WESTPARK

Final Environmental Impact Statement

Bremerton Housing Authority

MAY 2007

HOUSING AUTHORITY OF THE CITY OF BREMERTON

May 15, 2007

Dear Affected Agencies, Tribes, Organizations and Interested Parties:

Enclosed is the Final Environmental Impact Statement (Final EIS) for the Westpark Master Plan. This document has been prepared jointly by the City of Bremerton and Bremerton Housing Authority to comply with the requirements of the National Environmental Policy Act (NEPA) and State Environmental Policy Act (SEPA).

The proposed Westpark Master Plan would redevelop the approximate 82-acre site to create a mixed-use, mixed-income pedestrian oriented community containing housing, parks and open space, retail and commercial uses, community facilities, and new infrastructure. All existing single family/duplex low income housing units would be demolished and replaced on-site or off-site.

The Westpark Master Plan would provide 759 units of rental and for sale housing in a variety of detached and attached forms to meet a range of needs. Non-residential development would include approximately 50,000 square feet of commercial and retail uses in a 5-acre Village Center designed to provide everyday services to residents of Westpark and adjacent neighborhoods. An additional 10,000 square feet of retail or commercial uses could be included in mixed use buildings. The existing community center would be retained and renovated; the BHA Board is continuing to discuss a range of options for this facility, however. Parks and open space would comprise approximately 28 acres (34 percent) of the site. All existing streets would be vacated and replatted and a new street grid created. All existing utilities would be replaced, including a modern stormwater system with detention and water quality facilities. The existing stormwater outfall in Oyster Bay would be replaced by constructing, jointly by the City and BHA, a baffled outfall on the shoreline; design of the outfall may evolve in response to ongoing consultation with agencies. The existing outfall could be removed or left in place. Redevelopment would occur in four phases, approximately beginning in 2007 and ending in 2010. Demolition and construction would occur in phase with relocation of existing tenants; a relocation plan is currently being developed and could affect the timing of construction.

Two alternatives are considered in the EIS. The *Design Alternative Master Plan* would construct the same number of housing units but with more apartment and condominium units at higher densities. The Village Center would be expanded to include approximately 12 acres (up to 120,000 square feet) of retail and commercial uses (plus an additional 10,000 square feet in mixed-use buildings). The expanded parking area serving the additional retail area would use a stormwater infiltration system. All other features of the alternative would be the same as the proposal.

The *No Action* alternative assumes that the site would not be redeveloped and would continue to operate, function and appear as it does currently. Existing buildings would be maintained to the extent possible but would continue to deteriorate over time.

345 6th Street, Ste. 200 · P.O. Box 4640 · Bremerton, WA 98312 · Phone: (360) 479-3694 · TTY (360) 377-8606 · Fax: (360) 377-5355

Two comment letters on the Draft EIS were received from agencies, and these are responded to in the Final EIS. The Final EIS also contains updated information about ongoing project planning and environmental monitoring. No comments were received at the EIS meeting held on March 22, 2007. No written comments were received from Tribes, organizations or the public.

The Final EIS has been distributed to agencies, tribes and organizations noted on the Distribution List. The Final EIS and background information concerning the proposal may be reviewed at the following locations between the hours of 8:30 AM and 4:30 PM:

City of Bremerton
Department of Community Development
345 6th Street, 6th Floor
Bremerton, WA 98337

Bremerton Housing Authority
345 6th Street, Suite 200
Bremerton, WA 98337

The document is also available for review at the following local libraries:
- Downtown Bremerton Library, 612 5th Street N
- Sylvan Way Library, 1301 Sylvan Way
- Silverdale Library, 3450 NW Carlton
- Port Orchard Library, 87 Sidney Avenue

Printed and CD copies of the Final EIS may be purchased at the City of Bremerton Community Development Department at the address listed above. The EIS is also available on the internet and can be viewed or downloaded at http://www.ci.bremerton.wa.us; http://www.bremertonhousing.org; or http://www.newwestpark.com

The Environmental Impact Statement has been prepared in compliance with the following laws:

- State Environmental Policy Act (SEPA), the state SEPA Rules, and rules adopted by the Bremerton Housing Authority to implement SEPA; and
- National Environmental Policy Act (NEPA), and rules adopted by the U.S. Department of Housing & Urban Development (HUD) to implement NEPA.

Thank you for your interest in the Westpark Master Plan. The individuals listed below may also be contacted for additional information.

NEPA Responsible Entity:

Date of Approval: 5/15/2007

Andrea Spencer, Director
City of Bremerton
Department of Community Development
345 6th Street, 6th Floor
Bremerton, WA 98337
(360) 473-5283
Andrea.Spencer@ci.bremerton.wa.us

SEPA Responsible Official:

Date of Approval: 5/15/07

Kurt Wiest, Executive Director
Bremerton Housing Authority
345 6th Street, Suite 200
Bremerton, WA 98337
(360) 616-5626
kwiest@bremertonhousing.org

FACT SHEET

Name of Proposal Westpark Master Plan

Proponent Bremerton Housing Authority

Proposed Master Plan

The proposed Westpark Master Plan would redevelop the 82-acre site to create a mixed-use, mixed-income pedestrian oriented urban community containing housing, parks and open space, retail and commercial uses, community facilities, and new infrastructure. All existing single family (duplex and four-plex) low income housing units would be demolished and replaced on-site or off-site.

The Westpark Master Plan would provide 759 units of rental and for sale housing in a variety of detached and attached forms to meet a range of needs. Types of units would include market rate condominiums and apartments, townhouses, row houses, duplexes, cluster cottages and single family units.

Non-residential development would include approximately 50,000 square feet of commercial and retail uses in a 5-acre Village Center designed to provide everyday services to residents of Westpark and adjacent neighborhoods. An additional 10,000 square feet of retail or commercial uses could be included in mixed use buildings. The existing community center would be retained and renovated.

Parks and open space would comprise approximately 28 acres (34 percent) of the site, and would include a large community park (approximately 12 acres), two smaller neighborhood parks, urban open spaces and natural areas. Almost 11 miles (57,000 linear feet) of pedestrian trails and paths would be constructed to connect neighborhoods. Additional landscaping would be provided along streets, along site boundaries and adjacent to the Village Center enhance the pedestrian environment, to provide screening and to create land use transitions.

All existing streets would be vacated and replatted. New streets -- Baer Boulevard, neighborhood streets and “green streets” -- would be 25 to 36 feet wide (depending on type), lined with trees and include sidewalks. On-street parking would be provided on all streets. Alleys would provide access to garages for some types of units.

All existing utilities would be replaced. The conceptual stormwater management system includes detention and water quality treatment (using biofiltration swales). As a joint

City/BHA project, the existing stormwater outfall in Oyster Bay would be replaced by a baffled outfall structure on the shoreline. The existing outfall could be removed or left in place.

Redevelopment would occur in four phases, approximately beginning in 2007 and ending in 2010. Demolition and construction would occur in phase with relocation of existing tenants; a relocation plan is currently being developed.

Two alternatives are considered in the EIS. The *Design Alternative* would construct the same number of housing units in a mix involving more apartment and condominium units at higher densities. The Village Center would be expanded to include approximately 12 acres (up to 120,000 square feet) of retail and commercial uses (plus an additional 10,000 square feet in mixed-use buildings). The expanded parking area serving the additional retail area would use a stormwater infiltration system. All other features of the alternative would be the same as the proposal.

The *No Action* alternative assumes that the site would not be redeveloped and would continue to operate, function and appear as it does currently. Existing buildings would be maintained to the extent possible but would continue to deteriorate over time.

SEPA Lead Agency/ Responsible Official/Contact Person

Bremerton Housing Authority (BHA)
Curt Weist, Executive Director
345 6th Street, Suite 200
Bremerton, WA 98337
(360) 479-3694
kwiest@bremertonhousing.org

NEPA Lead Agency/NEPA Responsible Entity/Contact Person

Andrea Spencer
City of Bremerton Department of Community Development
345 6th Street, Suite 600
Bremerton, WA 98337
(360) 473-5283
Andrea.Spencer@ci.bremerton.wa.us

Required permits & Approvals

Preliminary investigation indicates that the following permits, approvals or actions would be required for the proposal. Additional permits or approvals may be identified as environmental review and project design progress.

Federal Agencies

Department of Housing & Urban Development

- Record of Decision
- Approval of Request for Release of Funds
- Approval of project-related certifications

Fish & Wildlife Service
- Endangered Species Act Consultation

National Marine Fisheries Service
- Endangered Species Act Consultation

Corps of Engineers
- Section 10 Permit (for outfall construction)

State Agencies

Department of Fish & Wildlife
- Hydraulic Project Approval (for outfall construction)

Department of Ecology
- Model Toxics Act Compliance (possible)
- NPDES/Stormwater General Permit
- 401 Water Quality Certification
- Coastal Zone consistency determination

Office of Historic Preservation
- Historic and cultural resources consultation

Department of Natural Resources
- Aquatic Lands lease (for stormwater outfall)
- Forest Practice Permit (possible)

Regional Agencies

Puget Sound Clean Air Agency
- Asbestos surveys
- Demolition permits

Kitsap County Health District
- Landfill closure

City of Bremerton
- Site plan approval
- Site development permit
- Shoreline substantial development permit
- Subdivision approval (subsequent)
- Building permits

Authors & Principal Contributors to the EIS

The Westpark Master Plan EIS has been prepared under the direction of the Bremerton Housing Authority and the City of Bremerton. Research and analysis were provided by the following consulting firms and individuals:

Weinman Consulting, LLC – Lead EIS consultant; document preparation; analysis of land use/plans and policies, aesthetics, parks and recreation, public services and utilities.

Susan Millan Community Planning – housing and socioeconomics.

Associated Earth Sciences, Inc. – geology, environmental health.

Geomatrix – air quality and noise.

NW Archaeological Associates, Inc. – historic and cultural resources.

Parametrix – transportation.

Raedeke Associates – plants and animals/wetlands.

Rice Fergus Miller Architects – graphics.

The Watershed Company – fisheries resources.

Location of Background Data

Bremerton Housing Authority
345 6th Street, Suite 200
Bremerton, WA 98337

City of Bremerton
Community Development Dept.
345 6th Street, 6th Floor
Bremerton, WA 98337

Documents Adopted and/or Incorporated by Reference

City of Bremerton Comprehensive Plan Update SEIS; Westpark Master Plan EIS Addendum

Date of Issuance of Final EIS

May 15, 2007

Cost & Availability of the Final EIS

Printed or CD copies are available for the cost of reproduction at the City of Bremerton, Community Development Department, 345 6th Street, 6th Floor, Bremerton, WA

The Final EIS may be viewed online or downloaded at: www.ci.bremerton.wa.us; www.bremertonhousing.org; and www.newwestpark.com. The Final EIS is also available for review at the Downtown Bremerton, Sylvan Way, Silverdale and Port Orchard public libraries.

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1. SUMMARY

1.1 PROPONENT, PROJECT LOCATION, & EXISTING SITE CONDITIONS

Westpark is sponsored by the Bremerton Housing Authority (BHA), a Washington municipal corporation.

The project site is located in the western portion of the City of Bremerton, in Kitsap County, Washington. The site encompasses an area of approximately 82 acres and is triangular in shape. The project site is generally bounded by Kitsap Way on the North, Oyster Bay Avenue on the east, Arsenal Way on the south, and SR 3 on the west. Oyster Bay lies approximately ¼ mile north of the site, across Kitsap Way. Bremerton's City Center is located approximately 3 miles to the east. An aerial photo of the site and surrounding area is shown in Figure 2-1.

The surrounding area is a mixture of residential neighborhoods (to the east), commercial and retail uses (along Kitsap Way), and light industrial uses (south of SR 3).

The existing Westpark public housing community was built in 1941 and is the remnant of a larger World War II-era housing project that was built as temporary housing for shipyard workers. The site currently contains 631 residential units: 571 public housing units, located in one-story duplex and four-plex structures, and the Firs, a 60-unit apartment building for elderly and disabled residents. All units are rental housing. A 72-unit assisted living facility (Bay Vista Commons, formerly the Firs II) is currently under construction. The BHA's administrative offices are also located on Russell Road, which provides entry to the site from Oyster Bay Avenue.

Existing units are located in one-story structures that each contains one to two residential dwelling units. Ninety percent or more of existing units are for low income families and individuals.

The Westpark site also contains several buildings that contain non-residential uses (approximately 58,960 square feet total). These include the community center, BHA's administrative offices, a senior center, two Head Start buildings, a Teen Center a maintenance building, storage building and four laundry facilities. The community center (18,000 square feet) accommodates a broad range of community activities and services for youth and adults, some of which are funded by HUD. The Community Center would undergo some remodeling as part of the redevelopment. Ball fields are located contiguous to the community center.

A topographic ridge crosses the site in a north-south direction, resulting in an elevation difference of approximately 125 feet. Views of Oyster Bay and Ostrich Bay exist from several locations on the site. No wetlands, streams or critical habitat have been identified on the site. The site does contain stands of second growth trees.

Westpark's buildings and infrastructure are in need of rehabilitation, and the site has been designated as blighted. Existing buildings and systems have reached the end of their normal life-cycles and redevelopment is more cost-effective and desirable than rehabilitation.

1.2 PROJECT OVERVIEW

The *Proposed Master Plan* would involve redevelopment and revitalization of the existing Westpark public housing community. It would be redeveloped into a mixed-use, mixed-income, pedestrian oriented community. The Master Plan, shown in Figure 2-2, is still conceptual in nature and subject to change and refinement as a result of ongoing planning, design and permitting.

The *Proposed Master Plan* would result in redevelopment of all existing single family (duplex and four-plex) residential units on the site. A total of 759 units are proposed for the site. Housing would include approximately 110 market rate/rental apartment units, 150 multi-family condominium units, 97 detached single-family units, and 442 units of attached duplexes, townhouses, and cluster cottages in a variety of sizes and styles. Of the latter, approximately 100 units would be rental and the balance for sale. A total of 190 public housing units are proposed to be developed on site; these would be located in a variety of housing types throughout the site. Existing low income housing units not replaced on site (381 units) would be replaced off-site, in Bremerton and other locations in Kitsap County.

Proposed residential densities would range from a low of 8-12 dwelling units per acre for single family attached units, to a maximum of 65 dwelling units per acre for the apartment building. Gross residential density for the site would be approximately 9 du's per acre, and net density approximately 20 du per acre.

In addition to housing, the *Proposed Master Plan* contains approximately 5 acres/50,000 square feet (gross leasable area) of retail activity located in a village center in the northwestern portion of the site. An additional approximate 10,000 square feet of neighborhood-scale retail and commercial uses would be located in mixed-use buildings in different areas of the site. An EIS alternative, described further below, generally considers the impacts of including a larger retail center (approximately 10-12 acres, up to 130,000 square feet).

The *Proposed Master Plan* includes approximately 28 acres of parks and open space, including a community park, neighborhood parks and urban open spaces plazas. The Proposed Master Plan has been designed to preserve as many of the existing trees as feasible and provide additional landscaping. Approximately 57,000 linear feet of pathways and trails would provide pedestrian connections between neighborhoods.

The *Proposed Master Plan* includes demolition and redevelopment of all existing buildings on site (except the community center, the Firs apartments and Bay Vista Commons), and replacement of all utilities (sewer, water, drainage, electricity/gas and telecommunications). All existing streets would be vacated and re-platted to create the system of streets.

Redevelopment would occur in four phases over an approximate three year period beginning in 2007. All existing buildings except the community center, and all existing infrastructure would be demolished or abandoned and replaced. Development would involve staged relocation of all tenants. Relocated tenants in good standing with BHA would be eligible to return to the new development when it is completed.

1.3 BACKGROUND INFORMATION

Comprehensive Plan & Zoning

In September 2003, the City amended its Community Renewal Plan, pursuant to the state Community Renewal Law (RCW 35.81), to incorporate the Westpark site as a "blighted" area for purposes of community renewal efforts (Ordinance No. 4830 and 4870). The designation was supported by findings that the site was isolated from adjacent areas that building size and design were deficient, and that physical deterioration was a contributing factor to disinvestment in the area. These actions also reaffirmed the City's intent to cooperate and assist the Bremerton Housing Authority in the redevelopment of Westpark, (pursuant to RCW 35.83), and to provide a framework for redevelopment in the Comprehensive Plan and zoning regulations. This framework is described below.

The *Comprehensive Plan Land Use Map* designates Westpark as a Public Sector Redevelopment Site (PSRS). These are special, large-scale sites with high potential for development that is innovative or that meets a unique community need. They should be developed consistent with specific district planning efforts that address the site, compatibility with surrounding uses, and consistency with the Comp Plan. A PSRS must have a clearly defined community benefit, such as meeting a public housing need. They may include mixed type residential development with an open space component and secondary commercial or office development. The Comprehensive Plan also designates a neighborhood center for the Oyster Bay Area adjacent to the Westpark site, on both sides of Kitsap Way. This 37-acre center is seen as redeveloping over time -- in conjunction with, but slower than Westpark -- into an urban, pedestrian-friendly area connected with the surrounding area by trails and open space, including access to the shoreline.

Westpark Sub-Area Plan & Development Regulations

On February 7, 2007, following a public hearing, the Bremerton City Council adopted the Westpark Sub-Area Plan. The Sub-Area Plan provides a land use plan, zoning and development standards, and design guidelines which will guide future development of Westpark The Comprehensive Plan requires such area-specific plans for sites designated as Public Sector Redevelopment Sites. The plan was developed using a process that involved the community, and was determined to be consistent with the Comprehensive Plan goals and policies.

Project Planning and Community Involvement

Development of the Proposed Master Plan involved more than 60 meetings and workshops involving residents of Westpark and surrounding neighborhoods, community stakeholders, representatives of the City of Bremerton, and the Planning Commission and City Council. Key master planning meetings that occurred in the course of developing the Master Plan included nine public community meetings; a week-long design charrette; two stakeholder's meetings; six resident Council meetings; 10 resident presentations; joint SEPA/NEPA scoping and comment meetings; Bremerton Planning Commission workshops and public hearing; and Bremerton City Council workshop and public hearing.

Environmental Analysis and Review: SEPA and NEPA

This document has been prepared to comply with the requirements of both the State Environmental Policy Act (SEPA) and the National Environmental Policy Act (NEPA). This Draft EIS has also been prepared consistent with State and BHA regulations implementing SEPA, and with HUD's adopted NEPA policies and procedures. It is also being coordinated with requirements and procedures of the National Historic Preservation Act (NHPA, Section 106) and the Endangered Species Act (ESA).

SEPA and NEPA procedures for notice and commenting have also been coordinated. Scoping notices were published pursuant to SEPA and NEPA requirements, and a public EIS scoping meeting was held at the Community Center on June 22, 2006. Scoping comments were considered by the BHA and City of Bremerton in determining the issues and alternatives analyzed in the Draft EIS.

The Draft EIS was circulated to agencies, organizations and individuals for a 45-day public comment period. The Final EIS responds to the comments received on the Draft, and provides updated information about ongoing planning and environmental monitoring. The EIS (Draft and Final) will accompany Westpark through the development review and permitting processes.

A course of phased/tiered review is being used to evaluate the environmental impacts of the Westpark Master Plan. Redevelopment of the site was initially evaluated in the Supplemental EIS (SEIS) prepared for the City of Bremerton's Comprehensive Plan (2004). An addendum to that SEIS was also prepared (City of Bremerton, 2006) in connection with the City's review and adoption of the Westpark Sub-Area Plan. Future environmental review will be conducted, as appropriate, for site-specific development proposals.

The BHA and City are also using SEPA's provisions for early environmental review (WAC 197-11-406). This encourages preparation of an EIS as early as possible, and prior to submittal of a development application, so it can practically be used as an important contribution to project design and agency decision making.

1.4 PROJECT PURPOSE & NEED/GOALS & OBJECTIVES

Westpark was built in the early 1940's to provide temporary homes for defense workers and their families during World War II. The community has endured for more than 60 years, through the careful stewardship of BHA. In 2003, however, the site was designated as a "blighted" area for purposes of community renewal efforts pursuant to the state Community Renewal Law (RCW 35.81). The existing site is considered to be isolated from adjacent areas, characterized by deficient building size and design, physically deteriorated, which is contributing to disinvestment in the area. Rehabilitation is not an economically viable option, given the age and condition of facilities. This situation provides the framework for the present master planning and proposed redevelopment.

Initial conceptual master planning for Westpark began in 2002, and included community involvement, site analysis, and conceptual land use planning. The resulting *Strategic Master Plan* (2003) provided broad goals for redevelopment and subsequent master planning of the site, including the following:

- Produce a positive impact on the surrounding community, and on long term economic and housing development in Bremerton;
- Maximize the value of the property;
- Achieve no net loss of public housing units;
- Improve the quality of public housing, and blend it with surrounding housing;
- Deconcentrate public housing and create mixed-income neighborhoods;
- Meet outdoor recreational needs;
- Improve community services; and
- Address local urban growth goals.

The *Proposed Master Plan* incorporates these broad goals along with more specific design objectives into a vision of a new urban mixed-use, mixed-income, pedestrian-oriented community.

1.5 DESCRIPTION OF THE WESTPARK PROPOSAL

The *Proposed Master Plan* would redevelop the site with a mix of urban density uses, integrated with new utilities and infrastructure, and a system of parks and open spaces. The community would provide a mix of housing types to meet the needs of a variety of income groups, including units for low income residents. Land uses, summarized in Table 1.2-1, would be more diverse than what currently exists. Residential uses would predominate, and would occur in a variety of types, forms and sizes. Commercial and retail uses to meet residents' everyday needs would also be included. These would be located both in a small commercial village, and on the ground floor of mixed-use buildings in various portions of the site.

The *Proposed Master Plan* indicates the approximate location of all proposed improvements and facilities. The Master Plan is still conceptual in nature and is subject to change or refinement as a result of ongoing planning. As with master plans for large, phased projects in general, locations of uses or buildings are not intended to be exact or absolute. Building footprints, for example, could be refined as a result of environmental review, more detailed planning, and the land use approval process. Similarly, the *Proposed Master Plan* indicates the relative size and type of residential buildings. Subject to environmental parameters identified in the EIS, and to the Westpark Sub-Area Plan's zoning and regulatory requirements, the *Proposed Master Plan* is intended to provide flexibility in regard to the types of units and/or the size of buildings that may be developed in response to market and economic conditions.

Table 1-1.
Westpark Land Uses

Land Use	Acres	Units/Square Feet
Residential:		759 du's
- Single family [1]	31.5	499 du's
- Multi-family [2]	5.6	260 du's
Retail/Commercial:		60,000 sf
- Village Center	5.0 [3]	approx. 50,000 sf
- Mixed-Use Buildings		approx. 10,000 sf
Community/Civic	1.04	44,749 sf [4]
Open Space & Parks	28.0	Community & neighborhood parks and open spaces
Trails		57,000 linear feet
Streets/Infrastructure	14.05	611,977

Notes:
1. Single family includes attached townhouses, duplexes and cottages, and detached units.
2. Multi-family includes apartments and condo units. Some multi-family units will be included in mixed-use buildings (e.g., with retail or commercial uses).
3. A 10-12 acre retail option is evaluated in the *Design Alternative* included in the Draft EIS.
4. Reflects the site area of community center.

Housing

The *Proposed Master Plan* provides 759 rental and for-sale housing units; 759 is considered the maximum for EIS analysis. All existing low income dwelling units would be replaced, either on-site or off-site. Table 1-2 provides an overview of the proposed housing development program and the types of units within each category.

Dispersing public housing would accomplish a number of goals, including the revitalization of dilapidated housing and distressed communities, creation of diverse neighborhoods, and the promotion of housing choice.

Housing Relocation Plan. Implementation of the *Proposed Master Plan* would require the demolition of all existing housing units and necessitate the relocation of all residents during construction. All residents would receive relocation benefits as prescribed by the federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (URA). The BHA, with the involvement of residents, is developing a detailed Relocation Plan that describes relocation benefits and choices.

Table 1-2.
Proposed Housing Program

Unit Type Distribution by Phase *	# Units per Phase				# Units
	II	III	IV	V	Total
Market Rate Apartments	0	110	0	0	110
Urban/Loft Condominium	0	65	0	0	65
Condominium	0	85	0	0	85
16' Townhouse	24	27	20	9	80
22' Townhouse and/or Row Home, Alley Load	30	21	26	17	94
24' Townhouse - 2 and 3 Story	2	28	12	18	60
Duplexes (Rental)	14	50	18	18	100
Duplexes (Market Rate)	2	8	6	14	30
Cluster Cottages	10	18	10	0	38
Single Family - 3,500 sq ft Lot	17	30	12	0	59
Single Family - 4,500 sq ft Lot	7	27	4	0	38
Total Units	106	469	108	76	759
Lots per Phase	106	209	108	76	499
Public Housing Units	38	87	38	27	190
% Public Housing Units per Phase	35.8%	18.6%	35.2%	35.5%	25.0%
PHU's as % of Total PHU per Phase	20.0%	45.8%	20.0%	14.2%	100.0%

* Units are approximate, based on the proposed program of 759 total units, and assuming 25% Public Housing Units

Parks, Recreational Facilities, Open Space & Trails, and Landscaping

Parks, Open Space& Recreation. The *Proposed Master Plan* would provide approximately 28 acres of parks and open space providing opportunities for active recreation (12 acres) and passive enjoyment (4.5 acres), and including significant preserved trees (approximately 11.5 acres). Proposed facilities include a 12-acre community park, two neighborhood parks, urban open spaces, and natural areas. Parks and open spaces would be linked by the internal trail network and street system.

Proposed parks – both the new Summit Park and the remodeled Community Center -- would provide facilities for organized sports (e.g., baseball, softball, soccer, football, etc.). The *Summit Park* is an approximate 12-acre, multi-faceted green space at the center of the site. It will function as a recreation space, view corridor and central community space. The center of the park will be a grass recreation area with picnicking facilities. A plaza area will also be created, with benches and a water or art feature. The park will provide views over Oyster Bay and Dyes Inlet.

Trails. An approximate 11-mile long (57,000 linear feet) interconnected system of pedestrian sidewalks, paths and trails is proposed. This system would connect neighborhoods, open spaces and commercial facilities, with a planned connection to the Oyster Bay Neighborhood Center. Trails and sidewalks would generally be 5 ft. wide, paved, with trees and benches located conveniently.

Landscaping. Landscaping will be focused along streets, to enhance the pedestrian environment, along the site's boundaries with arterials, to provide screening, and adjacent to the commercial area, to provide land use transitions. In some areas, such as the retail village and the neighborhood square, hard-scape and green features will be mixed.

A tree survey will be conducted in conjunction with a subsequent subdivision application; detailed information is not available at this time. Existing significant trees would be retained where possible. The majority of retained trees will be located in Westpark's parks and open spaces.

Village Center

The *Proposed Master Plan* provides approximately 50,000 sq.ft. of commercial service and neighborhood retail space in a 5-acre Village Center, plus an additional potential 10,000 square feet of commercial uses located in mixed-use buildings. Uses would be consistent with the Westpark Sub-Area Plan's development regulations, and would be focused on providing convenient everyday services to residents of Westpark and adjacent neighborhoods. In general, commercial and retail services would be planned and designed to preserve the pedestrian-orientation of Westpark, and to maintain a high quality of design.

An alternative site plan containing a greater amount of commercial/retail uses is considered in the *Design Alternative*.

Community Facilities

The Community Center would be remodeled and would continue to provide a variety of programs for all age groups in Westpark and the surrounding community. Program ideas are still being developed, but will likely include a combination of health and fitness, education and career development, culture and arts, life skills, and social/recreational programs.

Circulation, Access and Parking

Major streets that would provide access to Westpark include Kitsap Way, Oyster Bay Road, and Arsenal Way. An important design focus of the Proposed Master Plan is inclusion of principles of new urbanism, including pedestrian orientation and transit support. It would contain a mix of uses and level of density that locates housing in proximity to neighborhood shopping/services and transit facilities to encourage pedestrian activity and decrease individual auto use. Consistent with these principles, neighborhood streets are organized in a grid pattern, which would promote a more pedestrian-oriented streetscape and improve circulation.

The *Proposed Master Plan* includes approximately 14 acres of streets. All existing streets will be vacated and re-platted. Major street types associated with the *Proposed Master Plan* include the following:

Neighborhood Streets, which are one-lane or two-lane roads (varying among neighborhoods) with on-street parking. Sidewalks of varying width are provided on both sides of the street. These streets are lined with trees and include landscaping between the street and the sidewalk. Figure 2-6 shows a typical residential street section.

Baer Boulevard, which will provide access to the regional transportation system, is designed as a wider, tree-lined street with two traffic lanes, on-street parking and sidewalks on both sides.

Alleys, will provide access to garages for parking and for deliveries and services for Single Family Attached, Single Family Detached, and other unit types as indicated on the Thoroughfare Plan.

"Green streets" are pedestrian paths which are separated from vehicle traffic and provide connections between Westpark neighborhoods, parks and open spaces, retail activities and services. These paths will also connect to the off-site regional trail system.

Depending on the type of street, travel lanes would vary between 11 feet and 18 feet in width, and parking would be provided on one or both sides of most streets. Narrower roads are intended to slow traffic and promote pedestrian circulation. All streets would contain 5-foot wide sidewalks and would be landscaped with trees,

The *Proposed Master Plan* would provide between approximately 1,015 (minimum) and 1,824 off-street parking spaces. An additional 1,100 spaces would be provided on-street. A parking garage could be constructed adjacent to the apartment building (See Figure 2-2).

Stormwater and Utilities

The *Proposed Master Plan* involves replacement of all existing utilities on-site, including water, sanitary sewer, storm drainage, electrical/telephone/cable, and natural gas. The availability of all utility services has been verified by applicable service providers. Electrical and telecommunication cables may be placed underground. Sanitary sewer and water lines would tie into existing systems along Oyster Bay Avenue and Kitsap Way. Detailed engineering and design for sewer, water and stormwater systems would occur in conjunction with future development permit applications. These designs will also consider opportunities to implement Low Impact Design (LID) techniques.

Stormwater Management. An integrated storm drainage plan would provide collection, conveyance and water quality treatment. The drainage plan is still conceptual in nature; final size, type and location of stormwater management measures will be refined as Westpark progresses through environmental review and design. Basin areas and facility types, sizes and locations could also change as a result of ongoing design. As part of this process, and consistent with the Westpark Sub-Area Plan (Ordinance No. 4998), BHA will also consider incorporating additional low impact development (LID) techniques, such as bioswales, rain gardens, and/or use of pervious surfaces. However, due to soil conditions, topography and other factors, additional LID techniques may be difficult to implement and are not expected to substantially reduce stormwater volumes.

The storm conveyance system would be located within streets and alleys to provide drainage of the streets, alleys, and sidewalks, allow for storm drain connections from adjacent developments, and convey stormwater from upper portions of the basin to stormwater

management facilities. The stormwater conveyance system would be designed based on requirements in Chapter 4 of the City of Bremerton Public Works (City) *Design and Construction Standards*, and King County's *Surface Water Design Manual,* as referenced by City standards.

The primary elements of the proposed system are water quality treatment, flow control (e.g. detention facilities), and replacement of the existing outfall in Oyster Bay. Basic water quality treatment best management practices (BMPs) will be used to treat stormwater for pollutants prior to discharging into downstream receiving waterbodies. Basic water quality treatment BMPs include construction of biofiltration swales, open wet ponds, and underground vaults.

Flow control includes an open pond with a flow control structure to control the flow rate that is released to downstream drainage systems. Flow control is proposed for the Ostrich Bay Creek (OBC) basin because its discharge ultimately enters Ostrich Bay Creek.

Stormwater Outfall. Replacement of the existing outfall in Oyster Bay, located at the projection of Oyster Bay Avenue north of Kitsap Way, is proposed as a joint City/BHA project. It is intended both to address pre-existing limitations in the outfall's capacity and to accommodate the projected increase in stormwater flow rates from Westpark. Replacement would also eliminate the need for on-site flow control for the project-area basins discharging into Oyster Bay. Potential revisions to the preliminary design, to further reduce potential impacts, are being discussed with the Department of Fisheries & Wildlife.

The existing outfall pipe will likely be removed landward of the Mean Lower Low Water (MLLW) elevation, and abandoned in place below MLLW. A baffled outlet structure would be constructed on the shoreline; the furthermost part of the new structure, including riprap armoring, would be located approximately 12.5 feet waterward of mean high water (MHW) at elevation 8.34 feet. The baffled outlet structure, in combination with riprap placed downslope of it, would reduce stormwater velocities associated with discharge from the site and surrounding area. The structure would be concrete and approximately 13 feet wide, 19 feet long and 11 feet tall. Water would flow out of the structure and onto adjacent/downstream riprap, which would help to reduce downstream erosion potential.

A number of conceptual options for providing public access to the shoreline are being considered jointly by the City and BHA in conjunction with replacement of the outfall.

Clearing, Grading and Impervious Surface Coverage

Approximately 90 percent of the site would be cleared, including demolition of existing buildings. Impervious surfaces would comprise approximately 74 percent of the overall site (61 acres).

The intent of the proposed grading plan is to minimize mass earthwork, retain significant trees and protect steep slopes. Estimated grading quantities are 294,000 cubic yards of cut, and 306,000 cubic yards of fill. Imported fill material would comprise 12,000 cubic yards.

Tenant Relocation, Demolition, and Construction

Tenant relocation, demolition and construction would occur in a phased and coordinated manner. Four phases (II-V) are planned, each lasting approximately 9 months and beginning in 2007. Construction would be completed in 2010. [Note that Bay Vista Commons (formerly the Firs II) assisted living facility, an independent project that was previously approved and is currently under construction, is considered as Phase I].

Phase II would begin in the southern corner of the site and includes elements of the major park and open space system, and approximately 106 single family and multi-family units. Phase III, the largest, would consist of approximately 469 units including most of the site's multi-family units. Phases IV and V would consist of 108 and 76 units respectively.

Relocation of existing residents will occur just prior to and in phase with demolition. All residents will receive a Housing Choice Voucher that would allow them to move to areas within or outside Kitsap County. Any resident in good standing wanting to return to Westpark would be offered the opportunity to return. The BHA is currently conducting a survey that will indicate how many existing residents wish to return after redevelopment. If there are more residents wishing to return than available units, a lottery would be held to select future residents.

1.6 ALTERNATIVES

Design Alternative Master Plan

The *Design Alternative Master Plan* is similar in layout to the *Proposed Master Plan* but provides increased area for retail development and the same number of housing units, in a somewhat different mix and density. It also takes a modified approach to stormwater management. A conceptual site plan is shown in Figure 2.10. Major features of the alternative are described below.

Housing. The *Design Alternative Master Plan* would provide 759 housing units, which is the same number of units for the *Proposed Master Plan*. The same number of replacement public housing would be provided on-site (190); all existing public units would be replaced on-site or off-site.

The overall mix of units and density of housing would be somewhat different. In general, there would be fewer townhouse units (-4), fewer duplexes (-30) and fewer single family units (-23) compared to the *Proposed Master Plan*, and more higher density multi-family housing located in the apartment and condominium buildings (+55). The apartment and condominium building would each be increased in height, up to approximately 65 feet, to accommodate additional units and structured parking. This would exceed the applicable height limit in the Westpark Sub-Area Plan and would require a variance or a revision to the plan. These two buildings would contain almost 42 percent of Westpark's total housing units. While gross density of the site would remain the same (approximately 9.25 dwelling units per acre), net density would increase to slightly more than 25 dwelling units per acre (compared to 20.5 dwelling units per acre for the *Proposed Master Plan*).

Parks and Open Space. The amount and location of parks and open space (28 acres) and trails (57,000 linear feet) would be the same as for the *Proposed Master Plan*.

Village Center. The Village Center, located in the northwestern portion of the site, would be expanded to 12 acres and 120,000 square feet; an additional 10,000 square feet of commercial uses are assumed to occur in mixed-use areas of the site. The center would offer a broader variety of commercial goods and services that would be marketed to the broader community rather than focused on the Westpark site. The larger site could also attract larger-footprint retail users. The Westpark Sub-Area Plan establishes size limits for most individual commercial uses and provides criteria for exceeding the applicable maximums.

Community Facilities. As with the *Proposed Master Plan*, the Community Center would be remodeled and would continue to provide a variety of programs for all age groups in Westpark and the surrounding community. Programs would likely include a combination of health and fitness, education and career development, culture and arts, life skills, and social/recreational programs.

Circulation, Access and Parking. Access to the site and the on-site road system would generally be the same as for the Proposed Master Plan. A few neighborhood streets shown on the Proposed Master Plan in the expanded retail area would be eliminated. All existing streets would be vacated and re-platted to create a grid system.

Due to the increased size and greater parking demand associated with the larger Village Center, the commercial portion of the site would be less compact and less pedestrian-oriented. Compared to the *Proposed Master Plan*, an additional 200-300 parking spaces would be provided in surface parking areas adjacent to the Village Center (400-500 spaces total. Approximately the same number of parking spaces would be provided for residential units, but more would be located within or adjacent to high density residential buildings rather than in surface parking areas.

Stormwater & Utilities. An infiltration system would be constructed to return treated storm water to the ground water system for the additional approximate 7 acres of commercial/retail area included in the *Design Alternative*. The stormwater attributable to the increased commercial area, therefore, would not be routed to the Oyster Bay stormwater outfall. This approach would incrementally reduce runoff and discharge and maintain the same or incrementally improve water quality. Given the conceptual nature of the Design Alternative at this time, these changes have not been quantified. All other features of the stormwater system would be the same as for the *Proposed Master Plan*, including upgrading the stormwater Outfall in Oyster Bay.

The potential use of pervious surface material, an LID technique, in the parking area of the expanded commercial area. It was determined, however, that spill control BMPs would be difficult to implement with pervious material, which could negate some or all of the benefit of infiltrating storm water.

Clearing, Grading & Impervious Surface. The *Design Alternative* is intended to maintain the same clearing and impervious coverage as the *Proposed Master Plan*. The use of pervious surface material and an infiltration system in a majority of the Village Retail area would help compensate for the larger commercial area.

As for the *Proposed Master Plan*, approximately 90 percent of the site would be cleared, including demolition of existing buildings. Impervious surfaces would comprise approximately 74 percent of the overall site (61 acres).

Quantities of grading, filling and amount of clearing are approximately the same as for the *Proposed Master Plan*.

Phasing. Development would generally occur in the same time period and sequence as for the *Proposed Master Plan*.

No Action Alternative

The *No Action* Alternative would involve no redevelopment of Westpark in the immediate future. The existing public housing units, community facilities and infrastructure would remain. Housing would continue to be maintained to the extent possible; however, deterioration and loss of housing over time would likely occur. BHA could seek other funding sources to redevelop the property.

No additional open space or community facilities would be provided. Existing community facilities and programs would be maintained to the extent possible.

All existing infrastructure (sewer, water, stormwater, roads, etc) would remain and would not be upgraded. In addition, the street configuration and access would not be altered.

The *No Action* Alternative is included in the EIS to meet the requirements of SEPA and NEPA. It would not meet any of the proponent's goals for redevelopment of the site.

1.7 SIGNIFICANT IMPACTS

The following table (1-3) summarizes significant impacts associated with the proposal and alternatives. This information is provided for the convenience of the reader but is not intended to be a substitute for review of the complete analysis contained in each section of the Draft EIS.

Table 1-3 Summary of Impacts

Proposed Master Plan	Design Alternative Master Plan	No Action Alternative
EARTH		
An increase in erosion hazard potential would occur during construction. Unless otherwise mitigated, erosion would produce sediment that could be transported to stormwater conveyances or receiving waters. Uncontrolled gully and sheet erosion along slopes could lead to oversteepening of the slopes and subsequent slope instability hazards. Unless mitigated, increased stormwater discharge volume and flow rate in Oyster Bay and Ostrich Bay Creek could cause significant erosion at the discharge location. Increases in either surface or subsurface water flow on or near a slope could result in landslides. Improperly placed fill soils could fail due to inadequate compaction effort, use of organic material or soft, fine-grained soils, placement of material at over-steepened gradients or other factors. Cut slopes could also fail due to removing the toe support for a slope, or from improper drainage control. The landfill and immediately surrounding sloping area is considered a high potential landslide hazard area. Stormwater should not be directed on or near the landfill area or on slopes surrounding the landfill. Plans for regrading and placement of fill in this area should be reviewed and certified by the geotechnical engineer. Increased development would incrementally increase the risk of seismic damage. Ground motion caused by an earthquake of sufficient intensity could result in damage to buildings, roadways, and other structures including utilities. No evidence of surface	The *Design Alternative* involves a similar degree of site re-grading, involving similar potential for construction impacts related to erosion and landslide hazards. Practices to manage stormwater, which would avoid and minimize construction-related impacts, would also be similar. Potential erosion and landslide hazard impacts described for the *Proposed Master Plan* would also be applicable to the *Design Alternative*. Seismic hazards potential would also be similar under both alternatives.	The risks of an increase in the existing erosion and landslide potential could be less because of lower density, less impervious surface coverage, and less stormwater runoff. However, the existing stormwater drainage system does not include modern best management practices, such as wet ponds, wet vaults, biofiltration swales, properly sized stormwater conveyances and discharge points, or stormwater flow control for the Ostrich Bay Creek basin. *No Action* would incur no construction-related erosion or landslide impacts; however, on-going erosion caused by the existing stormwater conveyance system would continue. The seismic hazard potential would be similar under all alternatives; however, *No Action* would not increase the on-site seismic hazard.

Table 1-3 Summary of Impacts

Proposed Master Plan	Design Alternative Master Plan	No Action Alternative
ground rupture has been documented in the study area vicinity, however. The central to northern portion of the site and the landfill debris are considered to have a high potential of liquefaction during seismic shaking. Areas susceptible to seismically induced landsliding would correspond to liquefiable sediments on steeper gradients and the high landslide hazard areas.		
AIR QUALITY		
Construction could result in temporary minor, localized impacts to air quality due to emissions from construction-related sources and activities (e.g. dust). Construction contractor(s) would have to comply with PSCAA regulations requiring that all reasonable precautions be taken to minimize fugitive dust emissions. Demolition of existing structures would require the removal and disposal of building materials that contain asbestos. The demolition contractors would be required to comply with U.S. EPA and PSCAA regulations related to the safe removal and disposal of any asbestos-containing materials. Construction would require use of heavy trucks and smaller equipment such as generators and compressors. The engines on such equipment would emit air pollutants that would slightly degrade local air quality. Diesel emissions from on-site construction are unlikely to substantially affect air quality in the project vicinity. Some phases of construction would cause short-term odors detectable to some people in the area (e.g., paving operations	Same as *Proposed Master Plan.*	No construction related impacts would occur.

Table 1-3 Summary of Impacts

Proposed Master Plan	Design Alternative Master Plan	No Action Alternative
using asphalt). Construction contractor(s) would have to comply with PSCAA regulations when emitting odor bearing air contaminates. Construction equipment and material hauling could affect traffic flow in the project area. Scheduling haul traffic during off peak times (e.g., between 9 a.m. and 4 p.m.) would minimize indirect increases in traffic related emissions. There is a potential for dust to affect on-site residences during construction of the residential and commercial facilities. Any impacts from construction or equipment emissions would be temporary and probably minor after implementation of reasonable methods to control dust emissions. In general, construction activities that comply with applicable rules and regulations would not be expected to significantly affect air quality under either of the Westpark Development build alternatives. CO "hot spot" analysis of the Kitsap Way / Marine Dr./Adele Ave and Kitsap Way / Shorewood Dr./Arsenal Way intersections indicates that under worst-case traffic and meteorological conditions, the maximum-predicted CO levels are likely to remain far below the 1-hour and 8-hour ambient air quality standards. Therefore, project-related traffic would not be expected to significantly affect air quality under any of the alternatives.		
WATER RESOURCES		
Ground Water Quantity: The *Proposed Master Plan* will decrease pervious area at the site,	Impacts generally the same as for the	A minimal amount of recharge is

Table 1-3 Summary of Impacts

Proposed Master Plan	Design Alternative Master Plan	No Action Alternative
which will further limit recharge to the underlying ground water systems compared to existing conditions. There would be an insignificant loss of recharge to the underlying ground water systems. **Ground Water Quality:** Although the *Proposed Master Plan* will increase the volume of stormwater generated, it will be treated to applicable standards before offsite discharge to surface water bodies. A potential reduction in ground water contamination from stormwater could occur. No significant negative impact to ground water quality would occur. The landfill will be closed under applicable regulations, which should limit infiltration of precipitation into the landfill material and further limit mixing of leachate with infiltrated water. In addition, stormwater that is currently directed to the landfill area would be diverted to stormwater conveyance pipes and reduce the amount of precipitation/stormwater that enters the landfill material. A reduction in potential contamination from the landfill is anticipated, provided proper closure and regrading is performed under the proposed action. No significant negative impact over existing conditions to ground water quality would occur.	*Proposed Master Plan*, although some additional infiltration would occur in conjunction with the expanded retail center. Impacts generally the same as for the *Proposed Master Plan*.	expected to occur at the site under existing conditions due to the significant ground surface gradients and low-permeability, compacted soils. Under the existing conditions, stormwater is routed to offsite discharge points without onsite water quality treatment.
PLANTS & ANIMALS		
Clearing of Vegetation: Development would result in clearing and grading of the portions of the site identified as Urban (U), moderately vegetated habitat, and deciduous forest (Fd). The area identified as lowland grass/forb, mowed (Gm) is currently dominated by a baseball field, and would	Same impacts as for the *Proposed Master Plan*.	Existing conditions would continue.

Table 1-3 Summary of Impacts

Proposed Master Plan	Design Alternative Master Plan	No Action Alternative
be re-designed to include more landscaping and provide multiple recreational uses. A majority of the coniferous forest in the north-central portion of the site will be retained. The small patch of coniferous forest remaining in the eastern portion of the site would be cleared for redevelopment of the site. Most of the existing trees located within the developed portions of the site would be removed. Within the developed portions of the site, a large number of ornamental landscape trees would be planted. In addition, lawns and other landscape vegetation would be established where appropriate along streets and among buildings. A small area (approximately 2,000 square feet) of coniferous forest off site would be removed to replace the stormwater outfall along the edge of Oyster Bay. The *Proposed Master Plan* would not directly affect any wetland habitats, as none occur on site. Construction of the new stormwater outlet and removal of a portion of the existing pipe along the edge of Oyster Bay would temporarily disturb a small area (approx 2,000 square feet) of estuarine, intertidal, unconsolidated shore (mud and cobble substrate) wetland habitat. **Impacts to Wildlife:** Clearing, grading, and construction activities would remove habitat temporarily for urban-adapted species, many of which are non-native, invasive species. As the new site landscaping becomes established, habitat for these species would again be provided. The primary loss of shelter or cover would result from removal of		

Table 1-3 Summary of Impacts

Proposed Master Plan	Design Alternative Master Plan	No Action Alternative
some of the larger trees (primarily native species) that occur in developed areas among the existing housing and roads. Similarly, the re-development of the portion of the site currently identified as lowland grass/forb, mowed (Gm) would not be likely to impact wildlife, except during the construction phase of development. Much of the existing coniferous forest vegetation in the north-central portion of the site would be retained. Wildlife species that occupy this area would be largely unaffected by redevelopment. Removal of the majority of the small areas of deciduous forest in the western and eastern portions of the site could eliminate some species from the site. However, the acreage of this forest habitat is limited (approximately 3.75 acres) and these deciduous forest stands have limited value to native wildlife. Over time, the *Proposed Master Plan* would provide similar habitat for wildlife as that exists under current conditions on most of the site. This habitat is generally suited primarily to urban-adapted species. The potential for human disturbance of retained natural habitats would increase incrementally, but the area of human activity would remain essentially the same as under current conditions. Much of the existing vegetation (primarily coniferous forest) on site would be retained, and thus would continue to provide habitat similar to current conditions. Therefore, no significant adverse impacts to wildlife that inhabits the site are expected. **Impacts to Endangered, Threatened, Sensitive, and Other Priority Species:**		

Table 1-3 Summary of Impacts

Proposed Master Plan	Design Alternative Master Plan	No Action Alternative
No endangered, threatened, or sensitive plant species are known or likely to occur on-site and no adverse impacts to such species would occur. Similarly, development of the site is not expected to affect endangered, threatened, or sensitive animal species, as none have been documented on the site or along the edges of Oyster Bay, and suitable potential habitat is either lacking or very limited. No other priority animal species would be adversely affected by the *Proposed Master Plan*, because none are known or likely to inhabit the site.		
FISHERIES RESOURCES		
No lakes, ponds, or stream channels and no potential fish habitat occurs on or immediately adjacent to the Westpark site itself Run-off volumes and rates from the overall project site would increase due to the proposed increase in impervious surface coverage from redevelopment. Increased stormwater discharge to Oyster Bay would also result from the diversion of flows from a portion of Basin SE to Basin 3. The area immediately surrounding the proposed replacement stormwater outfall at Oyster Bay will be subject to direct construction impacts, as well as potential beach scour and salinity changes associated with discharging increased quantities of stormwater in a different manner and location than occurs presently.	Similar impacts as for the *Proposed Master Plan*. Stormwater flows could potentially be reduced incrementally at the Oyster Bay outfall through the application of infiltration technologies.	No benefits to downstream fish and fish habitat of improved water quality and water quantity controls would occur. Expected, non-significant impacts associated with Oyster Bay stormwater outfall replacement and operation, would similarly not occur.

Table 1-3 Summary of Impacts

Proposed Master Plan	Design Alternative Master Plan	No Action Alternative
Downstream construction-related impacts to fish and/or fish habitat are not expected to be significant. Construction is not expected to result in significant impacts to the abilities of local aquatic species to successfully complete their life histories through successful reproduction. In general, the project is not expected to significantly diminish habitat availability or food supplies, increase susceptibility to disease or predation, lower water quality, interfere with successful migration or reproduction, or otherwise diminish the survival and fitness of the aquatic species making use of Oyster Bay as habitat for the completion of all or a portion of their life histories. The construction impact area will be small and supports only low-level use by endangered or ecologically significant populations (such as sand lance, surf smelt, salmonids, etc.). No migration routes would be blocked and no passage impeded. The proposed redevelopment would significantly improve storm runoff water quality compared with existing site conditions (or the *No Action Alternative*), since the storm drainage system serving the existing development includes essentially no water quality controls.		
NOISE		
During construction, there would be temporary increases in sound levels near the site due to the use of heavy equipment and along roadways used for hauling construction materials. Excavation, grading, paving, and erecting would generate sounds audible on surrounding properties. Phased construction could result in some construction activities	Construction impacts would be the same as the *Proposed Master Plan*.	No construction noise would occur.

Table 1-3 Summary of Impacts

Proposed Master Plan	Design Alternative Master Plan	No Action Alternative
during later phases of the project occurring very near (i.e., within 50 to 100 feet of) new residential housing units constructed during earlier phases. Construction noise received in a residential district during daytime hours (7 a.m. to 10 p.m.) is exempt from Bremerton's maximum permissible sound levels. Noise from retail facilities (e.g. truck loading docks, garbage compactors, and building mechanical equipment) could affect nearby on-site residences near the retail center. Project-related traffic would have a minor overall effect on noise along area roadways and would not cause significant noise impacts. Traffic noise is also exempt from the City's noise ordinance. New residences, outdoor use/play areas, and a park would be constructed in locations currently exposed to high levels of traffic noise – along portions of SR 3 and Kitsap Way -- and expected to be exposed to similar and possibly higher levels in the future. According to HUD noise suitability criteria, noise levels at most of the proposed residential locations near SR-3 would be considered either "normally unacceptable" (i.e., > 65 dBA and <= 75 dBA) or "unacceptable" (i.e., > 75 dBA). At receptors in the northern portion of the site along SR-3, the Ldns at ground floor receptors generally fall within the "normally unacceptable" range, while exterior sound levels at the upper floor would be considered "unacceptable." Predicted future noise levels at most second-row receptors fall within the HUD "acceptable" range.	Overall, future noise levels and related noise impacts with the *Design Alternative* would be similar to those identified for the *Proposed Master Plan*. A greater number of high density housing units could result in additional residences being exposed to noise levels considered "normally unacceptable" or "unacceptable" under HUD guidelines. However, the degree of impacts (i.e., the predicted sound levels) would be similar to that identified for the *Proposed Master Plan*. A larger commercial area could result in additional commercial/retail noise sources, but noise from these sources would still be required to meet Bremerton's noise limits. Future design would also be required to be consistent with Westpark Sub-Area Plan development standards, which also address potential noise impacts.	On-site noise levels for some residences would likely remain "unsuitable" based on HUD noise criteria.

Table 1-3 Summary of Impacts

Proposed Master Plan	Design Alternative Master Plan	No Action Alternative
ENVIRONMENTAL HEALTH		
Demolition activities could involve potential releases of asbestos or lead-based paint in building materials. Federal, state and local regulations require removal of asbestos-containing materials by certified workers prior to demolition of affected buildings. Federal and state standards consider any detectable concentration of lead to be a hazard during construction; air monitoring and use of respirators is typically recommended. All materials must be disposed of at an appropriate facility, which varies depending on the concentrations of asbestos or lead materials. The low levels of lead are not likely to warrant additional testing or special disposal. The Phase I ESA did not identify any known or suspected releases of hazardous substances on the site. Such evidence could be encountered, however, in connection with future construction activities. An assessment of the playfield/landfill to determine the extent of methane gas and requirements for remediation is ongoing. Metals were also identified in groundwater on the landfill site. Remediation of the landfill would be performed consistent with Model Toxic Control Act and Kitsap County Board of Health regulations. A range of remediation options will be evaluated. Neither methane gas nor groundwater contamination were identified at the off-site VIP Landfill	Impacts generally the same as for the *Proposed Master Plan*.	No impacts related to demolition would occur, but any health hazards related to asbestos or lead-based paint in existing units would remain.
LAND USE & SOCIOECONOMICS		
Land Use:		

Table 1-3 Summary of Impacts

Proposed Master Plan	Design Alternative Master Plan	No Action Alternative
Construction of the *Proposed Master Plan* would result in temporary impacts to adjacent land uses from dust, emissions, noise and construction traffic. Most such impacts would be concentrated on the Westpark site. The phased approach to construction and relocation would minimize the number of on-site residents exposed to such impacts. There could also be sporadic interference with access for adjacent residents and businesses, and access to some on-site activities (e.g., the community center). Any such impacts would be short-term. Assuming implementation of appropriate mitigation measures, such as dust control and construction traffic management, construction would not cause significant adverse impacts. Use of the site would change from primarily detached single family units and community services, to a mix of residential, commercial and community services in a pedestrian-oriented pattern. The number and variety of housing units would increase (from 631 to 759) and would include a much broader variety of for-sale and for-rent unit types. Commercial services would be a new element of the site's land use pattern. Significant areas of the site (34 percent) would be retained in open space. Overall, the greatest land use changes would be the addition of commercial land uses, redevelopment with a greater variety of residential housing types, and the pedestrian character of the site plan. Gross residential density would decrease from approximately 7.7 dwelling units per acre in a uniform pattern at present, to 7.1 dwelling units per acre. Average net density would be approximately 20 dwelling units per acre, and would range from 12 dwelling units per acre (for detached single family) to 65 dwelling	Impacts would generally be the same as the *Proposed Master Plan*. Commercial land uses would comprise a larger portion of the site, and would create more of a commercial character. Two residential buildings adjacent to SR 3 would be one-story higher.	Existing land uses would remain, and the site would remain blighted.

Table 1-3 Summary of Impacts

Proposed Master Plan	Design Alternative Master Plan	No Action Alternative
units per acre (for high density apartments and condominiums). Locating a mix of uses at higher densities within walking distance of residents could promote pedestrian activity and use of transit and reduce vehicle use. Westpark's proximity to more extensive commercial uses along Kitsap Way could encourage walking and reduce auto dependence. The greatest potential for land use conflicts would occur where the contrast in uses or intensities are the greatest -- at the edges of the Village Center, where it is adjacent to residential activities, and near the high density apartment and condominium buildings (which could be up to 55 feet tall). Such contrasts in building height and scale are inherent in urban development, are not inherently incompatible, and are not considered significant land use conflicts. The *Proposed Master Plan* would create separations and transitions – using streets and buffering -- that would ameliorate the contrast. In addition, the Westpark Sub-Area Plan requires buffers and landscaping to address potential conflicts. Adjacent Land Uses. The Westpark site is somewhat isolated from adjacent land uses by its location adjacent to Kitsap Way on the north, and SR 3 on the west. Surrounding land uses are generally urban in character and intensity (urban residential to the east, industrial to the west, and commercial to the north). The gross density proposed for Westpark is generally consistent with, but higher than, existing densities in the surrounding neighborhood (typically 4 to 6 dwelling units per acre). The sites larger buildings and more intensive land uses (Village		

Table 1-3 Summary of Impacts

Proposed Master Plan	Design Alternative Master Plan	No Action Alternative
Center and high density residential buildings) would be located adjacent to Kitsap Way and SR 3. They would be separated from adjacent uses by arterials/highways. Adjacent uses are generally higher or similar in intensity and are not likely to be adversely affected by Westpark land uses. The Westpark site is currently considered "blighted" and has been found to be a disincentive to economic development in the surrounding area. Following redevelopment, the site would function as a modern, revitalized urban neighborhood. On-site commercial activity would provide new jobs. The *Proposed Master Plan* could generate some amount of spin-off development, particularly in the form of additional commercial redevelopment along Kitsap Way. Any such inducement of growth would be consistent with adopted City policy, compatible with the existing land use pattern, and would likely be positive in terms of economic development and changes to neighborhood character.		
Socioeconomics: ***Population & Employment:*** Population on-site would increase from an estimated 1,100 residents currently to approximately 1,973 residents at build-out. There would be an increase in higher-income households and market-rate housing. The number of units available on-site to low-income households would decrease. New middle-income residents would reduce the percentage of low-income residents in the area. The increase in housing types could tend to diversify the community economically. The extent of change in racial and ethnic diversity as	Impacts would generally be the same as for the *Proposed Master Plan*. On-site employment from retail and commercial activities would be incrementally higher (290 new jobs).	No change to population or employment would occur. The existing concentration of low income households would continue.

Table 1-3 Summary of Impacts

Proposed Master Plan	Design Alternative Master Plan	No Action Alternative
a result of the *Proposed Master Plan* is unknown. The availability of market-rate rental and for-sale housing could influence the age distribution of residents on-site. With the shift in housing stock from all public housing to a mix of housing types, the age distribution within Westpark would reflect the surrounding area to a greater extent. Construction would result in generally positive impacts to employment, wages and income. Redevelopment would generate an estimated $51.25 million in direct income. Project construction employment could also indirectly increase the number of construction-related jobs in the surrounding area (e.g., materials manufacturing or delivery) and would result in increased purchases of construction materials. Relocation of residents during staged construction could result in temporary reduction in revenues to area merchants, as well as temporary disruption to the lives of residents. It is possible that all or part of this reduction in local business revenues could be offset by spending from the temporary influx of construction workers. In so far as relocation to temporary housing occurs in a relatively even distribution to the surrounding area, there would be few, if any, adverse impacts to the existing surrounding infrastructure and community. Positive impacts could include an increase in local hiring, expansion of businesses, new business formation, and greater local tax revenues. Proposed commercial and retail facilities would result in the		

Table 1-3 Summary of Impacts

Proposed Master Plan	Design Alternative Master Plan	No Action Alternative
creation of an estimated 130 new jobs. Approximately 80 jobs currently exist on site and would continue. Average on-site annual income would likely increase as a result of the shift from all public housing units to a mix of public housing, and market-rate rentals and for-sale units. Increased income levels and increased spending by Westpark residents could result in a positive impact on area business and local tax revenues. Positive indirect impacts would include improvement to the character of the site, a more diverse housing stock and economically diverse population, and increased spending for goods and services within the area surrounding the site, as well as within the greater Bremerton area. Revitalization of the site, and removal of current blighted conditions, could also contribute to economic development in the surrounding area, including building renovation/expansion, new construction, and business start-ups. As a result, residents could enjoy increased employment opportunities. A potential increase in business development and in employment provided on-site could contribute to a decrease in unemployment in the immediate area. The *Proposed Master Plan* could have a favorable effect on real estate in the surrounding area. Residential properties could appear more desirable, resulting in an increase in demand for housing and increases in property values, and rental rates and taxes. This could decrease affordability for some residents, forcing them to relocate. Relocation of existing residents could result in temporary or		

Table 1-3 Summary of Impacts

Proposed Master Plan	Design Alternative Master Plan	No Action Alternative
permanent stresses to their social activities and/or affiliations.		
Housing: The *Proposed Master Plan* will further BHA's mission and City of Bremerton goals by redeveloping an area of concentrated poverty and replacing it with a new mixed-use, mixed- income community. It would also be consistent with the *Kitsap County Consolidated Plan*. Redevelopment would result in increases in both the number of units on the site (759), changes in unit and structure type, and changes in the tenure of residents. The number of rental units on the site would decrease (by 421 units). Almost three quarters of the 759 new units (549 units) would be for sale. The *Proposed Master Plan* includes 190 low income housing units, which represents a reduction of 441 public housing units. These will be replaced by BHA off-site; the location of these units is not known with certainty at this time. BHA plans to provide replacement housing by assigning vouchers to a variety of off-site units, which would broaden the regional choice of housing location for public housing applicants. All residents will be offered relocation assistance in compliance with the federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (URA). Residents in good standing will also be given the right to return to the new community. Any rent differential incurred by the tenant would be paid by BHA in accordance with the URA. Some portion of new units will be affordable to households with 50	Impacts would be the same as those identified for the *Proposed Master Plan*.	No changes to existing housing conditions would occur. Westpark would continue to be characterized by a concentration of old, small low-income housing units.

Table 1-3 Summary of Impacts

Proposed Master Plan	Design Alternative Master Plan	No Action Alternative
percent to 60 percent of the area median income which will increase the County's overall stock of affordable rental housing; this will result in a positive impact over and above the one-for-one replacement of the public housing units. The replacement of 441 low income housing units off-site will maintain, on a more dispersed basis, the current countywide supply of units affordable to housing tenants earning less than 30 percent of median income. The development of the 549 for-sale units would create new homeownership opportunities on the site. The creation of a mixed income community would help alleviate the social issues (e.g., physical isolation, low educational attainment, high unemployment) that have historically affected the neighborhood. The Proposed Master Plan would also be consistent with Kitsap County's *Consolidated Plan,* which supports the redevelopment of Westpark. No known projects are planned in the immediate area, although there are several redevelopment/revitalization projects underway by other proponents within a few mile radius of Westpark. No significant adverse cumulative housing impacts have been identified. The Bremerton Housing Authority has committed to one-for-one replacement, at like affordability, of all housing units demolished as a result of redevelopment of Westpark. Because all existing public housing units will be replaced with rent-comparable units, there will be no net loss of units. In addition, because the units will no longer		

Table 1-3 Summary of Impacts

Proposed Master Plan	Design Alternative Master Plan	No Action Alternative
be as concentrated in the Westpark community, households qualifying for public housing will have expanded choices of affordable housing locations. There would be no cumulative negative impact on the supply of public housing in Kitsap County.		
ENVIRONMENTAL JUSTICE		
The impacted area has a significant concentration of low-income, minority, and disabled individuals. The site has been designated as "blighted" for community renewal purposes by the City of Bremerton (Ordinances 4830 and 4870). Demolition and construction activities in connection with redevelopment will affect a disproportionately higher number of these individuals than if the project were located elsewhere. All residents would be relocated from the site in phases. All relocated residents would incur moving costs and the inconvenience associated with relocating from their homes and finding comparably affordable housing. BHA would provide a package of relocation benefits to displaced residents, including options for payment of moving costs, assistance with the physical move, temporary or permanent relocation to units in other BHA-owned properties, and Section 8 Vouchers for either temporary or permanent relocation. Proposed relocation benefits would comply with the Uniform Relocation Assistance and Real Property Acquisition Polices Act (URA). All residents in good standing with BHA would have the right to return to a unit in the redeveloped community, but residents also have the option of moving permanently from the site.	Impacts would generally be the same as for the *Proposed Master Plan*.	The existing concentration of low income, minority and disabled individuals would continue.

Table 1-3 Summary of Impacts

Proposed Master Plan	Design Alternative Master Plan	No Action Alternative
BHA proposes to replace all existing low income units on a one-for-one basis either on-site (190) or off-site within the City of Bremerton and throughout Kitsap County. In general, this dispersal is encouraged by City policy to alter the existing concentration of low income persons on the site. The location of off-site replacement units is not known at this time. There would be a substantial net increase in on-site employment associated with the proposed Village Center. BHA will help residents develop employable skills through pre-employment training programs, such as "Key to a Better Life". This program was developed as a part of the Westpark redevelopment process. It is intended to help residents develop skills that can be used to apply for many jobs, including construction and staffing of the Bay Vista Commons assisted living facility, currently under construction. Community Cohesion: The broad variety of residential unit types proposed is likely to attract a population reflecting a mix of incomes, and to change existing demographics. In the near term, a temporary disruption of community cohesion would likely occur from the staged relocation of residents during demolition and construction. Access to Social Services: Westpark residents are currently served by a number of on-site social services for low-income people. BHA's relocation plan will address the need to maintain service		

Table 1-3 Summary of Impacts

Proposed Master Plan	Design Alternative Master Plan	No Action Alternative
connections for residents as part of relocation assistance. Public Health: Redevelopment would eliminate some existing on-site health hazards, including potential exposure to lead-based paint and asbestos. Residents both on-site and in the surrounding area could be exposed to temporarily increased levels of air pollution and noise during construction. Public Well Being: An important objective of the *Proposed Master Plan's design* is enhancement of public well-being. This includes removing blighted conditions and altering the current social and physical isolation of Westpark. Many elements of the new community (i.e. street patterns, building design, open space, pedestrian and vehicular access) have been planned to promote a pedestrian orientation and improve public safety. In general, the variety of new housing, resulting economic and social diversity, and new job opportunities would all help to promote community stability and well-being.		
HISTORIC & CULTURAL RESOSURCES		
Two archaeological sites were identified within the Area of Potential Effect (APE): WPR-06-01*:* Graham Way Housing, a collection of concrete foundations, parking areas, and the remnants of Graham Way. The site contains no intact subsurface deposits and is unlikely to yield information important in local or regional history. This site is not recommended eligible for the NRHP. WPR-06-02*:* Section 16 Refuse Disposal Site is a dump from	Impacts would be the same as identified for the *Proposed Master Plan*.	No changes to the existing development and no impacts to cultural or historic resources would occur.

Table 1-3 Summary of Impacts

Proposed Master Plan	Design Alternative Master Plan	No Action Alternative
the 1930s. Although the general location and extent of the site is known, its contents are not well understood. Until this site is fully evaluated, it should be regarded as potentially eligible for the NRHP. The Section 16 Refuse Disposal site (WPR-06-02), is the only significant cultural resource within the APE. The *Proposed Master Plan* would not excavate into or otherwise disturb the deposits in WPR-06-02. The area will continue to be a playfield and therefore should not be affected by the project. Formal closure of the landfill may be required, however. The pervasive modifications to the natural surface by modern land use indicate there is low probability that intact significant archaeological resources are likely to be encountered during implementation of the proposed project. Furthermore, since Westpark is on drift upland composed of recessional glacial outwash, there is little probability for buried intact archaeological materials to be present. It is possible that intact archaeological deposits are buried along the shoreline of Oyster Bay. The 247 residential units, eight laundry buildings, landscaping, and Westpark plan are associated with several themes in American history; architecture/landscape architecture, community planning and development, and the military. However, the buildings within the APE lack integrity of design, materials, workmanship, and feeling and are not recommended eligible for the NRHP. Westpark as a district or site contains many of its original elements, particularly the plan for building locations, streets, and open space,		

Table 1-3 Summary of Impacts

Proposed Master Plan	Design Alternative Master Plan	No Action Alternative
and its stands of large evergreens. However, Westpark does not retain the design, materials, workmanship, and setting of the 1940s community and is not recommended eligible for the NRHP.		
AESTHETICS, LIGHT & GLARE		
Aesthetics: Demolition and construction activities would be visible from off-site locations and to on-site residents. Visual impacts would include dust, the presence of construction equipment, stockpiles of materials, and construction activity. These impacts would be temporary, would occur in phases, and would not be significant. Redevelopment of Westpark would result in significant and dramatic changes in visual character. Change would occur incrementally, as the site is redeveloped in phases. Change would primarily be related to an increase in the number, density, bulk, scale and design of new buildings, interspersed landscaping and open space, and changes in site topography. Architectural character would also change significantly. Many elements of this change would likely be considered to be positive by many viewers, although some viewers could perceive it to be adverse. Larger, taller multi-family buildings would be concentrated on the western portion of the site adjacent to SR 3. Visual change to these viewers would be significant, as this portion of the site would be developed more intensively than at present. Landscaping would be located between the SR 3 right-of-way and the site boundary. It is possible that noise walls or berms could also be constructed in a	Impacts would be similar to the *Proposed Master Plan* with two significant differences: the Village Center would be larger, more intensive and more dominant in appearance; and the multi-family buildings adjacent to SR 3 would be larger in scale.	The site would maintain its existing appearance, and no changes to existing aesthetics would occur.

Table 1-3 Summary of Impacts

Proposed Master Plan	Design Alternative Master Plan	No Action Alternative
portion of this area, to abate the effects of existing off-site noise on Westpark. These would also be visible to passing motorists. The Village Center, proposed in the northwestern portion of the site, would consist of larger-scale commercial buildings (up to 50 feet in height) and surface parking areas. As a result of proposed earthwork, this portion of the site would be higher in elevation and more prominent than at present; it is intended to function as an entry to Westpark and a "gateway" to the City. The commercial center would be visible from Kitsap Way/Arsenal Way and from SR 3. Open spaces would include a major park and open space on the northern/central portion of the site (the 12-acre Summit Park), along Kitsap Way, two neighborhood parks and dispersed common areas. The Summit Park location is currently devoted to open space and would not change significantly in appearance. Some improvements – including usable recreation spaces and other amenities -- would occur but would be internal to the site. The dense existing vegetation blocks visual access to the site in this area, and also provides a natural, park-like setting for motorists along Kitsap Way. This character would not change. The intersection of Kitsap Way and Oyster Bay Road is the northeastern gateway to the Westpark site. The visual character of this portion of the site has previously been altered by construction of Bay Vista Commons, a three-story (plus basement), 72-unit assisted living facility. This corner of the site is elevated and has greater visual prominence from adjacent streets and land uses. The *Proposed Master Plan* includes an office building in this		

Table 1-3 Summary of Impacts

Proposed Master Plan	Design Alternative Master Plan	No Action Alternative
location, which would increase the intensity and urban character of development visible at this gateway. Proposed changes in topography and increased building height will result in views of Oyster Bay from several locations on the Westpark site. This would be a positive change for residents and visitors. Potential removal of the existing drainage outfall in Oyster Bay, north of the Westpark site would enhance views of the water from the shoreline. The outfall proposal also includes a number of options for enhancing visual access of the shoreline for the public. **Light & Glare:** Light from streetlights, parking areas, vehicles headlights and buildings would increase with the number of residential units on-site. Glare could occur from larger scale buildings along SR 3 or Kitsap Way. However, the Westpark Sub-Area Plan's design standards and guidelines would limit the type and intensity of on-site lighting and building materials; use of reflective building materials is not anticipated. Light and glare impacts are not expected to be significant.		
TRANSPORTATION		
The Proposed Master Plan would result in a net traffic increase of 4,220 trips daily, and 324 trips during the PM peak hour. In general, approximately 50 percent is expected to travel west towards SR 3. Of that 50 percent, 25 percent would travel north on	The Design Alternative would result in a net traffic increase of 6,125 trips daily, and 472 trips during the PM peak hour.	Traffic delay would generally increase in the year 2010 compared to existing conditions, and the level of service would worsen at the intersection of Kitsap

Table 1-3 Summary of Impacts

Proposed Master Plan	Design Alternative Master Plan	No Action Alternative
SR 3, 15 percent south on SR 3, and 10 percent is expected to continue west on Kitsap Way. Approximately 40 percent of the project-generated traffic is expected to travel east along Kitsap Way past National Avenue, with five percent destined to the north on Marine Drive, five percent south on Adele Avenue, and the remaining 30 percent continuing east along Kitsap Way towards downtown Bremerton. Roughly 10 percent of the project-generated trips are expected to travel east along W Arsenal Way. The majority of study intersections would have higher delay in the year 2010 with the project compared to the future conditions without the project. For the *Proposed Master Plan*, the increase in delay would result in a lower LOS at three intersections -- Kitsap Way/Adele Avenue, Kitsap Way/Shorewood Drive, and Kitsap Way/SR 3 northbound ramps) compared to No Action -- and the Kitsap Way/Adele Avenue would operate at LOS F, which exceeds the city's LOS E standard. Without mitigation, the southbound ramps of SR 3 at Kitsap Way would operate at LOS E, which would exceed WSDOT's level of service standard.	For the *Design Alternative*, the same intersections would experience a lower LOS grade. Two intersections -- Kitsap Way/Adele Avenue and Kitsap Way/Shorewood Drive -- would operate at LOS F.	Way/National Avenue from LOS B to LOS C. However, all intersections would continue to operate at or above the City of Bremerton's LOS standards. In 2010, the Kitsap Way at Marine Drive/Adele Avenue intersection is estimated to operate at LOS E without the project, and would degrade to LOS F in the year 2010 under both alternatives without mitigation.
PUBLIC SERVICES & UTILITIES		
Public Services ***Police, Fire and EMS:*** During construction, some calls for service could be generated by construction site theft or trespass, and construction-related injuries, The incremental increase in population associated with redevelopment of Westpark (approximately 885 additional people)	The *Design Alternative* would involve the same quantity of housing units and the same population as the *Proposed Master Plan*. Demand (and	Existing demand would continue, including the disproportionate demand for some City services.

Table 1-3 Summary of Impacts

Proposed Master Plan	Design Alternative Master Plan	No Action Alternative
would increase the demand for police, fire and emergency medical service. Based on the City's existing level of service for police, Westpark would generate a need for 1.4 additional officers, and for the additional equipment, vehicles and facility space to support those officers. Commercial and retail development typically generates minor calls for police and fire services, and impacts associated with these uses are considered minor. Westpark has historically been associated with higher than average crime rates and demand for police service. It is possible that demand for service could decrease after redevelopment, based on potential changes in demographic and socioeconomic characteristics of a mixed-income community.	level of service) for City services are generally estimated based on residential population; therefore, impacts of the Design Alternative would generally be the same as for the *Proposed Master Plan*. The larger retail center could incrementally increase the minor service demand associated with non-residential uses.	
Schools: Construction and phased redevelopment would result in the temporary and/or permanent relocation of some students. Some may relocate within the same school service area and attend the same school, while others would attend different schools and/or schools in different districts. This could affect existing capacity in other schools or districts to a minor degree. The additional population accommodated in Westpark after redevelopment could increase the number of families with school age children and the number of students attending Bremerton School District facilities. Some school district facilities are currently over capacity, particularly in the district's elementary schools, and additional student population would exacerbate exiting capacity problems. Impacts would be defined by the incremental increase in school age population after redevelopment. The number of	Impacts would be the same as for the *Proposed Master Plan*.	No additional impacts would occur.

Table 1-3 Summary of Impacts

Proposed Master Plan	Design Alternative Master Plan	No Action Alternative
additional students generated by Westpark would depend, among other factors, on the number of bedrooms constructed in new units; this is not known at this time. ***Parks & Recreation:*** The *Proposed Master Plan* would result in an increase in housing units and on-site population, which would also increase the demand for additional parks land and recreational services. The City's adopted level of service implies a need for approximately 3 acres of local parks, approximately 28 acres of regional parks, and 36 acres of open space. Total population is not certain and could vary depending on the mix of bedroom in the proposed units. The *Proposed Master Plan* includes 28 acres of parks and open space, which would meet the city-wide level of service standards for local and regional parks, but is slightly under the total level of service. The increased population would also increase demand on existing city park facilities. Demand generated by employees is expected to be minor and incidental. ***Community Services:*** The Community Center would be remodeled and would continue to provide a variety of programs for all age groups in Westpark and the surrounding community. Program ideas will likely include a combination of health and fitness, education and career development, culture and arts, life skills, and social/recreational programs. Some community programs currently provided at Westpark are funded by HUD and/or are associated with the existing concentration of low income families on-site. Redevelopment	Impacts would be the same as identified for the *Proposed Master Plan*. Impacts would be the same as identified for the *Proposed Master Plan*.	No additional impacts would occur.

Table 1-3 Summary of Impacts

Proposed Master Plan	Design Alternative Master Plan	No Action Alternative
would result in a reduction of the number of public housing units on site, replacement in other locations in Bremerton and Kitsap County, and relocation of existing tenants. There could also be a reduction or change in on-site community services.		
Utilities ***Sewer and Water:*** The *Proposed Master Plan* would demolish and replace all existing on-site sewer and water systems. Utility infrastructure would be constructed within public road rights-of-way and would be connected to the existing distribution system. Some off-site sewer and water conveyance infrastructure (e.g., pump stations) may need to be upgraded as well, and would be determined in conjunction with preparation of more detailed development and engineering plans. The incremental increase in population (approximately 885) and jobs (approximately 130) would increase consumption of water for potable use and wastewater systems. Assuming an average consumption of 100 gallons per person per day, Westpark would consume an average of approximately 200,000 gallons per day (gpd). The incremental increase over existing residential usage would be approximately 88,500 gpd. Wastewater flows would be similar. Water would also be consumed by retail and commercial uses and for irrigation of landscaped areas. Westpark's estimated population is included in the City's calculation of water demand/capacity and wastewater treatment capacity (City of Bremerton, 2004). Based on available information, the City has adequate capacity to serve the Proposed Master Plan. Sewer and	Impacts would generally be the same as identified for the *Proposed Master Plan*. The additional employment associated with the expanded retail center would generate additional sewer and water demand.	Existing demand would continue.

Table 1-3 Summary of Impacts

Proposed Master Plan	Design Alternative Master Plan	No Action Alternative
water availability letters have been obtained from applicable service providers. ***Stormwater:*** The proposed stormwater system includes both detention and water quality treatment, both of which are absent in existing facilities. The system would be designed to meet applicable City requirements. Stormwater flows in the sub-area would increase as a result of higher density development and increased impervious surface. An overall improvement in the quality of stormwater discharged from the site is expected to occur. Stormwater from most of the site would be discharged via an upgraded outfall in Oyster Bay. The *Proposed Master Plan* includes a design concept for upgrading the outfall as a joint City/BHA project. The existing outfall could be removed or abandoned in place. ***Solid Waste:*** Solid waste would be generated from demolition and construction activities. Demolition waste typically consists of concrete, brick, wood, masonry, roofing, steel and other metals. Construction waste typically consists of scraps of building materials. Demolition debris from certain areas of the site may contain hazardous materials and is addressed in Section 3.7, *Environmental Health.* Disposal of construction and demolition debris would occur at appropriate facilities. Generation of household waste would increase relative to existing conditions, as a result of the incremental increase in population	Impacts would generally be the same as identified for the Proposed Master Plan, except that some stormwater associated with the expanded retail center could be infiltrated. Impacts would generally be the same as identified for the *Proposed Master Plan*.	The existing, primitive stormwater system would remain, and would provide no detention or water quality treatment. No additional impact would occur.

Table 1-3 Summary of Impacts

Proposed Master Plan	Design Alternative Master Plan	No Action Alternative
associated with the *Proposed Master Plan*. Adequate capacity is present at area landfills. ***Electricity/Energy Use:*** The *Proposed Master Plan* would consume energy for demolition and construction activities, for typical household uses, and for proposed commercial services. The size of proposed units is not known at this time and estimates of energy use cannot be accurately quantified. Structures would be constructed to meet building and energy code requirements. No significant adverse impacts are anticipated.	Impacts would generally be the same as identified for the *Proposed Master Plan*.	Current levels of energy consumption associated with the existing energy-inefficient residential buildings at Westpark would continue.

1.8 MITIGATION MEASURES

The following summarizes mitigation measures identified in the Draft EIS for the *Proposed Master Plan* and the *Design Alternative*. This information is intended to be a summary of the discussion in each section of the EIS and is not a substitute a review of the full narrative.

EARTH

Erosion Hazards

With proper implementation of BMPs, the probable significant erosion hazard impacts can be mitigated to non-significant levels, even in areas where a high erosion hazard risk is present.

Standards contained in the City of Bremerton Design and Construction Standards, the King County Surface Water Design Manual, and Kitsap County Stormwater Design Manual would be implemented during construction. Specific BMPs that will be implemented during construction should be outlined in the temporary erosion and sediment control (TESC) plan submitted in conjunction with a site development permit application. Recommended BMPs should include.

- Source-control BMP mitigation measures for cleared areas, such as placement of straw mulch on exposed ground surfaces; seeding or covering of the exposed subgrade; track-walking exposed construction slopes to reduce runoff velocities; directing surface water away from exposed subgrades or into approved temporary stormwater conveyance systems.
- Storing stockpiled soils to minimize sheet, rill or gully erosion.
- Installing temporary sedimentation traps or ponds during construction. Using an energy dissipater to reduce the risk of erosion at stormwater discharge points.
- Establishing rock check dams along roadways and within drainage ditches constructed along sloping ground to reduce the water energy and the subsequent risk of channel incision.
- Establishing silt fences along wetlands, stream and river corridors, open space areas, and other sensitive areas in or adjacent to construction zones to reduce the risk of sediment transport.
- Collecting and treating all construction runoff by sediment ponds, turf-covered sand filters, temporary filtration, or other approved methods before release to any surface waters.
- Adopting a temporary erosion and sediment control plan (TESCP) during the design phase. TESCP measures should be in place and operating properly prior to beginning major clearing and earthwork activities.
- Disturbed areas beyond the permanent project footprint should be revegetated, using an appropriate seed mix, by the close of the construction period.

The following erosion mitigation measures should also be considered during the design and construction of the project.

- Surface water and domestic discharge should not be directed onto sloping areas. All devices used to collect surface runoff should be directed into tightlined systems that discharge into approved stormwater control facilities such as infiltration or detention ponds.
- Clearing, excavation and grading should be limited to the minimum areas necessary for construction and original vegetation should be retained as much as possible, including buffer strips between construction disturbance zones

and potential receiving waters.

- A geotechnical engineer should review the grading, erosion, and drainage plans prior to final plan design to further assist in mitigating erosion hazards during and after development.

The proposed redesign of the Oyster Bay outfall, included in the Proposed Master Plan, would mitigate potential erosion.

Landslide Hazards

With implementation of appropriate BMPs and the mitigation measures listed above, probable significant landslide hazard impacts can be mitigated to non-significant levels, even in areas where a high landslide hazard risk is present.

For the two areas designated as high landslide hazard areas on the project site, a minimum setback distance of 50 feet for structures or impervious surfaces (required by the Bremerton CAO) should be maintained from the top or toe of high geologic hazard slopes, unless reductions supported by a Geotechnical Report are approved. The Final Geotechnical Report could satisfy the Special Report requirements of BMC 20.14.660. It may also provide recommendation for setback reductions, and grading/regrading and drainage control as needed for these areas.

Plans for regrading and placement of fill in the landfill area should be reviewed and certified by the geotechnical engineer. Proper regrading and drainage control of this area may reduce the erosion and landslide hazard potential after construction and settlement is complete.

The northern-central steep slopes will remain undeveloped open space and significant vegetation will remain on the slope. If stormwater is conveyed in an enclosed pipe to the base of the slope, as proposed, potential landslide hazard would be reduced and no additional mitigation should be necessary.

The construction of the stormwater detention facility should be reviewed by the geotechnical engineer.

The remainder of the site has a low landslide hazard potential. By conforming to applicable CAO standards and implementing mitigation measures identified above for erosion hazards, the landslide hazard risk and potential impacts to the remaining project site would be reduced.

Seismic Hazards

Surface Ground Rupture: The potential of a ground surface rupture impacting the study area as a result of seismic activity is considered to be low, and no mitigation is required.

Ground Motion: All structures would be constructed in accordance with the International Building Code (IBC) guidelines and would be designed to be able to sustain some damage from ground motion during the design seismic event without causing life safety concerns.

Liquefaction: A quantitative liquefaction analysis is recommended for all areas with a "moderate" to "high" liquefaction potential prior to development. Mitigation measures for liquefaction will depend on the extent of the liquefaction hazard and would be designed by a geotechnical engineer. These could include soil improvement techniques (to reduce liquefaction hazard) and structural improvement techniques (to

accommodate liquefaction effects).

Seismically Induced Landslides: Mitigation measures for reducing potential landslide impacts from earthquakes include the recommendations outlined in the *Landslide Hazard Mitigation* section above.

AIR QUALITY

Construction Impacts

Although significant air quality impacts related to construction are not anticipated, the construction contractor(s) would be required to comply with all relevant federal, state, and local air quality laws. They would be required to prepare a plan for minimizing dust and odors sufficiently to comply with PSCAA Regulation I, Sections 9.11 and 9.15. The Associated General Contractors of Washington's *Guide to Handling Fugitive Dust from Construction Projects* provides practical examples of best management practices that can be used to comply with construction-related air quality regulations.

Operational Impacts

The air quality analysis indicates that the Westpark alternatives would not result in any significant adverse air quality impacts due to off-site traffic. Consequently, no operational impact mitigation measures are warranted or proposed.

WATER RESOURCES

No significant adverse impacts to ground water recharge, supply or quality have been identified. Best management practices would be implemented to improve water quality through planned water quality treatment facilities. No further mitigation is necessary.

Closure of the landfill consistent with applicable regulations is recommended. No further significant impacts to ground water recharge or supply have been identified and no further mitigation is recommended.

PLANTS & ANIMALS

The *Proposed Master Plan* would retain most of the existing stands of native vegetation cover on site, and would provide approximately 28 acres of open space and parks, including retained trees and active and passive recreation areas.

The proposed design for replacement of the existing outfall in Oyster Bay would help protect remaining native habitats in the vicinity of the discharge site and farther off-site from adverse impacts of erosion or sediment deposition, and would help protect water quality in Oyster Bay.

The Westpark Sub-Area Plan, which the *Proposed Master Plan* will follow, also contains requirements or guidelines that would increase habitat values and mitigate wildlife impacts. These include landscaping with native plant species, and landscape and irrigation design concepts that encourage use water-conserving, low-volume irrigation, and discouraging the use of exotic ornamental plantings.

A tree survey should be conducted in conjunction with subdivision application. Existing significant trees would be retained where feasible, where they do not pose a safety hazard to future residents or facilities.

Other potential mitigation measures could include retention of existing deciduous forest vegetation in the eastern and western portions of the site. This might involve a conservation easement on the rear portions of the proposed lots in that area or designation of the forest itself as native open space.

Interpretive or educational materials could be made available to residents and visitors to foster an understanding and appreciation of the natural features of the property and surrounding area (e.g., the coniferous forest within the proposed Summit Park, stormwater management, and water quality treatment). Such an appreciation can help to limit unnecessary disturbance or destruction of remaining native vegetation or wildlife. Materials could include signs or materials available from public agencies or local conservation groups.

FISH RESOURCES

Proposed Mitigation

Mitigation measures that have been incorporated into the *Proposed Master Plan* include BMPs to improve and protect long-term water quality throughout the project site and water quantity controls for the on-site portion of the Ostrich Bay Creek basin. BMPs to address temporary sedimentation and erosion during construction are also incorporated into the proposal. These will be refined during the preparation of project development plans and applications. These measures will result in material improvements to water quality control parameters, to the benefit of fish and their habitat, downstream of the site in Ostrich Bay Creek, Ostrich Bay, Oyster Bay, and Sinclair Inlet.

The intertidal zone in the vicinity of the proposed stormwater outfall replacement location on Oyster Bay has a fine-grained, erodible substrate. Design of the proposed Oyster Bay stormwater outfall includes an open, relatively narrow, armored channel across the intertidal zone which avoid the potential impacts associated with allowing discharged stormwater to scour a new channel across the intertidal zone.

Potential Additional Mitigation

- Infiltration technologies and methodologies could be incorporated in the *Proposed Master Plan*. However, on-site soils are not generally conducive to widespread infiltration, so this approach could be problematic and prohibitively expensive to apply on a widespread basis. Other low impact development techniques would be evaluated and incorporated where possible, consistent with requirements of the Westpark Sub-Area Plan.

- The Oyster Bay outfall will be a joint City/BHA project, and final design is subject to future decisions by the City. Approximately 200 linear feet of pipe and related structures associated with the outfall are proposed for removal. It is presumed that the various sections of the outfall could be cable yarded or otherwise hauled back up the beach during periods of low tide, with only shallow and low-pressure impacts to the subtidal substrate and the organisms it contains. There would be little erosion or sedimentation if outfall removal was done at low tide in this manner. As an alternative, steel plates or other methods to reduce heavy equipment impacts to beach soils and related habitat could be deployed if heavy equipment is necessary to remove the large in-line catch basin or other associated structures.

- Some shoreline buffer areas within the project area would likely be disturbed by construction of the replacement outfall at Oyster Bay; other buffer areas in the project vicinity have been previously degraded. An anticipated mitigation element of proposed outfall replacement/reconstruction would be to develop a native revegetation plan for these areas along with long term monitoring, maintenance, and implementation of contingencies and other remedial measures as needed to achieve established performance standards.

NOISE

Construction Noise

Construction activities could result in noise that would often be audible and could occasionally be disruptive. Redevelopment would occur in phases and could result in the exposure of remaining residences to elevated construction noise levels. A number of construction noise abatement methods could be used to limit construction noise and potential disturbances.

Construction noise could be reduced with properly sized and maintained mufflers, engine intake silencers, engine enclosures, turning off idle equipment, and confining activities to daytime hours.

Construction staging areas and stationary equipment should be placed as far away from existing and new residences as possible. Where this is infeasible, portable noise barriers could be placed around the equipment with the opening directed away from the residential property.

Substituting hydraulic or electric models for impact tools such as jack hammers, rock drills and pavement breakers could also reduce construction and demolition noise. Although back-up alarms are exempt from the noise ordinances, noises from such devices are among the most annoying sounds from a construction site. Where feasible, equipment operators could drive forward rather than backward to minimize this noise. Noise from material handling could also be minimized by requiring operators to lift rather than drag materials wherever feasible.

Operation

Retail Center

The proposed project is not expected to result in any on-site operations that would cause substantial amounts of noise, as long as noise from potential retail sources is considered in the design of the retail center. Compliance with the Bremerton's noise limits and with Westpark Sub-Area Plan regulations would require noise sensitive design.

Site Suitability

Numerous residential locations would experience sound levels considered "normally unacceptable" or "unacceptable" according to HUD guidelines. The only source of noise causing these predicted sound levels is traffic along SR-3 and Kitsap Way. Therefore, some form(s) of noise mitigation will be required to reduce traffic noise received at on-site locations so that day-night sound levels at outdoor use locations and inside residences on the project site would be within the levels considered "acceptable" by HUD.

HUD guidance regarding the means to mitigate exterior sound levels suggests three approaches to reducing noise to acceptable levels: noise barriers, site design modifications, and/or acoustical construction. HUD suggests these methods be combined with acoustical construction whenever possible. Measures that reduce *both* exterior and interior levels are preferred. Acoustical construction (i.e., using special building materials and techniques to reduce interior sound level) by itself is the least preferred because this approach only affects interior levels. When feasible, every attempt should be made to reduce the exterior sound levels at least to levels considered "normally unacceptable" prior to focusing on reducing interior sound levels.

Noise Walls

In most cases, the most effective form of mitigation for traffic noise is using noise

barriers that are long enough and tall enough to block the line-of-sight from the receiver to the noise source. To be effective, barriers must be solid and continuous, without openings.

Noise barriers were considered and analyzed along SR 3 and Kitsap Way. In each case, the modeling examined barriers at constant heights ranging from 6 to 16 feet tall (in 2-foot increments).

SR-3/North: an 8-foot tall wall shielding residential locations in the northern portion of the site (receptors R1 through R9) would reduce traffic noise at all ground floor locations (except those represented by R1) to "acceptable" levels.

If there are no outdoor use areas near the northern half of Barrier 1, a noise barrier may not be warranted. Instead, a combination of acoustical construction and site design modifications, described further below, could be effective at ensuring interior noise levels are within HUD guidelines.

SR-3/South: At the southern residential locations near SR-3 (R10 through R17), a 12-foot tall wall would reduce traffic noise to "acceptable" levels at all ground-floor receivers and reduce noise at the upper floor locations to levels considered "normally unacceptable."

Kitsap Way: Modeling indicates a 6-foot tall barrier would reduce sound levels at all first-floor receiving locations to levels considered "acceptable" under HUD criteria. However, second and third floor locations would receive little benefit and would still be subject to "normally unacceptable" levels. With a 10-foot tall barrier, second-floor sound levels would be reduced to "acceptable" levels but all first-row third-floor locations would still be exposed to "normally unacceptable" levels.

Site Design Modifications

On-site outdoor residential use areas facing SR-3 or Kitsap Way would be subject to potential noise impacts. Locating outdoor use areas on the sides of buildings opposite major roads would reduce noise levels at such outdoor areas. Proposed buildings could effectively act as noise barriers between SR-3 and Kitsap Way and the outdoor use areas.

Many of the homes planned along SR-3 or Kitsap Way would be attached in rows (four units per building) or would be in apartment or condominium buildings. Taller buildings and/or buildings constructed closer together would more effectively reduce traffic noise from SR-3 or Kitsap Way. Buildings more than four units long would include fewer breaks in the resulting "barrier," and such buildings would provide better noise shielding for outdoor use areas "behind" these units in relation to the major road. Some residential units in the southwestern portion of the site facing SR-3 and in the northwestern portion facing Kitsap Way might be constructed as single-family, unattached residences, and this configuration would likely provide less noise reduction at outdoor use areas behind the residences (i.e., on the opposite side from SR-3 or Kitsap Way).

Acoustical Construction

In the event that it is not feasible to reduce exterior sound levels to 65 dBA Ldn or less, special consideration should be given to using materials and construction techniques that would reduce interior sound levels in residential spaces to 45 dBA Ldn or less.

With careful, high quality construction meeting current building code construction requirements *and* active ventilation systems, interior sound levels could likely be reduced sufficiently to comply with the HUD suitability criteria. Effective control of interior sound levels (received from outside sources) would require that windows can remain closed (i.e., using alternative dynamic ventilation systems), that double-paned windows be installed, and that doors and windows be kept tightly closed. Properly installed sound-absorbing material in the walls of residential spaces facing either SR-3 or Kitsap Way would further help to ensure noise levels inside these units remain within HUD criteria.

For units in areas with exterior Ldns greater than 70 dBA, and especially for those units in areas with levels considered "unacceptable" by HUD (i.e., Ldns greater than 75 dBA), reducing interior sound levels to 45 dBA Ldn would require special noise reduction construction techniques and materials. Using careful construction techniques designed to ensure good thermal insulation would be a first step. Other techniques would include: (1) minimizing openings to the outside; (2) ensuring that gaps around doors, vents, and windows are caulked and sealed; and (3) requiring dynamic ventilation systems so windows and doors can remain closed. In addition, special construction techniques for exterior walls facing SR-3 or Kitsap Way would likely be required. The specific type(s) of exterior wall construction required would be based on the overall exterior sound levels. In addition, selecting windows with higher sound reduction abilities (i.e., 30 dBA or greater, depending on the exterior levels) and using fewer and smaller window openings on the sides of the houses facing the freeway would help to provide the necessary interior noise reductions of 26 to 31 dBA.

ENVIRON-MENTAL HEALTH

The BHA will prepare a demolition plan that addresses the contaminants identified in the Phase I ESA and Asbestos and Lead-Based Paint Survey. Removal and disposal will follow the requirements of federal and state law.

The BHA is continuing to conduct detailed studies of the playfield/abandoned landfill. It will remediate the landfill consistent with applicable state and Kitsap County Health Department regulations.

LAND USE

No specific mitigation measures are required to address identified land use impacts. The *Proposed Master Plan* already includes a number of techniques that would avoid or mitigate potential impacts, including the following:

- All components of a balanced, pedestrian-oriented community, including housing, commercial and community services, parks and open space.
- Location of the most intensive uses on the periphery of the site, adjacent to roads with high traffic; and
- Transitions in density on site, using topography and landscaping to buffer lower density uses.

Development would also incorporate the development and design standards of the *Westpark Sub-Area Plan*, which are also intended to achieve compatibility between land uses, consistency with the Bremerton Comprehensive Plan, and superior design.

SOCIOECO-NOMICS

Population & Employment

BHA would inform local businesses and merchants about opportunities to conduct business with the site development contractors (i.e., subcontracting, materials purchasing).

As part of BHA's relocation planning efforts, it would continue to work with residents to improve earning potential, income levels, family stability, and self-sufficiency through all available programs and support services (i.e., Key to a Better Life, Kitsap Community Resources Community Jobs Program, Kitsap Credit Union and BHA IDA program, WSU Cooperative Extension Service).

BHA would encourage construction contractors to hire residents and would coordinate with contractors to ensure the necessary training.

In order to create employment opportunities for new and returning residents, BHA would encourage new start-up and existing businesses in the surrounding area to hire Westpark residents.

Housing

Redevelopment would include mitigation for the impacts of housing demolition and construction activity on existing residents, and off-site replacement housing for the on-site reduction of 441 housing units with rents comparable to those of the current public housing units. BHA proposes to mitigate for these impacts by providing relocation assistance to residents, and through the one-for-one replacement of housing units affordable to public housing applicants. Mitigation measures included in the *Proposed Master Plan* are identified below.

Tenant Relocation Assistance

The Westpark redevelopment program requires that all residents receive relocation benefits as prescribed by the URA. BHA, with the extensive involvement of residents, has developed "*A Place to Call Home," the Bremerton Housing Authority Relocation Plan for the Redevelopment of Westpark* describing relocation benefits and choices. All residents would be relocated in phases off-site during construction the redevelopment. Any resident wanting to return to Westpark who remains in good standing with BHA would be offered the opportunity to return to a new unit in the redeveloped community. A lottery would be held if the number of resisdents wishing to return exceeds the total number of public housing units.

Overall, the proposed program would mitigate the financial and physical impacts of relocation on existing tenants.

Replacement Housing

The BHA is committed to the concept of one-for-one replacement of demolished public housing units. BHA will use a combination of relocation vouchers and Section 8 vouchers for permanent and temporary relocation of the families at Westpark. BHA would replace 190 units on-site and the remaining 441 would be replaced off-site.

ENVIRON-MENTAL JUSTICE

The long-term impacts of redevelopment on the resident low-income and minority populations at Westpark would be positive and would address the physical conditions and social issues that currently exist relative to Westpark. Mitigation measures identified for *Housing* above 9 would address the short-term impacts resulting from redevelopment.

HISTORIC & CULTURAL RESOURCES

Any subsurface excavation, including geotechnical borings, at the landfill and at the outfall along Oyster Bay should be monitored by a professional archaeologist. Monitoring should occur at the outfall if excavation extends beyond fill into native sediments. It is recommended that a monitoring and inadvertent discovery plan be developed in conjunction with development approval and made available onsite to construction and supervisory personnel. Such a document should provide the procedures to be followed in case archaeological materials or human remains are discovered during construction, a list of persons and agencies to be contacted, and instructions for contacting the responsible parties.

The BHA possesses a significant number of original blueprints and other documents associated with the construction, operation, and maintenance of Westpark and other defense housing complexes they manage. It is recommended that historical material, such as the blueprints, photographs, drawings, paintings, and models of Westpark, be donated or placed on long-term loan to a curation facility equipped to preserve these important documents. The Kitsap County Historical Society Museum, Washington State Archives, National Archives and Records Administration, and the University of Washington Special Collections are recommended facilities.

AESTHETICS, LIGHT & GLARE

Expected changes in visual quality are generally considered to be positive in nature and do not require mitigation. The development regulations, design standards and design guidelines contained in the Westpark Sub-Area Plan will apply to redevelopment of the site and would help to achieve positive visual and aesthetic change, and would reduce the potential for glare..

TRANSPORT-ATION

Level of Service Conditions

A proportional share approach is commonly used to identify project-specific mitigation responsibilities. Using this technique, Westpark's responsibility to contribute to an intersection's improvement would be based on the project's proportionate share, which is calculated by the project-generated volumes divided by the future total entering volumes.

The Kitsap Way at Marine Drive/Adele Avenue intersection is estimated to operate at LOS E in year 2010 without the project (No Action), and is expected to degrade to LOS F in the year 2010 under both alternatives without mitigation. Using a proportional share approach, this would equate to 3.2 percent for the *Proposed Master Plan* or 4.5 percent for the *Design Alternative*.

The Kitsap Way at Shorewood Drive/Arsenal Way intersection is expected to operate at LOS C in 2010 without the project (No Action), and LOS F under the *Design Alternative* without mitigation. For the *Proposed Master Plan*, this intersection is expected to operate at an acceptable LOS E and would not require mitigation. Using the proportionate share methodology, Westpark's mitigation responsibility would equate to 11.8 percent for this intersection.

Optimization of network signal cycle lengths and phase splits was also considered as mitigation and would result in acceptable LOS conditions for both alternatives in 2010. Network optimization would also improve travel times along Kitsap Way. For both optimized alternatives, one segment of Kitsap Way (eastbound between the SR 3 ramps) within the study area would operate at arterial LOS F, as would year 2010 with No Action; however the Kitsap Way corridor as a whole would operate at or above LOS D. As mentioned previously, the poor arterial performance of this segment is likely attributed to short intersection spacing. With optimized signal timing, the southbound ramps of SR 3 at Kitsap Way would operate at the adopted level of

service.

Other possible mitigation measures that could further improve operation include:

- Increased storage (lengthen turn pockets),
- Restrict nearby driveway access movements (e.g. right-in, right-out), and
- Limit number of driveways near intersection approaches.

Local Traffic Safety

Relatively high accident rates are a pre-existing condition, without the *Proposed Master Plan*. The high proportion of rear end collisions at the Kitsap Way at Oyster Bay Avenue and Kitsap Way at Pershing Avenue may be attributed to a number of existing factors unrelated to Westpark and mitigated by the following measures:

- Hidden Intersections/Driveways
  - Install advanced warning signs
  - Remove potential sight obstructions
  - Restrict nearby driveway access movements (e.g. right-in, right-out)
  - Limit number of driveways near intersection approaches
- Poor visibility of traffic signals
  - Relocate signal heads
  - Install large (12-inch) signal heads
  - Use additional signal heads
  - Install backplates, visors etc. on signals to improve contrast and visibility
  - Install louvers to avoid confusion on intersection approaches
- High dilemma zone frequency
  - Place vehicle detector in dilemma zone that extends green time if vehicle presence is detected
- Excessive Speeds
  - Reduce speed limit on approaches if justified by spot speed study
  - Provide police enforcement of the speed limit
- High Traffic Volumes
  - Add traffic signals if warranted (per MUTCD)
  - Widen roadway approach and/or provide additional lanes
  - Restrict nearby driveway access movements (e.g. right-in, right-out)
  - Limit number of driveways near intersection approaches

PUBLIC SERVICES & UTILITIES

Public Services

Police, Fire & EMS

All new buildings would be constructed according to City building codes which address life and safety concerns. Sprinklers would be provided in larger buildings.

Security measures would be implemented during construction to reduce potential criminal activity. Measures would include on-site security, lighting and fencing to prevent public access.

Site planning, street layout and lighting are intended to promote visibility for residents and police.

Schools

No mitigation measures are required.

Parks & Recreation

Existing park and recreational facilities currently in Westpark are minimal compared to the amount and type of facilities included in the *Proposed Master Plan* and the *Design Alternative.* Measures that will mitigate potential impacts include provision of park and recreation facilities, trails and open space across the entire Westpark site, including the Summit Park and two neighborhood parks. These would provide opportunities for active recreation, passive enjoyment of open space, and facilities designed to accommodate a spectrum of age groups. Private open space would also be provided in individual yards, common areas, balconies. The existing playfield adjacent to the community center would be retained

Community Facilities

As part of its program planning, the BHA is evaluating potential changes to the range of programs provided at the Community Center. Program demand is likely to decrease as a result of economic diversification of Westpark residents and greater dispersal of low income housing.

Utilities

Sewer and Water

Sewer and water distribution systems would be designed consistent with applicable City and state engineering and construction requirements.

Hydraulic modeling of the water distribution system would be conducted prior to building permit issuance to verify that fire flows are adequate

Stormwater

To mitigate for potential stormwater impacts, the proposed system incorporates detention and water quality treatment including use of bio-filtration swales. The *Design Alternative* would also incorporate infiltration for a portion of the expanded retail/commercial site.

Additional low impact design concepts should be evaluated, including routing runoff in roof drain downspout systems.

The design concept for upgrading the outfall in Oyster Bay, which is proposed as a joint City/BHA project, would address the additional stormwater generated by Westpark, and the existing capacity and maintenance problems in this regional system.

Energy

Electric cables would be placed underground wherever possible. All connections to existing utilities along perimeter roadways would be coordinated with utility providers.

Newly constructed buildings would implement energy conservation measures included in applicable energy codes.

1.9 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

EARTH

Minor soil losses would be expected during the construction phase of the project. No significant unavoidable adverse impacts related to landslide hazards and seismic hazards have been identified.

AIR QUALITY

No significant unavoidable adverse air quality impacts have been identified related to the proposed Westpark Development Alternatives, and none would be anticipated.

WATER RESOURCES

No significant unavoidable adverse impacts to ground water supply have been identified. A minor amount of ground water recharge loss is expected from the *Proposed Master Plan*. The reduction is considered insignificant compared to existing conditions. Ground water quality improvements are expected from stormwater treatment. However, proper closure of the landfill may not prevent landfill leachate from reaching underlying ground water systems.

PLANTS & ANIMALS

Redevelopment of the site under the *Proposed Master Plan* or *Design Alternative* would unavoidably affect existing planted trees, lawns, buildings, and infrastructure on site. This would remove, at least temporarily, existing urban habitat from the site, which harbors primarily those species adapted to urban environments. However, most of the area of native vegetation on site would be retained, and upon completion, similar urban habitat would be created. Consequently, impacts to plants and animals of the site and vicinity are not considered significant.

FISH RESOURCES

With respect to fish and fish habitat, some minor, temporary, unavoidable adverse water quality impacts can be expected to occur during construction associated with the *Proposed Master Plan,* but these are expected to be less than significant. Furthermore, the completed development under the *Proposed Master Plan* would result in net improvements in stormwater runoff quality and, within the Ostrich Bay drainage area, water quantity controls, when compared to existing conditions.

Other fisheries-related impacts identified in this draft EIS section, primarily associated with proposed Oyster Bay stormwater outfall reconstruction, reconfiguration and operation with increased run-off rates and volumes, are not expected to be significant.

Similar to the *Proposed Master Plan*, some minor, unavoidable adverse impacts regarding water quality can be expected to occur during construction*,* but these are expected to be less than significant. Net improvements in stormwater runoff quality and, within the Ostrich Creek Basin, water quantity would also occur compared to existing conditions. Other identified fisheries-related impacts associated with proposed Oyster Bay stormwater outfall reconstruction, reconfiguration and operation are likewise not expected to be significant.

NOISE

The Proposed Master Plan would not cause significant adverse noise impacts. Significant impacts are associated with the site's location near a major highway and principal arterial and resulting (existing) of-site traffic noise. If noise mitigation is provided so that the sound levels at exterior use areas are reduced to 65 dBA Ldn or less, and/or the interior Ldns in residences are reduced to 45 dBA or less, no significant adverse noise impacts would be experienced by on-site residences.

ENVIRONMENTAL HEALTH

With implementation of applicable federal, state and local regulations, no significant unavoidable adverse impacts are anticipated.

LAND USE

Implementation of the Proposed Master Plan would unavoidably alter land use on the Westpark site. Land uses would intensify and become more varied. Redevelopment would be consistent with the Bremerton Comprehensive Plan and applicable zoning regulations and no significant adverse impacts would occur.

SOCIOECONOMICS

Population & Employment

No significant unavoidable adverse impacts related to socioeconomic conditions are anticipated.

Housing

Many impacts of the *Proposed Master Plan* and the *Design Alternative* would be either neutral or positive; adverse impacts would be mitigated by the planned relocation assistance to be provided to current residents and/or the planned one-for-one replacement of current public housing units with units of like affordability.

No Action, on the other hand, would produce several significant unavoidable adverse impacts. It would deter revitalization of the community. In addition, rehabilitation would neither address the long-term structural needs of the units and the failing infrastructure, nor the social and economic isolation of current residents.

ENVIRONMENTAL JUSTICE

No significant unavoidable adverse impacts are anticipated over the long-term. In the short-term, existing residents will experience the inconvenience attendant to relocation and construction, but will be provided with multiple types of moving and relocation assistance.

HISTORIC & CULTURAL RESOURCES

No significant unavoidable adverse impacts have been identified.

AESTHETICS, LIGHT & GLARE

No significant unavoidable adverse impacts to visual quality are anticipated.

TRANSPORTATION

Traffic and congestion would increase as a result of population growth, including the incremental growth associated with the Proposed Master Pan. As identified in the analysis, implementation of recommended mitigation measures would maintain adopted levels of service.

PUBLIC SERVICES & UTILITIES

Public Services

Demand for services will increase incrementally in conjunction with the additional population associated with Westpark. No significant unavoidable adverse impacts related to police, fire/EMS, schools, parks and recreation or community facilities are identified.
Utilities

Utilities

Demand for utility service would increase in conjunction with anticipated population growth. No significant unavoidable adverse impacts to utilities are anticipated.

1.10 MAJOR CONCLUSIONS

No significant unavoidable adverse impacts are anticipated for any elements of the environment analyzed in this EIS. The *Proposed Master Plan* would generate impacts to various elements of the environment which can be mitigated so as not to be significant. Mitigation measures are identified in the EIS for all significant adverse impacts.

Existing traffic noise levels along SR 3 and a portion of Kitsap Way, which affect the Westpark site, currently exceed noise levels generally considered desirable by HUD guidelines. Noise control measures (site planning, noise attenuation and/or construction techniques) will be required to reduce noise from traffic along SR 3 so that day-night sound levels at outdoor use areas and inside on-site residences would meet HUD requirements for attenuation, and/or would satisfy HUD's criteria for exceptions (24 CFR 51.105). Noise associated with the proposal would meet applicable state and local noise standards.

1.11 AREAS OF CONTROVERSY & ISSUES OF CONCERN

Land use changes, socioeconomic issues and housing displacement/relocation associated with redevelopment of public housing projects may be viewed as controversial. Similarly, some may consider redevelopment of blighted sites and dispersal of low income populations to be controversial. Relevant land use, socioeconomic and housing issues are discussed in Sections 4.8 and 4.9 of the Draft EIS.

2. PROJECT DESCRIPTION AND ALTERNATIVES

2.1 PROPONENT & PROJECT LOCATION

2.1.1 Proponent

Westpark is sponsored by the Bremerton Housing Authority (BHA), a Washington municipal corporation.

2.1.2 Project Location & General Site Conditions

The project site is located in the western portion of the City of Bremerton, in Kitsap County, Washington. The site encompasses an area of approximately 82 acres and is triangular in shape. The project site is generally bounded by Kitsap Way on the North, Oyster Bay Avenue on the east, Arsenal Way on the south, and SR 3 on the west. Oyster Bay lies approximately ¼ mile north of the site, across Kitsap Way. Bremerton's City Center is located approximately 3 miles to the east. An aerial photo of the site and surrounding area is shown in Figure 2-1.

The surrounding area is a mixture of residential neighborhoods (to the east), commercial and retail uses (along Kitsap Way), and light industrial uses (south of SR 3).

The site is currently developed with 631 housing units, primarily one-story duplex and four-plex in design, including a 60-unit apartment building for elderly and disabled persons, Other buildings and facilities include a community center (and ball fields), senior center, head start facility, two play areas, and some local services (laundry, storage facility, and maintenance shop). More than 90 percent of existing units are for low income families and individuals. A new 72-unit assisted-living facility (Bay Vista Commons) is currently under construction on Russell Road. The BHA's administrative offices are also located on Russell Road, which provides entry to the site from Oyster Bay Avenue.

A topographic ridge crosses the site in a north-south direction, resulting in an elevation difference of approximately 125 feet. Views of Oyster Bay and Ostrich Bay exist from several locations on the site. No wetlands, streams or critical habitat have been identified on the site. The site does contain stands of second growth trees.

An existing outfall discharges stormwater into the Bay. No other constructed stormwater facilities exist on-site.

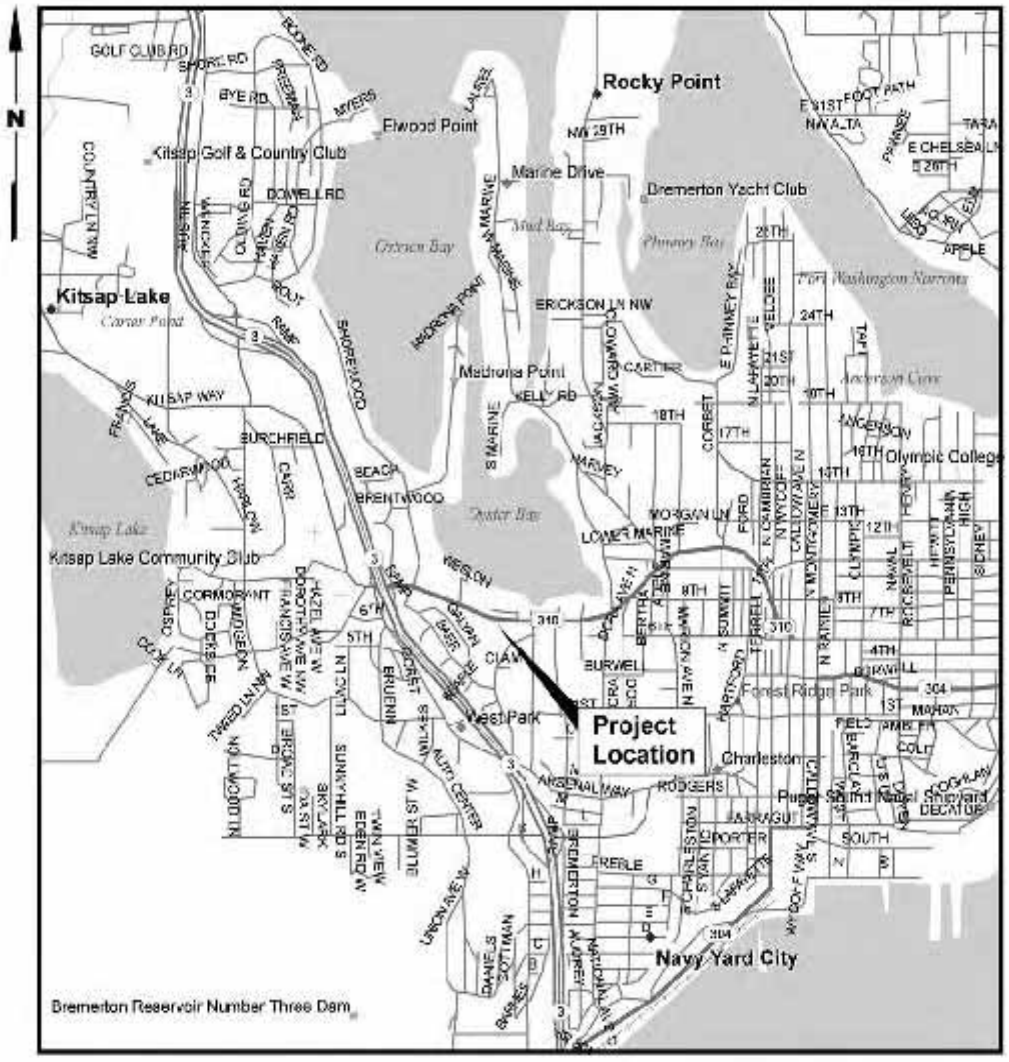


Figure 2-1 Site Vicinity

Westpark Master Plan Final EIS

2.2 PROJECT OVERVIEW

The *Proposed Master Plan* would involve redevelopment and revitalization of the existing Westpark public housing community. It would be redeveloped into a mixed-use, mixed-income, pedestrian oriented community. The Master Plan, shown in Figure 2-2 is still conceptual in nature and subject to change and refinement as a result of ongoing planning.

The *Proposed Master Plan* would result in redevelopment of all existing single family (duplex and four-plex) residential units on the site. A total of 759 units are proposed for the site. Housing would include approximately 110 market rate/rental apartment units, 150 multi-family condominium units, 97 detached single-family units, and 442 units of attached duplexes, townhouses, and cluster cottages in a variety of sizes and styles. Of the latter, approximately 100 units would be rental and the balance for sale. A total of 190 public housing units are proposed to be developed on site; these would be located in a variety of housing types throughout the site. Existing low income housing units not replaced on site (381 units) would be replaced off-site, in Bremerton and other locations in Kitsap County.

Proposed residential densities would range from a low of 8-12 dwelling units per acre for single family attached units, to a maximum of 65 dwelling units per acre for the apartment building. Gross residential density for the site would be approximately 9 dwelling units per acre, and net density approximately 20 dwelling units per acre.

In addition to housing, the *Proposed Master Plan* contains approximately 5 acres/50,000 square feet (gross leasable area) of retail activity located in a village center in the northwestern portion of the site. An additional approximate 10,000 square feet of neighborhood-scale retail and commercial uses would be located in mixed-use buildings in different areas of the site. An EIS alternative, described further below, generally considers the impacts of including a larger retail center (approximately 10-12 acres, up to 130,000 square feet).

The *Proposed Master Plan* includes approximately 28 acres of parks and open space, including a community park, neighborhood parks and urban open spaces plazas. The Proposed Master Plan has been designed to preserve as many of the existing trees as feasible and provide additional landscaping. Approximately 57,000 linear feet of pathways and trails would provide pedestrian connections between neighborhoods.

The *Proposed Master Plan* includes demolition and redevelopment of all existing buildings on site (except the community center), and replacement of all utilities (sewer, water, drainage, electricity/gas and telecommunications). All existing streets would be vacated and re-platted to create the system of streets.

Redevelopment would occur in four phases over an approximate three year period beginning in 2007. All existing buildings except the community center, and all existing infrastructure would be demolished or abandoned and replaced. Development would involve staged relocation of all tenants. Relocated tenants in good standing with BHA would be eligible to return to the new development when it is completed.

Figure 2-2 Westpark Site Plan

Westpark Master Plan Final EIS

2.3 BACKGROUND INFORMATION

2.3.1 Regulatory Overview

Existing Comprehensive Plan and Zoning Designations

A. Local Planning Framework

Overview

The Westpark site has been the subject of several City legislative actions over the past few years, and was also addressed specifically in the City's recent adoption of its updated Comprehensive Plan and zoning code in 2004. These actions have provided a framework for planning redevelopment of the site.

In September 2003, the City amended its Community Renewal Plan, pursuant to the state Community Renewal Law (RCW 35.81), to incorporate the Westpark site as a "blighted" area for purposes of community renewal efforts (Ordinance No. 4830 and 4870). The designation was supported by findings that the site was isolated from adjacent areas that building size and design were deficient, and that physical deterioration was a contributing factor to disinvestment in the area. These actions also reaffirmed the City's intent to cooperate and assist the Bremerton Housing Authority in the redevelopment of Westpark, (pursuant to RCW 35.83), and to provide a framework for redevelopment in the Comprehensive Plan and zoning regulations. This framework is described below.

Public Sector Redevelopment Site (PSRS)

The Comprehensive Plan Land Use Map designates Westpark as a Public Sector Redevelopment Site (PSRS). These are special, large-scale sites with high potential for development that is innovative or that meets a unique community need. They should be developed consistent with specific district planning efforts that address the site, compatibility with surrounding uses, and consistency with the Comp Plan. A PSRS must have a clearly defined community benefit, such as meeting a public housing need. They may include mixed type residential development with an open space component and secondary commercial or office development.

Oyster Bay Neighborhood Center

The Comprehensive Plan also designates a neighborhood center for the Oyster Bay Area adjacent to the Westpark site, on both sides of Kitsap Way. This 37-acre center is seen as redeveloping over time -- in conjunction with, but slower than Westpark -- into an urban, pedestrian-friendly area connected with the surrounding area by trails and open space, including access to the shoreline. The Center would include a core, with mixed-use (residential and commercial) buildings, and would receive support from Westpark's residents and workers. The Plan encourages planning of land uses in Westpark to complement redevelopment of Oyster Bay.

Westpark Sub-Area Plan & Development Regulations

The Comprehensive Plan anticipates that more detailed area-specific plans will be developed to implement Public Sector Redevelopment Sites, such as Westpark. Key aspects of these plans include: a process that involves the community, consistency with the Comprehensive Plan goals and policies, and inclusion of development standards and design guidelines. The Westpark Sub-Area Plan, developed to meet these requirements, was adopted by the Bremerton City Council on February 2, 2007.

In addition to providing a generalized land use map, the Sub-Area Plan contains detailed development regulations and design guidelines that will apply to the Westpark site. The existing zoning designation of the site is Master Development (MD). This zone provides a few basic planning requirements and delegates detailed regulations for MD-zoned sites to site-specific sub-area plans and development standards. The Proposed Master Plan has been developed to be consistent with the Westpark Sub-Area Plan and development standards.

2.3.2 Overview of Bremerton Housing Authority Functions and Programs, & Redevelopment Planning

Bremerton Housing Authority

The Bremerton Housing Authority (BHA) was created in 1940, in response to a need for decent, affordable housing caused by the influx of workers and military personnel associated with the Puget Sound naval Shipyard. The BHA is an independent municipal corporation, created pursuant to the State law to provide affordable housing and related services. The stated mission of the Bremerton Housing Authority is to:

- attempt to relieve the shortage of safe, decent and affordable housing available to low income persons;
- create opportunities for residents;
- increase their self sufficiency and independence; and
- ensure fiscal integrity in all the programs it administers.

BHA is managed by a Board of Commissioners and an Executive Director. Its annual budget is approximately $54 million. BHA contracts with U.S. Department of Housing and Urban Development (HUD) to provide low rent public housing and Section 8 assistance.

As of 2004, the BHA managed or provided housing vouchers for approximately 3,000 units of housing (including units in unincorporated Kitsap, Jefferson and Mason Counties). BHA also administers contracts, on behalf on HUD, for more than 18,000 housing units.

Westpark Community

The existing Westpark public housing community was built in 1941 and is the remnant of a larger World War II-era housing project that was built as temporary housing for shipyard workers. The site currently contains 631 residential units: 571 public housing units, located in one-story duplex and four-plex structures, and the Firs, a 60-unit apartment building for elderly and disabled residents. All units are rental housing. A 72-unit assisted living facility (Bay Vista Commons, formerly the Firs II) is currently under construction.

Existing units are located in one-story structures that each contains one to two residential dwelling units. Ninety percent or more of existing units are for low income families and individuals.

The Westpark site also contains several buildings that contain non-residential uses (approximately 58,960 square feet total). These include the community center, BHA's administrative offices, a senior center, two Head Start buildings, a Teen Center a maintenance building, storage building and four laundry facilities. The community center (18,000 square feet) accommodates a broad range of community activities and services for youth and adults, some of which are funded by HUD. Representative programs include:

- Family Self-Sufficiency program;
- The Keys to a Better Life Program;
- drug prevention and crime prevention;
- computer lab;
- numerous youth programs (e.g., Red Cross safety, Girl Scouts, National Youth Congress, arts/crafts, sports, music lessons, field trips,)
- tax assistance;
- counseling services;
- pea patch;
- self-employment training; and
- neighborhood block watch.

The Community Center could undergo some remodeling as part of the redevelopment. The BHA is continuing to discuss a range of potential redevelopment options for this facility. Ball fields are located contiguous to the community center.

Westpark's buildings and infrastructure are in need of rehabilitation, and the site has been designated as blighted. Existing buildings and systems have reached the end of their normal life-cycles and redevelopment is more cost-effective and desirable than rehabilitation.

Project Planning and Community Involvement

Development of the Proposed Master Plan involved more than 60 meetings and workshops involving residents of Westpark and surrounding neighborhoods, community stakeholders, representatives of the City of Bremerton, and the Planning Commission and City Council. Key meetings that occurred in the course of developing the Master Plan and the EIS included:

- Nine public community meetings;
- A week-long design charrette;
- Two stakeholder's meetings;
- Six resident Council meetings
- 10 resident presentations
- Joint SEPA/NEPA scoping and comment meetings;
- Bremerton Planning Commission (2 workshops and 1 public hearing on the Westpark Sub-Area Plan); and
- Bremerton City Council (a workshop and public hearing on the Westpark Sub-Area Plan.

Please refer to the Westpark Sub-Area Plan and the community involvement summary submitted to the City of Bremerton for additional information about community meetings.

2.3.3 Environmental Analysis and Review: SEPA and NEPA

This document has been prepared to comply with the requirements of both the State Environmental Policy Act (SEPA) and the National Environmental Policy Act (NEPA). SEPA compliance has also considered the State regulations that implement SEPA and BHA's regulations that implement the policies and procedures of SEPA. This Draft EIS has also been prepared consistent with HUD's adopted NEPA policies and procedures, and is being coordinated with requirements and procedures of the National Historic Preservation Act (NHPA, Section 106) and the Endangered Species Act (ESA).

Preparation of this EIS is the responsibility of the BHA, as SEPA lead agency, and the City of Bremerton Department of Community Development, as the designated Responsible Entity for NEPA compliance. Both BHA and the City have directed the areas of research and analysis that were undertaken in preparing the EIS, and each has determined that this document has been prepared in a responsible manner using appropriate methodology. The environmental elements that are analyzed in the EIS were determined as a result of a formal, public EIS scoping process that occurred from June 6, 2006 through June 27, 2006.

SEPA and NEPA procedures have also been coordinated. Scoping notices were published pursuant to SEPA and NEPA requirements. A public EIS scoping meeting, consistent with the procedures of SEPA and NEPA, was held at the Westpark Community Center on June 22, 2006. Comments received were considered by the BHA and City of Bremerton in determining the issues and alternatives to be analyzed in this Draft EIS. In addition to the Proposed Master Plan, two alternatives are considered – a design alternative and No Action.

The Draft EIS was circulated to agencies, organizations and individuals for a 45-day public comment period. Notice of availability was provided pursuant to SEPA and NEPA requirements. A public meeting was held provide an opportunity for public comment and to obtain information about the proposal and the EIS. Two comment letters were received from agencies. The Final EIS responds to those comments and provides updated information about ongoing planning, design, and environmental studies. The EIS (Draft and Final) will accompany the Westpark proposal through the development review and permitting process.

A course of phased/tiered review is being used to evaluate the environmental impacts of the Westpark Master Plan. Redevelopment of the site was initially evaluated in the Supplemental EIS (SEIS) prepared for the City of Bremerton's Comprehensive Plan (2004). An addendum to that SEIS was also prepared (2006) in connection with the City's review and adoption of the Westpark Sub-Area Plan. The Sub-Area Plan establishes land uses for the site and includes zoning standards that will regulate future development. Additional environmental review, as appropriate, will occur for project-specific applications.

The BHA and City are also using SEPA's provisions for early environmental review (WAC 197-11-406). This encourages preparation of an EIS as early as possible in the planning process, prior to submittal of a development application, so the EIS can practically be used as an important contribution to project design and agency decision making.

2.4 PROJECT PURPOSE & NEED/GOALS & OBJECTIVES

Westpark was built in the early 1940's to provide temporary homes for defense workers and their families during World War II. The community has endured for more than 60 years, through the careful stewardship of BHA. In 2003, however, the site was designated as a "blighted" area for purposes of community renewal efforts pursuant to the state Community Renewal Law (RCW 35.81). The existing site is considered to be isolated from adjacent areas, characterized by deficient building size and design, physically deteriorated, which is contributing to disinvestment in the area. Rehabilitation is not an economically viable option, given the age and condition of facilities. This situation provides the framework for the present master planning and proposed redevelopment.

Initial conceptual master planning for Westpark began in 2002, and included community involvement, site analysis, and conceptual land use planning. The resulting *Strategic Master Plan* (2003) provided broad goals for redevelopment and subsequent master planning of the site, including the following:

- Produce a positive impact on the surrounding community, and on long term economic and housing development in Bremerton;
- Maximize the value of the property;
- Achieve no net loss of public housing units;
- Improve the quality of public housing, and blend it with surrounding housing;
- Deconcentrate public housing and create mixed-income neighborhoods;
- Meet outdoor recreational needs;
- Improve community services; and
- Address local urban growth goals.

The *Proposed Master Plan* incorporates these broad goals along with more specific design objectives into a vision of a new urban mixed-use, mixed-income, pedestrian-oriented community. The new Westpark will be characterized by a variety of types and styles of housing to meet the needs of a wide range of income groups. Providing both for-sale and rental housing will broaden housing opportunities for the community as a whole. Accommodating a variety of income groups will also help to de-concentrate low income housing in Bremerton. Retail and commercial uses will provide for some of the everyday shopping needs of residents, as well as provide some job opportunities for residents. The quantity and type of on-site commercial uses are intended to complement future development of the Oyster Bay Neighborhood Center.

The site will maintain significant open space and existing trees, preserve and enhance views, and carefully manage stormwater and other natural features. New parks, civic spaces and outdoor amenities will be created. Proposed development standards and design guidelines, and covenants, conditions and restrictions (CC&Rs), will establish high standards for the quality of redevelopment, yet provide flexibility to respond to market changes and opportunities. The plan will provide high quality infrastructure and services to residents. The Westpark site will relate to the surrounding neighborhood in terms of activities and scale, and provide a catalyst and model for future redevelopment.

2.6 DESCRIPTION OF THE WESTPARK PROPOSAL

2.6.1 Overview

The *Proposed Master Plan* would redevelop the site with a mix of urban density uses, integrated with new utilities and infrastructure, and a system of parks and open spaces. The community would provide a mix of housing types to meet the needs of a variety of income groups, including units for low income residents.

Land uses would be more diverse than what currently exists. Residential uses would predominate, and would occur in a variety of types, forms and sizes. Commercial and retail uses to meet residents' everyday needs would also be included. These would be located both in a small commercial village, and on the ground floor of mixed-use buildings in various portions of the site.

The *Proposed Master Plan*, depicted in Figure 2-2, indicates the approximate location of all proposed improvements and facilities. The Master Plan is still conceptual in nature and is subject to change or refinement as a result of ongoing planning. As with master plans for large, phased projects in general, locations of uses or buildings are not intended to be exact or absolute. Building footprints, for example, could be refined as a result of environmental review, more detailed planning, and the land use approval process. Similarly, the *Proposed Master Plan* indicates the relative size and type of residential buildings. Subject to environmental parameters identified in the EIS, and to the Westpark Sub-Area Plan's zoning and regulatory requirements, the *Proposed Master Plan* is intended to provide flexibility in regard to the types of units and/or the size of buildings that may be developed in response to market and economic conditions. This flexibility would be bounded by the following assumptions and elements of the proposal: a maximum numbers of housing units (759); the amount of non-residential space (60,000 square feet); the density ranges (minimum and maximum number of dwelling units) within identified blocks that comprise the project site (required by the Westpark Sub-Area Plan); and by any conditions imposed as a result of land use permitting.

The balance of this section of the Final EIS provides descriptive information concerning major elements of the Proposed Master Plan: Housing; Parks, Recreational Facilities, Open Space and Community Facilities; Circulation, Access and Parking; Stormwater and Utilities; Clearing and Grading; and Project Phasing and Demolition.

Table 2-1.
Westpark Land Uses

Land Use	Acres	Units/Square Feet
Residential:		759 du's
- Single family [1]	31.5	499 du's
- Multi-family [2]	5.6	260 du's
Retail/Commercial:		60,000 sf
- Village Center	5.0 [3]	approx. 50,000 sf
- Mixed-Use Buildings		approx. 10,000 sf
Community/Civic	1.04	44,749 sf [4]
Open Space & Parks	28.0	Community & neighborhood parks and open spaces
Trails		57,000 linear feet
Streets/Infrastructure	14.05	611,977

Notes:
1. Single family includes attached townhouses, duplexes and cottages, and detached units.
2. Multi-family includes apartments and condo units. Some multi-family units will be included in mixed-use buildings (e.g., with retail or commercial uses).
3. A 10-12 acre retail option is evaluated in the *Design Alternative* included in the Draft EIS.
4. Reflects the site area of community center.

2.6.2 Housing

Overview

The *Proposed Master Plan* provides 759 rental and for-sale housing units; 759 is considered the maximum for EIS analysis. All existing low income dwelling units would be replaced, either on-site or off-site. (Further discussion concerning replacement housing is contained in Section 4.9 of the Draft EIS.) Table 2-1 provides an overview of the proposed housing development program and the types of units within each category.

Dispersing public housing would accomplish a number of goals, including the revitalization of dilapidated housing and distressed communities, creation of diverse neighborhoods, and the promotion of housing choice.

Housing Relocation Plan

Implementation of the *Proposed Master Plan* would require the demolition of all existing housing units and necessitate the relocation of all residents during construction. All residents would receive relocation benefits as prescribed by the federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (URA).

The BHA, with the involvement of residents, is developing a detailed Relocation Plan that describes relocation benefits and choices. More information about relocation is also provided in Section 4.9.2.2 of the Draft EIS.

Table 2-2.
Proposed Housing Program

Unit Type Distribution by Phase *	# Units per Phase				# Units
	II	III	IV	V	Total
Market Rate Apartments	0	110	0	0	110
Urban/Loft Condominium	0	65	0	0	65
Condominium	0	85	0	0	85
16' Townhouse	24	27	20	9	80
22' Townhouse and/or Row Home, Alley Load	30	21	26	17	94
24' Townhouse - 2 and 3 Story	2	28	12	18	60
Duplexes (Rental)	14	50	18	18	100
Duplexes (Market Rate)	2	8	6	14	30
Cluster Cottages	10	18	10	0	38
Single Family - 3,500 sq ft Lot	17	30	12	0	59
Single Family - 4,500 sq ft Lot	7	27	4	0	38
Total Units	106	469	108	76	759
Lots per Phase	106	209	108	76	499
Public Housing Units	38	87	38	27	190
% Public Housing Units per Phase	35.8%	18.6%	35.2%	35.5%	25.0%
PHU's as % of Total PHU per Phase	20.0%	45.8%	20.0%	14.2%	100.0%

* Units are approximate, based on the proposed program of 759 total units, and assuming 25% Public Housing Units

2.6.3 Parks, Recreational Facilities, Open Space & Trails, and Landscaping

Parks & Open Space

Parks and open space are depicted in Figure 2-3. The *Proposed Master Plan* would provide approximately 28 acres of parks and open space providing opportunities for active recreation (12 acres) and passive enjoyment (4.5 acres), and including significant preserved trees (approximately 11.5 acres). Proposed facilities include a 12-acre community park, two neighborhood parks, urban open spaces, and natural areas. Parks and open spaces would be linked by the internal trail network and street system.

Proposed parks – both the new Summit Park and the remodeled Community Center -- would provide facilities for organized sports (e.g., baseball, softball, soccer, football, etc.). The *Summit Park* is an approximate 12-acre, multi-faceted green space at the center of the site. It will function as a recreation space, view corridor and central community space. The center of the park will be a grass recreation area with picnicking facilities. A plaza area will also be created, with benches and a water or art feature. The park will provide views over Oyster Bay and Dyes Inlet.

Trails

As shown by Figure 2-3, an approximate 11-mile long (57,000 linear feet) interconnected system of pedestrian sidewalks, paths and trails is proposed. This system would connect neighborhoods, open spaces and commercial facilities, with a planned connection to the Oyster Bay Neighborhood Center. Trails and sidewalks would generally be 5 ft. wide, paved, with trees and benches located conveniently.

Landscaping

The general approach to landscaping in Westpark is reflected in Figure 2-4. Landscaping will be focused along streets, to enhance the pedestrian environment, along the site's boundaries with arterials, to provide screening, and adjacent to the commercial area, to provide land use transitions. In some areas, such as the retail village and the neighborhood square, hard-scape and green features will be mixed.

A tree survey will be conducted in conjunction with a subsequent subdivision application; detailed information is not available at this time. Existing significant trees would be retained where possible. The majority of retained trees will be located in Westpark's parks and open spaces.

Figure 2-3 Parks & Open Space Plan

Westpark Master Plan Final EIS

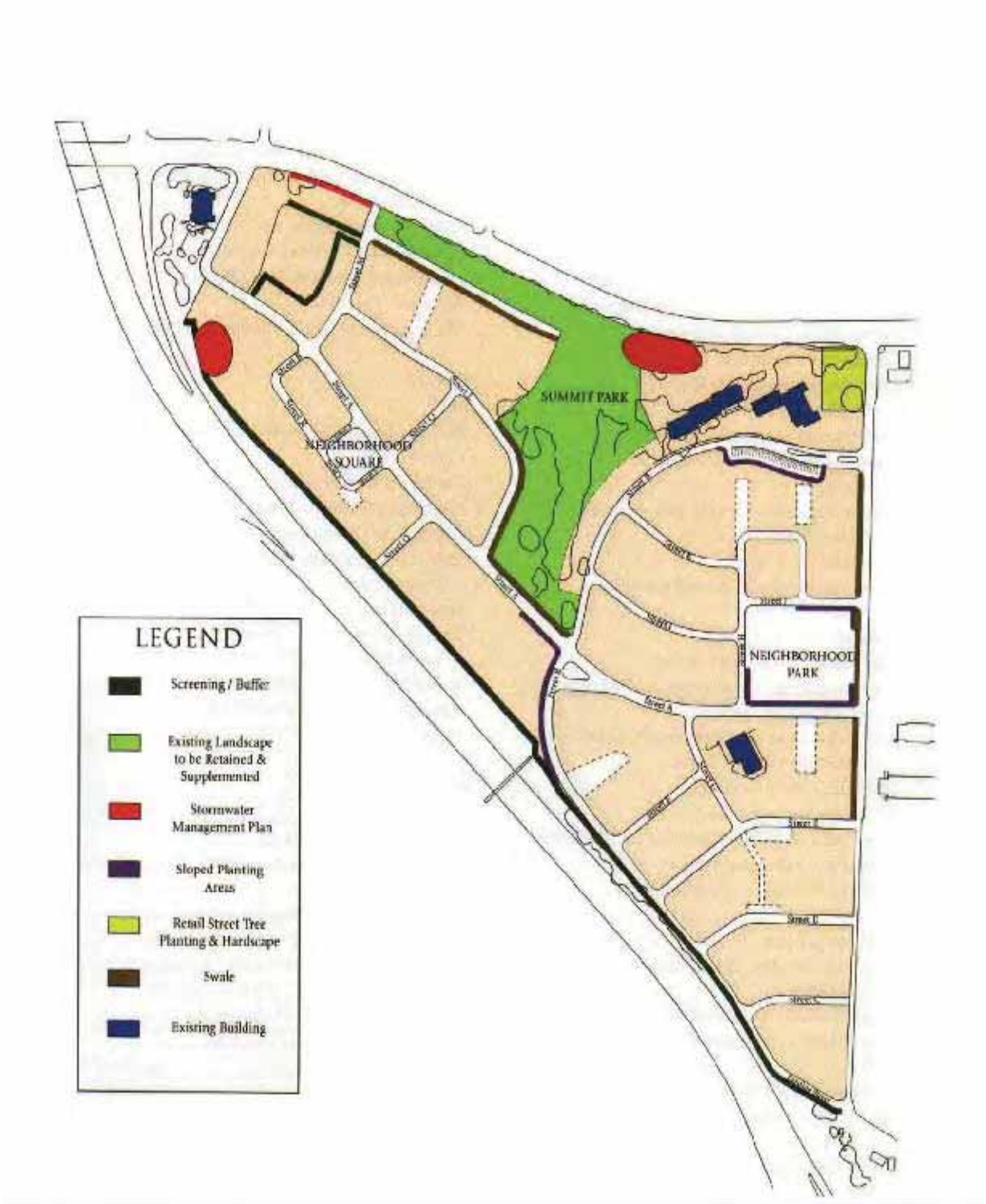


Figure 2-4 Landscape Plan

Westpark Master Plan Final EIS

2.6.4 Village Center

The *Proposed Master Plan* provides approximately 50,000 sq.ft. of commercial service and neighborhood retail space in a 5-acre Village Center, plus an additional potential 10,000 square feet of commercial uses located in mixed-use buildings. Uses would be consistent with the Westpark Sub-Area Plan's development regulations, and would be focused on providing convenient everyday services to residents of Westpark and adjacent neighborhoods. In general, commercial and retail services would be planned and designed to preserve the pedestrian-orientation of Westpark, and to maintain a high quality of design.

An alternative site plan containing a greater amount of commercial/retail uses is considered in the *Design Alternative*.

2.6.5 Community Facilities

The Proposed Master Plan assumes that the Community Center would be remodeled and would continue to provide a variety of programs for all age groups in Westpark and the surrounding community. Program ideas are still being developed, but will likely include a combination of health and fitness, education and career development, culture and arts, life skills, and social/recreational programs. The BHA Board is continuing to discuss a range of potential redevelopment options for the community center. The Master Plan would be revised, if appropriate, to reflect any change in proposed use of this facility.

2.6.6 Circulation, Access and Parking

Major streets that would provide access to Westpark include Kitsap Way, Oyster Bay Road, and Arsenal Way. An important design focus of the Proposed Master Plan is inclusion of principles of new urbanism, including pedestrian orientation and transit support. It would contain a mix of uses and level of density that locates housing in proximity to neighborhood shopping/services and transit facilities to encourage pedestrian activity and decrease individual auto use. Consistent with these principles, neighborhood streets are organized in a grid pattern, which would promote a more pedestrian-oriented streetscape and improve circulation.

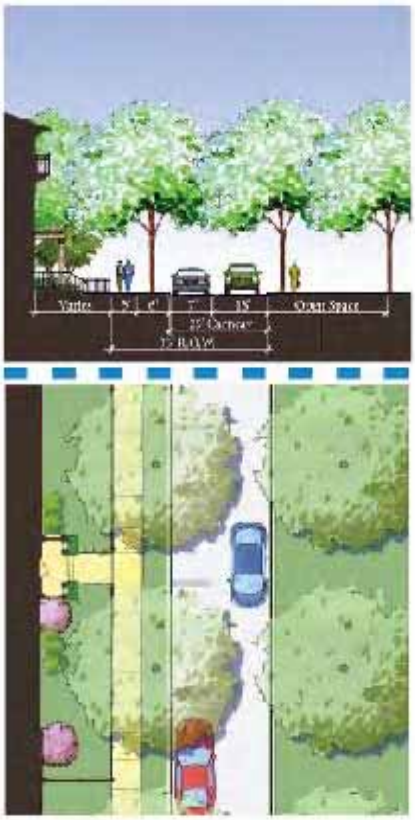
The *Proposed Master Plan* includes approximately 14 acres of streets. All existing streets will be vacated and re-platted. Figures 2-5 and 2-6 depict major street types associated with the *Proposed Master Plan.* (Note that the locations of streets are shown by letter designations on Figure 3.8-3).

> Neighborhood Streets, which are one-lane or two-lane roads (varying among neighborhoods) with on-street parking. Sidewalks of varying width are provided on both sides of the street. These streets are lined with trees and include landscaping between the street and the sidewalk.
>
> Baer Boulevard, which will provide access to the regional transportation system, is designed as a wider, tree-lined street with two traffic lanes, on-street parking and sidewalks on both sides.

STREET A - BAER BOULEVARD

- Curb Return Radius:
  25 feet at street intersections
- Heights of buildings along Baer Boulevard to vary.
- Curbs shall be vertical (not mountable).
- 2-way, park two sides

STREET B, N



- Curb Return Radius:
  25 feet at street intersections.
- Curb shall be vertical (not mountable) on building side of street.
- No curb on park side. 18" flat concrete edge or slotted roll curb
- 2-way, park one side.

Figure 2-5 Street Types

Westpark Master Plan Final EIS

STREET F, K, Q

- Curb Return Radius:
  25 feet at street intersections.
- Queing (2-way), park two sides.

GREEN STREET 1 & 2

- Minimum 20' from building face to building face.
- Pedestrian only.

Figure 2-6 Street Types
Westpark Master Plan Final EIS

Alleys, will provide access to garages for parking and for deliveries and services for Single Family Attached, Single Family Detached, and other unit types as indicated on the Thoroughfare Plan.

"Green streets" are pedestrian paths which are separated from vehicle traffic and provide connections between Westpark neighborhoods, parks and open spaces, retail activities and services. These paths will also connect to the off-site regional trail system.

Depending on the type of street, travel lanes would vary between 11 feet and 18 feet in width, and parking would be provided on one or both sides of most streets. Narrower roads are intended to slow traffic and promote pedestrian circulation. All streets would contain 5-foot wide sidewalks and would be landscaped with trees,

The *Proposed Master Plan* would provide between approximately 1,015 (minimum) and 1,824 off-street parking spaces. An additional 1,100 spaces would be provided on-street. A parking garage could be constructed adjacent to the apartment building (See Figure 2-2).

2.6.7 Stormwater and Utilities

The *Proposed Master Plan* involves replacement of all existing utilities on-site, including water, sanitary sewer, storm drainage, electrical/telephone/cable, and natural gas. The availability of all utility services has been verified by applicable service providers. Electrical and telecommunication cables may be placed underground. Sanitary sewer and water lines would tie into existing systems along Oyster Bay Avenue and Kitsap Way.

A conceptual utility plan is shown in Figure 2-7. Detailed engineering and design for sewer, water and stormwater systems would occur in conjunction future development permit applications. As part of this process, and consistent with the Westpark Sub-Area Plan (Ordinance No. 4998), BHA will also consider incorporating additional low impact development (LID) techniques, such as bioswales, rain gardens, and/or use of pervious surfaces. However, due to soil conditions, topography and other factors, additional LID techniques may be difficult to implement and are not expected to substantially reduce stormwater volumes.

Stormwater Management & Utilities

The *Proposed Master Plan* involves replacement of all existing utilities on-site, including water, sanitary sewer, storm drainage, electrical/telephone/cable, and natural gas. The availability of all utility services has been verified by applicable service providers. Electrical and telecommunication cables may be placed underground. Sanitary sewer and water lines would tie into existing systems along Oyster Bay Avenue and Kitsap Way.

On-Site Stormwater Facilities

An integrated storm drainage plan would provide collection, conveyance and water quality treatment. A conceptual drainage plan is depicted in Figure 2.7 and the system is summarized in Table 2.2 below. The plan is still conceptual in nature; final size, type and location of stormwater management measures will be refined as Westpark progresses through environmental review and design. Basin areas and facility types, sizes and locations could also change as a result of ongoing design. Consistent with the Westpark Sub-Area Plan, future engineering will also consider additional opportunities for implementing Low Impact

Development (LID), where feasible in view of site-related constraints. Additional details of the proposed stormwater management system are provided in the Draft EIS (Appendix A).

The system's conceptual design is based on the amount of impervious coverage (e.g., from roofs, parking areas, streets and walkways) and pervious coverage (landscaping, lawns, vegetated medians and undisturbed forested areas) within each basin. The amounts of coverage were estimated based on schematic lot plans. The storm conveyance system would be located within streets and alleys to provide drainage of the streets, alleys, and sidewalks, allow for storm drain connections from adjacent developments, and convey stormwater from upper portions of the basin to stormwater management facilities. The stormwater conveyance system would be designed based on requirements in Chapter 4 of the City of Bremerton Public Works (City) *Design and Construction Standards*, and King County's *Surface Water Design Manual,* as referenced by City standards.

The primary elements of the proposed system are water quality treatment, flow control (e.g. detention facilities), and replacement of the existing outfall in Oyster Bay. Basic water quality treatment best management practices (BMPs) will be used to treat stormwater for pollutants prior to discharging into downstream receiving waterbodies. Basic water quality treatment BMPs include construction of biofiltration swales, open wet ponds, and underground vaults.

Flow control is based on matching 50% of the 2-year through the 50-year design event for forested conditions. Flow control includes an open pond with a flow control structure to control the flow rate that is released to downstream drainage systems. Typically, flow control is applied to basins that discharge to streams. Flow control is proposed for the Ostrich Bay Creek (OBC) basin because its discharge ultimately enters Ostrich Bay Creek.

As shown in Table 2-3, runoff from approximately 2.9 acres of the existing SE basin would be routed to Basin 3 for discharge to Oyster Bay, along with the runoff from most of the rest of the site. With this diversion, the impervious surface area remaining in basin SE and runoff rates after development would closely match existing conditions. This would avoid the need for detention, would avoid impacting the existing WSDOT drainage system along SR 3.

Stormwater Outfall

Replacement of the existing outfall in Oyster Bay, located at the projection of Oyster Bay Avenue north of Kitsap Way, is proposed as a joint City/BHA project. It is intended both to address current limitations in the outfall's capacity and to accommodate the projected increase in stormwater flow rates from Westpark. Replacement would also eliminate the need for on-site flow control for the project-area basins discharging into Oyster Bay. The proposed design is depicted conceptually in Figure 2-8. The existing outfall pipe will likely be removed landward of the Mean Lower Low Water (MLLW) elevation, and abandoned in place below MLLW. A baffled outlet structure would be constructed on the shoreline; the furthermost part of the new structure, including riprap armoring, would be located approximately 12.5 feet waterward of mean high water (MHW) at elevation 8.34 feet. The baffled outlet structure, in combination with riprap placed downslope of it, would reduce stormwater velocities associated with discharge from the site and surrounding area. The structure would be concrete and approximately 13 feet wide, 19 feet long and 11 feet tall. With an inlet pipe discharging across/through a series of baffles. Water would flow out of the structure and onto adjacent/downstream riprap, which would help to reduce downstream erosion potential. The existing storm drain pipe under Kitsap Way is currently being modified.

Figure 2-7 Conceptual Utility Plan
Westpark Master Plan Final EIS

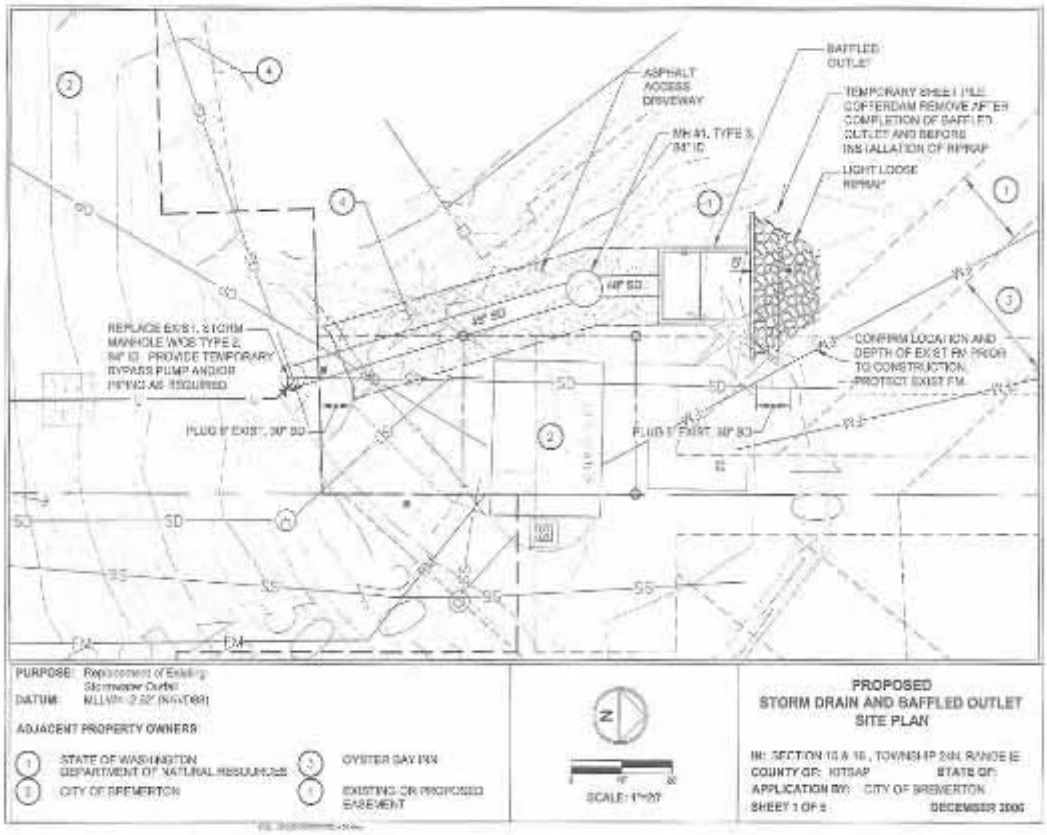


Figure 2-8 Outfall Design Concept

Westpark Master Plan Final EIS

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A drainage alternative that did not require replacement of the existing outfall was also reviewed. This alternative would require construction of additional on-site detention facilities, which would encumber additional land either at grade or below grade, require changes to the types and mix of housing units, and result in substantial additional cost. This alternative would not accomplish the proponent's objectives for redevelopment and was not considered further.

Permits for constructing the outfall replacement will be obtained through the Joint Aquatics Resource Permit Application (JARPA). Replacement of the outfall will be a joint/cooperative project undertaken by the City and BHA to address pre-existing, area-wide stormwater issues, as well those related to redevelopment of Westpark. As noted above, the proposed design is conceptual in nature, and maybe modified as a result of ongoing discussions between BHA, the City, agencies and other stakeholders. As of this writing, revisions to the design concept to further reduce impacts are being discussed with the Department of Fisheries & Wildlife.

A number of conceptual options for providing public access to the shoreline are being considered in conjunction with replacement of the outfall. This Bremerton Shoreline Master Program identifies this general location as desirable for shoreline access. Options identified to date for purposes of discussion include the following:

- Construction of a wooden stairway from Kitsap Way to provide access to the waterfront; grading and landscaping of the shoreline area; and installation of seating, picnic tables and interpretive signs.

- Construction of a wooden stairway from Kitsap Way to provide access to the waterfront; construction of an over-water pedestrian pier, with a gazebo or shelter and benches at the end of the pier.

- Landscaping of the shoreline and creation of enhanced visual access, but no physical access to the shoreline.

Various elements of these concepts could be recombined into a different option. Since access improvements are envisioned as part of a joint City/BHA project, the parties will work together to reach agreement on a preferred approach.

Table 2-3.
Conceptual Stormwater Management System

Basin	Basin Area (acres)	Water Quality Treatment Volume (acre-feet)	Water Quality Treatment Facility and Location	Flow Control
Basin OBC (Ostrich Bay Creek)	4.62	0.88	Wet pond southwesterly of Baer Blvd.	Detention pond included with wet pond; approx. 4.106 acres of live storage
Basin 2	36.98	6.25	Wet pond northwest of Russell Road Wet pond southwest of Baer Blvd.	Replace Oyster Bay outfall
Basin 3	37.31	6.38, including rerouted portion of Basin SE	Biofiltration swale northerly of Baer Blvd. Biofiltration swale southerly of New Street 7 Three underground vaults southerly of Russell Road	Replace Oyster Bay outfall
Basin SE (Southeast project area) - Rerouted to Basin 3	2.93	Included in Basin 3	Included in Basin 3	Replace Oyster Bay outfall
Basin SE - Area remaining for discharge to Sinclair Inlet through existing WSDOT drainage system	3.97	0.72	Vault southwest of Russell Road / Arsenal Road	Not applicable due to maintaining similar runoff flow rates

2.6.8 Clearing, Grading and Impervious Surface Coverage

Approximately 90 percent of the site would be cleared, including demolition of existing buildings. Impervious surfaces would comprise approximately 74 percent of the overall site (61 acres).

The intent of the proposed grading plan is to minimize mass earthwork, retain significant trees and protect steep slopes. Estimated grading quantities are 294,000 cubic yards of cut, and 306,000 cubic yards of fill. Imported fill material would comprise 12,000 cubic yards.

2.6.9 Tenant Relocation, Demolition, and Construction

Tenant relocation, demolition and construction would occur in a phased and coordinated manner, generally as shown in Figure 2-9. Four phases (II-V) are planned, each lasting approximately 9 months and beginning in 2007. Construction would be completed in 2010. [Note that Bay Vista Commons (formerly the Firs II) assisted living facility, an independent

project that was previously approved and is currently under construction, is considered as Phase I].

Phase II would begin in the southern corner of the site and includes elements of the major park and open space system, and approximately 106 single family and multi-family units. Phase III, the largest, would consist of approximately 469 units including most of the site's multi-family units. Phases IV and V would consist of 108 and 76 units respectively.

Relocation of existing residents will occur just prior to and in phase with demolition. All residents will receive a Housing Choice Voucher that would allow them to move to areas within or outside Kitsap County. Any resident in good standing wanting to return to Westpark would be offered the opportunity to return. The BHA is currently conducting a survey that will indicate how many existing residents wish to return after redevelopment. If there are more residents wishing to return than available units, a lottery would be held to select future residents.

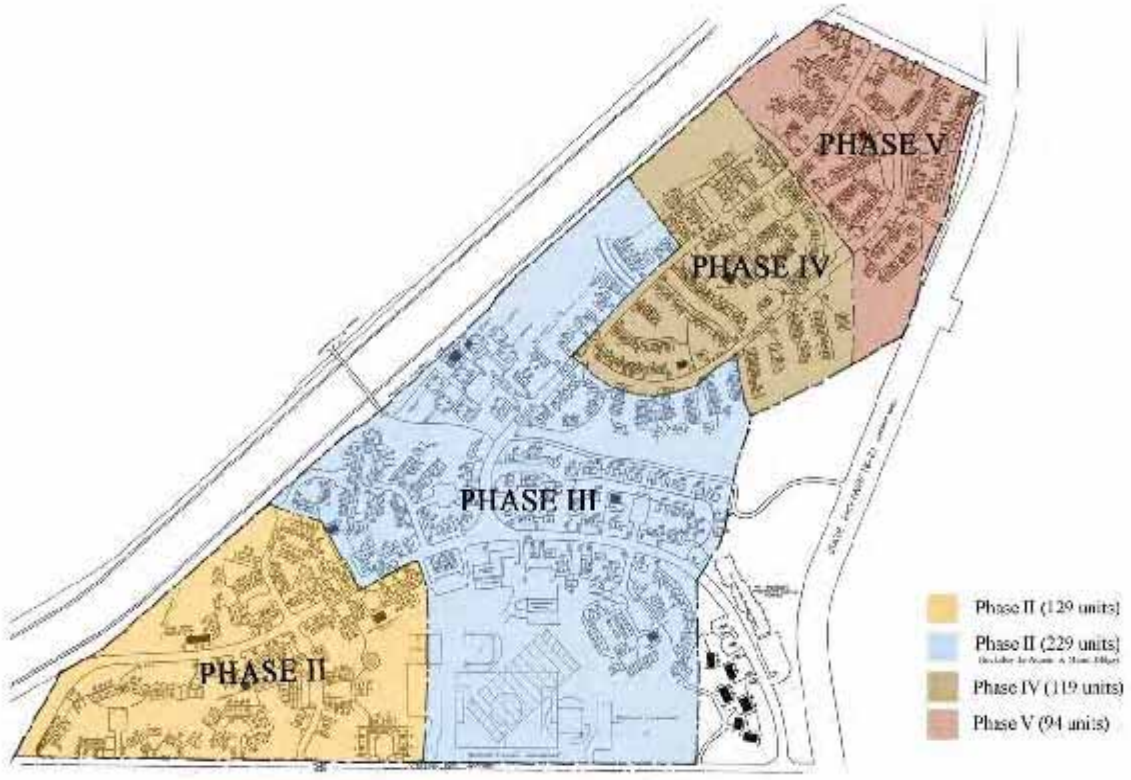

Figure 2-9 Phasing Plan
Westpark Master Plan Final EIS

2.7 ALTERNATIVES

2.7.1 Design Alternative Master Plan

The *Design Alternative Master Plan* is similar in layout to the *Proposed Master Plan* but provides increased area for retail development and the same number of housing units, in a somewhat different mix and density. It also takes a modified approach to stormwater management. A conceptual site plan is shown in Figure 2.10. Major features of the alternative are described below.

Housing

The *Design Alternative Master Plan* would provide 759 housing units, which is the same number of units for the Proposed Master Plan. The same number of replacement public housing would be provided on-site (190); all existing public units would be replaced on-site or off-site.

The overall mix of units and density of housing would be somewhat different. Proposed units are shown by type on Figure 2.10. In general, there would be fewer townhouse units (-4), fewer duplexes (-30) and fewer single family units (-23) compared to the Proposed Master Plan, and more higher density multi-family housing located in the apartment and condominium buildings (+55). The apartment and condominium building would each be increased in height, up to approximately 65 feet, to accommodate additional units and structured parking. This would exceed the applicable height limit in the Westpark Sub-Area Plan and would require a variance or a revision to the plan. These two buildings would contain almost 42 percent of Westpark's total housing units. While gross density of the site would remain the same (approximately 9.25 dwelling units per acre), net density would increase to slightly more than 25 dwelling units per acre (compared to 20.5 dwelling units per acre for the Proposed Master Plan).

Parks and Open Space

The amount and location of parks and open space (28 acres) and trails (57,000 linear feet) would be the same as for the *Proposed Master Plan*. See Figures 2-3 and Table 2-1.

Village Center

The Village Center, located in the northwestern portion of the site, would be expanded to 12 acres and 120,000 square feet; an additional 10,000 square feet of commercial uses are assumed to occur in mixed-use areas of the site. The center would offer a broader variety of commercial goods and services that would be marketed to the broader community rather than focused on the Westpark site. The larger site could also attract larger-footprint retail users. The Westpark Sub-Area Plan establishes size limits for most individual commercial uses and provides criteria for exceeding the applicable maximums.

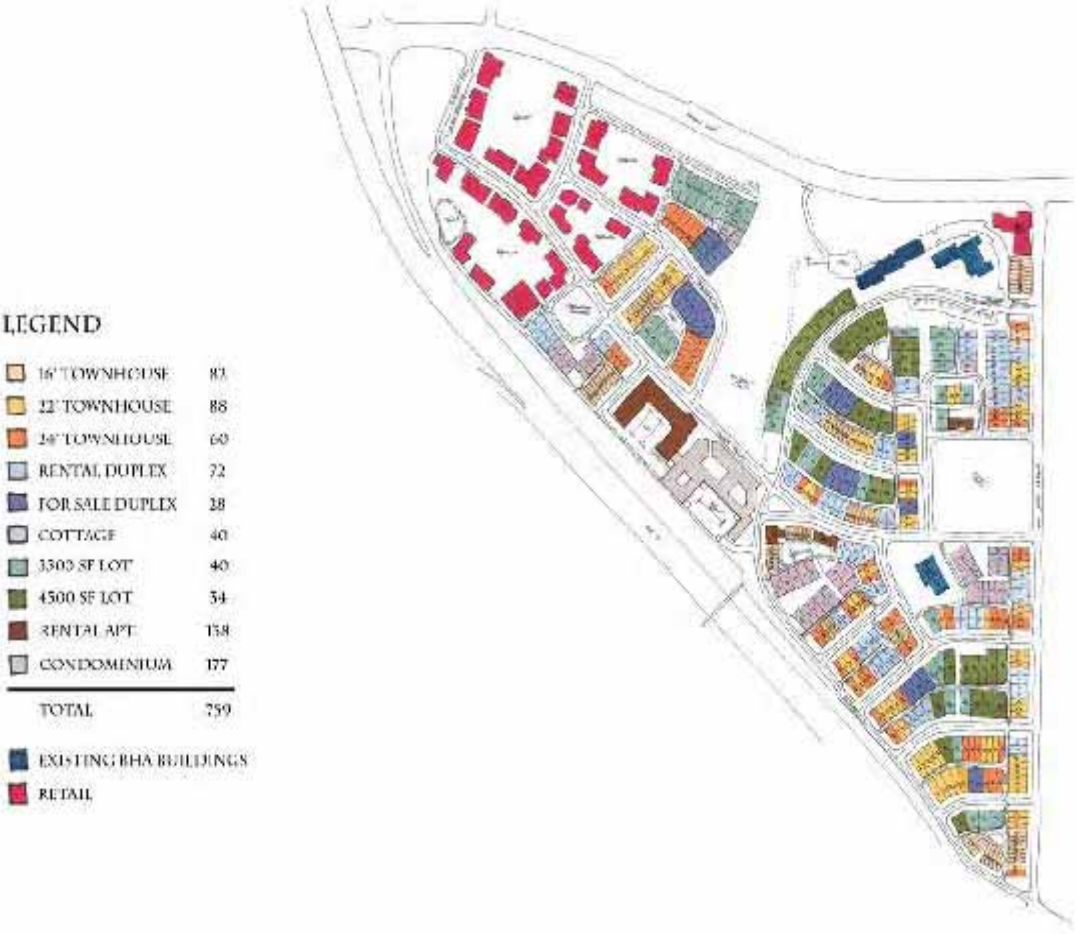

Figure 2-10 Design Alternative Master Plan

Westpark Master Plan Final EIS

Community Facilities

As with the *Proposed Master Plan*, the Community Center would be remodeled and would continue to provide a variety of programs for all age groups in Westpark and the surrounding community. Programs would likely include a combination of health and fitness, education and career development, culture and arts, life skills, and social/recreational programs. As noted for the Proposed Master Plan, the BHA is continuing to discuss a range of potential redevelopment options for this facility.

Circulation, Access and Parking

Access to the site and the on-site road system would generally be the same as for the Proposed Master Plan. A few neighborhood streets shown on the Proposed Master Plan in the expanded retail area would be eliminated. All existing streets would be vacated and re-platted to create a grid system.

Due to the increased size and greater parking demand associated with the larger Village Center, the commercial portion of the site would be less compact and less pedestrian-oriented. Compared to the *Proposed Master Plan*, an additional 200-300 parking spaces would be provided in surface parking areas adjacent to the Village Center (400-500 spaces total. Approximately the same number of parking spaces would be provided for residential units, but more would be located within or adjacent to high density residential buildings rather than in surface parking areas.

Stormwater & Utilities

An infiltration system would be constructed to return treated storm water to the ground water system for the additional approximate 7 acres of commercial/retail area included in the *Design Alternative*. The stormwater attributable to the increased commercial area, therefore, would not be routed to the Oyster Bay stormwater outfall. This approach would incrementally reduce runoff and discharge and maintain the same or incrementally improve water quality. Given the conceptual nature of the Design Alternative at this time, these changes have not been quantified. All other features of the stormwater system would be the same as for the *Proposed Master Plan*, including upgrading the stormwater Outfall in Oyster Bay.

Low impact development techniques were also evaluated for the *Design Alternative*, including the potential use of pervious surface material in the parking area of the expanded commercial area. It was determined, however, that spill control BMPs would be difficult to implement with pervious material, which could negate some or all of the benefit of infiltrating storm water.

Clearing, Grading & Impervious Surface

The *Design Alternative* is intended to maintain the same clearing and impervious coverage as the *Proposed Master Plan*. The use of pervious surface material and an infiltration system in a majority of the Village Retail area would help compensate for the larger commercial area.

As for the *Proposed Master Plan*, approximately 90 percent of the site would be cleared, including demolition of existing buildings. Impervious surfaces would comprise approximately 74 percent of the overall site (61 acres).

Quantities of grading, filling and amount of clearing are approximately the same as for the *Proposed Master Plan*.

Phasing

Development would generally occur in the same time period and sequence as for the *Proposed Master Plan*.

2.7.2 No Action Alternative

The *No Action* Alternative would involve no redevelopment of Westpark in the immediate future. The existing public housing units, community facilities and infrastructure would remain. Housing would continue to be maintained to the extent possible; however, deterioration and loss of housing over time would likely occur. BHA could seek other funding sources to redevelop the property.

No additional open space or community facilities would be provided. Existing community facilities and programs would be maintained to the extent possible.

All existing infrastructure (sewer, water, stormwater, roads, etc) would remain and would not be upgraded. Similarly, the stormwater outfall Oyster Bay would not be upgraded. In addition, the street configuration and access would not be altered.

The *No Action* Alternative is included in the EIS to meet the requirements of SEPA and NEPA. It would not meet any of the proponent's goals for redevelopment of the site (refer to the discussion in Section 2.5 above).

2.8 BENEFITS & DISADVANTAGES of DEFERRING IMPLEMENTATION

Deferring implementation of the *Proposed Master Plan* could result both in benefits and disadvantages. The benefits would likely be personal to existing residents in that disruption of existing on-site housing and existing community-based programs and the anxiety associated with relocation would not occur immediately, but rather at a later, undetermined date.

The disadvantages of delaying implementation could be more far-reaching, both from a resident and program viewpoint. From the resident's perspective, while relocation decisions would be postponed, a greater amount of anxiety may occur for residents due to lack of knowledge of when relocation may occur. Disadvantages would include the following:

- while BHA would continue to maintain the existing housing stock to the extent possible, deferred major repairs could result in the loss of some housing over time (depending upon the length of delay) and relocations associated with such units;

- no additional open space or community facilities would be provided (based on the timeframe associated with the Proposed Master Plan) and BHA would continue to maintain existing facilities, to the extent possible;

- no infrastructure improvements would occur; BHA would continue to maintain existing facilities, to the extent possible;

- the benefits of replacing existing dilapidated residences would not occur.
- the broader interest of the City in redevelopment of Westpark and the economic benefits associated with such redevelopment would not be immediately realized.

3. UPDATED INFORMATION; AMENDMENTS & REVISIONS TO THE EIS

This section contains updated information about the proposal and the status of project planning, and ongoing environmental assessments or monitoring activities. This information does not imply any revisions to the impact analyses or conclusions contained in the Draft EIS. It is provided for information purposes and to indicate the applicant's intentions and commitments with respect to several outstanding issues.

A. Community Center

The *Proposed Master Plan* and *Design Alternative* assume that the existing Westpark Community Center would remain on site and would undergo some renovation. Programs could change somewhat to reflect the needs of the new Westpark population, as well as services to public housing residents.

The BHA Board of Directors has been discussing redevelopment options for the community center since the inception of master planning for the site. In addition to renovation, planning options under discussion include demolition of the community center and replacement with housing; and redevelopment of the facility as a more regional social and recreation center. No decision has been made as of this writing, and renovation of the existing facility is still considered the preferred alternative. If the Board were to decide to pursue a different option at some point, it would be addressed in the context of project permitting and future environmental review, as appropriate.

B. Landfill

As discussed in the Draft EIS, an abandoned landfill is believed to be present under the playfields in the eastern portion of the Westpark site, adjacent to the community center. The Westpark Master Plan does not propose any development or disturbance in this portion of the site. Based on available information, the landfill was likely used by the City of Bremerton in the 1930's and early 1940's, and it probably received waste from the initial construction of Westpark. The landfill is considered "abandoned" pursuant to Kitsap County Board of Health regulations (Ordinance 2004-2), and is also subject to state Model Toxic Control Act (MTCA) regulations (WAC 173-340).

Investigations of the landfill are ongoing as of this writing, and a preliminary draft report is being reviewed by the BHA (Draft Landfill Investigation Report, Landau Associates, May 2007). The boundaries of the landfill have been identified, and is generally underlies approximately 2/3 of the footprint of the existing playfields. The report also investigates the VIP Landfill, located off-site east of Oyster Bay Road; and a suspected but never constructed off-site landfill known as the Peterson Dump.

Preliminary field investigations to date have included numerous test pits, gas monitoring wells, and groundwater sampling of the landfill. One groundwater sample contained levels of metals above state cleanup standards but is not considered to present a hazard to human health. Methane concentrations were also above Kitsap County Health District and state clean up

levels. Preliminary conclusions of the Draft Report are that some type of remediation system – e.g., an active or passive venting system -- will be needed. The preliminary report will be used to help identify a more detailed testing program and to identify a range of remediation options. The BHA will consult with the Department of Ecology and Kitsap County Board of Health to determine and implement an appropriate clean up plan.

C. Stormwater Outfall

The *Proposed Master Plan* and *Design Alternative* both include reconstruction of the existing outfall in Oyster Bay as a project element. The new outfall would address current limitations of the existing outfall, which is a regional facility, as well as the additional capacity to accommodate the redevelopment of Westpark. Upgrading of the outfall will be proposed as a joint City-BHA project. Numerous permits will be required and will involve the participation of federal and state permitting agencies, including the U.S. Army Corps of Engineers, U.S. Fish & Wildlife Service, National Marine Fisheries Service, and the Washington Department of Ecology, Department of Natural Resources and Department of Fisheries and Wildlife (WDFW).

As noted in the Chapter 2 of the Final EIS, the design for the new outfall is still considered conceptual and is subject to change or refinement as a result of ongoing planning and engineering, the environmental review process, and consultation with agencies. In general, the Draft EIS did not identify significant adverse impacts to fish and wildlife habitat or species over the long term from operation of the new outfall concept; some short-term construction impacts would occur, however. (See Final EIS Summary, and Draft EIS Section 4.5, Fisheries). Proposed on-site stormwater management systems would generally improve the quality of runoff discharged to receiving water bodies.

A comment letter, included in Chapter 4 of the Final EIS, was received from WDFW requesting further consultation on the outfall design. This consultation is occurring as of this writing. Modification of the outfall design to address agency concerns is expected to occur as a result of this and other consultations and will likely further reduce fishery impacts. As noted above, based on the information in the EIS, impacts are not anticipated to significant.

D. Noise Mitigation

As reported in the Draft EIS noise analysis (Sections 3.6 and 4.6), portions of the Westpark site adjacent to SR 3 and Kitsap Way are subject to existing high noise levels from off-site vehicle traffic. Without some form(s) of mitigation, these areas do not currently, and would not in the future, meet Department of Housing and Urban Development (HUD) noise criteria for site suitability. The *Proposed Master Plan* would, however, meet applicable state and local noise regulations.

The Draft EIS also assessed the effectiveness of noise barriers (e.g., walls or berms), and other potential mitigation measures, in the locations of proposed residential buildings along the site's northern and western perimeters. The computer modeling was based on the conceptual master plan and the preliminary engineering, topographic, grading and design information available at this time. The mitigation analysis determined that noise barriers of various heights would be effective at some ground level locations in reducing noise to levels considered acceptable per HUD's criteria. However, even with noise barriers, sound levels above ground level (2nd and 3rd floors) would likely still exceed HUD's criteria. The Draft EIS analysis, therefore, recommended

a combination of noise barriers and noise controlling building materials and techniques to reduce both exterior and interior noise levels.

Additional noise modeling will be necessary to develop a more specific and cost-effective mitigation proposal, but this modeling cannot occur until project design and engineering have advanced further and more detailed, project-level information is available about grading, topography, building locations, elevations and similar features. This would likely occur in conjunction with submittal of a preliminary subdivision application for Westpark. The mitigation analysis would consider "optimized" noise barriers that vary in heights along their lengths to provide noise reduction for the least cost. This analysis would be focused along SR 3; a barrier is not recommended along Kitsap way because the large topographic change from the road to the proposed buildings on the site would require extremely high and expensive barriers that would also block views.

Noise reducing construction methods and materials would also be used in residential buildings adjacent to SR 3 and Kitsap Way, and would be determined based on the refined noise modeling.

E. Cultural Resources

A report, titled *Archaeological and Historic Resources Assessment of the Westpark Redevelopment Project* (NWAA, April 2007), was transmitted to the Washington Department of Historic & Archaeological Preservation (DHAP) and to the Suquamish Tribe. The report includes historic property inventory forms and Washington State Archaeological Site Forms. The specific location of historic and archaeological sites, structures or artifacts are considered sensitive and are exempt from disclosure pursuant to state law. The BHA has requested DHAP's concurrence with the conclusions of evaluation.
In general, the historic integrity of the site been compromised by removal of more than 100 original buildings and landscaping, construction of SR 3 and other on-site roads, and construction of modern buildings. As a result, the site does not retain the design, materials, workmanship, setting and feeling of the historic 1940's community and is not recommended eligible for the National Register of Historic Properties (NRHP).

The contents of the landfill are unknown; it is possible that it could contain some remnants with historic interest or value. No development is proposed for the landfill site, however, so no impacts to any resources would occur. The report also recommends archaeological monitoring of ongoing testing or future clean up of the landfill.

4. COMMENTS & RESPONSES TO COMMENTS ON THE DRAFT EIS

This section of the Final EIS presents comment letters from agencies, tribes and the public that were received on the Draft EIS and provides responses to those comments. The availability of the Draft EIS was communicated through publication of notices in the Kitsap Sun and the Federal Register, and posting of the site. Copies of the Draft EIS were mailed to agencies, tribes and groups identified on the distribution list. The document was also available for review at local libraries and on City and Bremerton Housing Authority websites. A meeting on the Draft EIS was held in April, 2007 and provided an opportunity for verbal or written comment.

Comments were received from two state agencies as follows:

> **Letter No. 1**, an email from the Washington Department of Fisheries and Wildlife (WDFW), which raised issues relating to impacts of the proposed Oyster Bay outfall to fisheries and wildlife habitat; and
>
> **Letters No. 2 and 3**, from the Washington Department of Transportation (WSDOT) regarding levels of service and traffic mitigation for Kitsap way and the SR 3 off-ramp.

The comment letters and responses to the comments follow below. Each comment letter consists of a single substantive comment; therefore, separate paragraphs/issues have not been marked or numbered on the comment letters themselves. A single integrated response is provided to each issue.

Letter No 1 – Washington Department of Fisheries and Wildlife

Thank you for your comment. The design of the replacement outfall in Oyster Bay contained in the EIS is considered conceptual and subject to change as a result of ongoing planning and consultation. The conceptual design provided a basis for environmental analysis and, as noted in Section 4.X of the Draft EIS, the upgraded outfall is not anticipated to cause significant adverse impacts to fisheries or wildlife habitat. The quality of discharged stormwater would improve as a result of water quality treatment proposed in conjunction with redevelopment of Westpark. Short-term impacts would result from construction, however.

As requested in the comment, representatives of the City of Bremerton, Bremerton Housing Authority, and the Westpark project engineering team met with WDFW staff to discuss issues with the initial outfall concept and to explore design options. Environmental concerns expressed by WDFW, based on agency policies, relate to constructing and operating the upgraded outfall so as to achieve no net loss of habitat (i.e., mud-flat) functions, values and area; avoiding/minimizing impacts to the extent possible; and providing compensatory mitigation for significant unavoidable impacts. The City and BHA agreed to study several options further, including a reworking of the concept contained in the EIS, to further disperse stormwater flows and reduce in-water ; an upgraded buried outfall structure; and a possible combination of the other two options.

As noted in the Final EIS *Fact Sheet*, the outfall project will require multiple local, state and federal permits, including Hydraulic Project Approval (HPA) from WDFW. The City and BHA will continue to consult with WDFW regarding re-design and mitigation plan to submit a permit application containing a revised design in summer 2007.

Letter No. 1

From: Randi Thurston [mailto:thursrlt@DFW.WA.GOV]
Sent: Friday, April 20, 2007 12:07 PM
To: Andrea Spencer
Subject: Westpark Draft EIS Comment

Andrea,

Bob Barnard, WDFW Engineer, has been corresponding with Jeffrey Coop, Parametrix, regarding a design for the proposed stormwater outfall that will provide proper protection to fish life. It appears from proposal to date that we (WDFW and Parametrix) are along way from agreeing on a design that WDFW would issue a Hydraulic Project Approval for.

I would suggest that we (WDFW, applicant, consultant, and City) meet to discuss proposal design alternatives to ensure proper protection of fish life and this matter be settled prior to the issuance of the final EIS.

Please contact me if you have any questions at 360.895.6123 or by e-mail.
Thank you for the opportunity to comment on the draft EIS.

Letters No. 2 and 3 – Washington State Department of Transportation

Thank you for your comments regarding level of service and mitigation. The issues raised are related and are addressed together below. The BHA expects to work closely with WSDOT and the City to address issues relating to optimum signal timing in the Kitsap way corridor and appropriate mitigation for the Westpark Master Plan. The Master Plan is still conceptual in nature and no development permits have been applied for at this time. The Master Plan is likely to undergo refinement as more detailed design and engineering occurs. Supplemental transportation analysis could also occur as part of this process. It would seem appropriate to base further traffic analysis, therefore, on more detailed plans for Westpark which will be included with a subdivision application. The BHA's traffic consultant will consult with WSDOT staff regarding the methodology used for this subsequent analysis.

Your letter correctly notes the number of total and PM peak hour trips estimated to be generated by the proposed action. The transportation analysis in the Draft EIS (Table 4.12-3) indicates that with the project and before mitigation, 2010 levels of service at several intersections of Kitsap Way would decline to E or F, and the SR 3 southbound ramp would decrease to level of service E. The Draft EIS tests the effects of optimized signal timing in the corridor as a potential mitigation measure (Table 4.12-4); it concludes that it would be effective in achieving WSDOT's adopted level of service for the Kitsap Way corridor as a whole. However, the eastbound segment between the ramps would operate at an unacceptable level of service with or without the Proposed Master Plan. The suggestion that optimized signal timing should be assumed as part of the existing condition, rather than applied as a mitigation measure, is acknowledged and will be tested in future analysis.

Letter No. 2

Washington State Department of Transportation
Douglas B. MacDonald
Secretary of Transportation

Olympic Region Headquarters
3729 Capitol Boulevard Tumwater
P.O. Box 47440
Olympia, WA 98504-7440
(360) 357-2600
Toll Free: 1-800-833-6388
www.wsdot.wa.gov

April 20, 2007

Mr. Kurt Wiest
Executive Director
Bremerton Housing Authority
345 6th Street, Suite 200
Bremerton, WA 98337

RE: SR 310, MP 3.1
Westpark Redevelopment
EC 2006-109

Dear Mr. Wiest:

The Washington State Department of Transportation (WSDOT) has reviewed the Draft Environmental Impact Statement for the Westpark Redevelopment. We understand the Westpark Master Plan would redevelop 82-acre site to create a mixed-use, mixed-income, pedestrian-oriented community containing housing, parks, open space, retail and commercial uses and community facilities. It is our understanding the proposed Westpark Redevelopment Master Plan would result in a net traffic increase of 4,230 trips daily and 324 trips during the PM peak hour.

WSDOT has determined that this proposal will result in significant adverse impacts to SR 310 and SR 3. As mitigation for these impacts WSDOT requests the following:

- Northbound, SR 3 off-ramp (P-1), be widened to two lane widths. The additional holding area created by the widening will mitigate backups on to mainline SR 3. Actual length of widening will be determined after further review.

Thank you for the opportunity to review and comment on this proposal. Should you have concerns or require additional information please contact Deanna Brewer at 360-357-2727 or email brewerd@wsdot.wa.gov.

Sincerely,

DALE C. SEVERSON, P.E.
Development Services Engineer
WSDOT, Olympic Region

DS:PR
Attachment

cc: Joyce Komac, WSDOT
Steve Bernel, WSDOT
Geoffry Weatland, City of Bremerton

Letter No. 3

Washington State
Department of Transportation
Douglas B. MacDonald

Olympic Region Headquarters

April 19, 2007

Geoffrey Wentland
City of Bremerton
345 6th Street, Suite 600
Bremerton, WA 98337

RE: City of Bremerton, Westpark Sub-Area Plan Proposal

Dear Mr. Wentland,

Thank you for allowing the Washington State Department of Transportation (WSDOT) the opportunity to review the Westpark Sub-Area Plan Proposal, Traffic Report. We appreciate the time and energy that this document represents. The following comments are provided for your consideration:

Signalized Intersection Level of Service (LOS) tables for existing (2006) and development horizon year (2010) found on pages 3-109, 4-94, 4-103, and 4-105: The introductions to these tables mention meeting the City's LOS E for Kitsap Way (SR 310) in the existing and future years. However, Kitsap Way (SR 310) is a Highway of Statewide Significance (HSS) and WSDOT sets the LOS for HSS. The HSS system for SR 310 in an urban area is a LOS D threshold, not LOS E.

The existing Level of Service analysis for the signalized intersections should be modeled using optimized signal timing. The document discusses "Optimized Signal Timings" in 2010 to bring the developments LOS E and F locations to LOS D or E. Since the signals are in a city with a population greater than 22,500, the City is ultimately responsible for making the signal system work. However, we would have thought that if the signals could be "optimized" in 2010, the City would have already done that in existing year 2006.

Again, thank you for the opportunity to review and comment on this document. If you have any questions related to this letter please contact George Kovich of my office at (360) 704-4207.

Sincerely,

Robert E. Jones
Transportation Planning Manager
WSDOT, Olympic Region

REJ:cm
gk

cc: David Anderson, CTED MS-48350
Bill Wiebe, WSDOT MS-47370
Tom Washington, WSDOT MS TB55-120
Mike Meehan, City of Bremerton

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REFERENCES

Earth

Adams, John, 1996, Great earthquakes recorded by turbidities off the Washington-Oregon coast, Assessing earthquake hazards and reducing risk in the Pacific Northwest: U.S. Geological Survey Professional Paper 1560 Vol. 1, 147-158.

Aerotech Environmental Consulting, Inc, 2005, Phase 1 Environmental Site Assessment, Bremerton Firs, SWC Kitsap Way & Oyster Bay Avenue North, Bremerton, Washington, August 5, 2005.

AHBL, 2004, Stormwater Technical Information Report, October 2004.

Associated Earth Sciences, Inc. (AESI), 2006, Phase 1 Environmental Site Assessment, BHA-Westpark Redevelopment, Bremerton, Washington, January 30, 2006.

Associated Earth Sciences, Inc. (AESI), 2006, Phase 1 Environmental Site Assessment Addendum, BHA-Westpark Redevelopment, Bremerton, Washington, June 20, 2006.

Atwater, Brian F., 1987, Evidence for great Holocene earthquakes along the outer coast of Washington state: Science 236, 942-944.

Atwater, Brian F., 1996, Coastal evidence for great earthquakes in Western Washington, Assessing earthquake hazards and reducing risk in the Pacific Northwest: U.S. Geological Survey Professional Paper 1560 Vol. 1, 77-90.

Atwater, Brian F. and Hemphill-Haley, 1997, Recurrence intervals for great earthquakes of the past 3,500 years at northeastern Willapa Bay, Washington: U.S. Geological Survey Professional Paper 1576, 108 p.

Atwater, Brian F., Minze Stuiver, and Yamaguchi, David K., 1991, Radiocarbon test of earthquake magnitude at the Cascadia subduction zone: Nature 353, 156-158.

Atwater, Brian F. and Moore, A.L., 1992, A tsunami about 1,000 years ago in Puget Sound, Washington: Science, v. 258, p. 1614-1617.

Blakely, R.J., Wells, R.E., Weaver, C.S., and Johnson, S.Y., 2002, Location, structure, and seismicity of the Seattle fault zone, Washington – Evidence from aeromagnetic anomalies, geologic mapping, and seismic-reflection data: Geological Society of America Bulletin, v. 114, p. 169-177.

Borden, R.B., and Troost, K.G., 2001, Late Pleistocene stratigraphy in the south-central Puget Sound Lowland: Washington Division of Geology and Earth Resources, Report of Investigations 33, 27 p.

Bremerton Housing Authority, 2002, Westpark strategic master plan, March 2, 2002.

Bremerton Housing Authority, 2006, Westpark Sub-Area Plan, Revised Draft Submittal, October 9, 2006.

Brocher, T.M., Blakely, R.J., and Wells, R.E., 2004, Interpretation of the Seattle uplift, Washington, as a passive roof duplex: Bulletin of Seismological Society of America, August 2004, v. 94, no. 4, p. 1379-1401.

Brocher, T.M., Parsons, T., Blakely, R.J., Christensen, N.I., Fisher, M.A., Wells, R.E., and the SHIPS Working Group, 2001, Upper crustal structure in Puget Lowland, Washington: Results from the 1998 seismic hazard investigation in Puget Sound, Journal of Geophysical Research, v. 106, p. 13,541-13,564.

Crandell, D.R., 1963, Surficial geology and geomorphology of the Lake Tapps quadrangle, Washington: U.S. Geological Survey Professional Paper 388A, 84 p.

Creative Engineering Options, Inc, 2004, Geotechnical Engineering Study, Proposed Facility Expansion, Bremerton Firs II, Russell Road & Oyster Bay Avenue, Bremerton Washington, July 26, 2004.

Easterbrook, D.J., Crandell, D.R., and Leopold, E.B., 1967, Pre-Olympia Pleistocene stratigraphy and chronology in the central Puget Lowland, Washington: Geological Society of America Bulletin, v. 78, p. 13-20.

Ecology and Environment, Inc. (E&E), 1987, Site Inspection Report, Kitsap/VIP Landfill, Bremerton, Washington, January, 1987.

Garling, E., Molenaar, D., and others, 1965, Water resources and geology of the Kitsap Peninsula and certain adjacent islands: Washington State Division of Water Resources, Water Supply Bulletin No. 18.

Gower, H.D., et al., 1978, Tectonic map of the Puget Sound region, Washington: U.S. Geological Survey Open-File Report 78-426.

Hagstrum, J.T., Booth, D.B., Troost, K.G., and Blakely, R.J., 2001, Magnetostratigraphy, paleomagnetic correlation, and deformation of Pleistocene deposits in the south central Puget Lowland, Washington: Journal of Geophysical Research, v. 107, no. B4, 10.1029/2001JB000557, Paper EPM 6, 14 p.

Jacoby, G.C., Williams, P.L., and Buckley, B.M., 1992, Tree ring correlation between prehistoric landslides and abrupt tectonic events in Seattle, Washington: Science, v. 258, p. 1621-1623.

Johnson, S.Y., Dadisman, S.V., Childs, J.R., and Stanley, W.D., 1999, Active Tectonics of the Seattle Fault and central Puget Sound, Washington-Implications for earthquake hazards: Geological Society of America Bulletin, v. 111, p. 1042-1053 and oversize insert.

Johnson, S.Y., Potter, C.J., and Armentrout, J.M., 1994, Origin and evolution of the Seattle Fault and Seattle Basin, Washington: Geology, v. 22, p. 71-74.

Jones, M.A., 1996, Thickness of unconsolidated deposits in the Puget Sound Lowland, Washington and British Columbia: U.S. Geological Survey Water-Resources Investigation Report 94-4133, scale 1:455,000.

Kahle, S.C., 1998, Hydrogeology of Naval Submarine Base Banger and Vicinity, Kitsap County, Washington: U.S. Geological Survey Water-Resources Investigations Report 97-4060, Tacoma, Washington.

Karlin, R.E., and Abella, S.E.B., 1992, Paleoearthquakes in the Puget Sound region recorded in sediments from Lake Washington, U.S.A.: Science, v. 258, p. 1617-1620.

Karlin, R.E., and Abella, S.E.B., 1996, A history of Pacific Northwest earthquakes recorded in Holocene sediments from Lake Washington: Journal of Geophysical Research, v. 101, p. 6137-6150.

Landau Associates, 2006, Draft report, Westpark Redevelopment, Bremerton, Washington, April 28, 2006

Palmer, S.P., Magsino, S.L., Bilderback, E.L., Poelstra, J.L., Folger D.S., and Niggemann, R.A., 2004, Liquefaction susceptibility and site class maps for Washington State, Washington State Department of Natural Resources, Division of Geology and Earth Resources.

Parametrix, 2006, Technical Information Report (TIR) Westpark Redevelopment, Marathon Development: Parametrix, Sumner, Washington, October 2006.

Satake, Kenji, et al., 1996, Time and size of a giant earthquake in Cascadia inferred from Japanese tsunami records of January 1700: Nature 379:247-248.

Schuster, R.L., Logan, R.L., and Pringle, P.T., 1992, Prehistoric rock avalanches in the Olympic Mountains, Washington: Science, v. 258, p. 1620-1621.

Sherrod, B.L., Nelson A.R., Kelsey, H.M., Brocher, T.M., Blakely, R.J., Weaver, C.S., Roundtree, N.K., Rhea, B.S., and Jackson, B.S., 2004, The Catfish Lake scarp, Allyn, Washington: Preliminary field data and implications for earthquake hazards posed by the Tacoma Fault, U.S. Geological Survey Open-File Report 03-455.

Troost, K.G., 2003, Presence of mid-Pleistocene deposits (MIS 4 through 8) in the Tacoma area: Did the Possession Glacier make it to Tacoma?: Geological Society of America Abstracts with Programs, Vol. 35, No. 6, (Abstract 86-1).

Troost, K.G., Booth, D.B., and Wells, R., in prep., Geologic map of the Gig Harbor 7.5-minute quadrangle, Washington: U.S. Geological Survey Miscellaneous Field Investigation, scale 1:24,000.

United States Department of Agriculture (USDA), Soil Conservation Service (SCS), 1980, Soil survey of Kitsap County area, Washington: USDA, Washington D.C.

United States Geological Survey (USGS), 2003, Lifeline and earthquake hazards in the greater Seattle area.

United States Geological Survey (USGS), 1998, Assessing earthquake hazards and reducing risk in the Pacific Northwest, Eds., Rogers, A.M., Walsh, T.J., Kockleman, W.J., and Priest, G.R.: U.S. Geological Survey Professional Paper 1560, Volume 2, pp. 307- 545.

Washington State Department of Ecology (Ecology), 1979, Coastal Zone Atlas of Washington, Volume 10 (Kitsap County).

Washington State Department of Ecology (Ecology), 1997, Kitsap County initial basin assessment: Kitsap Public Utility District, Ecology Open-File Technical Report No. 97-04, October 1997.

Yamaguchi, David K., et al., 1997, Tree-ring dating the 1700 Cascadia earthquake: Nature 389:922-923.

Air Quality

Parametrix
2006. Transmittal of Traffic and Synchro Data. November 2006.

Puget Sound Clean Air Agency (PSCAA)
2006. General information. Seattle, Washington. Web Page: http://www.pscleanair.org. Assessed December 2006.

Puget Sound Regional Council (PSRC). 2006. Mobile 6.2 Emission Factor Data Files.

U.S. Environmental Protection Agency (U.S. EPA). 1992. *Guideline for Modeling Carbon Monoxide from Roadway Intersections.* Office of Air Quality Planning and Standards. Technical Support Division. Research Triangle Park, North Carolina. EPA-454/R-92-005.

2006a. AirData: *Access to Air Pollution Data.* http://www.epa.gov/air/data/index.html. Assessed December 2006

2006b. 40 CFR Part 50: National Ambient Air Quality Standards for Particulate Matter. EPA-HQ-OAR-2001-0017; FRL-RIN 2060-AI44. Sept. 21, 2006

Water Resources

AGI Technologies, 1997, Source of supply and basin assessment for North Perry Water District: AGI Project No, 15817.006, February, 4, 1997.

AGI Technologies, 1996, Final report, Gorst Creek basin study, phase 1, Bremerton, WA: Prepared for City of Bremerton Public Works, AGI Project No, 15842.001, October 8, 1996.

AGI Technologies, 1994, Source of supply and basin assessment for the Annapolis Basin, a part of water resource inventory area 15: AGI Project No, 15749.005, December 12, 1994.

Creative Engineering Options, Inc. (CEO), 2004, Geotechnical Engineering Study, Proposed Facility Expansion, Bremerton Firs II, Russell Road & Oyster Bay Avenue, Bremerton Washington, July 26, 2004.

Camp Dresser & McKee, Inc., 2000, City of Port Orchard McCormick Woods, wellhead protection program (WHPP): Camp Dresser & McKee, Inc. report no. 15857003 29774-19977, August, 25, 2000.

Garling, E., Molenaar, D., and others, 1965, Water resources and geology of the Kitsap Peninsula and certain adjacent islands: Washington State Division of Water Resources, Water Supply Bulletin No. 18.

Kahle, S.C., 1998, Hydrogeology of Naval Submarine Base Banger and Vicinity, Kitsap County, Washington: U.S. Geological Survey Water-Resources Investigations Report 97-4060, Tacoma, Washington.

Kitsap County Initial Basin Assessment, Washington State Department of Ecology (Ecology), October 1997. (Herein referred to as Basin Assessment)

Landau Associates, 2006, Draft report, Westpark Redevelopment, Bremerton, Washington, April 28, 2006

Parametrix, 2006, Technical Information Report (TIR) Westpark Redevelopment, Marathon Development: Parametrix, Sumner, Washington, October 2006.

Washington State Department of Ecology (Ecology), 1997, Kitsap County initial basin assessment: Kitsap Public Utility District, Ecology Open-File Technical Report No. 97-04, October 1997.

Washington State Department of Ecology (Ecology), 2004, Hydrogeology report for City of Port Orchard water right change applications for Well 8 as an additional point of withdrawal: File CG1-25019C, March 24, 2004.

Plants & Animals

Brown, E. (ed.). 1985. Management of wildlife and fish habitats in forests of Western Oregon and Washington. U.S. Dept. of Agriculture, Forest Service, Pacific Northwest Region. June 1985. Portland, Oregon. 332pp.

Brown, H.A., R.B. Bury, D.M. Darda, L.V. Diller, C.R. Peterson, and R.M. Storm. 1995. Reptiles of Washington and Oregon. Seattle Audubon Society. Seattle, Washington. 176 pp.

Cooke, S. 1997. A field guide to common wetland plants of Western Washington and Northwestern Oregon. Seattle Audubon Society. Seattle, Washington.

Cross, S. 1986. Bats. Pages 497-517 *In* A.Y. Cooperrider, R.J. Boyd, and H.R. Stuart, eds. Inventory and monitoring of wildlife habitat. U.S. Department of the Interior, Bureau of Land Management Service Center, Denver, CO.

Dvornich, K., K. McAllister, and K. Aubry. 1997. Amphibians and reptiles of Washington State: Location data and predicted distributions, Volume 2 in Washington State Gap Analysis – Final Report, (K.M. Cassidy, C.E. Grue, M.R. Smith and K.M. Dvornich, eds), Washington Cooperative Fish and Wildlife Research Unit, University of Washington, Seattle, 146 pp.

Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1, US Army Engineers Waterways Experiment Station, Vicksburg, Mississippi. 100 pp.

Ferguson-Lees, J., and D. Christie. 2001. Raptors of the World. Houghton Mifflin Company, New York, New York. 992 pp.

Guenther, K. and T. Kucera. 1978. Wildlife in the Pacific Northwest: Occurrence by habitat, BLM district, and national forest. US Department of Agriculture, Forest Service, Pacific Northwest Region, Portland, Oregon. 128 pp.

Harris, L. 1984. The fragmented forest: island biogeographic theory and the preservation of biotic diversity. University of Chicago Press. 210 pp.

Hitchcock, C., and A. Cronquist. 1976. Flora of the Pacific Northwest. Univ. of Washington Press, Seattle, Washington. 730 pp.

Hunn, E. 1982. Birding in Seattle and King County. Seattle Audubon Society, Trailside Series. 160 pp.

Johnsgard, P. 1990. Hawks, eagles, and falcons of North America. Smithsonian Institution Press, Washington, D.C. 403 pp.

Johnson, R., and K. Cassidy. 1997. Terrestrial Mammals of Washington State. Vol. 3 in Washington State Gap Analysis Final Reports (K.M. Cassidy, C.E. Grue, M.R. Smith, and K.M. Dvornich eds) Washington Cooperative Fish and Wildlife Research Unit. University of Washington, Seattle, 146 pp.

Johnson, D.H. and O'Neil T. A. 2001. Wildlife-habitat relationships in Oregon and Washington. Oregon State University Press, Corvallis OR. 736 pp.

King County. 1987. Wildlife habitat profile. King County Open Space Program. Parks, Planning and Resources Development. Seattle, Washington. 111 pp.

Larsen, E.M., editor. 1997. Management recommendations for Washington's priority species, Volume III: amphibians and reptiles. Washington Department of Fish and Wildlife, Olympia, Washington. 122 pp.

Larsen, E.M., J.M. Azerrad, and N. Nordstrom, eds. 2004. Management recommendations for Washington's priority species, Volume IV: Birds. Washington Department of Fish and Wildlife, Olympia, Washington. 268 pp.

Leonard, W., H. Brown, L. Jones, K. McAllister, and R. Storm. 1993. Amphibians of Washington and Oregon. Seattle, Audubon Society, Seattle, Washington. 168 pp.

Levenson, J. B. 1981. Woodlots as biogeographic islands in southeastern Wisconsin. *in* Burgess, R.L., and D.M. Sharpe, editors. Forest island dynamics in man-dominated landscapes. New York: Springer-Verlag.

McMurphy, C.J. 1980. Soil survey of Kitsap County area, Washington. Publication of USDA Soil Conservation Service.

Mueller-Dombois, D. and H. Ellenberg. 1974. Aims and methods of vegetation ecology. John Wiley and Sons, New York. 547 pp.

Neitro, W.A., V.W. Binkley, S.P. Cline, R.W. Mannan, B.G. Marcot, D.Taylor, and F.F. Wagner. Snags (wildlife trees). Pages 129-169 *In* Brown, E. (ed.). 1985. Management of wildlife and fish habitats in forest of western Oregon and Washington. Pub. No. R6-F&WL--192-1985. USDA Forest Service, Portland, Oregon. 332 pp.

Noss, R. 1987. Corridors in real landscapes: a reply to Simberloff and Cox. Conservation Biology 1:159-164.

Noss, R., and L. Harris. 1986. Nodes, networks, and MUMs: preserving diversity at all scales. Envir. Manage. 10: 299-309.

Nussbaum, R., E. Brodie, Jr., and R. Storm. 1983. Amphibians & reptiles of the Pacific Northwest. Univ. Press of Idaho, Moscow, Idaho. 332 pp.

Ohmart, R., and B. Anderson. 1986. Riparian habitat. Pages 169-199 *in* A. Cooperrider, R. Boyd, and H. Stuart, editors. Inventory and monitoring of wildlife habitat. U.S. Department of the Interior, Bureau of Land Management Service Center, Denver, Colorado.

Penland, S. 1984. Avian response to a gradient of urbanization. PhD. Dissertation, University of Washington, Seattle, Washington. 407 pp.

Pojar, J., and A. MacKinnon. 1994. Plants of the Pacific Northwest Coast, Washington, Oregon, British Columbia, and Alaska. B.C. Ministry of Forests; B.C. Forest Service; Research Program.

Reed, P., Jr. 1988. National list of plant species that occur in wetlands: Northwest (Region 9). U.S.D.I. Fish and Wildlife Service. Biol. Report 88 (26.9). 89 pp.

Reed, P., Jr. 1993. 1993 Supplement to list of plant species that occur in wetlands: Northwest (Region 9). U.S.D.I. Fish and Wildlife Service. Supplement to Biological Report 88 (26.9) May 1988.

Rodrick, E. and R. Milner, (eds.). 1991. Management recommendations for Washington's priority habitats and species. Washington Department of Fish and Wildlife, Fish Management and Habitat Management Divisions. Olympia, Washington.

Scott, V., K. Evans, D. Patton, and C. Stone. 1977. Cavity-nesting birds of North American forests. U.S. Department of Agriculture Forest Service Agricultural Handbook 511, Washington, DC.

Simberloff, D., and J. Cox. 1987. Consequences and costs of conservation corridors. Conservation Biology 1(1): 63-71.

Smith, M.R., P.W. Mattocks Jr., and K.M. Cassidy. 1997. Breeding birds of Washington State. Volume 4 *In* K.M. Cassidy, C.E. Grue, M.R. Smith, and K.M. Dvornich, eds. Washington State Gap Analysis - Final Report. Seattle Audubon Society Publications in Zoology No. 1, Seattle, Washington. 538 pp.

Stinson, D.W., J.W. Watson and K.R. McAllister. 2001. Washington State Status Report for the Bald Eagle. Washington Department of Fish and Wildlife. Olympia. 92 pp.

Thomas, J., and J. Verner. 1986, Forests. Pages 73-91 *in* A.Y. Cooperrider, R.J. Boyd, and H.R. Stuart, eds. Inventory and monitoring of wildlife habitat. U.S. Department of the Interior, Bureau of Land Management Service Center, Denver, CO.

U.S. Fish and Wildlife Service. 2005. Threatened and endangered species system (TESS) listings by State and Territory as of 12/14/2005: Washington. http://ecos.fws.gov/servlet/TESSWebpageUsaLists?state=WA.

U.S. Fish and Wildlife Service National Wetlands Inventory. 1987. Bremerton West, 7.5 minute quadrangle.

Wahl, T., and D. Paulson. 1994. A guide to bird finding in Washington. 1991 edition, revised 1994. T. Wahl, Bellingham, Washington. 139 pp.

Washington Department of Ecology. 1997. Washington state wetlands identification and delineation manual. March 1997. Publication No. 96-94. 88 pp. plus appendices.

Washington Department of Fish and Wildlife. 1999. Priority habitats and species list. Habitat Program. July 1999, Olympia, Washington. 32 pp. http://www.wdfw.wa.gov/hab/phslist.htm.

Washington Department of Fish and Wildlife. 2005a. Habitats and Species map in the vicinity of T24N, R1E, Section 16. December 5, 2005.

Washington Department of Fish and Wildlife. 2005b. Species of concern in Washington State. July 2005. http://www.wdfw.wa.gov/wlm/diversity/soc/soc.htm.

Washington Natural Heritage Program. 1997. Endangered, threatened, and sensitive vascular plants of Washington - with working lists of rare non-vascular species. Department of Natural Resources. Olympia, Washington. 62 pp.

Fisheries Resources

Bakkala, R.G. 1970. Synopsis of biological data on the chum salmon, (*Oncorhynchus keta*) (Walbaum) 1792. FAO Fish. Synop. 41, U.S. Fish. Wildl. Serv. Circ. 315, 89 p.

Behnke, R.J. 1992. Native trout of western North America. Monograph No. 6. American Fish. Soc., Bethesda, MD. 275 pp.

Brown, L. 1992. On the zoogeography and life history of WA native char; Dolly Varden *Salvelinus malma* (Walbaum) and bull trout *Salvelinus confluentus* (Suckley). Washington Department of Wildlife, Fisheries Management Division, Olympia, WA.

Bryant, M.D., B.J. Frenette, and K.T. Coghill. 1996. Use of the littoral zone by introduced anadromous salmonids and resident trout, Margaret Lake, Southeast Alaska. Alaska Fishery Research Bulletin 3(2): 112-122.

Bugert, R.M., T.C. Bjornn, and W.R. Meehan. 1991. Summer habitat use by young salmonids and their responses to cover and predators in a small Southeast Alaska stream. Trans. Am. Fish. Soc. 120: 474-485.

Burgner, R.L., J.T. Light, L. Margolis, T. Okazaki, A. Tautz and S. Ito. 1992. Distribution and origins of steelhead trout *(Oncorhynchus mykiss)* in offshore waters of the North acific Ocean. Int. North Pac. Fish. Comm. Bull. 51, 92 pp.

Busby, P. J., T. C. Wainwright, G. J. Bryant, L. Lierheimer, R. S. Waples, F. W. Waknitz, and L. V. Lagomarsino. 1996. Status review of west coast steelhead from Washington, Idaho, Oregon, and California. U. S. Dept. Commer., NOAA Tech Memo. NMFS-NWFSC-27, 261 pp.

Cederholm, C.J. and W.J. Scarlett. 1981. Seasonal immigrations of juvenile salmonids into four small tributaries of the Clearwater River, Washington, 1977-1981. Pages 98-110 in E.L. Brannon and E.O. Salo, eds. Salmon and Trout Migratory Behavior Symposium, June 3-5, 1981. School of Fisheries, Univ. of Washington, Seattle, WA. 309 p.

Fausch, K.D. 1993. Experimental analysis of microhabitat selection by juvenile steelhead (*Oncorhynchus mykiss*) and coho salmon (*O. kisutch*) in a British Columbia Stream. Can. J. Fish. Aquat. Sci. 50: 1198-1207.

Fransen, B. R., P. A. Bisson, J. W. Ward, and R. E. Bilby. 1993. Physical and biological constraints on summer rearing of juvenile coho salmon (*Oncorhynchus kisutch*) in small Western Washington streams. Pages 271-288 *in* L. Berg and P. W. Delaney, eds. Proceedings of the Coho Workshop, 26-28 May 1992, Nanaimo, BC.

Giger, R.D. 1972. Ecology and management of coastal cutthroat trout in Oregon. Oregon State Game Commission, Fisheries Research Report 6, Corvallis, OR.

Groot, C. and L. Margolis. 1991. Pacific Salmon Life Histories. Univ. of British Columbia Press, Vancouver, BC.

Hartman, G.F. and T.G. Brown. 1987. Use of small, temporary floodplain tributaries by juvenile salmonids in a West Coast rain-forest drainage basin, Carnation Creek, British Columbia. Can. J. Fish. Aquat. Sci. 44: 262-270.

Healey, M.C. 1982. Juvenile Pacific salmon in estuaries: the life support system. p. 315-341. *In* V.S. Kennedy, ed. Estuarine comparisons. New York: Academic Press.

Johnson, O.W., W.S. Grant, R.G. Kope, K. Neely, F.W. Waknitz, and R.S. Waples. 1997. Status review of chum salmon from Washington, Oregon, and California. U.S. Dept. Commer., NOAA Tech. Memo NMFS-NMFSC-32, 280 p.

Johnson, T.H. 1985. Density of steelhead parr for mainstream rivers in western Washington during the low flow period, 1984. Wash. Dept. Game. Fish. Res. Rep. 85-6. 29 pp.

June, J.A. 1981. Life history and habitat utilization of cutthroat trout *(Salmo clarki)* in a headwater stream on the Olympic Peninsula, Washington. Master's thesis, Univ. of Washington. Seattle, WA.

Kraemer, C. (in prep.). Some observations on the life history and behavior of the native char, Dolly Varden (*Salvelinus malma*) and bull trout (*Salvelinus confluentus*) of the North Puget Sound Region. Washington Department of Fish and Wildlife, 1994 manuscript draft.

Lowery, G.R. 1975. The Alsea watershed study: part I biological studies. Oregon Department of Fish and Wildlife, Fisheries Research Report 9, Portland, OR.

McMahon, T.E. 1983. Habitat suitability index models and instream flow suitability curves: coho salmon. FWS/OBS-82/10.49. U.S. Fish and Wildlife Service, Fort Collins, CO.

Moore, K.M.S. and S.V. Gregory. 1988. Summer habitat utilization and ecology of cutthroat trout fry *(Salmo clarki)* in Cascade Mountain streams. Can. J. Fish. Aquat. Sci. 45:192 1 1930.

Narver, D.W. 1976. Stream management for west coast anadromous salmonids. *In:* Stream management of salmonids. Trout, Winter 1976 Suppl. pp. 7-13.

Nicholas, J.W. 1978. Life history differences between sympatric populations of rainbow and cutthroat trouts in relation to fisheries management strategies. *In:* J.W. Moring (ed). Proceedings of the wild trout-catchable trout symposium. Oregon Department of Fish and Game, Portland, OR.

Pauley, G.B., B.M Bortz, and M.F. Shepard. 1986. Species profiles: life histories and environmental requirements of coastal fishes and invertebrates (Pacific Northwest) steelhead trout. U.S. Fish Wildlife Serv. Biol. Rep. 82(11.62). U.S. Army Corps of Engineers, TR EL-82-4. 24 pp.

Pollard, W.R., G.F. Hartman, C. Groot, and P. Edgell. 1997. Field Identification of Coastal Juvenile Salmonids. Harbour Publishing, Madeira Park, BC.

Raleigh, R. F., W. J. Miller and P. C. Nelson. 1986. Habitat suitability index models: chinook salmon. U. S. Fish and Wildlife Service, Fort Collins, CO. FWS/OBS-82/10.122.

Ratliff, D.E., S.L. Thiesfeld, W.G. Weber, A.M. Stuart, M.D. Riehle, and D.V. Buchanan. 1996. Distribution, life history, abundance, harvest, habitat, and limiting factors of bull trout in Metolius River and Lake Billy Chinook, Oregon, 1983-94. Oregon Department of Fish and Wildlife, Portland, OR. September 1996. 44 p.

Reiser, D.W. and T.C. Bjornn. 1979. Habitat requirements of salmonid fishes. U.S. Forest Service General Technical Report PNW-96. Pacific Northwest Forest and Range Experiment Station, Portland, OR. 54 p.

Rieman, B.E. and J.D. McIntyre. 1993. Demographic and habitat requirements for conservation of bull trout. Gen. Tech. Rep. INT-302. Ogden, UT: U.S. Department of Agriculture, Forest Service, Intermountain Research Station. 38 p

Roelofs, T.D. 1983. Current status of California summer steelhead *(Salmo gairdneri)* stocks and habitat and recommendations for their management. Submitted to USDA Forest Service Region 5, 77 pp. (Available from Environmental and Technical Services division, Natl. Mar. Fish. Serv. 525 N. E. Oregon Street, Suite 500, Portland, OR 97232).

Salo, E.O. 1991. Life history of chum salmon, *Oncorhynchus ket*a p. 231-309. In Groot, C., and L. Margolis, eds. Pacific Salmon Life Histories, University of British Columbia, Vancouver, B.C., Canada.

Sanborn, B., P. Callahan, G. Decker, C. Frissell, G. Watson, and T. Weaver. 1998. The relationship between land management activities and habitat requirements of bull trout. Prepared by The Montana Bull Trout Scientific Group for The Montana Bull Trout Restoration Team, Montana Fish, Wildlife and Parks, Helena, MT. 78 p.

Shapolov, L., and A.C. Taft. 1954. The life histories of the steelhead rainbow trout *(Salmo gairdneri gairdneri)* and silver salmon *(Oncorhynchus kisutch)* with special reference to Waddell Creek, California, and recommendations regarding their management. Calif. Dept. Fish Game, Fish Bull. 98. 375 pp.

Shirvell, C.S. 1990. Role of rootwads as juvenile coho salmon (*Oncorhynchus kisutch*) and steelhead trout (*O. mykiss*) cover habitat under varying streamflows. Can. J. Fish. Aquat. Sci. 47: 852-861.

Skeesick, D.G. 1970. The fall immigration of juvenile coho salmon into a small tributary. Research Report of the Fish Commission of Oregon. Fish Commission of Oregon, Research Division, Newport, OR.

Trotter, P.C. 1989. Coastal cutthroat trout: a life history compendium. Trans. Amer. Fish. Soc. 118:463-473.

U.S. Army Corps of Engineers. 2002. Appendix B: Species Descriptions. http://www.nws.usace.army.mil/publicmenu/DOCUMENTS/Appendix_B_-_species_descriptions.pdf

U.S. Federal Register Volume 64, No. 210, 1 November 1999, final rule - *Salvelinus confluentus*

_____ Volume 63, No. 45, 9 March 1998, proposed rule - *Oncorhynchus tshawytscha*.

Wandling, Paul. City of Bremerton Public Works. Personal communication, conversation with Greg Johnston (The Watershed Company), 30 November 2005.

Washington Department of Fish and Wildlife (WDFW). 2005. Priority Habitats and Species database search results prepared for The Watershed Company, June and December 2005.

Washington Department of Ecology. Sand lance. http://www.ecy.wa.gov/programs/sea/pugetsound/species/sandlance.html. (February 2003)

Washington Department of Fisheries (WDF), Washington Department of Wildlife, and Western Washington Treaty Indian Tribes. 1993. 1992 Washington State salmon and steelhead stock inventory. March 1993. Olympia, WA. 212 p.

_____ 1975. A catalog of Washington streams and salmon utilization. Volume 1, Puget Sound Region. Olympia, WA.

Washington Department of Natural Resources. 2002. Fact Sheet No. 02-136. The Geoduck Program. http://www.wa.gov/dnr/htdocs/adm/comm/fs02-136.htm. (February 2003).

Wilzbach, A.A. and J.D. Hall. 1985. Prey availability and foraging behavior of cutthroat trout in an open and forested section of stream. Verhandlungen internationale Vereinigung fur theoretische und angewandte Limnologie 22:2516-2522.

Withler, L.L. 1966. Variability in life history characteristics of steelhead trout *(Salmon gairdneri)* along the Pacific coast of North America. J. Fish. Res. Board Can. 23(3):365-393.

Wyatt, B. 1959. Observations on the movements and reproduction of the Cascade form of cutthroat trout. Master's thesis. Oregon State College, Corvallis, OR.

Wydoski, R.S. and R.R. Whitney. 1979. Inland Fishes of Washington. Univ. of Washington Press, Seattle, WA. 220 p.

Noise

City of Bremerton. 2006. Bremerton Municipal Code. Chapter 6.32 Noise Levels.

Parametrix, Inc. 2006. Synchro output data sheets.

U.S. Department of Housing and Urban Development. 1985. *The Noise Guidebook*.

U.S. Department of Transportation, Federal Highway Administration. 2004. Traffic Noise Model Lookup Program.

U.S. Department of Transportation, Federal Transit Administration (FTA). 1997. *General Transit Noise Assessment*. HMMH, Inc.

U.S. Environmental Protection Agency. 1971. Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances. NTID300.1.

Environmental Health

Associated Earth Sciences Inc, January 2006. Phase I Environmental Site Assessment (ESA).

Associated Earth Sciences Inc, June 2006. Phase I Environmental Site Assessment Addendum.

Wolfe Environmental Consulting, 2006. Asbestos and Lead-Based Paint Survey.

Land Use

City of Bremerton. 2004a. Comprehensive Plan.

City of Bremerton. 2004b. Comprehensive Plan Draft Supplemental EIS.

City of Bremerton. 2006a. Draft Westpark Sub-Area Plan.

City of Bremerton. 2006b. EIS Addendum for the Westpark Sub-Area Plan.

Socioeconomics & Environmental Justice

Bremerton Housing Authority (BHA), 2006 *A Place to Call Home,* BHA Relocation Plan for Westpark, August 31, 2006.

Bremerton Housing Authority (BHA), BHA 2005 Annual Report.

Dupre + Scott Apartment Advisors, Inc., 2005. The Apartment Vacancy Report, September 2005.

Greenbridge Redevelopment DEIS, King County Housing Authority, November 2003

Johnson, Ted and Tom Drake, Bremerton Housing Authority, Memo from BHA to Clay Adiele, U.S. Department of Housing and Urban Development, "Additional information required for review of the Housing Authority of the City of Bremerton's Firs II Elderly Designation Plan," November 2005.

Kitsap County, Kitsap County Comprehensive Plan, Draft, August 2006 and Final Adopted December 11, 2006.

Kitsap County, Kitsap County and the City of Bremerton 2006-2010 Consolidated Plan – 3 - 5 Year Strategic Plan, 2006.

Kitsap County Consolidated Housing Authority, et al. *Kitsap County Trends*, Fall 2002, Volume XXI.

Kitsap County Consolidated Housing Authority, et al. *Kitsap County Trends*, Fall 2005/ Winter 2006, Volume XXVI.

Kitsap County Consolidated Housing Authority, et al. *Kitsap County Trends*, Spring/ Summer 2006, Volume XXVII.

Marathon Development, Bremerton Housing Authority's Westpark Website: http://www.newwestpark.com/

Mithun Inc. and Rice Fergus Miller Architects, Westpark Strategic Master Plan, Prepared for the Bremerton Housing Authority, March 2002.

National Low Income Housing Coalition, *Out of Reach (*Report for Washington State*)*, 2006.

Puget Sound Regional Council, Data: Demographics and Economy. Website: http://www.psrc.org/data/.

Puget Sound Regional Council, *Puget Sound Trends*, Employment in Cities and Counties, February 2006.

Puget Sound Regional Council, *Puget Sound Trends*, Housing Prices and Affordability, July 2005.

Puget Sound Regional Council, *Puget Sound Trends*, Personal Income and Inflation, 1995-2004, November 2006.

Rice Fergus Miller Architects, New Home Trend, Data, Research, Consulting. Westpark

U.S. Department of Commerce. 2000. Census Bureau, 2000 Summary File 3 (SF3) data for Census Tract 810, Block Group 2, City of Bremerton and Kitsap County. URL: http://www.census.gov/.

U.S. Department of Housing and Urban Development, Website: www.hud.gov

U.S. Department of Housing and Urban Development's (HUD's) Office of Policy Development and Research (PD&R), HUD USER, http://www.huduser.org, Data Sets, Income Limits, FY 2006, March 8, 2006.

Historic & Cultural Resources

nd An Industrial and Administrative History of Puget Sound Navy Yard 1891-1945 in National Archives and Records Administration (NARA), RG 181, 13th Naval District, Box 5, Wartime Histories of Units, Folders 1-6.

Albrecht, Donald, ed.
1995 *World War II and the American Dream.* MIT Press, Cambridge, MA.

Ames, Kenneth and Herbert Maschener
1999 *Peoples of the Northwest Coast: Their Archaeology and Prehistory*. Thames and Hudson. New York.

The Architectural Forum
1941 Houses for Defense. Volume 75, Number 6, pp. 409-415.

Atwater, Brian F. and Andrew L. Moore
1992 A Tsunami About 1000 Years Ago in Puget Sound, Washington. *Science* 258:1614-17.

Barnosky, Cathy W.
1985 Late Quaternary Vegetation Near Battle Ground Lake, Southern Puget Trough, Washington. *Geological Society of America Bulletin* 96:263-71.

Blukis Onat, Astrida R., Maury E. Moregenstein, Philippe D. LeTourneau, Robert P. Stone, Jerre Kosta, and Paula Johnson
2000 *Archaeological Investigations at stuwe'yuq - Site 45KI464, Tolt River, King County, Washington*. BOAS, Inc., Seattle, Washington.

Booth, Derek B., Kathy G. Troost, John J. Clague, and Richard B. Waitt
2003 The Cordilleran Ice Sheet. *Developments in Quaternary Science* 1:17-43.

Bremerton Housing Authority (BHA)
2004 Westpark Redevelopment, Phase-1 Firs II Assisted Living Community. State Environmental Policy Act (SEPA) Environmental Checklist. On file, Bremerton Housing Authority, Bremerton, Washington.

Bucknam, Robert C., Eileen Hemphill-Haley, and Estella Leopold
1992 Abrupt Uplift Within the Past 1700 Years at Southern Puget Sound, Washington. *Science* 258:1611-14 .

Carlson, Roy L.
1990 History of Research in Archaeology. In *Handbook of North American Indians, Volume 7: Northwest Coast,* edited by W. Suttles, pp. 107-115. Smithsonian Institution. Washington, D.C.

Carpenter, Cecelia S.
1986 *Fort Nisqually: A Documented History of Indian and British Interaction*. Tahoma Research Service, Tacoma, WA.

Casad, C.C.
1955 Notes on Garbage. Manuscript in vertical files, Kitsap Regional Library, Bremerton, WA.

Clague, J. J., J. E. Armstrong, and W. H. Mathews
1980 Advance of the Late Wisconsin Cordilleran Ice Sheet in Southern British Columbia Since 22,000 Yr B.P. *Quaternary Research* 13:322-26.

Cooper, Jason P., Dennis E. Lewarch, Leonard A. Forsman, and Lynn L. Larson
1999 *Archaeological Assessment and Clean-Up at the Evergreen Park Site (45KP121), Bremerton, Kitsap County, Washington*. Prepared for Department of Utilities and Public Works, City of Bremerton. Larson Anthropological Archaeological Services LLC, LAAS Technical Report #99-15. Gig Harbor, Washington.

Deitz, Duane A.
1994 “Butler Sturtevant” in *Shaping Seattle Architecture: A Historical Guide to the Architects*, Jeffrey K. Ochsner, ed. University of Washington Press, Seattle, WA.

Dragovich, Joe D., Robert L. Logan, Henry W. Schasse, Timothy J. Walsh, William S. Jr. Lingley, David K. Norman, Wendy J. Gerstel, Thomas J. Lapen, J. E. Schuster, and Karen D. Meyers

1997 *Geologic Map of Washington - Northwest Quadrant*. Washington State Department of Natural Resources, Division of Geology and Earth Resources. Olympia, Washington.

Dugas, A. E., Leonard A. Forsman, Dennis E. Lewarch, and Lynn L. Larson

1998 *Shelbanks Log Home Site and Adjoining Property Archaeological Assessment, Kitsap County, Washington*. Larson Anthropological Archaeological Services LLC, LAAS Technical Report 98-18. Seattle, Washington.

Easterbrook, Don J.

1993 *Surface Processes and Landforms*. MacMillan Publishing Company, New York.

Easterbrook, Don J.

2003 Cordilleran Ice Sheet Glaciation of the Puget Lowland and Columbia Plateau and Alpine Glaciation of the North Cascade Range, Washington . In *Western Cordillera and Adjacent Areas,* edited by Terry W. Swanson , pp. 137-157. The Geological Society of America. Boulder, Colorado.

Ficken, Robert

1987 *This Forested Land: A History of Lumbering in Western Washington*. University of Washington Press, Seattle.

Franklin, Jerry F. and C. T. Dyrness

1973 *Natural Vegetation of Oregon and Washington*. Pacific Northwest Forest and Range Experiment Station, Forest Service, U. S. Department of Agriculture. U. S. Government Printing Office, Washington D. C.

Galster, Richard W. and William T. Laprade

1991 Geology of Seattle, Washington, United States of America. *Bulletin of the Association of Engineering Geologists* 28:239-302.

Garling, M. E., Dee Molenaar, and others

1965 *Water Resources and Geology of the Kitsap Peninsula and Certain Adjacent Islands*. State of Washington, Department of Conservation, Division of Water Resources. Water Supply Bulletin No. 18. Olympia.

Gelernter, Mark

1979 *A History of American Architecture*. Manchester University Press, Manchester, England.

Haeberlin, Hermann and Erna Gunter

1930 *The Indians of Puget Sound*. University of Washington Press. Seattle.

Heiliger, Eva

1941 Here's History of Immense Local Project. *Bremerton Sun*, July 19, 1941:1, 6.

Hibbard, Benjamin
1924 *A History of Public Land Policies*. MacMillan and Company, New York, NY.

Hodges, Charles M.
2003 *Archaeological Inspection, 2955 Rocky Point Road, Bremerton, Washington.* Letter Report prepared for Douglas Harvey. Northwest Archaeological Associates, Inc., Seattle, Washington.

Holmes, J. Lister
1941 "Yesler Terrace Housing." *Pencil Points*, November, pp.684-689.

Housing Authority of the City of Bremerton
1943 *Housing: A Home Front Achievement*. Housing Authority of the City of Bremerton, Bremerton, WA.

1945 *Annual Report 1944-1945*. Housing Authority of the City of Bremerton, Bremerton, WA

Iversen, David R., Leonard A. Forsman, Dennis E. Lewarch, and Lynn L. Larson
2001 *Head of Hililix Shell Midden (45KP123) Archaeological Resources and Traditional Cultural Places Assessment, Kitsap County, Washington*. Prepared for Douglas Harvey, Tacoma, Washington. Larson Anthropological Archaeological Services Limited, LAAS Technical Report #2001-21. Gig Harbor, Washington.

Jermann, J. V.
1983 *Archaeological Investigations at the Manette Site 45-KP-9, Bremerton, Washington*. Office of Public Archaeology, Institute for Environmental Studies, Reconnaissance Report 42. University of Washington.

Johansen, Dorothy and Paul Gates
1967 *Empire of the Columbia.* Harper and Row, New York, NY.

Kelly, Michael S. and David W. Powers
1992 *Historic and Archaeological Survey, Jackson Park and Subbase Housing Expansion Study*. Prepared for U. S. Navy, Engineering Field Activity Northwest, Naval Facilities Engineering Command, Silverdale, Washington. Dames and Moore, Chico, California.

Kennedy, Hal
1976 *Archaeological Testing of 45KP9*. Manuscript on file, Office of Public Archaeology, Institute for Environmental Studies, University of Washington, Seattle.

Kidd, Robert S.
1964 A Synthesis of Western Washington Prehistory From the Perspective of Three Occupation Sites. Seattle, Washington, University of Washington.

Kitsap County Historical Society Book Committee
1977 *Kitsap County History*. Kitsap County Historical Society, Silverdale, Washington.

Kruckeberg, Arthur R.

1991 *The Natural History of Puget Sound Country*. University of Washington Press. Seattle.

Larson, Lynn L., James Forrest, and Leonard A. Forsman
1993 *Bremerton Ferry Terminal to Vicinity of Gorst Highway Improvement Project, Kitsap County, Cultural Resources Assessment*. LAAS Technical Report #93-1. Report prepared for Parametrix, Inc., Kirkland, Washington by Larson Anthropological/Archaeological Services, Seattle, Washington.

Leopold, Estella B., Rudy Nickmann, John I. Hedges, and John R. Ertel
1982 Pollen and Lignin Records of Late Quaternary Vegetation, Lake Washington. *Science* 218:1305-7.

Lewarch, Dennis E.
2001 *Head of Hililix Shell Midden (45-KP-123)*. Washington Archaeological Site Inventory Form. On file, Washington State Department of Archaeology and Historic Preservation, Olympia.

Lewarch, Dennis E., Lynn L. Larson, Leonard A. Forsman, Laura Murphy, and Amy E. Dugas
2002 *Data Recovery Excavations and Construction Monitoring at the Bay Street Shell Midden (45KP115), Kitsap County, Washington*. Report prepared for the City of Port Orchard by Larson Anthropological/Archaeological Services Limited, Gig Harbor, Washington.

Liesch, Bruce A., Charles E. Price, and Kenneth L. Walters
1963 *Geology and Ground-Water Resources of Northwestern King County, Washington. Water Supply Bulletin No. 20*. Division of Water Resources, Department of Conservation. Olympia, Washington.

Marino, Cesare
1990 History of Western Washington Since 1846. In *Northwest Coast,* edited by Wayne Suttles, pp. 169-179. Handbook of North American Indians, Volume 7. Smithsonian Institution, Washington, DC.

Matson, R. G. and G. C. Coupland
1995 *The Prehistory of the Northwest Coast.* Academic Press. San Diego, California.

McCotter, Gayle J.
Nd Westpark and Eastpark, Bremerton, Washington 1940-1943. Manuscript in Kitsap Regional Library, Bremerton, Washington.

Meltzer, David J. and Robert C. Dunnell
1987 Fluted Point From the Pacific Northwest. *Current Research in the Pleistocene* 4:64-67.

Miller, Jay
1999 Suquamish Traditions. *Northwest Anthropological Research Notes* 33:105-175.

Morgan, Vera
1993 *Results of Test Excavations at Archaeological Site 45KP109, Kitsap County, Washington*. Archaeological and Historical Services, Eastern Washington University, Short Report DOT93-15, Cheney.

Morgan, Vera E. editor
1999 *The SR-101 Sequim Bypass Archaeological Project: Mid- to Late-Holocene Occupations on the Northern Olympic Peninsula, Clallam County, Washington*. Prepared for Washington Department of Transportation. Archaeological and Historical Services, Eastern Washington University, Cheney, Eastern Washington University Reports in Archaeology and History 100-108. Cheney, Washington.

Morrison, T.S., Chair
1947 Preliminary Recommendations of the Bremerton Committee on Housing Facts and Goals for the Disposition of Public War Housing in the City of Bremerton, Washington. Bremerton Committee on Housing facts and Goals, Bremerton, WA. Manuscript in Kitsap County Historical Society, Bremerton Housing Authority Collection.

Ochsner, Jeffrey K., editor
1994 *Shaping Seattle Architecture: A Historical Guide to the Architects*. University of Washington Press, Seattle.

Orr, Elizabeth L. and William N. Orr
1996 *Geology of the Pacific Northwest*. The McGraw-Hill Companies, Inc. New York.

Perry, Fredi
2002 *Bremerton and Puget Sound Navy Yard*. Perry Publishing, Bremerton, Washington.

Porter, Stephen C. and Terry W. Swanson
1998 Radiocarbon Age Constraints on Rates of Advance and Retreat of the Puget Lobe of the Cordilleran Ice Sheet During the Last Glaciation. *Quaternary Research* 50:205-13.

Price, Andrew
1989 *Port Blakely: The Community Captain Renton Built*. Port Blakely Books, Seattle, Washington.

Public Works Administration Housing Division
1935 "Sample Plans for Low-Rent Housing Projects." *Architectural Record*, March.

Reh, Louise
1984 *Fair Winds of Change: A History of the Puget Sound Naval Shipyard 1916-1941*. Red Deer Press, Bremerton, Washington.

Roth, Leland M.
1979 *A Concise History of American Architecture*. Harper and Row Publishers, New York, NY.

Ruby, Robert H. and John A. Brown
1986 *A Guide to the Indian Tribes of the Pacific Northwest* . University of Oklahoma Press. Norman, Oklahoma.

Schalk, Randall F.
1988 *The Evolution and Diversification of Native Land Use Systems on the Olympic Peninsula*. Prepared for National Park Service. Institute for Environmental Studies, University of Washington, Seattle, Washington.

Scott, James W. and Roland DeLorme
1988 *Historical Atlas of Washington*. University of Oklahoma Press, Norman, OK.

Scully, Vincent
1969 *American Architecture and Urbanism*. Frederick A. Praeger, New York, NY.

Shong, Michael and Christian J. Miss
2002 *Cultural Resources Investigations of the Proposed Hamilton Sand and Gravel Mine, Skagit County, Washington*. Prepared for Centennial Resources, LLC. Northwest Archaeological Associates, Seattle, Washington.

Simmons, A.
1984 *Archaeological Investigation of the Marlow Avenue Outfall Pipe Project Area.* Manuscript on file, Washington State Department of Archaeology and Historic Preservation, Olympia.

Sleight, Ann C.
1972 A Burial Excavated Near Bremerton, Preliminary Report of Site 45KP9. *The Washington Archaeologist* XVI (3).

Smith, Marian W.
1940 *The Puyallup-Nisqually*. Columbia University Press. New York.

Snyder, Warren A.
1968 *Southern Puget Sound Salish: Texts, Place Names and Dictionary*. Sacramento Anthropological Society, Paper 9. Sacramento, California.

Suttles, Wayne and Barbara Lane
1990 Southern Coast Salish. In *Northwest Coast. Volume 7,* edited by Wayne Suttles, pp. 485-502. Smithsonian Institution. Washington, D.C.

Swanton, John R.
1952 *Indian Tribes of Washington, Oregon and Idaho [1979 Ye Galleon Press Reprint of 1952 Smithsonian Publication]*. Smithsonian Institution. Washington, D.C.

Tsukada, M.
1982 Pseudotsuga Menziesii (MIRB) Fanco: Its Pollen Dispersal and Late Quaternary History in the Pacific Northwest. *Japanese Journal of Ecology 32:159-187* 32:159-87.

Waterman, Thomas T.
2001[1920] *Puget Sound Geography [Edited With Additional Material From Vi Hilbert, Jay Miller, and Zalmai Zahir]*. Zahir Consulting Services/Lushootseed Press. Federal Way, Washington.

Wessen, Gary G. and Jean M. Welch
1991 *A Report of Cultural Resource Survey Activities in the Lake Cushman Project Area, Mason County, Washington*. Report on file, Department of Archaeology and Historic Preservation, Olympia, Washington.

White, Richard
1991 *"It's Your Misfortune and None of My Own:" A History of the American West*. University of Oklahoma Press, Norman, OK.

Whitlock, Cathy
1992 Vegetational and Climatic History of the Pacific Northwest During the Last 20,000 Years: Implications for Understanding Present-Day Biodiversity. *The Northwest Environmental Journal* 8:5-28.

Wright, Gwendolyn
1981 *Building the Dream: A Social History of Housing.* Pantheon Books, New York, NY.

Yount, J. C., J. P. Minard, and G. R. Dembroff
1993 *Geologic Map of Surficial Deposits in the Seattle 30 x 60 Quadrangle. OFR 93-233*. U. S. Geological Survey. Washington, D.C.

Public Services & Utilities

City of Bremerton. 2004a. Comprehensive Plan, City Services Appendix.

City of Bremerton. 2004b. Comprehensive Plan Draft Supplemental EIS.

King County Housing Authority. 2003. Greenbridge Draft EIS.