AN INTEGRATED APPROACH TO CAPITAL BUDGETING: THE CITY OF PRINCE GEORGE

by

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Executive Summary

The approval of myPG part 1 by the City of Prince George Council is a catalyst for change with respect to a number of City actions, including capital budgeting. The availability of social, environmental and economic goals specific to the community provides an opportunity to align capital decision framework with a revised information structure which separates community from municipal service goals. The separation of community and municipal service goals creates the need for goals specific to the City at an organizational level. I have collaborated with the myPG implementation team to develop four preliminary municipal service goals that leverage existing objective data specific to the City. The revised information structure also provides the opportunity to integrate the core focus areas identified in City Council's three year strategic plan into the capital budget decision framework.

Review of the existing capital budget decision framework identified other opportunities to improve the structure and scoring systems. Consolidating the score recording document with the goal document improves the framework structure by increasing the connection between each goal and the score assigned by the user. This reduces the likelihood that the user will assign an arbitrary value to a goal category. A Likert scale was used to improve the previous pass / fail scoring system by allowing the user to communicate the magnitude a project will contribute towards each goal.

Unlike community goals and Council's core focus areas; municipal service goals did not exist and were developed for the purpose of this paper. Accordingly, I tested the impact of these goals by evaluating the types of projects selected by each goal category when I ranked the 2011 capital project list for each goal category independently. The results show that the newly created municipal service goals selected less new asset projects than community and strategic goals. Since new asset projects create long term maintenance and renewal liabilities, the addition of the municipal service goals increase the sustainability of the framework.

I have recommended the development of tools to assist operating managers with project development and submission using the same criteria as the capital decision framework. A project development template will make this framework more effective, and will facilitate further development toward quantitative analytical evaluation using net present value and return on investment.

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1.0 Introduction

Municipalities play an important role in communities across Canada by providing services through infrastructure. In recent years there has been increased awareness among decision makers and the public regarding the sustainability of infrastructure in our communities. Capital spending on new infrastructure creates maintenance and renewal liabilities that span many decades throughout the assets service life. Incorporating sustainability principals in capital budgeting is an effective approach to ensuring the sustainability of infrastructure.

Like most municipalities, the availability of capital in Prince George must accommodate demands from development through formal long range and master infrastructure planning as well as emergent informal ad-hoc negotiating to service new development (Nunn, 1996). At the same time community goals have now joined the Prince George Council's strategic plan in the influence over capital spending. Municipalities faced with diverse competing priorities and goals create the need for a capital budget guidance framework to optimize the effectiveness of capital spending toward community, municipal service, and strategic goals.

Senior management is responsible for the prioritization of capital projects for Council's consideration. While political influence and emergent demands for infrastructure by developers play a major role in the prioritization of capital projects, a rational method of project evaluation allows senior management to consider the impact each project will have toward a desired outcome. The desired outcome includes both community goals and municipal service goals. Community goals

represent a community vision while municipal service and strategic plan goals reflect a strategic organizational vision that is specific to the City of Prince George.

The myPG Sustainability Plan¹ was produced through a community engagement program to develop a long term vision for the City of Prince George. The myPG public engagement produced the long term social, environmental and economic goals of the community. Integration of these community specific goals into the evaluation criteria which defines the desired outcome in allocating capital is an important part of the implementation of myPG. The existing capital budget decision framework has significant overlap between community goals and municipal service goals. The utilization of myPG goals creates the need for goals specific to the City at an organizational level, as shown in figure 1 (page 28).

Working with the myPG implementation team I have developed four municipal service goals using measures and tools available to the organization. The revised information structure facilitates the inclusion of strategic goals into the framework.

Included in this paper is a review of the existing framework structure and scoring system. The existing scoring system does not allow the user to express the degree in which they feel capital projects contribute toward goals. A traditional 5 point Likert scale was utilized to increase the ability of the framework to measure the magnitude of the contribution a project will have towards each goal.

Using the framework I have created, I evaluated the 2011 capital projects and compared the types of projects selected by each goal category. The results of this

¹ City of Prince George, myPG, 2010

comparison show that the newly created municipal service goals recommended less New Asset projects than community and strategic plan goals.

2.0 Existing Capital Budget Framework

The capital budgeting framework currently utilized by the City of Prince George is a "suggested scoring system for Capital Expenditure Plan projects to assist in ranking of items for Council's consideration" (see Appendix A). The current framework includes pre selection conditions which give priority to required projects and selection categories and criteria developed by senior management to evaluate project benefits:

- Pre selection conditions
- Selection categories and criteria

2.1 Pre Selection Conditions

Projects that fall into the following categories are considered necessary, and are placed at the top of the funding priority list:

- 1) Mandated by senior government legislation
- 2) Subject to a court order
- 3) Required by City bylaw
- 4) Constitutes a fulfillment of a Council approved obligation
- 5) Contains significant 3rd party or senior government funding

2.2 Selection Categories and Criteria

The selection categories originated from the preliminary myPG bubble (Venn) diagram which was the starting point of the myPG public engagement process (see Appendix B). The bubble diagram shows the current information structure which has significant overlap between community and municipal service goals. The current information structure was used to create the following categories in the framework:

- 1. Economic Development and Diversification
- 2. Environmental Stewardship
- 3. Social Development Strategy
- 4. Land use planning
- 5. Transportation, Civic Facilities and Infrastructure
- 6. Corporate Support and Financial System Management

Selection categories 1 through 4 each represent one area on the Venn diagram while selection categories 5 and 6 each represent two areas on the Venn diagram. Transportation is consolidated with Civic Facilities and Infrastructure, and Corporate Support is consolidated with Financial System Management.

Each category in the framework has 9 criteria. Projects are scored by assigning 1 point for contributing or 0 points for not contributing to each of the 9 criteria within the 6 categories. The project score is used to rank all projects that are not pre selected for consideration in the capital budget.

The existing framework includes environmental, social, economic and three municipal service categories, significant overlap exists between the criteria used in community and municipal service criteria.

3.0 Problem Statement

The myPG Sustainability Plan² was produced through a community engagement program to develop a long term vision for the City of Prince George. Approved by City Council in June of 2010, it is intended to provide direction to the City, partner organizations and community members to achieve the vision created by the community. Part 1 of the myPG plan presents 19 Social, Environmental, and Economic goals (see Appendix C). Now that the myPG public engagement is complete, it is necessary to revise the framework to represent the community goals provided by myPG as part of the implementation process.

The existing framework has significant overlap between community and municipal service goals. With the replacement of community goals, the existing municipal service goals must be reviewed and revised to establish goals specific to the City of Prince George as an organization.

The existing framework does not include the core focus areas identified in the 3 year strategic plan approved by City Council in December of 2009 (see Appendix D). Council's strategic plan is important because it represents the way in which Council has decided to achieve a desired outcome and should be included in the framework.

² City of Prince George, myPG, 2010

The existing framework uses a pass or fail scoring system to evaluate whether a project contributes to each goal. This is a problem as the user cannot communicate how strongly they feel the contribution a project has towards each goal. Allowing the user to communicate the magnitude of the contribution increases the resolution in the scoring system.

Scoring is recorded on a separate document from goals in the existing framework. This separation increases the likelihood that the user will assign arbitrary values to goal categories, instead of scoring each goal. Improving the implementation of the framework design will increase the consistency and completeness of the evaluation by users.

4.0 Literature Review

4.1 Municipal Sustainability Plans, Decision Tools and Checklists

4.1.1 Municipal Sustainability Plans

In 2005 British Columbia became the first province in Canada to sign an agreement with the federal government to transfer gas tax revenues to BC cities and communities. The Gas Tax Agreement details how the funds should be used in the province to support sustainable municipal infrastructure, including the creation of sustainability plans. The Gas Tax Agreement has provided the resources for municipalities across Canada to develop Integrated Community Sustainability Plans for their communities. Indeed, there is an abundance of sustainability plans in the public domain. The focus of this paper is the application of sustainability plans to capital budgeting and an effort was made not to fall into 'the black hole of indicators'.

Of the numerous sustainability plans reviewed, the City of Calgary's, Imagine Calgary³, stood out as having the most developed criteria that could be used for capital budget decision making.

City of Calgary

In June 2006 the City of Calgary approved a long range urban sustainability plan called Imagine Calgary⁴. Calgary's 100 year vision is presented in 5 system categories:

- Built Environment and infrastructure system
- Economic system
- Governance system
- Natural Environment system
- Social system

Each system has 100 year goals to achieve the vision. The 28 goals have a total of 114 year targets over 30 years to achieve goals (see Appendix E). Imagine Calgary⁵ states that "the targets were developed using a wide range of research, expert analysis and collective wisdom of participants in the multidisciplinary working group process". Targets that contribute to the achievement of one goal may support a number of other goals across other systems. Well developed targets offer significant metrics to benchmark and evaluate progress toward goals in framework.

³ City of Calgary, Imagine Calgary, 2006

⁴ City of Calgary, Imagine Calgary, 2006

⁵ City of Calgary, Imagine Calgary, 2006

4.1.2 Municipal Capital Budget Decision Tools

Capital Budgeting decision tools were less common or at least less available than sustainability checklists during the research for this paper. Kelowna, Port Coquitlam and Nelson have a formalized structure for evaluating projects.

City of Kelowna

In March of 2010 the City of Kelowna approved a Sustainable Infrastructure Policy⁶. The policy applies 2 pre selection conditions, and 16 goals identified in their Official Community Plan and strategies in their sustainability action plan (see Appendix F). The policy contains the following pre selection conditions that projects must satisfy to be evaluated:

- 1) Minimum service level of existing infrastructure must be met first
- 2) Projects \$1 million and greater must be evaluated

The 16 goals represent 7 categories of community capital:

- Natural (Environmental) Capital
- Built Capital (Physical)
- Economic Capital
- Social Capital
- Cultural / Creative Capital
- Financial Capital
- Governance and Organizational Capital

⁶ City of Kelowna, Sustainable Infrastructure Policy, 2010

Each of the 16 goals has a 10 year target indicator. Projects are evaluated on how well they contribute to each of the 10 year target indicators for all goals. Each project is scored on a scale from -2 to +2 for all 16 target indicators for a maximum score of 32. The benefit scores for each goal are added and compared with the cost of the project. Quantitative evaluation framework provides a measurement of the benefits that can be compared with the project cost to assist with capital budgeting.

City of Port Coquitlam

In 2006 the City of Coquitlam implemented a budget decision matrix⁷ for both operating and capital budgeting. All budgeting decisions are by departments and initially assessed by the senior management team using a triple bottom line (TBL) matrix. TBL accounting balances economic, social and environmental criteria. Two additional criteria are used, which are alignment with the Corporate Strategic Plan and Risk (see Appendix G).

The City of Nelson

In December of 2010 the City of Nelson approved a sustainability strategy – Nelson Path to 2040⁸ (see Appendix H). The strategy is comprised of three components:

- 5 Sustainability Principals and associated Directions,
- 10 Focus Areas, and
- 2040 assessment tool.

⁷ City of Port Coquitlam. Decision Matrix, 2006

⁸ City of Nelson, Nelsor Path to 2040, 2010

The 2040 Assessment tool is designed to align financial, policy, strategic planning, and large capital investment decisions with the 2040 sustainability strategies. Projects are scored between -3 and 3 for the projects direct and indirect impact toward each sustainability principal and its related, directions, and objectives. Incremental scoring is defined by:

- Strong Impact (-3 or 3) This initiative will move Nelson <u>significantly</u> 'closer' or 'away' from meeting the related principals, directions, and objectives.
 Example: the initiative puts Nelson more than <u>10 years</u> 'ahead' or 'behind' of where we are now.
- Moderate Impact (-2 or 2) This initiative will move Nelson <u>somewhat</u> 'closer' or 'away' from meeting the related principals, directions, and objectives.
 Example: the initiative puts Nelson more than <u>5 years</u> 'ahead' or 'behind' of where we are now.
- Minor Impact (-1 or 1) This initiative will move Nelson <u>slightly</u> 'closer' or 'away' from meeting the related principals, directions, and objectives.
 Example: the initiative puts Nelson more than <u>1-2 years</u> 'ahead' or 'behind' of where we are now.

4.1.3 Municipal Sustainability Checklists for Development

A related application of sustainability plans across Canada is development checklists. Sustainability checklists are used by local government through the development approval process to evaluate how a specific development will contribute to the community goals; and vision. Sustainability checklists are the most common application of sustainability plans by local government; however the focus of this paper is the application of sustainability plans to capital budget decisions. A number of sustainability checklists were encountered including:

- City of Port Coquitlam Sustainability checklist
- Town of Canmore Sustainability screening report
- The District of Saanich Sustainability statement guidelines for rezoning and development permits
- The City of Kelowna Sustainability checklist
- Regional District of Okanagan-Similkameen Sustainability checklist
- City of Kamloops Development checklist
- City of Nelson Sustainability checklist

4.2 Industry Journals

Private corporations have a 'single bottom line' and can easily apply a variety of analytical techniques such as payback, discounted payback, accounting rate of return, internal rate of return, modified internal rate of return, profitability index and net present value (Burns, 1997). Quantification techniques have yet to reconcile to the qualitative influences on the budget process. The major issue is that costs tend to be fairly clear whereas it can be difficult to define the benefits of capital projects in the public sector (Farazmand and Neill, 1996). Neither empirical evidence nor theoretical insights have indicated an optimal way or even a totally non-subjective way for local governments to prioritize capital projects (Millar, 1988).

In the private sector, profitability is the key to financial management and success with respect to capital investments. For municipal governments, profitability is not an objective, but holistic capital budgeting techniques using a balanced score card can and will help administrators in evaluating competing priorities and projects (Chan, 2004).

Capital budgeting is an essential and important component of the municipal budgeting and planning processes. Traditionally, the literature on capital budgeting has been focused on rational decision-making (Forrester, 1993). However, in the last twenty to thirty years new theories have emerged to reflect the differences in capital demand and approaches to local policy (Nunn, 1990). According to Snyder (1977) and Wiggins (1981), alternative capital budgeting proposals should be compared using benefit cost ratios, net present values, and internal rate of return. Such criteria may not be useful or appropriate to governments as it is limited by the fact that the analyses do not reflect the possibilities of failure (McKenna, 1980), an unequal distribution of actuarial benefits over time (Neenan, 1981), an understatement of the opportunity cost of capital (Snyder, 1977) and other constraints such as management priorities and legal obligations (Millar, 1988). Historically, the literature and theoretical evidence for capital budgeting has been weak with little empirical evidence (Forrester, 1993). While there has been some longitudinal and crosssectional analyses, the research has been constrained by methodological limitations and small sample sizes (Millar, 1988), as well as measurement inconsistencies (Kamensky, 1984; Pagano, 1984; Huq, Taylor and Whritenour, 1986; Millar, 1988). In addition, the historical research that examined the capital side of local government budgeting and finance focused more on debt finance, underwriters, and insurers rather than on the process of capital budgeting, project prioritization/selection,

funding projects from capital reserves, or maintaining assets (more commonly operating budget concerns) (Mullins and Pagano, 2005). The criteria used in most municipalities are often so general and ambiguous that their interpretations by different reviewers create problems that result in highly subjective selection procedures and difficulties in selecting projects (Millar, 1988). These gaps in the research on capital budgeting can hinder local government officials in selecting among diverse and competing capital projects and while studies suggest that the need to prioritize and select capital projects are important aspects of capital budgeting, there is very little clear policy direction on how to do this, suggesting that further guidance is needed in priority-setting.

4.2.1 Long Range Planning

Capital budgeting should be important for planners because of the impact that expenditures have on issues such as community and economic developments, environmental planning and the urban form (Elmer, 2005). Capital budgeting can also prove to be a more powerful tool than zoning to implement comprehensive land use plans (Elmer, 2005). The availability of servicing plays an important role in the viability of development of competing areas. Developers determine whether to accept or reject a project based on cost and revenue, which is sensitive to servicing requirements and which can be significant if City infrastructure is not adjacent to the area being considered. The budgetary process is essential to the implementation of public policy and the capital budget is a path for bringing the long-term plans of a municipality into actions (Prakesh, 1969).

4.2.2 Asset Management

Public facilities are deteriorating faster than they can be replaced and maintenance has been deferred for too long (Pagano, 1984). Even with the studies on best infrastructure-management practices, it was not until the Public Sector Accounting Board's (PSAB) 3150 that municipalities were required to report spending and depreciation of assets. PSAB 3150 plays a significant role in the area of infrastructure renewal as it requires governments to report information on infrastructure depreciation and recommends reporting on asset condition. The renewal of public facilities which has long been a neglected area of study for academics or concern for elected officials has finally come to the forefront (Mullins and Pagano, 2005).

Asset or risk management is defined as a set of activities, procedures, methods and systems used to identify, quantify and mitigate undesirable exposure to loss in capital and/or quality of service (Federation Canadian Municipalities, 2006). Asset management has been used by all levels of government to provide the framework for rehabilitation or replacement of infrastructure. Risk is a combination of the probability and the severity of a particular circumstance that negatively impacts the ability of infrastructure assets to meet the objectives of the municipality (Federation Canadian Municipalities, 2006).

Sophisticated accounting and budgeting systems that better inform public managers of the cost implications of their decisions is the basis for a structured management approach in managing capital allocations, administering government services and supporting infrastructure assets (Wooldridge, Garvin and Miller, 2001). Only after

more precise inventory and more projections of investment needs can we adequately begin to make informed decisions regarding future expenditures (Huq, et al., 1986; Wooldridge, et al., 2001).

The Integrated Infrastructure Assets Management System (IIMS), proposed by Lemer and Wright (1997) and Lemer (1998), identifies the potential problems on integrating asset management data for decision-making. These problems include the lack of complete data regarding facilities, the difficulty in establishing replacement values for facilities, the establishment of the 'non-financial' value of assets, and the integration with GIS. Lemer (1998) stresses the need for proper data collection, performance modeling, decision analysis, as well as, management reporting.

Vanier and Danylo (1998) researched innovative, decision making tools for assisting city engineers and managers to make choices between long-term alternatives related to the maintenance, repair and capital renewal of mixed urban infrastructure assets. Their investigation found a limited number of applications for decision-making related to municipal infrastructure, and did not find any comprehensive solution that addressed the current and future needs for investment planning. Integration with corporate legacy systems such as computerized maintenance management systems and GIS is seen as the most challenging problem for using decision-making tools in the area of municipal infrastructure planning.

Asset management focuses on the costs of infrastructure but rarely gives equal consideration to revenues and historically asset managers have not been involved with evaluating the life cycle costs of new planned development (Burns, 2011).

However, if the acceptance of new developments was based on whether or not they could demonstrate that their life cycle costs could be off-set by their life cycle revenues it would encourage the design of sustainable developments (Burns, 2011). Life cycle costing tools, such as the excel based program produced by CMHC, allow communities to estimate life cycle costs which can be used to compare anticipated costs to revenues, providing an estimate of the long term financial burden, (or surplus), a development will place on the community.

4.2.3 Reporting Requirements

Millar (1988) discusses and addresses the inherent difficulties that occur in reducing competing but widely diverse projects to some common denominator for comparison. According to Millar (1988), a significant part of the problem is the lack of assessment criteria and data. Often, central agencies passively accept information provided by the operating departments, because of insufficient staffing resources or unfamiliarity with technical data or aspects of many proposals (Millar, 1988).

The availability of data for using assessment criteria is another obstacle for many operating departments that do not have the ability or expertise to generate and analyze sophisticated data systems (Millar, 1988). Without the data, municipalities must begin with crude estimates for criteria assessment. While this information may be considered judgmental, it can assist governments and decision makers in focusing on the most important issues and projects with future improvements in the quality of the data to follow. Qualitative data should be provided but reinforced, where possible, with quantitative data (Millar, 1988).

According to Ammar, Duncombe and Wright (2001), research on capital budgeting shows that while most cities prepare some type of capital improvement plan to be used in developing the capital budget relatively few have either a formal set of criteria for ranking capital projects or a formal process that involves citizens in project selection. As a result, less attention is being paid to the content of the plan, the planning and project selection process, the project management process, and maintenance planning and funding. Thus, project selection often falls to political pressures that do not use formal criteria (Ammar, et al., 2001; Mullins and Pagano, 2005).

Ideally, to facilitate a systematic selection process, municipalities need to be more assertive in establishing (prior to beginning the capital budget process) and adhering to requirements for project submissions from various operating departments (Millar, 1988). All capital requests should include clear and detailed supporting documentation, including the estimated benefits of the project and projected life cycle costs (Ammar, et al., 2001). Once received, proposals should not only be reviewed for actual assessment but also for accuracy and adequacy of data with deficient proposals being returned for modification, or at least having their weakness noted (Millar, 1988). Project selection should then be based on formal criteria matching framework objectives (Ammar, et al., 2001). Performance measures make criteria evaluation meaningful to decision makers. Project development must focus on performance measures that reflect respective value toward criteria, and assess progress (Félio and Potkins, 2000).

4.2.4 Indicators

Indicators allow decision makers to evaluate the current status or progress toward a desired outcome. The following are highlights indicators encountered.

The Model Framework set forth by Félio and Lounis (2009) is composed of three building blocks: objectives, assessment criteria and performance indicators.

Félio and Potkins (2000) published Canada's guide to sustainable municipal infrastructure and set forth a decision-making framework that presents 6 decision criteria, related goals, and metrics (see Appendix I).

Mosteanu and Semenescu (2009) state that the modeling of social benefits (defined as social and environmental) of public investment projects can be very difficult due to various methodology issues:

- The effects of a project can be measured only by specific indicators and the aggregation of the results is not simple.
- The social benefit should allow comparison between public investment with different lifetimes
- The social benefit should allow comparison of public investment of different types

Hence, Mosteanu and Semenescu (2009) introduced a concept of social benefit as an indicator quantifying the satisfaction of a community as a method of valuing the effectiveness of public investments, allowing the positive non-monetary external effects to be taken into account. This methodology is grounds on the monetary quantification of all positive effects, allowing aggregation in order to obtain an expression of social benefit (Mosteanu and Semenescu, 2009).

However, there are specialists considering that the measurement in monetary terms of the effects of public investments is not accurate and therefore not able to reflect the complexity of the results (Mann and Wustemann, 2008).

4.2.5 Relative Weighting

The assignment of weights to the rating systems for each criterion is not a technical matter but a political task reflecting a municipality's values and priorities. Such value judgments are likely to be dynamic and thus, weights should be reviewed regularly (Millar, 1988). The selection of weighting is the purview of the decision maker who must implement their own values and assumptions (Félio and Potkins, 2000).

The analytical hierarchy process which involves the assignment of ranking or scoring to qualitative goals of capital projects as well as the financial implications and an asset replacement measure may prove to be an adequate decision-making tool for municipal capital budgets (Mullins and Pagano).

The analytical hierarchy process is a methodology that helps management set priorities on capital investment projects. It provides a method of including tangible and intangible, quantitative and qualitative items for decision making (Chan, 2004). Developed by Saaty (1980), the analytic hierarchy process is an alternative to rational measurement – the assignment of values. This process uses pair wise comparisons for decision making which in reality is how the human mind conceptualizes and structures a problem. The analytic hierarchy process provides a fundamental scale of relative magnitudes expressed in dominance units to represent judgments in the form of paired comparisons. The analytic hierarchy process as a descriptive theory encompasses procedures leading to outcomes as would be ranked by normative theory (Saaty, 1980).

The analytic hierarchy process is superior to ad hoc weighting schemes when multiple criteria are involved because the procedure enforces transitivity and improves consistency in responses. It also allows for synthesis of multiple viewpoints on multiple criteria into a unified result (Chan, 2004). The use of the analytic hierarchy process does require educating participants in the method, which can be time consuming.

4.2.6 Selection Process

In the absence of publicly available information regarding infrastructure conditions, needs, depreciation and use, one's choice of project might be just as good as another (Mullins and Pagano, 2005). In smaller communities when a capital investment project such as a library or a replacement for city hall has been long anticipated and debated extensively in the political arena, very little reporting or analysis may be necessary (Elmer, 2005).

The selection process for most municipalities is initiated by the submission of capital requests by operating departments that include project justification, description and costs (Millar, 1988; Ammar, et al., 2001). Each operating department should be responsible for generating appropriate and meaningful data for each proposal according to assessment criteria specified by the municipality (Millar, 1988). Prior to

submission each proposal should be scored by the submitting operating department to encourage critical thinking regarding their own priorities and proposals (Millar, 1988). Ideally, departments should also look at alternative capital strategies, such as rehabilitation versus replacement options and evaluate the estimated benefits and projected life cycle costs of each project (Millar, 1988; Ammar, et al., 2001). This information can be helpful in determining the effectiveness of long-run cost (Millar, 1988).

One of the most important requirements for an effective selection process is the conception of clearly-defined, pre-specified criteria from which the assessment and subsequent selection of capital projects will be based (Millar, 1988). To select projects, the first level of review is against (either numerically or qualitatively) the criteria that was established at the beginning of the process. Projects with existing funding should also be evaluated (Elmer, 2005). For this purpose, capital projects need to be accompanied by reasonably accurate and realistic data that can be examined (Millar, 1988).

Performance measurement has the potential to provide relevant data on what is working well and what is not, and therefore, may support decision on where to direct funding (Frank and D'Souza, 2004). Using measures for allocating funds may be more appropriate for decisions of some levels than others. Behn (2003) argues that using measures to allocate funds between departments can be dangerous and while measures may communicate the level of a department's performance, they cannot by themselves explain the reason for the level of performance and thus cannot dictate whether poor performance should be met with decreased or increased

funding. Instead, Behn (2003) suggests that measures can be appropriately used to make allocation decisions between programs within individual departments.

The purpose of an asset prioritization framework is to evaluate infrastructure alternatives of projects under consideration and to augment the capacity of political decision makers to convert information into knowledge (Félio and Potkins, 2000). Each proposal is given an overall score using its individual criterion scores and the criteria weights making it easier for comparisons among widely diverse proposals from a range of departments (Millar, 1988).

4.2.7 Political Influence

The politics of infrastructure play a significant role in growth management initiatives (MacManus, 2004). With the condition and demand of infrastructure playing a significant role to voters' quality of life, they evidently command much of our electorate's attention (Mullins and Pagano, 2005). If political debate on budgeting can proceed in a manner which integrates outlays for specific capital projects with annual operations and maintenance requirements, the maintenance deferral problem may be mitigated (Pagano, 1984). Extensive citizen participation requires considerable time from government staff that assist citizen groups; however, such participation can make it much easier for financially strapped municipalities to finance and implement much needed improvements to infrastructure (Millar, 1988).

The nature of public spending suggests a rational process in which infrastructure projects are analyzed, prioritized, and implemented according to technical engineering and financial objective; however, contemporary decision making is more

likely to satisfy rather than maximize the decision maker's objective criteria (Lindbloom, 1959; Beulens and van Hoodland, 1987).

There are several obstacles to the use of systematic procedures. According to Millar (1988) local governments are vulnerable to political and fiscal limitations and create an environment that discourages the use of systematic rational procedures thus leading to deteriorating infrastructures caused by:

- Deferred maintenance patterns
- Inadequate attention to operating and capital costs
- Insufficient data and information on trade-offs

Technical data can also be highly political. While it can mediate the effect of strong political views, it can also be distorted to satisfy another thus should only form a part of the basis for political judgments (Millar, 1988). Technical data can also be used to sell projects to the public and media by providing evidence that a capital investment project will result in major reductions in future operating costs or capital expenditures (Millar, 1988).

Demand for public capital can be generated formally by capital improvement plans, or informally by developers (Butler and Myers, 1984; Nunn, 1990). While the conditions of each developer-city agreement may differ, each one can influence negotiations with other developers (Butler and Myers, 1984). Public managers are often caught between formal and informal approaches to infrastructure investment and while they may still use sequential, systematic planning techniques in approaching capital budgeting, they must also recognize how a comprehensive infrastructure plan can be quickly altered by a single development or the persistent negotiating tactics of certain business interests (Nunn, 1990).

The frequency of informal negotiating in the provision of public capital facilities and in response to business interests, has often led to bargaining as the strategy of choice for public officials making infrastructure decisions (Fulton, 1989). However, they must also understand the complex dynamics infrastructure construction, how will it be funded and who will benefit from it (Nunn, 1990).

Cities with strong administrative policies generally have a more formalized approach to capital improvement plans as they have more provisions for over sizing and cost sharing between the City and developers; while cities with strong political policies tend to be more informal, driven by developers on a 'case by case' basis (Nunn, 1996). The outcomes for capital spending are then quite different between cities with strong administrative policies and those with strong political policies (Nunn, 1996). As a result of these differences, cities with strong administrative policies tend to spend significantly more on water, sewer, and road infrastructure per capita than those with strong political policies (Mullins and Pagano, 2005). Strong political policies will continue to play a significant role in allocations often deferring or ignoring maintenance in favour of more immediate or visible operating concerns despite any reporting or analysis criteria and requirements (Mullins and Pagano, 2005).

4.2.8 Impact on Operating Budget

Prakash (1969) utilized a cost-based approach to budgeting, in which the capital and operating costs are considered elements of one system. His paper focused on the determination of the overall size of municipal budgets and did not deal specifically with the allocation of resources among different projects. His approach was aimed at overcoming some of the major shortcomings in existing capital budgeting practices at the municipal level.

Typically, the municipal capital program focuses on capital outlays and rarely considers the long term impact that these projects might have on future operating budgets. As a result, related maintenance and operating costs are often not given enough attention nor are certain capital costs present in the capital budget. For example, projects which are not customarily tax supported, (self liquidating or revenue producing) may be excluded from the capital budget.

Most municipalities preparing capital improvement plans have dual budgetary systems. This dual system has been justified because of the long range planning required for capital, however, such systems can also lead to the neglect of regular maintenance (Pagano, 1984). In order to make a link between capital and operating budgets, municipalities with dual budgetary systems need to reassess their definitions of maintenance and establish annual general fund transfers to the capital budget (Pagano, 1984). A maintenance fund could ensure that the full cost of a capital facility is incorporated into the budgetary process by requiring annual payments not only for construction purposes but also for upkeep, repair, and maintenance (Pagano, 1984).

In many large municipalities capital spending decisions are often made independent of operating decisions with managers making long-term capital commitments without understanding the repercussions for operations (Bland and Nunn, 1992). As a result, municipal services (most notably those with labour intensive services such as police and fire protection) are affected by past years capital expenditures (Bland and Nunn, 1992).

5.0 Methodology

I have reviewed and revised the existing capital budget framework to reflect the current information structure used by the City. The myPG goals and Council's core focus areas were used in the proposed framework. I have worked with the myPG implementation team and used criteria presented by the NRC to develop municipal service goals specific to the City of Prince George. Various options for scoring systems and framework structure were researched using industry journals and sustainability implementation tools used by municipalities across British Columbia. Lastly, I scored and ranked the 2011 capital projects to investigate the impact of the proposed municipal service goals by evaluating the types of projects selected by each goal category independently.

6.0 Results

6.1 Pre Selection Conditions

Existing pre selection conditions 1, 2, 3, and 4 represent legal or contractual obligations and pre selection condition 5 represents financial leveraging of municipal investment. While the existing pre selection conditions are required and therefore

will remain, I considered the addition of a condition similar to Kelowna's sustainable infrastructure policy. Kelowna's sustainable infrastructure policy uses the condition that all minimum service levels must be met before investments in new assets are considered. This pre selection condition would address the challenge of comparing capital expenditure to increase the useful life of existing infrastructure with new assets. However the nature of municipal capital budgeting is both formal and informal (Nunn, 1990). Investment in new assets may be required to accommodate or generate economic growth; therefore, framework should be flexible given the political environment. Ultimately, capital budget framework allows senior management and elected officials to be aware of the impact capital budget decisions have on pre determined desired outcomes. The addition of such a rigid pre selection condition is not appropriate. Therefore, the proposed framework does not alter the existing pre selection conditions.

6.2 Goal Categories

The approval of myPG part 1 by City Council is the catalyst for change in a number of City actions, including the capital budget framework. The 19 myPG goals are entirely community specific, allowing a clear differentiation between community, municipal service and strategic plan goals.



Figure 1 – Information Structure

Community goals represent a community vision while municipal service and strategic plan goals reflect a strategic organizational vision that is specific to the City of Prince George. Achievement of organizational goals (municipal service and strategic) should not be at the detriment of another broader community goal. Capital budgeting framework must not only reflect City specific goals but contribute to the broader social, environmental, and economic goals of the community.

6.2.1 Community Categories, Goals, and Criteria

Community goals and criteria are shown in tables 1, 2, and 3. These goals were taken directly from myPG part 1 and are entirely community based.
Table 1 - Social Goals

Goal	Description
Affordable,	Offer accessible, affordable and safe housing for all, and eliminate
Accessible Housing	homelessness
Clear Identity and	Have a clear identity that the community can be proud of, with a
Pride	strong downtown and connection to its rivers and natural
	surroundings
Culturally Rich	Have a rich cultural life, with more events, facilities, education, and community involvement in the arts to support economic and social growth
Equitable Community	People of all backgrounds, ethnicities and income levels can access services that help to meet their needs and improve their quality of life
Healthy and Active	Be a community that encourages and supports health and wellness
Safe Community	Create an environment where all citizens feel safe
Supportive and	Be a friendly and engaged community with strong social
Engaged	connections

Table 2 - Environmental Goals

Goal	Description
Clean Air	Enjoy clean air
Clean Water	Protect the water supply and waterways, and reduce consumption
Green City, Green Practices	Be a green city with healthy habitat and forests, and a strong environmental consciousness, led by government and local organizations that demonstrate sustainable practices
Green Energy	Be a leader in green energy
Reduce Carbon Emissions and Adapt to Climate Change	Reduce carbon emissions and dependence on fossil fuels, and be prepared for climate change
Reduce Waste	Reduce solid waste production and land-filling

Table 3 - Economic Goals

Goal	Description
Diverse Economy	Have a diverse economy to augment our forestry base, responding well to global trends, and offering a good local return on investment through a focus on local food, service, green energy, and a knowledge-based resource economy connected to the world
Fiscal Responsibility	Carefully budget to ensure effective and responsible resources
International Connections	Have well established international connections and international partners
Job Diversity and Accessibility	Have many good jobs to suit the diversity and aspirations of people in Prince George, with programs that support developing the skills and knowledge needed to fill them
Sustainable Business	Be a model for northern cities in green and local business, and bioenergy
Vibrant Economy	Be a centre for vibrant economic growth in Northern BC, attracting newcomers and business and service choice

6.2.2 Municipal Goals and Criteria

Significant overlap existed between community and municipal service goals in the existing framework. The inclusion of community goals that are entirely community based creates the need for municipal service goals that reflect the sustainability of critical attributes of service provided by the City. While myPG part 1 has provided community goals and City Council has provided strategic plan goals, municipal service goals do not exist. I have worked with the myPG implementation team to develop municipal service goals specific to the City at an organizational level.

Municipalities have developed varying complexities of goal indicators. While some municipalities like Whistler have developed hundreds of such indicators, the feedback received by most sustainability managers was that the number of goals should be limited to no more than 5 or 6 to avoid complexity. I have supplemented the 4 preliminary goals developed by the implementation team with criteria presented in the *NRC* – *Canada's guide to sustainable municipal infrastructure*, (Félio and Potkins, 2000; Félio and Lounis, 2009) (see Appendix I). These municipal service goals and criteria leverage metrics and tools available to the City and are shown in table 4.

Goal	Criteria
Efficient and Cost Effective	Above average service performance and below average cost
Core Services	per capita in BC municipal benchmarking, NQI Excellence
Sustainable Finance – Use	Lifecycle costs, return on investment through direct and
of Funds / Taxation	indirect revenue
Sustainable Infrastructure -	Renewal and replacement of priority assets based on Risk
Strategic Asset Management	Management framework
Sustainable Planning and	Development of new infrastructure consistent with Official
Development – Growth	Community Plan and Master Infrastructure Plans
Management	

Table 4 - Municipal Goals and Criteria

6.2.3 Strategic Plan Goals

The existing framework does not include City Council's strategic plan. Council's strategic plan is important because it represents the way in which Council has decided to achieve a desired outcome and should be included in the framework. City Council's 2009 strategic plan highlights core focus areas and priority projects. Since priority projects represent projects that have already been prioritized, the 10 core focus areas were selected for strategic plan criteria and taken directly from Council's strategic plan. The 10 core focus areas are shown in table 5, with the corresponding criteria listed in Appendix D.

Table 5 - Strategic Plan Goals

Goals		
Create a Better Downtown		
Build Stronger Neighborhoods		
Improve Health and Safety		
Take care of our Air, Water and Land Resources		
Strengthen and Diversify our Economy		
Increase Civic Pride		
Continue Progressive and Responsible Fiscal Management		
Create an Inclusive Community		
Strengthen Intergovernmental Relations		
Build a Strong and Committed City Team		

6.3 Scoring System

The myPG program has not developed short term quantitative targets for community goals. Short term quantitative targets for municipal service and strategic plan goals have also not been developed. The absence of measureable quantitative targets and quantification of benefits a project will have toward goals limits the use of quantitative evaluation. A qualitative scoring system is appropriate at this time.

The nature of the relationship between goals suggests that while a project may have a positive contribution toward one goal, there may be a negative contribution toward another goal. A scoring system similar to Kelowna's Sustainable Infrastructure Policy that would allow a negative contribution to be recorded was considered, as shown below:

Which statement best defines the project's contribution toward/away from each goal:

- Strong negative contribution (-2)
- Negative Contribution (-1)
- No Contribution (0)
- Positive Contribution (1)
- Strong Positive Contribution (2)

However, this scale requires the user to answer two questions simultaneously. The user must determine if the project contributes positively or negatively and the magnitude of the contribution. Since this would add a variable to how individuals approach the question, a traditional Likert scale is more appropriate.

The Likert scale is the most commonly used interval-based multiple-choice style of question used in questionnaires. The format of a 5 point traditional Likert scale is:

The project will contribute toward achieving the goal.

- Strongly disagree (1)
- Tend to disagree (2)
- Neither agree nor disagree (3)

- Tend to agree (4)
- Strongly agree (5)

The Likert scale removes the variable of an individual answering two questions simultaneously. However, either scale could be used as the numerical spectrum of both scoring systems is identical, and should yield identical prioritization of projects.

The replacement of the previous pass (1) or fail (0) scoring system is a substantial improvement in the framework since it allows the user to communicate the magnitude of the contribution. The Likert scale moves the framework closer to quantitative analytical evaluation.

6.4 Proposed Capital Budget Decision Framework

My proposed framework is shown on page 34. Scoring previously recorded on a separate document from goal criteria is now recorded on one document. This change is intended to reduce the possibility that users may enter arbitrary scores for goal categories instead of evaluating each goal.

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Suggested scoring system for CEP projects to assist in ranking of items for Council's consideration

Project Name: Project Score:

100%

%

A) Projects that fall into the following categories are considered necessary, and are placed at the top of the list:

- 1) Mandated by senior government legislation
- 2) Subject to a court order
- 3) Required by City bylaw
- 4) Constitutes a fulfillment of a council approved obligation
- 5) Contains significant 3rd party or senior government funding
- B) The project will contribute toward achieving each goal:



		Strongly Disagree 1	Tend to Disagree 2	Neither Agree or Disagree 3	Tend to Agree 4	Strongly Agree 5
% Soc	ial Goals			-		
% Affor	rdable. Accessible Housing					
% Clea	r Identity and Pride*					
% Cult	urally Rich*	-				
% Equi	itable Community*					
% Heal	Ithy and Active*					
% Safe	Community*					
% Supr	portive and Engaged*					
100%						
% Envi	ironmental Goals					
% Clea	in Air*					
% Clea	in Water					
% Gree	en City, Green Practices*					
% Gree	en Energy					
% Red	uce Carbon Emissions and Adapt to Climate Change					
% Red	uce Waste					
100%						
Eco	nomic Goals					
% Dive	rse Economy*					
% Fisca	al Responsibility					
% Inter	national Connections					
% Job	Diversity and Accessibility					
% Suita	able Bussiness					
% Vibra 100%	ant Economy*					
Mup	inipal Saprico Coale					
% Prov	ision of Efficient and Cost Effective Core Services					
% Sust	ainable Finance - Use of Funds Lifecycle Costs Taxation					
% Infra	structure - Strategic Asset Management and Risk					
% Plan	ning and Development - OCP / Master Infrastructure Plans					
100%						
Cou	ncil Strategic Plan Goals					
% Crea	te a Better Downtown					
% Build	Stronger Neighbourhoods					
% Impr	ove Health and Safety					-
% Take	e care of our Air, Water, and Land Resources					
% Strer	ngthen and Diversify our Economy					
% Incre	ease Civic Pride					
% Cont	inue Progressive and Responsible Fiscal Management					
% Crea	te an Inclusive Community					
% Stree	ngthen Intergovernmental Relations					
% Build	a Strong and Committed Team					12 131-

7.0 Testing

The municipal service goals I have proposed leverage existing metrics and tools available to the City. These municipal service goals are intended to evaluate the impact of capital budgeting decisions on the sustainability of critical attributes of services provided by the City. I investigated the impact of the addition of these municipal service goals to the framework by evaluating the types of projects selected by each goal category independently.

The City of Prince George 2011 capital project list contains 102 projects listed by

project types shown in table 6 (see Appendix J).

Project Type	Description
New Asset	An addition to the asset inventory through construction or purchase of a capital asset.
Replacement	Replacement of an asset that has been in use with a new or similar asset. It is the cost of replacing an asset with another that will render the same service.
Betterment	Costs incurred to enhance an asset's service potential including: extending the asset's life beyond its original expected life, reducing operating costs, improving the quality of the assets output, or increases the asset's physical output or capacity.
Maintenance	Maintaining the pre-determined service potential of an asset for a given useful life to keep the assets in their usual condition and at their expected operating standard. These expenses are recurring in nature and do not extend the asset's life, reduce operating costs, improve the quality of the output, or increase the output.
Operating	Projects not tangible asset related (i.e. programs, plans, or studies)

Table 6 – Capital Project Types for the City of Prince George

I scored and ranked each project based on each of the community, municipal service and strategic plan goal categories independently. Projects were selected based on goal criteria, independent of pre-selection conditions. This allowed a direct comparison of the 28 highest priority projects for each goal category, without the constraint of pre-selection conditions. All goals within each category were given equal weighting. Projects selected by each goal category were then sorted by project type.

7.1 Expected Results

Strategic plan goals are expected to select the most New Asset projects. Municipal service goals are expected to select the least New Asset projects.

7.2 Limitations

Difficulty applying financial analysis to qualitative goals and project information prevented analysis using project costs. Project costs were also excluded from the amount of projects funded, allowing a direct comparison of how many of the top 28 projects are New Asset projects. Further testing would benefit from using project costs to improve scoring precision and the impact of project costs on the number of projects funded.

Project selection is undoubtedly effected by the source of funding, which was not considered in this paper. Source of funding is project specific and can be considered in future testing using pre selection condition 5 – contains significant 3rd party or senior government funding.

The metrics used to evaluate a project's contribution toward a goal were qualitative, based solely on project information presented (see Appendix J). Validity of future testing could be improved with more project information related to goals.

Scoring was completed entirely by me, using the project and goal information presented. My personal values assumptions and beliefs bias the results. Future

testing could see community goals evaluated by citizens, strategic goals evaluated by Councilors, and municipal service goals evaluated by senior management.

7.3 Results

Project types selected by each category of goals are shown in figures 2, 3, and 4. The number of New Asset projects selected by each goal category are shown in figure 5.







Figure 3 – Project Types Selected by Municipal Service Goals

Figure 4 – Project Types Selected by Strategic Plan Goals





Figure 5 – New Asset Projects Selected by each Goal Category

As expected, municipal service goals selected 4 New Asset projects which is less than the 13 New Asset projects selected by the community and strategic plan goals (see figure 5).

Although community and strategic plan goals both selected 13 New Asset projects, community goals selected 4 betterment projects compared with 6 betterment projects selected by the strategic plan goals. Since betterment projects contain both replacement and New Assets components, an argument can be made that strategic plan goals selected slightly more New Asset projects which was the expected outcome.

Municipal service goals also generated more betterment, replacement and maintenance projects, and less operating projects than community or strategic plan goals (see figures 2, 3, and 4).

8.0 Discussion

The underlying theme for any myPG policy implementation tool must be to make the end decision better, make the process faster and more transparent, and not be seen as red tape, cause delay and/or confusion.

8.1 Pre-Selection Conditions

Early in the development of this paper the appropriateness of pre selection condition 5 - contains significant 3rd party or senior government funding was questioned. Certain projects that otherwise might not be funded do get funded because they will leverage significant funding from federal or provincial governments (Svendsen, 2003). While all 102 projects were evaluated independently of pre-selection conditions, it is clear that the economic development benefits associated with 3rd party funding and senior government funding warrant a pre selection condition. Future work on this issue could compare project benefits with the City's portion of project lifecycle costs.

8.2 Goals

8.2.1 Community Goals

Short term targets can be used to measure a project's contribution towards a goal in qualitative terms. Imagine Calgary⁹ and Kelowna's Sustainable Infrastructure Policy¹⁰ listed specific 10 year targets for each goal. Quantitative target indicators on a shorter time horizon and details of the specific benefits a project will have toward each goal are required to measure project benefits. Refinement of

⁹ City of Calgary, Imagine Calgary, 2006

¹⁰ City of Kelowna, Sustainable Infrastructure Policy, 2010

community goals and the creation of targets are required to move the framework further toward quantitative analytical evaluation.

8.2.2 Municipal Service Goals

The City of Prince George is participating in benchmarking initiatives such as the National Quality Institute, NQI, quality of service, costs per capita, and other measures of our performance compared to other municipalities and goals specific to Prince George. The proposed framework compliments existing work by leveraging objective project data in capital decisions. This project has identified the need for these metrics to be part of project development.

Use of consistent financial metrics across operating departments is required to assess the financial impact of diverse projects. Return on investment should be calculated using lifecycle costs and revenue projections to determine the long term deficit or surplus a project will yield. The proposed framework provides a scorecard to evaluate financial sustainability. This project has identified the need to develop tools to support the use of consistent financial metrics.

The integration of RIVA - Real time Infrastructure Valuation Assessment with capital budgeting activities offers a condition assessment comparison between operating departments. Asset management should also be an integral part of the decision making process both at the strategic corporate level and at the tactical and operational levels (Federation of Canadian Municipalities, 2006). Inclusion of risk and condition assessment in the framework provides a clear picture of existing

assets allowing capital spending to focus on priorities and allocate funds where they will have the greatest impact.

Capital budgeting can also prove to be a more powerful tool than zoning to implement comprehensive land use plans (Elmer, 2005). The proposed framework increases the understanding of long term obligations of fringe development by requiring more information about future costs. This work contributes to the growing understanding of this issue by decision makers.

8.2.3 Strategic Plan Goals

Strategic plans should be formulated based on a SWOT analysis – that is based on the strengths, weaknesses, opportunities and threats. The strategic plan should have a clear and focused direction. Ideally, the strategic plan would include metrics and timelines so that the benefits of a project can be measured. The addition of strategic plan goals in the framework provides a catalyst for further development and contributes to the understanding of how these goals will affect capital spending outcomes.

8.3 Weighting

The existing framework does not apply any priority between goal categories or goals within each category. Goal category and goal weighting would allow their relative importance to be reflected in the overall project score. The use of weighting would allow decision makers to focus efforts toward specific goals they feel are paramount.

Weighting of goal categories and goals within each category are significant components of the framework that remains incomplete. The assignment of category

weighting is not a technical matter, but a political task reflecting a municipality's values and priorities. Such value judgments are likely to be dynamic, and thus weights should be reviewed regularly (Millar, 1988). The selection of weighting is the purview of the decision maker who must implement their own values and assumptions (Félio and Potkins, 2000).

While the assignment of weighting should be determined by decision makers and approved by Council, the analytical hierarchy process (Saaty, 1980) provides a starting point to rank the importance of each category, goal, and criteria. However the complexity of this theory requires education of participants, which can be time consuming (Chan, 2004) and may be seen as 'red tape'.

9.0 Conclusion and Recommendations

The proposed framework has addressed the following four weaknesses in the existing framework:

- Community and municipal services have been separated
- Council's strategic plan goals are included in the framework
- The Likert scale allows the magnitude of contribution to be recorded
- Scoring is recorded on the same document as goals

The results show that the newly created municipal service goals selected less New Asset projects than community and strategic goals. Since New Asset projects create long term maintenance and renewal liabilities, the addition of the municipal service goals increase the sustainability of the framework.

Project development should be completed by all operating departments using the same criteria as the decision framework. Use of consistent financial and non-financial metrics across departments assist senior management in project prioritization. A project development template would focus proposals toward decision framework, facilitating comparison across departments. The template should:

- Identify capital, annual operating and renewal costs
- Identify tangible and intangible benefits
- Provide guidelines for intangibles
- Capture assumptions and supporting documentation

The development of tools to assist operating managers with project development and submission will not only make the proposed framework more effective, it will also facilitate further development of the framework toward quantitative analytical evaluation using net present value and return on investment.

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Appendix A - Existing Framework

Suggested scoring system for CEP projects to assist in ranking of items for council's consideration.

Projects which fall into the following categories are considered necessary, and are placed at the top of the list:

- Mandated by senior gov't legislation
- Subject to a Court order
- Required by city by-law
- Constitutes a fulfillment of a council approved obligation
- · Contains significant 3rd party or senior gov't funding

All other projects would be scored by assigning one point for each of the criteria satisfied by the project within each of the 6 categories.

The categories and criteria are as follows:

1. Economic Development & Diversification

- Money invested in private sector is increased
- Long term jobs are created
- Wage level of jobs created is medium to high
- · Spending retained in local economy
- Exported product is created
- Local expertise is created
- Consistent with IPG strategies
- Adds to the city's tax base
- Improves the economic sustainability of the community

2. Environmental Stewardship

- Addresses wildfire threat to property and public safety
- Supports the city's community forest agreement
- · Contributes to the programs and/or strategies to improve air quality
- Contributes towards measurable reduction in GHG emission (corporately or community wide).
- Contributes towards measurable reduction in energy use (corporately or community wide).
- Increases public awareness and understanding environmental stewardship to may lead to positive changes in behaviour
- Will lead to increase in use of best management practices in riparian or other environmentally sensitive areas

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- Protects, restores or enhances important natural and environmental features that contributes to healthy ecosystems and biological diversity within the city.
- Improves the environmental sustainability of the city

3. Social Development Strategy

- Contributes to improved livability and quality of life for citizens
- · Contributes to civic and community energy management plans
- Contributes to improved public safety
- Contributes to city affordable housing plans or options
- · Contributes to city heritage, arts and culture
- Increases public awareness and understanding of social capital and will lead to changes in behaviour towards harm reduction, social awareness
- Leads to improved health and wellness and life skills
- Contributes to improved emergency response
- Improves social sustainability of the city

4. Land Use Plans

- Encourages sustainable growth and development within the city
- Contributes to effective transportation systems and encourages multiple forms of transportation
- Satisfies/consistent with Smart Growth on the Ground objectives, contributes to rejuvenation of the downtown
- Encourages redevelopment, densification and infill
- Protects people and property from natural hazards
- Provides for a high standard for residential, commercial, industrial and/or institutional form and character
- Engages citizens and stakeholders in early and ongoing consultation
- Maintains and enhances farming and local food production
- Satisfies specific objectives of the OCP and/or a neighbourhood plan

5. Transportation, Civic Facilities and Infrastructure

- Improves public infrastructure, services and facilities; contributes to the creation of high value amenities
- Contributes to sustainable and active forms of transportation
- Contributes to improvements to transit system, increased ridership
- Supports asset management system development
- Supports coordination of asset management program

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- Prevents failure of asset where risk of failure is medium or high based on lifecycle of asset
- Prevents failure of asset where criticality of failure is medium or high
- Consistent with cost effective renewal and/or replacement strategy, supported by RIVA outputs.
- Maintains an established service level (i.e., PCMS)

6. Corporate Support and Financial Systems Evaluation

- Project leverages funding from grant programs or developer contributions
- Project can be funded from a sustainable reserve fund
- Project can be funded within the liability limit
- Evaluation of the certainty factors is done
- Project has been evaluated on the basis of ROI or NPV
- Supports corporate financial system for asset tracking and reporting
- Improves corporate efficiencies through enhanced information technologies
- Improves service to the public through cnhanced information technologies
- Contributes to the financial sustainability of the city

Each category has nine criteria. The maximum unweighted score for any project would be 54



Appendix C - MyPG Goals Goals Summary

This table lists all of the community goals alphabetically within each sustainability area. The top ten goals as identified by the community are marked with a star (\star)

		Goal	Description
Society		Affordable, Accessible Housing	Offer accessible, affordable and safe housing for all, and eliminate homelessness.
	*	Clear Identity and Pride	Have a clear identity that the community can be proud of, with a strong downtown and connection to its rivers and natural surroundings.
	*	Culturally Rich	Have a rich cultural life, with more events, facilities, education, and community involvement in the arts to support economic and social growth.
	*	Equitable Community	People of all backgrounds, ethnicities and income levels can access services that help to meet their needs and improve their quality of life.
	*	Healthy and Active	Be a community that encourages and supports health and wellness.
	*	Safe Community	Create an environment where all citizens feel safe.
	*	Supportive and Engaged	Be a friendly and engaged community with strong social connections.
	*	Clean Air	Enjoy clean air.
		Clean Water	Protect the water supply and waterways, and reduce consumption.
onment	*	Green City, Green Practices	Be a green city with healthy habitat and forests, and a strong environmental consciousness, led by government and local organizations that demonstrate sustainable practices.
invir		Green Energy	Be a leader in green energy.
ш		Reduce Carbon Emissions and Adapt to Climate Change	Reduce carbon emissions and dependence on fossil fuels, and be prepared for climate change
		Reduced Waste	Reduce solid waste production and landfilling.
	*	Diverse Economy	Have a diverse economy to augment our forestry base, responding well to changing global trends, and offering a good local return on investment through a focus on local food, service, green energy, and a knowledge- based resource economy connected to the world.
λ,		Fiscal Responsibility	Carefully budget to ensure effective and responsible use of financial resources.
non		International Connections	Have well established international connections and international partners.
Eco		Job Diversity and Accessibility	Have many good jobs to suit the diversity and aspirations of people in Prince George, with programs that support developing the skills and knowledge needed to fill them.
		Sustainable Business	Be a model for northern cities in green and local business, and bioenergy.
	*	Vibrant Economy	Be a centre for vibrant economic growth in Northern BC, attracting newcomers and business and service choice.



Appendix D - Strategic Plan Core Focus Areas

Core Focus Areas

1. Creating a Better Downtown

The City has created the Mayor's Task Force for a Better Downtown to develop strategic recommendations, an action plan, critical partnerships and organizational methods to create a better downtown. The Task Force interim report made recommendations to Council in November 2009. Those recommendations incorporate and are complementary to the Smart Growth on the Ground Concept Plan and the Beyond Homelessness Standing Committee work.

A clearly defined action plan with assignment of responsibilities to the City and partner agencies will ensure the plan's success, together with an effective and sufficiently resourced implementation system.

2. Building Stronger Neighbourhoods

The strength, resilience and interconnectivity of neighbourhoods define a vibrant city. Strengthening neighbourhoods involves the recognition, celebration and protection of neighbourhood identities. Strong neighbourhoods give people a sense of ownership and responsibility.

The myPG project will be used to find new ways for the City to engage with neighbourhoods. We will seek from them, opinions and advice about creating the future they desire and how neighbourhoods can play greater roles in shaping their futures.

3. Improving our Health and Safety

The City with its partners, Northern Health, Fraser-Fort George Regional Hospital District and non-governmental organizations, will advocate for progressive and responsive health and wellness resources. The City will also continue to take a leadership role in promoting healthier lifestyles and better health outcomes for our citizens.

The City will develop a comprehensive crime reduction strategy in conjunction with the RCMP.

Wildfire interface risks will continue to be mitigated through the fuel treatment program and expansion of the Community Forest.

The City will continue to develop its flood risk mitigation strategy in conjunction with the Provincial and Federal Governments.



4. Taking Care of our Air, Water, and Land Resources

Protecting, preserving and improving our air, water and land resources are fundamental to community sustainability. The City will increase its efforts in these areas with a priority focus on air quality improvement.

The City will invest in infrastructure and programs to reduce particulate and greenhouse gas emissions, including a District Energy System. The District Energy System will capture waste industrial heat and use renewable biomass fuel.

The City will implement a Transportation Demand Management system including promotion of public transit and non-motorized transportation alternatives such as those proposed in the Trails Master Plan.

The City will create a Brownfield Redevelopment Strategy to reclaim contaminated land.

5. Strengthening and Diversifying our Economy

The City's plan to create a knowledge based resource economy, connected to the world, will be delivered through its economic development corporation, Initiatives Prince George (IPG). The City will also pursue strategic international relationships to further its economic strategy.

The City will advocate for investment in critical provincial and national transportation infrastructure and leverage investment in new transportation investments such as the Boundary Road project.

The City will evaluate and act on development, taxation and other policy advice arising from the Mayor's Task Force for a Better Downtown.

The City will actively promote tourism opportunities through implementation of the major events hosting strategy and a cultural tourism strategy.

An investment in Tourism Prince George will facilitate establishment of a Destination Marketing Organization (DMO) through City support of the Additional Hotel Room Tax and redirection of City funding from IPG, to the new DMO.

6. Increasing Civic Pride

The City will improve its appearance through strategic investment in projects, programs and policies that enhance civic pride and civic participation.

The City will invest in the beautification of public spaces through improved signage and other initiatives to make the City one of the cleanest and most welcoming communities in the country.

The City will also develop and enforce policies aimed at establishing high standards of maintenance for private buildings.

The City will support and encourage the contributions of volunteer organizations which build and sustain community and neighbourhood pride.

7. Continuing Progressive and Responsible Fiscal Management

The City will support effective integrated asset management policies which apply a lifecycle value approach to investment in infrastructure. The lifecycle approach will consider capital cost, operational and maintenance factors, rehabilitation needs and expense, replacement cycle and user rates.

We will further evaluate methods to ensure that utility services are fully funded by user fees.

The City will establish a new debt management policy, continue to seek ways to improve efficiency and evaluate options for new non-tax revenue generation. We will also develop and implement a comprehensive sustainable finance policy and a sustainable purchasing policy.

We will develop new ways to engage citizens in the annual financial plan and budget processes, beginning with the myPG project.

8. Creating an Inclusive Community

The City will create a healthy, inclusive and safe environment for all citizens, and continue to develop its Social Development Strategy as part of the myPG project. The City recognizes the responsibility and jurisdiction of senior levels of government within the social and multi-cultural areas. Our intention is not to assume those responsibilities but to collaborate in creative solutions at the community level with other government, advocacy organizations and service delivery providers.

The City will enhance access to all types of housing and support the physical, mental and social well-being of all citizens through partnerships.

The performing, visual, literary, and cultural arts will continue to be supported.

9. Strengthening Intergovernmental Relations

The City will continue to work cooperatively and progressively with its partners in the government, education, health, and business sectors.

The City will also continue to strengthen its relationship with the Lheidli T'enneh and other aboriginal organizations.

10. Building a Strong and Committed City Team

The City understands that progress on its priorities is made possible by a strong team, with Council and Administration working closely together to achieve the corporate and community goals.

The City will develop a strategy for communication, team building and elected official professional development. The City will also develop strategies to address challenges related to recruitment and retention of staff, work space and equipment resources, succession planning and staff development.

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Appendix E - City of Calgary Goals & Targets

100-YEAR VISION AND GOALS

Built environment and infrastructure system 100-year goals

Communications

Calgarians are connected to each other and the rest of the world. Our communication systems are reliable and support the engagement of all people, information dissemination, social relationships, entertainment and economic activity.

Energy

The energy used by Calgarians comes from a diverse portfolio of resources that are renewable, have a low impact on the environment and contribute to the positive development of our society. Calgarians use energy in an efficient and responsible manner.

Food

Food sources derive from sustainable practices that provide us with a high quality, healthy, affordable and secure supply of food.

Goods and services

Calgarians access a wide variety of locally produced goods and services and consume these in a responsible manner. We support and consume responsibly produced goods and services from around the world.

Housing

Calgarians have a choice of housing options that are affordable, accessible and eco-efficient and that support a variety of lifestyles. Housing reflects local environmental conditions and resources and is adaptable over time to reflect changes in technology, climate and demographics.

Transportation

Calgary is built at a human scale with a transportation system that serves the access and mobility needs of all people through a choice of convenient, comfortable, affordable and efficient transportation modes. The transportation system connects people and goods locally, regionally and globally. Transportation needs are met safely and in a manner supportive of human and ecosystem health.

Waste management

Calgarians work toward zero waste by using materials responsibly and minimizing consumption. We reuse, recycle and reduce the materials we consume. Wastes created are safely managed without harm to other species or systems.

Economic system 100-year goals

Economic well-being

Calgary is a city with a vibrant, resilient, environmentally sound and sustainable economy that fosters opportunity for individual economic well-being.

Meaningful work

Through their work, all Calgarians have the opportunity and working conditions to contribute to their own and their community's economic and social well-being in a personally meaningful way.

Sufficient income

All Calgarians have sufficient income and other resources to meet their current and future needs and to provide for healthy lives.

Governance system 100-year goals

Access

Calgary is a city in which individuals have access to all public information when they need it. They can and do participate in decisions that affect their well-being. Decision-making is an inclusive process in which broad-based support is actively sought and contributes to continual improvement in people's lives. Factors such as language, age, race, culture, gender, sexual orientation, time, finances, ability, knowledge and health are not barriers to public decision-making.

Conflict resolution

Calgary is a city in which conflicts are resolved peacefully and individuals' rights and responsibilities are accepted. Conflict resolution is seen as an opportunity to improve the fabric of the community — to ensure that all voices are heard in the resolution process. The community and local governments support mutual understanding and respect, harmony and co-operation among all peoples.

Equity

Calgary maintains and champions each person's right to a sustainable life and a sustainable environment in which to live. Diversity is valued and all voices are considered in the decision-making process. Factors such as language, age, race, culture, gender, sexual orientation, time, finances, ability, knowledge and health are not barriers to publicly provided goods and services. each decision results in the most effective and fair method of achieving mutually beneficial objectives. all decision-making enhances the value, vitality and sustainability of human and natural systems in both the present and future.

Self-determination

Calgary is a partner in creating and managing a sustainable region. We are empowered and actively engaged in our local community and beyond. The personal and collective freedoms that Calgarians enjoy are balanced by their responsibilities to each other and the world. Opportunities for improving quality of life are numerous and accessible, creating an environment in which Calgarians are able to decide their futures.

Natural environment system 100-year goals

Air

Calgarians value the quality of clean air, recognizing it as the most basic need for survival. Treasuring clear, bright skies, we steward our airshed and responsibly address climate change. economic and social activities protect all living things by ensuring healthy air quality indoors and out.

Land and soil

Fertile soil is vital to maintaining life. Calgarians are responsible stewards of land, maintaining the lifesupporting processes integral to healthy, intact ecosystems. We use and share our land wisely and equitably.

Plants and animals

Calgary is rich with intact ecosystems. We protect and restore our natural heritage, valuing native biodiversity as the foundation of life. Our built environment is integrated into and respects the natural environment we inhabit.

Water

Water is recognized as necessary for life. Calgarians value this precious resource and guarantee equitable access for all living things. We are stewards of water, protecting its quality and maintaining the integrity of the hydrologic cycle. Our water supply system is sufficiently secure, flexible and adaptable to changing conditions and circumstances.

100-YEAR VISION AND GOALS

Social system 100-year goals

Aesthetic enjoyment

All aspects of life in Calgary provide opportunities for aesthetic enjoyment. We recognize and protect our natural and built environments for their beauty. Our traditions, values and distinctive characteristics are used to enhance physical and human resources. Opportunities for aesthetic enjoyment are accessible to all.

Creative self-expression

Creative self-expression is cultivated and nurtured as part of everyone's life. We renew ourselves, using our unique gifts and talents, through creative self-expression. There is a wide range of opportunities for creative expression.

Health and wellness

Calgary is known for its attention to a healthy lifestyle. We sustain physical, mental and social well-being. In circumstances in which health is compromised, we can easily access knowledge and services. ecological, social and economic interconnectedness is reflected in our support for well-being.

Lifelong learning

We value opportunities for continuous personal growth and development. We are empowered by learning and, as a result, can make substantial improvements to our own and others' lives. The community is a learning ground for all.

Meaning, purpose and connectedness

We create individual meaning, purpose and connectedness in our lives for our own benefit and that of others. We respect and embrace the ways in which others choose to create meaning, purpose and connectedness.

Peace, safety and security

We live in peace. We are safe in our homes and throughout our city. We believe and behave in ways that reflect our respect and consideration for all life forms. We have adequate income and access to resources. We live with each other in unity.

Recreation

We are continually renewed by participating in activities that refresh our bodies and minds. active lifestyles contribute to our abilities to restore and enhance our senses of personal and community well-being.

Relationships

We participate in mutually supportive and generous relationships. Interactions are based on mutual respect: with oneself, other persons, other cultures, other beings and the larger whole of which all are a part. These healthy relationships help people understand their human, cultural, historic and natural systems.

Self-esteem

We are confident and satisfied. We know we are valued and respected. We collectively understand and act upon our inner potential so we can achieve sustainable development.

Sense of community

We have a sense of belonging, friendship and identity within the context of our groups and neighbourhoods. We honour and celebrate diversity. We act as collective stewards of our values, traditions, institutions and the natural environment.

Built environment and infrastructure system targets

Communications

- T1 By 2036, 75 per cent of Calgarians report that they are informed.
- T2 By 2036, all Calgarians have easy access to current forms of communications technology and resources.
- T3 By 2036, Calgarians increase their use of communications technology to support sustainability.
- T4 By 2036, Calgary increases the number of facilities and spaces that encourage human interaction, and they are widely distributed throughout the city.

Energy

- T1 By 2036, 30 per cent of Calgary's energy derives from low-impact renewable sources.
- T2 By 2036, all new and retrofitted communities, buildings, vehicles, equipment and processes are built to be within five per cent of the highest energy-efficient design available out of all economically competitive products, as measured on a life cycle basis.

Food

- T1 By 2036, Calgarians support local food production.
- T2 By 2036, Calgary maintains access to reliable and quality food sources.
- T3 By 2036, 100 per cent of Calgary's food supply derives from sources that practice sustainable food production.
- T4 By 2010, 100 per cent of Calgarians have access to nutritious foods.

Goods and services

- T1 By 2036, over 50 per cent of Calgary businesses adopt a protocol for sustainable practices and report on it regularly.
- T2 By 2016, Calgary has a strong and diverse portfolio of locally based businesses.
- T3 By 2036, all Calgarians consume more responsibly.
- T4 By 2036, we are developing "complete communities" that, among other aspects, allow people to obtain daily goods and services within a reasonable walking distance from home.
- T5 By 2036, all new commercial buildings are designed to encourage the use of alternative forms of transportation (e.g. walking, cycling and transit).
- T6 By 2036, all new and retrofitted non-residential buildings are built to be within five per cent of the highest energy- and water-efficient design available out of all economically competitive products, as measured on a life cycle basis.
- T7 By 2036, all commercial buildings are accessible to people with disabilities.

Housing

- T1 By 2016, we are developing "complete communities" that enable people to meet most of their daily needs within a reasonable walking distance from home.
- T2 By 2036, all new and retrofitted residential buildings are built to be within five per cent of the highest energy-efficient design available out of all economically competitive products, as measured on a life cycle basis.

- T3 By 2036, all Calgarians have the option of spending less than 30 per cent of their gross family incomes on housing.
- T4 By 2036, the Calgary market can meet the housing needs of those below the Low-income Cut-off (LICO).

Transportation

- T1 By 2036, we reduce the annual private vehicle kilometres travelled per capita by 20 per cent.
- T2 By 2016, we increase the residential population within walking distance (600 metres) of LRT stations and major transit nodes by 100 per cent.
- T3 By 2016, we increase the number of jobs within walking distance (600 metres) of LRT stations and major transit nodes by 35 per cent.
- T4 By 2036, there is a 50 per cent reduction from 1990 levels in the pollution (greenhouse gases) associated with automobiles.
- T5 By 2036, we increase peak period transit, walking and cycling and carpool travel to downtown by 50 per cent, 40 per cent and 20 per cent respectively.
- T6 By 2036, 100 per cent of public transit services (buses, CTrains and facilities) are accessible to people with disabilities.
- T7 By 2036, transit trips per capita increase 40 per cent over 2006 levels.
- T8 By 2036, the number of on-street bikeways increases by 200 per cent, and the number of pathways by 100 per cent.
- T9 By 2036, fatal collisions per 100,000 people and injury collisions per 1,000 people decrease by 50 per cent.

Waste management

- T1 By 2036, 85 per cent of the waste generated within Calgary is diverted from landfills.
- T2 By 2036, 75 per cent of construction industry waste materials are recovered for reuse and/or recycling.
- T3 By 2036, 85 per cent of waste materials are converted to other useful products.

Economic system targets

Economic well-being

- T1 By 2036, research and development intensity, both public and private, increases to five per cent of Calgary's gross domestic product.
- T2 By 2036, the number of environmentally sustainable and commercially viable value-added products and technologies produced in Calgary increases by 100 per cent.
- T3 By 2036, Calgary's non-oil-related industries grow by 50 per cent.
- T4 By 2036, Calgary is ranked as the most favourable Canadian city in which to establish businesses that support sustainability practices.
- T5 By 2036, tourist visitations and expenditures grow by 90 per cent.

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T6 By 2036, alternative ways to measure economic well-being are commonly used to support sustainability principles in decision-making.

Meaningful work

- T1 By 2036, full employment of the labour force (defined as unemployment below five per cent) is sustained.
- T2 By 2036, the high school graduation rate for individuals up to age 21 increases to 95 per cent, and 75 per cent of adults aged 21 to 25 complete a post-secondary or vocational education program.
- T3 By 2036, 95 per cent of entrants in trades-related programs complete their programs and 98 per cent of graduates are employed in their fields of study within six months of graduation.
- T4 By 2036, all adult immigrants to Calgary have the opportunity to integrate into the economy through employment or entrepreneurial activity at the same participation or success rate as other Calgarians.
- T5 By 2036, 85 per cent of employees express a high degree of job satisfaction.
- T6 By 2036, healthy seniors have the opportunity to be engaged in fulfilling work that contributes to the economy and/or the community.

Sufficient income

- T1 By 2036, 95 per cent of all people living in Calgary are at or above Statistics Canada's Low-income Cut-off (LICO) rates; there is no child poverty.
- T2 By 2036, all children of low-income families who are residents of Calgary have the opportunity to complete post-secondary education or appropriate training to enable them to fully participate in the economy.

Governance system targets

Access

- T1 By 2016, 80 per cent of Calgarians report that they feel government activity is open, honest, inclusive and responsive.
- T2 By 2016, Calgary City Council establishes a participatory budgeting process.

Conflict resolution

- T1 By 2036, 100 per cent of non-criminal disputes are resolved by some form of collaborative process.
- T2 By 2036, 80 per cent of non-violent criminal offences are handled in the community in which the victim lives.
- T3 By 2020, 100 per cent of regulatory offences are enforced by the responsible governments, rather than through court processes.
- T4 By 2036, 100 per cent of personal conflicts among students, parents, teachers, administrators, support staff and elected representatives in the education system are resolved through collaborative means.

Equity

- T1 By 2021, the makeup of elected and appointed bodies reflects the diversity of the community.
- T2 By 2010, all public institutions and organizations implement sustainability principles (e.g. Melbourne Principles) in decision-making and reporting, using tools such as triple bottom line

- T3 By 2020, all public institutions and systems create and implement an urban Aboriginal policy that recognizes the detrimental colonial history experienced by First Nations, Metis and Inuit people; reduces barriers to public participation and governance; and supports economic, social and political advancement.
- T4 By 2036, racism and discrimination is dealt with by having public and private sector institutions and organizations throughout the city introduce meaningful and effective policies and processes and measurable outcomes.

Self-determination

- T1 By 2036, there is a 75 per cent turnout in municipal elections.
- T2 By 2036, there is a citizen-to-municipal-politician ratio of 55,000:1.
- T3 By 2036, The City of Calgary reduces its dependence on property taxes to no more than 25 per cent of revenue.
- T4 By 2036, all general revenues are based on the principle of progressive taxation.
- T5 By 2036, all publicly provided goods and services are affordable, accessible and priced in accordance with their public benefits.
- T6 By 2010, The City of Calgary has co-operative, supportive and mutually beneficial working relationships with governments in the region.
- T7 By 2016, governance is restructured to allow governments to create or reallocate authority so that effective decisions are made at the geographical scale that matches the processes involved.
- T8 By 2008, beginning with the approval of the 100-year vision, all government decisions protect individual freedoms, ensure that people meet their obligations and improve quality of life.
- T9 By 2008, and every year thereafter, groups/organizations/government report on how they have considered and adopted the imagineCALGARY targets and strategies that are relevant to them and in which they have been identified as having a role.

Natural environment system targets

Air

- T1 By 2036, energy consumption is reduced by 30 per cent based on 1999 use.
- T2 By 2036, the use of low-impact renewable energy increases by 30 per cent as a percentage of total energy use.
- T3 By 2012, total community greenhouse gas emissions are reduced by six per cent from 1990 levels; by 2036, they're reduced by 50 per cent from 1990 levels and criteria air contaminants are also significantly reduced.
- T4 By 2036, indoor air contaminants are reduced to zero per cent.
- T5 By 2036, Calgary's ecological decreases to below the 2001 Canadian average of 7.25 hectares per capita.

Land and soil

- T1 By 2036, land use efficiency increases by at least 30 per cent, as measured by public transit threshold and increased density.
- T2 By 2036, sustainable urban food production increases to five per cent.
- T3 By 2036, the consumption of urban- and regionally produced food by Calgarians increases to 30 per cent.
- T4 By 2036, there is zero per cent new soil contamination.
- T5 By 2036, at least 30 per cent of existing contaminated sites are remediated
- T6 By 2036, Calgary's ecological footprint decreases to below the 2001 Canadian average of 7.25 hectares per capita.

Plants and animals

- T1 By 2036, native biological diversity increases to healthy levels, as measured through Habitat Suitability Index indices and local key indicator species.
- T2 By 2036, the number and/or size of protected or restored habitats increases to a state of health and functionality.

Water

- T1 By 2036, per capita water consumption is reduced by 40 per cent.
- T2 By 2036, positive rates of flow in the Bow River Basin are maintained to keep aquatic ecosystems at these levels.
- T3 By 2036, effective impervious areas are reduced equal to or below 30 per cent to restore natural hydrograph and become less susceptible to flooding.
- T4 By 2036, watershed health as measured by loss of wetlands, water quality, non-compliance with pollution standards, in-stream flow and groundwater levels improves.
- T5 By 2036, Calgary's ecological footprint decreases to below the 2001 Canadian average of 7.25 hectares per capita.

Social system targets

Aesthetic enjoyment

- T1 By 2036, 90 per cent of citizens report that Calgary is a beautiful city.
- T2 By 2036, 95 per cent of Calgarians report that they have a range of opportunities for the aesthetic enjoyment of nature, arts and culture.

Creative self-expression

- T1 By 2016, 90 per cent of Calgarians report that they have opportunities to express their unique gifts and talents.
- T2 By 2021, 90 per cent of Calgarians report that Calgary is a city that promotes creative freedom.
- T3 By 2026, 90 per cent of Calgarians report that participation in creative activities is an important part of their lives.

Health and wellness

- T1 By 2036, all Calgarians live in a safe and clean natural environment, as measured by the quality of its air, water, soil and food sources, plus by the lack of exposure to toxic waste.
- T2 By 2036, 95 per cent of Calgarians enjoy positive and supportive living conditions, as reflected by adequate income; high rates of employment; adequate food and appropriate nutrition; appropriate, adequate and affordable housing; and high levels of personal safety.
- T3 By 2036, 95 per cent of Calgarians receive sufficient information and supports to maintain and improve their health and foster their independence at all ages and stages of life.
- T4 By 2036, 100 per cent of Calgarians can obtain quality, affordable, timely and appropriate health information and services, as measured by satisfaction levels.
- T5 By 2036, the incidences of preventable illness, injury and premature death are significantly reduced.
- T6 By 2036, 85 per cent of Calgarians, in all age groups, maintain excellent or very good mental health.

Lifelong learning

- T1 By 2016, by the age of six years, 95 per cent of Calgary children exhibit school readiness, as reflected by physical well-being and appropriate motor development; emotional health and a positive approach to new experiences; age-appropriate social knowledge and competence; age-appropriate language skills; and age-appropriate general knowledge and cognitive skills.
- T2 By 2016, 95 per cent of Calgary students succeed in elementary and junior high school, as measured by standardized achievement testing in grades three, six and nine and alternate education metrics.
- T3 By 2036, 95 per cent of Calgary youth complete high school by age 21 and complete some form of post-secondary education or training by age 25.
- T4 By 2016, 100 per cent of adult Calgarians have access to a full range of formal and informal quality learning opportunities and resource options that allow them to achieve their full potentials in life.
- T5 By 2016, 95 per cent of adult Calgarians have the minimum levels of literacy and numeracy as defined by the International Adult Literacy and Skills Survey — required to fully participate in the economy and all aspects of life in Calgary.

Meaning, purpose and connectedness

- T1 By 2036, 90 per cent of citizens agree that "Calgary is a city with soul," which is defined as citizens having meaning and purpose in life and experiencing ongoing feelings of connectedness with some form of human, historic or natural system.
- T2 By 2036, 100 per cent of Calgarians report that they feel respected and supported in their pursuits of meaning, purpose and connectedness, and that they extend respect and support to others who meet this need in ways different from their own.

Peace, safety and security

- T1 By 2016, 95 per cent of Calgarians report that they feel safe walking alone in their neighbourhoods and walking alone downtown after dark.
- T2 By 2016, 95 per cent of Calgary parents report that they allow their children over six years old to play unsupervised on their own blocks.
TARGETS

- T3 By 2036, given that crime rates are driven primarily by the number of males in the population aged 15 to 24, the proportion of adolescents and young adults in conflict with the law decreases from 2006 levels of about one per cent to 0.01 per cent.
- T4 By 2036, the percentage of Calgary women who have been assaulted by their intimate partners at least once in the past five years is reduced from approximately 11 per cent to three per cent.

Recreation

- T1 By 2036, 90 per cent of people living in Calgary report that they participate in active lifestyles that include informal and structured recreational opportunities.
- T2 By 2036, 100 per cent of Calgarians report that they can access a range of high-quality recreational experiences, regardless of gender, socio-economic status, age, ability, religion, race, sexual orientation or heritage.

Relationships

T1 By 2036, 95 per cent of Calgarians of every age and ability report that they value and have mutually supportive relationships in several settings, such as at home, school and work and in the community.

Self-esteem

- T1 By 2036, 95 per cent of children aged two to five years exhibit high levels of emotional well-being and age-appropriate levels of attention span and impulse control, as measured by the Ages and Stages Questionnaire.
- T2 By 2036, 95 per cent of children aged six to 11 years report a high sense of self-worth, and 80 per cent of Calgary adolescents, both male and female, describe themselves as productive or potentially productive members of society, able to change themselves or their lives through their own actions, having the personal power to effect change in the world and being optimistic about their futures.

Sense of community

- T1 By 2010, 90 per cent of Calgarians agree that there is a strong sense of community in Calgary, and at least 80 per cent of Calgarians report high levels of satisfaction, sense of belonging, attachment and civic pride.
- T2 By 2010, 80 per cent of citizens experience a high sense of community in their neighbourhoods and affinity-related communities, as reflected by residents' reports of neighbourhood participation and volunteering, sense of belonging, neighbourliness and reciprocity, sense of efficacy, attachment, safety and voter turnout.
- T3 By 2010, at least 75 per cent of Calgarians report that they volunteer for the benefit of others who are outside their circles of family and friends.

Appendix F - City of Kelowna Goals & Targets

Table 1: <u>INDICATORS</u> OF SUSTAINABLE MUNICIPAL INFRASTRUCTURE and 2020 <u>TARGETS</u> FOR THE CITY OF KELOWNA

"What gets measured gets done" ... John E. Jones, but,

"Not everything that counts can be counted, and not everything that can be counted counts." ...Albert Einstein

Note: Indicators in shaded rows are the indicator measures to be developed and used for planning and reporting in 2010. Others will be phased in during subsequent years.

ID INFRASTRUCTURE 2020 TARGET RATIONALE GOAL

NATURAL (ENVIRONMENTAL) Capital provides the energy, raw materials and waste absorption/filtering that are critical to the modern human economy and a high quality of life.

N1	Kelowna will contribute its fair share to moderate climate change and to achieve global GHG atmospheric levels below the IPCC recommended level (currently 350 ppm CO ₂ e).	GHG emissions from all city-owned infrastructures will be reduced 33% from 2007 benchmark levels as measured by BC Provincial protocols.	Mayor and Council were signatories to the BC Climate Action Charter in 2008, which committed the City <u>Corporation</u> to carbon neutrality relative to 2007 benchmark levels by 2012, a 33% reduction by 2020, and an 80% reduction by 2050. These are absolute numbers independent of population growth. Given that Kelowna is expecting to grow, a higher per-capita reduction is required to compensate for the additional GHG emissions created by growth. Note that <u>community</u> -wide GHG
N2	Kelowna will reduce its ecological footprint to its global fair share. This would require more than 80% per-capita reduction in ecological resource consumption.	Reduce the ecological footprint of municipal infrastructure by 33%. Further reductions to 80% by 2050 would be phased in after 2020. Included would be the reduction of water consumption levels below benchmark cities in Canada with fewer than	reported and voluntarily reduced. Kelowna's consumption of ecologically productive land and water, based on a Canadian average of 7.25 ha/capita is more than 4 times the per-capita available global ecological footprint. Reducing this footprint inevitably requires a reduction in the consumption of resources such as material, water and non-renewable energy and the reuse of all waste streams; in other words, across-the-board eco-efficiency and a rapid transition toward 'regenerative design' in municipal infrastructure.
N3	Kelowna will protect its watershed.	150,000 people. Kelowna will still be able to defer potable water filtration through source protection measures that satisfy IHA.	Consequences of this goal would include local energy and water security. Municipal infrastructure both draws and discharges water, wastewater and stormwater into our sensitive water sources. The implementation of a rigorous water source protection plan is needed to maintain water source quality.

ID	INFRASTRUCTURE GOAL	2020 TARGET	RATIONALE
N4 BUII supj	Kelowna will steward self-organizing natural habitats and facilitate bio-diversity and natural ecosystem succession and evolution. LT CAPITAL is the physica port economic prosperity.	12% of Kelowna's land base will be ecologically self-sustaining land and/or natural water habitats that are publically-owned or protected.	Ecologically healthy habitat with abundant indigenous biodiversity provides ecological resilience in the face of environmental change. The number and quantity of indigenous self- sustaining species is an indicator of the health of local water- and air-sheds. Ready access to nature is a key community value. at is necessary to deliver municipal services and
B1	Ensure that future generations enjoy the same value of built capital in the form of public infrastructure.	The total net asset value of infrastructure per capita will remain constant or increase. In addition, the average "condition index" of the entire stock of built infrastructure will be maintained at fair or better. Together, the two targets address "value" in quantitative and qualitative terms.	 Infrastructure needs to be maintained and replaced in accordance with an asset management plan to ensure that it lasts for the full duration of its intended service life, and provides mandated levels of service throughout its service life. If replacement is required prematurely or assets are not replaced at the natural end of their service life, an infrastructure deficit results and future generations may have less municipal infrastructure than their predecessors.
ECO	NOMIC Capital is the infr	astructure that produces goo	ds and services, including land, labour & machinery.
E1	Kelowna's infrastructure will provide a full range of reliable municipal infrastructure services.	Council approved levels of service for infrastructure will be provided to all residents at all times. Levels of service reflect the quantity and quality expectations for the services that infrastructure provides.	Achieving levels of service is a function of a number of factors including the deployment of appropriate technologies, system capacity and redundancy, design and construction quality, operating procedures, maintenance regimes, etc., which require seamless interdepartmental coordination. Levels of service should be explicit in the asset management plan for each infrastructure type. The selection of appropriate infrastructure services can attract the knowledge sector and 'green' business.
E2	Kelowna will achieve a positive return on investment (ROI) in public infrastructure.	A reasonable target for this goal will need to follow research on achievements in the comparable urban contexts. See 'rationale'.	Appropriate municipal infrastructure development increases the market value of land and, subject to global economic conditions, stimulates private sector development. As an example, private returns on public investment associated with the revitalization of Bernard Avenue over the next few years should result in higher assessed values and associated property taxes, higher rents, higher sq.ft. sales and increased investment in downtown development measured by the value of nearby building permits and the achievement of maximum zoning envelopes. Successful public investments encourage further investment by others.

SOCIAL Capital is the fundamental ingredient of a caring community.

ID	INFRASTRUCTURE GOAL	2020 TARGET	RATIONALE
51	Infrastructure will <u>connect</u> people to goods and services, to their community and to the natural environment and provide universal <u>accessibility</u> .	Residents in the urban core will be within 400 metres of public transit and public assembly places and green space, all of which will be accessible by pedestrian and bicycle infrastructure.	A key element of a sense of belonging, of social inclusion, of equity of service, of social and ecological literacy, of democratic participation, and of creative dialogue and innovation is face-to-face contact with other people and nature. Infrastructure can connect people to each other and to the amenities of the built and natural environment.
52	Kelowna's public domain will be and feel <u>safe and secure</u> .	Kelowna will have the lowest rates of crime against person and property in the public domain relative to similarly-sized Canadian cities.	The ability for residents to enjoy street life is essential for a caring community. The design of public infrastructure (CPTED principles), along with the health of the economy, and the abundance of opportunities for the investment of positive energy all contribute to personal safety and property security.
CUL	TURAL/CREATIVE Capita	l is the ability to perceive an	d act in ways that work in changing circumstances.
C1	Kelowna will invest in the creation and preservation of the <u>distinct and</u> <u>meaningful features</u> of its natural and built public environment.	The number of culturally significant and publicly accessible natural and built 'landmarks' and public places per capita will remain constant or increase.	The sense of community and pride are supported by meaningful & memorable built embodiments of local social values and history and the geophysical and biotic features that provide a unique, distinctive character and sense of place. The continuing production of culturally significant landmarks is an indicator of creativity and local identity.
C2	Kelowna will ensure that there are adequate venues to support a full range of active participation and enjoyment in recreation, sport and cultural activity.	Kelowna will provide areas/capita of both recreational and cultural spaces which are equivalent to cities with a reputation for active and creative living.	A creative City attracts and retains talent by providing accessible venues for formal and informal performance, recreation and creative activity to all its citizens. This is a key success factor for healthy and engaged citizenship.
C3	Kelowna will be recognized for innovation or design quality.	Kelowna's public infrastructure will attract awards for innovation and/or design quality.	A city that is recognized for the design quality and innovativeness of its infrastructure will attract and retain talented people, leading edge businesses and tourists.
FINA shor unex futu	NCIAL capital provides f t-term emergencies (sho pected opportunities as re generations have the s	iscal liquidity so that the City cks), adapt to long-term stres they arise. The preservation ame and greater resilience a	y is able to respond to and resume business following sees and pressures, and recognize and respond to and enhancement of financial capital ensures that nd adaptability to change.
F1	Infrastructure services will be delivered at the lowest possible life-cycle cost per capita.	Capital priorities and project options will be selected based on the achievement of all multiple bottom line targets at the least life- cycle cost investment per capita or per unit of service delivered.	An integrated approach to infrastructure planning will identify the synergies where a single infrastructure investment will advance several sustainable infrastructure goals without having any negative impacts on the remaining goals. The highest benefit/cost ratio will have the highest return on investment. The goal is to achieve MBL targets at the least life-cycle cost, not to exceed MBL targets at any cost.

ID	INFRASTRUCTURE GOAL	2020 TARGET	RATIONALE
F2	Capital Reserves will keep pace with capital renewal and replacement needs.	Capital reserves will be 75% of planned capital needs.	Capital expenditures are easily diverted to new capital projects. If these are funded from reserves, the ability to steward and replace existing infrastructure is compromised.
F3	Kelowna will attract external investments to reduce the burden on the local taxpayer/ratepayer.	External financial contributions to infrastructure will be 20%/year.	Innovative, leading edge and valued infrastructure will provide benefits to senior governments, businesses, private developers and institutions that can benefit through partnerships. Increased investment accelerates the achievement of infrastructure benefits.
GOV circu	ERNANCE and ORGANIZA	ATIONAL CAPACITY gives the owledge to imagine appropri	community the ability to recognize changing ate responses, and the courage to risk timely action.
G1	Kelowna will support an informed and inclusive public process regarding its infrastructure investment decisions to build transparency, accountability, partnerships and collective governance capacity.	80% of Kelowna's residents, academic institutions and key stakeholders agree with Kelowna's infrastructure investment decisions.	Public commitment to develop and follow the results of a shared and responsive decision-making tool informs individual and collective behaviour and is critical to real sustainability.

The expectation is that the City Corporation's annual capital investments must result in the achievement of all MBL targets at the level of the infrastructure <u>system</u> as a whole. At the capital <u>project</u> level, preferred solutions will be those that achieve the highest benefit to cost ratio.

Currently there are sixteen (16) indicators and targets in the MBL framework. It is acknowledged that reliable and cost-effective data collection protocols to measure the status of each goal and target in this MBL Framework are needed. Measures for seven (7) of the indicators are planned for 2010. The MBL measures will be tested through application to normal capital planning activities such as the annual capital plan, the 10-year capital plan and the 20-year Servicing Plan and Financial Strategy (DCC Bylaw).

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itlar			20%	20%	20%	20%	20%	score	
ity of Port Coqu	atrix for 2006 Capital Budget	Factors	Mobility and Access, Protect Infrastructure, Complete Community, Safety, Customer Service, Strategic Alliances, Financial Stability, Strong Organization	Increased revenues, cost savings/avoidance, productivity improvements, minimize risk, increase economic opportunities	Improve Ee safety or morale, enhance citizen participation, strengthen neighbourhoods, improve service/image/decision making	Enhance natural areas/green space, reduce air emissions, encourage environmental stewardship, contribute to regional sustainability	organizational cnange risk, tecn risk, etc. Liklihood of achievment'	Proposal	D he higher the acore inditer the score
ppendix G - Ci	Decision Ma Operating &	Area	Strategic Plan Alignment	Financial/Economic Value Tangible benefits	Social/Community Value Intangible benefits	Environmental Value	Risk		A the greater the alignment th the greater the alignment th the greater the benefit the th
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Appendix H - City of Nelson Assessment Tool

204	NASSESSMENT TOOL	- the second			
This to	ol is to be used for all community level actions.				
1. what	It is the proposed action item?				
2. Whi	ch current policies and plans does this action su	pport?			
Policy(s):	How:			
Path to Plan, Z Sewer	2040 Sustainability Strategy, Official Community oning Bylaw, Water Master Plan, Subdivision Bylaw, Master Plan	The goals and objectives within the proposed dowr towards a long-term development and supports ne demand.	ntown-wate cessary inf	rfront plan st rastructure v	trengthen policies with efficiencies and
3. Wha	t impact does this action have on Nelson's Susta	I ainabilty Principles, Directions, and Objectives?			
1. Revi 2. Assi 3 or -3	ew the Sustainability Principles and Directions sheel gn Impact Rating: = strong impact; 2 or -2 = moderate impact; 1 or -1 =	 Indicate which objectives are related and identify minor impact; 0 = no impact or not applicable * 	the impact	s of the actio	on.
Sustai	nablity Principle & Direction	Objectives	Direct Related Impact Rating	Indirect Related Impact Rating	Notes
Cultural Strength	Conserving and enhancing our diverse recreational assets and opportunities. Meaningful civic participation in our City's governance systems, Using arts and culture to create meaningful learning opportunities, Facilitating cross generational and socio-economic relationships	ACH1. Promote artistic and cultural expression & celebration, ACH2. Preserve and celebrate heritage, ACH3: Build cultural vision for our community, ECC3. Encourage local green economy, HLSW1: Support healthy living, LE2: Support entrepreneurial leadership, NAR0.3: Establish a distributed, restored natural areas network, W1. Reduce water consumption, TM1. Support human pow ered transportation	3	3	
Healthy Neighbourhoods	hviting parks, community gardens and informal public spaces for gathering. Diverse housing opportunities in all neighbourhoods, Development focused in specific; pre-identified mixed use areas. Connected residential areas via safe, enjoyable walking and cycing corridors and greenways. Buildings that are sustainable in design and operation, they incorporate green building practices and technologies when renovating existing and constructing new buildings	ACH2 Preserve and celebrate heritage, ECC2: Reduce energy consumption, and greenhouse gas emissions HLSW2: Foster an inclusive and respectful community , HLSW4: Maximize intergenerational connections, HLSW6: Support socially just economic development, LU1: Ensure bylaw s support sustainability, TM1: Support human pow ered transportation, TM3: http://www.eco.org.amenities, LU2: Promote affordable mixed use housing	3	3	
Prosperity	Supporting new and existing industries, businesses, and NGOs, Supporting efficient movement of people and resources, Supporting a vibrant, safe dow ntow n and w aterfront as a w elcoming space, Recognizing small business as a key driver of our local community	ECC3: Encourage local green economy. HLSW1: Support healthy living , LE1: Support businesses and investment, ECC4: Anticipate and plan to adapt to climate changes , LE3: Maintain and further develop a diverse economy. LU5: Focus new growth in the dow nlow n and waterfront , TM4: Improve inter and intra community transit, ACH4. Integrate AC&H into other sectors of the community. TM5: Foster connectivity dow ntow n	3	2	

* **Strong Impact:** This initiative will move Nelson <u>significantly</u> 'closer' or 'away' from meeting the related principle, directions, and objectives. Example: the initiative puts Nelson more than <u>10 years</u> ahead or behind of where we are now.

* Moderate Impact: This initiative will move Nelson somewhat 'closer' or 'away' from meeting the related principle, directions, and objectives. Example: the initiative puts Nelson more than <u>5 years</u> ahead or behind of where we are now.

* Minor Impact: This initiative will move Nelson <u>slightly</u> 'closer' or 'away' from meeting the related principle, directions, and objectives. Example: the initiative puts Nelson more than <u>1-2</u> years ahead or behind of where we are now.

Reflect	on the total Impact Rating and assign a net impa	act (Highlight one):	Net Negative	Strong Moderate	Net Positive	Strong Moderate
Total In	npact Ratings:			14	6	
Robust Ecosystems	Protecting, restoring, and enhancing our natural assets by continuing to cultivate responsible environmental practices;. Using our natural resources efficiently and conserving them to the greatest extent possible Designing infrastructure that maintains natural systems, and using natural systems to enhance infrastructure performance. , Protecting the natural areas on our neighbourhoods,	ECC: Reduce energy consumption, and greenhouse (NARL3: Establish a distributed, restored natural areas TM2: Reduce personal vehicle use	gas emissions , i network ,	3	-1	Additional environmental goals could be better incorporated in the planning process.
Resiliency	Foster a diverse, flexible business community that sustains our prosperity. Continue to build local, green infrastructures that use resources thriftily and efficiently. Adapt and flourish despite an uncertain, changing climate and environment	ECC1 Reduce dependence on fossil fuels , ECC2. Reduce energy consumption, and greenhouse , ECC3. Encourage local green economy, LE1. Support businesses and investment, LU5. Focus new grow th in the dow nlow n and water LU1. Ensure bylew s support sustainability, LE3. Maintain and further develop a diverse economy	gas emissions front ,	2	-1	Additional environmental goals could be better incorporated in the planning process.

Moderate Moderate Impact Impact Minor Minor 4. Describe how to mitigate the negative impacts on the Sustainability Principles, Directions, and/or Objectives.

Negative impacts predominantly relate to environmental considerations. The planning process articulates predominant redevelopment of sites currently developed or are brownfields. The plan would strongly discourage greenfield development and would focus future development on already disturbed sites.

5. Describe any key outcomes, considerations, or notes on implementation.

The key outcome of the Planning Process will change how future development patterns will be occur. This will be a cultural shift and will require focussed resources to ensure the end goals are met.

Appendix I - NRC Criteria, Indicators & Metrics

	Decision Criteria	Indicator	Metric
•	Support of government strategy Interaction with other projects	 Key strategy element Other reinforcing projects 	 Contribution to strategy Increase/reduction in impact
•	Financial Cost Return on invest- ment	 Capital and operating costs Commercial return 	 Cost time streams Net Present Value Present Value Costs
•	Economic Return on invest- ment Growth /development Industry support Industry competi- tiveness	 Economic return Multiplier effects Specific industry impacts 	 GNP, jobs, government revenue Breadth of project benefits
*	Social/community Safety and security Community sup- port	 Safety 	 Number of dangerous inci- dents
*	Environmental Public health Aesthetics Wildlife	 Hazardous emissions Habitat loss Parks land 	 Number of sewer and land- fill leaks Changes in habitat area Amount of greenspace
*	Asset Management and Risk Project risk	 Asset condition Risk factors such as changes in demand and fi- nancing 	 High maintenance cost or risk Public/worker safety Variations in risk factors and associated outcomes
•	Legislated/Contractual Obligations Imposition of un- avoidable commitments	 Legal text/contracts Provincial government policy and priorities 	 Impact on discretion in municipal strategy Impact on financial discretion

A Model Evaluation Criteria Table

Appendix J - 2011 Capital Projects

CITY OF PRINCE GEORGE

Capital Projects List for the Year 2011 of the 2011 Budget

Project Type	#	Project Name and Description
Replacement	1	Arena Improvements Improvements to structures, ice plants and equipment in all ice arenas. Grant awarded through Recreational Infrastructure Canada - Western Economic Diversification for one third funding.
Replacement	2	KinCentre Renovation (2015 Games) The replacement of Kin Centre #1 to meet the requirements of the 2015 Canada Games and general city facility needs for tournament and community use. The design will begin in 2011 and finish spring of 2012. Tender in spring 2012 with major construction beginning summer of 2012 through to summer of 2013. Final work will complete in 2014.
Replacement	3	George Street Lighting Installation of additional street lighting and replacement of existing lighting to improve lighting levels in the downtown area.
Replacement	4	2011 Wtr Service Replacements Replacement of failing plastic services in various locations throughout the City.
Replacement	5	Library - HVAC Replacement of heat pumps and other heating and ventilation equipment that is critical to the functioning of the temperature control for the main library.
Replacement	6	2011 Computer Replacement Continuation of our annual equipment refresh. Workstations, printers, laptops, network gear, and servers are all included in this refresh. In addition within this project we hope to analyze the necessary replacement of our SCADA software which controls our water and waste facilities and equipment. It is anticipated this will lay the foundation for a necessary SCADA application replacement in 2013.
Replacement	7	PW 105 Sewer Forcemain Replacement of existing forcemain serving at the 1st Avenue Light Industrial area west of Victoria Street. Original main has deteriorated to the point of becoming an environmental risk.
Replacement	8	2011 Mobile Equipment Replace For the annual replacement of 20 vehicles currently part of the City Fleet.
Replacement	9	FSLP-Roof Replacement The flat roof on the Four Season Leisure Pool is in need of replacement. The roof is divided into three parts and this budget is to complete the first two.
Replacement	10	605 Soft Starts Replacement for a starter that was installed in 1967, of which parts are no longer available. This station provides water for the western portion of the City.
Replacement	11	Small Equipment - Acquisitions For the annual replacement of various small equipment units such as; chainsaws, lawnmowers, trimmers, etc.
Betterment	12	Rotary FId-Field Upgrades Upgrade Rotary Baseball Field – Carrie Jane Gray Park – address safety issues and enhance for hosting national and international events Sand base, new shale, new irrigation, new turf and fence repairs.
Betterment	13	Civ Fac-Upgrade Facility Heat Capital for modernization and replacement of Civic Building Heating systems - GHG reduction Evaluate and implement energy reduction opportunities.
Betterment	14	PG Hotel Demolition The development of a site remediation/risk management plan followed by the demoltion and site remediation of the PG Hotel property. An FCM grant for 50% of the cost of the remediation/risk management plan will be applied for, followed by an FCM brownfields low interest loan.

Betterment	15	Civ Fac - Energy Improvements Multiple City Buildings have been reviewed by an Energy Consultant for sustainability and energy efficiency. The focus of the various projects is to improve energy efficiency and reduce greenhouse gas emissions.
Betterment	16	2011 Computer Betterments This project includes better utilizing and routing for fire engines. Each engine contains a direct connection back to dispatch and this augmentation provide dispatch with the ability to route the engines for faster response times. Also included is a review and preparation of a major upgrade to our financial system which is scheduled for early 2012 and included in that years budget.
Betterment	17	2011 Road Rehabilitation Rehabilitation of paved City roads as identified in the Pavement Management System and RIVA. The proposed 2011 capital paving projects are: PG Pulp from the tracts to 685m South, Old Summit from Shady Valley to 1400m North, Ospika N bound from 5th to 15th, Continental from Terminal to Hwy Access, Domano from Moriarty to Trent, Noranda from Hwy 97 to Bellamy, Ospika from 22nd to Massey, Cranbrook Hill from Kueng to City Reservoir, Johnson from 5th to 10th, Hart Frontage from Arabian to Nordic, and Cowart from Hwy 16 to Telus.
Betterment	18	City Hall Parking Lot City Hall parking lot layout, reconfiguration and resurfacing rehabilitation.
New Asset	19	18th Ave Yard Building This project involves the construction of an administration building in the 18th Avenue Yard to accommodate the staff and crews currently located in the 4th Ave Yard. The project also includes renovations to existing buildings at the 18th Ave Yard site to accommodate shops and vehicle storage for operations currently located at the 4th Ave Yard location.
New Asset	20	Boundary Road Connector For the 2011 season construction will include disposal of waste material, complete storm and sanitary sewer, begin watermain installation, complete road sub base work, complete the north detention pond, completion on Highway 16 Boundary Road intersection, and completion of the Boundary Rd Gunn Road round-a-bout.
New Asset	21	Downtown District Energy Sys. Implementation of the Community Energy System. Project is dependent on receiving grant money from senior levels of government. Project includes the development and construction of a Community Energy System.
New Asset	22	2011 Computer New New items include additional workstations and servers to support our growing application requirements. The main focus will be on our Asset Mgmt Initiatives. We plan additional analysis and perhaps software to examine our linear assets in more detail to better position ourselves for a major application purchase in 2012.
New Asset	23	2011 Off-Site Works Improv Off-site works improvements that are not required by the Subdivision and Development Servicing Bylaw but are required to meet City standards on sites adjacent to future development.
New Asset	24	2011 Commercial Water Meters Purchase of new industrial and commercial meters for new construction for buildings.
New Asset	25	2011 Residential Water Meters To supply residential water meters for new home construction as endorsed by Council In the City's water conservation plan.
New Asset	26	DPSS - Park Development The development of Duchess Community Park in 2011 will include base-level park facilities such as trails, playground, fenced dog park, revegetation, signage and other park amenities.
New Asset	27	BCR Sewer Line Design Design of Sewer line connecting the southern half of Boundary Road Project to the BCR sanitary sewer system.
New/Asset	28	Chlorine Analyzers Purchase and installation of automatic chlorine analyzers, this allows us to monitor end point chlorine residuals and ensure compliance with provincially mandated chlorine levels. Safer water.

Replacement	29	CN-Replace Scrubber-Ride-On Replace existing ride on floor scrubber.
Replacement	30	2011 WWTC Upgrades - Digesters WWTC replacement of digesters: Replace sludge piping plug valves with gate valves. Forty 150 mm valves, fifty 200 mm valves, forty 150 mm spool pieces. Cost split over multi years.
Replacement	31	CN-Replace Video Camera This is to replace the first of two portable video cameras at the CN Center.
Replacement	32	18th Ave-Roof Membrane New roof for the 18th Ave Yard main equipment maintenance building is the final section of the three phase roof project.
Replacement	33	2011 Park & Playground Refurb Multi year project involving the annual replacement of existing park/playground equipment at various parks.
Replacement	34	Storm Linear Reinvestment Linear Asset reinvestment as identified in RIVA study.
Replacement	35	2011 Small Equipment WWTC Repairs and or replacement of small equipment at the Wastewater Treatment Centre (e.g. drives, motors, pumps and valves). Equipment deterioration.
Replacement	36	WWTC Screening Equipment Replace influent screens, screenings dewatering equipment and screenings hopper. Reduce screen bar gap. Existing equipment has reached end of design life.
Replacement	37	WWTC Scum Dewatering Equip Replace scum dewatering equipment. Existing equipment has reached end of design life.
Replacement	38	WWTC Sludge Collection Replace sludge collection equipment; long collectors, cross collectors, electrical and control installations. Existing equipment has reached design life.
Replacement	39	Sewer Linear Reinvestment Linear Asset reinvestment as identified in RIVA study.
Replacement	40	2011 Hydrant Replacement Fire hydrant replacement program to replace and refurbish existing fire hydrants.
Replacement	41	Curb & Gutter Rehab - Eton Ave Removal and replacement of curb and gutter and asphalt sidewalk on Eton Ave. between Laval and Simon Fraser Ave.
Replacement	42	Water Linear Asset Reinvest As identified by RIVA study.
Betterment	43	2011 Sanitary Liftstations U/G Capital upgrades to sewer lift stations.
Betterment	44	RCMP-Upgrade 5 Holding Cells The RCMP is mandating that municipalities upgrade holding cells to the new RCMP standards. This budget is to upgrade five high risk cells which include the two drunk tanks and three suicide cells. The RCMP may accept a phased upgrade approach starting with one cell in 2011. To upgrade one cell would cost \$108,000.
Betterment	45	Storm Rehab Winnipeg St Rehabilitation of storm trunk main on Winnipeg St from 15th Ave overpass to Carrie Jane Gray Park.
Betterment	46	2011 Road Structures Rehab Project involves the rehabilitation / asset management of bridges owned by the City of Prince George.
Betterment	47	2011 Storm Rehab Downtown Storm system repairs as identified in Closed Circuit TV analysis.
Betterment	48	2011 Gravel Road Rehab Reconstruction of failed sub-bases with gravel and repair ditches. This multi-year program will see approximately 5km of gravel road rehabilitated.

Betterment	49	2011 Boulevard Restoration Project provides for the upgrading of boulevards/medians including turf restoration hard surface treatments automatic irrigation systems and tree/shrub planting. Work may be in conjunction with pavement restoration projects.
Betterment	50	2011 Nature Park Improvements Improvements to facilities in various nature parks.
Betterment	51	2011 Sidewalk Rehabilitation Project includes the reconstruction of failed sidewalks at various locations throughout the city.
Betterment	52	Bear Smart Program City of Prince George will be taking various courses of action to move toward a Bear Proof Municipal Solid Waste System. Various options and solutions are currently being explored including Bear Proof containers, bylaw revisions, and garburators.
Betterment	53	2011 Boulevard Irrigation
Betterment	54	Queensway Dike Retain engineering consultant to complete assessment, prepare pre-design engineering report and cost estimates.
Betterment	55	Citizen Fld - Upgrades Reposition the Home Run Fence at Prince George Citizen Field - Carrie Jane Gray Park. Move existing wall back in centre field from 361 ft to 400 ft and the left centre from 332 ft to 375 ft.
Betterment	56	Handlen Road Upgrade Upgrading of existing road to Collector to match existing Handlen Road to the west. Construction of new storm drainage and concrete sidewalk to be included as well as tie in to Highway 97. Originally designed in 2000.
Betterment	57	Massey Dr Ped Crossing Improvements to the pedestrian crossing on Massey Drive at Pine Centre Mall.
Betterment	58	Road Widening Austin Road W. Detailed design and land acquisition for Austin Road West widening project. Phase 1 shopping centre to Kelly Road.
Betterment	59	George St Sidewalk Rehab To rehabilitate sidewalk infrastructure areas impacted by street trees planted in the 1980's along George Street.
Maintenance	60	2011 Pine Valley-Improvements Repairs to aging irrigation system. Refinish clubhouse exterior.
Maintenance	61	EX Prk-Replace Nopost Barriers Replacement of worri and damaged exposed aggregate no-post barriers.
Maintenance	62	Urban Renewal Downtown Sites Sustainable Landscape initiative sites are on Third Avenue and George Street.
Maintenance	63	CNCtr-Wik Behind Scrubber Replace walk behind floor scrubber.
Maintenance	64	2011 Wtr Main Valve Repl Identification and replacement of non-operable water mainline valves due to corrosion and damaged infrastructure.
Maintenance	65	2011 Wtr Pumpstations Cap U/G Water Pump Station capital upgrades to replace equipment and pumps.
Maintenance	66	2011 Sanitary Lat Relin/Repl 2011 sanitary laterals relining or replacing service laterals damaged by root problems or pipe failure.
Maintenance	67	2011 Tennis Court Resurfacing Installation of new playing surfaces at existing courts.
Maintenance	68	2011 Downtown St Tree Planting Planting trees on downtown streets.

Maintenance 69 2011 Storm Outfall Recons Work involves the reconstruction of storm sewer outfall structures damaged by erosion. Maintenance 70 2011 Street Light Pole Rehab Painting and replacement of street light poles. Maintenance 71 2011 Trails Rehab (Developmt) Capital rehabilitation work to the trails network including restoration of trail bridges and sections affected by erosion. Maintenance 72 2011 Storm Water Utility Storm Water Utility Phase 2 Implementation of Plan developed in Phase 1 assessment. Maintenance 73 2011 Pre-Prepaying U/G - Sewer Project allows for the repair to sewer infrastructure prior to paving. Maintenance 74 Shelley Spray Irrigation Equip Purchase new spray irrigation equipment for Shelley Lagoon plus storage shed. Maintenance 75 Security Gate Shelley Lagoons Installation of security gate at Shelley Lagoon, including extension of hydro power. Maintenance 76 Landscaping Hwy97/16 Intersection beautification. Maintenance 77 Fort Street Paving Paving including curb & gutter of approx 110 metres of Fort St. from Strata boundary on the east end of Fort St. to existing pavement on west end of Fort St. Maintenance 78 Paving Perth Road Paving project to improve runoff quality entering into the storm sewer infiltrators located on the northern portion of Perth Rd. New Asset 79 Lower Hart Watermain Installation of 400mm water main from PW810 to the intersection of Northwood Pulpmill Road and the north leg of MacMillan Crescent. New Asset 80 2011 Blackburn Trtmt Plt Divsn Construction of a new sewer main to divert sewage from the Blackburn area to the Danson Lagoon. New Asset 81 Cemetery Lighting & Sec Gate Project includes lighting upgrade and installation of security gate at the Cemetery. New Asset 82 2011 Snow Dis Facility W Bowl Purchase land and develop a new snow disposal facility to serve areas west of the downtown which accumulate approximately 110 000 tonnes of snow. New Asset 83 Curbside Recycling Program Implementing a curbside recycling program is an initiative effecting climate change that will conserve resources and energy and reduce greenhouse gas emissions. New Asset 84 Off-site Works PG Golf&Curling Off-site works related to the development of lands within the Golf Course - Pine Centre Neighbourhood Plan. These include off-site road and utility works. New Asset 85 Foam Inj Pump Catch Basin Purchase of a foam injection pump for catch basin repairs. New Asset 86 San Trunk Ext Cranbrook Hill Sanitary trunk extension Cranbrook Hill. New Asset 87 WWTC Emg Standby Power

Provide emergency power for secondary loads. Emergency standby power generator.

New Asset 88 2011 New Trails / Paths

The development of new trails as proposed in the 2008 PG Centennial Trails Project, 1998 City Wide Trail System Master Plan and through off-street paths identified in the 2001 Cycle Network Plan.

New Asset 89 Willowcale Road Surfacing

Phase 1 of the asphalt paving of Willow Cale between Penn Rd and Boundary Rd.

		79
New Asset	90	2011 New Sidewalks Construction of new sidewalks.
New Asset	91	Parkland Acquisitions
		The acquisition of high priority future park and open space areas includes the Smart Growth on the Ground Patricia Boulevard Greenway lands connecting the Downtown to the Fraser River, and the Fraser River Bench Lands riverfront greenway.
New Asset	92	PG Pulpmill Rd Flood Protect
		Prepare land use change strategy, enter into negotiations with property owners willing to relocate and consider possible options for flood proofing with property owners for those wishing to remain.
New Asset	93	Preston Rd Area Flood Protect
		Year 1: Complete flood protection pre-design including soils investigations to identify flood protection projects, engineering and cost estimates. Year 2: Acquire property as necessary, construct flood protection works.
		Year 3: Continue construction of flood protection works.
New Asset	94	S-Ft George Flood Protection
		Year 1: Complete flood protection pre-design including soils investigations to identify flood protection projects, engineering and cost estimates.
		Year 2: Acquire property as necessary, construct flood protection works. Year 3: Continue construction of flood protection works.
New Asset	95	Boundary Rd/BCR Water Connect
		An extension of the proposed Airport/Boundary Road transmission watermain (which is to be constructed in 2010 and 2011) from the intersection of the Highway 97 and the proposed Airport/Boundary Road to the BCR/Danson water system.
New Asset	96	Tree Protection
		Install 80 new tree grates and guards.
New Asset	97	DPSS All Weather Sport Field
		This proposal is for new construction of an all-weather sports field utilizing synthetic turf technology at the existing sport field site. The field would accommodate all sport field users and would enhance programming through a longer playing season, enhanced public safety through consistent quality in the playing surface, enhanced aesthetics and would fit very well into the overall parks plan for the neighbourhood and community as a whole.
New Asset	98	Manhole Sealing Equipment
		Purchase new manhole sealing equipment to maintain existing manholes.
Now Assot	00	Aluminum Shoring Equipment
1100 13301	33	Purchase new aluminum shoring equipment for crews to utilize during excavation.
Operating	100	2011 Water Concentration Plan
Operating	100	To implement a voluntary water metering program and conduct a public education campaign to reduce water usage by residents.
Operating	101	2011 Storm Water Ed Program
		Implementation of a storm water education program Phase 2 Implementation of a storm water education program. This project will use an integrated approach to educate the public, commercial users and school age children about the City's storm water systems and the impacts of the storm water on our creeks and streams. This project will also include an investigation of a number of watersheds which are being impacted by storm water.
Operating	102	Can the Grease
		Can the grease sanitary sewer project. This project will be an integrated approach to educating the public and commercial users of the sanitary system, the wastewater treatment plant and the impacts of grease and hazardous household chemicals introduced to the system. This project will also introduce the concept of inflow and infiltration which will assist in decreasing flows to our sanitary lagoons.