amount payable;*
 - *Community-wide DCC reduce administrative effort;*
 - *Community-wide DCC facilitates cash flow; and,*
 - *Community-wide DCC provides funding flexibility.*
7. Does a community-wide DCC support growth throughout the City in a more cost effective manner?
 - *Having DCCs collected community-wide for engineering services gives the City the flexibility to construct DCC works anywhere in the City. This can be beneficial should development shift from one area in the City to another area over time. If all areas develop in a slow manner the DCCs available in a community-wide DCC program will allow the City to respond to changes in development patterns throughout the City.*
 - *Having a community-wide DCC can reduce the complexity of collecting the DCC and cost of administering the DCC reserves. A community-wide DCC Bylaw is often a simpler document to apply by front counter staff as well and can reduce the staff time required to assess, collect and expend the DCCs. We believe the reduced administration effort from having a community-wide DCC can be significant.*

The answers to the questions above helped us conclude that a community-wide DCC rate structure is the best alternative to implement the DCC capital program.

3.4 DCC Recoverable Costs

As specified by the *Local Government Act*, the DCC recoverable costs for the projects include construction costs, contingency, engineering, administration and net GST/HST. The capital costs included in this report do not include charges for interim financing or interest on long-term debt financing.

While interest on long-term debt has not been included in the capital costs presented in this report, it should be noted that the definition of “capital costs” (Section 932 of the *Act*) has been recently amended to include interest in exceptional circumstances where borrowing is required. The Inspector of Municipalities will only allow interest costs in exceptional circumstances that necessitate the construction of specific infrastructure projects in advance of sufficient DCC cash flows (e.g. fixed-capacity infrastructure, out-of-sequence projects, or greenfield developments). In these cases, local governments or developers are required to front-end the cost of the growth-related infrastructure, and recover their costs through DCCs as growth occurs. However, the Ministry continues to encourage local governments to adopt DCC programs that limit the need for borrowing to exceptional cases.

3.5 Grant Assistance

As per the *Development Cost Charges Best Practices Guide*, grants that have not been secured have not been included as part of the DCC calculations.

3.6 Interim Financing

The capital costs shown in the report do not include interim financing.

3.7 Allocation of Costs

For each proposed infrastructure project, costs are allocated between the existing development and new growth. To determine the proper allocation for each project, individual projects can be divided into two broad categories:

1. Projects that upgrade the level of service or resolve existing deficiencies or service other communities; and,
2. Projects that are required solely to accommodate new growth.

Projects in the first category provided some benefit to existing development or others outside Courtenay, but they also benefit new growth. In order to allocate the degree of benefit equitably between the existing population or others outside Courtenay and the new growth, the new growth is expressed as a percentage factor (amount of new growth divided by total future population (or equivalents)) that was then applied to the estimated costs of the projects in order to determine how much benefit would be attributed to new growth. For projects in this category, the benefit to growth is 5% to 75%.

Projects in the second category benefit new growth only. In other words, they would not be contemplated if no new growth were forecasted. One hundred percent (100%) of the benefit and cost of each project in this category has been allocated to new growth.

As for new projects in the first category, the City considers the following factors when determining what percentage to allocate to new growth:

- Current standards of servicing required by the City.
- Who may benefit from the works outside the City through service connections.
- Whether the work on the project is primarily for upgrading deficiencies and upkeep of the system or whether it is primarily for increasing capacity.
- A comparison of what the size of the project would be if the project was for the existing population, versus what the size of the project would be if the project was expanded to accommodate the new growth as well.
- The proximity of the project in relation to where development is anticipated to occur within the City and the degree to which the development depends on the project in order to ensure that development occurs.

The following table indicates, in general terms, the percentage of the costs that are attributable to new growth according to the type of service. Numbers less than 100% indicate category one projects that benefit both new growth and the existing population. The number 100% indicates category two projects that principally benefit new growth alone.

Table 3
City of Courtenay
Allocation of Costs Attributable to New Growth

DCC Type	Benefit Allocation %
Road	10% to 100%
Storm drainage	25% to 75%
Sanitary Sewer	25% to 75%
Water	5% to 75%
Parks and Open Space	25% to 75%

In each of the DCC programs (Parts 5 through 9), the exact percentage of the benefit that can be attributed to new growth is indicated in the column entitled “Benefit Allocation %”. That allocation is applied to the estimated costs to arrive at the amount that can be recovered by DCCs before the municipal assist factor is applied. That information can be found in the column entitled “Benefit Allocation” in all of the DCC programs.

3.8 Municipal Assist Factor

The LGA recognizes that it would be unfair to impose all of the costs that are attributable to new development to the new development. As such, the LGA stipulates that an assist factor will be included as part of the calculation of the DCCs. An assist factor represents the City’s contribution towards the capital costs for the projects that are attributed to new development. This contribution is in addition to the costs that were allocated in the calculations

to the existing population and that are to be paid by the City. The portion of the costs that the City will have to cover because of the assist factor will have to be financed through other means available to the City, such as general tax revenue.

The actual level of the assist factor is determined by the City. While the City can have a different assist factor for *each type of capital works*, i.e. road, storm drainage, sanitary sewer, water and parks and open space, the City cannot have a municipal assist factor that varies for *different land uses* within the City, i.e. single family residential, townhouse residential, commercial, etc.

According to the LGA, the City should consider the following factors when setting DCC rates:

- future land use patterns and development;
- the phasing of works and services;
- whether the charges are excessive in relation to the capital costs of prevailing standards of service;
- whether the costs will deter development; or
- whether the charges will discourage the construction of reasonably priced housing or the provision of reasonably priced serviced land.

In consideration of all of the above matters, the assist factor has been set at the following rates for each type of DCC:

Table 4
City of Courtenay
Municipal Assist Factor by DCC Type

DCC Type	Municipal Assist Factor
Road	1%
Water	1%
Sanitary Sewer	1%
Storm drainage	1%
Parks and Open Space	1%

3.9 Units of Charge

Residential (single-family detached) DCCs will be levied at subdivision based on the number of lots created by subdivision or at Building Permit stage where the lot already exists and has not previously paid DCCs for all the dwelling units to be constructed. In the City of Courtenay, some single family residential units are permitted to have secondary suites. Therefore, the equivalent units for single family residential units accommodates secondary suites and the corresponding impact on infrastructure.

Multi-family (townhouse and apartment) will be levied the DCCs at the Building Permit stage of development. The DCCs for multi-family uses will be levied based on the total floor area of the Building Permit. Commercial/Institutional (other) will be levied at the Building Permit stage of development based on the total floor area of the Building Permit. Congregate care will be levied at the Building Permit stage of development based on the

total floor area of the Building Permit. Industrial will be levied at the Building Permit stage of development based on a per hectare charge.

It is easiest to collect the detached dwelling DCCs at the time of subdivision. Collecting the DCC at this point ensures the DCC is collected as early as possible to help in funding needed infrastructure.

In multi-family residential development, the number of townhouses or apartments is often not known at the time of subdivision nor are there any guarantees as to the exact number of units or size that will be built. Therefore, collection of the multi-family DCCs at the Building Permit stage is more accurate in assessing the impact of the development based on the size of the units.

PART 4. GROWTH PROJECTIONS

Points Covered

- Residential
- Commercial/Institutional (Other)
- Congregate Care
- Industrial

4.1 Residential

2011 Statistics Canada census states that the City of Courtenay had a population of 24,099 people which was a 9.4% increase from the 2006 Census population of 22,021 people. The City completed a growth projection to 2021 as part of the Official Community Plan. That study estimated a population increase of between 1.5% and 3.5% by 2021. Based on the last five years growth and modest growth potential in the community it is anticipated that there will be a 1.5% growth rate for all years to 2035.

As shown in Table 5, the City is expected to grow by approximately 6,000 people by 2035. The projected growth is based on the development potential of existing areas that will most likely develop from now to 2035. The projection includes existing lands currently zoned but not developed or remaining lands in planned neighbourhoods where the type of land use is known. Of which, 1,800 units are expected to be single family and 1,740 units are expected to be multi-family. Based on average unit size in Courtenay, this number of multi-family units is expected to correspond to 174,000 square metres of total floor area. Based on the City of Courtenay being a desirable place to retire, a small portion of the multi-family development is expected to be in the form of congregate care.

Table 5
City of Courtenay
Distribution of Population Growth by Dwelling Type

Dwelling Type	New Units	Persons per Unit	New Population
Residential (single-family)	1,800	2.4	2,880
Residential (multi-family)	1,740	1.9	3306
Total			6,186

4.2 Commercial/Institutional (Other)

To estimate future commercial development potential we reviewed the basis of the current DCC Bylaw and City staff reviewed the amount of commercial space available for development. City staff provided the background information and confirmed the estimates. As shown in Table 6, approximately 56,742 square metres of new commercial floor space are expected to be developed. Of this space, it is expected 1,000 square metres will be the development of institutional (Other) space, including the development of schools, hospitals, and other non-congregate care institutional developments.

Table 6
City of Courtenay
Commercial/Institutional (Other) Growth Projections

Land Use	New Development (square metres total floor area)
Commercial/Institutional (Other)	56,742

4.3 Industrial

The City of Courtenay anticipates 10 hectares of industrial development over the next 20 years. Engineering equivalencies have been established for the DCC calculation based on typical industrial land uses and their need for engineering services.

Table 7
City of Courtenay
Industrial Growth Projections

Land Use	New Development (hectares)
Industrial	10

PART 5. ROAD DCCS

Points Covered

- Road DCC Program
- Traffic Generation and Calculation of Road Impact
- Road DCC Calculation

5.1 Road DCC Program

The Road DCC program includes a variety of capital works including traffic circles, traffic calming and sidewalks. The works are shown in Table 11.

Table 8
City of Courtenay
Road DCC Program Costs

Municipal Costs	DCC Recoverable Program Costs	Total Capital Costs
\$30,116,803	\$12,432,529	\$42,549,331

The total cost of the road projects is approximately \$42.5 million of which approximately \$12.4 million is DCC recoverable. These costs include the construction of new road infrastructure plus engineering, contingency, and project administration.

5.2 Traffic Generation and Calculation of Road Impact

For road works, the cost of development is distributed based on the trips generated by each land use. The weighted trip ends are based on the 2005 DCC report, which used the average vehicle trip ends as developed by the Institute of Transportation Engineers, *Trip Generation Manual*, 7th Edition, 2003. Relative impacts and equivalent units have been calculated as follows:

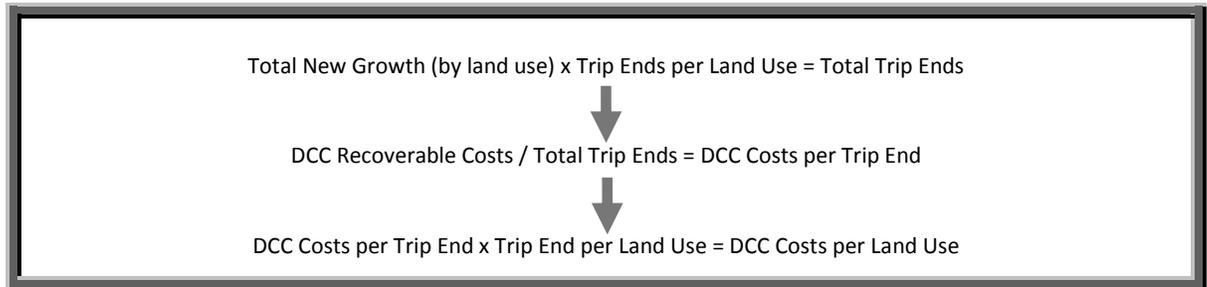
Table 9
City of Courtenay
Equivalent Units for Road

Land Use	Base Unit	Weighted Trip Ends
Residential (Single Family)	Lot / Dwelling unit	10.429
Residential (Multi-family)	Square metre	0.0586
Commercial/Institutional (Other)	Square metre	0.1373
Congregate Care	Square metre	0.0293
Industrial	Hectare	112.037

5.3 Road DCC Calculation

The Road DCC rates have been calculated according to the various principles and assumptions discussed earlier in this report. The basic calculation is shown in Equation 1.

**Equation 1
City of Courtenay
Road DCC Calculation**



The proposed Road DCC rates are shown in Table 9. The detailed Road DCC calculations are included in the series of tables appended at the end of this section.

**Table 10
City of Courtenay
Proposed Road DCC Rates**

Land Use	DCC Rate	Unit
Residential (Single Family)	\$2,770.23	per lot or per dwelling unit
Residential (Multi-family)	\$15.57	per m ² of total floor area
Commercial/Institutional (Other)	\$36.48	per m ² of total floor area
Congregate Care	\$7.78	per m ² of total floor area
Industrial	\$29,760.23	Per hectare

The proposed DCC rates are levied per lot for single-family subdivisions or per dwelling unit. Townhouse and apartment developments are levied per m² of total floor area basis. Commercial/Institutional (Other) developments are levied on a per m² of total floor area basis. Industrial developments are levied on a per hectare basis.

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Table 11
City of Courtenay
Road DCC Program

Project No.	Project Name	Percent- age complete	Col. (1)a	Col. (1)	Col. (2)	Col. (3) = Col. (1) - Col. (2)	Col. (4)	Col. (5) = Col. (3) X Col. (4)	Col. (6) = Col. (5) X 0.01	Col. (7) = Col. (5) - Col. (6)	Col. (8) = Col. (3) - Col. (7)
			2005 Total Cost Estimate	2014 Total Cost Estimate	Funding by Others	City Cost	Benefit Allocation	Benefit to New Development	Municipal Assist Factor 1%	DCC Recoverable	Total Municipal Responsibility
R1	First St. from Arden Rd. to Willemar Ave.		267,300	\$352,836		\$352,836	50%	\$176,418	\$1,764	\$174,654	\$178,182
R2	First St. from Willemar Ave. to Menzies Ave.		702,900	\$927,828		\$927,828	50%	\$463,914	\$4,639	\$459,275	\$468,553
R3	Fifth St. from Willemar Ave. to Menzies Ave.		487,680	\$643,738		\$643,738	25%	\$160,934	\$1,609	\$159,325	\$484,413
R4	Fifth St. from Menzies to Fitzgerald Ave.		445,560	\$588,139		\$588,139	25%	\$147,035	\$1,470	\$145,564	\$442,575
R5	Fifth St. from Fitzgerald to England Ave.		253,920	\$335,174		\$335,174	25%	\$83,794	\$838	\$82,956	\$252,219
R6	Old Island Hwy. from Comox Ave. to Ryan Rd.		324,320	\$428,102		\$428,102	25%	\$107,026	\$1,070	\$105,955	\$322,147
R7	Old Island Hwy from Ryan Rd. to Island Hwy		546,120	\$720,878		\$720,878	25%	\$180,220	\$1,802	\$178,417	\$542,461
R9	Sixth St. from McPhee to Fitzgerald Ave.		301,752	\$398,313		\$398,313	25%	\$99,578	\$996	\$98,582	\$299,730
R10	Sixth St. from Fitzgerald to Cliffe Ave.	60	90,922	\$120,017		\$120,017	25%	\$30,004	\$300	\$29,704	\$90,312
R11	Tenth St. (Willemar to Percy) & Percy (10th to Cumberland)	33	386,523	\$510,210		\$510,210	25%	\$127,553	\$1,276	\$126,277	\$383,933
R12	Cumberland Rd. from McPhee to Fitzgerald Ave.		283,008	\$373,571		\$373,571	25%	\$93,393	\$934	\$92,459	\$281,112
R13	Eighth St. from Fitzgerald to Cliffe Ave.	60	17,510	\$23,114		\$23,114	25%	\$5,778	\$58	\$5,721	\$17,393
R14	Twentieth St. from Cumberland Rd. to Cousins Ave.	10	472,680	\$623,938		\$623,938	25%	\$155,984	\$1,560	\$154,425	\$469,513
R15	Cousins Ave. from Twentieth St. to Willemar		518,400	\$684,288		\$684,288	25%	\$171,072	\$1,711	\$169,361	\$514,927
R16	Twenty-sixth St. from Willemar to Fitzgerald Ave.		655,720	\$865,550		\$865,550	25%	\$216,388	\$2,164	\$214,224	\$651,327
R17	Menzies from First St. to Fifth St.		645,360	\$851,875		\$851,875	25%	\$212,969	\$2,130	\$210,839	\$641,036
R18	Anderton Ave. from Fifth St. to City limit		585,900	\$773,388		\$773,388	25%	\$193,347	\$1,933	\$191,414	\$581,974
R19	Fitzgerald Ave. from Eighth St. to Fifth St.		187,200	\$247,104		\$247,104	25%	\$61,776	\$618	\$61,158	\$185,946
R20	McPhee Ave. from Cumberland Rd. to Fifth St.		456,840	\$603,029		\$603,029	25%	\$150,757	\$1,508	\$149,250	\$453,779
R21	Cliffe Ave. from Eighth St. to Fifth St.		279,000	\$368,280		\$368,280	25%	\$92,070	\$921	\$91,149	\$277,131
R22	Cumberland Rd. from Willemar Ave. to McPhee Ave.		818,400	\$1,080,288		\$1,080,288	25%	\$270,072	\$2,701	\$267,371	\$812,917
R23	Willemar Ave. from Seventeenth St. to Fifth St.		576,700	\$761,244		\$761,244	25%	\$190,311	\$1,903	\$188,408	\$572,836
R24	McPhee Ave. from Seventeenth St. to Cumberland Rd.		438,900	\$579,348		\$579,348	25%	\$144,837	\$1,448	\$143,389	\$435,959
R25	Fitzgerald Ave. from Seventeenth St. to Eighth St.		624,840	\$824,789		\$824,789	25%	\$206,197	\$2,062	\$204,135	\$620,654
R26	Cliffe Ave. from Seventeenth St. to Eighth St.		828,000	\$1,092,960		\$1,092,960	25%	\$273,240	\$2,732	\$270,508	\$822,452
R27	Willemar Ave. from Twentieth St. to Seventeenth St.		874,200	\$1,153,944		\$1,153,944	25%	\$288,486	\$2,885	\$285,601	\$868,343
R28	Fitzgerald Ave. from Twentieth St. to Seventeenth St.		574,080	\$757,786		\$757,786	50%	\$378,893	\$3,789	\$375,104	\$382,682
R29	Back Rd. from South City limit to Ryan Rd.		787,136	\$1,039,020		\$1,039,020	25%	\$259,755	\$2,598	\$257,157	\$781,862
R33	Lerwick Rd. from Ryan Rd. to Mission Rd.	85	36,750	\$48,510		\$48,510	25%	\$12,128	\$121	\$12,006	\$36,504
R34	Lerwick Rd. from McDonald to Ryan Rd.	28	1,459,849	\$1,927,001		\$1,927,001	25%	\$481,750	\$4,818	\$476,933	\$1,450,068
R35	Percy Ave. from 17th St. to 26th St. (cul-de-sac)	25	551,025	\$727,353		\$727,353	25%	\$181,838	\$1,818	\$180,020	\$547,333
T39	10th St. East @ Back Rd.		180,000	\$237,600		\$237,600	25%	\$59,400	\$594	\$58,806	\$178,794
T42	Lake Trail Rd. @ Willemar Ave.		180,000	\$237,600		\$237,600	25%	\$59,400	\$594	\$58,806	\$178,794
T47	Ryan Rd. @ Cowichan		180,000	\$237,600		\$237,600	25%	\$59,400	\$594	\$58,806	\$178,794

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Project No.	Project Name	Percentage complete	Col. (1)a	Col. (1)	Col. (2)	Col. (3) = Col. (1) - Col. (2)	Col. (4)	Col. (5) = Col. (3) X Col. (4)	Col. (6) = Col. (5) X 0.01	Col. (7) = Col. (5) - Col. (6)	Col. (8) = Col. (3) - Col. (7)
			2005 Total Cost Estimate	2014 Total Cost Estimate	Funding by Others	City Cost	Benefit Allocation	Benefit to New Development	Municipal Assist Factor 1%	DCC Recoverable	Total Municipal Responsibility
T51	Cliffe Ave. @11th St.		180,000	\$237,600		\$237,600	25%	\$59,400	\$594	\$58,806	\$178,794
T52	17th St. @ McPhee (Pedestrian)		50,000	\$66,000		\$66,000	25%	\$16,500	\$165	\$16,335	\$49,665
T53	5th St. @ Fitzgerald		180,000	\$237,600		\$237,600	25%	\$59,400	\$594	\$58,806	\$178,794
T0502	Lerwick and Block 71 Road		180,000	\$237,600		\$237,600	25%	\$59,400	\$594	\$58,806	\$178,794
T0508	Lake Trail and Arden		180,000	\$237,600		\$237,600	25%	\$59,400	\$594	\$58,806	\$178,794
R9704	Arden Rd. from Embleton Crescent to 29 St		2,900,524	\$3,176,316		\$3,176,316	50%	\$1,588,158	\$15,882	\$1,572,276	\$1,604,040
R9707	Cumberland Rd. from Willemar Ave. to City limit	15	494,224	\$652,376		\$652,376	25%	\$163,094	\$1,631	\$161,463	\$490,913
R9708	Lake Trail Rd from Willemar Ave. to City limit		814,484	\$1,075,119		\$1,075,119	25%	\$268,780	\$2,688	\$266,092	\$809,027
R9709	Ryan Rd. from Hwy 19A to Lerwick Rd. (1)		809,440	\$1,068,461		\$1,068,461	25%	\$267,115	\$2,671	\$264,444	\$804,017
R9710	Ryan Rd. from Lerwick Rd. to Anderton Ave. (1)		943,250	\$1,245,090		\$1,245,090	25%	\$311,273	\$3,113	\$308,160	\$936,930
R9711	Fifth Street Bridge Upgrading			\$2,872,344		\$2,872,344	10%	\$287,234	\$2,872	\$284,362	\$2,587,982
R9715	Mansfield Drive (19A to Airpark, north & south legs).	50	162,360	\$214,315		\$214,315	25%	\$53,579	\$536	\$53,043	\$161,272
R9718	Cliffe Ave. - Anfield Ave. to South City limit		403,440	\$532,541		\$532,541	25%	\$133,135	\$1,331	\$131,804	\$400,737
R9720	17th St. - Cliffe Ave. to Willemar Ave.		910,080	\$1,201,306		\$1,201,306	25%	\$300,326	\$3,003	\$297,323	\$903,982
R9721	McLauchlin Dr./Centennial Dr. to Muir Rd.		527,791	\$696,684		\$696,684	25%	\$174,171	\$1,742	\$172,429	\$524,254
R9723	26th St./Fitzgerald Ave. to Cliffe Ave.		99,360	\$131,155		\$131,155	25%	\$32,789	\$328	\$32,461	\$98,694
R9724	Dingwall Rd/Highway 19 to McLauchlin Dr.		738,700	\$975,084		\$975,084	25%	\$243,771	\$2,438	\$241,333	\$733,751
R9725	10th St. East/Back Rd. to Thorpe Ave.		351,000	\$463,320		\$463,320	25%	\$115,830	\$1,158	\$114,672	\$348,648
R9726	Sandwick Ave. from Ryan to Braidwood Rd.		512,220	\$676,130		\$676,130	25%	\$169,033	\$1,690	\$167,342	\$508,788
R0501	North Courtenay Connector, Vanier Dr. to City Boundary			\$1,000,000		\$1,000,000	25%	\$250,000	\$2,500	\$247,500	\$752,500
R0507	Cliffe Ave. from 5th to 1st to Anderton		212,868	\$280,986		\$280,986	25%	\$70,246	\$702	\$69,544	\$211,442
R0508	New Superstore Rd.(Land acquisition)		400,000	\$528,000		\$528,000	25%	\$132,000	\$1,320	\$130,680	\$397,320
R0509	Comox Rd. from 19 A to Old Island Highway		304,200	\$401,544		\$401,544	25%	\$100,386	\$1,004	\$99,382	\$302,162
R3-1	Fraser Rd. from Comox Logging Rd (south) to Harbourview Blvd			\$497,000		\$497,000	100%	\$497,000	\$4,970	\$492,030	\$4,970
R4	Fraser Rd. from Comox Logging Rd to Island Hwy			\$2,089,000		\$2,089,000	50%	\$1,044,500	\$10,445	\$1,034,055	\$1,054,945
R1-INT	Intersection Island Hwy and Fraser Rd			\$264,000		\$264,000	50%	\$132,000	\$1,320	\$130,680	\$133,320
R2-INT	Intersection Comox Loggin Rd and Fraser Rd			\$347,748		\$347,748	50%	\$173,874	\$1,739	\$172,135	\$175,613
			\$27,372,436	\$42,549,331	\$0	\$42,549,331		\$12,558,110	\$125,581	\$12,432,529	\$30,116,803
	Notes:										
	2014 cost estimates updated 2005 estimates using Engineering News Record construction cost indices (20 cities)- 32% increase										
	(1) Provincially owned road. City is responsible for additional work outside of curb to curb (sidewalks, etc)										

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Table 12
City of Courtenay
Road DCC Rate Calculation

Road Calculation				
Land Use	Col. (1)	Col. (2)	Col. (3)	Col. (4) = (1) x (3)
	Estimated New Development	Unit	Wt. Trip Rate	Trip Ends
Residential (Single Family)	1,800	Per unit	10.43	18,772
Multi-family Residential	174,000	Per sq metre total floor area	0.06	10,196
Commercial/ Institutional (Other)	56,742	Per sq metre total floor area	0.137	7,793
Industrial	15	Per hectare	112.037	1,681
			Total Trip Ends	38,443 (a)
B: Unit Roads DCC Calculation				
Net Roads DCC Program Recoverable		\$12,432,529	(b)	
Existing DCC Reserve Monies		\$2,221,144	(c)	
Net Amount to be Paid by DCCs		\$10,211,385	(d) = (b) - (c)	
DCC per Trip End		\$265.63	(e) = (d) / (a)	
C: Resulting Roads DCCs				
Residential (Single Family)		\$2,770.23	Per unit	(e) x Col. (3)
Multi-family Residential		\$15.57	Per sq metre total floor area	(e) x Col. (3)
Commercial/ Institutional (Other)		\$36.48	Per sq metre total floor area	(e) x Col. (3)
Industrial		\$29,760.23	Per hectare	(e) x Col. (3)

PART 6. WATER DCCS

Points Covered

- Water DCC Program
- Water Demand and Calculation of Equivalent Population
- Water DCC Calculation

6.1 Water DCC Program

The Water DCC Program includes waterworks projects and improvements related to the distribution of water within the City boundaries. The City of Courtenay purchases bulk water from the Comox Valley Regional District, who is responsible for storage and treatment of water from Comox Lake. We have set the benefit to growth to reflect the potential residential growth to 2035. The works are shown in Table 16.

Table 13
City of Courtenay
Water DCC Program Costs

Municipal Costs	DCC Recoverable Program Costs	Total Capital Costs
\$2,646,485	\$2,016,933	\$4,663,418

The total cost of the improvements is approximately \$4.7 million of which approximately \$2.0 million is DCC recoverable. No external funding is expected. These costs include the construction of new water infrastructure plus engineering, contingency, and project administration.

6.2 Water Demand and Calculation of Equivalent Population

The Water DCC is based on the need for additional services to meet the demands of population growth. For residential demand, occupancy rates can be used to project demands for water services. For non-residential land uses, an equivalency is used. These are based on average population densities. These equivalent factors were calculated for the 2005 DCC update.

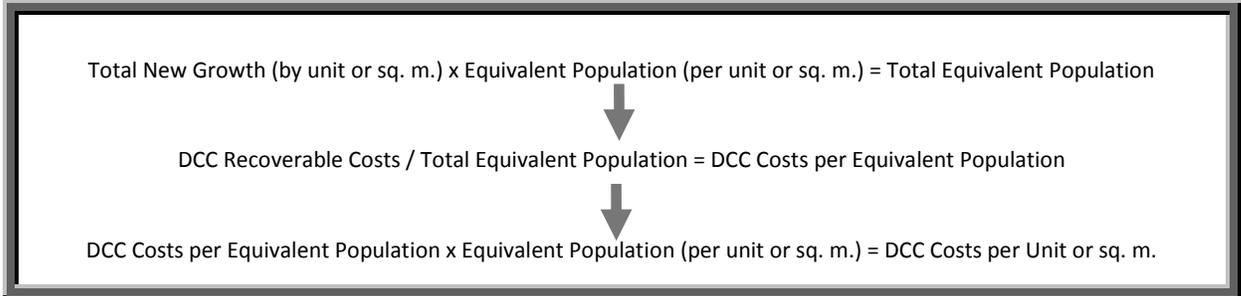
Table 14
City of Courtenay
Equivalent Units for Water

Land Use	Base Unit	Equivalent Population Per Base Unit
Residential (Single Family)	Lot / Dwelling unit	2.69
Residential (Multi-family)	Square metre	0.0019
Commercial/Institutional (Other)	Square metre	0.007
Congregate Care	Square metre	0.00095
Industrial	Hectare	44.973

6.3 Water DCC Calculation

The Water DCC rates have been calculated according to the various principles and assumptions discussed earlier in this report. The basic calculation is shown in Equation 2.

**Equation 2
City of Courtenay
Water DCC Calculation**



The proposed Water DCC rates are shown in Table 15. The detailed Water DCC calculations are included in the series of tables appended at the end of this section.

**Table 15
City of Courtenay
Proposed Water DCC Rates**

Land Use	DCC Rate	Unit
Residential (Single Family)	\$456.08	Lot / Dwelling unit
Residential (Multi-family)	\$3.22	per m ² of total floor area
Commercial/Institutional (Other)	\$1.19	per m ² of total floor area
Congregate Care	\$1.61	per m ² of total floor area
Industrial	\$7,625.05	Hectare

The proposed DCC rates are levied per lot for single-family subdivisions or per dwelling unit. Townhouse and apartment developments are levied per m² of total floor area basis. Commercial/institutional developments are levied on a per m² of total floor area basis. Industrial developments are levied on a per hectare basis.

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Table 16
City of Courtenay
Water DCC Program

Project No.	Column Name	Percentage complete	Col. (1)a	Col. (1)	Col. (2)	Col. (3) = Col. (1) - Col. (2)	Col. (4)	Col. (5) = Col. (3) x Col. (4)	Col. (6) = Col. (5) x 0.01	Col. (7) = Col. (5) - Col. (6)	Col. (8) = Col.(3) - Col. (7)
			2005 Total Cost Estimate	2014 Total Cost Estimate	Funding by Others	City Cost	Benefit Allocation	Benefit to New Development	Municipal Assist Factor 1%	DCC Recoverable	Total Municipal Responsibility
W2	First S. from Willemar to Menzies Ave.		50,158	\$66,209		\$66,209	25%	\$16,552	\$165.52	\$16,387	\$49,822
W9703	Arden Rd/Lake Trail to south City limit		684,285	\$903,256		\$903,256	50%	\$451,628	\$4,516.28	\$447,112	\$456,144
W9704	Willemar Ave./17th St. to 26th St.		547,428	\$722,604		\$722,604	25%	\$180,651	\$1,806.51	\$178,845	\$543,760
WC1	New main from Powerhouse Rd. to Arden Rd. on Lake Trail Rd. (W9802)		258,719	\$341,509		\$341,509	50%	\$170,754	\$1,707.54	\$169,047	\$172,462
WC2	New main from Arden Rd. south to 250 mm dia. connection on Lake Trail Rd.		112,486	\$148,482		\$148,482	50%	\$74,241	\$742.41	\$73,499	\$74,983
WC4	New main from Willemar Ave. to future R/W off 20th St. via Cumberland Rd. (W9701)	60	132,734	\$175,209		\$175,209	75%	\$131,407	\$1,314.07	\$130,093	\$45,116
WC5	New main from future R/W to ex 150 mm dia. main on 20th St. (W9705)	66	17,210	\$22,718		\$22,718	75%	\$17,038	\$170.38	\$16,868	\$5,850
WC7	New main and PRV from Back Rd. to Comox Rd. via a future R/W (W9803)		309,338	\$408,326		\$408,326	10%	\$40,833	\$408.33	\$40,424	\$367,901
WC8	New main from existing 150 mm dia. main to Comox Indian Band on Comox Rd. (W9806)		393,702	\$519,687		\$519,687	10%	\$51,969	\$519.69	\$51,449	\$468,238
WC10	New main from Valley Cres. to Nim Nim Ave. through an existing R/W		22,497	\$29,696		\$29,696	5%	\$1,485	\$14.85	\$1,470	\$28,226
WC11	New main from Nim Nim Pl. to Oak Pl. through a future R/W		28,122	\$37,121		\$37,121	5%	\$1,856	\$18.56	\$1,837	\$35,283
EC3	New main from Valley View Dr. to Glacier View Lodge and Marsland Properties		73,116	\$96,513		\$96,513	5%	\$4,826	\$48.26	\$4,777	\$91,736
EC6	New main on Macdonald Rd. from Sheraton Rd. to 225 metres west of Sheraton Rd. (3W1)		67,492	\$89,089		\$89,089	75%	\$66,817	\$668.17	\$66,149	\$22,940
W1	Watermain 250mm diameter looping and pressure valves and upgraded pumps			\$1,103,000		\$1,103,000	75%	\$827,250	\$8,272.50	\$818,978	\$284,023
Totals			\$2,697,287	\$4,663,418	\$0	\$4,663,418		\$2,037,306	\$20,373	\$2,016,933	\$2,646,485
	Notes										
	2014 cost estimates updated 2005 estimates using Engineering News Record construction cost indices (20 cities)- 32% increase										

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Table 17
City of Courtenay
Water DCC Rate Calculation

Water DCC Calculation				
Land Use	Col. (1)	Col. (2)	Col. (3)	Col. (4) = (1) x (3)
	Estimated New Development	Unit	Person per unit (residential)/ Equivalent Population/hectare (other land uses)	Equivalent Population
Residential (Single Family)	1,800	Per unit	2.69	4,842
Multi-family Residential	174,000	Per sq metre total floor area	0.02	3,306
Commercial/ Institutional (Other)	56,742	Per sq metre total floor area	0.007	397
Industrial	15	Per hectare	44.973	675
			Total Equivalent Population	9220 (a)
B: Unit Water DCC Calculation				
Net Park DCC Program Recoverable			\$2,016,933 (b)	
Existing DCC Reserve Monies			\$453,780 (c)	
Net Amount to be Paid by DCCs			\$1,563,153 (d) = (b) - (c)	
DCC per person			\$169.55 (e) = (d) / (a)	
C: Resulting Water DCCs				
Residential (Single Family)			\$456.08 Per unit	(e) x Col. (3)
Multi-family Residential			\$3.22 Per sq metre total floor area	(e) x Col. (3)
Commercial/ Institutional (Other)			\$1.19 Per sq metre total floor area	(e) x Col. (3)
Industrial			\$7,625.05 Per hectare	(e) x Col. (3)

PART 7. SANITARY SEWER DCCS

Points Covered

- Sanitary Sewer DCC Program
- Sanitary Sewer Demand and Calculation of Equivalent Population
- Sanitary Sewer DCC Calculation

7.1 Sanitary Sewer DCC Program

The Sanitary Sewer DCC Program includes sanitary sewer projects and improvements related to the collection of waste water within the City boundaries. The Comox Valley Regional District is responsible for the treatment and disposal of waste water. The works are shown in Table 21.

Table 18
City of Courtenay
Sanitary Sewer DCC Program Costs

Municipal Costs	DCC Recoverable Program Costs	Total Capital Costs
\$5,041,549	\$5,210,741	\$10,252,290

The total cost of the improvements is approximately \$10 million of which approximately \$5.2 million is DCC recoverable. These costs include the construction of new sewer infrastructure plus engineering, contingency, and project administration.

7.2 Sanitary Sewer Demand and Calculation of Equivalent Population

By using the estimated number of persons per unit for residential growth and equivalent population for non-residential growth, the relative degree of impact that the new development would have on the capital projects can be ascertained. For this purpose, the following table sets the equivalents that were used to determine the relative impact of each land use type.

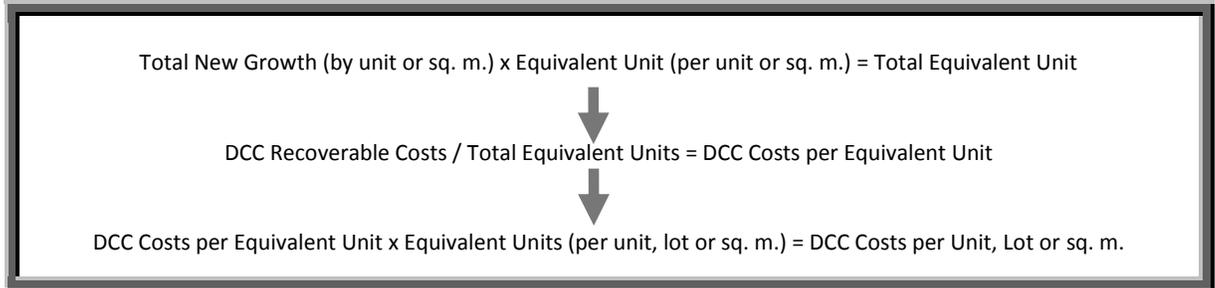
Table 19
City of Courtenay
Equivalent Units for Sanitary Sewer

Land Use	Base Unit	Equivalent Sanitary Sewer Unit Per Base Unit
Residential (Single Family)	Lot / Dwelling unit	2.69
Residential (Multi-family)	Square metre	0.019
Commercial/Institutional (Other)	Square metre	0.0007
Congregate Care	Square metre	0.00095
Industrial	Hectare	44.973

7.3 Sanitary Sewer DCC Calculation

The Sanitary Sewer DCC rates have been calculated according to the various principles and assumptions discussed earlier in this report. The basic calculation is shown in Equation 3.

**Equation 3
City of Courtenay
Sanitary Sewer DCC Calculation**



The proposed Sanitary Sewer DCC rates are shown in Table 20. The detailed Sanitary Sewer DCC calculations are included in the series of tables appended at the end of this section.

**Table 20
City of Courtenay
Proposed Sanitary Sewer DCC Rates**

Land Use	DCC Rate	Unit
Residential (Single Family)	\$1,427.30	Lot / Dwelling unit
Residential (Multi-family)	\$10.08	per m ² of total floor area
Commercial/Institutional (Other)	\$3.71	per m ² of total floor area
Congregate Care	\$5.04	per m ² of total floor area
Industrial	\$23,862.45	per hectare

The proposed DCC rates are levied per lot for single-family subdivisions or per dwelling unit. Townhouse and apartment developments are levied per m² of total floor area basis. Commercial/institutional developments are levied on a per m² of total floor area basis. Industrial developments are levied on a per hectare basis.

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Table 21
City of Courtenay
Sanitary Sewer DCC Program

Project No.	Column Name	Percentage complete	Col. (1)a	Col. (1)	Col. (2)	Col. (3) = Col. (1) - Col. (2)	Col. (4)	Col. (5) = Col. (3) x Col. (4)	Col. (6) = Col. (5) x 0.01	Col. (7) = Col. (5) - Col. (6)	Col. (8) = Col.(3) - Col. (7)
			2005 Total Cost Estimate	2014 Total Cost Estimate	Funding by Others	City Cost	Benefit Allocation	Benefit to New Development	Municipal Assist Factor 1%	DCC Recoverable	Total Municipal Responsibility
S9702	Rail ROW from 11th to 19th. (Note CLRW)		500,000	\$660,000		\$660,000	25%	\$165,000	\$1,650	\$163,350	\$496,650
05S1	On 26th St. MH 1-016 to 1-017 (S981)		56,000	\$73,920		\$73,920	25%	\$18,480	\$185	\$18,295	\$55,625
05S2	Lane between Mansfield and Cliffe & easement out of Cliffe		276,000	\$364,320		\$364,320	25%	\$91,080	\$911	\$90,169	\$274,151
05S18	Pldcock, from 3rd St to 5th St MH 3-032 to 3-035 tie to storm 05D22		151,000	\$199,320		\$199,320	25%	\$49,830	\$498	\$49,332	\$149,988
05S19	First St. upstream of P.S. MH 3-501 to 3-504 (S994)		113,000	\$149,160		\$149,160	50%	\$74,580	\$746	\$73,834	\$75,326
05S20	Arden North Trunk (Lake Train Road to Morrison Creek) (5HS1)		650,000	\$858,000		\$858,000	50%	\$429,000	\$4,290	\$424,710	\$433,290
05S22	Hunt Pl toward Back rd. MH 4-028 to 4-030 (S9703)	30	45,500	\$60,060		\$60,060	25%	\$15,015	\$150	\$14,865	\$45,195
05S23	In SRW, toward Back Rd MH 4-030 to 4-033 (S9703)	50	26,000	\$34,320		\$34,320	25%	\$8,580	\$86	\$8,494	\$25,826
05S24	Back Rd. upstream of Tunner MH 4-033 to 4-035		56,000	\$73,920		\$73,920	25%	\$18,480	\$185	\$18,295	\$55,625
05S26	Carmanah & Vale Ct (If Crown Isle North Option "A" precedes)		78,000	\$102,960		\$102,960	25%	\$25,740	\$257	\$25,483	\$77,477
05S27	Muir & McLaughlin (if Carmanah & Vale not required)		78,000	\$102,960		\$102,960	25%	\$25,740	\$257	\$25,483	\$77,477
05S28	I&I reduction measures (S973) (1)			\$262,500		\$262,500	25%	\$65,625	\$656	\$64,969	\$197,531
05S32	Replace A/C force main on 1st St.(pmp station to Pldcock to 3rd) tie to storm 05D22		60,000	\$79,200		\$79,200	25%	\$19,800	\$198	\$19,602	\$59,598
S1	New lift station and sanitary forcemain (2)			\$2,690,000		\$2,690,000	50%	\$1,345,000	\$13,450	\$1,331,550	\$1,358,450
	Arden Central Trunk (3)			\$1,436,400		\$1,436,400	75%	\$1,077,300	\$10,773	\$1,066,527	\$369,873
	Back Rd/Tunner Drive (Superstore trunk) MH 4-022 to 4-027 (3)			\$907,200		\$907,200	50%	\$453,600	\$4,536	\$449,064	\$458,136
	Sitka Ave (4)			\$231,000		\$231,000	50%	\$115,500	\$1,155	\$114,345	\$116,655
	Arden South Trunk (4)			\$841,050		\$841,050	50%	\$420,525	\$4,205	\$416,320	\$424,730
	Sewer main- Crown Isle North from Misson Road to Anderton Road			\$1,126,000		\$1,126,000	75%	\$844,500	\$8,445	\$836,055	\$289,945
Totals			\$2,089,500	\$10,252,290		\$10,252,290		\$5,263,375	\$52,634	\$5,210,741	\$5,041,549
	Notes:										
	2014 cost estimates updated 2005 estimates using Engineering News Record construction cost indices (20 cities)- 32% increase										
	(1) Reduced as per the Sanitary Sewer Systems Capital Plan Update 2012-2013 (cost update to 2014 as per ENR); benefit factor as per report from McElhanney										
	(2) From South Courtenay project listing by McElhanney										
	(3) Sanitary Sewer Systems Capital Plan Update 2012-2013 (cost updated to 2014 as per ENR); benefit factor as per report from McElhanney										
	(4) Sanitary Sewer Systems Capital Plan Update 2012-2013 (cost updated to 2014 as per ENR)										

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Table 22
City of Courtenay
Sanitary Sewer DCC Rate Calculation

Sanitary DCC Calculation				
Land Use	Col. (1)	Col. (2)	Col. (3)	Col. (4) = (1) x (3)
	Estimated New Development	Unit	Person per unit (residential)/ Equivalent Population/hectare (other land uses)	Equivalent Population
Residential (Single Family)	1,800	Per unit	2.69	4,842
Multi-family Residential	174,000	Per sq metre total floor area	0.02	3,306
Commercial/ Institutional (Other)	56,742	Per sq metre total floor area	0.007	397
Industrial	15	Per hectare	44.973	675
			Total Equivalent Population	9220 (a)
B: Unit Sanitary DCC Calculation				
Net Sanitary DCC Program Recoverable		\$5,210,741	(b)	
Existing DCC Reserve Monies		\$318,886	(c)	
Net Amount to be Paid by DCCs		\$4,891,855	(d) = (b) - (c)	
DCC per person		\$530.59	(e) = (d) / (a)	
C: Resulting Sanitary DCCs				
Residential (Single Family)		\$1,427.30	Per unit	(e) x Col. (3)
Multi-family Residential		\$10.08	Per sq metre total floor area	(e) x Col. (3)
Commercial/ Institutional (Other)		\$3.71	Per sq metre total floor area	(e) x Col. (3)
Industrial		\$23,862.45	Per hectare	(e) x Col. (3)

PART 8. STORM DRAINAGE DCCS

Points Covered

- Storm drainage DCC Program
- Storm drainage Equivalent Units
- Storm drainage DCC Calculation

8.1 Storm drainage DCC Program and Rates

The storm drainage DCC program is comprised of drainage facilities, including piping and detention ponds. The works are shown in Table 26.

Table 23
City of Courtenay
Storm drainage DCC Program Costs

Municipal Costs	DCC Recoverable Program Costs	Total Capital Costs
\$5,940,813	\$4,956,767	\$10,897,580

The total cost of the improvements is approximately \$10.9 million of which approximately \$4.9 million is DCC recoverable. No external funding is expected. These costs include the construction of new storm drainage infrastructure plus engineering, contingency, and project administration.

8.2 Calculation of Equivalent Units for Storm drainage

In general terms, the impact on the storm storm drainage system of developing a parcel of land is expressed as the amount of stormwater run-off that must be accommodated by the system. The accepted parameter for expressing imperviousness in stormwater run-off calculations is the “run-off coefficient”. Generally speaking, the run-off coefficient reflects the ratio between the impervious area on a parcel and the total area of the parcel. Run-off coefficients are then used to determine equivalency factors necessary to develop Equivalent Storm Drainage Units (EDUs), the basis for calculating storm drainage DCCs.

This DCC update uses the equivalent storm drainage units calculated for the 2005 DCC Update and are shown in Table 23. The inclusion of secondary suites in single family residential homes are not expected to have any additional impact on the storm drainage system.

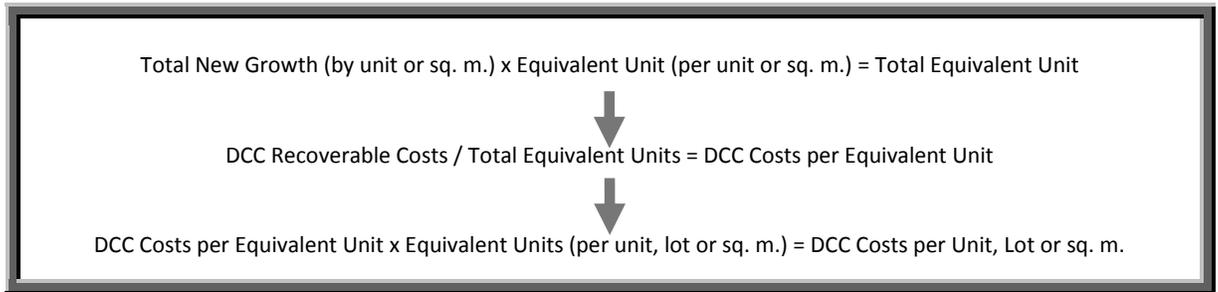
Table 24
City of Courtenay
Equivalent Units for Storm Drainage

Land Use	Base Unit	Equivalent Storm drainage Unit Per Base Unit
Residential (Single Family)	Lot / Dwelling unit	1.00
Residential (Multi-family)	Square metre	0.003
Commercial/Institutional (Other)	Square metre	0.0045
Congregate Care	Square metre	0.0015
Industrial	Hectare	17.0008

8.3 Storm drainage DCC Calculation

The Storm drainage DCC rates have been calculated according to the various principles and assumptions discussed earlier in this report. The basic calculation is shown in Equation 4.

Equation 4
City of Courtenay
Storm drainage DCC Calculation



The proposed Storm drainage DCC rates are shown in Table 25. The detailed Storm drainage DCC calculations are included in the series of tables appended at the end of this section.

Table 25
City of Courtenay
Proposed Storm Drainage DCC Rates

Land Use	DCC Rate	Unit
Residential (Single Family)	\$1,445.01	Lot / Dwelling unit
Residential (Multi-family)	\$4.34	per m ² of total floor area
Commercial/Institutional (Other)	\$6.50	per m ² of total floor area
Congregate Care	\$2.17	per m ² of total floor area
Industrial	\$24,566.41	per hectare

The proposed DCC rates are levied per lot for single-family subdivisions or per dwelling unit. Townhouse and apartment developments are levied per m² of total floor area basis. Commercial/institutional developments are levied on a per m² of total floor area basis. Industrial developments are levied on a per hectare basis.

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Table 26
City of Courtenay
Storm drainage DCC Program

Project No.	Column		Col. (1)a	Col. (1)	Col. (2)	Col. (3) = Col. (1) - Col. (2)	Col. (4)	Col. (5) = Col. (3) x Col. (4)	Col. (6) = Col. (5) x 0.01	Col. (7) = Col. (5) - Col. (6)	Col. (8) = Col.(3) - Col. (7)
	Name	Percentage complete	2005 Total Cost Estimate	2014 Total Cost Estimate	Funding by Others	City Cost	Benefit Allocation	Benefit to New Development	Municipal Assist Factor 1%	DCC Recoverable	Total Municipal Responsibility
	City Projects										
D6	Old Island Hwy. From Slough to Ryan Rd.		200,000	\$264,000		\$264,000	25%	\$66,000	\$660	\$65,340	\$198,660
D12	Cumberland Rd. from McPhee Ave. to Fitzgerald Ave.		28,000	\$36,960		\$36,960	25%	\$9,240	\$92	\$9,148	\$27,812
D17	Menzies Ave. from 1st St. to 5th St.		22,000	\$29,040		\$29,040	25%	\$7,260	\$73	\$7,187	\$21,853
D26	Cliffe Ave. from Safeway to 8th St.		150,000	\$198,000		\$198,000	25%	\$49,500	\$495	\$49,005	\$148,995
D0501	Cumberland Rd. to 20th St.		75,000	\$99,000		\$99,000	25%	\$24,750	\$248	\$24,503	\$74,498
05D45	Arden Rd. from Lake Trail to Cumberland		789,000	\$1,041,480		\$1,041,480	50%	\$520,740	\$5,207	\$515,533	\$525,947
05D46	Arden Rd. from Cumberland to 29th		696,000	\$918,720		\$918,720	50%	\$459,360	\$4,594	\$454,766	\$463,954
05D47	Muir Rd. from 19A to Ashwood		399,000	\$526,680		\$526,680	25%	\$131,670	\$1,317	\$130,353	\$396,327
05D48	Dingwall Rd. from McQuillan to Northland Pl.		696,000	\$918,720		\$918,720	25%	\$229,680	\$2,297	\$227,383	\$691,337
05D50	Comox Rd. from 19A to Old Island Hwy.		278,000	\$366,960		\$366,960	25%	\$91,740	\$917	\$90,823	\$276,137
	2002 MCSL study projects										
05D1	Kilpatrick, 1st section from Park Pl. MH 2-090 to 2-091		33,000	\$43,560		\$43,560	25%	\$10,890	\$109	\$10,781	\$32,779
05D2	Mansfield Drive Lane (Only with sewer) MH 2-200		143,000	\$188,760		\$188,760	50%	\$94,380	\$944	\$93,436	\$95,324
05D11	13th St. / Fitzgerald to England & on Fitzgerald / 13th St. to 14th St.	50	73,500	\$97,020		\$97,020	25%	\$24,255	\$243	\$24,012	\$73,008
05D13	Replace Existing Storm Sewer on Fitzgerald / 11th St. to 10th St.		64,000	\$84,480		\$84,480	25%	\$21,120	\$211	\$20,909	\$63,571
05D14	Cliffe Ave. / 11th St. to 10th St. MH 7-004 to 7-011 (D984)		79,000	\$104,280		\$104,280	25%	\$26,070	\$261	\$25,809	\$78,471
05D15	4th St. / Duncan to Cliffe		51,000	\$67,320		\$67,320	25%	\$16,830	\$168	\$16,662	\$50,658
05D16	3rd St. / England to Cliffe		98,000	\$129,360		\$129,360	25%	\$32,340	\$323	\$32,017	\$97,343
05D17	2nd St. / Duncan to Cliffe		52,000	\$68,640		\$68,640	25%	\$17,160	\$172	\$16,988	\$51,652
05D18	Install new Storm Sewer in Lane off Mansfield MH 13-005 to 13-004		64,000	\$84,480		\$84,480	25%	\$21,120	\$211	\$20,909	\$63,571
05D19	Cumberland Rd. / Willemar to Piercy MH 14-290 to 14-297 (D22)		464,000	\$612,480		\$612,480	25%	\$153,120	\$1,531	\$151,589	\$460,891
05D20	Detention Pond in area of Cumberland Rd. and 20th St. W of Cousins		250,000	\$330,000		\$330,000	50%	\$165,000	\$1,650	\$163,350	\$166,650
05D21	Replace/Tw in Existing Storm on 5th St. / Quinn to Pidcock		150,000	\$198,000		\$198,000	25%	\$49,500	\$495	\$49,005	\$148,995
05D23	Replace Storm Sewer on 5th St. / Harriston to McPhee (D4) design completed		246,000	\$324,720		\$324,720	25%	\$81,180	\$812	\$80,368	\$244,352
05D26	Piercy Creek Pond at Ronson Rd. (D972)		390,000	\$514,800		\$514,800	75%	\$386,100	\$3,861	\$382,239	\$132,561
05D29	Enlarge ex. Detention Pond Within the Park 111 Site MH 31-023		46,000	\$60,720		\$60,720	25%	\$15,180	\$152	\$15,028	\$45,692
05D30	Channel Bank Improvements/Retaining Walls Upstream of Aston Pl		26,000	\$34,320		\$34,320	25%	\$8,580	\$86	\$8,494	\$25,826
05D32	Pond at downstream end of Catchment (Ducks Unlimited Property)		98,000	\$129,360		\$129,360	25%	\$32,340	\$323	\$32,017	\$97,343
05D34	Dingwall / McLaughlin to ditch MH 34-022 to 34-025		174,000	\$229,680		\$229,680	25%	\$57,420	\$574	\$56,846	\$172,834
05D35	Dingwall Rd. - Install tw in pipe head all MH 34-017		26,000	\$34,320		\$34,320	25%	\$8,580	\$86	\$8,494	\$25,826
05D36	Braidwood, out to Island Highway MH 35-005 to 35-006 (D007)		66,000	\$87,120		\$87,120	25%	\$21,780	\$218	\$21,562	\$65,558
05D38	Lerwick Rd. Detention Pond - Catchment 37A (D973) @ Hydro R/W		230,000	\$303,600		\$303,600	75%	\$227,700	\$2,277	\$225,423	\$78,177
05D41	Lerwick Rd Extension Pond - "Poje" property		200,000	\$264,000		\$264,000	75%	\$198,000	\$1,980	\$196,020	\$67,980
05D42	Crown Isle - Block 72 Detention Pond - Adjacent to Lerwick Rd.		200,000	\$264,000		\$264,000	25%	\$66,000	\$660	\$65,340	\$198,660
D1	Storm Sewer 1 to Comox Harbour from Buckstone Rd			\$812,000		\$812,000	75%	\$609,000	\$6,090	\$602,910	\$209,090
D2	Storm Sewer 2 to Comox Harbour from Mayhew Rd			\$729,000		\$729,000	75%	\$546,750	\$5,468	\$541,283	\$187,718
D3	Storm Sewer 3 to Comox Harbour south end via Royston			\$702,000		\$702,000	75%	\$526,500	\$5,265	\$521,235	\$180,765
Totals			\$6,556,500	\$10,897,580		\$10,897,580		\$5,006,835	\$50,068	\$4,956,767	\$5,940,813

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Table 27

City of Courtenay

Storm drainage DCC Rate Calculation

Stormwater DCC Calculation				
Land Use	Col. (1)	Col. (2)	Col. (3)	Col. (4) = (1) x (3)
	Estimated New Development	Unit	Person per unit (residential)/ Equivalent Population/hectare (other land uses)	Equivalent Population
Residential (Single Family)	1,800	Per unit	1.00	1,800
Multi-family Residential	174,000	Per sq metre total floor area	0.00	522
Commercial/ Institutional (Other)	56,742	Per sq metre total floor area	0.004	255
Industrial	15	Per hectare	17.001	255
			Total Equivalent Population	2832 (a)
B: Unit Stormwater DCC Calculation				
Net Stormwater DCC Program Recoverable		\$4,956,767	(b)	
Existing DCC Reserve Monies		\$864,043	(c)	
Net Amount to be Paid by DCCs		\$4,092,724	(d) = (b) - (c)	
DCC per person		\$1,445.01	(e) = (d) / (a)	
C: Resulting Stormwater DCCs				
Residential (Single Family)		\$1,445.01	Per unit	(e) x Col. (3)
Multi-family Residential		\$4.34	Per sq metre total floor area	(e) x Col. (3)
Commercial/ Institutional (Other)		\$6.50	Per sq metre total floor area	(e) x Col. (3)
Industrial		\$24,566.41	Per hectare	(e) x Col. (3)

PART 9. PARK AND OPEN SPACE DCCS

Points Covered

- Park and Open Space DCC Program
- Park and Open Space Equivalent Units
- Park and Open Space DCC Calculation

9.1 Park and Open Space DCC Program and Rates

The Park and Open Space DCC program is comprised of park land acquisition and park land development projects, including playgrounds and trails. The works are shown in Table 31.

Table 28
City of Courtenay
Park and Open Space DCC Program Costs

Municipal Costs	DCC Recoverable Program Costs	Total Capital Costs
\$5,544,430	3,029,673	\$8,574,103

The total cost of the improvements is approximately \$8.5 million, of which approximately \$3 million is DCC recoverable. No external funding is expected. These costs include the acquisition and development of park land plus planning, engineering, contingency, and project administration.

9.2 Calculation of Equivalent Units for Park and Open Space

Equivalent park and open space units are similar to those used for sanitary sewer and water DCC calculations. There is not contribution for commercial or industrial categories in accordance with the DCC Best Practices Guide. Equivalencies are show in Table 29.

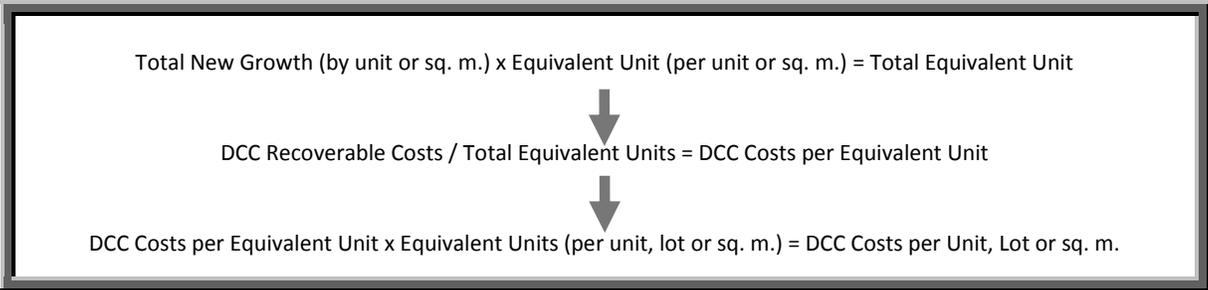
Table 29
City of Courtenay
Equivalent Units for Park and Open Space

Land Use	Base Unit	Equivalent Park and Open Space Unit Per Base Unit
Residential (Single Family)	Lot / Dwelling unit	2.69
Residential (Multi-family)	Square metre	0.019

9.3 Park and Open Space DCC Calculation

The Park and Open Space DCC rates have been calculated according to the various principles and assumptions discussed earlier in this report. The basic calculation is shown in Equation 5.

**Equation 5
City of Courtenay
Park and Open Space DCC Calculation**



The proposed Park and Open Space DCC rates are shown in Table 30. The detailed Park and Open Space DCC calculations are included in the series of tables appended at the end of this section.

**Table 30
City of Courtenay
Proposed Park and Open Space DCC Rates**

Land Use	DCC Rate	Unit
Residential (Single Family)	\$972.55	per lot or per dwelling unit
Residential (Multi-family)	\$6.87	per m ² of total floor area

The proposed DCC rates are levied per lot for single-family subdivisions or per dwelling unit. Townhouse and apartment developments are levied per m² of total floor area basis.

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Table 31
City of Courtenay
Park and Open Space DCC Program

Project No.	Column			Col. (1)a	Col. (1)	Col. (2)	Col. (3) = Col. (1) - Col. (2)	Col. (4)	Col. (5) = Col. (3) x Col. (4)	Col. (6) = Col. (5) x 0.01	Col. (7) = Col. (5) - Col. (6)	Col. (8) = Col.(3) - Col. (7)
	Name	Percentage complete	Net Area	2005 Total Cost Estimate	2014 Total Cost Estimate	Funding by Others	City Cost	Benefit Allocation	Benefit to New Development	Municipal Assist Factor 1%	DCC Recoverable	Total Municipal Responsibility
	Park Land Acquisition											
1	Projected neighbourhood Park (30% of 12.73 ha) (1)		3.82	707,655	\$919,952		\$919,952	25%	\$229,988	\$2,299.88	\$227,688	\$692,264
2	Projected Community Park (70% fo 12.73 ha) (1)		8.91	1,650,578	\$2,145,751		\$2,145,751	25%	\$536,438	\$5,364.38	\$531,073	\$1,614,678
	Community Park Development											
PC1	Simms, trails, bench, signage, landscaping			50,000	\$66,000		\$66,000	25%	\$16,500	\$165.00	\$16,335	\$49,665
PC2	Lewis, excavation, landscaping, playfield improvements			250,000	\$330,000		\$330,000	25%	\$82,500	\$825.00	\$81,675	\$248,325
PC3	Valley View, septic/drainage improvements, court dev't landscaping			150,000	\$198,000		\$198,000	25%	\$49,500	\$495.00	\$49,005	\$148,995
PC4	Bill Moore, playing field imp., safety, drainage, playground upgrade			200,000	\$264,000		\$264,000	25%	\$66,000	\$660.00	\$65,340	\$198,660
PC5	Roy Morrison nature, bridges, trails, signage			50,000	\$66,000		\$66,000	25%	\$16,500	\$165.00	\$16,335	\$49,665
PC6	Courtenay Lagoon/Riverway, landscaping, benches, trails, signage, picnic area			325,000	\$429,000		\$429,000	25%	\$107,250	\$1,072.50	\$106,178	\$322,823
PC7	Puntledge, trail dev't, signage, landscaping, bridges			200,000	\$264,000		\$264,000	25%	\$66,000	\$660.00	\$65,340	\$198,660
PC8	Hurford Hill Nature Park/Mallard Greenway, trail dev't, signage, fencing			50,000	\$66,000		\$66,000	25%	\$16,500	\$165.00	\$16,335	\$49,665
	Neighbourhood Park Development											
PN7	Hobson, playground improvements			100,000	\$132,000		\$132,000	50%	\$66,000	\$660.00	\$65,340	\$66,660
PN10	Harmston, purchase field, developments			10,000	\$13,200		\$13,200	25%	\$3,300	\$33.00	\$3,267	\$9,933
PN12	Martin Playgrounds, fields, improvements			20,000	\$26,400		\$26,400	50%	\$13,200	\$132.00	\$13,068	\$13,332
PN13	Woodcote, playing field improvements			40,000	\$52,800		\$52,800	50%	\$26,400	\$264.00	\$26,136	\$26,664
PN14	Malcolm Morrison, trail improvements			10,000	\$13,200		\$13,200	50%	\$6,600	\$66.00	\$6,534	\$6,666
PN16	Pinegrove, landscaping			10,000	\$13,200		\$13,200	50%	\$6,600	\$66.00	\$6,534	\$6,666
PN17	Mission/Madrona Neighbourhood Park			150,000	\$198,000		\$198,000	50%	\$99,000	\$990.00	\$98,010	\$99,990
PN19	Lerwick Road Park DL 158 - Nature Park			60,000	\$79,200		\$79,200	50%	\$39,600	\$396.00	\$39,204	\$39,996
PN20	Copperfield Greenway			50,000	\$66,000		\$66,000	50%	\$33,000	\$330.00	\$32,670	\$33,330
PN21	Tsolum Greenway			50,000	\$66,000		\$66,000	50%	\$33,000	\$330.00	\$32,670	\$33,330
PN22	Sandwick Greenway			50,000	\$66,000		\$66,000	50%	\$33,000	\$330.00	\$32,670	\$33,330
PN23	Crown Isle Greenway			150,000	\$198,000		\$198,000	50%	\$99,000	\$990.00	\$98,010	\$99,990
PN24	Raven Forest, Block 71			350,000	\$462,000		\$462,000	50%	\$231,000	\$2,310.00	\$228,690	\$233,310
PN25	Millard Park Nature			60,000	\$79,200		\$79,200	50%	\$39,600	\$396.00	\$39,204	\$39,996
PN26	Maple Park playground Neighbourhood Park			150,000	\$198,000		\$198,000	50%	\$99,000	\$990.00	\$98,010	\$99,990
PN27	Tartling Park trails-theme park Neighbourhood Park			150,000	\$198,000		\$198,000	50%	\$99,000	\$990.00	\$98,010	\$99,990
PN29	Crown Isle Park playfields-playground Neighbourhood Park			500,000	\$660,000		\$660,000	50%	\$330,000	\$3,300.00	\$326,700	\$333,300
	Neighbourhood Parks			125,000	\$165,000		\$165,000	25%	\$41,250	\$412.50	\$40,838	\$124,163
	Neighbourhood Trails			75,000	\$99,000		\$99,000	25%	\$24,750	\$247.50	\$24,503	\$74,498
	Parks Master Study			50,000	\$66,000		\$66,000	25%	\$16,500	\$165.00	\$16,335	\$49,665
	Tree Program											
PT1	Street Tree Program			300,000	\$396,000		\$396,000	75%	\$297,000	\$2,970.00	\$294,030	\$101,970
	Walkways											
PW1	Scriven Walk			160,000	\$211,200		\$211,200	25%	\$52,800	\$528.00	\$52,272	\$158,928
	Trails											
T1-1	Riverside/Harbourside Walkway (Millard Rd to Beachwood Rd)				\$367,000		\$367,000	50%	\$183,500	\$1,835.00	\$181,665	\$185,335
Totals				6,253,233	8,574,103		8,574,103		3,060,276	30,603	3,029,673	5,544,430

DCC Review – Final Report
Table 32
City of Courtenay
Park and Open Space DCC Rate Calculation

Park DCC Calculation				
Land Use	Col. (1)	Col. (2)	Col. (3)	Col. (4) = (1) x (3)
	Estimated New Development	Unit	Person per unit (residential)/ Equivalent Population/hectare (other land uses)	Equivalent Population
Residential (Single Family)	1,800	Per unit	2.69	4,842
Multi-family Residential	174,000	Per sq metre total floor area	0.02	3,306
Commercial/ Institutional (Other)	56,742	Per sq metre total floor area		-
Industrial	15	Per hectare		-
			Total Equivalent Population	8148 (a)
B: Unit Park DCC Calculation				
Net Park DCC Program Recoverable		\$3,029,673	(b)	
Existing DCC Reserve Monies		\$83,814	(c)	
Net Amount to be Paid by DCCs		\$2,945,859	(d) = (b) - (c)	
DCC per person		\$361.54	(e) = (d) / (a)	
C: Resulting Park DCCs				
Residential (Single Family)		\$972.55	Per unit	(e) x Col. (3)
Multi-family Residential		\$6.87	Per sq metre total floor area	(e) x Col. (3)
Commercial/ Institutional (Other)			Per sq metre total floor area	(e) x Col. (3)
Industrial			Per hectare	(e) x Col. (3)

PART 10. DCC RATES SUMMARY AND IMPLEMENTATION

Points Covered

- DCC Rates Summary
- Bylaw Exemptions
- Collection of Charges – Building Permit and Subdivision
- In-Stream Applications and Grace Periods
- DCC Rebates and Credits
- DCC Monitoring and Accounting
- DCC Reviews

10.1 Summary of Proposed DCC Rates

Table 32 summarizes the proposed City of Courtenay DCC rates. The proposed DCC rates are levied per lot for residential (single family) or per m² of floor area for residential (multi-family). Commercial and institutional developments are levied per m² of floor area. Industrial developments are levied per hectare of land. The detached dwelling DCCs will be levied at subdivision or Building Permit issuance. All other DCCs will be levied at Building Permit.

In the past, the City charged DCCs for secondary suites. To encourage the legalization of these suites and the provision of secondary suites to support affordable housing, the City allows secondary suites in some single family residential zones and will no longer charge separate DCCs for the suites.

10.2 Bylaw Exemptions

The *LGA* is quite clear that a DCC cannot be levied if the proposed development does not impose new capital cost burdens on the City, or if a DCC has already been paid in regard to the same development. However, if additional further development for the same development creates new capital cost burdens or uses up capacity, the DCCs can be levied for the additional costs.

The *LGA* further restricts the levying of the DCC at the time of application for a Building Permit if:

- the Building Permit is for a church or place of worship; and
- the value of the work authorized by the Building Permit does not exceed \$50,000 or an amount as prescribed by Bylaw.

Recent changes to the legislation (Bill 27) now allow local governments to charge DCCs on residential developments of four units or less, as long as such a charge is provided for in the local government's DCC Bylaw. To enact this approach, the DCC Bylaw must include a specific provision; which the current DCC Bylaw does include.

In addition, Bill 27, as discussed in Part 1.3, has given local governments the discretionary authority to waive or reduce DCCs for certain types of development to promote affordable housing and low impact development. Under this new legislation, the City will have to adopt a Bylaw to waive or reduce DCCs for not-for-profit rental housing. At this time, the City does not wish to exempt any subdivision or Building Permits under the provisions of Bill 27.

10.3 Collection of Charges – Building Permit and Subdivision

Municipalities can choose to collect DCCs at subdivision approval or Building Permit issuance. The City of Courtenay will collect DCCs for detached dwellings at subdivision approval or Building Permit issuance. Of the two possible collection times, subdivision approval occurs earlier in the process. Collecting DCCs early will allow the City to ensure timely provision of infrastructure and services.

All other DCCs will be collected at Building Permit, which is when the size and number of buildings to be constructed will be known. Collecting DCCs based on this more accurate information will result in more equitable distribution of growth costs.

The DCC Bylaw will specify when DCCs will be collected for different development types. Where a development type has not been specified in the DCC Bylaw, the DCC levied will be based on the rate of the most similar development type.

10.4 Collection of DCCs on Redeveloped or Expanded Developments

When an existing building or development undergoes an expansion or redevelopment, there is usually a need for additional DCC related engineering services. The new developer/ builder should pay the applicable DCCs based on the additional floor area for commercial land uses and additional developed area for industrial land uses at the DCC rates in the current DCC Bylaw. In essence, the City is giving a DCC credit for the existing development or building. DCCs are only levied on the new development/ building area.



Table 33
City of Courtenay
Proposed DCC Rate Summary

	Transportation	Water	Sanitary Sewer	Storm drainage	Parks	Total Development Cost Charge	
Single Family Residential	\$2,770	\$456.08	\$1,427.30	\$1,445.01	\$972.55	\$7,071.17	Per unit
Multi-family Residential	\$15.57	\$3.22	\$10.08	\$4.34	\$6.87	\$40.07	Per sq metre floor area
Commercial/ Institutional (Other)	\$36.48	\$1.19	\$3.71	\$6.50	n/a	\$47.88	Per sq metre floor area
Congregate Care	\$7.78	\$1.61	\$5.04	\$2.17	n/a	\$16.60	Per sq metre floor area
Industrial	\$29,760.23	\$7,625.05	\$23,862.45	\$24,566.41	n/a	\$85,814.14	Per hectare



10.5 In-Stream Applications and Grace Periods

The *LGA* requires that subdivision applications that are complete and application fees have been paid, be provided one-year protection from the proposed DCC rates. These in-stream active subdivision applications will be exempted from any increase in DCCs for one year from the date of implementation of the new DCC Bylaw.

Effective January 1, 2011, Building Permits are also given the same in-stream exemptions as subdivision applications under the *LGA*. Complete Building Permit applications will also be exempt from any increase in DCCs for one year from the date of implementation of the new DCC Bylaw. In 2014, this in-stream exemption was further extended to include rezoning and development permit applications that have been submitted to a local government (in a form acceptable to the local government and fees paid).

The City has not considered introducing a grace period in the new DCC Bylaw at this time. If no grace period is included once the proposed DCC Bylaw has been given fourth and final reading, the proposed DCC rates will be in effect. The *LGA* requirements will apply. Following the public consultation process a grace period will be discussed with City Council.

10.6 DCC Rebates and Credits

The *LGA* stipulates that should an owner pay for specific services inside or outside of the boundaries of the land being subdivided or developed and these services are included in the calculation to determine the DCC, then the amount paid must be deducted from the class of DCC that is applicable to the service. In practice, should the City, for example, require an owner build a watermain outside their development and the watermain is in the DCC program, the City will credit the owner the cost of the watermain up to the water DCCs paid.

The City should establish a policy or practise to guide staff in the collection of DCCs and the use of DCC credits. There may be situations in which it is not in the best interests of the City to allow an owner to build DCC services outside of their subdivision or development. Building such services may start or accelerate development in areas in which the City is not prepared to support.

The City may establish a DCC rebate policy to fund DCC works advanced by owners and developers prior to the City building such services. For example, an owner may be required to service their property to the local sanitary sewer standard but the City would request that this main be upsized to a trunk sewer. The incremental portion of costs beyond the local requirement may be offered as a DCC rebate from DCC reserves. Again, a City policy or practise is recommended to ensure consistent application of the DCC rebate principle. Often policies for DCC credits, rebates and latecomer agreements are drafted to assist staff in development financing.

10.7 DCC Monitoring and Accounting

In order to monitor the DCC Program, the City should enter all of the projects contained in the DCC program into its tracking system. The tracking system would monitor the status of the project from the conceptual stage through to



its final construction. The tracking system would include information about the estimated costs, the actual construction costs, and the funding sources for the projects. The construction costs would be based on the tender prices received, and the land costs based on the actual price of utility areas and or other land and improvements required for servicing purposes. The tracking system would indicate when projects are completed, their actual costs and would include new projects that are added to the program.

10.8 DCC Reviews

To keep the DCC program as current as possible, the City should review its program annually. Based on its annual review, the City may make minor amendments to the DCC rates. Minor amendments may include the deletion of completed projects, the addition of new projects, the deletion of estimated construction costs, with the inclusion of actual construction costs and time frame adjustments. This also requires a DCC Bylaw amendment.

Major amendments of the DCC program and rates will occur when significant land use changes are made, when new servicing plans are prepared or when the information upon which the DCCs are calculated has become significantly outdated or requires significant revision. Based on experience, a major amendment to the DCC program and rates is needed every 2 to 5 years.

The City of Courtenay intends undertake another major update to the DCC bylaw in the next two years. The City expects this update to include the following components:

- Integrated project information from upcoming master plans; and,
- Update equivalent factors (particularly to reflect the type of industrial development that is expected to occur in Courtenay and its impact on infrastructure).

Before the major update, the City intends to further explore waivers and exemptions for green building and affordable housing.

APPENDIX A

Existing Development Cost Charge Bylaw No. 2426, 2005

THE CORPORATION OF THE CITY OF COURTENAY

BYLAW NO. 2426

**A bylaw to impose Development Cost Charges
under the provisions of Section 933 of the Local
Government Act**

WHEREAS Section 933 of the Local Government Act provides that the Council may by bylaw, impose development cost charges on every person who obtains

- (a) an approval of a subdivision; or
- (b) a building permit authorizing the construction, alteration or extension of a building or structure;

AND WHEREAS development cost charges may be imposed for the sole purpose of providing funds to assist the City to pay the capital costs of

- (a) providing, constructing, altering or expanding sewage, water, drainage and highway facilities, other than off-street parking facilities; and
- (b) providing and improving park land

to service, directly or indirectly, the development for which the charge is being imposed;

AND WHEREAS a development cost charge is not payable if

- (a) the development does not impose new capital cost burdens on the City; or
- (b) a development cost charge has been previously paid for the same development unless, as a result of further development new capital cost burdens will be imposed on the City;

AND WHEREAS in fixing development cost charges imposed by this bylaw, Council has taken into consideration future land use patterns and development, the phasing of the works and services, the provision and improvement of parkland, and considers the charges will

- (a) not be excessive in relation to the capital cost of prevailing standards of service in the City,
- (b) not deter development;
- (c) not discourage the construction of reasonably priced housing or the provision of reasonably priced serviced land in the City; or
- (d) not discourage the development or redevelopment of commercial or industrial properties, which would otherwise provide employment and economic diversity and stability in the community;

AND WHEREAS the City may provide charges payable for such purposes that shall be paid at the time of the approval of a subdivision or the issuance of a building permit;

THEREFORE BE IT RESOLVED that the Council in open meeting assembled enacts as follows:

1. This bylaw may be cited for all purposes as **“Development Cost Charges Bylaw No. 2426, 2005”**.
2. This bylaw shall be applicable to all land, buildings and structures situated within the boundaries of the City of Courtenay.
3. For the purposes of this bylaw, the following definitions shall apply:

“Commercial” means any commercial or institutional use as permitted under the authority of the City’s Zoning Bylaw.

“Congregate Care Development” means a building with four or more sleeping units where permanent residential accommodation is provided and has a common living area, common kitchen and dining area where meals are provided, and common area where health care, cultural and social services may be provided.

“Dwelling Unit” means a self-contained residential unit including a cooking facility and consisting of one or more habitable rooms designed and used for the accommodation of only one person or family.

“Gross Building Area” means the sum of the gross horizontal areas of all of the floor of a building or structure, measured from the exterior face of exterior walls, but excluding any space where the floor to ceiling height is less than 1.8 metres.”

“Industrial Development” means a use permitted in an industrial zone under the authority of the City’s Zoning Bylaw.

“Institutional Development” means a building or structure used or intended to be used only on a non-profit basis for cultural, recreational, social, religious, governmental, public hospital or educational purposes.

“Multi-Family Residential Development” means a development that results in two or more dwelling units on a single property.

“Per acre of lot area under development” means the area specified for development as stated in a Development Permit Application.

4. Every person who obtains
 - (1) an approval of the subdivision of a parcel of land under the Land Title Act or the Condominium Act, or;

- (2) a building permit authorizing the construction, alteration or extension of a building that will, after the construction, alteration or extension
 - (a) contain two or more self contained dwelling units; and
 - (b) be put to no other use than the residential use in those dwelling units; and
- (3) the value of the work authorized by the permit exceeds Fifty Thousand Dollars (\$50,000.00)

shall pay the applicable development cost charges as set out in Schedule "A".

5. Schedule "A" attached hereto forms a part of this bylaw.
6. For purposes of determining charges imposed under Schedule "A" the following shall apply:
 - (1) Charges shall be paid at the time of approval of the subdivision or the issuance of the building permit, or
 - (2) Charges shall be payable on the issuance of a building permit in respect of a lot only to the extent the charge under this bylaw for that lot has not been previously collected, or
 - (3) Notwithstanding (1) or (2), charges in respect of any development shall be the greater of the amounts specified in Columns A and B of Parts I to V, and
 - (4) Charges related to any Congregated Care Development shall be calculated at 50 percent of the amount specified in Columns A and B of Parts I to V.
7. This bylaw comes into effect on the 1st day of October, 2005.
8. "Development Cost Charges Bylaw No. 2017, 1997" is hereby repealed.

Read a first time this 8th day of August, 2005

Read a second time this 8th day of August, 2005

Read a third time this 8th day of August, 2005

Approved by the Inspector of Municipalities this 9th day of September, 2005

Reconsidered, finally passed and adopted this 19th day of September, 2005

Mayor

Manager of Corporate Administration

BYLAW NO. 2426

SCHEDULE "A"

DEVELOPMENT COST CHARGES

PART I HIGHWAY FACILITIES

	Column A	Column B
Charges Applicable	Upon Issue of Building Permit	Upon Subdivision
1. Residential		
(1) Single Family	N/A	\$3,769 per building parcel being created
(2) Multi-Family	\$2,313 per dwelling unit being built	\$2,313 for each dwelling unit permitted to be constructed pursuant to zoning
2. Commercial	\$5,036 per 1000 sq. ft. of gross building area	
3. Industrial/Public Utility	\$17,893 per acre of lot area under development	

PART II STORM DRAINAGE FACILITIES

Charges Applicable	Column A Upon Issue of Building Permit	Column B Upon Subdivision
1. Residential (1) Single Family	N/A	\$1,071 per building parcel being created
(2) Multi-Family	\$321 per dwelling unit being built	\$321 for each dwelling unit permitted to be constructed pursuant to zoning
2. Commercial	\$448 per 1000 sq. ft. of gross building area	
3. Industrial/Public Utility	\$7,370 per acre of lot area under development	

PART III SANITARY SEWER FACILITIES

	Column A	Column B
Charges Applicable	Upon Issue of Building Permit	Upon Subdivision
1. Residential		
(1) Single Family	N/A	\$764 per building parcel being created.
(2) Multi-Family	\$605 per dwelling unit being built	\$605 for each dwelling unit permitted to be constructed pursuant to zoning
2. Commercial	\$207 per 1000 sq. ft. of gross building area.	
3. Industrial/Public Utility	\$5,793 per acre of lot area under development	

PART IV WATER FACILITIES

Charges Applicable	Column A	Column B
	Upon Issue of Building Permit	Upon Subdivision
1. Residential		
(1) Single Family	N/A	\$433 per building parcel being created
(2) Multi-Family	\$343 per dwelling unit being built	\$343 for each dwelling unit permitted to be constructed pursuant to zoning
2. Commercial	\$117 per 1000 sq. ft. of gross building area	
3. Industrial/Public Utility	\$3,285 per acre of lot area under development	

PART V PARK LAND ACQUISITION

Charges Applicable	Column A	Column B
	Upon Issue of Building Permit	Upon Subdivision
1. Residential		
(1) Single Family	N/A	\$698 per building parcel being created
(2) Multi-Family	\$553 per dwelling unit being built	\$553 for each dwelling unit permitted to be constructed pursuant to zoning

THE CORPORATION OF THE CITY OF COURTENAY

BYLAW NO. 2787

A bylaw to amend Development Cost Charges Bylaw No. 2426, 2005

The Council of the Corporation of the City of Courtenay in open meeting assembled enacts as follows:

1. This bylaw may be cited for all purposes as “Development Cost Charges Amendment Bylaw No. 2787, 2014”.
2. That Schedule A to “Development Cost Charges Bylaw No. 2426, 2005” be amended as follows:
 - (a) By deleting “\$2,313 for each dwelling unit permitted to be constructed pursuant to zoning” from Part I - Highway Facilities, Section 1(2), Column B;
 - (b) By deleting “\$321 for each dwelling unit permitted to be constructed pursuant to zoning” from Part II – Storm Drainage Facilities, Section 1(2), Column B;
 - (c) By deleting “\$605 for each dwelling unit permitted to be constructed pursuant to zoning” from Part III – Sanitary Sewer Facilities, Section 1(2), Column B;
 - (d) By deleting “\$343 for each dwelling unit permitted to be constructed pursuant to zoning” from Part IV – Water Facilities, Section 1(2), Column B; and
 - (e) By deleting “\$553 for each dwelling unit permitted to be constructed pursuant to zoning” from Part V – Park Land Acquisition, Section 1(2), Column B.
3. This bylaw shall come into effect upon final adoption hereof.

Read a first time this 7th day of April , 2014

Read a second time this 7th day of April, 2014

Read a third time this 7th day of April, 2014

Approved by the Inspector of Municipalities this 23rd day of April, 2014

Finally passed and adopted this 5th day of May, 2014

Mayor

Director of Legislative Services

APPENDIX B

Proposed Development Cost Charge Bylaw No. 2840, 2016

APPENDIX C

Council Reports and Open House Materials



Welcome to the Development Cost Charge (DCC) Bylaw Update Open House

June 9, 2015

The purpose of this Open House is to:

- introduce new road, water, sewer, drainage, and parks DCC capital programs
- introduce proposed DCC rates
- gather input on the new DCC program and rates from the community and members of the development industry

If you have any questions regarding the DCCs, please ask City staff or Urban Systems, our consultant.

Also, please take some time to complete the Comment Sheet.

Thank you for taking the time to attend this Open House.



What do DCCs pay for?

- DCCs can be levied for:
 - road infrastructure
 - water infrastructure
 - sanitary sewer infrastructure
 - drainage infrastructure
 - park acquisition and development
- Infrastructure needs must be related to development
- By legislation, DCCs cannot be used to pay for:
 - operation and maintenance of City's engineering infrastructure or parkland
 - new or upgraded works needed only for the existing population
 - new libraries, fire halls, police stations, recreation buildings, parking, sports field lighting, artificial turf, skate and spray parks



Who pays DCCs?

- Applicants pay for:
 - subdivision approval to create single family development sites
 - building permits to construct multi-family, commercial, industrial, or institutional development

Why does the City's levy DCCs?

- To pay for the costs of expanding and upgrading the City's road, water, sanitary sewer, drainage, and park infrastructure to meet the needs and impacts of growth





Why update the DCC bylaw?

- Development cost charge bylaws must be reviewed periodically to ensure consistency with development and servicing plans and accurately reflect construction costs
- The last major review of the DCC programs and rates was completed in 1994, with the road DCC program updated in 2000. Since then, the following changes have taken place:
 - new servicing studies have been completed
 - completed projects have been removed
 - construction costs have been updated
 - growth projections have been revised
 - DCC reserves have been updated
- The City should now revise its DCC rates to reflect these changes



How were the new rates calculated?

The following steps were used to calculate the new DCC rates:

- STEP 1: Estimate Growth**
Growth estimates were revised to reflect land use plans for the City of Courtenay.
- STEP 2: Determine Capital Costs**
To service anticipated growth, existing capital programs were updated.
- STEP 3: Determine Benefit Allocation**
To ensure costs were shared fairly between new and existing development, a benefit allocation was determined for each DCC project. The benefit allocation is the percentage of a project's costs that is attributed to growth.
- STEP 4: Determine Municipal Assist Factor**
The *Local Government Act* requires municipalities to assist new development with the DCC program costs. The City of Courtenay proposes to contribute 5% of DCC recoverable costs to assist development.
- STEP 5: Determine Equivalent Units**
Different land uses have different impacts on infrastructure. To reflect these differences, equivalent units were used to allocate DCC costs across land uses.
- STEP 6: Calculate DCC Rates**
The final step was to calculate DCC rates. In general, this meant dividing the DCC costs by the amount of growth to generate a charge per unit/square metre area.



Growth Projections (2015 to 2035)

Dwelling Type	New Units	Unit Measure
Residential (Single Family)	1,200	Unit
Residential (Multi-Family)	1,160	Unit
Commercial/Institutional	37,161	Sq metre total floor area
Industrial	10	Hectare

- The City expects 1,331 people to move to the City by 2035.
- The City does not expect any industrial or institutional development.

DCC Recoverable Costs and City Responsibility (\$ millions)

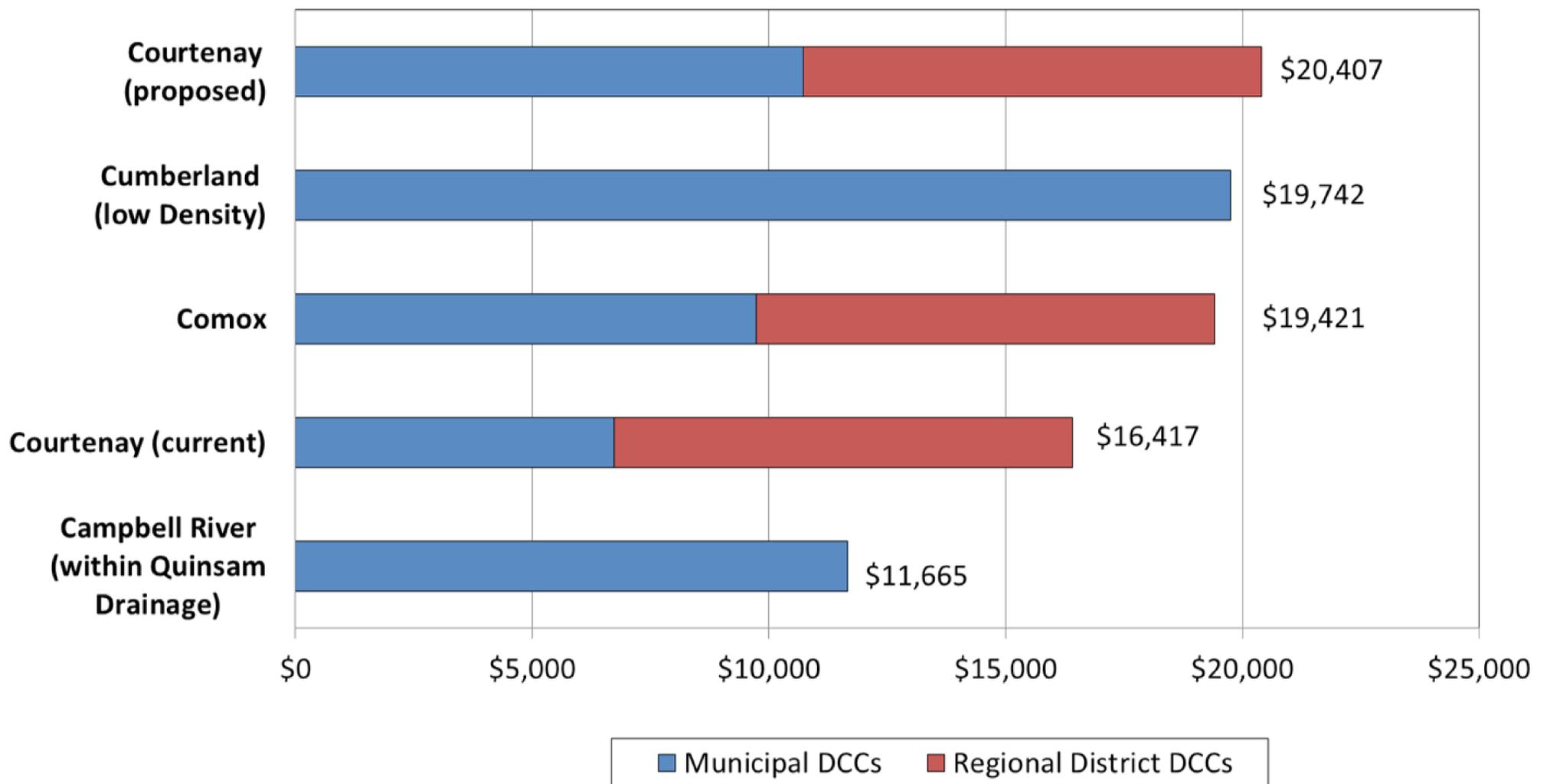
DCC Program	Municipal Costs	DCC Recoverable Costs	Funding by Others	Total Capital Costs
Road	\$33.3	\$13.3	\$15.0	\$61.6
Water	\$2.7	\$1.9	\$0	\$4.67
Sanitary	\$4.9	\$4.2	\$0	\$9.1
Storm	\$6.1	\$4.8	\$0	\$10.9
Parks	\$5.7	\$2.9	\$0	\$8.6
Total	\$52.7	\$27.1	\$15.0	\$94.9

- Funding from other includes contributions from partner governments participating in the service and grants from other levels of government.



DCC Comparison Graphs

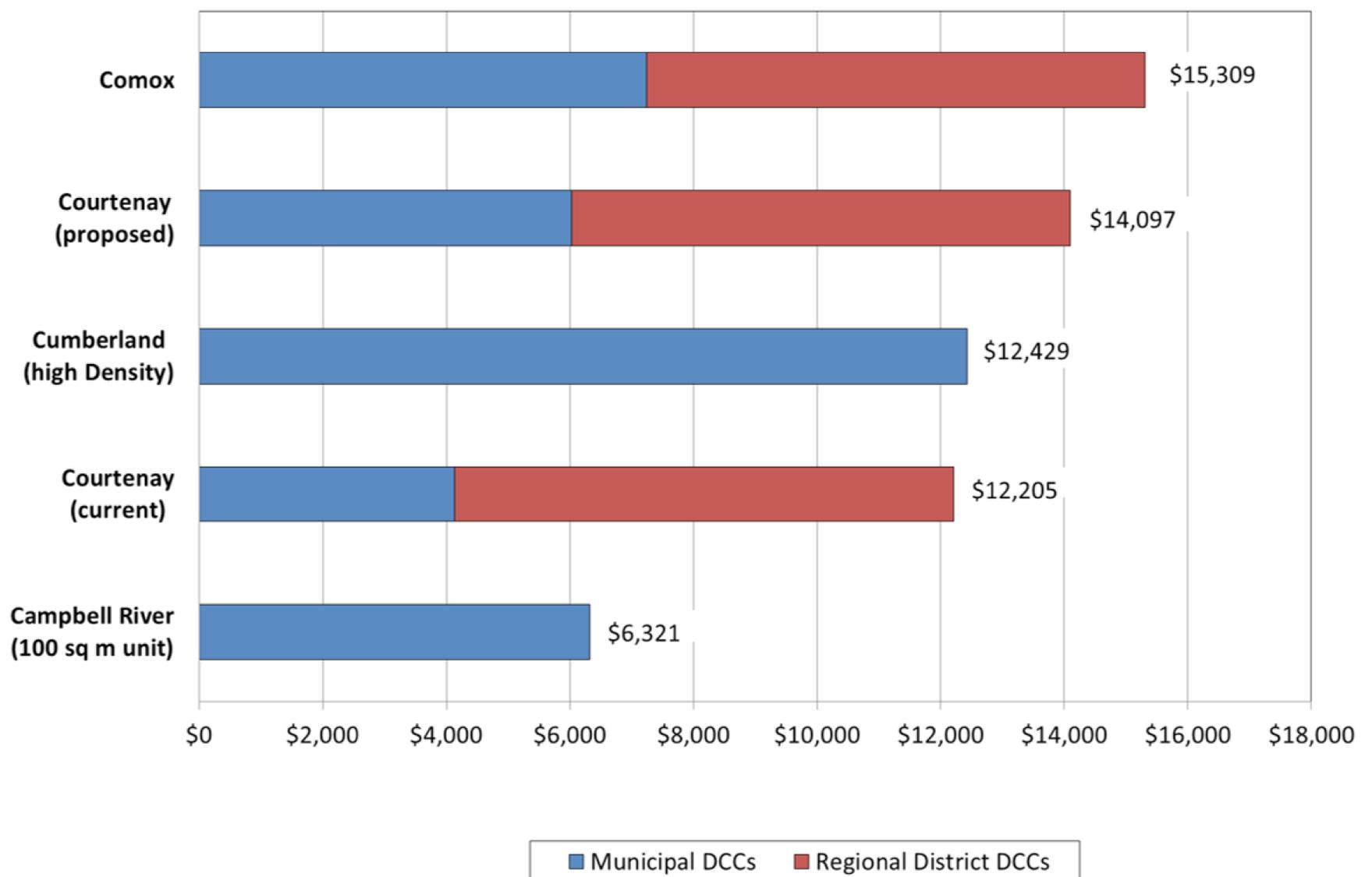
Single Family Residential Land Use





DCC Comparison Graphs

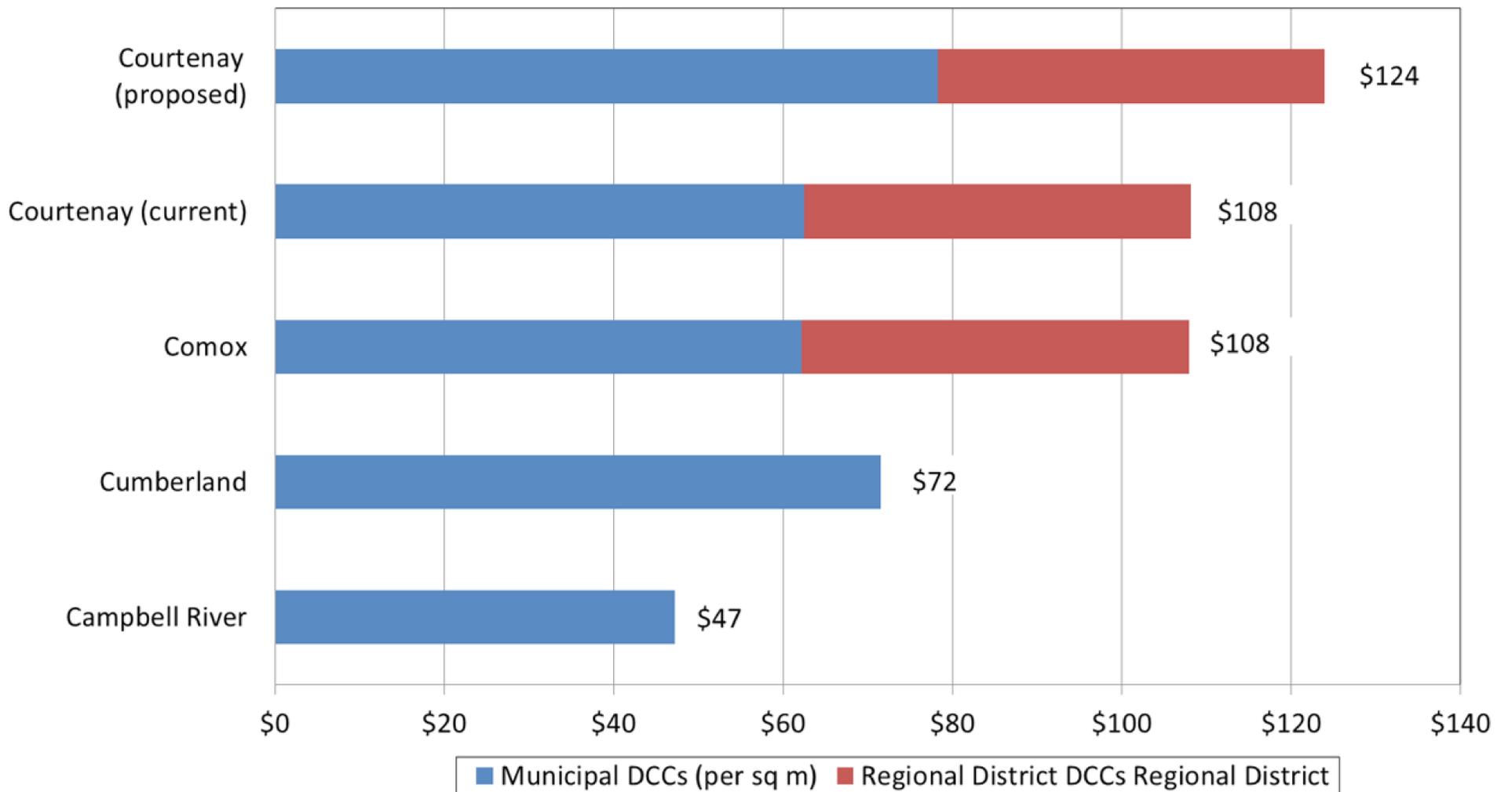
Multi-Family Land Use





DCC Comparison Graphs

Commercial Land Use





Proposed DCC Rates

	Roads	Water	Sanitary Sewer	Storm Drainage	Parks	Total Development Cost Charge	
Residential (Single Family)	\$4,726.49	\$686.85	\$1,751.68	\$2,146.34	\$1,415.47	\$10,726.82	Per unit
Residential (Multi-Family)	\$2,655.79	\$486.04	\$1,239.55	\$643.90	\$1,001.63	\$6,026.91	Per unit
Commercial/ Institutional	\$62.25	\$1.79	\$4.56	\$9.66	N/A	\$78.26	Per sq metre
Industrial	\$50,776.06	\$11,504.59	\$29,340.26	\$36,489.56	N/A	\$128,110.46	Per hectare



Next Steps

- Inform Council of the comments received and any refinements to the DCC program and rates
- Introduce an amending DCC bylaw for Council's consideration for three readings
- Send the bylaw to the Provincial Inspector of Municipalities for approval
- Council gives the DCC bylaw fourth reading
- Implement new DCC rates



DCC Waivers

- Provincial legislation allows local governments to waive some or all of the DCCs for certain kinds of development, including affordable housing and those with low environmental impact.
- The City must recover the cost of any DCC waiver they provide through other revenue sources (i.e. current residents).
- The City is exploring a full/partial DCC waiver for the residential developments and the residential portion of mixed-use developments that have a high density of units per hectare, in the downtown.
- Do you support this proposed waiver? Would it encourage you to develop more in the City of Courtenay?



DCC Waivers

- Provincial legislation allows local governments to waive some or all of the DCCs for certain kinds of development, including:
 - Not-for-profit rental housing, including supportive living housing,
 - For-profit affordable rental housing,
 - Small lot subdivisions designed for low GHG emissions, and
 - Development designed to result in low environmental impact.

The City must recover the entire amount of the waived DCCs from existing development (i.e. existing ratepayers).

- The City is exploring a full/partial DCC waiver for the residential developments and the residential portion of mixed-use developments that have a high density of units per hectare, in the downtown.

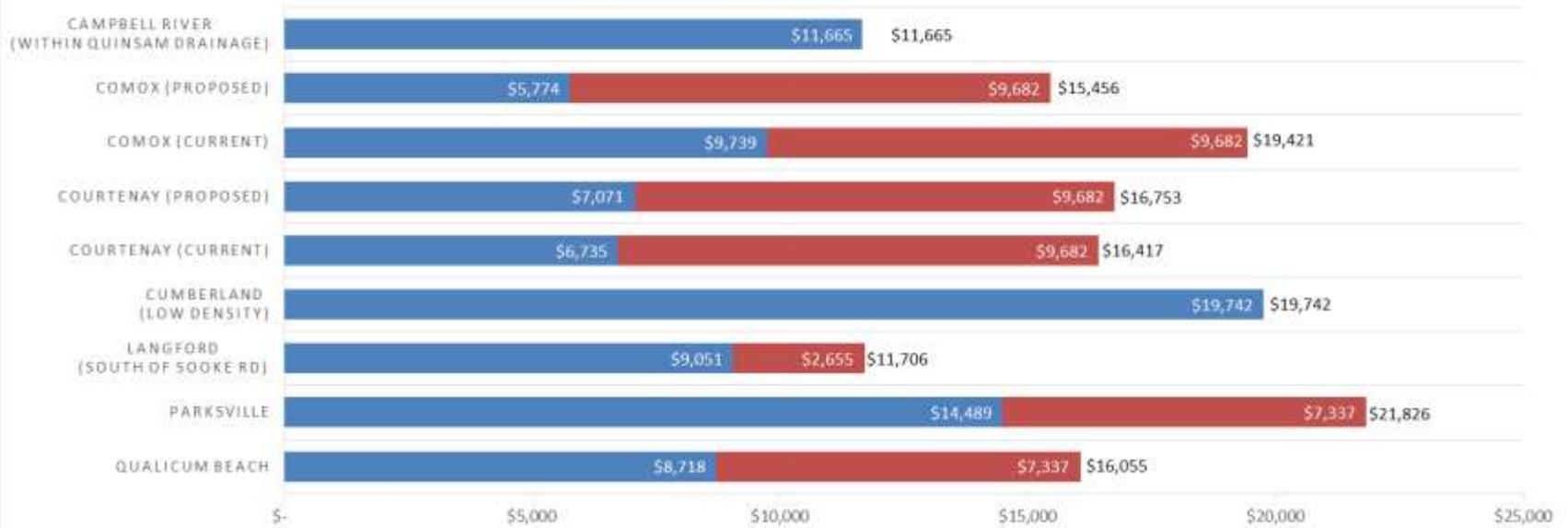
**Do you support this proposed waiver?
Would it encourage you to develop more in Duncan?**

APPENDIX D

DCC Rate Comparison

SINGLE FAMILY RESIDENTIAL

■ Municipal DCCs ■ Regional District DCCs Total



MULTI-FAMILY RESIDENTIAL

■ Municipal DCCs ■ Regional District DCCs Total



COMMERCIAL

■ Municipal DCCs ■ Regional District DCCs Total

