

**CAPITAL PROJECT PLAN
NORTHERN CANCER CONTROL STRATEGY
MAY 16, 2008**

1. Project Background

Residents of the Northern Health Authority (NHA) exhibit higher rates of cancer, have significantly poorer cancer related health outcomes, and use cancer services less than residents from other parts of the province.

The Provincial Health Services Authority (PHSA), the BC Cancer Agency (BCCA) and the NHA jointly identified the enhancements to cancer care required in the NHA and developed the *Northern Cancer Control Strategy* to address incidences of cancer throughout the North. The *Strategy* addresses the demographics and distribution of population in the NHA, is outcome focused and sensitive to the special needs and expectations of residents of Northern BC. The Northern Cancer Control program will deliver high quality health care services and improve the health and wellness of British Columbians who choose to live and work in the north, within a sustainable and affordable, publicly funded health care system.

a. Core Services of the Northern Cancer Control Strategy

Services will be delivered through a distributed model of care across NHA and will provide:

- More primary prevention;
- More accessible screening and early diagnosis;
- Enhanced oncology treatment services, including surgery, systemic and radiation therapy centred in Prince George in a new Cancer Centre; and,
- Increased education, support and palliative cancer care community programs.

b. Infrastructure Development and Expansion

To accommodate the implementation of the *Strategy*, investments in physical infrastructure are required as follows:

- A 4,200 square meter Prince George Cancer Centre facility to accommodate two linear accelerators and other equipment, treatment rooms and patient areas (\$87.9 million). The construction of this facility will be funded in a private public partnership approach;
- A 1,000 square meter addition and renovations to the Prince George Regional Hospital (PGRH), to accommodate a new six bed oncology unit, an expansion of pathology, laboratory and diagnostic imaging services, and additional administrative spaces to support the impact of new BCCA services in the North (\$9.5 million); and,
- Renovations and enhancements to up to 11 NHA sites in communities outside of Prince George and acquisition of new equipment and information technology to accommodate expansion of community cancer clinics (\$2.1 million).

2. Project Objectives

The objectives of the project are to improve cancer control in the North, specifically:

1. To reduce cancer incidence (number of new cases of cancer);
2. To reduce mortality due to cancer;
3. To improve access to cancer services for the northern population, closer to their homes;
4. To improve the quality of life for patients in the north who are living with cancer.

3. Project Status

The location of the new Cancer Centre is on the PGRH site, adjacent to the hospital. The new facility will be connected with the existing hospital to provide sheltered access to existing patient registration functions.

Preparations for the project have included:

- Development of a business case addressing the continuum of cancer care throughout the North that identifies both necessary cancer care services and required infrastructure to support it – facilities, equipment, information management / information technology (IM/IT).
- Development of a preliminary functional program for the Cancer Centre in Prince George to confirm the scope and range of services to be delivered and to determine the approximate size of the building;
- Preliminary estimate of project costs by a quantity surveyor, including preliminary estimates for obtaining LEED Gold rating for the building;
- Development of a project budget reflecting the preliminary cost estimates;
- Analysis of project risks;
- Analysis of the procurement method for the project;
- Analysis of the implication (risks and logistics) to the operations of the PGRH, for co-locating the new Centre on the same site as the existing hospital;
- Preliminary, high level discussions with the City of Prince George and other stakeholders; and
- Approval from Treasury Board / Cabinet to proceed to the Request for Qualification (RFQ) and Request for Proposals (RFP) stages.

BC Cancer Agency has completed evidence-based demand modeling / caseload projection to establish the functional program's spatial requirements and the related equipment requirements to support the service at the Cancer Centre. The design of the service takes into account demographic factors, the incidence of cancer by distribution of cancer types and a telemedicine based approach to the provision of care, particularly appropriate to the geographic characteristics of the North.

4. Costs and Benefits

Project Costs

The estimated capital cost of the Cancer Centre is \$87.82 million. This estimate is based on the preliminary functional program developed as an integral part of the larger Cancer Strategy. The project quantity surveyor advises that in the Northern BC, in the current market, the construction cost estimate has an accuracy of +/- 20 percent, 18 times out of 20.

Project Benefits

The project will benefit the community and the larger population in the North by:

- Addressing and mitigating the disparities of geography, access, risk factors and health services integration that adversely impact upon cancer control outcomes for citizens in the North.
- Reducing the incidence rates of cancer in the NHA; reducing cancer caused mortality rates; making cancer services to the Northern population better and closer to home; and, creating a better quality of life for patients in the North who are living with cancer.
- Building a Community Cancer Centre in Prince George designed to provide a range of systemic therapies for cancer patients through the following:
 - New chemotherapy treatment area;
 - New radiation therapy department;
 - New outpatient clinic;
 - New oncology pharmacy;
 - Support space and offices for new staff.
- These newly designed spaces are to provide services harmonized with the existing hospital:
 - Proximal access for patients to PGRH services, specifically: patient admission and discharge area, oncology inpatient unit, imaging services; lab services; emergency room;
 - Easy access to existing parking for both patients and staff;
 - Compatibility with future expansion of the medical school on the PGRH site;
 - Minimum restrictions on potential long term hospital / cancer centre expansion options;
 - Minimum need to acquire additional land for developing the campus of care.
- Distributed, remotely provided oncology services through telemedicine will be used to ensure that each patient receives the care they need, regardless of whether or not the services and resources to support a patient's care are available within that patient's community.

5. Project Risks

The major risks associated with the construction of the new Cancer Centre in Prince George are generally related to project scope, the functional program, the project development schedule, overall project cost and operating risk.

Scope and Functionality: These risks arise when the buildings are not sized appropriately, and/or do not have optimum design, including consideration to integrate LEED principles in design and apply them throughout construction. The result might be poorer program functionality, less efficient operations, and user dissatisfaction. Measures to mitigate these risks include:

- Extensive user involvement during the functional programming and concept design phase to ensure integration, functionality and higher levels of user satisfaction, for patients and staff.

- Design is taken to concept drawings before the procurement process starts. This reduces the likelihood of oversight and ensures that key functional components are included.
- The concept design architect and its team of engineers and consultants are retained to act as “shadow consultants” to the Project. This reduces the likelihood of oversight.
- Continued interface with user groups (both clinical and non-clinical) throughout the design development and construction phases. User groups will have representation on the RFP evaluation team.

Schedule Risk: This risk arises from the possibility that the procurement process takes longer than expected, the zoning/permitting process takes longer than expected, or the design/construction process takes longer than expected. Measures to mitigate this risk include:

- PHSA engaged Partnerships BC to support the procurement process, and procurement and legal documentation is based on industry-accepted templates.
- A Request for Qualifications process is used to short-list the best proponents.
- Contractual documentation is prepared ahead of time and appended to the RFP.
- Concept design drawings are included in the RFP to inform and support the procurement cycle.
- PHSA and NHA engage early with the City of Prince George to obtain municipal support. Fast-track zoning and permitting processes must be explored, as well as any “green” initiatives the City may already have in place that, incorporated early in the design, can assist in obtaining a higher LEED rating.

Cost Risk: This risk arises from the possibility that overall project cost and construction costs are higher than the estimated budget. Measures to mitigate this risk include:

- The preliminary budget is based on a quantity surveyor’s report.
- Realistic estimates of construction escalation and inflation were built into the budget, based on other recent projects and informed by recent local construction information.
- Costs associated with obtaining a LEED Gold rating were considered in the estimates upon which the preliminary budget is based.
- Inclusion of an affordability limit in the RFP’s selection criteria.

Operating Risk: This risk arises if the facilities are not well-maintained over time and/or the cost of their maintenance is higher than expected. Measures to mitigate this risk include:

- Detailed performance specifications are included as part of the RFP to ensure the proper building systems are provided.
- Inclusion of LEED principles in the design of the facility, incorporating long-term energy efficiency features, as well as focusing on reduction of fuel consumption.
- There is a requirement that the consortium includes a facilities maintenance provider that will have input into the design/construction process.