

# Gellatly Nut Farm Regional Park

## **Site Development Plan**

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# Preface

In 2002, the Gellatly Nut Farm Regional Park was acquired, and a Steering Committee was formed to participate in park planning. In late 2002, a vision statement and terms of reference for a planning study was developed by the Steering Committee.

This Site Development Plan has been prepared as the second part of a two stage preliminary planning process for the park. In the first phase of planning, the Park Concept Plan intended to:

- Provide context and background information to assist understanding of the complex issues facing development planning for this park.
- Confirm a park vision, and establish basic planning principles to guide park development.
- Consider opportunities and constraints determined by biophysical and historic site inventory, and projections of use.
- Assess options, and recommend the mix of land uses and development conceptual layout.

The Concept Plan was revised twice in response to three stages of input (99 responses), and an open house in April (attended by about 60 people), as well as extensive input from the project Steering Committee.

This Site Development Plan builds on the Concept Plan to provide more specific direction for park development and management. A plan design for overall site development, development recommendations, and prescriptions for landscape treatment was provided by consulting team, and modified based on input from the project Steering Committee. More detailed design will be required for some park facilities and developments.

An important component of this plan is the proposed phasing for development. The park is proposed to open in 2005, the year of centennial celebration for the Gellatly Nut Farm. The sequence in which the existing buildings and infrastructure are converted from farm- to park use, and phasing of new construction considered the following:

- The public demand for waterfront access.
- The high priority for managing the orchard for the health of the collection and visitor safety.
- The need for continuous presence of an on-site caretaker.
- The anticipated role of the Gellatly Nut Farm Society in planning and fundraising for capital development and operations of heritage components of the park. A potential fundraising strategy aimed to focus efforts on key projects initially, with phasing of additional projects as conditions permit.
- The need for adequate time for planning of key park facilities, especially the Heritage Interpretive Centre. This will include a business plan and operational agreement between the Regional District and the Gellatly Nut Farm Society, development of a park interpretive plan, and conceptual and final designs for the center that consider short and long term uses.

The Gellatly Nut Farm Society has been a very active participant in the planning process. The Society is committed to achieving a major role in the development, management, and financing of this park, and has a vision of how this will occur.

The Regional District of Central Okanagan will maintain ultimate management jurisdiction over the area as a Recreation/Cultural/Waterfront Park. The planning process for this park has played a role in starting to establish the unique working relationship between the Regional District and the Gellatly Nut Farm Society. In conjunction with this planning process, the Regional District, Gellatly Nut Farm Society, and Steering Committee initiated refinement of an operational plan and business case for the park, based on the development concept proposed in the Concept Plan. Of primary interest is confirming the feasibility of a Heritage Interpretive Centre, and on-site revenue generation.

## Executive Summary

This Development Plan provides objectives for various aspects of park development, and timing for actions that require immediate attention, that will be undertaken in the short term around the proposed park opening (2005-2006), and in the long term (beyond 2006).

Key development projects requiring immediate action prior to park opening (2004-2005) include:

- Orchard thinning and pruning, soil restoration; interpretive trail through the orchard (trail only).
- Restoration of the Nut Drying Shed and Lakeshore Cottage; security system for buildings in the Heritage Core
- Restoration of the 1945 Cabin to potentially serve as the temporary headquarters of the Gellatly Nut Farm Society.
- Interpretive signs for buildings in the heritage core.
- Waterfront area furnishings, washrooms/picnic shelter, landscaping, swim floats.
- Access road and parking areas, site furnishings and signage, landscaping, all park services (water, sewer, electricity, irrigation).
- Preparation of a park Interpretive Development Plan.
- Initiation of planning for restoration of the historic Gellatly residence to accommodate public viewing and interpretation.

Note: The historic Gellatly residence will accommodate the park caretaker until a new residence (combined with the Heritage Interpretive Centre) is constructed.

The estimated capital cost for park development in the immediate term is \$600,578.

Short term actions, that should be complete by or around the park opening (2005-2006) include:

- Removal of the double-wide trailer on the lakeshore; site rehabilitation.
- Establishment of demonstration heritage nut tree/shrub seedling nurseries; fencing of the orchard to control visitor use; interpretation along orchard trail.
- Protection/restoration of the Gellatly Barn; collection and rehabilitation of artifacts for the Gellatly residence.
- Completion of site furnishings.
- Install highway directional signage to the park.

The estimated capital cost for park development in the short term is \$133,539.

Long term actions (2006+) include:

- Development of the Heritage Interpretive Centre including interpretive displays, as funding permits.
- When the new caretaker's residence (part of the Interpretive Centre) is built, initiate restoration of the Gellatly residence.
- Development of children's playground near the waterfront; addition of swim raft to swimming area.
- Completion of park landscaping.
- As a public waterfront trail is developed on property northeast of the park, extend the trail into and through the park.
- Restoration of a portion of the irrigation ditch for demonstration purposes.

The estimated capital cost for park development in the long term is \$998,561.

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# 1 Introduction

## 1.1 Concept Plan Summary

The Gellatly Nut Farm Regional Park offers a unique combination of heritage, cultural landscape, natural and recreation values of importance to the local community, the region, and beyond. Many of these values were identified from reports and discussions relating to acquisition of the property as a park, and are highlighted in the Gellatly Nut Farm Regional Park Concept Plan.

The Concept Plan also provided a site assessment, identified issues related to the future development and public use of the park, confirmed a park vision, recommended basic planning principles, and provided a concept for park development.

Development of the Concept Plan involved guidance and direction from a Project Steering Committee, three stages of public input, including one Open House, and approval by the Regional District of Central Okanagan Parks Advisory Committee and Westside Parks and Recreation Commission.

Key features of the Concept Plan are described below.

Park Vision	Concept Plan Key Features
<p><i>The Gellatly Nut Farm Regional Park will be a regional park that encourages appreciation and use of the property as a historical “learning environment” relative to (1) international horticultural significance (hardy nut trees) and, (2) local agricultural history.</i></p> <p><i>Gellatly Nut Farm Regional Park will also provide a wide range of passive recreational opportunities that focus on an accessible waterfront.</i></p> <p><i>Maintenance of the horticultural integrity and viability of tree specimens is of prime concern.</i></p>	<p><b>1. Balance of heritage and recreation objectives.</b> This unique park will accommodate uses for both heritage appreciation and recreation, providing a unique destination that will meet the needs of a variety of regional residents.</p> <p><b>2. Partial separation of heritage and recreation uses.</b> Heritage and recreation zones in the park will each have a different management focus, and the orchard will be fenced to control visitor use. While park users will be able to experience the unique qualities of each setting separately, there will also be an integration of waterfront- and heritage oriented leisure and recreation opportunities. A proposed Heritage Interpretive Centre will play an important role in integrating the two park elements.</p> <p><b>3. A conservative approach to development.</b> The concept plan shows a moderate level of development, with moderate provision for parking and areas for overflow and/or future expansion, and recommends exploration of future opportunities for parking off-site.</p> <p><b>4. Phased development with recognition of potential long-term opportunities.</b> Cautious phasing of development will allow for adequate planning of key park features (such as the</p>

<p><i>Public involvement and stewardship of the park site will be encouraged in conjunction with expanded delivery of park services, particularly in the area of promoting historic site values.</i></p>	<p>Gellatly residence and Interpretive Centre), and time for adaptive management as new information becomes available. Over the long term, some facilities and park ‘use nodes’ (the Heritage Interpretive Centre in particular) may evolve to more intensive uses.</p> <p><b>5. Development and operation of the Gellatly Nut Farm Regional Park through a unique working relationship between the Regional District and the Gellatly Nut Farm Society.</b></p> <p><b>6. On-site revenue generation activities, appropriate to park resources, to help support upgrading and maintenance of heritage features.</b></p> <p><b>7. A moderate-sized Heritage Interpretive Centre to provide a gateway to the nut orchard, and a focus for suitable revenue-generating activities.</b>  This is a key park feature described only in concept at this time. Further planning will help to develop the form and function of this facility, and assess feasibility. From the visitor center, a self-guiding interpretive trail loop(s) will access identified points of interest and tell the story of the heritage nut orchard and its significance to hardy nut tree growing.</p> <p><b>8. The Heritage Core area, including the residence, nut barn and drying shed, and surrounding ‘specimen area’ of the orchard, as a focus for heritage interpretation.</b></p> <p><b>9. The Heritage Nut Orchard managed to ensure long-term health, and to improve representation of the working Gellatly Nut Farm.</b>  A moderate level of thinning and pruning will be used to improve orchard health and cultural landscape commemorative integrity. A demonstration seedling nursery will be developed within the orchard. Hands-on opportunities will be available for visitor participation in the working nut orchard.</p> <p><b>10. Waterfront Recreation developments that are compatible with the unique park setting and respect the social carrying capacity of the park as a whole.</b>  Proposed developments will support picnicking and swimming, with open areas for free play and special events. The waterfront path, a continuation of “Trails 2000” could enter the park from the northeast, and pass through the park to George Court or Whitworth Road.</p>
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## 1.2 Plan Purpose

The purpose of this Site Development Plan is to build upon the strategic guidance of the Concept Plan, and provide more specific direction, particularly in the area of orchard management, restoration of historic structures, and site design. This plan was developed through consultation with the Project Steering Committee, including the

Gellatly Nut Farm Society and the Regional District of Central Okanagan, and will be an important tool in helping to develop the working relationship and respective roles between the two.

This Development Plan provides objectives for various aspects of park development, and timing for actions that require immediate attention (2004-2005), actions that will be undertaken in the short term around the proposed park opening (2005-2006), and long-term actions (beyond 2006). Sections two through eight describe the 'what', 'when' and 'why' of proposed park developments, section nine shows the design of the site development plan ('where'), and Appendix one provides recommendations on 'how'. Sections ten and eleven describe the preliminary financial plan.

The Park Concept Plan and Site Development Plan were developed at a time when many factors that could affect park use and development were unknown. This includes:

- The extent and significance of cultural materials identified by the preliminary archaeological field reconnaissance.
- The potential for National Historic Site designation; implications of this designation.
- The implications of rezoning from Rural 2 (RU2) to Parks and Open Space (P1), in particular the potential requirement for road dedication in front of the property. This type of dedication would impact the barn and possibly the nut drying shed as well as the vegetation separating the property from the road right of way.
- Level of park use; market for park opportunities. The Concept Plan offered park use projections based on anecdotal information on comparable parks and other attractions, but these are only best estimates. Many factors will combine to result in the actual use of this park.
- Off-site, park-related issues and opportunities, including development of property to the northeast.
- Potential long-range development of the area around the park. While the ALR currently provides for a rural character and setting for the park, this could change in the long term as Westbank continues to grow.
- Revenue generating capability to support development of heritage components of the park.
- The long-term relationship between the Gellatly Nut Farm Society and the Regional District of Central Okanagan.
- The appearance and 'feel' of the orchard following restoration work.

Because of these unknown factors, long-term actions cannot be clearly defined. It is recommended that a priority long-term action be to revisit this Development Plan as situations change.

## 2 Heritage Nut Orchard Cultural Landscape Restoration and Management

The nut orchard cultural landscape is the park’s most valuable heritage feature, and most unique recreation setting.

Once an outdoor laboratory for breeding, evaluating and selecting nut tree species, the heritage nut orchard has not been actively managed since the late 1960’s. The orchard will be managed as a *Special Preservation Zone*, with priority on protection and restoration of orchard health, commemorative integrity as the working Gellatly Nut Farm, and presentation as a “historical learning environment”. Around the heritage core of buildings, the oldest part of the cultural landscape (the ‘specimen tree area’) provides for a very unique park experience amidst the massive, ancient nut trees. The ‘testing and selection working area’ in the middle of the park provides a setting of linear rows of trees and shrubs. These plantation rows are currently over-crowded and will be the primary focus for thinning. Park developments will compliment and respect the nature of each section of the orchard.

In addition to the aesthetic setting of this cultural landscape, and genetic diversity of cultivars, the orchard provides for a unique park activity. The fall nut harvest has broad appeal as an activity, and popular demand for the product. Prescriptions for restoration and management of the orchard aim to balance agricultural/horticultural productivity and efficiency with heritage appreciation and hands-on participation by park visitors.

Details regarding some of the following orchard management recommendations are found in Appendix 1.

<b>Objective</b>			
2.1 To enhance and maintain the integrity and viability of tree specimens, and to restore the heritage nut orchard to represent the Gellatly selective breeding program as it evolved up until the late 1960’s.			
<b>A. Immediate Action (2004-2005)</b>	<b>B. Short – Term Action (2005-2006)</b>	<b>C. Long-Term Action (2006 +)</b>	<b>On-going/ Operational</b>
1. Under supervision of a qualified professional, undertake a moderate level of thinning and pruning of trees and bushes. Identify any trees for salvage for wood products. Salvage materials from orchard thinning may also be useable for fencing, or park furnishings.	1. Establish demonstration seedling nurseries in appropriate areas within the orchard using tree/shrub species of combined heritage and commercial value.  2. Investigate the opportunity to manage the orchard organically.	1. Develop a long-term cultural landscape management plan to prepare for gradual replacement of tree species over time.  2. Restore a portion of the historic irrigation ditch for demonstration	Continue to increase knowledge about nut tree horticulture. Monitor the orchard for pests and disease.  Implement a program of seasonal fertilization, and yearly tree/shrub pruning.

<p>2. Use “cabling” to secure any potentially hazardous tree limbs.</p> <p>3. Install a reliable and easy to maintain irrigation system. (see Section 5 and Appendix 1)</p> <p>4. Consider soil enhancement, and establishment of a low maintenance, drought-tolerant ground cover in the “testing/selection area” of the orchard.</p>		<p>3. Develop a plan for replication of the cultivar specimens elsewhere within the Central Okanagan Regional District.</p>	<p>Chip the prunings and put the wood back into the soil.</p> <p>Manage the nut orchard landscape to perpetuate the historic character and use of the landscape (rather than beautification). Establish a regular maintenance regime to meet these objectives.</p>
<b>Objective</b>			
<p>2.2 Formalize visitor use through the nut orchard in order to protect park resources, enhance visitor safety and optimize the interpretive experience.</p>			
<b>A. Immediate Action (2004-2005)</b>	<b>B. Short – Term Action (2005-2006)</b>	<b>C. Long-Term Action (2006 +)</b>	<b>On-going/ Operational</b>
<p>1. Develop an interpretive trail loop(s) through the orchard in accordance with an Interpretive Development Plan, and using standards of universal accessibility. Potential “points of interest” include:</p> <ul style="list-style-type: none"> <li>• Hazelnut genetic testing/selection rows</li> <li>• Genetic testing/selection/ breeding nursery</li> <li>• Large specimen tree area</li> <li>• Heritage house, barn and drying shed</li> <li>• Heritage Orchard Irrigation and equipment demonstration area</li> <li>• English/Carpathian walnut testing/selection rows</li> </ul>	<p>1. Build a fence around the heritage nut orchard for visitor safety and resource protection. Provide entrances near the Heritage Core, and in the area of the proposed Interpretive Centre.</p>		

<b>Objective</b>			
2.3 Manage the orchard as a working nut farm with opportunities for visitor participation.			
<b>A. Immediate Action (2004-2005)</b>	<b>B. Short – Term Action (2005-2006)</b>	<b>C. Long-Term Action (2006 +)</b>	<b>On-going/ Operational</b>
1. Maintain options for visitors to collect and process their own nuts.  2. Assess the potential for on-going volunteer nut processing, potential for commercial partnership for nut processing, and partnership opportunities for the off-site growth of nut tree seedlings to be sold on-site.  3. Provide a temporary working area (and structure if required) for nut processing near the heritage barn where nut sales have occurred.	1. Consider re-creation of a nut cleaner (similar to Jack Gellatly's) that is functional and has interpretive value.	1. In the longer term, nut processing should occur closer to the sales area (Interpretive Centre).	

### 3 Heritage Building Restoration and Use

Most of the historic buildings are located in the Heritage Core near the entrance to the orchard. The Gellatly residence and the barn are of highest significance. The log cabin that forms the core of the Gellatly residence was constructed in 1905 of vertical poplar logs, and is unique in the Okanagan Valley. The barn was constructed in the same year using poplar logs and dovetailed corners, and is also considered very significant. Other historic features within the core homestead area include a nut-drying shed built in the 1930's or '40's, and remnants of a historic irrigation ditch.

Elsewhere on the property is a lakeshore cabin built in the mid-1920's, and a cottage built in 1945.

Heritage resource preservation will be a high priority, but will be balanced with visitor opportunities that are in keeping with the history and spirit of the historic nut farm. Detailed guidelines for many of the actions identified below are found in Appendix 1.

<b>Objective</b>			
3.1 Continue to use historic buildings to support operations in the short term.			
<b>A. Immediate Action (2004-2005)</b>	<b>B. Short – Term Action (2005-2006)</b>	<b>C. Long-Term Action (2006 +)</b>	<b>On-going/ Operational</b>
<p>1. Use the historic Gellatly house as the caretaker residence until the Interpretive Centre (with combined caretaker’s residence) is constructed. Upgrade sanitary service, and provide other improvements as required to support this use.</p> <p>2. Continue to use the Gellatly Barn for nut sales until the Interpretive Centre is constructed.</p> <p>3. Continue to use the Nut Drying Shed for it’s original purpose.</p> <p>4. Consider using the 1945 cabin as the Gellatly Nut Farm Society headquarters in the short term, until the Interpretive Centre is developed.</p>			
<b>Objective</b>			
3.2 Protect and preserve the significant heritage buildings in the park.			
<b>A. Immediate Action (2004-2005)</b>	<b>B. Short – Term Action (2005-2006)</b>	<b>C. Long-Term Action (2006 +)</b>	<b>On-going/ Operational</b>
<p><u>1. Nut Drying Shed and root cellar</u> Locate and repair any wooden elements that are rotten.</p> <p><u>2. Lakeshore Cabin</u> Develop a small fence around the lakeshore cabin. Replace lean-to roof.</p>	<p><u>1. Gellatly Nut Barn.</u> Consolidate this building. Replace foundation and bottom logs; close openings in walls.</p>	<p><u>1. Gellatly Residence</u> Remove non-historic porch; expose log wall; restore kitchen to earlier period; replace roof with appropriate covering.</p> <p><u>2. 1945 Cabin</u> Remove plywood addition on 1945 cottage.</p>	<p>Provide on-going maintenance to protect and preserve historic buildings</p>

3. Protect buildings in heritage core from vandalism by installing suitable security system; ensure adequate fire protection.			
<b>Objective</b>			
3.3 Establish adaptive and interpretive uses for suitable heritage buildings in accordance with the park Concept Plan			
<b>A. Immediate Action (2004-2005)</b>	<b>B. Short – Term Action (2005-2006)</b>	<b>C. Long-Term Action (2006 +)</b>	<b>On-going/ Operational</b>
<p>1. Continue to research the Gellatly Family and site history, and implications to historic site development and management.</p> <p><u>2. Nut Drying Shed</u> Initiate renovations to enhance the functionality (drying drawers, wood burning stove) while maintaining the historic character. Provide opportunities for public viewing from the doorway.</p> <p><u>3. Lakeshore Cabin</u> Provide interpretation (as determined by the Interpretive Development Plan).</p> <p><u>4. Gellatly Residence</u> Initiate planning/design for restoration of Gellatly residence, and renovation for public use. Liaise with building inspectors re: public safety. Liaise with appropriate groups/agencies re: universal accessibility.</p> <p><u>5. 1945 Cabin</u> Rehabilitate the 1945 cabin to support use as the Gellatly Nut Farm Society headquarters.</p>	<p>1. <u>Gellatly Barn</u> Determine an appropriate long-term interpretive use of the Gellatly Barn, such as display of agricultural implements, replica Gellatly Nut Farm van, etc. Initiate restoration to support this use, with consideration of guidelines described in Appendix 1.</p> <p>2. <u>Artifact Collection/Restoration</u> Begin acquisition/restoration of furnishings and artifacts for display in the residence, to fill any gaps in those donated by Gellatly family or other sources.</p>	<p>1. <u>Gellatly Residence</u> When the new interpretive center/caretaker's residence is complete, initiate renovations to open the house to public viewing and interpretation. Open a section of wall to permit viewing of unique log structure. Use the Gellatly residence to reflect the home life and character of Jack Gellatly</p> <p><u>2. 1945 Cabin</u> Determine an appropriate long-term destiny for the 1945 cabin.</p> <p>3. Consider installation of a fire suppression system for heritage buildings.</p>	<p>Provide regular safety inspections and maintenance to ensure public safety.</p>

## 4 Waterfront Recreation Development

Over one quarter of the park will be managed for intensive waterfront recreation. The park will eventually be linked to other recreation features in the Westside area via a waterfront path that would enter the park from the northeast, and pass through the park to George Court or Whitworth Road.

The type, level and design of waterfront developments are planned to contribute towards the unique 'sense of place' in this park, and to support family-oriented waterfront use with picnicking, swimming, and open areas for free play and special events. Waterfront recreation facilities will include a children's playground, lakeside picnic area, and potentially a swimming raft. A foreshore tenure will establish an extended swimming area and regulate boat access. Addition of sand along the foreshore is not recommended due to impact on spawning habitat in the area.

<b>Objective</b>			
4.1 Within the waterfront recreation area, develop facilities that enhance public use, and are at a scale and design compatible with the unique park environment.			
<b>A. Immediate Action (2004-2005)</b>	<b>B . Short – Term Action (2005-2006)</b>	<b>C. Long-Term Action (2006 +)</b>	<b>On-going/ Operational</b>
1. Apply for foreshore tenure. 2. Develop access and parking as described in Section 5. 3. Develop facilities and infrastructure as described in Section 5. 4. Install picnic tables and park furniture as detailed on the Development Plan, or as determined by more detailed site design. Determine design theme (see Appendix 1.) 5. Initiate landscaping of the waterfront area as generally described in Appendix 1, and determined by more detailed plans.	1. Install buoys around swimming area.	1. Develop the playground when the trailer has been moved from the lakeshore. 2. Provide a swim raft within the buoyed swimming area. 3. When property to the northeast is re-developed, extend the Waterfront Trail through the park.	Evaluate proposals for art in the park. Establish a regime of on-going waterfront maintenance that is efficiently coordinated with orchard maintenance/ operations.

## 5 Park Services

### **Site Access and Parking**

Access and parking were one of the greatest challenges in planning for this park, and options were limited.

After consideration of alternatives and public input, the Park Concept Plan recommended one main park access off Whitworth Road. Realignment of the existing park entrance was considered a priority in order to avoid fragmentation of the core of heritage buildings. This re-alignment would also avoid an area where surficial archaeological material has been found. (Note that the extent of subsurface archaeological material in the area around the heritage core is unknown without an Archaeological Impact Assessment).

Park access, originally proposed along the northeast park boundary, has been revised based on input to the draft Concept Plan. The current proposed access follows the existing road except at the entrance, where the road would be relocated to the northeast of the Nut Drying Shed (an area reportedly used as the original entrance to the property). This would provide a more scenic entrance to the park, and reduce impact on neighboring properties.

Park access off George Court will be used for emergencies and park service.

Separate parking areas will be provided for visitors to heritage and recreation areas of the park. Parking areas will be located in close proximity so can act as overflow for either use. Parking capacity will accommodate a moderate level of use, with limited on-site overflow parking during times of heavy use. Provision of a turn-around area for buses has also provided a design challenge, but was considered important given the school use and potential tourist use of the park.

<b>Objective</b>			
5.1 Provide vehicle access to the heritage and waterfront components of the park while minimizing impact on the ambiance of the unique park character.			
<b>A. Immediate Action (2004-2005)</b>	<b>B. Short – Term Action (2005-2006)</b>	<b>C. Long-Term Action (2006 +)</b>	<b>On-going/ Operational</b>
1. Develop park access off Whitworth Road as illustrated on the Park Development Plan. Determine the need for an archaeological impact assessment in the area of the re-aligned park entrance.	1. Investigate opportunities for additional/alternative park access through properties to the northeast as opportunities arise.	1. Consider negotiation/purchase an access right-of-way through property to the northeast.  2. Plant a landscape buffer along the northeast park edge.	Establish a maintenance regime of road maintenance.

2. Provide an entry gate off Whitworth Road and George Court to control use.	2. Monitor park traffic to evaluate the need for access road widening if an alternative route is not available.		
3. Provide for an emergency/ service park entrance off George Court.			
<b>Objective</b>			
5.2 Provide on-site vehicle parking to accommodate a moderate level of use while minimizing impact on park resources.			
<b>A. Immediate Action (2004-2005)</b>	<b>B. Short – Term Action (2005-2006)</b>	<b>C. Long-Term Action (2006 +)</b>	<b>On-going/ Operational</b>
1. Plan for parking areas to accommodate up to 100 vehicles on-site. Initially develop parking for about 37 vehicles, with designated areas for parking overflow. Install log rail parking barriers. Provide bike racks.  2. Provide landscaping around parking areas as described Appendix 1.	1. Investigate opportunities for additional parking areas off-site.  2. Develop additional on-site parking along the northeast park boundary as required.	1. Develop additional on-site parking along the northeast park boundary as required.  2. Consider negotiation/purchase additional parking areas in the vicinity of the park.	Maintenance of parking areas.
<b>Objective</b>			
5.3 Design parking and access to provide for safe turn-around for buses.			
<b>A. Immediate Action (2004-2005)</b>	<b>B. Short – Term Action (2005-2006)</b>	<b>C. Long-Term Action (2006 +)</b>	<b>On-going/ Operational</b>
1. Develop a bus turn-around in a suitable area.			

**Facilities and Infrastructure**

Original facilities and infrastructure to service a nut farm require substantial upgrading to service a Regional Park. Some existing facilities will need to be removed and/or decommissioned.

Domestic water is currently supplied by two wells to each of the Gellatly residence, lakeshore trailer, and 1945 cabin. Both wells are reported to be shallow, and the lakeshore well is reportedly more reliable.

The Regional District holds two conditional water licenses for the property with Land and Water BC. One license dates back to 1900, and allows for use of water from Powers Creek for a diversion structure and ditch for irrigation purposes. The other license allows for use of water from Okanagan Lake to a maximum of 500 galleons/day for domestic use and 2.25 acre feet per year for irrigation. This water is obtained from a shallow intake, and distributed through a pump house (northwest of the lakeshore cabin) to three main lines through the orchard. Hoses are attached to these lines and moved manually.

Sanitary services are provided by a septic system at the lakeshore trailer and very old septic field at the Gellatly residence. There is also a pit toilet near the 1945 cabin.

The Gellatly residence is heated with natural gas, and the trailer by propane. Electricity is available to the Gellatly residence, lakeshore trailer, 1945 cabin, heritage barn, and the pump house.

<b>Objective</b>			
5.4 Remove existing facilities and infrastructure that are no longer required and are not compatible with the park environment.			
<b>A. Immediate Action (2004-2005)</b>	<b>B. Short – Term Action (2005-2006)</b>	<b>C. Long-Term Action (2006 +)</b>	<b>On-going /Operational</b>
1. Decommission old septic fields of the trailer and heritage house, and the pit toilet.  2. Remove any outbuildings not identified as heritage features or required for storage or other uses.	1. Remove lakeshore trailer, decommission septic field, and rehabilitate site.		
<b>Objective</b>			
5.5 Provide site services (including domestic and irrigation water, electricity, natural gas, sewer), and work areas to support the anticipated long-range use of the park.			
<b>A. Immediate Action (2004-2005)</b>	<b>B. Short – Term Action (2005-2006)</b>	<b>C. Long-Term Action (2006 +)</b>	<b>On-going /Operational</b>
1. Investigate the capacity of the existing lakeshore well. If required, drill a deeper well to meet the capacity of park use. Install a water treatment system for potable water.	1. Develop a working/ maintenance area(s) to support nut processing and other park operations. Buildings for storage should be provided, and a workshop may be required in the longer term.		

<p>2. Extend sewer line from George Court to the heritage home, waterfront washrooms, and site of the proposed interpretive site.</p> <p>3. Install a deeper water intake and filtration system for irrigation water to avoid clogging with algae.</p> <p>4. Install an efficient irrigation system throughout the park, following recommendations provided in Appendix 1 for orchard irrigation.</p> <p>5. Upgrade the site's electrical capacity.</p>			
<b>Objective</b>			
5.6 Provide washrooms to service waterfront recreation users and heritage areas of the park.			
<b>A. Immediate Action (2004-2005)</b>	<b>B. Short – Term Action (2005-2006)</b>	<b>C. Long-Term Action (2006 +)</b>	<b>On-going/ Operational</b>
<p>1. Develop washrooms in the waterfront area that will include change rooms, and can potentially be combined with some other appropriate park amenity e.g. picnic shelter. Develop designs for this park amenity to complement design of the interpretive center.</p>		<p>1. Provide additional public washrooms in the interpretive center.</p>	<p>Assess the need for temporary washrooms for special events.</p>

**Park Furnishings and Landscaping**

Park furnishings help support and direct use in a park, and contribute towards the park's aesthetic setting. The Site Development Plan design proposes locations for site furnishings, but actual placement should be determined on-site. Due to the park's unique heritage character, an appropriate and coordinated design theme should be determined.

Outside of the heritage nut orchard, landscaping will provide a variety of important functions for the park, including visual screening and buffering, aesthetic enhancement, provision of shade, ground surface enhancement, habitat enhancement and goose control. Existing trees and groves have been incorporated into the park design.

<b>Objective</b>			
5.7 Provide park furnishings that are compatible with the park's heritage design theme, in order to enhance enjoyment, and help control use.			
<b>A. Immediate Action (2004-2005)</b>	<b>B. Short – Term Action (2005-2006)</b>	<b>C. Long-Term Action (2006 +)</b>	<b>On-going/ Operational</b>
1. Determine an appropriate design theme for park furnishings.  2. Provide picnic tables, trash receptacles and other furniture in appropriate areas throughout the park, following recommendations provided in Appendix 1.	1. Provide benches in suitable locations following recommendations provided in Appendix 1.		Provide opportunities for public purchase of commemorative benches.
<b>Objective</b>			
5.8 Provide landscaping compatible with the park's natural and cultural heritage in order to enhance the park environment.			
<b>A. Immediate Action (2004-2005)</b>	<b>B. Short – Term Action (2005-2006)</b>	<b>C. Long-Term Action (2006 +)</b>	<b>On-going/ Operational</b>
1. Provide landscaping around parking areas.  2. Provide and enhance landscaping in the waterfront area following recommendations provided in Appendix 1.	1. Initiate planting a hedge row along the northeast park boundary for visual screening.	1. Continue planting hedges along the northeast park boundary for visual screening.	Provide opportunities for public donation towards landscaping.

### **Park Accessibility**

The near-flat terrain and solid ground in the Gellatly Nut Farm Regional Park, provides for park opportunities potentially available to a wide variety of users. Park and facility design, and park programming can facilitate inclusion of people with disabilities. Some recommendations are included in Appendix 1.

<b>Objective</b>
5.9 To provide barrier-free access throughout the park site. An exception may some parts of the Gellatly residence including the upper floor.
<b>Actions:</b>
<ol style="list-style-type: none"> <li>1. During park facility design, consult with local accessibility officials, individuals with disabilities, and/or organizations representing individuals with disabilities.</li> <li>2. Design new park facilities to meet universal accessibility standards (for ground floors), including the interpretive center, picnic area, playground, and washrooms. Refer to Building Access Handbook.</li> <li>3. As historic buildings are modified to accommodate public use, alterations should comply with accessibility standards where possible without compromising historic significance of the buildings. Refer to Building Access Handbook where practical.</li> </ol>

## 6 Interpretation, Education and Visitor Information

The vision statement and Concept Plan for this park clearly establishes its importance as a “historical learning environment”, and much of the development and operations of the park will be for the purpose of interpretation.

The Concept Plan recommended that the primary focus for interpretation be the period between 1905, when the first nut trees were planted, and 1968, when Jack Gellatly died – the Jack Gellatly story. Interpretive developments should consider the variety of needs for universal accessibility.

<b>Objective</b>			
6.1 Use a range of opportunities and interpretive strategies to encourage understanding, appreciation and enjoyment of the unique park story.			
<b>A. Immediate Action (2004-2005)</b>	<b>B. Short – Term Action (2005-2006)</b>	<b>C. Long-Term Action (2006 +)</b>	<b>On-going/ Operational</b>
1. Prepare an Interpretive Development Plan to establish the interpretive message(s), media and programming. Liaise with the School District to ensure that park interpretation meets curriculum needs.	1. With guidance from the interpretive plan, develop the storyline for the interpretive trail; produce on small signs or brochure.	1. Develop permanent displays for the Interpretive Center.	<p>Continue to research and increase historic knowledge.</p> <p>Develop feature exhibits or sponsor traveling exhibits on a regular basis to attract repeat visitors.</p>

<p>Include a Concept Plan for interpretive center displays.</p> <p>2. Provide a temporary trailhead kiosk with signage at the site of the proposed Interpretive Centre.</p> <p>3. Develop an interpretive trail loop(s) through the orchard linking key points of interest, using materials compatible with the surroundings and heritage theme.</p> <p>4. Develop interpretive signs for the Heritage Cabin.</p>			<p>Develop and deliver interpretive programs that may include:</p> <ul style="list-style-type: none"> <li>• In-character interpretation</li> <li>• Guided tours</li> <li>• Programs for children/schools</li> <li>• “Make and Take” workshops</li> </ul> <p>Develop and deliver special events, especially around the nut harvest. Carefully time special events to avoid peak waterfront use times.</p>
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**Visitor Information**

Marketing and promotion will have an important bearing on the future success of the Gellatly Nut Farm Regional Park as an operating heritage site. Because the park capacity (especially vehicle parking) is limited, park promotion should proceed carefully, and should encourage use during non-peak use periods.

Objective			
6.2 Increase interest and awareness of the Gellatly Nut Farm Regional Park among Regional District residents and tourists in order to maintain and increase support for the park.			
A. Immediate Action (2004-2005)	B. Short – Term Action (2005-2006)	C. Long-Term Action (2006 +)	On-going/ Operational
1. Continue to maintain interest and excitement among Regional District residents about their newest park through media releases, special events, Regional District Parks publications and other.	1. Investigate the need for highway directional signage. Install signs as appropriate.  2. Build momentum towards a centennial celebration of the Nut Farm, and the park opening, with the focus on Regional District residents.	1. Create a park information package to encourage use by schools and other advanced education.  2. Initiate tourism marketing strategies following intermediate stages of park development. This could include: <ul style="list-style-type: none"> <li>• Advertising in tourist guidebooks and on websites</li> <li>• Familiarization tours for local visitor information and tourism promoters</li> <li>• Marketing to bus tour companies</li> </ul>	On-going marketing and promotion that will increase as park use becomes established to a level that can be supported by the park’s capacity.

2. Install park entrance sign and in-park directional signage.	3. Develop a rack card for the park.	3. Investigate the opportunity for marketing as part of the Okanagan Cultural Corridor, and/or co-marketing with other heritage, agri-tourism and tourist attractions.	
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## 7 Heritage Interpretive Centre

The key feature of park development will be a Heritage Interpretive Centre that will provide a gateway to the nut orchard and integrate heritage and recreation park uses. The primary function of the interpretive centre will be to welcome visitors, and introduce them to the Gellatly Nut Farm story. The centre will also be a focus for suitable revenue-generating activities by the Gellatly Nut Farm Society.

Because the scale of this interpretive centre has important ramifications to park use, infrastructure needs, and capital and operational cost implications, the Concept Plan recommended a moderate-sized facility, with recognition of opportunities to expand in the future. The centre is proposed to include interpretive displays, office area and some space for appropriate revenue generation. Another function will be to house the caretaker, perhaps on an upper floor, eliminating the need for development in another park area.

The heritage interpretive centre will be carefully designed to be compatible with the park's heritage theme.

<b>Objective</b>			
7.1 Provide a Heritage Interpretive Centre as the centerpiece of park development.			
<b>A. Immediate Action (2004-2005)</b>	<b>B. Short – Term Action (2005-2006)</b>	<b>C. Long-Term Action (2006 +)</b>	<b>On-going/ Operational</b>
	1. Initiate development of a business plan and concept plan for the Heritage Interpretive Centre.	1. Initiate design of the center with consideration of the Interpretive Development Plan, business plan, park facility design theme, and potential for future expansion to include additional features such as food services.  2. Develop the Interpretive Centre when funding permits.	

## 8 Actions Outside of the Park

The Park Concept Plan identified a number of issues and potential opportunities related to conditions adjacent to the park, or in areas surrounding the park. Park management will include actions outside of the park.

<b>Objective</b>			
8.1 Undertake actions outside of the park as required and as possible, in order to manage park resources and use, and to be a good neighbour.			
<b>Immediate Action (2004-2005)</b>	<b>Short – Term Action (2005-2006)</b>	<b>Long-Term Action (2006 +)</b>	<b>On-going/ Operational</b>
1. Regional District to promote use of other underutilized Westside waterfront parks to help manage use pressure on the Gellatly Nut Farm Regional Park waterfront.  2. Develop/install appropriate signage and/or regulations to discourage parking in surrounding neighborhoods by park visitors.	1. Maintain contact with the Ministry of Highways to negotiate for road widening on the west side of Whitworth Road if required.  2. Initiate discussions with property owners to the northeast to determine potential opportunities for land acquisition for alternative access and parking.		

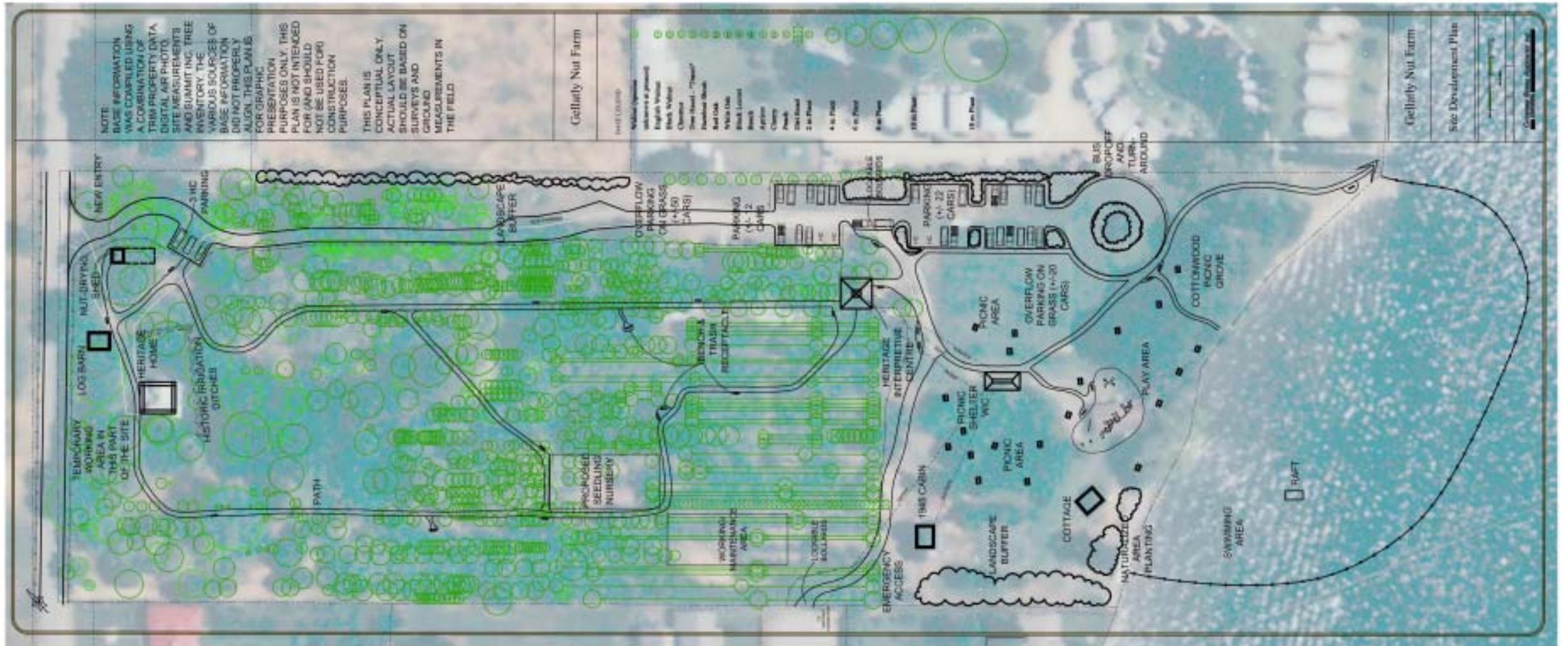
## 9 Site Development Plan and Recommendations

Figure 1 following illustrates the site design developed by Catherine Berris Associates Inc. in response to the opportunities and constraints of the site, and needs and issues identified in the Concept Plan and Site Development Plan.

The plan illustrates parking requirements anticipated for the short and intermediate term. The plan also shows the location of the proposed heritage interpretive center, proposed for the longer term. Depending on the details developed through planning for the heritage interpretive center, expansion of the parking lot westward along the park boundary would likely be required.

More detailed recommendations for proposed developments are provided in Appendix 1.

Figure 1. Gellatly Nut Farm Regional Park Site Development Plan



## 10 Capital Development Budget

The following preliminary capital development budget was developed jointly by the consulting team, Gellatly Nut Farm Society, and Regional District of Central Okanagan.

<b>Project Area and Items</b>	<b>Immediate (2004-2005)</b>	<b>Short Term (2005-2006)</b>	<b>Long Term (2006+)</b>	<b>Sub-Total</b>
<b>Nut Orchard Restoration and Development</b>				
• Professional Services - Design/Administration	\$8050			\$8050
• Orchard thinning and pruning	\$51,750			\$51,750
• Soil enhancement; cover crop	\$11,500			\$11,500
• Historic Ditch - demonstration			\$5750	\$5750
• Split rail fence around orchard		\$8050		\$8050
• Accessible Interpretive trail - trail development only	\$17,250			\$17,250
<b>Sub-Total</b>	<b>\$88,550</b>	<b>\$8050</b>	<b>\$5750</b>	<b>\$102,350</b>
<b>Historic Building Restoration</b>				
• Professional Services - Design/Administration	\$3220			\$3220
• Gellatly Barn		\$46,000		\$46,000
• Nut Drying Shed	\$5750			\$5750
• Lakeshore Cottage - Fence and Restoration	\$1150			\$1150
• Security system for heritage buildings	\$13,800			\$13,800
• Artifact/archival collection, cataloguing and rehabilitation		\$11,500		\$11,500
• Restoration/rehabilitation of 1945 cabin	\$5750			\$5750
• Design Planning-Gellatly residence for public interpretation access	\$5750			\$5750
• Gellatly residence restoration			\$69,000	\$69,000
<b>Sub-Total</b>	<b>\$35,420</b>	<b>\$57,500</b>	<b>\$69,000</b>	<b>\$161,920</b>
<b>Waterfront Recreation Development</b>				
• Professional Services - Design/Administration	\$3335			\$3335
• Playground			\$28,750	\$28,750
• Waterfront area landscaping	\$27,600			\$27,600
• Swimming raft and floats	\$5750		\$11,500	\$17,250
• Extension of waterfront trail			\$5175	\$5175
<b>Sub-Total</b>	<b>\$36,685</b>		<b>\$45,425</b>	<b>\$82,110</b>

<b>Project Area and Items</b>	<b>Immediate (2004-2005)</b>	<b>Short Term (2005-2006)</b>	<b>Long Term (2006+)</b>	<b>Sub-Total</b>
<b>Park Services</b>				
• Professional Services - Design/Administration	\$32,082			\$32,082
<b>Access and Parking</b>				
• Park Access Road	\$18,182			\$18,182
• Emergency/service road	\$12,903			\$12,903
• Parking area	\$85,043			\$85,043
• Log rail parking barrier		\$5175		\$5175
• Site furniture (Benches / Picnic Tables / Garbage Cans, etc.)	\$10,000	\$15,000		\$25,000
• Signage	\$5750			\$5750
• Entry Gate / Emergency Exit Gate	\$3450			\$3450
• Hedges		\$11,500	\$11,500	\$23,000
• Landscape planting around parking	\$11,500			\$11,500
Sub-Total	\$178,910	\$31,675	\$11,500	\$222,085
<b>Facilities and Infrastructure</b>				
• Mobile Home Decommissioning & Site Rehabilitation		\$15,000		\$15,000
• Potable Water Treatment System - well extension	\$11,500			\$11,500
• Sewer service: washrooms, IC and heritage house	\$23,000			\$23,000
• Sewer Service Connection Fees & Expenses / Septic Field decommissioning: washrooms, IC and heritage house	\$14,720			\$14,720
• Waterfront washrooms/shelter	\$44,275			\$44,275
• Site Electrical Upgrade	\$11,500			\$11,500
• Irrigation system	\$69,000			\$69,000
Sub-Total	\$173,995	\$15,000		\$188,995
<b>Interpretation</b>				
• Interpretive Development Plan	\$15,000			\$15,000
• Temporary trailhead kiosk	\$5750			\$5750
• Interpretation along orchard trail		\$8625		\$8625
• Heritage core interpretive signs	\$9200			\$9200
• Interpretive Centre displays			\$46,000	\$46,000
Sub-Total	\$29,950	\$8625	\$46,000	\$84,575

<b>Project Area and Items</b>	<b>Immediate (2004-2005)</b>	<b>Short Term (2005-2006)</b>	<b>Long Term (2006+)</b>	<b>Sub-Total</b>
<b>Heritage Interpretive Centre</b>				
• Professional Services - Design/Administration			\$66,000	\$66,000
• Business plan and concept design			\$20,000	\$20,000
• Interpretive Centre construction			\$600,000	\$600,000
• Landscaping and services			\$40,000	\$40,000
<b>Sub-Total</b>			\$726,000	\$726,000
Total GST and PST	\$57,068	\$12,689	\$94,886	\$164,644
<b>Totals</b>	<b>\$600,578</b>	<b>\$133,539</b>	<b>\$998,561</b>	<b>\$1,732,678</b>

Note: the cost of artifact/archival collection, cataloguing and rehabilitation could increase, depending on the extent of the collection.

## 11 Operational Budget

Based on the immediate and short-term capital development proposals, an operational budget for basic year-round park maintenance (including orchard and heritage building maintenance, mowing and facility maintenance, and part-time seasonal interpretation) is estimated at \$50,000-\$77,000/year<sup>1</sup> (2003 dollars), increasing annually with inflation. This budget does not consider income or expenses from revenue generating activities.

In the longer term, this Site Development Plan includes a Heritage Interpretive Centre. This Interpretive Centre was endorsed in concept by the project Steering Committee as a moderate sized interpretive center, along with appropriate on-site revenue generation to support upgrading and maintenance of heritage features. For this scale of development, an 'order of magnitude' park operational budget was estimated at \$100,000/year (2003 dollars) including orchard and heritage building maintenance, enhanced park interpretation, and expenses related to revenue generation. This estimate did not include park maintenance outside of the orchard. Operations for the whole park could be expected to cost about \$125,000-\$140,000/year (2003) or more depending on the level of service.

It is reasonable to assume that the Gellatly Nut Farm Society can raise at least \$75,000/year, towards operation and maintenance of park heritage components, from on-site revenue generation, community fundraising and operational grants (e.g. HRDC). This would allow for the enhanced level of heritage restoration and interpretation, endorsed by the Steering Committee.

The actual operational budget will depend upon success of fundraising for capital projects, the operational agreement between RDCO and the Gellatly Nut Farm Society, and the business plan for the interpretive center and on-site revenue generation.

<sup>1</sup> Regional District Parks

## Appendix 1. Development and Management Recommendations

### A. 1.1 Heritage Nut Orchard Restoration, Development, and Management<sup>2</sup>

#### **Background**

The Gellatly Nut Farm property currently consists of approximately three hectares of mature nut bearing trees and shrubs representing several plant genera and species and one hectare of lakeshore and residential property. Although all nuts produced on the property are edible, only a few are grown commercially today (i.e. European Chestnuts, Carpathian Walnuts, and hazelnuts/filberts). For plant management purposes the three hectares can be further divided into a one hectare “specimen tree and heritage house area” at the western edge of the property and a two hectare “testing and selection working area” located between the specimen tree and lakeshore areas. The following recommendations for thinning, pruning, irrigation, fertilization, and pest management refer primarily to the three hectare treed area.

When J.U. Gellatly passed away in 1969 he was in the midst of testing and selecting walnut, chestnut, hazelnut trees, and shrubs for future propagation and commercial use. He had planted dozens of rows of trees and shrubs in order to observe their characteristics over several years with the intention of ultimately removing the best specimens and starting over with new materials from his breeding and field collection activities. Materials in the ground at the time of his death are today tall, crowded and declining in health and vigor. A moderate thinning and pruning of remaining trees and shrubs is needed to ensure long-term health and productivity. In addition, an irrigation system and plans for regular fertilization and pest management are needed.

The following recommendations for the initial thinning and pruning, irrigation and other ongoing plant maintenance activities are general in nature with the expectation that details will be worked out on-the-ground as site development evolves.

#### **Thinning and Pruning**

Removing dead, dying and suppressed small trees and shrubs is essential to restoring the collection to good health and productivity. No large trees will be removed. Most all remaining trees (large and small) will have dead branches and stem sections removed. In the 2000 tree and shrub inventory (Carlson and McKillop, 2000), 489 trees were mentioned. Perhaps 80—90 of these will be removed (all small to intermediate in size). These are mostly walnut and chestnut trees in very crowded testing/selection rows. In addition, approximately one-third of the 750 plus hazelnut shrubs should be removed to provide healthy growing space with better access to light, moisture, etc. The remaining shrubs should be pruned of dead and dying wood.

Most of the larger trees have numerous dead branches accumulated over 30 plus years. Approximately 70 trees have crown spreads of 8 metres or more and some have excessive numbers of large dead branches high off the ground. A truck mounted extension ladder and hydraulic pruner will be required to service these large trees. Dead branches and small non-useable stems will be chipped with chips stored on site for use as mulch around trees and shrubs after the irrigation system is in place.

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<sup>2</sup> Contributed by Dr. Michael Carlson

Detailed time and cost estimates for this thinning and pruning work have been obtained from Bill Hague (former owner/operator of Town and Country Tree Service, Vernon), and included in the capital budget for the Site Development Plan. Only light and infrequent prunings will be required after the initial treatments. The pruning of the cottonwood trees along the property shoreline are included as a separate item in the works and cost estimates.

Another important activity at the time of thinning and pruning is the “cabling” of certain large specimen trees with weak limb crotches and excessively wide spreading branches. A separate works and cost estimate for this is also included.

Some of the chestnut, walnut and hazelnut trees/shrubs removed will have stem sections with potential utility for manufacture of small turned and flat-sawn wood products. Decorative turned products such as bowls, cups, candles holders, etc. are the most likely products to be made from the small diameter stem sections from the thinning work. Local artisans should be contacted for possible interest and ideas for future manufacture of products that could be sold at the heritage interpretive centre. One such Kelowna artisan has expressed interest in a joint venture.

### **Irrigation System and Irrigation Regime**

Following the sanitation thinning and pruning, the tree and shrub crown cover will still mostly cover the site with some openings between large specimen trees and amongst less densely planted testing/selection rows.

Evapotranspiration rates refers to the amount of water lost from plant leaf surfaces per unit land area (full crown coverage assumed) under particular growing conditions (soils, aspect, temperature, etc.). In the central Okanagan the rate of water loss (use) varies from approximately 3 mm to 8 mm per day during the growing season for most crops under most growing conditions. In spring and fall 3-4 mm may be needed daily while 6-8mm may be required in the heat of mid-summer. Some of the requirement is met by natural precipitation (rain and underground water table sources) and the rest must be supplied with irrigation.

In the Westbank area, 15-20% of the required moisture for good plant health (Gellatly nut trees and shrubs) will come from natural sources, the remainder must be provided with irrigation.

The proposed irrigation system (supplied separately) is capable of providing enough water on a weekly basis to meet the peak mid-summer demands. A mid summer daily demand of 6-7 mm equates to a weekly application of approximately 42-49 mm (1.7-1.9 inches). Infrequent deep watering is preferred for deep-rooted tree and shrub species. Gellatly farm soils are silty loams exhibiting moderate to rapid infiltration rates<sup>3</sup>. It is recommended that irrigation cycles across the more densely planted two hectares (east of the specimen tree/heritage house area) be on a 7-10 day rotation cycle. The specimen tree area around the heritage house will have somewhat lesser overall moisture demands due to less than full crown cover.

Ground cover in the orchard has important implications to irrigation requirements. The planting of a low maintenance drought tolerant bunch grass species (Sheep fescue or Idaho fescue for instance) will not increase irrigation requirements over that needed for the trees. A more conventional

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<sup>3</sup> Infiltration rate could be enhanced by disking and rotovating to a 10-12 cm depth across the site.

sod forming lawn grass species will however increase both quantity of irrigation needed and the frequency of its application. With a sod forming grass, a 3-4 day irrigation cycle may be required in mid summer while with a xerophytic bunch grass species a 6-8 day cycle will likely work.

The proposed irrigation system design has above-ground flexible lines with low profile circular heads amongst the crowded testing/selection rows of both trees and shrubs. The more open specimen tree area is serviced by below-ground lines and pop-up style circular delivery sprinkler heads. The latter design is used where more frequent human traffic is anticipated.

The nut farm plant irrigation water will be supplied from a deep lake intake and a sand filter/electric pump system located in the beach park area. Large diameter below-ground supply lines will deliver water to various manifold and lateral lines. Potable water supplies for the heritage interpretive center, washroom facilities, caretaker residence, etc. will be supplied from existing wells (or improved wells) on the property.

### **Ground Cover and Orchard Maintenance**

An interpretive trail has been designed to provide access to specific features of the Gellatly nut orchard. Visitors cannot always be expected to stay on this path and will not doubt wander through both the testing/selection tree and shrub rows and the specimen tree areas. A ground cover crop serves both aesthetic and practical objectives (appearance and weed control). A low growing, drought hardy bunch grass species may be a good choice. A grass species reaching a maximum height of 20-30 cm would not require mowing except prior to nut harvest in the fall when all herbaceous vegetation must be cut short to facilitate nut collection. Visitors are more likely to walk about the specimen tree and heritage house area, and here a sod forming grass and regular mowing may be desirable.

Nut orchard fertilization has likely not occurred since J.U. Gellatly's passing in 1969. Much of the annual leaf fall around orchard trees has been removed to aid nut harvest. The silty loam soils in the orchard would benefit from an organic amendment. Aged manures and composted leaf litter and/or straw spread across the site and shallowly disked or rotovated would loosen, aerate and improve soil fertility. In the fall, leaves could be raked into narrow windrows or a few large piles and then redistributed under the trees after nut harvest. The annual re-incorporation of leaf litter into orchard soils is important for optimal tree and shrub health. If, in the specimen tree area, a regularly mowed sod forming grass is used, this practice may not be possible due to aesthetic considerations.

To promote good tree and shrub health, a regular orchard fertilization schedule should be pursued. Six or more bulked leaf samples should be taken in mid growing season (late June) and sent to a lab for macro and micro nutrient analysis. Elements of interest are: nitrogen, phosphorous, potassium, sodium, boron, zinc, iron and copper. Percentages of these elements and particular ratios of these will determine specific fertilizer and amounts needed. Until this is done the orchard will benefit from one or two seasonal applications of 14-16-10 broadcast along the driplines of all tree and shrub rows and around specimen trees. Rate of application should be 200-300 KG per hectare followed by an irrigation cycle. If organic certification for the farm is a desired future option then rotted manures/composted organics should be substituted for chemical fertilizers.

Other than regular irrigation as mentioned, seasonal fertilization and occasional removal of dead or dying branches the orchard trees and shrubs should require little additional attention. Mowing between and around tree and shrub rows will depend entirely upon a balance of aesthetics and practicality. As mentioned before, the use of chipped limbs and small stems from the original thinning and pruning work for mulch along plant rows will help retain soil moisture and suppress weed growth.

## **Pest Management**

At this time the only significant orchard pest identified is the walnut husk fly (*Rhagoletis completa*). Consultation with Hugh Philip of the BC Ministry of Agriculture, Kelowna resulted in the following understanding and recommendations.

The husk fly over-winters in the pupae form in soils beneath host walnut trees and emerges as an adult in mid-summer to find developing walnut fruits for mating and egg laying.

All species of walnut are apparently “hosts” for this fly. Adults mate on the developing walnuts, females deposit eggs in the soft husk tissues and the eggs hatch into larvae which feed on these tissues and in the process create the dark staining of the nut. The staining does not affect nut quality/edibility only appearance and ease of husk removal. If nuts are collected immediately after dropping and de-husked much of the difficulty of infected husks removal can be avoided. The University of California web site recommends immediately soaking affected nuts in water after collecting. This softens the husks and makes their removal easier. The important point is to avoid leaving affected nuts lying on the ground or in storage where they will dry out before husks are removed.

The only feasible control measure in an orchard is the spraying of a ‘generalist’ insecticide. Currently the only Canadian registered control agent is “Guthion”. Application of Guthion is with a truck mounted sprayer. Spraying entire trees is required. Commercial sprayers can only direct sprays approximately 10 metres vertically. Many of the Gellatly walnut trees are considerably in excess of 10 m in height. Since the major walnut species of interest is the Carpathion or English Walnut, only these might be sprayed. The effectiveness of this is questionable however with the remaining mostly taller walnuts of these species acting as “reservoirs” of insects which would likely continue infestation of the partially protected trees. A disadvantage to spraying Guthion is that the area would have to be signed and human access (visitors, staff) denied for at least 48 hours and more likely (to be “safe”) 6-8 days after spraying. The seasonal use of a potent insecticide with at least short-term potential risks to human health in the heritage park doesn’t seem like a desirable solution to the husk fly problem.

Perhaps public education of the purely “cosmetic” nature of nut staining and the prompt handling of infested nuts are better approaches to this problem. The use of an insecticide would also eliminate any possibility of obtaining organic certification for the nut farm. Only time and professional observations of the orchard trees and shrubs will determine if any other pests are present and of concern.

## A. 1.2 Historic Building Restoration Guidelines<sup>4</sup>

### **Definitions**

In the area of heritage conservation, there is a range of approaches to building conservation, depending upon the degree of impact on the historic structure that is involved. Since building conservation at the Gellatly Nut Farm will vary upon the final use envisioned, it will be helpful to define the different approaches before dealing with each specific building. The following definitions are listed ranging from the least extent of intervention to the greatest.

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<sup>4</sup> Contributed by Ken Mather.

“Preservation” – A program of maintenance and intervention designed to prevent further deterioration and to keep the building “as is.”

“Stabilization” – A minimum amount of work is done to safeguard a building from the elements and/or destruction and to prevent the public from danger.

“Consolidation” – The physical addition of supportive materials to ensure continued durability or to protect the integrity of the building.

“Restoration” – A building is returned to the appearance of an earlier time by removing later material and by replacing missing elements or details.

“Rehabilitation” – The process of returning a building to a usable state through repair or alteration. Rehabilitation makes possible an efficient contemporary use while preserving the significant portions and features of the building.

“Moving” – Relocating a historic structure to another site, thereby losing site integrity and historic associations.

### **Building Guidelines**

“**Gellatly House**” – As the building is in excellent condition, preservation, stabilization and consolidation are unnecessary. The building may be used initially as the caretaker’s residence and, during this initial stage, the building should receive regular building maintenance. It is also recommended that a portion of the interior log wall be exposed for eventual interpretive purposes and to reveal the extent, if any of wall deterioration. Of particular concern is the area where log walls are or have been in contact with the cement slab floor or with outside earth. As the plan is to have the building open to the public as a “living history” display and/or museum of Gellatly artifacts, further rehabilitation work should be conducted in the short term, including the removal of the walled in front porch and replacement with a replica of the original front verandah. At this time, other minor modifications should be made to the building to allow better access for the public. If a full living history display were intended, it would be appropriate at this time to restore the kitchen area to its earlier appearance for interpretive purposes.

“**Gellatly Nut Barn**” – The Nut Barn is in most need of immediate attention if the process of deterioration is to be arrested and contained. Immediate stabilization is required, as early as the fall of 2003. It is recommended that, immediately after the nut harvest makes use of this building, effort be made to consolidate the building by exposing the bottom logs that are in contact with the earth and that are badly rotted. Proper support of the logs with blocks to keep them above the level of the earth would be recommended as an interim measure. Restoration of the Nut Barn should be undertaken in 2004, involving the removal of the bottom log or logs and replacement with logs of the same size and species. The original corner stones have probably been entirely covered with earth and possibly can be reused to elevate the lowest logs off the ground so that air can circulate. At the same time the back wall opening should be restored to its original appearance based upon research into whether there was a window opening at the time of construction. The roof of the building should be assessed for any signs of deterioration, but initial indications are that it is in good condition. If the roof is to be replaced, research and building assessment should determine the nature of the original building material. If future use dictates it, consideration should be given to placing the bottom logs on a cement footing and a more drastic form of rehabilitation would involve putting the entire building on a concrete slab.

“**Nut Drying Shed**” – The Nut Drying Shed itself appears to be in stable condition, due to a great extent to its corrugated tin roof and walls. But the root cellar to the rear of the shed is of greater concern. Built right into the ground, the cellar’s wooden elements have been in contact with the earth for an extended period of time. A thorough examination of all of its components should be conducted in the immediate future to determine

more fully their condition. Of immediate concern as well are studs of the wooden framework for the Nut Drying Shed walls. In the short term, any wooden elements in contact with the ground should be exposed and examined for rot. With minimal stabilization and restoration, the shed can be an excellent component of the interpretive program.

**“Cottage”** – The original 1945 structure appears in good condition, thanks to a cement footing that has kept the floor joists above ground and allowed for air circulation. None-the-less the floor appears soft in some areas and this may indicate the beginnings of deterioration. A thorough examination of the space under the floor should be conducted to determine the stabilization needs. The roof of the building is in poor condition and its replacement with similar material is required. The plywood addition on the northeast corner of the building should be removed, as it has no historic or interpretive value. Any future moving of this building should be undertaken only after a thorough examination of options for using it on its original site are considered. This cabin is proposed for use as the Gellatly Nut Farm Society headquarters in the short term until the interpretive center is development. This cabin could also be used to store and display artifacts as they are collected, and to interface with park users for park tours, to gather input to planning, to test market revenue generating activities (e.g. gift items), and to solicit donations.

The outbuilding to the northeast of the building should be retained if storage space is needed but it appears to be of recent origin and could be removed without significant loss of site integrity. The small chicken house to the northwest of the cottage was at one time located near the Gellatly House and relocating it to that area would be acceptable.

**“Lakeshore Cabin”** – The cabin is in surprisingly good condition and, other than the lean-to roof on the north end that needs to be replaced, should be stabilized and maintained. Close examination should be made of the floor joists and sills to determine if wood is in contact with the ground and north end where there is a build-up of earth should be exposed to the air. Consideration should be given to cutting back the brush that is growing on the west side, as continued contact of branches with the roof and walls will cause problems. If at all possible, this building should be kept at its original location as the lakeshore cottage represents an early use of the beach for recreation purposes.

### **Conservation Principles and Procedures**

Any work on a building beyond basic preservation and stabilization should be preceded by further research, site analysis and documentation to identify and safeguard the heritage resources.

In the case of the Nut Barn, Gellatly House, Nut Drying Shed and the Lakeshore Cabin detailed “as found” documentation of each building should be undertaken, whether in the form of “as found” drawings or complete photo documentation, before any alteration of existing structural elements is undertaken.

In every case, the replacement of historic building elements should be with materials as close as possible to the original.

Historic systems such as lighting and heating devices should be retained if they contribute to the historic value and character of the building. If it is not practical to retain them for use they should be retained for interpretive purposes. This includes but is not limited to the wood heater in the Nut Drying Shed, the chimney in the Gellatly House, and other remnants of the early occupation of the buildings.

Provisions for disabled access should be coordinated with the interpretation plan and be treated in a manner that is distinguishable, reversible and unobtrusive.

In buildings where living history interpretation is to be considered, new mechanical, electrical and fire protection/suppression systems should be installed in an unobtrusive manner.

## A. 1.3 Waterfront Recreation and Park Facilities, Infrastructure and Services<sup>5</sup>

### **Access and Parking**

A new entry is proposed to relocate the road out of the heritage core. This portion of the road will need careful siting to minimize tree removal. Pruning of low branches will be required all along the access road.

The access road, emergency access road, handicap parking/drop-off, and primary parking areas will be constructed of recycled asphalt. The portion following the existing access road already has a gravel base. In other areas, excavation and replacement of road mulch will be required. The entire access road and primary parking areas are to be treated with 2" of recycled asphalt over a 4" base.

An appropriate number of handicap-accessible, signed parking spaces will be provided in the main parking areas in addition to a separate handicap parking space near the heritage core. A suitable drop off area for group transport will be provided.

A bus turnaround is proposed for the east end of the parking area around the existing willow tree, which will need to be pruned back. "No Parking: Bus Turnaround" signs will be required to prevent use of this area for parking. A bus parking pull-out is provided west of the primary parking areas.

Overflow parking areas will remain as un-reinforced grass. This should be adequate to accommodate the rare events with parking on the grass. If necessary in the future, consideration could be given to a reinforced grass in these areas using new plastic modular systems, or expansion of existing parking lots.

A log rail barrier approximately 600 mm high will be placed around the parking areas to prevent car migration onto the grass. This should be designed to be consistent with the fence around the orchard, only lower and with one rail.

### **Trails**

Trails will be developed to provide clear barrier-free routes from roadways and parking lots to park facilities and use areas, to direct visitor use on an interpretive route through the heritage nut orchard, and to provide for a continuation of the waterfront trail from outside of the park.

Consultation with accessibility experts should be used to ensure that trails are universally accessible. A variety of natural materials could be considered to provide a firm and stable trail surface, including crushed stone, fines, packed soil, and others, or natural materials bonded with materials such as a soil stabilizer. This is a powdery substance that is mixed with gravel to form a consolidated path surface with universal accessibility. This product is also considered to be free draining.

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<sup>5</sup> Contributed by Catherine Berris Associates Inc. and FORECON Consulting with modifications from the Regional District.

Trails should be constructed of adequate width to accommodate assistive devices or personal assistants. The ADA Standards for Accessible Design (1994) state a minimum of 36" (.9 m) for an accessible route, with passing spaces of 60" X 60" (1.5 X 1.5 m) at reasonable intervals.

A trail to facilitate access to the water by mobility-impaired users could be provided using products that offer a temporary beach surface. Various products exist made from materials including rubber and recycled plastic lumber. This would likely be well appreciated by all users of the pebbly beach at this park.

### **Site Furniture**

The design theme for park furniture should consider the unique park character as a working heritage tree farm. Simple wood furnishings may be most appropriate for tables and benches.

Picnic tables will be provided throughout the waterfront area. Each table will be provided with a poured concrete pad, to which the table will be attached. They will need to be located on site for the best orientation and spacing. The spacing should allow for some single tables and others in groups. For some picnic tables, provide extended ends, or use other appropriate design for people in wheelchairs.

Benches will be provided at various locations throughout the park. Each bench will be provided with a poured concrete pad, to which the bench will be attached. Benches will need to be located on site for the best orientation and spacing. They should face good views or drop-off points. The fronts (not the backs) of benches should be oriented towards paths. The spacing should allow for some single benches and others in groups.

Rest areas along the interpretive trail that are suitable for peaceful contemplation, and/or gathering areas for teaching and guided tours will be ideal locations for benches. Specific locations should be determined as part of interpretive planning for the trail.

Waste receptacles will be provided at all key pedestrian passage points, and in primary use areas, e.g., near parking lot, outside heritage interpretive centre, in play area and picnic area. The waste receptacles should have a wood facing (bear-proof if necessary). A dual bin with recycling on one side is an environmentally conscious option. Waste receptacles should be located on site, near but not immediately adjacent to seating and use areas (due to wasps).

### **Play Facilities**

The playground is proposed to have one primary structure and several smaller structures. The design theme for the playground should consider the unique park character as a working heritage tree farm. Simple wood furnishings may be most appropriate for tables and benches. Wood, earth tones and classic forms (e.g. garden swing, rope ladders) may be most appropriate. Sand would be an appropriate safety surface due to the proximity to the waterfront, and lack of sandy beach areas. However, sand is not a good surface for universal accessibility. Consultation with accessibility experts will help to determine the most appropriate playground design and play surface. Due to the informal nature of this park, a hard edge for the playground is likely not required.

Benches and picnic tables should be provided in the area of the playground. The large willow tree along the shoreline will provide morning shade, and additional shade trees should be planted for afternoon shade.

The lakeshore will include a string of buoys tied to anchors to define the swimming area and a large wood raft with steps fixed to an anchor.

### **Landscaping**

Screening will be provided by cedar hedges along the northeast property line where there is currently no visual screening. Adjacent to and around the parking area, plantings will include existing nut trees and shrubs. The emphasis should be on “heritage” varieties of plants (e.g. nut trees, forsythia, weigela, elderberry), or native plants appropriate to the park’s natural heritage (e.g. common snowberry, Saskatoon, Nootka rose, birch-leaved spirea, tall Oregon-grape, Douglas maple, red-osier dogwood, yarrow). Consideration could also be given to planting shrubs along the orchard fence line to help buffer noise and visual impact of traffic. Mulch should be used in planted areas to minimize competition from grass.

The hazelnut trees of the picnic grove will be pruned and thinned (removing the smallest trees) to allow space for pedestrians and picnic tables. Several shade trees will be planted around the play area.

The existing Cottonwood grove will be preserved and restored for its habitat values and significance as the final remnant of the natural heritage of the site. The stand should be assessed for any hazard trees. Together with orchard pruning, undertake sensitive pruning and “cabling”. The middle portion of the stand appears to be most severely impacted by beaver activity and/or other impacts. This area also lacks understorey vegetation and would likely be used as a direct route from the parking to the beach. Restoration and enhancement of the cottonwood stand would include removing the compost pile, leveling the fill (reportedly from dredging lagoon on adjacent property), and planting appropriate native species as described above. In the future, fencing or signage may be required should intensive use in this area threaten the integrity of the vegetation. Along the beach, small enclaves could be cut into the cottonwood suckers to create waterfront areas with some privacy.

A landscape buffer of trees and tall shrubs will be planted along the south edge of the waterfront area. A mixture of native coniferous and deciduous vegetation, or combination nut trees and native shrubs would be appropriate. These areas may need to be fenced off for a period of time to allow for proper establishment. Islands of vegetation will be established behind the south end of the beach to discourage geese.

Due to the informal, rural nature of this park, grass areas will be left in their current condition, fertilized, irrigated and mowed regularly. Some fill may be required to level the uneven surface, particularly in the large lawn area. In the future, should park use warrant a more intensive use of the grass areas, bluegrass planting could be considered.

### **Infrastructure**

A new picnic shelter/washroom/change room building will be provided with entry to the washrooms available only from outside the shelter. Ensure that at least one unisex washroom in the waterfront picnic area and the future interpretive centre offers universal accessibility. The building should be compatible with the heritage character, using wood and other natural materials and colours. It should be architecturally designed to be of a high and appropriate quality.

An upgraded well and water treatment system will be constructed to serve the heritage interpretation centre and picnic shelter/washroom building. Sanitary sewer to these same two buildings, and the heritage house will be connected to the end of George Court. Electrical service will be provided to all major structures for general purpose and safety lighting and other uses.

## Appendix 2. Economic Benefits

A rough analysis of the economic benefits created by the development and operation of the Gellatly Nut Farm Regional Park is provided below.

### **Direct Impact from Tourist Expenditures**

Assumption: At the modest level of interpretive development proposed for the short term, heritage components of the park would attract around 10,000 visitors/year, about one half of whom will come from outside of the Central Okanagan Regional District. In the longer term, with provision of an enhanced level of interpretive services, and development of the Heritage Interpretive Centre, visitation would more than double.

The Gellatly Nut Farm will potentially hold visitors for an extra half day in the Central Okanagan. According to recent Tourism British Columbia surveys, the average visitor to the Central Okanagan spends \$40.25 per day per visitor, adults and children combined. In the short term, tourist expenditures could add \$100,625/year to the local economy, and in the longer term, over \$200,250/year.

### **Employee Spending**

Assumption: Wages and benefits directly associated with the Gellatly Nut Farm Regional Park in the short term of about \$55,000/year, and in the longer term, over \$100,000.

After deducting 30% for taxes, 12% for “marginal propensity to save”, and 46% “non-local spending”, benefits from employee spending in the regional district could amount to \$6,600/year in the short term, and over \$12,000/year in the longer term.

### **Capital Development Expenditures**

Assumption: 90% of all capital expenditures will be spent with Central Okanagan suppliers.

Based on the budget associated with this Site Development Plan, \$734,117 will be spent locally in the immediate and short term, and \$898,704 in the longer term.

An income multiplier of 1.27% (H.C. Davis “Income and Employment Multipliers for 7 B.C. Regions”) could also be added to these figures.