



# 2015 Comprehensive Plan Periodic Update City of DuPont





# 2015 Comprehensive Plan

Approved October 27, 2015



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## Preamble

DuPont is a master planned community, with its first community plan established around the DuPont Chemical Company's operations at the turn of the last century. Northwest Landing – a concept of the Weyerhaeuser Company – emerged almost 80 years later, continuing the tradition of master planning and applying it to what has now become the majority of DuPont.

DuPont's "neo-traditional" town plan is unique among Washington cities, and the community's first generation comprehensive plans are assembled like "how-to" guides in building a city. While much of that design-specific policy guidance is still relevant, this plan update must recognize that the community in 2015 is much different than the one in place when those early plans were written. DuPont is maturing, with a residential population approaching 9,200. This plan incorporates updated policies addressing the community's current and anticipated challenges.

The community overwhelmingly supports continuing policies that maintain the town's aesthetic and character, those qualities set in motion in the original DuPont town site and continued through Northwest Landing. The community also supports increased focus on public facilities, economic development, public safety and transportation. This plan establishes a policy framework designed to address the community priorities.

This plan looks out to 2035 and serves as a guide for elected leaders, city staff, volunteers and citizens as they address the challenges of budget development and prioritization of effort. Although this is a long range plan, it remains agile by design. There are areas within this plan that speak to intent without being overly prescriptive. Through the use of annual updates, the elected leadership of the city has the ability to draw sharper focus onto areas of emphasis as the time and conditions dictate.

While it proposes no changes in land use designations, this plan proposes significant policy shifts in the following areas:

- **Governance** – DuPont's neighborhoods are now populated, and the role of city government is evolving to focus more on ways to involve the community's residents in local government, leadership, and civic affairs. Additionally, more of the city's governance capacity is shifting to economic development as an emerging planning priority. New policies in this plan encourage continued growth in this direction. Over the past 20 years, DuPont has grown and shed its reliance on services funded and provided by the developer. As part of this "independence", the



*Residents of DuPont place a high value on the community's scenic resources. (Source: Studio Cascade Inc.)*

capacity of the city government must be scaled appropriately to provide the routine and long term service and planning efforts required.

- **Economic development** – The original master plan for Northwest Landing and subsequent shifts in direction since 1995 were based on certain economic assumptions that have been tested and pushed, particularly during the recent “Great Recession.” This plan includes policies to support increased economic resiliency and readiness, building local capacity to identify and take advantage of opportunities to develop employment in DuPont and enhance local retail activity. Economic development is key to sustaining DuPont’s future. It must be balanced with our overall vision for the community. Recruiting businesses that provide appropriate employment opportunities for current and new residents, while operating in a manner that does not compromise environmental and quality of life priorities must guide our planning and recruiting efforts.
- **Fort Lake Business and Technology Park** – Part of the economic development policy framework includes encouraging a new planning process for the Fort Lake area, designing a land use and capital improvements strategy that makes good sense and achieves the community’s objectives for employment development, environmental stewardship, and public enjoyment of this area.
- **Capital facilities** – DuPont’s residents and business owners “bought the post card” of DuPont’s master planned, leafy, neighborhood-scale identity. Policies in this plan support City efforts to sustain the quality of DuPont’s built environment and its levels of public service.
- **Sequalitchew Village** – Full development of this village is more than 20-years out, with mining operations continuing beyond this plan’s horizon year of 2035. But there are policy initiatives in this plan supporting incremental site restoration and development, as well as continued partnerships to enhance the quality of Sequalitchew Creek. In addition, future population targets will rely on this area’s “residential reserve” developing into residential use, something that will almost certainly require a closer look in future plan updates. The actual residential capacity of reclaimed mines will require additional study.
- **Transportation** – This plan update proposes a slightly different look at transportation, incorporating an increased priority on non-motorized travel while still addressing the community’s arterial congestion at freeway interchanges. Since the City’s funds are limited, however, the policy framework encourages the establishment and maintenance of effective, strategic partnerships with surrounding jurisdictions and State agencies. This plan recognizes the nexus between transportation infrastructure and economic development while seeking to balance these objectives while sustaining the quality of life within the community.

## **Vision for DuPont**

The City of DuPont is a model small city known for its planned setting and hometown sense of community; a place that blends its natural beauty, rich Northwest history, and vibrant economy with a proactive approach to its future.



# Chapter 1 - Introduction

Through shared interests the City and community at large have developed a framework for a plan that will take DuPont into the future.

As mandated by Washington State's Growth Management Act (GMA), the City of DuPont is updating its 2001 comprehensive plan. This update revises policies from that plan and includes new public input inspired policies.

## Location and Setting

The City of DuPont, Washington situated half-way between Olympia and Tacoma is a unique community unlike any other community in the Puget Sound Region. With the exception of the "Historic" Village, El Rancho Madrona subdivision, and 219 acres owned by CalPortland the remainder of the city was owned by a single entity, the Weyerhaeuser Corporation.

Development of the City was according to an overall comprehensive land use plan prepared for the Weyerhaeuser Corporation by Calthorpe. As a result all capital facilities were planned, sized, and developed in accordance with that land use plan as adopted by the City and controlled by a single landowner. This unbroken chain of planning and development coupled with Washington State Growth Management Act requirements for concurrency has spared the City from the need to plan, develop, and finance "catch-up" capital facilities as is the case in most cities. Infrastructure capacity was planned and developed either in advance of or concurrently with land use development.

In addition to this unique feature, the City of DuPont is isolated from other municipalities. It is surrounded on two sides by the JBLM Military Reservation, on the third side by steep bluffs leading down to Puget Sound, and on the fourth side by an isolated area of unincorporated Pierce County immediately adjacent to the Nisqually River flats and delta area. The nearest municipality is the Town of Steilacoom three miles to the north via DuPont-Steilacoom Road through North JBLM. Access to the City of DuPont is either via Interstate 5 to Olympia or Tacoma or DuPont-Steilacoom Road to the Town of Steilacoom.

## Relationship to the Growth Management Act and Guidance Documents

The Growth Management Act, RCW 36.70A, became effective on July 1, 1990, making planning mandatory in the State's fastest growing counties and the cities within those counties, including Pierce County and the City of DuPont. The GMA is intended to foster more compact urban development.



*The City of DuPont is unique because it is a master planned community and is surrounded on three sides by the JBLM Military Reservation. (Source: Studio Cascade Inc.)*



Growth Management is intended to be a “bottom-up” approach to planning in the State of Washington (WAC 365-195-060). Local jurisdictions still retain ultimate authority over land use decisions within their boundaries. It is expected that local plans will vary according to the character of the community and by the number and magnitude of growth issues facing the community. However, the GMA makes it clear that, to the extent that a city or town is impacted by the consequences of growth affecting the whole county, it must also share in the burden of dealing with these consequences.

The GMA stipulated that five required elements be included in local comprehensive plans. These include land use, transportation, housing, capital facilities, and utilities. Each required element has minimum information and analytical requirements deemed necessary to address the issues within that element. The various Plan elements must be consistent with each other (i.e., internally consistent), meaning that the goals in any one element cannot conflict with the goals and policies in the others.

In 1991, the GMA was amended to include several new features and requirements. The most notable was the requirement for developing a set of county-wide policies that are to act as a common guide for the preparation of comprehensive plans, both for the County and all of its cities. The intent of county-wide policies, in general, is to ensure that issues affecting the whole County, such as transportation, are dealt with in a consistent manner by each jurisdiction. County-wide policies for Pierce County were initially adopted by the County Council in July 1992 with the latest amendment occurring in August of 2012.

The GMA also requires that Snohomish, King, and Pierce counties develop and adopt multi-county planning policies. In much the same way that countywide planning policies provide a framework for comprehensive plans, multi-county planning policies provide a regional framework for the development of countywide planning policies. The multi-county planning policies are a component of *Vision 2040* the policy and planning document for the Central Puget Sound region and are adopted by the Puget Sound Regional Council (PRSC). *Vision 2040*, the GMA, Multi-county Planning Policies, and Countywide Planning Policies have been used as a guide in developing this plan.

#### *PSRC Vision 2040 – Statement of Conformity*

As a partner in the Puget Sound region’s growth and development, the City of DuPont has taken directives from the PSRC and Vision 2040 very seriously. The DuPont comprehensive plan addresses vision 2040’s multi-county planning policies and conforms to relevant planning requirements in the GMA.

#### **Vision 2040 Statement**

*DuPont’s Comprehensive Plan provides guidance to decision makers, staff, and residents of DuPont regarding a sustainable approach to growth and future development of the City of DuPont. The plan and its goals and policies have incorporated a local approach to planning and decision-making that addresses protection of the natural, social, and economic environments.*

*The plan confirms DuPont’s commitment to the preservation and protection of its unique, interdependent relationship between DuPont’s water, land, and cultural heritage.*

*Incorporated through several elements of the plan are goals and policies relating to the protection of ecosystems, conservation of habitat and resource lands, and the preservation and enhancement of DuPont's water-related resources.*

*The plan includes goals, policies, and implementation strategies that create local employment, shopping and other urban service centers that will reduce DuPont's dependence on and local resident travel requirements outside the area. DuPont will address reduction in greenhouse gas emissions through land use and transportation-related development techniques that encourage a healthier community and region by promoting a more balanced, multi-modal transportation system and more dense mixed use development in the downtown and in identified activity centers.*

*The plan includes provisions that ensure that a healthy environment remains available for future generations as the plan includes goals and policies related to land management that allows innovation and flexibility to ensure that the environment is not degraded and that urban uses don't create public hazards or nuisances - instead of restricting various development types the City will employ development tools that will ensure appropriate development of all lands within the City including the protection of sensitive lands.*

#### **Regional Growth Strategy Alignment**

This Comprehensive Plan has been updated based on residential and employment targets. Unfortunately the housing targets do not align with projected capacity from the Buildable Lands Report; nor are the targets consistent with long-term vision and planned community expectations. The City looks forward to working with Pierce County to revise population targets that address slower than expected land availability due to changing market conditions, consent decree, continued operations of gravel mining, and overall master planned development. This Plan includes projected job-related calculations based on currently adopted growth assumptions, and while the jobs target appears to exceed capacity the assumptions for employees per acre for manufacturing and warehousing in the buildable lands report are lower than expected future conditions.

Based upon projected population growth and the community's economic profile, the City has identified additional housing demand for the City through the year 2035. DuPont has also established policies relating to the preservation, improvement, and variety of the housing stock in order that DuPont will continue to promote equal access to housing that is affordable, health and safe for all residents.

The plan also addresses economic or employment-related goals presented in Vision 2040: The Plan's goals specifically address the development of a sound fiscal base and increase local economic opportunities through an emphasis on small business opportunities, reservation of lands capable of supporting employment related development and DuPont's outdoor recreation opportunities.

### Plan Participants

This plan update included the efforts many individuals and groups, including:

- The Planning Agency
- The City Council
- The Community – outreach included:
  - Stakeholder Interviews
  - Public Workshops
  - Storefront Studio
  - Public Hearings



*Community members had an opportunity to weigh-in on important policy direction at the open house, identifying issues and considering responses. (Source: Studio Cascade Inc.)*

### Plan Platform and Structure

For purposes of the plan, the "Goals", "Policy", and "Action" are defined as:

**GOAL** – A goal is a broad statements indicating a general aim or purpose to be achieved. A goal is a direction setter, an ideal future end, condition, or state related to the public health, safety, or general welfare toward which planning and implementation measures are directed.

**POLICY** – A policy is a topic-specific statement that provides guidelines for current and future decision-making. It indicates a clear commitment of the local legislative body. A policy is an extension of a plan's goals, reflecting an assessment of conditions.

**ACTION** – An action is a budgetable step(s) envisioned or undertaken to implement plan policy. Actions may include development of more detailed and localized plans, work to implement policies, formal



*A Storefront Studio was held in downtown and provided multiple opportunities for community members to identify their policy priorities. (Source: Studio Cascade Inc.)*

agreements, regulations or other strategies.

This plan update contains the following main components:

- 1) **Background and Planning Area Overview** – a review of the City’s overall development patterns and planning area.
- 2) **Comprehensive Plan Chapters/ Elements** – individual chapters for each element of the comprehensive plan:
  - a) Land Use,
  - b) Economic Development,
  - c) Natural Environment,
  - d) Cultural Resources,
  - e) Parks and Recreation,
  - f) Housing,
  - g) Transportation, and
  - h) Capital Facilities and Utilities

Each element contains a matrix of the community’s goals, policies, and actions directed at achieving the community’s stated long-term vision.

- 3) **Villages and Major Land Use Areas** –

This update preserves and respects the historic organization around DuPont’s Villages.

  - a) Each Village discussion includes the topical elements:
    - Land Use
    - Transportation,
    - Economic Development
    - Housing
  - b) Incorporate (largely by reference)
    - Transportation Plan
    - Capital Facilities Plan
    - Shoreline Master Program (SMP).
- 4) **Implementation** - List various programs, suggested timeframes and leading agencies responsible for setting the plan into motion and over time keeping progress measurable and consistent over time.
- 5) **Appendices** - Present information relevant to this comprehensive plan, as well as the component topic-specific plans that will help activate the comprehensive plan's policies, including:
  - a) A State Environmental Policy Act (SEPA) documentation developed for the plan's adoption.
  - b) A Glossary
  - c) An accounting of the public process used to develop this update
  - d) The Transportation Plan
  - e) An Economic Development strategies report
  - f) The Capital Facilities Plan

## Plan Guiding Concepts

The basic concept for future development of DuPont is rooted in what has worked in the past for other American small towns. Planners and writers label it new urbanism, neo-traditional, or traditional neighborhood design. Many towns that grew and developed from colonial times to the middle of this century are model places to live, work and play. These towns were developed prior to the intensive use of the automobile and were able to accommodate vehicles without destroying the pedestrian environment or the character of the community.

Through its own public process this update confirms the vision established in the 2001 plan:

*“The City of DuPont is a model small city known for its planned setting and hometown sense of community; a place that blends its natural beauty and rich Northwest history with a proactive approach to its future.”*

Below are a series of bullet point that pull out the concepts embedded in the City’s vision these guiding concepts in turn influenced the development of the goals, policies and actions found in individual chapters of this plan.

The guiding concepts of this plan are:

- There is a balance of housing, jobs and services.
- Neighborhoods are not isolated and have a distinct focal point and short walking connections to other neighborhoods, services, public features, and jobs.
- Streets are designed to slow traffic and traffic volumes consistent with the adjacent land use character.
- Almost all residential and commercial development is compact, arranged along grid streets.
- There is a broad range of housing opportunities mixed into neighborhoods.
- Residential and commercial buildings are designed to a variety of styles from the 1900- 1940's.
- Housing density may be increased near the freeway for mass transit opportunities.
- There is a single, diverse, lively, commercial area, which includes a major public space, retail, office, and residential use.
- There is a sense of safety and people will find reasons to be outside, mingling on streets and greens.
- There is a civic center containing government, recreational and cultural services.
- Various uses are planned to fit and reinforce the basic community pattern and architectural style.
- You feel oriented, can find and enjoy the commercial area, and the community's various parts including natural areas.
- Environmentally sensitive areas are preserved.
- Heritage of the early settlements (American Indian, Hudson Bay, and DuPont Company) is featured with development, not obscured.





## Chapter 2 – Background, Planning Area Overview, and Context

### Planning Area Description

The City of DuPont encompasses approximately 5.8 square miles (3755 acres). The City has distinct and defined boundaries that generally extend from the Puget Sound shoreline on the northwest, I-5 and the JBLM Golf Course on the south, and the DuPont-Steilacoom Road on the east.

The JBLM Military Reservation borders the City on the northeast, east, and southeast. The Nisqually National Wildlife Refuge is located in the tidal flats south and west of DuPont. Puget Sound borders the City on the west. The nearest communities are Steilacoom and Lakewood, which are located approximately five miles to the north and northeast of the City, respectively.



*The City of DuPont has a strong history of planning from its origins as a company town to its more contemporary evolution as a master planned community. (Source Studio Cascade Inc.)*

### Historic Development Patterns

Historically, DuPont and the surrounding area have been used by several Indian tribes known collectively as Salish people, and more recently the Hudson's Bay Company (and its subsidiary the Puget Sound Agricultural Company), and the E.I. du Pont de Nemours Company.

European settlement began in 1833 when the Hudson's Bay Company established a cabin/storehouse, later called Nisqually House, at the mouth of Sequelitchew Creek. Fort Nisqually, a main trading and supply center for American Indians and early U.S. settlers, was built in 1833. In 1843, the Fort was relocated to a site west of Edmond Marsh and south of Sequelitchew Creek, to the east side of what is now Center Drive.

Based on the 1854 Treaty of Medicine Creek, the area is part of the traditional territory of the Nisqually Tribe. A number of prehistoric sites have been located during previous field surveys conducted for the Weyerhaeuser Export Facility and Glacier Northwest (formerly the Lone Star Company).

Industrial uses began in 1906, when the E.I. du Pont de Nemours Company purchased the Fort Nisqually property and began construction of a munitions and explosives plant. Its powders were used to clear stumps for western expansion of the railroad and to clear fields for farming in the region. The plant itself signified the beginning of the Industrial Era in the West. In 1909, the DuPont Company began



construction of what is now the Historic Village for plant workers. In 1917, the Company Town had 100 homes.

The City of DuPont was first incorporated on March 26, 1912 to permit the sale of liquor under state law. On November 2, 1926 the City disincorporated since Prohibition made the sale of liquor illegal. The City was incorporated for a second time on May 11, 1951 and the company housing was sold to residents. On January 16, 1970 DuPont became a Code City. Production of explosives continued until the late 1970's when the property was acquired by the Weyerhaeuser Company.

The City expanded its boundaries in 1977 by annexing the 33 lots of a subdivision known as El Rancho Madrona, located west of the JBLM Golf Course. In 1987, the City annexed property that was exchanged between the U.S. Army and Weyerhaeuser Company to make the boundaries more even. This change resulted in 285 acres of military land west of the DuPont Steilacoom Road being inside the City Limits.

In 1989 the construction of Center Drive was started. The first phase began at the DuPont Steilacoom Road and the last phase was completed in 1997 with a connection to Interstate 5. The initial construction phase concentrated on providing utility service and access to business properties. The improvements were deliberately made to entice a market.

The costs to prepare for development have been significant. Weyerhaeuser Real Estate Company committed approximately \$60 million for water and major roads, sewer service, and the Center Drive/I-5 Exit 118 interchange. These initial costs, coupled with the expectation of having a full range of services before the community was built out, were recognized as necessary major development components.

## Effects of Past Land Use

JBLM previously operated a landfill (Landfill No. 5) adjoining the DuPont-Steilacoom Road in the City. A remedial investigation was completed for the landfill and a Record of Decision (ROD) was issued in July 1992. The ROD indicated that no further action on the landfill was required and domestic use of groundwater would not have an adverse effect on human health or the environment. The landfill was deleted as a superfund site in May 1995. This site, located east of the DuPont industrial area on JBLM property, has been designated as open space in the JBLM Real Property Master Plan. Within this land use category, the site can be used for "training, recreational uses and aesthetics of the post".<sup>1</sup>

In 1985, Weyerhaeuser began an investigation of the former DuPont Works property to identify the presence of hazardous substances. Soils within the production areas of the former DuPont Works site were found to be contaminated with chemical compounds associated with explosives manufacturing. Of these chemicals, lead and arsenic were the primary contaminants. Other lesser contaminants include dinitrotoluene (DNT), trinitrotoluene (TNT), mercury, and petroleum.

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<sup>1</sup> JBLM Real Property Master Plan, Department of Defense circa 1998

In 1991, the Department of Ecology, the Weyerhaeuser Company, and the DuPont Company signed a Consent Decree pursuant to the Model Toxics Control Act (MTCA) under which remedial cleanup activities for the site would be conducted. Final cleanup actions and standards for both Consent Decree areas were determined by the Department of Ecology subject to statutory provisions. In 2000 the Department of Ecology was the lead agency in preparing the Draft EIS for the cleanup proposal.

Consent Decree area #1 consisting of 636 acres south of Sequatchew Creek was cleaned and released for development. By agreement between the DuPont and Weyerhaeuser corporations Consent Decree area #1 is restricted to non-residential development.

Consent Decree area #2 consisting of 205 acres north of Sequatchew Creek was cleaned and released for industrial uses by the Department of Ecology in 2002.



*There is a variety of housing types in DuPont. The majority of the community's housing has been built since 1994. (Source Studio Cascade Inc.)*

According to a January 1995 draft study issued to the Washington State Department of Ecology by the DuPont and Weyerhaeuser Companies, over 75,000 tons of contaminated soils were removed from area #1. Estimates developed in 2000 by DuPont and Weyerhaeuser indicated that an additional 600,000 cubic yards to 1,000,000 cubic yards required remediation. The majority of this material was placed in discrete areas and covered by the golf course. Any soils that could not be safely placed under the golf course containment were treated and removed from the site. Groundwater and surface water do not require treatment. Remediation of the site was conducted under a Consent Decree with oversight by the Washington State Department of Ecology. In 2006 the remedial cleanup activities were completed and the site released for development in 2007.

## Existing Land Uses

Table B-1 shows the current breakdown of land use types as a percentage across the City. Discussions in the Land Use Chapter show acreages for land use designation for each Village. As the table shows there is a relatively even split across the different types of land uses, likely reflecting the master planned nature of DuPont.

Table 1: Actual and Projected Percentage of Land Used by Land Use Type

	1995	2001	2014 <sup>(2)</sup>	2035 <sup>(1)(3)</sup>	Build Out
<b>HOUSING UNITS</b>	233	1,086	3,166	5,803	5,935
Single Family	179	678	2,166	3,999	4,109
Multifamily	54	408	1,000	1,804	1,826
<b>EMPLOYMENT</b>	200	2,890	4,088	11,258	11,650
Jobs per Household	0.9	2.7	1.2	1.9	1.9
<b>% of Gross Acres (3,755 for 1995 and 2001, 3,773 for 2014 on) by Land Use Type</b>					
Residential (Single family, Multifamily, & Residential reserve)	2%	5%	22%	31%	32%
Business (Office, Commercial, Mixed Use, Manufacturing & Research Park, Business & Technology Park, Industrial)	1%	5%	11%	33%	35%
Sensitive Area, Open Space	16%	19%	22%	22%	22%
Public Use, Parks, Recreation (Civic, Schools, Parks, Cultural and Recreation)	0.4%	0.9%	3%	3%	3%
Other (Military, Major roads)	8%	10%	7%	7%	7%
Not Yet In Use	73%	60%	35%	3%	0%

<sup>(1)</sup> 2035 is shown to reflect the end of the City’s 20 year growth period. In a subsequent plan amendment this period will be extended to create a new twenty year time frame.

<sup>(2)</sup> Housing and employment estimates for 2014 are from the 2009-2013 American Community Survey

<sup>(3)</sup> The land use categories Civic, Schools, Cultural and Recreation, Major Roads, and Not Yet In Use are not used in the 2015 update as land use designations and since historic resources are unavailable, allocating all these to the correct type is impossible.

## Population

The number of residents in the City has increased significantly since development of Northwest Landing began in 1994. In 1995, it was estimated that DuPont had a population of 588, as of April 1, 2014 the population estimate was 9,175, that’s an increase of 8,587 over twenty years<sup>2</sup>. The rate of growth shown in Figure B-A shows the dramatic growth experienced in the 1990s has leveled out and become a steadier, more predictable growth rate.

<sup>2</sup> Washington State Office of Financial Management, April 1<sup>st</sup> Population estimates

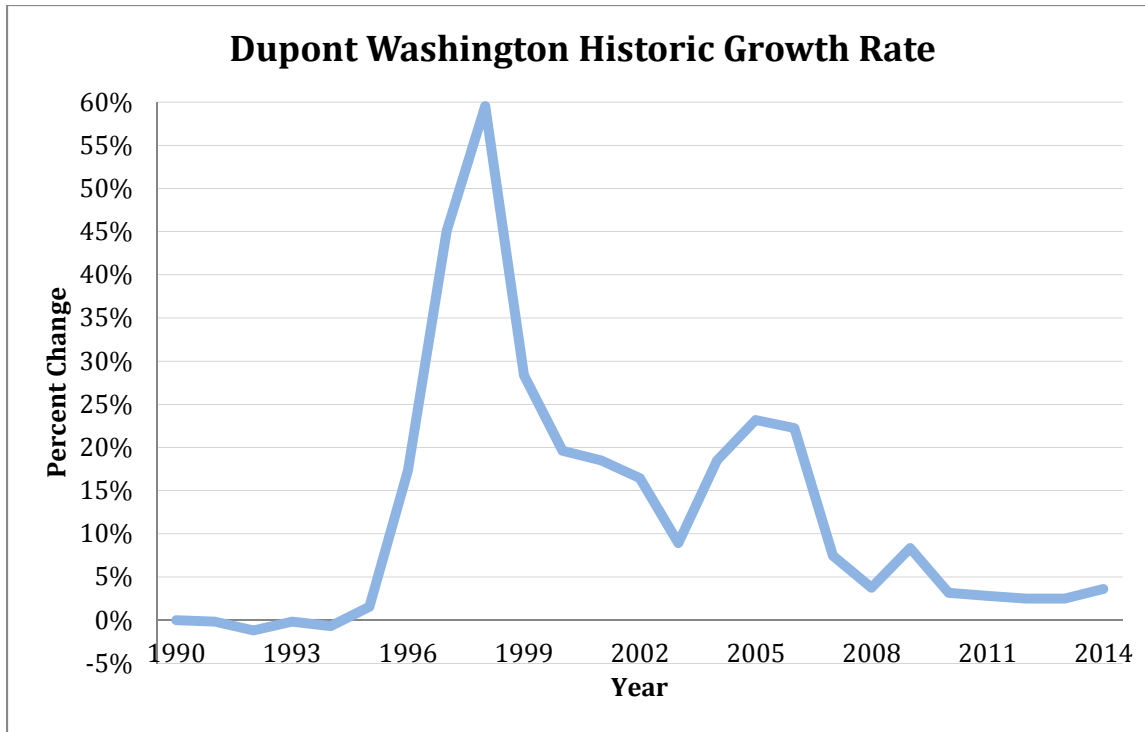


Figure A: Historic Population Growth Rate

According to the American Community Survey 2009-2013 the median age of a DuPont resident was 32 years of age, and nearly 35 percent of the total population is under the age of 20. Just more than 46 percent of all households have children under the age of 18.

## Housing

In 1994, prior to new development there were 229 residential units in DuPont, 76 percent were single-family homes and 24 percent were multifamily homes. Overall density was 3.2 units per residential acre. Since 1994, there have been 3,506 housing units built with the bulk of this growth occurring in the decade between 1996 and 2006. As of 2014 68 percent of the units are single-family and 32 percent are two or more unit dwellings.

The 1995 Plan estimated an average of 2.6 people per single-family residence and 2.1 people per multifamily residence. According to the 2009-2013 American Community Survey data, the average household size for an owner-occupied unit is 2.94 and 2.76 for renter-occupied units. These household sizes have been used in all subsequent population estimates.

## Employment

Nearly 6,000 people within the City of DuPont are over the age of 16, and almost 70 percent of them are in the labor force. Of those in the labor force just over 20 percent are in the Armed Forces (see Table 2).

Table 2: Employment Status

Employment Status	Estimate	Percent
Population 16 years and over	5,957	100%
In labor force	4,088	68.6%
Employed Civilian labor force	2,734	45.9%
Armed Forces	1,203	20.2%
Not in labor force	1,869	31.4%
Unemployed Civilian Labor Force	151	2.5%

(Source US Census, American Community Survey, 2003-2013)

The following points are a summary of key findings from an analysis of employment data from Puget Sound Regional Council.

- Finance, Insurance, and Real Estate is the City’s largest sector, and has comprised approximately 35% of employment for the past decade. Overall employment in DuPont has grown by 32% over the past decade at an average annual rate of 3%. This rate is much higher than economic growth throughout the Puget Sound Region (12% overall, 1% average annual), but it is also less than the City’s population growth (122% overall, 8% average annual).
- Employment in Services, once just 8% of the City’s employment, has grown to become 24% of employment in DuPont.
- Employment in Manufacturing, once almost 40% of the City’s employment, has shrunk at an average annual rate of 4% and in 2013, was 25% of the City’s employment.
- Employment in Trade, Transportation, and Utilities have grown over the past decade but the sector still comprises just 2% of employment in the City.
- Employment in Education has grown, likely to address to additional educational needs of DuPont’s growing population.

## Diversity

Two indicators of diversity are income levels and ethnic mix. The most accessible information on those indicators is available from the U.S. Census Bureau the American Community Survey. Although DuPont is predominately white, there is more ethnic diversity in the City than in the Puget Sound Region and Pierce County. Washington State is significantly less diverse than DuPont is according to the American Community Survey done for the time period of 2009 through 2013 (see Table 3).

Table 3: Ethnic Diversity in DuPont, Washington and Surrounding Areas

Race in DuPont and Other Geographies	DuPont	Pierce CO	Puget Sound Region	Washington State
White	70.9%	75.5%	76.8%	78.5%
Black or African American	7.7%	6.8%	4.6%	3.6%
Native American	0.3%	1.2%	1.1%	1.4%
Asian	11.5%	5.9%	8.7%	7.3%
Native Hawaiian	0.2%	1.3%	0.8%	0.6%
Some Other Race	0.6%	2.6%	2.3%	3.9%
Two or More Races	8.8%	6.7%	5.8%	4.8%
Hispanic Origin (2013 ACS estimate)	9.2%	9.4%	9.0%	12.0%

(Source US Census, American Community Survey 2009-2013)

## Capacity and Growth Targets

### Housing Capacity

This plan update does not propose significant changes to the land use designations from the 2001 Comprehensive Plan. As such, the plan update provides for an additional 2,296 housing units over the 20-year planning horizon, this additional number of housing units includes the Reasonable Accommodation Measures from below. The total number of housing units within the planning horizon that DuPont plans to accommodate is 7,591. The table below identifies available acres, assumed densities for various land use designations, and remaining capacity under existing conditions with adopting the reasonable measures.

Table 4: Estimated Total Additional Housing Unit Capacity Under Existing Assumptions

Zoning District	Adjusted Net Acres <sup>1</sup>	Assumed Density	Housing Unit Capacity <sup>3</sup>
R-3	4	3.5	14
R-4	222	4.5	1,001
R-5	32	5.5	178
R-12	6	12.5	71
RR	102	.2	20
<b>Total Housing Capacity</b>			<b>1,284</b>

<sup>1</sup> Adjusted net acres is the available acres from the Pierce County Buildable Lands Report

<sup>3</sup> Housing unit capacity is the additional capacity based on available and does not reflect existing development.

### Employment Capacity

This plan update does not propose significant changes to the land use designations from the 2001 Comprehensive Plan. As such, the plan update provides for an additional 4,896 employee units over the 20-year planning horizon, which accounts for the reduction in Mixed Use zone land – the reason why is discussed below. The total number of employee units within the planning horizon that DuPont plans to accommodate is 11,259 employee units. The table below identifies available acres, assumed densities for various land use designations, and remaining capacity.

Table 5: Estimated Total Additional Employee Capacity

Zoning District	Adjusted Net Acres	Employees per Acre	Employment Capacity
OFF	1.44	19.37	28
COM	5.23	19.37	101
MXD	22.88	19.37	109
BTP	245.68	8.25	2,027
MRP	267.96	8.25	2,221
IND	50.94	8.25	420
<b>Total Employee Capacity</b>			<b>4,896</b>

### Housing and Employment Targets

The City adopts the housing and employment targets forecast by PSRC for the year 2035 found in Land Use Targets Maintenance Release 1 (LUT-MR1) released on 4/14/2014. These targets are superseded by the 2030 targets adopted by Pierce County Ordinance Number 2011-36s. These targets and estimated capacity as identified in Pierce County’s Buildable Lands Report can be found in the table below.

Table 6: Projected Housing and Employment Needs

	2010 Estimate <sup>1</sup>	2035 Total Housing Need <sup>4</sup>	Additional Needs <sup>3</sup>	Capacity	Difference
Housing	3,241	5,781	2,540	1,301	(-1,239)
Employment	3,055 <sup>2</sup>	10,545	6,584 <sup>5</sup>	4,898 <sup>6</sup>	(-1,686)

<sup>1</sup> 2010 Census

<sup>2</sup> PSRC Land Use Targets 2010 Employee Estimate

<sup>3</sup> Additional Needs is additional amount of housing or employment capacity needed for the plan horizon.

<sup>4</sup> PSRC Land Use Targets, Release date 4/14/2014

<sup>5</sup> Total employment allocations are reduced by 12.1% to account for mobile workers and work-at-home employees, consistent with Buildable Lands Report

<sup>6</sup> The Capacity for Employment is different than the Buildable Lands Report (5,230 vs 4,898). This difference is due to allocated residential units to the Mixed Use zone.

As indicated in the table above, the City is projected to have a deficiency of 1,239 housing units, 21% of the total need. Due to the deficiency in housing capacity, the Buildable Lands Report suggests that the City consider reasonable measures in order to accommodate future growth. These reasonable measures are identified below.

The table also indicates a deficiency of 1,688 employees; this is different from the Buildable Lands Report because this plan allocates a portion Mixed Use Zone to residential development, described below. While the Report indicates that reasonable measures may not be necessary for the employment deficiency, that recommendation was based on a smaller deficiency, thus this plan addresses the employment with the reasonable measures below.

### Reasonable Measures Adopted

Defining reasonable measures is left to the local jurisdiction. In the City of DuPont’s case, the identified deficiency appears to be able to be minimized by adjusting the density assumptions for Reserved Residential (RR) zone. However, this measure is not likely to solve the deficiency issue, the reasons discussed in the bullet points below.

- Reserved Residential – All of the Reserved Residential (RR) is within Sequelitchew Village, which is currently being mined for gravel and likely to continue for at least 15-20 years. This plan assumes that the RR zone would develop at a higher density than identified in the Buildable Lands Report – an average of 4.5 dwelling units per acre. This density increase would provide a total of 1,863 dwelling units. By adopting this measure DuPont can address the projected deficiency identified in Pierce County’s BLR. However, as indicated, much of the RR designated land is likely to remain unavailable during the next 15-20 years. If the mining operations continue beyond the planning horizon, DuPont would not be able to use the land to meet growth targets. It is expected that the area designated as RR will undergo a subarea plan at or near the conclusion of mining operations.
- Increased Employment Intensities - The current assumption of 8.25 employees per acre for the Business Technical Research, Manufacturing Research Park, and Industrial designations is based on Pierce County’s Employment Survey. While this assumption is accurate for current conditions, the City of DuPont expects minor increased intensities in the future. Even though the increase is minor, an increase of 2.75 employees per acre (11 employees/acre), the land area associated with these land uses are substantial and the increase results in a small surplus.

The tables below recalculate the capacity for housing and employment using the reasonable measures identified above.

*Table 7: Reasonable Measure Adjusted Housing Unit Capacities*

Zoning District	Adjusted Net Acres <sup>1</sup>	Assumed Density	Housing Unit Capacity <sup>3</sup>
R-3	4	3.5	14
R-4	222	4.5	1,001
R-5	32	5.5	178
R-12	6	12.5	71
RR	414	4.5	1,863
<b>Total Housing Capacity</b>			<b>3,126</b>

<sup>1</sup> Adjusted net acres is the available acres from the Pierce County Buildable Lands Report

<sup>3</sup> Housing unit capacity is the additional capacity based on available and does not reflect existing development.

*Table 8: Reasonable Measure Adjusted Employment Capacities*

Zoning District	Adjusted Net Acres	Employees per Acre	Employment Capacity
OFF	1.44	19.37	28
COM	5.23	19.37	101
MXD	22.88	19.37	437
BTP	245.68	11	2,702
MRP	267.96	11	2,948
IND	50.94	11	560
<b>Total Employee Capacity</b>			<b>6,777</b>

*Housing and Employment Targets with Reasonable Measures Adopted*

The table below revisits the housing and employment targets with the reasonable measures taken into account. Even taken the reasonable measures above, assuming 8 units per acre in the RR and a 75/25 residential /office split in the MXD zone, DuPont is faced with the larger issue of not being able to



accommodate targets beyond those envisioned in the 1995 master plan. Additionally, DuPont is hemmed in by the Puget Sound and Joint Base Lewis McCord, making an Urban Growth Area expansion unlikely. Further, the City has very little undeveloped land and that which is available is master planned at densities accounted for in the BLR. Finally, most of DuPont is relatively new development that is unlikely to need replacement over the planning horizon. For each of these reasons DuPont will need to continue negotiations with the Pierce County in future housing targets.

*Table 9: Reasonable Measures Adjusted Housing and Employment Targets and Capacities*

	2010 Estimate <sup>1</sup>	2035 Total Housing Need <sup>4</sup>	Additional Needs <sup>3</sup>	Capacity	Difference
Housing	3,241	5,781	2,540	3,126	586
Employment	3,055 <sup>2</sup>	10,545	6,584 <sup>5</sup>	6,777	193

<sup>1</sup> 2010 Census

<sup>2</sup> PSRC Land Use Targets 2010 Employee Estimate

<sup>3</sup> Additional Needs is additional amount of housing or employment capacity needed for the plan horizon.

<sup>4</sup> PSRC Land Use Targets, Release date 4/14/2014

<sup>5</sup> Total employment allocations are reduced by 12.1% to account for mobile workers and work-at-home employees, consistent with Buildable Lands Report

<sup>6</sup> The Capacity for Employment is different than the Buildable Lands Report (5,230 vs 4,898). This difference is due to allocated residential units to the Mixed Use zone.

## Chapter 3 - Land Use

DuPont's essential land use directive is to maintain DuPont's small town "post card" character. The City recognizes the importance and value envisioned for DuPont from both its historical roots and, more recently, its master planned roots. Further, the City recognizes that through its influence of land development, it can preserve the historic and small town richness that residents desire and expect.

This plan provides policy guidance on preserving the small town postcard, suggesting individual actions the City and community can take to accommodate growth and development. The community is committed to preserving the character residents have come to expect, and it will use the tools available to do so.

The guiding concepts of this plan – as they relate to economic development – are:

- Neighborhoods are not isolated and have a distinct focal point and short walking connections to other neighborhoods, services, public features, and jobs.
- Streets are designed to slow traffic and traffic volumes consistent with the adjacent land use character.
- Almost all residential and commercial development is compact, arranged along grid streets.
- There is a broad range of housing opportunities mixed into neighborhoods.
- Residential and commercial buildings are designed to a variety of styles from the 1900- 1940's.
- There is a single, diverse, lively, commercial area, which includes a major public space, retail, office, and residential use.
- There is a sense of safety and people will find reasons to be outside, mingling on streets and greens.
- There is a civic center containing government, recreational and cultural services.
- Various uses are planned to fit and reinforce the basic community pattern and architectural style.
- You feel oriented, can find and enjoy the commercial area, and the community's various parts including natural areas.
- Environmentally sensitive areas are preserved.
- Heritage of the early settlements (American Indian, Hudson Bay, and DuPont Company) is featured with development, not obscured.



*Community members value DuPont's quality of life, identified in part by a strong commercial core surrounded by walkable neighborhoods. (Studio Cascade Inc.)*

## Land Use Designations Described

The City of DuPont uses a 1:1 ratio for their Land Use designation to Zoning Districts. In other words, each future land use designation has a corresponding zoning district. The table below shows the City's future land use designation and provides a description of that designation's intent.

Table 10: Future Land Use Designation Descriptions

Designation	Description
<b>R-3</b>	The purpose of the R-3 district is to implement the single-family land uses specifically within the Historic Village, and El Rancho Madrona subdivision, where single-family density averages three units per acre.
<b>R-4</b>	The purpose of the R-4 district is to implement the single-family land uses where single-family density averages four units per gross acre. This district is appropriate for Hoffman Hill Village and Sequelitchew Village.
<b>R-5</b>	The purpose of the R-5 district is to implement the single-family land uses where single-family density averages five units per acre. This district is appropriate for Palisade Village, Yehle Park Village and Edmond Village.
<b>R-12</b>	The purpose of the R-12 district is to implement the multifamily land uses where multifamily density averages 12 units per acre.
<b>Residential Reserve</b>	<p>The purpose of the residential reserve district is to designate property likely not available for the city's 20-year growth projections for the northerly portion of the Sequelitchew Village planning area.</p> <p>The district is intended as an interim measure to provide time for future studies and analysis to be conducted for subsequent comprehensive plan amendments, including a subarea planning process. Specific designations will be adopted after these future studies and may include residential, mixed use, and commercial. For the purposes of 2015 plan, the density for this district is four and a half (4.5) dwelling units per acre. This designation will be reviewed as part of the city's periodic review cycle and may be considered earlier through the city's two-year plan amendment process.</p>
<b>Commercial</b>	The purpose of the commercial district is to allow commercial development. These areas are intended to provide goods and services to the entire community or larger market areas.
<b>Mixed Use</b>	The purpose of this district is to permit uses that are allowed in the commercial district, the office district, and residential zone district. This area is intended to provide office space, goods and services to the entire community or larger market.

Designation	Description
<b>Business Tech Park</b>	The business tech park district is intended to provide location for a range of uses including business park uses, including office, commercial, light manufacturing and research, and possibly mixed-use residential. This district is intended to provide area for those uses that desire to conduct business in an atmosphere of prestige location in which environmental amenities are protected through a high level of development standards. Light manufacturing uses with significant adverse impacts such as excessive noise or emission of significant quantities of dirt, dust, odor, radiation, glare or other pollutants are prohibited.
<b>Manufacturing and Research</b>	This district allows for light manufacturing and high technology industries such as biotechnology, computer technology and communications equipment uses. Land uses with any significant adverse impacts, such as excessive noise or emission of significant quantities of dirt, dust, odor, radiation, glare or other pollutants, are prohibited. This district also provides in limited locations small scale retail.
<b>Industry</b>	The purpose of this district is to provide for the location and grouping of industrial uses, and similar uses involving manufacturing, assembly, fabrication, processing, bulk handling, storage, research, and heavy trucking. This purpose is accomplished by permitting a wide range of industrial uses, establishing appropriate development standards.
<b>Open Space (includes park lands)</b>	The purpose of this district is to recognize those lands which are not intended to be developed due to the presence of wetlands, wetland buffers, steep slopes and other sensitive areas and their buffers and recognize lands for parks, greenbelts, open space and tree preservation areas and regional storm drainage detention areas in addition to open space and landscape areas as mutually agreed to by the property owner and city. In addition, some open spaces are intended to preserve historic and Native American cultural sites. A network of trails is intended to link open spaces with one another and with other community facilities
<b>Military Land</b>	The purpose of the military lands designation is to recognize the portion of the federal military installation within the DuPont city limits. The autonomy associated with the federal ownership in combination with the unique character of the military operations and support structures is not typical of civilian land uses. Military lands are designated on the land use map but land uses within the installation are not governed by the city.

## Villages and Major Land Use Areas

The combination of DuPont’s natural and man-made features tends to define distinct individual land areas within the City. These land areas provide a physical basis for establishing the general boundaries for villages and major land use areas. The map below reflects the overall location of each village and major land use area. The sections and figures on the following pages describe the detail. Within the

“Residential” designation single family and multi-family housing are allowed subject to the allocations shown in the table for each village and the arrangement referred to in the text. If the total number of residential units assigned to a village is not reached in the development process, then the number of units remaining may be transferred to the residential area in Sequelitchew Village at the same density and unit type as was provided in the originating village.

## Overall Land Use

Table 11: Overall Designated Acres by Village

	Bell Hill	Civic Center	DuPont Station	Edmond	El Rancho Madrona	Fort Lake BTP	Historic	Hoffman Hill	MRP&I	Palisade	Sequelitchew	Yehle Park	Total
Residential 3	0	0	0	0	18	0	53	0	0	0	0	0	71
Residential 4	31	0	0	0	0	0	0	241	0	0	248	0	520
Residential 5	0	0	0	45	0	0	0	0	0	123	0	202	370
Residential 12	0	13	0	6	0	0	3	21	0	26	0	18	87
Reserve Residential	0	0	0	0	0	0	0	0	0	0	166	0	166
Mixed Use	0	18	61	0	0	0	0	0	0	0	0	0	79
Office	0	0	55	0	0	0	0	0	0	0	0	0	55
Commercial	0	0	6	0	0	0	22	0	0	0	0	0	28
Business Technology Park	0	0	0	0	0	509	0	0	0	0	0	0	509
Manufacturing and Research	3	0	0	0	0	0	0	0	244	0	233	0	480
Industry	0	0	0	0	0	0	0	0	182	0	0	0	182
Military	0	0	0	0	0	0	0	0	290	0	0	0	290
Neighborhood Park	0	0	0	1	0	0	9	9	0	0	0	11	31
Community Park	3	3	4	0	0	5	0	0	0	1	20	28	65
Open Space	25	22	10	2	0	143	78	119	186	14	178	62	840
<b>Total</b>	<b>63</b>	<b>56</b>	<b>135</b>	<b>54</b>	<b>18</b>	<b>657</b>	<b>166</b>	<b>390</b>	<b>903</b>	<b>164</b>	<b>845</b>	<b>321</b>	<b>3,773</b>

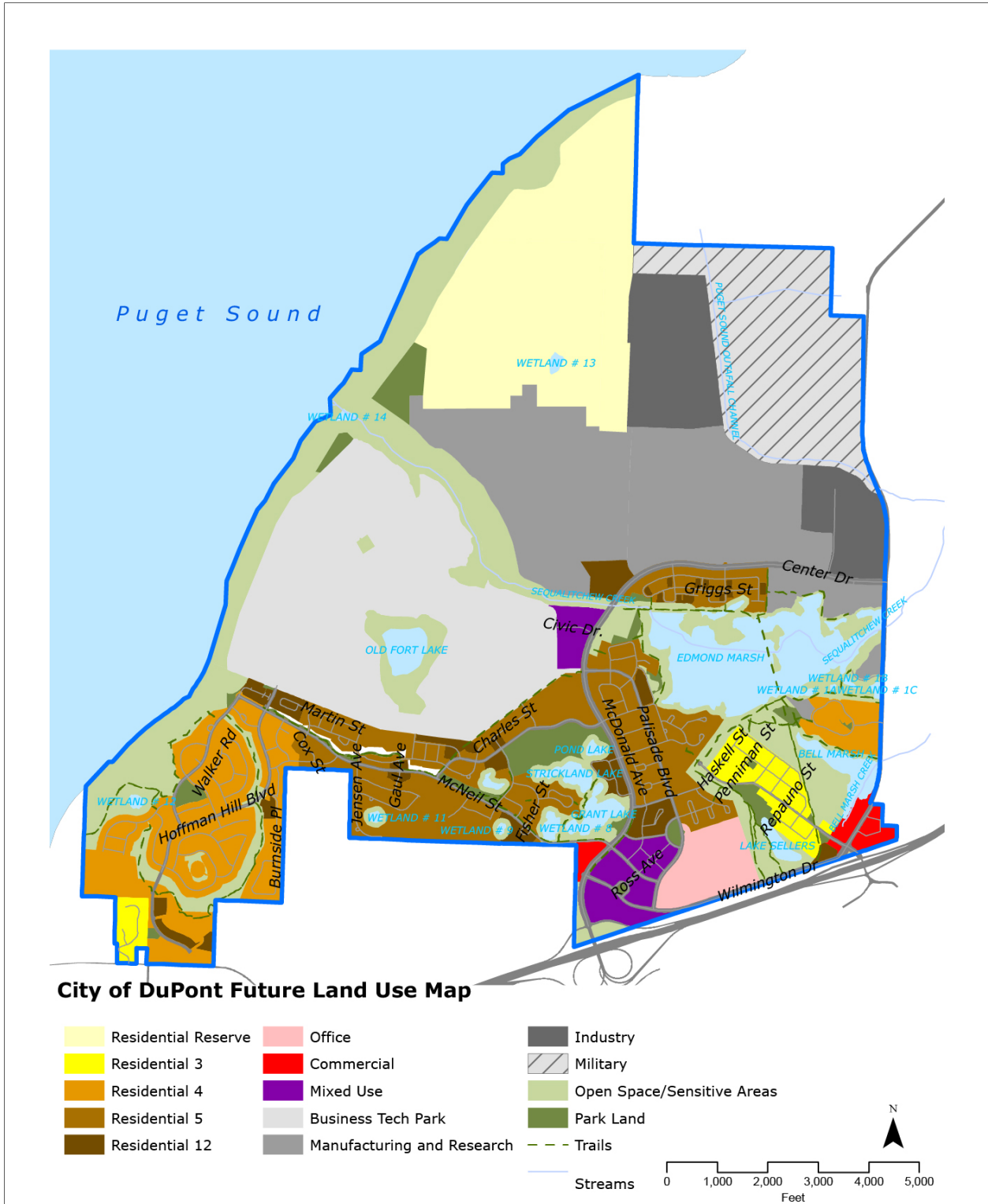


Figure B: Citywide Future Land Use Map

## Historic Village

This Historic Village, located in the southeast portion of the City at the Barksdale Avenue/Interstate 5 Interchange, derives its name from its historical past. The majority of residences and structures date back to the formation of a company town built to house workers of the E.I. DuPont deNemours Powder Company. These craftsman style structures were built between 1909 and 1916 by company carpenters at the edge of a green fir forest. The homes were maintained by the company through 1951, when the workers were allowed to purchase them as private residences. In 1987, the Historic Village was listed on both the State and National Register of Historic Places due to its significance as one of the few remaining company towns in the state and because of the purity of the historic architecture. The purpose of the National Register is to record those tangible remainders of United States history deemed important enough to be worthy of preservation. The listing also assures protective review of Federal projects that might adversely affect the character of the historic district.

It should also be noted that the Historic Village, plus the land extending west to the Sound (including two former Fort Nisqually sites, the Nisqually Methodist Episcopal Mission site, Wilkes Memorial, and the DuPont Powder Works Plant), is considered to be the birthplace of European civilization in the State of Washington. Because of DuPont's local, state and national historical importance, every attempt should be made to preserve the character of the original company town as the city grows. Guidelines should be written to identify historic design features and make it easier for owners to retain the remaining features and/or to remodel in accordance with those exterior qualities that give DuPont its special character. Commercial and other development uses near the entrance to the Historic Village (at DuPont-Steilacoom Road and Wilmington Drive, and exit 119 off I-5) should also reflect DuPont's historic character and unique charm.

The Historic Village is recognized in this Comprehensive Plan as the birthplace of the community. The Historic Village is approximately 166 acres including park land, open space, lower density residential, multi-family and commercial space. The table and map below show the approximate acres for each land use as adopted by this comprehensive plan.

The park land includes children's play area; museum and grounds; and park at the Village entry. DuPont's original character as a pedestrian-oriented company town surrounded by 3,200 acres of wilderness is protected by a 65-acre greenbelt intended to preserve the original setting. The greenbelt was dedicated to the City by Weyerhaeuser Real Estate Company in the late 1980s. Restrictive covenants restrict its use to a public park or recreation area. The greenbelt serves as a community open space for newer neighborhoods that adjoin it, and is an important natural corridor for indigenous wildlife. A trail through the greenbelt links the Historic Village to all parts of the community. The greenbelt is expected to remain a green open space. Recreational uses should be limited to passive, non-disruptive activities such as foot traffic, sitting, and bird watching. Active uses such as the construction of playgrounds, buildings, or structures should be prohibited.

Table 12: Historic Village Land Use Categories

	Square feet	Acres	% of total
Reserve Residential		-	
Residential 3	2,324,042	53.35	32.04%
Residential 4		-	
Residential 5		-	
Residential 12	145,850	3	2.01%
Mixed Use		-	
Office		-	
Commercial	959,895	22.04	13.24%
Business Technology Park		-	
Manufacturing and Research		-	
Industry		-	
Military		-	
Neighborhood Park	407,315	9.35	5.62%
Community Park		-	
Open Space	3,415,593	78.41	47.09%
<b>Total</b>	<b>7,252,695</b>	<b>166</b>	<b>100.00%</b>

Small retail, service and office businesses within the Historic Village plat that serve the automobile and traveling public are all located before the entry to the residential area, near the entrance of I-5. Most are located at Barksdale Station and expansion of this area is planned. The architectural design features of these commercial structures should reflect DuPont’s historic character and business uses should complement such a setting.

The character and amount of housing within Historic Village are not expected to change over the planning horizon of this plan. To ensure the historic character is protected, guidelines should be written to identify historic design features and make it easier for owners to retain the remaining features and/or to remodel in accordance with those exterior qualities that give DuPont its special character. The table below identifies the housing units existing and projected for Historic Village.

Table 13: Existing and Projected Housing Units

Housing Units	Build Out Total	Built/ Used Through 2012	Remaining
single family	146	142	4
multiple family	52	52	0
<b>Total</b>	<b>198</b>	<b>194</b>	<b>4</b>



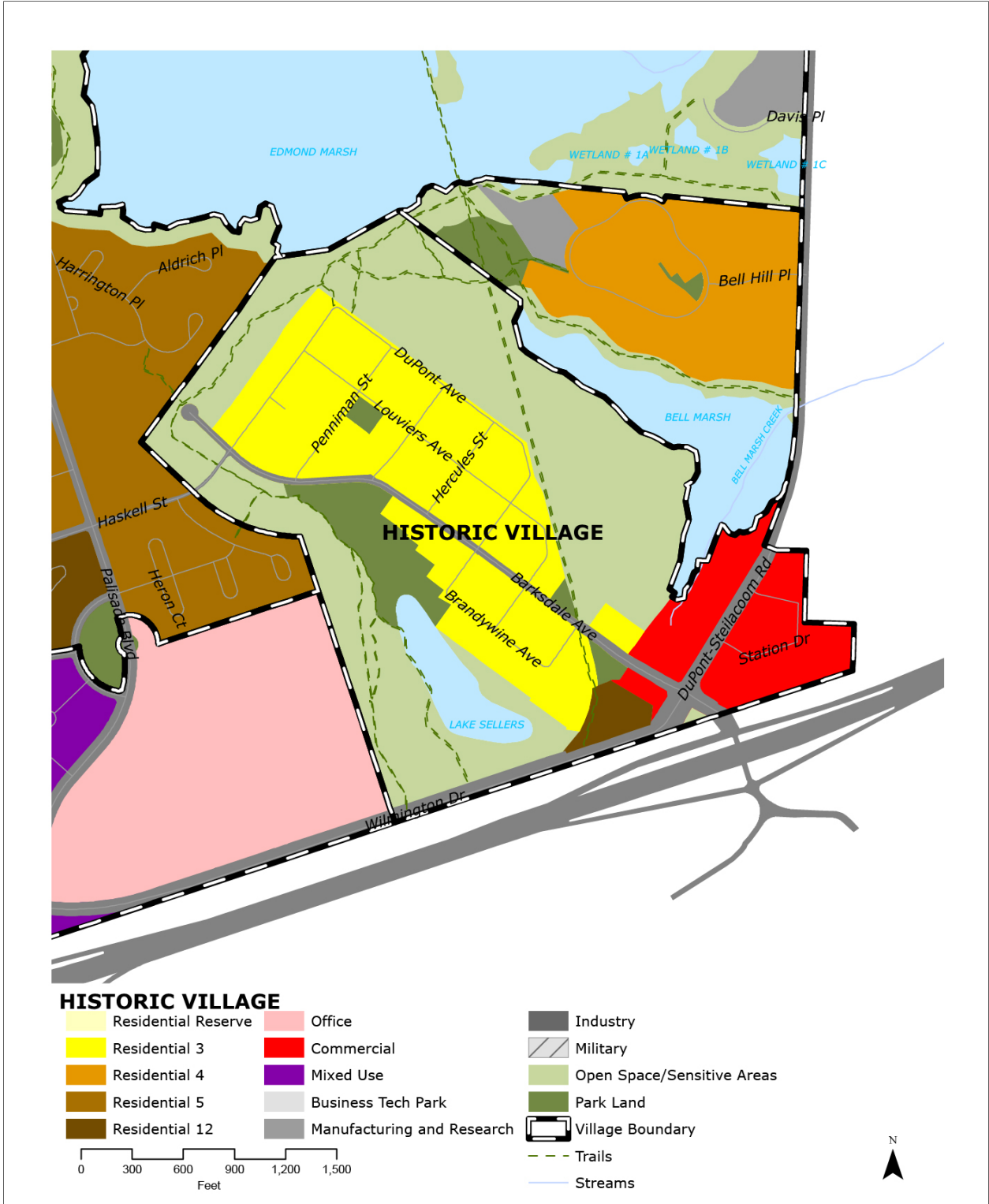


Figure C: Historic Village Future Land Use Map

## Palisade Village

Palisade Village was named to honor the 1843 site of Ft. Nisqually, which borders the Village on the north. The walls of the fort were formed from palisades, or thick stakes standing together, shaped with a point at the top. The clock tower in the village green at the south end of the Village was designed to reflect the “blockhouse look” of the corners of the 1843 fort, which has been reconstructed in the City of Ruston’s Point Defiance Park.

Palisade Village includes that area bounded by Center Drive to the west, a community park and Edmond Marsh to the north, to the east by the Historic Village, and DuPont Station on the south. To reflect the design of traditional neighborhoods, housing in Palisade Village is arranged primarily on a street grid pattern with automobile access to the rear of most lots by way of alleys. The first housing units in Palisade Village were occupied in 1995 and the Village was completed in 2001 with 609 residential units constructed in a combination of single family and street facing multi-family styles.

Palisade Village contains both small cottage lots and larger residential lots adjoining wetlands. The majority of the lots average approximately 5,000 square feet in area. Two groupings of multifamily homes, Bay Colony Condos (77) and Palisade Park Condos (74) totaling 151 units, have been constructed within this village.

A significant trail section was constructed within Palisade Village. This section starts at Bob’s Hollow Lane, extends around the north side of Edmond Marsh and passes through community parkland behind the 1843 Fort site. This trail section connects to other community-wide trails at Sequalitchew Creek. Within the residential areas are many small pocket parks. The Chloe Clark Elementary School, which is centrally located in the Village, increases the available neighborhood play space. Most of the public park space is dedicated to preserving natural spaces, especially in the northern portion of the Village where Oregon White Oak trees are protected from development. There are no commercial areas within this Village.

Table 14: Palisade Village Land Use Categories

	Square feet	Acres	% of total
Reserve Residential			
Residential 3			
Residential 4			
Residential 5	5,356,891	122.98	74.92%
Residential 12	1,136,921	26.10	15.90%
Mixed Use			
Office			
Commercial			
Business Technology Park			
Manufacturing and Research			
Industry			
Military			
Neighborhood Park			
Community Park	53,343	1.22	0.75%
Open Space	602,586	13.83	8.43%
<b>Total</b>	<b>7,149,741</b>	<b>164</b>	<b>100.00%</b>

The character and amount of housing within Palisade Village are not expected to change over the planning horizon of this plan. The table below identifies the housing units existing and projected for Palisade Village.

Table 15: Palisade Village Existing and Projected Housing Units

Housing Units	Buildout Total	Built/ Used 2012	Remaining
single family	459	459	0
multiple family	151	151	0
<b>Total</b>	<b>610</b>	<b>610</b>	<b>0</b>

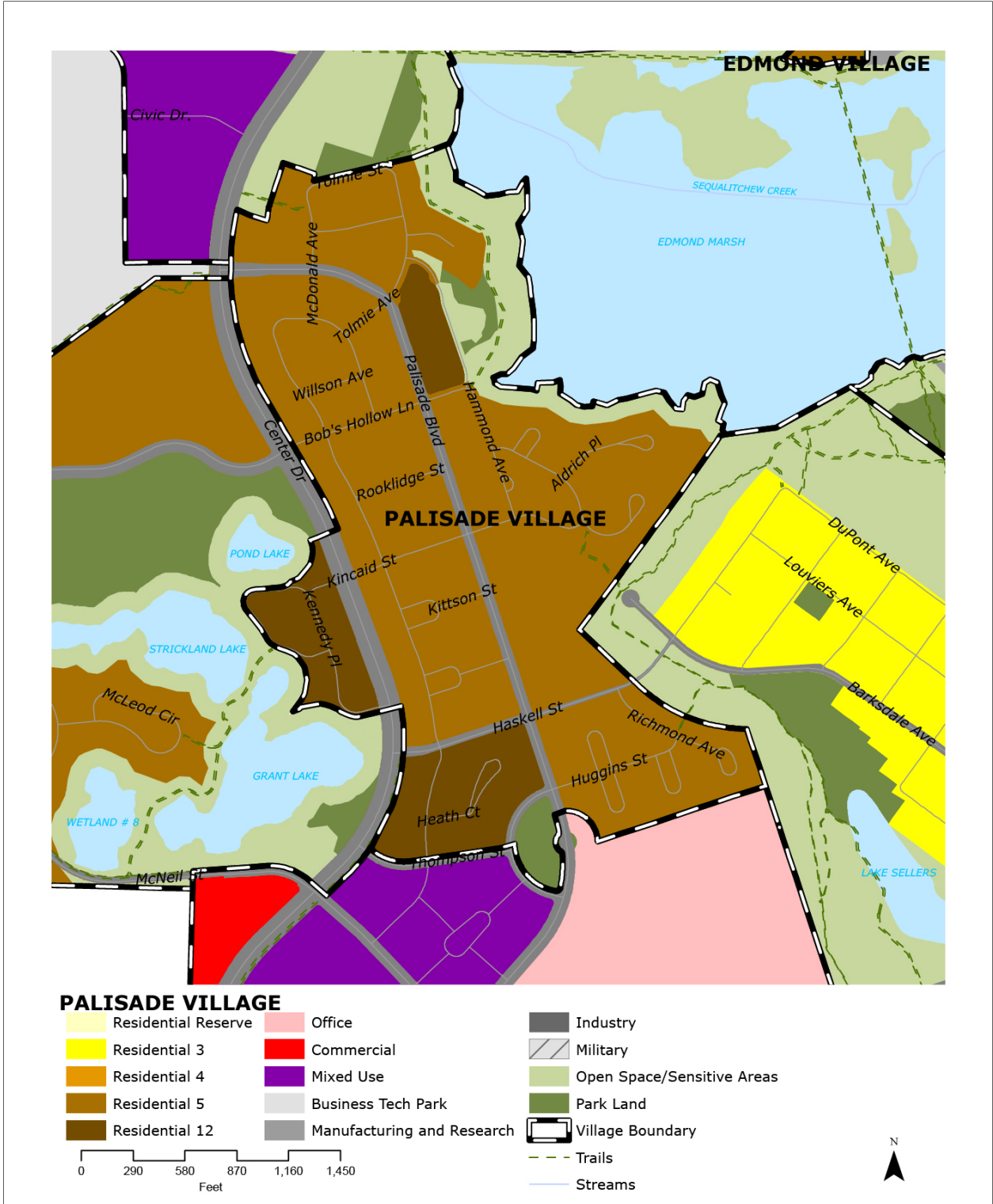


Figure D: Palisade Village Future Land Use Map

## DuPont Station

DuPont Station was named to elicit a sense of bustling activity that occurred around railroad stations. The area is bounded by Interstate 5 on the south, Palisade Village on the north, the Historic Village on the east, and the JBLM Golf Course on the west. It is accessed by Center Drive and designated in this plan as a mixture of residential and commercial activities that recreate the best attributes of historic town center developments. With a variety of commercial uses, the inclusion of multi-family residential development, integration of public spaces, and the convenience of the nearby post office and I-5 in this area, it is intended that DuPont Station be one of the more active neighborhoods in DuPont.

A post office and the Clock Tower Village apartments anchor the north edge of the Village. Clock Tower Village II apartments were completed in 2005, adding 71 units, increasing the total number of residential units from 117 to 188. The area west of Center Drive is developed with automobile oriented land uses and services. This area is referred to as McNeil Station.

In the middle of the DuPont Station is a large mixed-use area intended for commercial and high density residential land uses. This strategic location is key to the retail success of DuPont. It provides access to traffic on I-5 and thus will create a market draw beyond the population of the City. By accessing this larger market area, the commercial element of DuPont Station will support a wider range of retail types and businesses and provide a greater diversity of shopping, entertainment, and services for the City's residents.

The mixed-use area of DuPont Station is envisioned with storefronts adjoining the street, walks, and public spaces that provide gathering and socializing opportunities for planned activities and informal encounters. The mixture and concentration of commercial, office, and residential uses within this compact center are intended to accommodate development of a transit center. Providing adequate parking that is convenient to the commercial activities as well as the transit connection will ensure success for both.

In the future, as transit ridership increases, automobile trips to the commercial uses may diminish, allowing some portion of the commercial parking to be used for transit. The existing transit center will serve as a hub for local bus routes serving the city and adjacent communities and for a proposed extension of the Sounder regional commuter rail line, providing seamless transportation options. The transit center will be supported by the concentration of employment in the adjacent office and commercial developments. In addition, the multi-family residential units are intended to support transit by providing at least 15% of the city's multi-family housing unit total within a short walking distance of the transit center.

Table 16: DuPont Station Land Use Categories

	Square feet	Acres	% of total
Reserve Residential			
Residential 3			
Residential 4			
Residential 5			
Residential 12			
Mixed Use <sup>(1)</sup>	2,644,326	60.71	44.87%
Office	2,391,013	54.89	40.57%
Commercial	251,074	5.76	4.26%
Business Technology Park			
Manufacturing and Research			
Industry			
Military			
Neighborhood Park			
Community Park	172,645	3.96	2.93%
Open Space	433,994	9.96	7.36%
<b>Total</b>	<b>5,893,052</b>	<b>135</b>	<b>100.00%</b>

(1) Acres for multiple family use are categorized with mixed use.

The character and amount of housing within DuPont Station Village is expected to continue to evolve and develop to the activity hub envisioned in this plan. The table below identifies the housing units existing and projected for DuPont Station. Housing units and acres for land use categories in DuPont Station are summarized in the table below.

Table 17: DuPont Station Existing and Projected Housing Units

Housing Units	Build Out Total	Built/ Used Through 2012	Remaining
single family	0	0	0
multiple family	351	188	163
<b>Total</b>	<b>351</b>	<b>188</b>	<b>163</b>

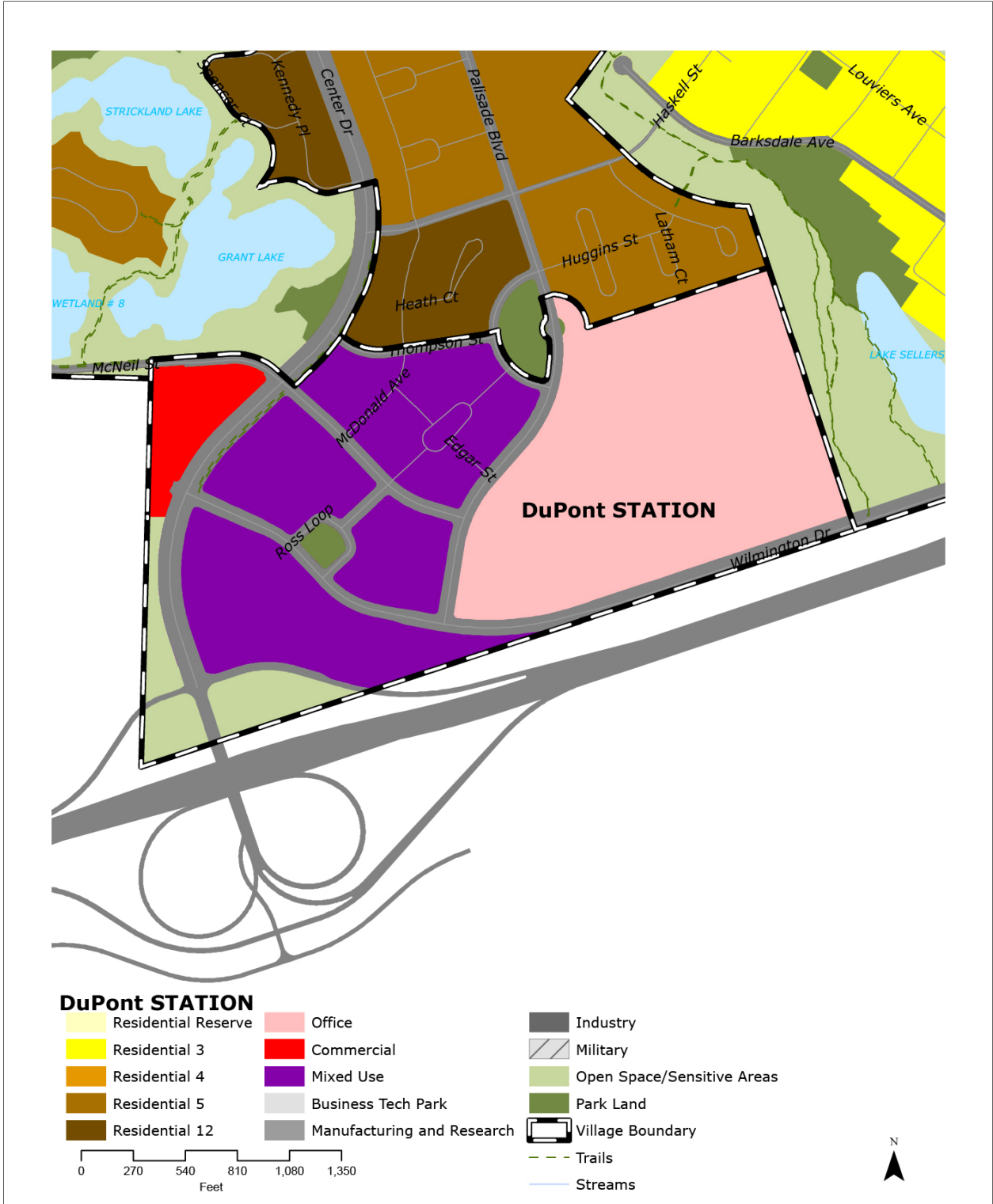


Figure E: DuPont Station Future Land Use Map

## Yehle Park Village

Yehle Park Village was named to honor an area pioneer family who homesteaded and farmed in the Village area from the early through late 1900's. Strickland Lake, Grant Lake, and many of the City's wetlands are contained within this Village. It is located between the south boundary of the Ft. Lake Business and Technology Park and the JBLM Golf Course. The Village extends west from Center Drive to Hoffman Hill Village. It has been expanded to include the area north of Strickland Lake known locally for its significant stand of Oregon White Oak trees.

Within this village, McNeil Street and the adjacent trail provide a central circulation spine for automobiles, bicycles, and pedestrians that connects Center Drive to Yehle Park Village. Both the road and the pedestrian trail connection continue west through the village to Hoffman Hill Village. While the McNeil Street corridor is attractively designed, the entirety of the Hoffman Hill neighborhood relies on this corridor for access. This creates high peak-hour flows on McNeil Street, with a steady stream of cars – more than what would be expected in a residential area. An alternate vehicular route is planned to link Hoffman Hill Village through the Ft. Lake Business and Tech Park area to bypass Yehle Park Village, and a potential link to the existing Mounts Road freeway access ramps may further reduce McNeil Street traffic.

Most of the Village was contained in a preliminary plat that was approved in 1997 and amended in 1999. Traditional design principles like grid streets, alleys and neighborhood greens were used, but they were modified somewhat to fit the topography and bend around wetlands. The plat was completed in 2007 with a total of 555 single family units and 438 multiple family dwelling units. Areas have a mix of lot sizes and house sizes to encourage variety, a mix of densities, and a range of affordability. Larger lot sizes and building setbacks were implemented for those properties abutting sensitive areas and their buffers. Included in the village is Patriot's Landing, a 21-acre continuing care and retirement complex. Originally planned at 44 acres, Patriot's Landing was downsized with the remaining 23-acres available for residential development that may include a 10-acre elementary school site.

In the area north of Strickland Lake, a community park, DuPont Powderworks Park, has been located to preserve the character of the existing open prairie and oak trees and to provide space for active recreation areas. The intention is to retain as many trees as possible since oak savannah tree communities are rare in Washington State and there are only a limited number remaining in the region. To accomplish tree retention, sports fields and passive activity areas have been fit among the oaks. Another community feature in this village is a the 15 acre Pioneer Middle School site.

With the expansion of Yehle Park Village in the remainder of the area expanded since the adoption of the 1995 Plan, a mix of single-family and multifamily housing have subsequently been built. To continue the opportunities for smaller multifamily areas as provided in the approved portion of the Yehle Village Park plat, the multifamily units have been divided into several groups mixed among single-family blocks in the area referred to as "The Oaks".



Table 18: Yehle Village Land Use Categories

	Square feet	Acres	% of total
Reserve Residential			
Residential 3			
Residential 4			
Residential 5	8,794,588	201.90	62.83%
Residential 12	787,139	18.07	5.62%
Mixed Use			
Office			
Commercial			
Business Technology Park			
Manufacturing and Research			
Industry			
Military			
Neighborhood Park	486,091	11.16	3.47%
Community Park	1,212,744	27.84	8.66%
Open Space	2,715,827	62.35	19.40%
<b>Total</b>	<b>13,996,389</b>	<b>321</b>	<b>100.00%</b>

The character and amount of housing within Yehle Park Village are not expected to change over the planning horizon of this plan. The table below identifies the housing units existing and projected for Yehle Park Village.

Table 19: Yehle Village Existing and Projected Housing Units

Housing Units	Build Out Total	Built/ Used Through 2014	Remaining
single family	670	555	115
multiple family	438	438	0
<b>Total</b>	<b>1,108</b>	<b>993</b>	<b>115</b>

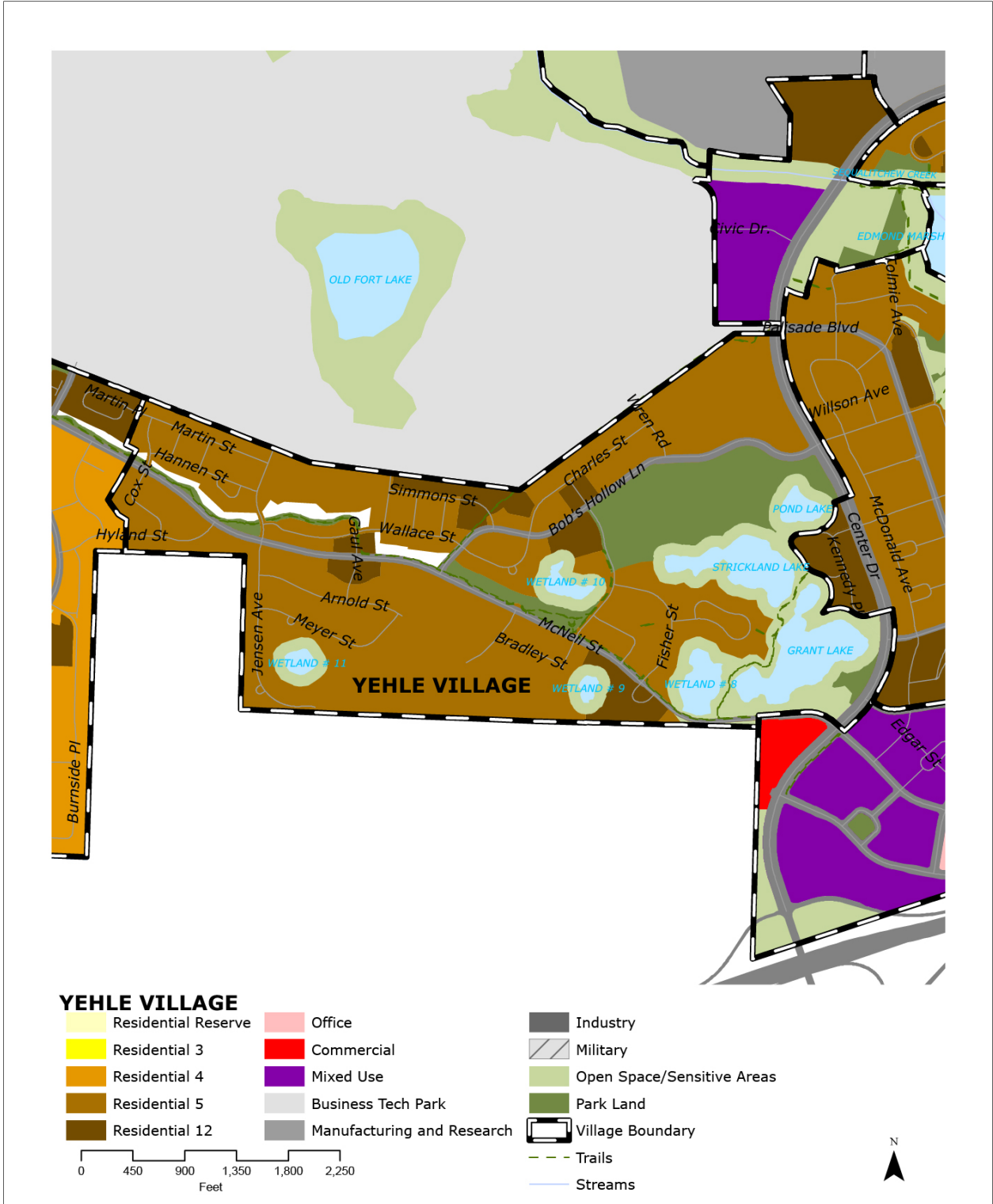


Figure F: Yehle Village Future Land Use Map

## Hoffman Hill Village

Hoffman Hill Village is the largest village in the city, more than twice the size of Palisade Village. This Village is bounded by the JBLM Golf Course, the southwest City boundary, the Puget Sound bluff, the south boundary of the Old Ft. Lake Business and Technology Park, and Yehle Village to the east. Unlike other villages, Hoffman Hill is primarily on sloping topography that rises in the middle of the village to the tallest point in the city.

The Hoffman Hill Village is adjacent to the Nisqually Delta and Reach. The design intent of the Village is to minimize the impacts of development on these nearby natural areas. Within this Village, selected bands of trees are integrated into the design of the neighborhood to provide a natural amenity for the residents. In addition to tree stands within the neighborhoods, a large natural buffer is maintained along the slope of the Puget Sound bluff. Approximately 69 acres along the slope of the bluff within Hoffman Hill Village are undevelopable and will preserve the visual character of the Nisqually Delta<sup>3</sup>. Retention of trees on the bluff will continue to the north within Old Ft. Lake Business and Technology Park and into the Sequelitchew Village area. This sensitive area and buffer also keeps development back from the bluff, avoiding potential erosion, landslide, or seismic hazards.

Approximately one-third of the multifamily development projected for Hoffman Hill Village is planned for the north edge of the village, while the balance of the multiple family residences will be disbursed throughout the Village with no more than 40 units in any one location.

Traffic from Hoffman Hill Village now uses McNeil Street to reach Center Drive, but future plans will also make available a future roadway through the Old Ft. Lake Business and Technology Park area. This future road has been identified as the southern portion of Loop Road on the plan and will also serve the non-residential development surrounding the golf course.

At this time access to the south from Mounts Road is limited by the prohibitive costs involved in widening Mounts Road, mitigating impacts to the JBLM Golf Course and expanding the freeway overpass at Exit 116. As a result, the connection to Mounts Road is limited to emergency vehicles only at this time. An updated study may determine the feasibility of connecting Hoffman Hill Village to I-5 via Mounts Road.

Chief Leshi Park, a five-acre neighborhood park, is centrally located within the Village to serve residents. A second small, one acre neighborhood park, located at the southwest edge of Hoffman Hill Village adjacent to El Rancho Madrona has been developed. In addition to the neighborhood parks, a small community park is located in the northwestern corner of the Village, affording a viewpoint to Puget Sound over the bluff and a terminus to the McNeil Street corridor trail. From the community park, other trails connect with a pedestrian path paralleling the Puget Sound bluff. A neighborhood trail extends from the bluff and loops through the village. Public access improvements adjoining the bluff will be kept

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<sup>3</sup> Settlement Agreement for Lone Star Northwest DuPont Project, Dec. 25, 1994, Page 17.

to a minimum since the priority is to maintain the bluff setback area in its natural state, minimize erosion, and not diminish its function and value as habitat.

Table 20: Hoffman Hill Land Use Categories

	Square feet	Acres	% of total
Reserve Residential			0.00%
Residential 3			0.00%
Residential 4	10,510,164	241.28	61.82%
Residential 5			0.00%
Residential 12	920,798	21.14	5.42%
Mixed Use			0.00%
Office			0.00%
Commercial			0.00%
Business Technology Park			0.00%
Manufacturing and Research			0.00%
Industry			0.00%
Military			0.00%
Neighborhood Park	377,450	8.67	2.22%
Community Park			0.00%
Open Space	5,192,998	119.21	30.54%
<b>Total</b>	<b>17,001,409</b>	<b>390</b>	<b>100.00%</b>

The character and amount of housing within Hoffman Hill will continue to develop as a primarily single-family residential areas as envisioned in this plan. The table below identifies the housing units existing and projected for Hoffman Hill.

Table 21: Hoffman Hill Existing and Potential Housing Units

Housing Units	Build Out Total	Built/ Used Through 2014	Remaining
single family	928	928	0
multiple family	150	40	110
<b>Total</b>	<b>1,178</b>	<b>774</b>	<b>404</b>

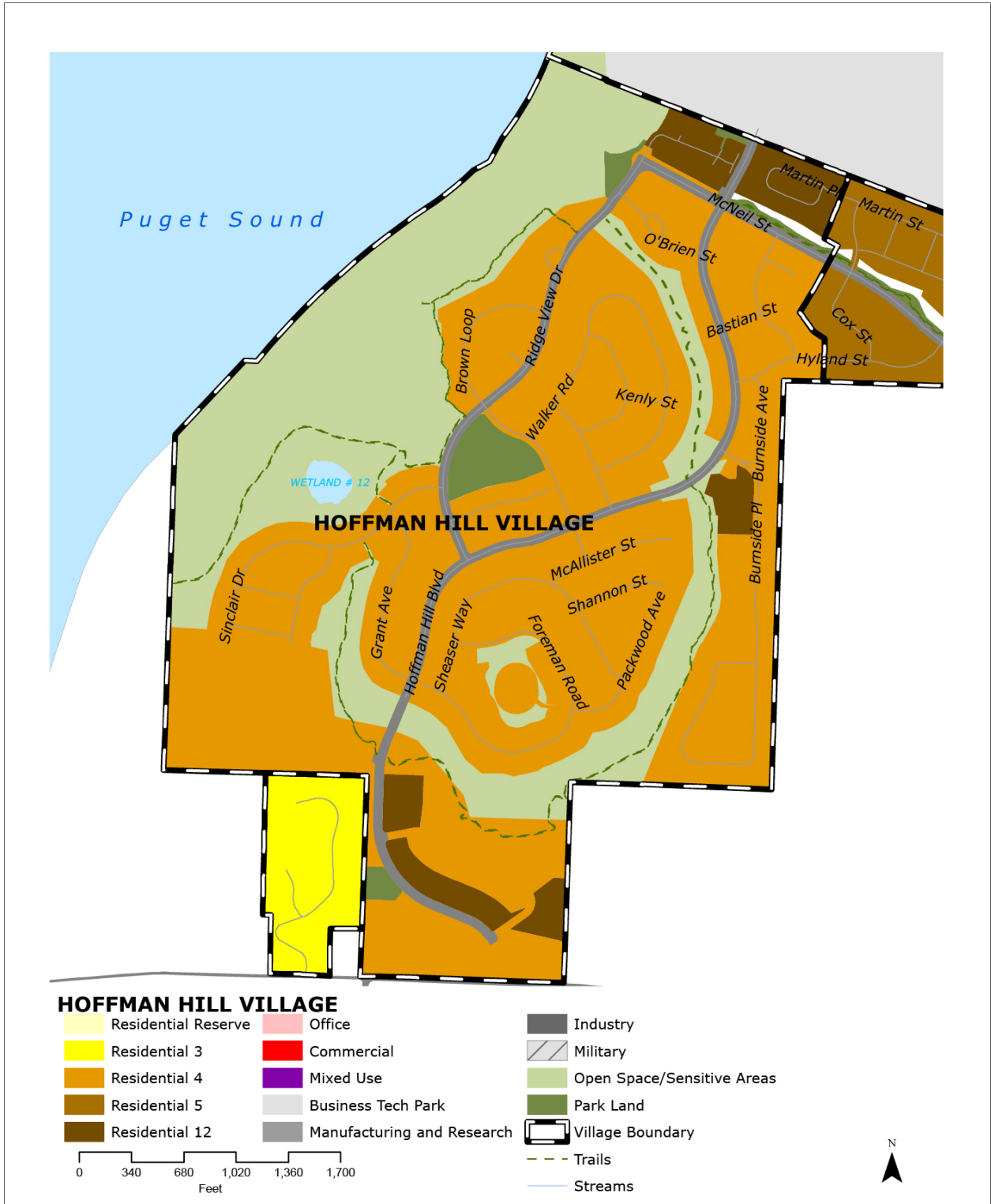


Figure G: Hoffman Hill Village Future Land Use Map

## El Rancho Madrona Village

El Rancho Madrona Village at 18 acres is the smallest of the City's nine villages. The Village was originally developed as a separate residential subdivision in 1974 and annexed to the City in 1977. The Village has its own small central water system consisting of a well, reservoir, and distribution system. This system is scheduled to be connected to the City's system within the next several years.

There is no direct access from the El Rancho Madrona Village to the City. Access to the Village is from Mounts Road and Exit 116 off I-5. In addition to this access, emergency access directly from the City is via Hoffman Hill Boulevard and Mounts Road.

Table 22: El Rancho Madrona Land Use Categories

	Square feet	Acres	% of total
Reserve Residential			
Residential 3	7666,862	18	100%
Residential 4			
Residential 5			
Residential 12			
Mixed Use			
Office			
Commercial			
Business Technology Park			
Manufacturing and Research			
Industry			
Military			
Neighborhood Park			
Community Park			
Open Space			
<b>Total</b>	7666,862	18	100%

The character and amount of housing within El Rancho Madrona is not expected to change over the planning horizon of this plan. The table below identifies the housing units existing and projected for El Rancho Madrona.

Table 23: El Rancho Madrona Existing and Potential Housing Units

Housing Units	Build Out Total	Built/ Used Through 2014	Remaining
single family	32	32	0
multiple family	0	0	0
<b>Total</b>	<b>32</b>	<b>32</b>	<b>0</b>

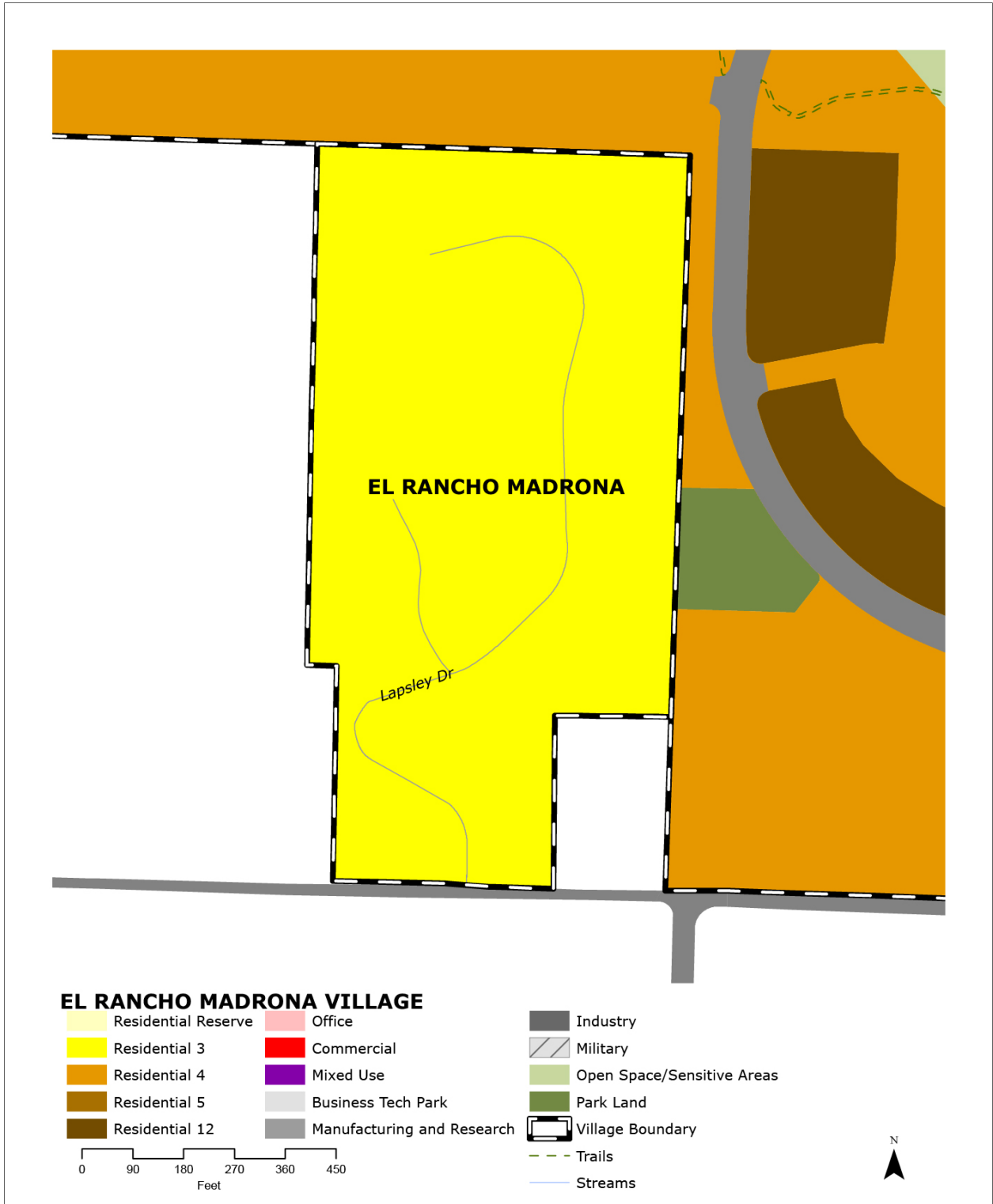


Figure H: El Rancho Madrona Village Future Land Use Map

## Edmond Village

Edmond Village was named after the large wetland which forms its southern border. The area is bounded by Center Drive on the north, Sequelitchew Creek on the west and extends approximately one-half mile to the east. In Edmond Village, the streets are laid out using a grid arrangement with access points and view corridors to the marsh. Both multiple family and single family homes are distributed throughout the Village. Trails have been established to connect the walkway on Center Drive with the major trail along Edmond Marsh.

Table 24: Edmonds Village Land Use Categories

	Square feet	Acres	% of total
Reserve Residential			
Residential 3			
Residential 4			
Residential 5	1,945,043	44.65	82.59%
Residential 12	243,398	5.59	10.34%
Mixed Use			
Office			
Commercial			
Business Technology Park			
Manufacturing and Research			
Industry			
Military			
Neighborhood Park	59,300	1.36	2.52%
Community Park			
Open Space	107,247	2.46	4.55%
<b>Total</b>	<b>2,354,988</b>	<b>54</b>	<b>100.00%</b>

The character and amount of housing within Edmonds Village is not expected to change over the planning horizon of this plan. The table below identifies the housing units existing and projected for Edmonds Village.

Table 25: Edmonds Village Existing and Potential Housing Units

Housing Units	Build Out Total	Built/ Used Through 2014	Remaining
single family	169	169	0
multiple family	87	87	0
<b>Total</b>	<b>256</b>	<b>256</b>	<b>0</b>



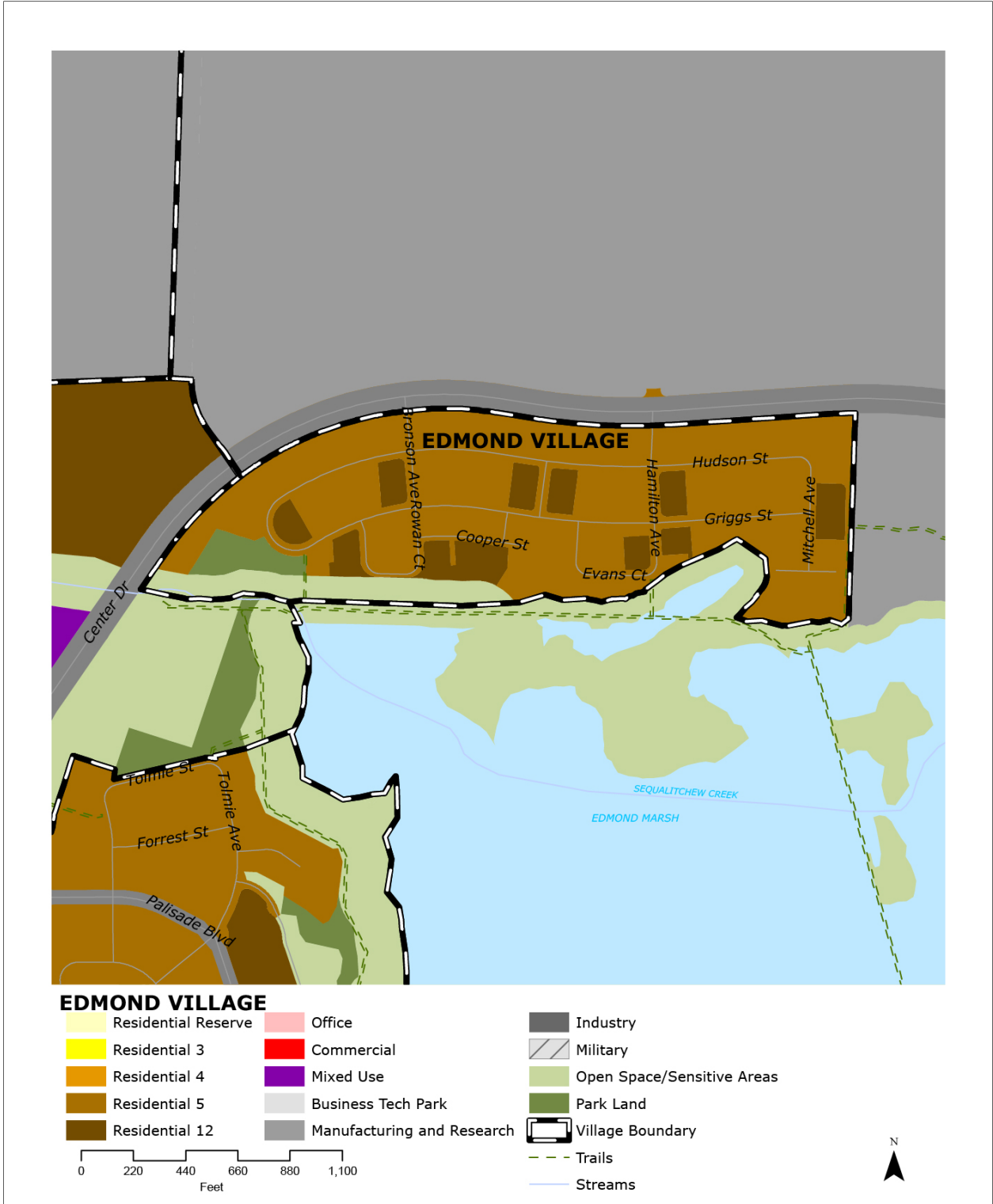


Figure 1: Edmond Village Future Land Use Map

## Bell Hill

The area bounded by DuPont Steilacoom Road to the east, Edmond Marsh to the northwest and the Historic Village to the southwest, creating a triangular shaped area, is known as Bell Hill Village. It contains the residential area known as Bell Hill, as well as Bell Marsh.

Bell Hill Village contains 81 single family residential units. Trails that link Bell Hill Village to the Historic, Palisade and Edmond Villages as well as the manufacturing/Research & Industrial Park have been established throughout the village. To achieve comprehensive plan policy, a pedestrian corridor should link Bell Hill Village with the rest of the City. This corridor could be in the form of a paved and lighted sidewalk along Steilacoom-DuPont Road and/or a paved and lighted footpath extending from the (approximate) terminus of Haskell Street in the Historic Village up to Bell Hill Village, however lighting should be minimized when adjacent to the wetlands in order to preserve the natural character and to protect habitat function.

Table 26: Bell Hill Land Use Categories

	Square feet	Acres	% of total
Reserve Residential			
Residential 3			
Residential 4	1,350,126	30.99	49.44
Residential 5			
Residential 12			
Mixed Use			
Office			
Commercial			
Business Technology Park			
Manufacturing and Research	124,055	2.85	4.54
Industry			
Military			
Neighborhood Park	18,656	0.43	0.68
Community Park	145,536	3.34	5.33
Open Space	1,092,489	25.08	40.01
<b>Total</b>	<b>2,730,864</b>	<b>63</b>	<b>100.00</b>

The character and amount of housing within Bell Hill will develop as a single-family residential areas as envisioned in this plan. The table below identifies the housing units existing and projected for Bell Hill.

Table 27: Bell Hill Existing and Projected Housing Units

Housing Units	Build Out Total	Built/ Used Through 2012	Remaining
single family	83	81	2
multiple family	0	0	0
<b>Total</b>	<b>83</b>	<b>0</b>	<b>2</b>

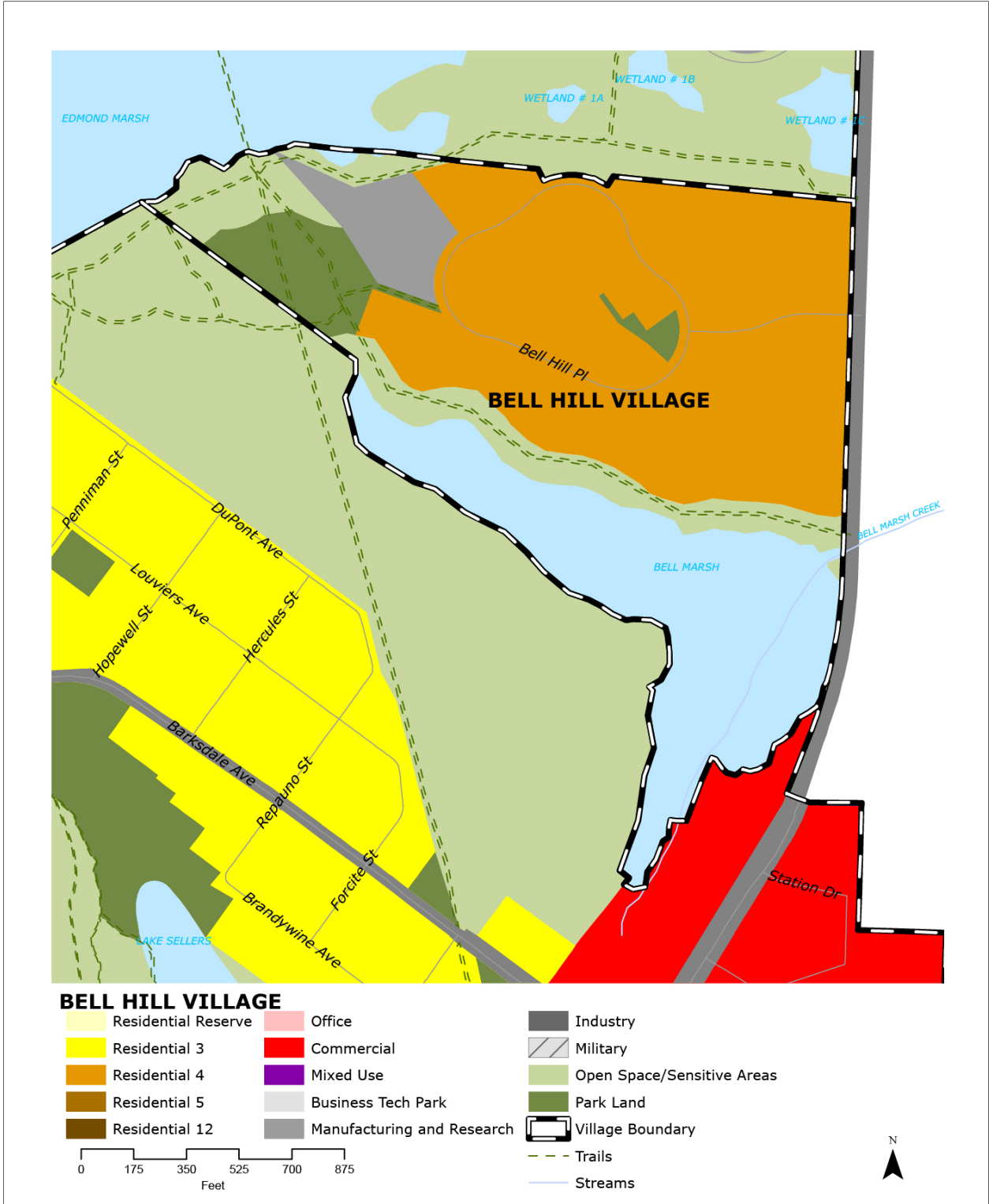


Figure J: Bell Hill Village Future Land Use Map

## Civic Center

The Civic Center area is located in the middle of the city and is bisected by Center Drive. The area is also at the center of the community's early settlement which includes the 1843 Fort Nisqually site. It is bounded by the northern edge of Yehle Park Village, the western edge of Edmond Marsh, the southern edge of the Sequalitchew Creek canyon and the eastern edge of the Old Fort Lake Business and Technology Park areas.

The primary feature in this village is a ten-acre site, located on the northwest side of Center Drive, adjacent to the south side of Sequalitchew Creek. The site is a qualified land donation to the City of DuPont by Weyerhaeuser Real Estate Company for use as a civic center. Principal civic buildings, include City Hall and a public safety building housing the police and fire departments. In the future a library and museum could also be located on the Civic Center campus. The remainder of the area south of Civic Drive will be occupied by office and retail sales and service uses. In addition to being a focal point for history, the location of the civic buildings in the middle of the community allows Edmond Village and future residential areas in Sequalitchew Village to be more connected to city activities. Access into the civic center site is via a signalized intersection on Center Drive approximately 800-feet north of the Palisade Boulevard intersection.

The proposed uses within the Consent Decree portion of this village are limited by deed restriction to exclude residential, parks, schools or daycare facilities. However, it is the intention of the City that the Civic Center be as lively as possible. The Plan shows two properties to the south between the 10 acre Civic Center site and the westerly extension of Palisade Boulevard into the Consent Decree Area that are designated for mixed-uses that will support retail services or office use. The plan also indicates a community center within the Civic Center campus. There is also an area outside the Consent Decree that is designated for and developed with multi-family.

Table 28: Civic Center Land Use Categories

	Square feet	Acres	% of total
Reserve Residential			
Residential 3			
Residential 4			
Residential 5			
Residential 12	547,375	12.57	22.28%
Mixed Use	799,707	18.36	32.55%
Office			
Commercial			
Business Technology Park			
Manufacturing and Research			
Industry			
Military			
Neighborhood Park			
Community Park	141,914	3.26	5.78%
Open Space	968,038	22.22	39.40%
<b>Total</b>	<b>2,457,035</b>	<b>56</b>	<b>100.00%</b>

The character and amount of housing within Civic Center Village is not expected change much from its existing pattern. The table below identifies the housing units existing and projected for Civic Center.

Table 29: Civic Center Existing and Proposed Housing Units

Housing Units	Build Out Total	Built/ Used Through 2011	Remaining
single family	0	0	0
multiple family	250	160	90
<b>Total</b>	<b>250</b>	<b>160</b>	<b>90</b>

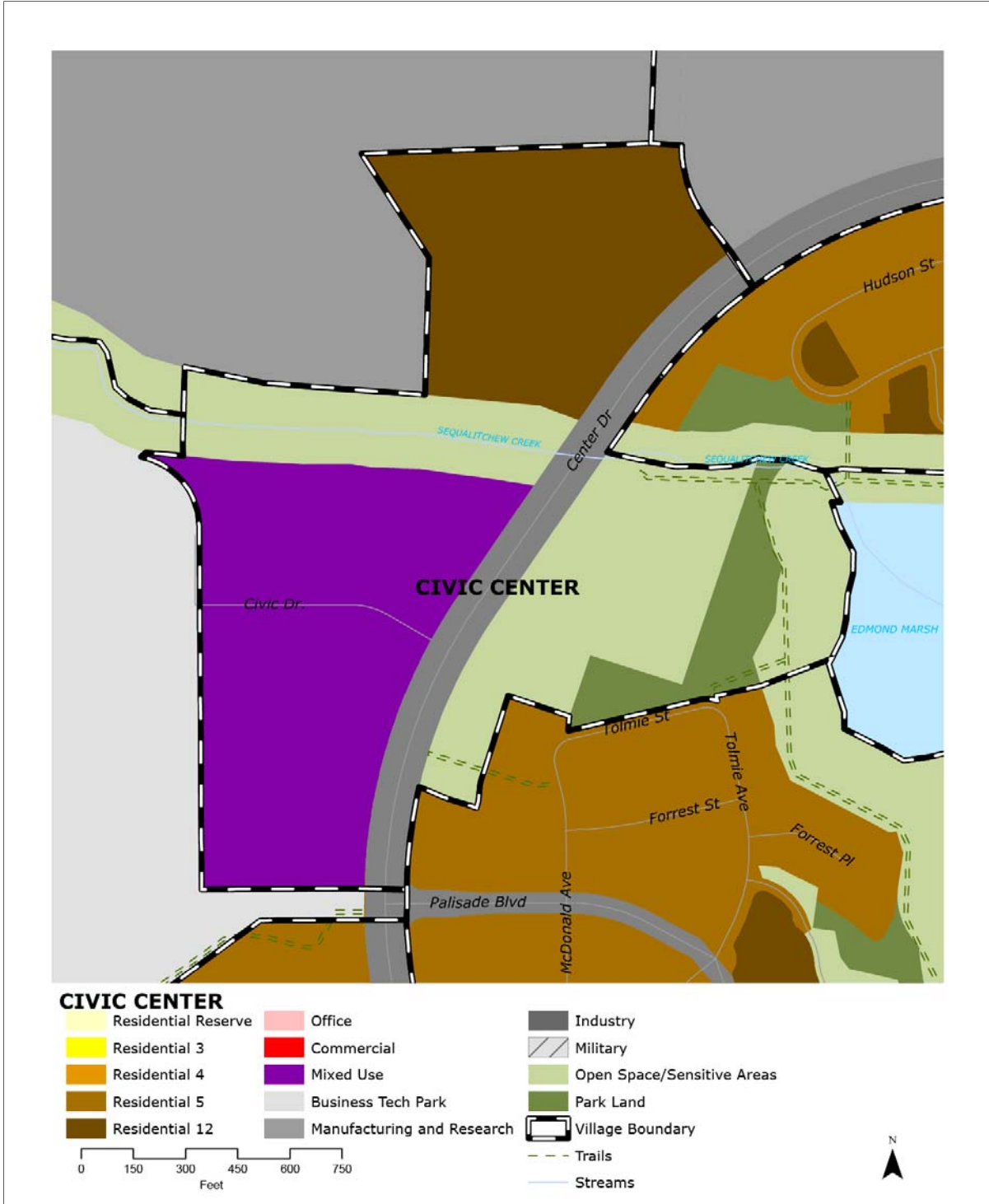


Figure K: Civic Center Future Land Use Map

## Sequalitchew Village

Sequalitchew Village includes the area of the City bounded by Puget Sound to the north and west, the manufacturing research park and industrial areas to the east and Sequalitchew Creek on the south. This village is planned as a mixture of residential types and densities in the northern two-thirds of the area, and manufacturing and research park uses in the southern one-third. It is named for the creek and canyon which form its southern border.

Nearly this entire village is within the mineral resource overlay boundary. Gravel extraction by Glacier Northwest is currently underway in this area and is expected to proceed over a long term. Development is not likely to begin within this area within the foreseeable future.

As a result of mineral extraction, the surface elevation of this village will be many feet lower than the present height. No mining is permitted within 100 ft of the top of Sequalitchew Creek Ravine. Mining is also set back from the top of the bank along the western side of the property to preserve the bluffs overlooking Puget Sound. The Sequalitchew Creek Ravine and Puget Sound bluffs are designated open space.

In addition, an area in the southwest corner of the existing mine may be used as a community park. The park would be contiguous with the portion of the bluff north of the mouth of Sequalitchew Creek. The natural bluff should remain intact with views overlooking the Puget Sound.

One of the features of this village is the north side of the Sequalitchew Creek Canyon. This is a natural area that can be traversed on an old narrow gauge railway roadbed that ran from the DuPont Company area to Puget Sound. Public access along the canyon and the Puget Sound beach will be developed in the future as designated in the Parks Master Plan. Significant efforts to preserve the trail corridor and surrounding area are anticipated and expected in the future. Any future development located adjacent to Sequalitchew Creek, or its associated nature trail must be done with significant care to protect and preserve the full length of the Sequalitchew Creek Trail in a natural and uninterrupted state. It is anticipated that future modifications to Pedestrian trail connections near Sequalitchew Creek and Center Drive are likely, these connections should enhance the natural elements of the existing trail and improve pedestrian access from Center Drive to the mouth of Sequalitchew Creek.

In addition to trails that will connect this village with other neighborhoods, a seven to ten acre community urban design feature is located within this area, just north of Sequalitchew Creek and west of Center Drive in the vicinity of the historic 1838 Methodist Mission site. The intent of this feature is to emphasize and preserve historic elements through the development of a community focal point involving water, nature, and linkage between Sequalitchew Village and the villages south of the creek.

Housing units and acres for land use categories in Sequalitchew Village are summarized in the tables below. It should be noted that the area designated as RR will undergo a subarea plan at or near the conclusion of mining operations which are likely to continue for at least 15-20 years. The housing units identified below assume the reasonable measures identified in Chapter 2 - 4.5 units per acre. It also assumes that some portion will be devoted to multi-family units. The RR designation also indicates that

mixed use development might be appropriate but the amount is not included at this time as it would be dependent on the subarea planning process and residential development.

Table 30: Sequalitchew Village Land Use Categories

	Square feet	Acres	% of total
Reserve Residential	18,025,242	413.81	48.96%
Residential 3			
Residential 4			
Residential 5			
Residential 12			
Mixed Use			
Office			
Commercial			
Business Technology Park			
Manufacturing and Research	10,163,000	233.31	27.60%
Industry			
Military			
Neighborhood Park			
Community Park	887,179	20.37	2.41%
Open Space	7,743,022	177.76	21.03%
<b>Total</b>	<b>36,818,443</b>	<b>845</b>	<b>100.00%</b>

Table 31: Sequalitchew Existing and Proposed Housing Units

Housing Units	Build Out Total	Built/ Used Through 2012	Remaining
single family	1,100	0	1,100
multiple family <sup>1</sup>	763	0	763
<b>Total</b>	<b>1,863</b>	<b>0</b>	<b>1,863</b>

<sup>1</sup>The multi-family units may be a part of Reserve Residential post mineral extraction activities.

As indicated above and in the Reasonable Measures in Chapter 2, the area designated as Residential Reserve is slated for a subarea planning process. While it’s unknown exactly when the mining operations in Sequalitchew Village will cease, this plan anticipates that near the end of mining operations the City will undertake a subarea planning process that should:

- Ensure vehicular access as close to the shoreline as possible.
- Encourages a broad mix of housing types and densities.
- Evaluate the potential for a neighborhood center that includes commercial uses that serve the neighborhood.
- Provides for park, recreation, open space, and trails, including connections to regional trail networks.



- Efforts should be taken to ensure development does not impact the tranquil and natural setting adjacent or near Sequalitchew Creek, other wetland areas, and trails within these areas. Efforts should include careful site design to reduce lighting, noise, and other urban impacts.

The preceding list is only intended to provide broad-brush objectives of a Sequalitchew Village subarea plan. This plan anticipates that these objectives should be reevaluated as this plan is updated in the future.

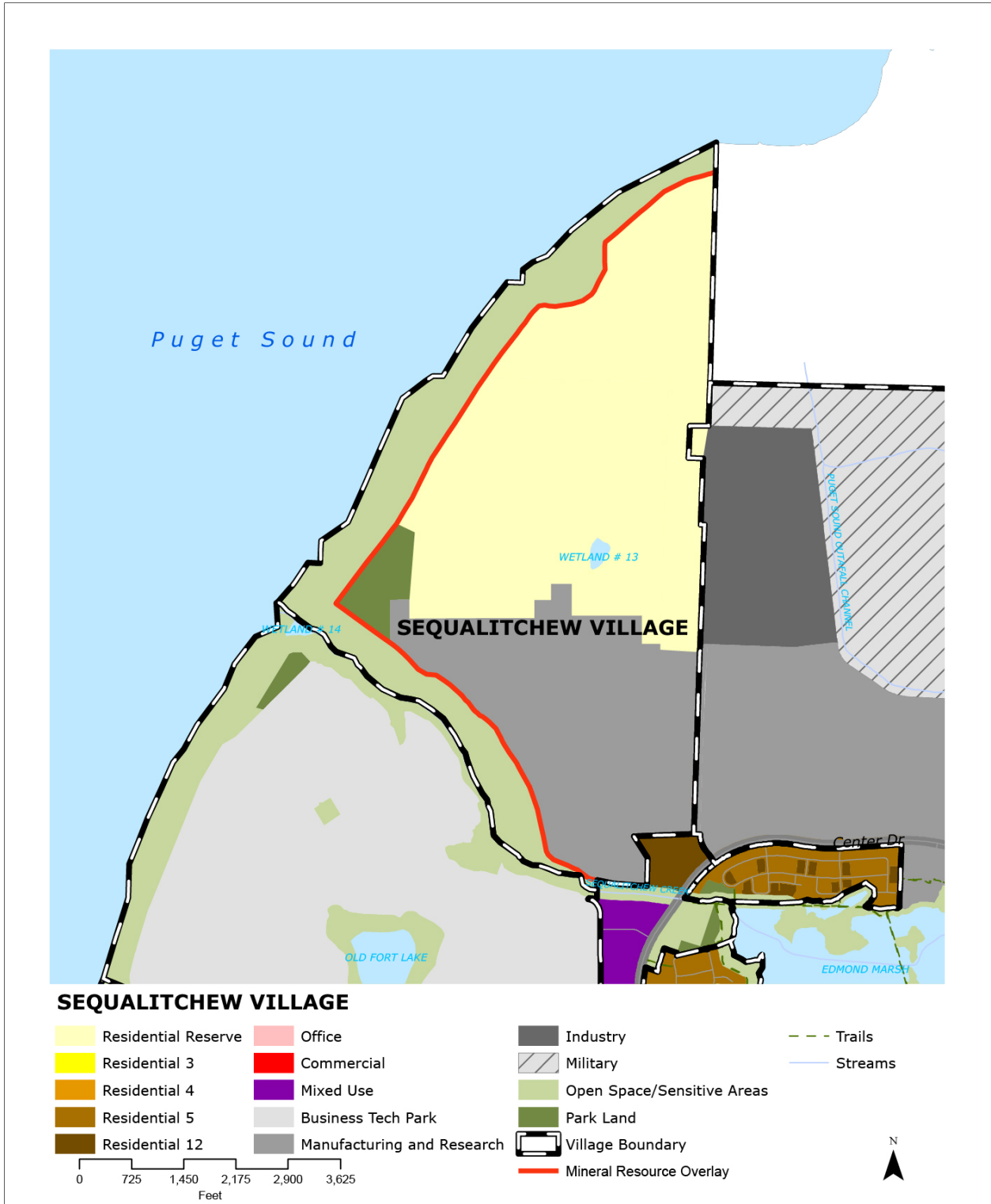


Figure L: Sequalitchew Village Future Land Use Map

## Old Fort Lake Business and Technology Park

This low-density business, technology and commercial area will integrate campus style development with historic features, natural areas, open space and a golf course. The golf course, known as "The Home Course" is the home of the Pacific Northwest Golf Association and the Washington State Golf Association.

Bounded by Sequalitchew Creek, the Puget Sound bluff, the northern boundary of Hoffman Hill and Yehle Park Villages and the Civic Center, The Business and Tech Park includes Old Fort Lake and the 1833 Fort Nisqually site. Extensive work to clean up the area where the DuPont Company created and assembled explosives until the mid-1970s has been completed. The most contaminated soils have been removed and the remaining contaminated soils have been placed under golf course fairways and greens. The golf course boundary was determined by the location of the most contaminated areas and is reflected in the remediation agreement between the Weyerhaeuser and DuPont Companies and the Washington State Department of Ecology. Residences, schools, and parks have been deed restricted by the Weyerhaeuser and the DuPont Corporation within Consent Decree Area.

The Old Fort Lake Business and Technology Park will have a mix of office, research, light manufacturing, administrative and commercial activities. Development in this area will provide for business and emerging technology activities within a campus like setting of natural and manmade landscapes.

Within the Old Fort Lake Business and Technology Park area, Sequalitchew Creek and the Puget Sound shoreline and bluff will be maintained in their natural state and protected from development by buffers. A trail location is identified in the buffer along the south side of the Sequalitchew Creek ravine. In addition to pedestrian access along the Puget Sound bluff, views of the sound will be provided from upland portions of the bluff.

The golf course accounts for one-third of the area's land use. The course provides both an exciting golf experience and a community benefit by maintaining significant trees and natural vegetation. The public will be able to drive along some fairways and parts of the course to experience the open space. A trail corridor within the Old Fort Lake Business and Technology Park will connect Old Fort Lake with the community park and trail system in Yehle Park Village and the trail system along Sequalitchew Creek.

Another feature of this area is the Wilkes Observatory site in the northern corner of the Business and Technology Park. Three acres of community parkland will be set aside outside the Consent Decree boundary to provide access to the historic site and provide views of Puget Sound and the Olympic Mountain Range in the distance.

An area that lies within both the Old Fort Lake Business and Technology Park and Sequalitchew Village has been nominated by the Washington State Department of Archeology and Historic Preservation (DAHP) for listing on the National Register of Historic Places. As provided in a multi-party memorandum of agreement (December 2000), Weyerhaeuser Real Estate Company will support the listing of the area once the City of DuPont has granted final development approvals for all remaining portions of the property. The district encompasses approximately 360 acres and represents a convergence of ancient

and historic activities and values that are representative of the Pacific Northwest. The north boundary starts at the 1843 Fort Nisqually (DAHP Site No. 45-PI-56) and runs west to the site of a sawmill on the north side of the mouth of Sequelitchew Creek (DAHP Site No. 45-PI-71), then south along Puget Sound to include Sequelitchew Archaeological sites (DAHP No. 45-PI-54) and the Ox Road (no DAHP Site No.), then east to include the 1833 Fort Nisqually site (DAHP Site No. 45-PI-55H), DuPont Company site (DAHP Site No. 45-PI-70) and Hudson’s Bay Company Cemetery (no DAHP No.) then north back to the 1843 Fort Nisqually site.<sup>4</sup>

Table 32: Old Fort Lake Land Use Categories

	Square feet	Acres	% of total
Reserve Residential			
Residential 3			
Residential 4			
Residential 5			
Residential 12			
Mixed Use			
Office			
Commercial			
Business Technology Park	22,189,378	509.40	77.59%
Manufacturing and Research			
Industry			
Military			
Neighborhood Park			
Community Park	198,691	4.56	0.69%
Open Space	6,209,691	142.55	21.71%
<b>Total</b>	<b>28,597,760</b>	<b>657</b>	<b>100.00%</b>

There are no housing units existing or proposed within the Fort Lake Business and Technology Park.

The City anticipates developing a subarea plan for the development of Fort Lake Business and Technology Park Village. The subarea planning process should pay specific attention to the following community goals:

- Include significant emphasis on public access to the shoreline, public trails, trail connectivity within the City and regionally, identify strategic locations for parks, and ensure public amenities are sited in convenient and appropriate locations etc.
- Efforts should be taken to ensure development occurs in a way that ensures continuation and expansion of “natural trails” as well as urban pathways. Careful site design to reduce lighting,

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<sup>4</sup> See Memorandum of Agreement among Weyerhaeuser Company, Weyerhaeuser Real Estate Company, City of DuPont, The Nisqually Point Defense Fund, Committee for the Preservation of the Nisqually Mission Historical Site, The Nisqually Delta Association, and The DuPont Historical Society, December 12, 2000.

noise and other urban impacts are important especially adjacent to the Puget Sound and Sequelitchew Creek.

- Emphasize growth of clean, high-tech development related to overall uses, infrastructure development, and in aesthetic design features.
- Evaluate a variety of public and private partnership options related to necessary improvements such as the development of the South portion of “Loop Road”.

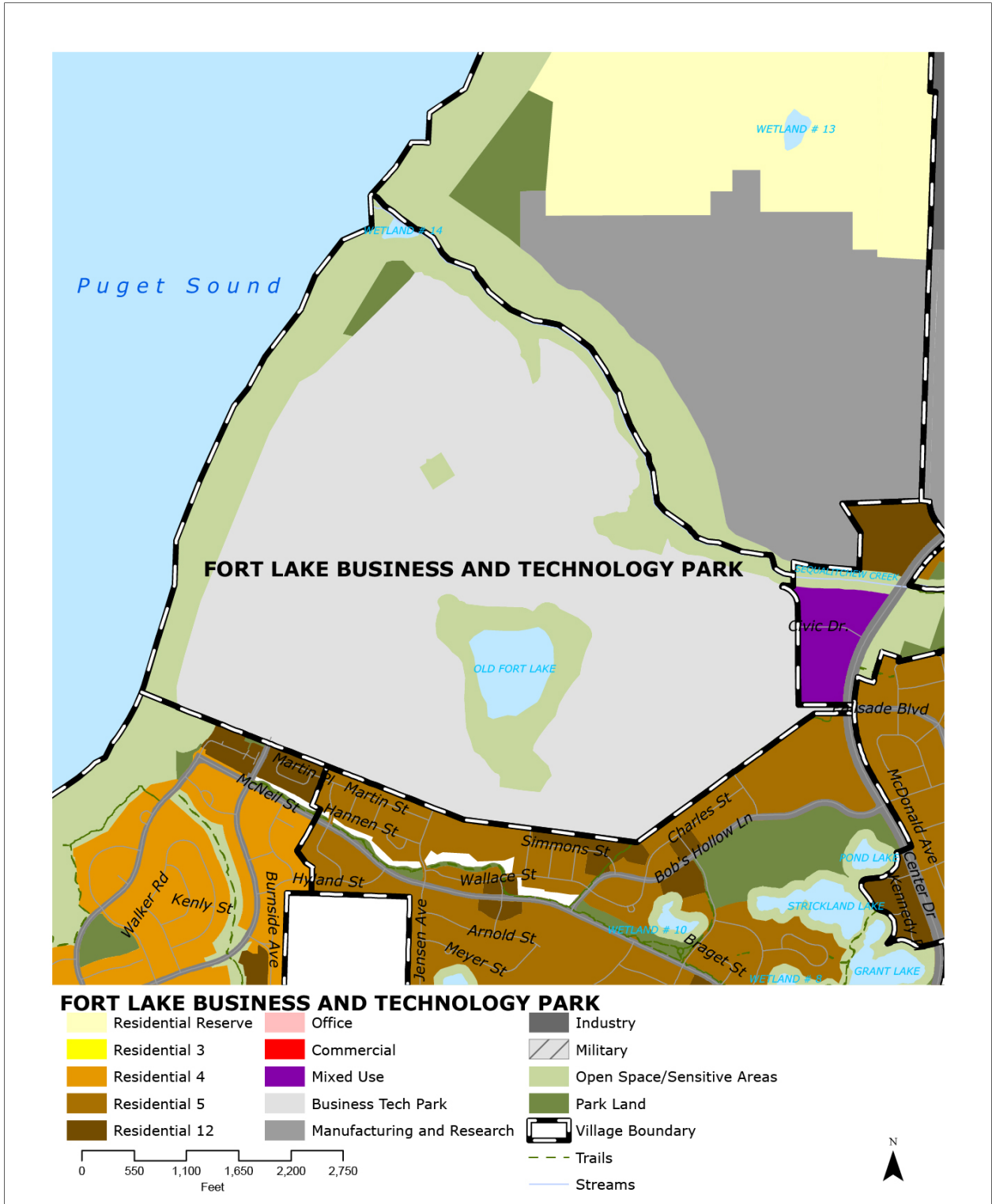


Figure M: Old Fort Lake Business & Technology Park Future Land Use Map

## Manufacturing/ Research Park and Industrial Area

The area of the City between Sequelitchew Village, the DuPont Steilacoom Road, the northern city limits and the eastern edge of the Palisade and Historical Villages is identified as Manufacturing/ Research and Industrial Area and provides land for industrial activity, manufacturing, office and some non-manufacturing activities such as wholesaling and distribution. The boundaries of this area have been reduced from the 1995 Plan on the west and from the 2001 Plan on the southeast to create a portion of Sequelitchew Village and the entirety of Bell Hill Village respectively. Access is provided by Center Drive, an east/west route intended for truck traffic along the JBLM Land Fill site and the DuPont-Steilacoom Road.

This area has two primary land use designations, Manufacturing/Research Park and Industrial. The Manufacturing and Research Park designation is located adjacent to Center Drive and includes office uses and less intense, generally smaller scale industrial uses. Larger scale, somewhat more intense industrial uses are located in the industrial designation to both the north and east. Current businesses in this village include Intel Corporation in the Manufacturing/Research Park area and Westblock Pacific and Glacier Northwest in the Industrial area.

The industrial area on the east side, along DuPont Steilacoom Road, has been in place since the 1995 plan and was developed in order to compensate for the proposed elimination of industrial uses from the then, newly created Sequelitchew Village. Included in the industrial classification at the intersection of Center Drive and DuPont-Steilacoom Road is a 5-acre site intended for a bus barn. Based on the school district's current plans this site may be surplus property and become available for industrial development.

Contained within this area is Edmond Marsh and its associated buffer. This land area provides a major passive recreation opportunity for the community and nearby business users. A trail system through wetland buffers connects various sites within neighboring villages. A trail within the landscape buffer along Center Drive connects to DuPont-Steilacoom Road and the Civic Center.

Another property owner in this area is the U.S. Army. JBLM is phasing out its old landfill and intends to convert the land to open space. The JBLM Real Property Master Plan projects this area to “be set aside for training, recreation and preservation of aesthetics of the post.” The City will pursue the opportunity for joint use with JBLM.

Table 33: Manufacturing Research Park and Industry Land Use Categories

	Square feet	Acres	% of total
Reserve Residential			
Residential 3			
Residential 4			
Residential 5			
Residential 12			
Mixed Use			
Office			
Commercial			
Business Technology Park			
Manufacturing and Research	10,612,199	243.62	26.98%
Industry	7,946,297	182.42	20.20%
Military	12,650,738	290.42	32.16%
Neighborhood Park			
Community Park			
Open Space	8,122,001	186.46	20.65%
<b>Total</b>	<b>39,331,235</b>	<b>903</b>	<b>100.00%</b>

There are no housing units existing proposed within the Manufacturing, Research Park and Industry site.



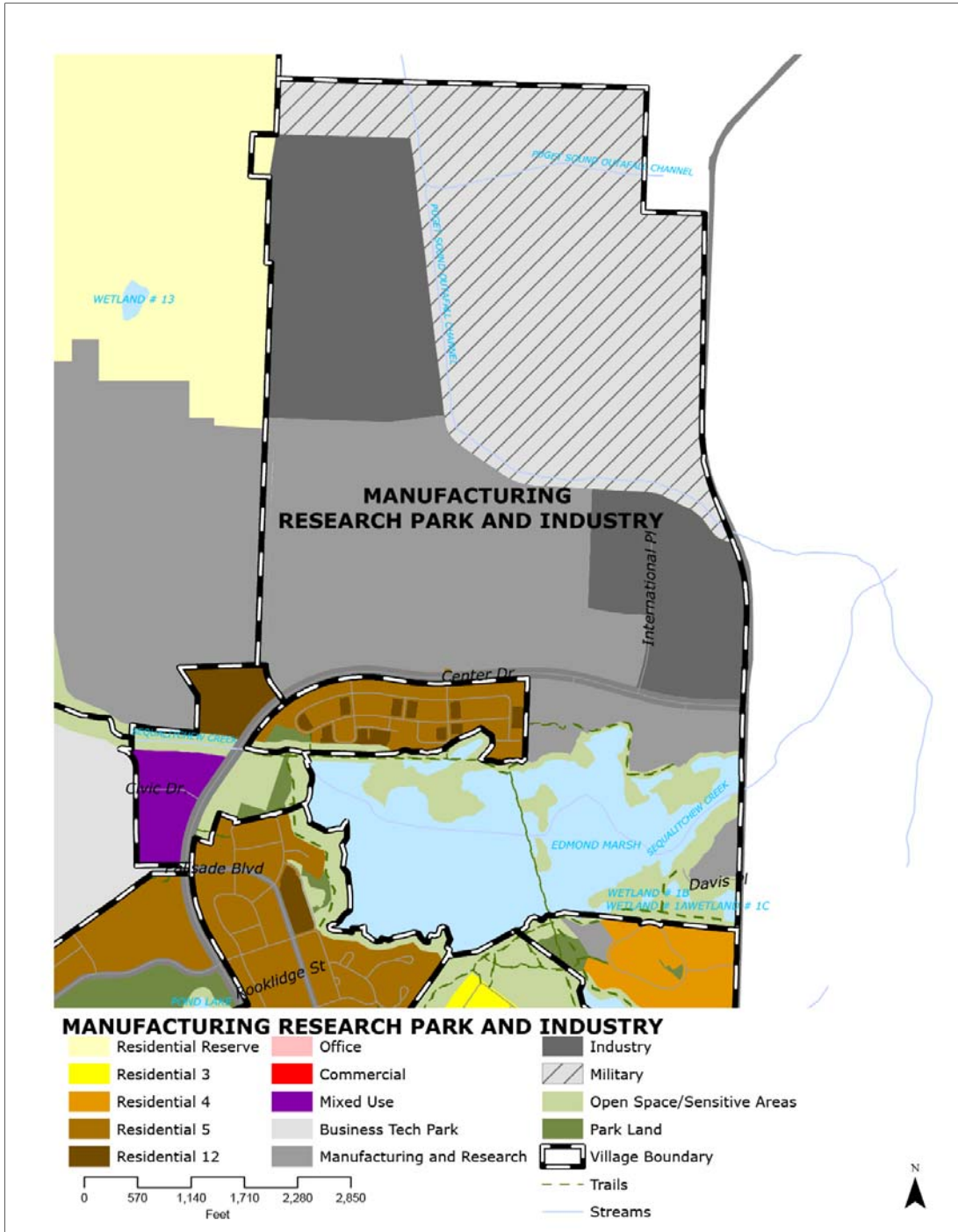


Figure N: Manufacturing Research Park & Industry Future Land Use Map

## Land Use Goals and Policies

These goals and policies are drawn from the complete policy framework and included here because of their direct relationship to land use.

<b>Goal LU-1</b>	<b>Strategically plan for anticipated growth so that as the City develops it maintains its small town character by protecting and enhancing development patterns as seen in the Historic Village and Palisade Village.</b>
LU 1.1	Ensure neighborhoods or “villages” are sized according to a pedestrian / walking scale of distance and are defined by natural features, parks, open spaces, and streets
LU 1.2	Encourage new urbanism types of development rather than typical suburban development which is less efficient in its use of land and often results in disconnected auto oriented enclaves and sprawl.
LU 1.3	Direct DuPont's growth in a manner that balances a small town character with sound economic development.
<b>Goal LU-2</b>	<b>Encourage economic development that is balanced with maintaining the small town character of the city.</b>
LU 2.1	Explore opportunities for design centered development controls while allowing flexibility in uses.
<b>Goal LU-3</b>	<b>Promote a sense of community health by protecting natural features, preserving historical sites, reducing the necessity for driving, making walking an enjoyable alternative and making transit use practical.</b>
LU-3.1	Maintain the visual quality of the City as seen from Puget Sound, the Nisqually National Wildlife Refuge and public roads. Provide scenic viewpoints to reinforce attractive community features and highlight natural and cultural amenities such as Puget Sound and the Nisqually Delta.
LU-3.2	Establish and prioritize multi-modal linkages, provide recreational spaces, and trails for pedestrians and bicycles between villages.
LU-3.3	Provide paved and lighted, pedestrian accessible corridors to link adjacent villages that enhance pedestrian safety and promote connectivity from one village to another. Lighting should be minimized when adjacent to the wetlands in order to preserve the natural character and to protect habitat function.
LU-3.4	Provide land use regulations that give opportunities for the community to have fair access to livelihood, education, and resources.
LU-3.5	The Mineral Resource Overlay designation shall be enforced and recognized for a length of time corresponding to the completion of excavation and reclamation within the designated area.
LU-3.6	Employ practices that protect the long term integrity of the natural environment, adjacent land uses, and the long term productivity of resource lands.

<b>Goal LU-4</b>	<b>Ensure the design of commercial and residential buildings throughout the City enhance the pedestrian environment.</b>
LU-4.1	Guarantee design guidelines are included in development regulations that promote a pedestrian scale and character. Such design standards should include elements such as pitched roofs, roof overhangs, awnings, surface modulation, textured surface treatment, variety of surface materials and should discourage long expanses of blank walls at the street level.
LU-4.2	Orientation of retail, residential, public structures, and commercial buildings (outside the Research Park and Business and Technology Park) should be to the front near the street Right of Way, rather than being separated from the street. Churches and other symbolic structures should be located in a way that promotes their visual prominence.
LU-4.3	Design standards should address integration of amenities for the pedestrian within the streetscape such as; street trees, landscaping, benches, lighting, trash receptacles, signage, and bicycle parking.
LU-4.4	Development standards for commercial structures should encourage on street parking and parking at the rear or secondarily on the sides of developments to enhance the pedestrian environment.
<b>Goal LU-5</b>	<b>Develop and maintain a street system that is fundamentally based on a traditional town setting that assures direct auto, bike and pedestrian access and is based on a grid system.</b>
LU-5.1	Development within villages should be based on a grid or modified grid system that provides clear orientation, alternate traffic routes, and opportunities for multi-modal transportation patterns.
LU-5.2	Development regulations should encourage pedestrian circulation and reduce walking distances whenever possible through a variety of means such as frequent intersections. Cul-de-Sacs should only be used when topographical or other features of the land warrant deviation and should include enhanced pedestrian access through adjacent blocks.
LU-5.3	Roadway standards and Right of Way widths should include traffic calming techniques such as traffic circles, diverters, chicanes, etc. to reduce driving speeds and enhance the pedestrian environment. Alleys should be developed to the maximum extent possible, and residential roadways should not exceed three lanes.
<b>DuPont Station:</b>	
<b>Goal LU-6</b>	<b>Maintain and enhance DuPont Station as the City's primary pedestrian oriented, mixed use, compact, attractive, destination shopping area.</b>
LU-6.1	Development standards should promote a mix of housing, offices, and commercial uses that are designed to be coordinated and complimentary through placement size and massing. Façades should present a unique set of characteristics while allowing for architectural expression and individuality.

LU-6.2	Promote the creation of an identifiable pedestrian downtown and avoid the appearance of domination by the automobile by promoting ground floor retail, multi-storied buildings, a mix of commercial, office, and upper story residential uses, a clearly defined street edge, and encouragement of upper story activities which overlook the streets and plazas.
<b>Civic Center:</b>	
<b>Goal LU-7</b>	<b>Create a strong visual symbol for the community by continuing to promote the DuPont Civic Center as the location for public assembly, local governmental services, and cultural focus.</b>
LU-7.1	Encourage development that supports development of a “public square”.
LU-7.2	Allow for a variety of uses that support the area such as small retail services, and offices.
LU-7.3	Development standards should encourage buildings of at least two stories, and public buildings should exhibit a “civic” quality with features such as a dramatic roofline, prominent entrance, and integrate public art.
LU-7.4	Parking should be screened from major access roads and divided into smaller, heavily landscaped packets in order to reduce their overall impact of asphalt.
<b>Office Development</b>	
<b>Goal LU-8</b>	<b>Integrate large office developments into the community in a way that maintains a small town character while providing a large employment base.</b>
LU-8.1	Encourage office developments to turn toward the street and connect with other uses through pedestrian trails and building placement.
LU-8.2	Promote office developments to stagger work hours, encourage carpooling and implement other Traffic Demand Management measures consistent with trip reduction plans.
<b>Industrial and Technology</b>	
<b>Goal LU-9</b>	<b>Encourage development of a mix of long-term viable uses in the Business and Technology Park land use designation while maintaining the small town charm of DuPont.</b>
LU-9.1	Explore innovative approaches to site remediation, land development, and infrastructure improvements through strategies such as public-private partnerships, private-private partnerships and strategic capital investments.
LU-9.2	Ensure development standards limit standalone warehousing and establish limitations on uses adjacent to main streets in order to ensure the small town aesthetic of DuPont is maintained.

LU-9.3	Limit uses that front on the access road extending from Center Drive to the residential areas in Sequalitchew Village to those uses permitted in the Business and Technology park area.
LU-9.4	Limit heavy industrial uses to the two existing industrial areas (west of JBLM and between Intel and DuPont Steilacoom Road) as they are likely to attract uses that require more material inputs, processes, and finished products and therefore likely to produce a greater volume of truck traffic.
LU-9.5	Promote environmentally sensitive industrial development as an integral element in establishing a balanced community. Performance standards should be used and periodically updated to ensure best management practices are used to control odor, sound, vibration, light, and other factors that promote clean industrial uses.
LU-9.6	Encourage development of sustainable, clean industries within the Industrial, Manufacturing, and Technology designations.
<b>Resource Land</b>	
<b>Goal LU-10</b>	<b>Recognize the value of mineral resource extraction while protecting the integrity of the natural environment.</b>
LU-10.1	Encourage segmental reclamation and reuse of mined areas using established reclamation practices in accordance with approved reclamation plans.
LU-10.2	Understand that mining may continue into the future and periodically update, land use mapping, Mineral Resource Overlay designation, phasing schedules, and management plans for extractive operations with approved mining permits.
LU-10.3	Ensure mining activities employ best management practices that protect the long-term integrity of the natural environment, water resources, adjacent land uses, and the long term productivity of the resource lands.
LU-10.4	Following the completion of excavation of mineral resources with designated mineral lands, encourage reuse and redevelopment of reclaimed mining areas north of Sequalitchew Creek in a manner consistent with underlying City zoning designations, understanding that any non-mining development shall be consistent with continued mining operations on the balance of the site.

## Implementation Actions

The following actions, ordered by priority and urgency, implement the policies identified above. Each action item contains a direct policy reference, indicating how it relates to land use policies – or other policies in this plan – as appropriate.

	<b>Implementation Actions</b>
LUA-1	The City should allocate funds and staffing resources annually to protect the community character, maintain capital investments, and achieve adopted level of service expectations.
LUA-2	Update zoning regulations to incorporate modern techniques such as form based coding to ensure compatibility of development, vitality of public space, and to address urban agriculture.
LUA-3	Maintain and update as necessary, industrial site development standards addressing items such as, but not limited to: siting criteria, site preparation, grading, building design, vehicular access, storm drainage, erosion control, environmental review, landscaping, lighting, greenspace, walking trail locations, natural trail connectivity and vegetation requirements, recreation facilities, ancillary retail services, and outdoor storage.
LUA-4	Establish performance standards that promote the development of clean industrial uses within the city.
LUA-5	Review and update the Fort Lake Business and Technology Park Land use designation through a Sub-Area Planning effort where a range of land use designations, transportation options, and community enhancements can be more fully evaluated consistent with the community's vision for design, character, and scale. See pages 62-63 for more detail on anticipated outcomes of the Sub-Area Planning Process.



# Chapter 4 – Economic Growth and Development

## Overview

The economy in the City of DuPont is both a blessing and a challenge. On one hand, DuPont is fortunate to have hundreds of acres of pre-planned developable land with easy access to I-5 and sweeping views of Puget Sound. The close proximity to the Port of Tacoma provides access to global markets and the neighboring military bases provides a highly-skilled labor force from veterans and transitioning military personnel. On the other hand, the City faces intense competition from other communities investing in education, job training, infrastructure, planning, and policies to attract economic growth and development. DuPont must leverage its historical, natural, and commercial assets to attract future economic development and maintain high quality services for a growing population.

There have been some amazing successes so far in DuPont. The City’s Economic Strategy is about producing results. While a city cannot directly influence the regional economic environment in which it operates, it has the capacity – through strategic investment, planning, and action – to take advantages of opportunities as they arise. This plan provides policy guidance on how to be ready, suggesting individual actions the City and community can take to increase its readiness and ability to identify and afford strategic investment in infrastructure and land use resources.

## Key Findings

The City of DuPont is positioned for continued economic growth with strong leadership and solid financial management practices, including:

- Two Standard and Poore’s Credit Rating increases to AA+ since 2012;
- Strong fund balance reserves, with the 2014 fund balances at 82.52% of the General Fund Expenses;
- More than 1,500 acres of pre-planned vacant land for future development;
- Healthy socioeconomic indicators and a growing population;
- Continuing and accelerating Assessed Value growth, with 2015 Annual Value up 8.5% and notable new construction since 2012;
- Mix of residential and commercial/industrial tax base, with the top 10 taxpayers comprising 31% of assessed value;



*The 2015 update to the comprehensive plan moved more boldly toward economic policy, adding an Economic Growth and Development Chapter. (Source Studio Cascade Inc.)*



- Experienced City leadership with a history of conservative financial practices;
- Quality schools, award winning community events, miles of parks and trails, a championship golf course, and recognition as one of Washington's Safest Cities; and
- Active participation and leadership in regional economic and transportation partnerships (*Puget Sound Regional Council, Puget Sound Region Economic Development Board, Prosperity Partnership, Pierce County Economic Development Board; Pierce County Regional Council, Washington Military Alliance, and South Sound Military Community Partnership*).

## City Overview

DuPont is a planned community located in Pierce County, in Western Washington, approximately 17 miles southwest of the City of Tacoma and 15 miles northeast of the City of Olympia, the State Capitol. The City's 2014 estimated population was 9,175.

DuPont was one of the first areas settled in Washington and celebrates its unique history. Businesses first came to DuPont in 1833 when the Hudson's Bay Company established Fort Nisqually as a trading post. Businesses continue thriving in DuPont today, including: Amazon, Intel, State Farm, Better Business Bureau, Patriots Landing, Washington State Golf Association, Pacific Northwest Golf Association, and many more.

The City is a general purpose governmental entity that provides services to its residents including fire, police, street construction and maintenance, planning and zoning, building inspection, parks and recreation, library, cemetery, municipal court, senior center, and general administration services. The City also operates an enterprise fund for the water utility services. The City contracts with Pierce County for sewer services.

DuPont is ranked as one of the safest cities in Washington state and is located in south Pierce County in the southern end of Puget Sound in Washington State, bordered on the west by Puget Sound, Thurston and Lewis Counties to the south, Yakima County to the east, and King County to the north. Pierce County is the second most populous county in Washington and an important transportation center served by two transcontinental railroads (Union Pacific and Burlington Northern-Santa Fe) and the sixth busiest container port in North America. The Seattle-Tacoma International Airport is located 39 miles north of DuPont with 27 certified airlines providing international flights to all parts of the United States and by several freight and passenger lines.

## Population Trends

Historical population trends are presented below for the City, the County and the State from 2010 through 2014.

Table 34: Population Trends DuPont, Pierce County, and Washington State

Year	City of DuPont	Pierce County	State of Washington
2014	9,175	821,300	6,968,170
2013	8,855	814,500	6,882,400
2012	8,640	808,200	6,817,770
2011	8,430	802,150	6,767,900
2010	8,199	814,600	6,733,250

Source: Washington State Office of Financial Management for inter-census estimates as of each April and the 2010 U.S. Census

### City Financial Management

The City’s credit rating has increased twice in the last 4 years to AA+ as a result of sound financial management practices. The City maintains strong fund balance reserves and recently refinanced the principal balance of the City Hall and Public Safety buildings to reduce the interest rate from 6.1% to 3.4%, saving an average of \$107,000 each year to the General Fund. Additional cost savings have been achieved through regional partnerships, including contracting for jail services with the Nisqually Indian Tribe for jail services and establishing a municipal court in partnership with the City of Lakewood. The City of DuPont is financially stable with no deficits until 2020.

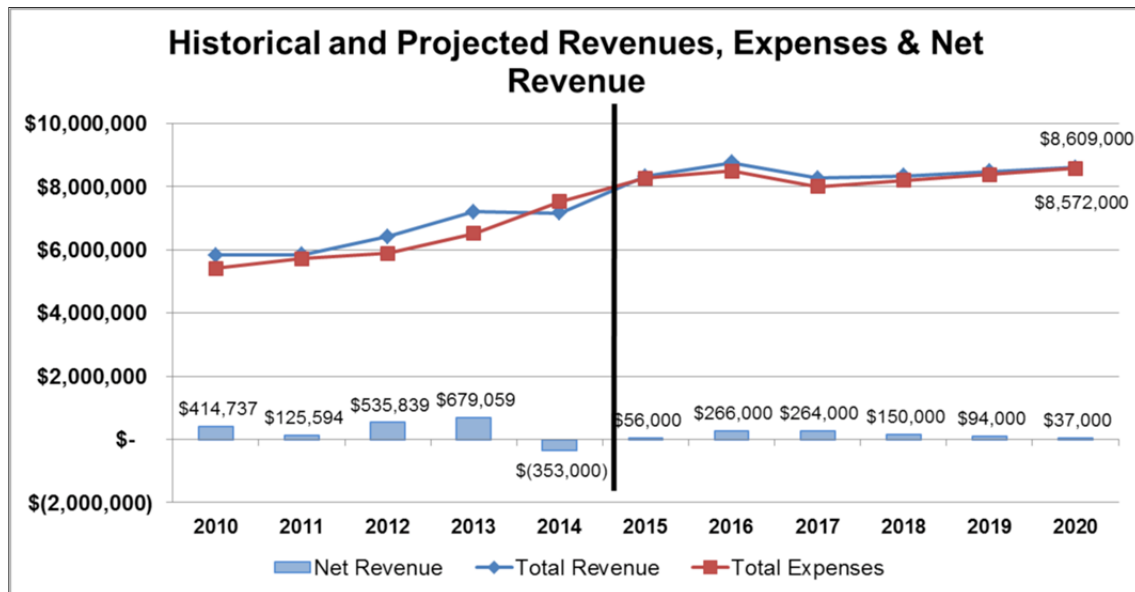


Figure O: Historic and Projected Expenses and Revenues

### Tax Collections

The following table presents property taxes collected for the City in tax collection years 2010 through 2015 to date, and the amount and percentage collected as of March 1, 2015

Table 35: Tax Collections

Tax Year	Tax Collected in Year of Levy	Percent of Tax Collected in Year of Levy	Total Tax Collected as of 3/1/15	Percent of Tax Collected as of 3/1/15
2015 <sup>1</sup>	99,452	4.31% <sup>1</sup>	99,452	4.31% <sup>1</sup>
2014	2,181,610	98.62	2,205,298	99.69
2013	2,014,034	98.98	2,031,451	99.84
2012	1,996,426	99.38	2,006,996	99.91
2011	1,893,386	97.30	1,945,424	99.97

<sup>1</sup> Full year of tax collections is not yet available. Source: Pierce County Treasurer's Office.

## Major Taxpayers

The following table lists the largest ten taxpayers within the City for tax collection year 2015 listed in declining order of assessed value.

Table 36: Major Tax Payers within the City

Taxpayer	Business	2015 Assessed Valuation in \$	% of 2015 Assessed Value
DBINTC LLC	Incorporation Services	95,018,800	6.8%
Duke Realty Limited Partnership	Property Management	88,880,500	6.3
Glacier Northwest Inc.	Building Materials	52,285,099	3.7
LSREF2 Tractor REO LLC	Property Management	50,609,900	3.6
WPP LLC	Mining	27,369,600	2.0
Clock Tower Village LLC	Apartments	26,190,100	1.9
Intel Corporation	Computing Technology	25,448,027	1.8
Pierce County Investors LLC	Business Services	24,820,700	1.8
DuPont Trax Apartments LLC	Apartments	23,214,600	1.7
Patriots Landing Investment LLC	Retirement Community	21,817,300	1.6
Total		435,654,626	31.1%

Source: Pierce County Assessor's Office.

## Major Employers

The major employers in the Tacoma-Pierce County area for 2013 as reported by the Tacoma-Pierce County Economic Development Board are as follows:

*Table 37: Major Employers in Tacoma-Pierce County Area*

Employer	Type of Business Activity	Number of Employees
Joint Base Lewis-McChord	Military	63,501
Local Public School Districts	Education	13,133
Multicare Health System	Healthcare	6,776
Washington State	State Government	6,209
Franciscan Health System	Healthcare	5,814
Pierce County	County Government	2,873
Fred Meyer Stores	Retail	2,328
Washington State Higher Education	Higher Education	2,196
City of Tacoma	Local Government	2,125
Wal-Mart	Retail	2,102
Emerald Queen Casino	Gaming	2,070
Boeing Company, Frederickson Site	Aerospace	1,802
Safeway Stores, Inc.	Retail	1,616
Tacoma Public Utilities	Utilities	1,341
U.S. Postal Service	Mail Distribution	1,253

*Source: Tacoma-Pierce County Economic Development Board, 2013*



*While the City of DuPont has a number of large scale employers, it's also home to a variety of service-oriented businesses. (Source Studio Cascade Inc.)*

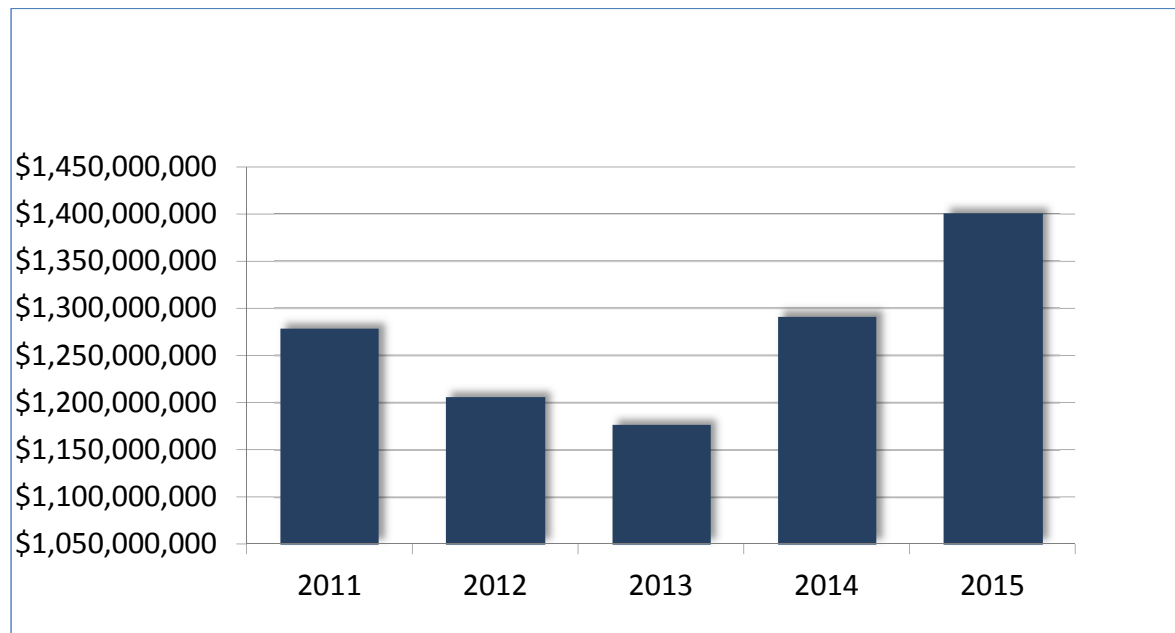
## Assessed Value

The assessed valuation for regular levies of property located within the City for tax collection years 2011 through 2015 and the annual percent change are included in the following tables:

*Table 38: Total Assessed Valuation of Regular Levies within the City*

Tax Collection Year	Assessed Value	Percent Change
2015	\$1,401,029,820	8.5%
2014	1,291,637,605	9.8
2013	1,176,714,772	-2.5
2012	1,206,369,869	-5.7
2011	1,278,881,240	-1.3

*Source: Pierce County Assessor's Office.*



*Figure P: DuPont Assessed Value*

## DuPont Economic Assets

### *Joint Base Lewis-McCord*

The U.S. military is a primary contributor to DuPont's population and local economy. Joint Base Lewis-McCord, including Madigan Army Medical Center, employs over 63,000 civilian and military personnel. It lost several thousand positions due to a round of troop cuts announced in 2013. The downsizing resulted in the Army deactivating one of Lewis-McCord's three Stryker brigades. Each brigade has 4,500 soldiers and a budget of about \$231 million a year. The base commander's current mission is

building on revived partnerships with American allies along the Pacific Rim. The federal government continues efforts to resize the armed forces, which may impact local troops in the future. A June 2014 report by the Department of Defense report determined that the regional economy could absorb up to 16,000 additional cuts of military and civilian positions at the joint base. The City and other regional partners are monitoring potential changes and advocating for the Department of Defense maintain existing personnel levels.



The Regional Economic Strategy for the Central Puget Sound Region identifies ten key industry clusters or concentrations of industries that drive job creation, import wealth, and concentrate workers with specialized skills and experience within our region. The most significant cluster for DuPont is the military because of our proximity and their role as an employer, source of R&D support, and driver of aerospace and maritime manufacturing providing more than \$3.1 billion annually in total payroll in the four-county area. Local sales associated with military employment are estimated at nearly \$24 billion. The continued strength of the military cluster is critical to the region's economic prosperity and the business attraction, retention, and expansion strategies related to the region's defense contracting industry are worthy of consideration by the City of DuPont and are included in the appendix:

<http://www.psrc.org/assets/5613/MilitaryStrategy.pdf?processed=true>

### *The Home Course*

The City's 18-hole Home Course is a picturesque golf course which opened in 2007 and has been the site of numerous championships, including the US Men's Amateur Championship, US Women's Amateur Championship, and the qualifier for local players in the 2015 U.S. Open at Chambers Bay. The Home Course is owned by the Washington State Golf Association and Pacific Northwest Golf Association. They are working with the Mayor and city officials to build and transition their headquarters to the City of DuPont. Continued development of the golf course and adjacent Fort Lake Business and Technology Park provides significant opportunity for future economic growth.

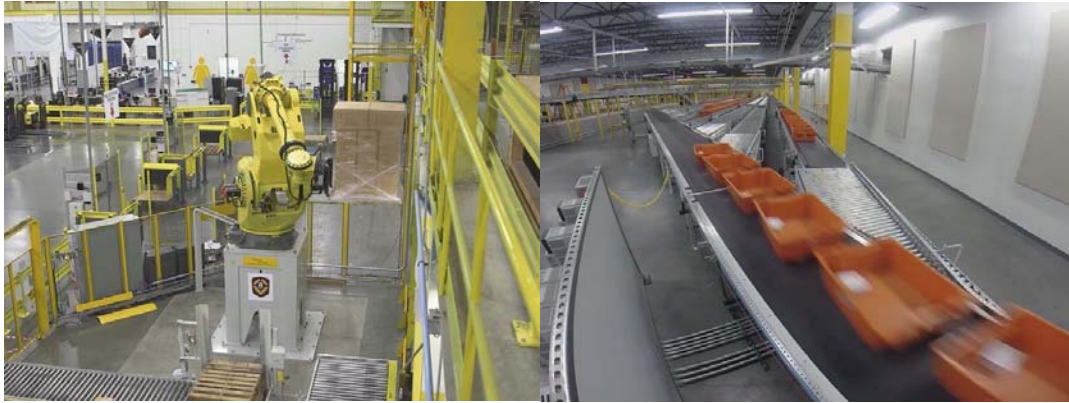


### *Amazon.com Fulfillment Center*

In February 2015, Amazon.com held an official opening for its new Fulfillment Center in DuPont, which is celebrated as the company's most innovative facility in North America. The \$100 million center occupies 1.4 million square feet and employs 500 people full time with up to 400 additional employees in the holiday seasons, resulting in 900 jobs total. The facility is built on 92 acres and is among three existing Amazon distribution operations in



the Puget Sound area. One of those, the 500,000 sf Sumner center, which opened in 2012, employs 500 people, and is also in Pierce County.



### *I-5/JBLM Corridor Transportation Improvements*

Since 2013, the City of DuPont is been part of a regional collaboration to garner legislative support to secure funding to fix congestion along the I-5/Joint Base Lewis-McChord Corridor. Local elected leaders from around Pierce County developed a unified plan and made their case to state lawmakers who successfully funded a series of local investment funded as part of statewide transportation package. During the 2015 legislative session, State lawmakers authorized \$494.4 million to improve the I-5/JBLM corridor, which includes:



- The addition of a fourth lane - north and south - along the corridor.
- A local connector road between Gravelly Lake Drive and Thorne Lane, essentially opening up the Tillicum neighborhood to the rest of Lakewood for the first time.
- Interchanges at DuPont-Steilacoom Road, Thorne Lane, and Berkeley Street will be rebuilt.

The roster of supporters includes Mayors, City Council members, State Legislators, the Tacoma-Pierce County Chamber, as well as port, businesses, tribal, and environmental leaders.

Ongoing collaboration and infrastructure improvements is key to economic growth. A federal program can provide loan guarantees and lines of credit for projects of regional significance. Up to \$1 billion is authorized for a project. Another potential source of money is the Tribal Transportation Program, offered through the Federal Highway Administration. The agency coordinates with tribal and state governments and Bureau of Indian Affairs on road projects that are on tribal land. The final section of SR-167 would run through the Puyallup Tribal Reservation.

### *DuPont Corporate Campus*

The recent sale of the Intel property provides a significant economic opportunity to diversify Dupont’s business and create more jobs. Intel’s research and development division continues to operate in DuPont with 500 employees as part of a 7-year lease agreement with four 4-year renewal options. The Mayor and city officials are working with the new owners of the facility—Fortress Investment Group and Industrial Redevelopment—to attract high-tech, cyber security, and military-defense sector industries. The facility has been renamed as the DuPont Corporate Campus.



### *Hudson Bay Heritage Days Community Celebration*

The DuPont Historical Society, DuPont History Museum, and the DuPont Tourism Board sponsor the Annual Hudson Bay Heritage Days weekend every August in DuPont to celebrate the community’s significant history. The weekend involves a golf tournament, a 5K Run, Live Music, a barbecue, and guided tours of the historic 1843 site of the Hudson Bay Company’s Ft. Nisqually built near the Sequatchew Creek as a trading post and agricultural center.

## **Guiding Concepts**

The following guiding concepts of the Economic Plan were derived from community conversations and feedback:

- There is a balance of housing, jobs and services.
- Residential and commercial development is compact, arranged along grid streets.
- There is a broad range of housing opportunities mixed into neighborhoods.
- Commercial areas are diverse, lively, and include a mix of public, retail, office, and residential uses.
- There is a civic center containing government, recreational and cultural services.
- Residents and visitors feel oriented, can find and enjoy the commercial areas, and can easily access the community's multiple parks, trails, and natural areas.
- The heritage of the early settlements (American Indian, Hudson Bay, and DuPont Company) are featured and not obscured by development.

To meet PSRC’s employment targets, DuPont will need to add another 6,584 jobs by the year 2035. While that number establishes a generalized target, DuPont aspires to those jobs filling professional office, high-tech, military-defense, medical, light manufacturing, warehousing, and retail sectors, providing employment that will fit within the regional context and also be suitable for employing DuPont residents.



The policies and implementation actions contained within this chapter emphasize increasing local capacity to act on the state scene, to build and nurture partnerships with other agencies, to investigate opportunities to leverage public funds to spur economic growth, and to take a new look at its land uses – particularly in the Old Fort Lake and Sequelitchew Villages – to ensure the designations and infrastructure plans track with what the development market and the community will support. A new look at these areas will also help DuPont narrow the difference between what PSRC says the jobs the community will need to add (6,584) and what the current land use designations will be able to accommodate (4,898).

DuPont’s population has grown remarkably in the past decade, propelled by the growth of Joint Base Lewis-McChord and the Pentagon’s base consolidation strategies. Military personnel comprise a larger portion of DuPont’s residential population relative to ten years ago – and the highest portion of any non-military base jurisdiction in Washington. Accordingly, the number of housing units has grown, particularly single-family residential. The Pentagon’s base realignment and consolidation brought many military personnel to JBLM. DuPont’s natural amenities – and unrivalled proximity – make it an attractive community for military and their families, and a viable labor force for current and future companies.

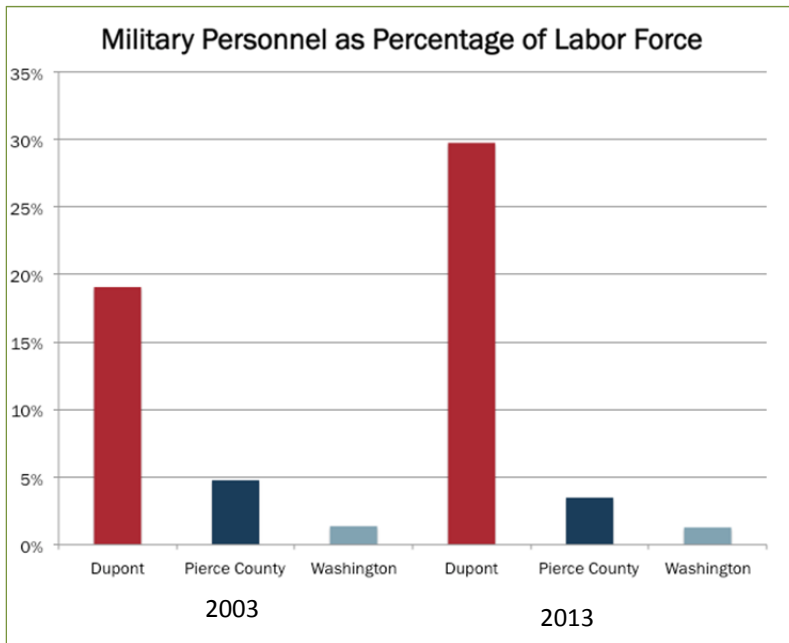


Figure Q: Military Personnel as a Percentage of Population for 2003 and 2013

The following image illustrates how industrial sectors in Pierce County have developed over the last decade. Manufacturing and Finance and Insurance – two categories upon which DuPont’s initial planning revolved – have decreased in scale.

## Pierce County Industries: Growth, Concentration, and Size

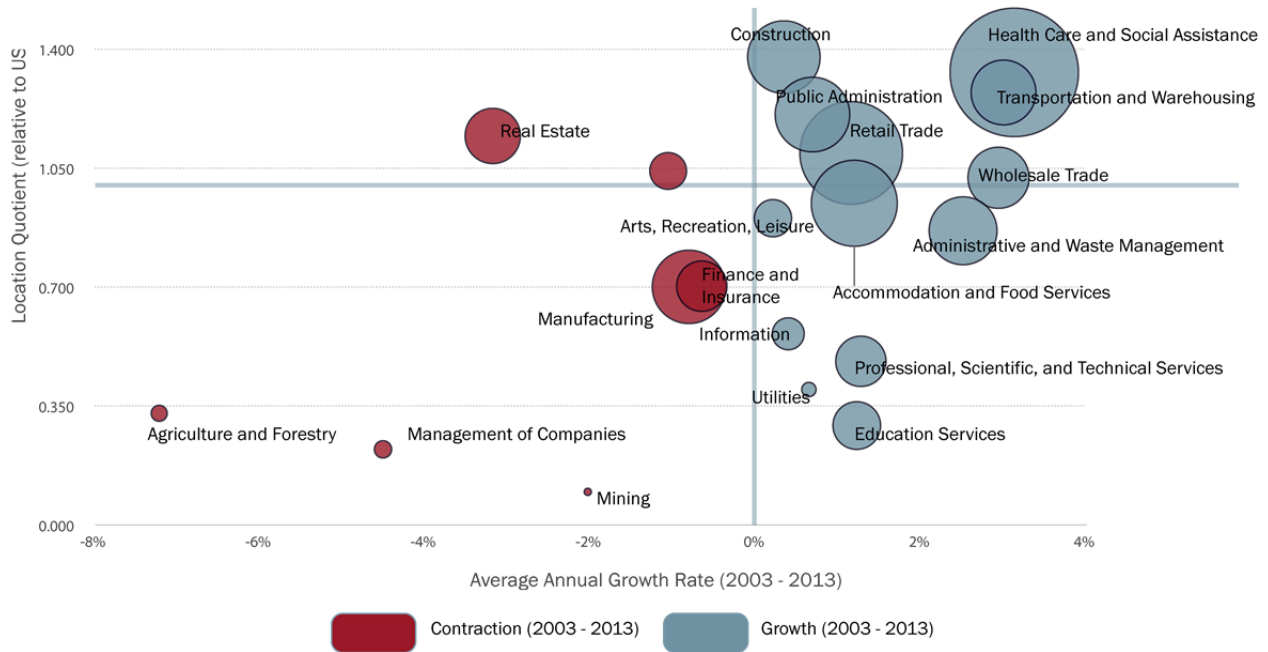


Figure R: Pierce County Industries: Growth, Concentration, and Size

DuPont is fortunate to have vacant developable land, however most areas with large amounts of development potential have important competing uses or lack significant infrastructure. The biggest opportunity for future development, the Northwest Landing Park (261 acres), may need additional policy and infrastructure investment. In a city of DuPont’s size, economic development growth can be heavily determined by a small number of key sites, such as the Intel facility (185 acres) which constitutes a large portion of the city’s commercial land capacity.

# Development Capacity in DuPont, WA

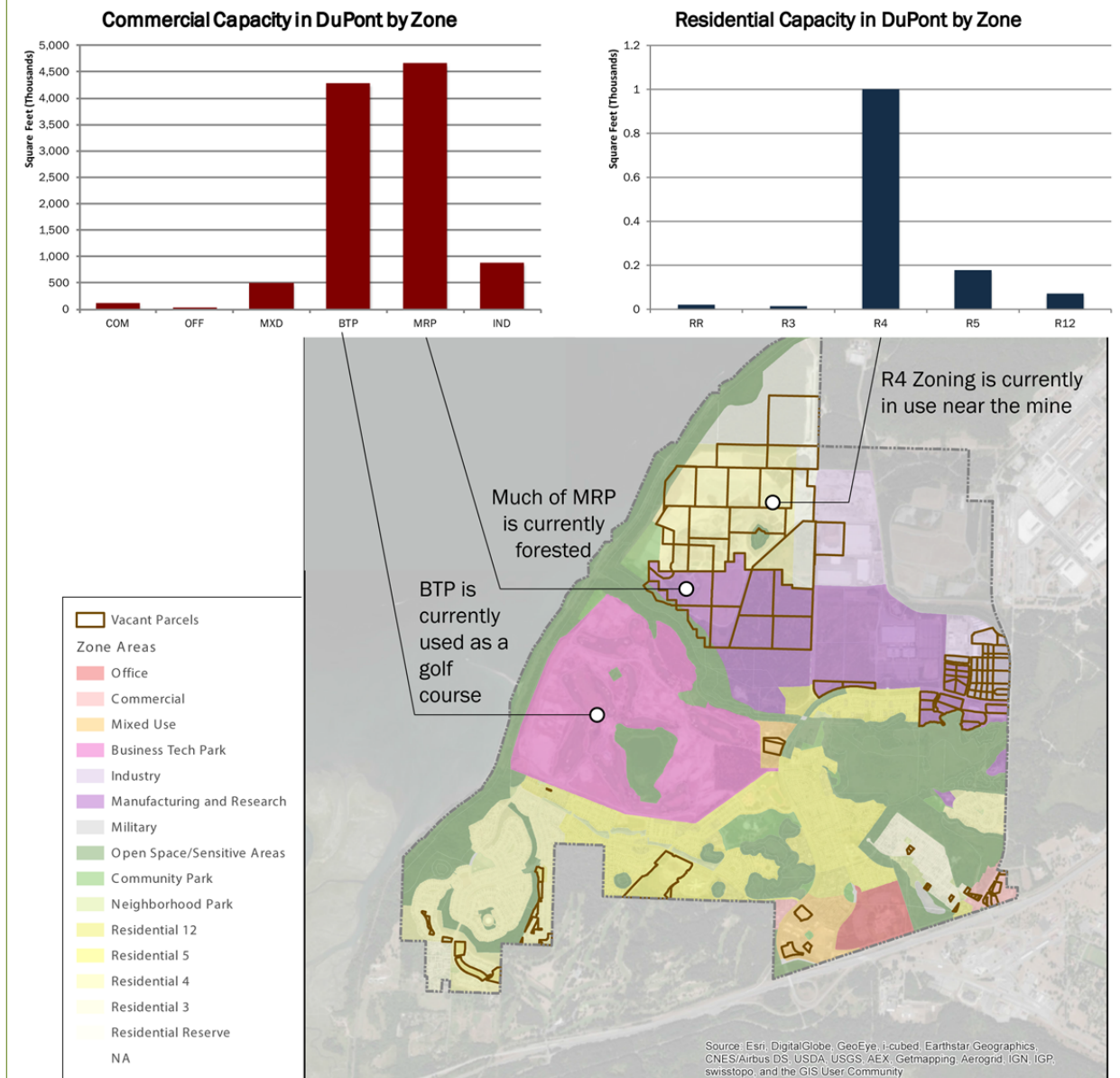


Figure S: Development Capacity for Commercial and Residential by Zone

Although taxable sales have jumped up in the past year, sales in DuPont are driven heavily by construction activity of recent facilities. These revenues represent a one-time bump and are difficult to sustain over the long-term. Increasing diversity is a key to DuPont’s future economic growth and sustainability.

DuPont’s economic development strategy focuses on creating a large and diverse tax base capable of supporting the City’s tradition of high-quality public services, creating employment opportunities for residents and transitioning military personnel, supplying retail and services for DuPont residents, and

providing a stable and predictable environment for local businesses to operate. DuPont can do this by paying close attention to its key development sites, maintaining a competitive business climate, nurturing relationships with key economic development partners, and strategically investing in catalytic property and infrastructure. Additional information on the community’s economic condition and economic development strategy will be provided in the appendix.

## Economic Development Goals

These goals and policies are drawn from the complete policy framework and included here because of their direct relationship to economic development. Goals and policies from other elements, such as land use, zoning, transportation, and natural resources, will also influence economic development and offer additional support for economic development initiatives.

<b>Goal ED-1</b>	<b>Recruit, grow and retain a diverse spectrum of commercial and industrial development projects to increase employment opportunities and provide a stable, sustainable tax base for municipal services.</b>
ED 1.1	Ensure land use designations provide for an appropriate mix of allowed uses including office, industrial, and retail which are necessary for the long-term economic health and sustainability of the city.
ED 1.2	Periodically review buildable land supply and evaluate existing development patterns.
ED 1.3	Support the creation of high paying jobs in DuPont by reviewing zoning districts to ensure a range of professional level jobs are permitted.
ED 1.4	Continue to strengthen and maintain strong relationships with local and regional economic development partners.
<b>Goal ED-2</b>	<b>Ensure the public interest is being served by balancing financial growth with less tangible quality of life elements such as public security and environmental health.</b>
ED 2.1	Identify, and consider public-private partnership investments that enhance the overall wellbeing of the citizens.
ED 2.2	Recognize and balance the long-term interests of the citizens with the fiscal benefits of business growth.
ED 2.3	Actively collaborate with community organizations to promote citizen engagement.
ED 2.4	Encourage a variety of marketing and tourism efforts.
<b>Goal ED-3</b>	<b>Continue strengthening DuPont’s regional reputation as a welcoming, attractive and business-friendly City.</b>
ED 3.1	Support local business development efforts, programs, and property investment projects.
ED 3.2	Provide opportunities to small businesses as they are a vital part of the City’s economic framework by promoting the local use of special small business financing and management assistance programs.

ED 3.3	Provide reasonable guidelines and standards for the siting of home-based business in residential neighborhoods to ensure they contribute to economic growth and diversity, while not altering or impacting the residential character of the neighborhood surrounding them.
ED 3.4	Continue evaluating and working towards efficiency and efficacy of all permit processes to ensure requirements and timelines are predictable. Continue making working to streamline the permit process whenever possible.
ED 3.5	Consider a “Certified Site” program and Planned Action Environmental Impact Statements when applicable to expedite permit approvals for desired land uses.
ED 3.6	Increase local capacity to track and respond to economic influences, participate in legislative action, identify, target and support strategic public and private investment, and review local land use plans to support job growth and sustained employment.
ED 3.7	Invest in the City’s identity to ensure consistency and uniformity in the design, brand, and appeal to public and private sector partners.
<b>Goal ED-4</b>	<b>Continue strengthening and integrating local and regional transportation infrastructure improvements, mass transit accessibility, and economic development by working collaboratively with public agencies and private interest groups to improve multi-modal transportation options and routes.</b>
ED 4.1	Continually coordinate with regional transportation agencies such as: Pierce Transit, Community Transit, Sound transit, and Pierce County to improve regional access to the City.
ED 4.2	Pursue transportation infrastructure investments by actively seeking federal, state, and regional grants, and establish a savings for any matching funding requirements.
ED 4.3	Coordinate with property owners, responsible agencies, and work to develop partnerships, as appropriate, to coordinate resources and to develop strategies that examine potential land use options within the business park and industrially designated sites.
<b>Goal ED-5</b>	<b>Encourage a variety of marketing and tourism efforts that build on the City’s assets.</b>
ED 5.1	Recognize, support, and enhance DuPont’s unique historic landmarks by encouraging historic preservation planning.
ED 5.2	Promote DuPont’s championship golf course, building on recent successes hosting the United States Men’s Amateur Championship, United States Women’s Amateur Championship, and the local qualifying round for the U.S. Open.
ED 5.3	Support tourist attractions and amenities by pursuing funding sources.
ED-5.4	Recognize, support and enhance DuPont’s unique and precious natural features by encouraging restoration, protection, and preservation.

## Implementation Actions and Policies

The following actions, ordered by priority and urgency, implement the policies identified above. Each action item contains a direct policy reference, indicating how it relates to economic development policies – or other policies in this plan – as appropriate.

	<b>Implementation Action</b>
EDA-1	<p>Establish an “Economic Development Team” (utilizing the Economic Development Board for Tacoma-Pierce County) consisting of the Northwest Landing Commercial Owners Association, the City, and others. This team will be tasked in the short term to:</p> <ul style="list-style-type: none"> <li>• Review local tax policy to ensure it is consistent with community objectives to encourage professional and technology-related employment development, to mitigate impacts of warehousing, and provide for continued maintenance of DuPont’s community character.</li> <li>• Institute conversations with local building owners and businesses to identify needs and facilitate long-term occupancy.</li> <li>• Conduct market research to determine the retail sectors and business types most suited to DuPont’s town center scale and market opportunity.</li> <li>• Identify strategic infrastructure investment opportunities at local and regional levels.</li> <li>• Identify specific industry sectors and develop a strategy to attract them to DuPont.</li> <li>• Identify regulatory barriers to doing business in DuPont.</li> <li>• Identify opportunities to coordinate with PSRC’s Economic Development District Board on regional economic development strategies.</li> </ul>
EDA-2	<p>Prepare strategic road maps for non-residential development properties, conducting detailed market analysis, building partnerships with stakeholders, and establishing collaborative investment and development action steps to realize planning objectives. These properties include:</p> <ul style="list-style-type: none"> <li>• <b>Fort Lake Business and Technology</b> Park to prepare a subarea plan to review options for development within the “brownfield” context, consider a new land use mix and identify necessary capital improvements to spur development.</li> <li>• Sequalitchew Village to strengthen relationships with existing property owners and position the property for future development in a manner to fulfill economic and environmental objectives, and</li> <li>• Existing professional and technology office properties, to identify ways to increase building occupancy and – if necessary – remarket disused building space to prospective tenants.</li> </ul>

EDA-3	Review and update the Business and Technology Park land use designation – perhaps through a subarea planning effort - providing a range of office, commercial, light manufacturing, and research and development uses.
EDA-4	Review zoning districts to ensure a range of professional –level jobs are permitted.
EDA-5	Identify strategic infrastructure investment and funding opportunities.
EDA-6	Maintain and update, as necessary, industrial site development standards.
EDA-7	Investigate financial strategies to construct south portion of Loop Road in advance of development and within the context of long-range planning strategy.
EDA-8	Maintain relationships with JBLM to discuss local issues, including coordination with companies looking to move within proximity to the base and identifying amenities complementing those that JBLM provides.
EDA-9	Identify specific industry sectors and develop a strategy to attract them to DuPont.
EDA-10	Institute a “certified site” program to expedite permit approvals for desired land uses.
EDA-11	Review fiscal policies to distribute the tax load amongst a variety of sources, rather than discouraging certain categories of business development with an undue majority of the tax burden.
EDA-12	Review zoning to ensure higher-intensity mixed-use housing that is supported by market trends is permitted within the town center area.

## Chapter 5 - Natural Environment

Much of what defines DuPont is its setting. Puget Sound, a series of creeks, ponds and wetlands, rolling terrain, and forested woodlands all contribute to those characteristics that define DuPont. This plan establishes policy guidance to integrate the natural and built systems, ensuring that DuPont's development and operations are compatible with its ecological, geological and topographical context.

### Geology & Soils

The DuPont planning area is comprised of undulating uplands, or glacial drift plains, about 200 feet above mean sea level and moderate to steep slopes along Puget Sound (30 to 65 percent) and Sequelitchew Creek (30 to 75 percent). Hoffman and Bell Hills rise above the uplands to elevations ranging from 260 to 400 feet. The ground surface drops off to Edmond Marsh north of the Historic Village and southwest of the Historic Village to Lake Sellers.

The Spanaway, Everett, and Alderwood soil series are the predominant soil types found within DuPont (U.S. Department of Agriculture, Soil Conservation Service, 1979). Kitsap and Nisqually soils (found in the southwest portion of the City), and DuPont Muck (associated with marshy areas) are also found locally throughout the area.

Data on geologic conditions near the mouth of Sequelitchew Creek show that gravel, silty sand, and gravelly fine to coarse sand are the predominant sediments in the marine area of the creek delta.

Soils within production areas of the former DuPont Works site were found to be contaminated with chemical compounds associated with former explosives manufacturing. Of these chemicals, lead and arsenic are the primary contaminants. Other lesser contaminants are dinitrotoluene (DNT), trinitrotoluene (TNT), mercury and petroleum. According to a January 1995 draft study issued to the Washington State Department of Ecology by the DuPont and Weyerhaeuser Companies, over 75,000 tons of contaminated soils have been removed from the site through interim activities. An additional 600,000 to 1,100,000 cubic yards were remediated through placement in discreet areas and were capped with the golf course. Any soils that could not be safely placed under the containment cap were treated and removed from the site. Groundwater and surface water do not require treatment. Remediation of the site was conducted under a Consent Decree with oversight from Washington State Department of Ecology.



*DuPont feels intimately connected to its environment, and this plan includes policy to preserve that feeling. (Source Studio Cascade Inc.)*



### *Soil/ Slope Stability*

In general, soil type and degree of slope affect the suitability of a site for building locations, drainfields, recreational facilities, and landscaping. Soil and slope stability within DuPont have the potential to be most adversely affected by earthquake (seismicity) effects.

Soil on the steep slopes of the Sequelitchew Creek ravine and soil on side slopes of the glacial kettles, ponds, and depressions are more susceptible to erosion and slope failure than flat upland areas. The slopes adjacent to Puget Sound and Sequelitchew Creek are relatively stable, except where the Kitsap soil formation is present.

The potential for slope failure also increases where the Olympia Bed Formation and associated springs and seeps discharge from the overlying Vashon Drift Aquifer (such as along Sequelitchew Creek).

### *Seismicity*

The Puget Sound region generally has a high susceptibility to damage from earthquakes. Two types of surficial geologic units are particularly prone to earthquake hazards: alluvial deposits and recessional outwash. Significant seismic hazards (i.e. those with the greatest risk of earthquake damage) coincide with the alluvial plain of the Nisqually River. Soils in this area are unconsolidated, making them susceptible to liquefaction hazards associated with large earthquake events. Recessional outwash is located throughout the entire DuPont planning area. The Coastal Atlas indicates earthquake stability is good for upland areas and very poor for bluff and Sequelitchew Creek ravine slopes.

## **Freshwater**

### *Sequelitchew Creek*

Flow from Sequelitchew Lake into Sequelitchew Creek begins at the outlet of Sequelitchew Lake (RM 3.05) where an adjustable-height diversion weir was installed to help control the water elevation of the lake. The flows in the area are controlled by this weir, associated culverts, a secondary diversion weir, and multiple beaver dams. Under the diversion weir's original design, outflow from Sequelitchew Lake would flow into Sequelitchew Creek, and would overflow to the diversion canal if the lake elevation exceeded 211 feet (Aspect 2004a). However, the continued presence of beaver dams in Sequelitchew Creek has prevented the flow from the lake to Sequelitchew Creek, and instead forced the outflow from the lake to the diversion canal.

Downstream of Sequelitchew Lake, Sequelitchew Creek flows for 1.5 miles through extensive wetland complexes, including Edmond Marsh. Within these wetland complexes, Sequelitchew Creek is characterized by low gradient, glide-pool habitat that is impounded by beaver dams and choked with dense brush thickets (Runge et al. 2003). The water level in Edmond Marsh rarely rises high enough to discharge into Sequelitchew Creek near the Center Drive bridge crossing, as evidenced by the lack of a defined channel and the presence of upland vegetation growing in the channel. Prior to construction of the diversion canal, Edmond Marsh frequently overflowed into Sequelitchew Creek.

The lower 1.4 miles of Sequelitchew Creek, between the Center Drive bridge and the Puget Sound shoreline, descends through a ravine that parallels the southern boundary of the proposed expansion

area. The uppermost reach of the ravine is typically dry from the west end of Edmond Marsh to the first identified springs about 300 feet west of Center Drive. Flow at this location is intermittent. Remnants of the old dam and power works are located here as well. The channel drops approximately 220 feet in elevation in 7,750 feet (average slope of 2.8 percent) between Center Drive and the brackish marsh located directly upstream of the railroad embankment (USGS 1981). The channel is confined by ravine slopes ranging from 30 to 80 percent for an average slope of 60 percent.

The brackish marsh was cut off from Puget Sound by the construction of the railroad berm in 1912 (Andrews 1994), and a culvert was constructed around 1936. Since then, the discharge of Sequalitchew Creek has varied as upstream natural modifications (e.g., beaver dams) and unnatural modifications (e.g., diversion for hydroelectric power and to control the elevation of Sequalitchew Lake, channelization of wetlands to increase fish passage) have been installed and removed by the DuPont Works, Corps of Engineers, and the Washington Department of Fish and Wildlife (WDFW) (Ch2MHill 2003; Andrews 1994).

Throughout much of this time period, which includes 40 years prior to the 1952 Corps installation of the diversion at the outlet of Sequalitchew Lake, flows in lower Sequalitchew Creek were several times greater than the current flows. This would indicate that the sediment load in the creek and rate of deposition in the marsh were also greater than they are today (Anchor 2004c).

Several springs that provide hydrology to Sequalitchew Creek are located along the north and south banks of the stream, between approximately 0.6 miles to 1.1 miles upstream of the mouth (Anchor 2004b). Until recently, an abandoned narrow gauge railroad bed paralleled the north bank of Sequalitchew Creek. This former railroad has been removed and a trail now exists in the location of the former track. This trail intercepts ground water springs on the north bank of Sequalitchew Creek and collects the runoff in ditches that are culverted beneath the access road to Sequalitchew Creek. These ground water springs emanate at the interface between the Vashon Drift and underlying Olympia Beds (geologic units) and currently provide most of the flow in lower Sequalitchew Creek and maintain base flow during the summer months (CH2M Hill 2003a).

Between 1949 and 1954 Sequalitchew Creek was dammed and diverted by the U.S. Army at Sequalitchew Lake. A canal channels this diversion to an outfall at Tatsolo Point on Puget Sound. The result of this diversion is the virtual elimination of historic flows in Sequalitchew Creek and degradation of Edmond Marsh.



*Sequalitchew Creek Trail is a popular pathway linking City Hall to Puget Sound. (Source Studio Cascade Inc.)*

On August 22, 1986 DuPont petitioned the State Department of Ecology (Ecology) to remove Sequelitchew Creek and its associated wetlands from the designation as a shoreline of the state because it fell under the 20 cfs threshold mandated by the Shoreline Management Act. On November 19, 1986 Ecology approved the request. On October 9, 1991 the DuPont City Council approved an ordinance removing Sequelitchew Creek and its associated wetlands from the designation as a shoreline of the state (Ord. No. 439).

### *Sequalitchew Creek Springs*

One major spring and several smaller seeps are located along the north and south banks of Sequelitchew Creek canyon. Flows originating from the Vashon Drift Aquifer; discharge from the spring has not been gauged.

### *Wetlands*

A total of 14 wetlands, including forested swamp, scrub/scrub swamp, and emergent marsh wetlands, are located throughout the City. Some of these wetlands are associated with the Sequelitchew Creek system (e.g., Edmond Marsh) and are fed by the Vashon Drift Aquifer. A small, fresh-water wetland is located in a glacial kettle north of Sequelitchew Creek (in the existing industrial area). The glacial kettle wetland is also fed by the Vashon Drift Aquifer. A number of smaller, seasonally wet kettle depressions are located throughout the City. A saltwater influenced marsh is located at the mouth of Sequelitchew Creek.

A number of small ponds are also located within the City and include Strickland Lake, Grant Lake, Lake Sellers, and Pond Lake. Old Fort Lake, which is 14 acres in size, is the largest lake within the City; its depth varies with the groundwater level. Edmond Marsh, is the largest wetland with an area of 134 acres.

## **Marine Waters**

### *Nisqually Delta*

A large delta has formed where the Nisqually River enters Puget Sound. The Delta extends northward from the mouth of the Nisqually River to a point approximately three-quarters of a mile from Lyle Point on the southern end of Anderson Island (or just over one-quarter mile from the mouth of Sequelitchew Creek (NOAA, 1989). Water quality of the delta is largely influenced by mixing of fresh and marine waters. Violations of Class A standards for fecal coliform bacteria have been observed in the Nisqually River and estuary. These violations generally correspond to periods of high water runoff (December to February).

The Nisqually National Wildlife Refuge, managed by the US Fish and Wildlife Service, includes approximately 2,810 acres of the delta/estuary region lying north of I-5, and includes portions of the undiked salt marsh, upland bluffs, and Red Salmon Creek.

### *Nisqually Reach*

The Nisqually Reach, one of the southernmost arms of Puget Sound, separates the Nisqually Delta from Anderson Island has recently been designated an “Aquatic Reserve” by the Washington State

Department of Natural Resources due to its unique and irreplaceable ecosystem functions. The reach has two flood and ebb tides daily. Tidal influence extends about 4 miles up the Nisqually River. Approximately every 8 days, the water in Nisqually Reach is replaced, contrasting with 56 days for southern Puget Sound. The Nisqually Reach is designated as Class AA marine water.



*The Nisqually Reach borders the City of DuPont where it meets the Puget Sound. (Source Studio Cascade Inc.)*

Two significant point sources of pollution to the Reach are found near Tatsolo Point (approximately 2 miles north of the City); these are the Tatsolo Point wastewater treatment plant and a storm drainage canal originating from Hamer Marsh.

### *Intertidal Springs*

Several seeps are located along the Nisqually Reach bluff. Flow for these springs originates from the Sequelitchew Delta Aquifer. A large intertidal spring is located about 800 feet north of the mouth of Sequelitchew Creek and a smaller seep is located south of the mouth of Sequelitchew Creek.

### *Groundwater*

Aquifers identified as underlying portions of the City of DuPont include the Vashon Drift, Sequelitchew Delta, Salmon Springs (Flett Creek), Stuck (Lakewood) Glacial Drift, Orting (Lone Star), and an Unnamed Glacial Aquifer (Qugl). In general, several low permeability soil layers (aquitards) and other aquifers separate the near surface aquifers (Vashon Drift and Sequelitchew Delta) from the deeper aquifers (such as the Stuck, Orting, and Qugl).

The City of DuPont's four primary water supply wells are developed in the Upper Salmon Springs aquifer (Bell Hill No. 1 and 3, and Hoffman Hill Wells). Bell Hill Well No. 2 is not developed in the same aquifer as wells No. 1 and 3 and Hoffman Hill. Bell Hill Well No. 2 is developed in the Undifferentiated/Outwash/Lakewood Glacial aquifer.

## **Plants**

Upland areas within the City of DuPont are dominated by second growth Douglas fir and western hemlock forests. The second growth forest has been thinned over much of the site. Understory vegetation is typically dominated by salal, Cascade hollygrape, dewberry, oceanspray, twinflower, and hazelnut. More open areas may also contain Pacific blackberry, Scot's broom, common snowberry, hairy cats-ear, sheep sorrel, common swordfern, and bracken fern. Coniferous forest and shrub vegetation occur on the bluffs along Puget Sound. The forest vegetation on the bluff consists of Douglas fir and salal with openings along the bluff and on the south-facing slopes. These openings contain an abundance of madrone, poison oak, and a few Pacific yew trees.

Portions of upland areas within DuPont have been heavily disturbed by prior activities related to the DuPont Works operations. Bare areas have been graded, mined, or otherwise changed. Invasive, non-native plants including Scot's broom, and evergreen and Himalayan blackberry - dominate these areas.

Sequalitchew Creek is bordered by second growth mixed forest dominated by 90- to 100-year-old western hemlock and red alder. Other common species include vine and big-leaf maples, Pacific yew, western red cedar, and Pacific dogwood. The shrub under-story is dominated by Pacific blackberry, red elderberry, salmonberry, and Oregon grape. Common sword-fern, stinging nettle, lady-fern, false lily-of-the-valley, Siberian montia, licorice-fern, and western trillium are fairly abundant. A mixed forest community also grows on the west slope of Hoffman Hill.

### *Oak Savannah*

A former, larger oak savannah community, approximately 131 acres in size, extended from the western edge of Edmond Marsh (east of Old Fort Lake) to just north of the JBLM Golf Course. The densest concentration of this Savannah is contained within Powderworks Park on the northeast side of Yehle Park Village and in the three-acre area east of Hammond Avenue in Palisade Village. The Powderworks Park Savannah site is designated as a sensitive area separate from the park.

The oak/grassland community generally provides a transition area from the coniferous forest to the west and contributes to species diversity in the area. About 70 percent of the trees within this community are Oregon white oak; many are more than 200 years old. Under story species include Scot's broom, common snowberry, hairy cats-ear, and various grasses. Oak communities such as this one are considered a Priority Habitat by the Washington Department of Wildlife.

### *Prairie*

A grassland prairie grows on about 198 acres in the northeastern portion of the City (adjacent to and including portions of the JBLM Landfill). Common species include Idaho fescue, Puget balsamroot, meadow death-camas, Scot's broom, kinnikinnick, and black hawthorne.

### *Wetlands*

Thirteen freshwater wetlands are located in glacial kettles throughout DuPont, the largest is Edmond Marsh, which encompasses an area of 134 acres. Vegetation consists of non-persistent emergent, persistent emergent, and scrub-shrub wetland plant associations. Dominant herbaceous species include reed canary grass, slough sedge, toad rush, and soft rush. Scrub-shrub areas consist primarily of red-twig dogwood, willow, hardhack, and climbing nightshade.

A saltwater influenced marsh (approximately one-half acre in size) is located at the mouth of Sequalitchew Creek. The seaward/lower end of the marsh is dominated by tufted hair-grass, bent grass, fat hen, western dock, Lyngbye's sedge, and species of *Hordeum*. Higher areas are dominated by Douglas aster and less salt-tolerant plant species such as yarrow and marsh cinquefoil. An eelgrass bed is located off the western shoreline extending north beyond the mouth of the creek.

### *Rare Plants & Plant Communities*

The white-top aster, commonly found in association with open oak woodland/grassland communities, is a state-listed sensitive plant species and a federally listed “Candidate 2” species. A moderately sized grouping of white top asters was identified during site investigations for the Glacier Northwest Mining Facility (approximately 50 feet west of the north/south access road).

According to the Washington Department of Wildlife, Oregon white oak woodland/grassland communities are quite rare in the state. These communities represent potential habitat for both the western gray squirrel and western bluebird (both listed as sensitive species by the state), as well as a diversity of other plant and animal species. The Department of Wildlife has stressed urgency for protection of these communities from further cutting or development.

Jurisdictions adjacent to DuPont have taken steps to identify and protect oak woodland/grassland communities. Oak woodlands are identified as critical fish and wildlife habitat areas in Pierce County’s Sensitive Areas Ordinance (Ordinance No., 91-12055). Oak woodlands are defined to include areas where Oregon white oak comprises more than 20 percent of the trees in a stand, and where the stand is one acre or greater in size. The ordinance emphasizes and encourages education, information and voluntary action to enhance, protect, rehabilitate, and restore critical species and habitats.

### **Animals**

The variety of plant communities within DuPont and the Nisqually Delta support a diversity of wildlife species. As many as 159 bird species, 21 mammal species, and 6 reptile and amphibian species have been observed in the area.

#### *Birds*

A variety of song birds, waterfowl, game birds, and raptors have been observed within DuPont and the adjacent Delta area. The most common types of land birds include, among others, swallows, thrushes, nuthatches, kinglets, siskins, warblers, chickadees, wrens, sparrows, jays, finches, crows, and blackbirds. Other bird species observed in the area include blue and ruffed grouse, California quail, band-tailed pigeons, mourning doves, pileated and hairy woodpeckers, common flicker, and red-breasted sapsuckers. Concentrations of nesting birds have been identified in the pasture area of the oak savannah, in a forested area north of Sequelitchew Creek, and near the mouth of Sequelitchew Creek.

DuPont is generally identified by the Department of Fish and Wildlife (DFW) as providing habitat for the band-tailed pigeon. Review of DFW data and interpretations by their staff indicate both sightings and use. Management recommendations for those species include preservation of any mineral springs and particular vegetation providing food. Representatives of the Department of Ecology, the Nisqually Delta Association, and WRECO met and toured the area of Hoffman Hill in April, 1994. As a result, an expanded buffer corridor is established from the bluff inland in the area of Hoffman Hill to accommodate this species habitat.

The Nisqually Delta is the major non-coastal nesting and feeding area for migrating waterfowl and shorebirds between Skagit Flats and the Columbia River. Water birds frequently observed in Puget

Sound near DuPont and the Delta include gulls, grebes, loons, scaup, scoters, common murre, and rhinoceros auklets. Pigeon guillemots and marbled murrelets have been observed, but less frequently. The highest concentrations of water birds are usually observed during fall and winter.

Raptors regularly observed within DuPont include red-tailed and Cooper's hawks, and great-horned owls. A red-tailed hawk nest has been documented along Sequelitchew Creek and fledged young of Cooper's hawks have been observed near the oak savannah and Edmond Marsh. Other raptors observed in the surrounding area include the turkey vulture, sharp shinned hawk, bald eagle, osprey, American kestrel, barn owl, and short-eared owl.

### *Mammals*

The extensively forested habitat, including the oak savannah, supports an abundance and diversity of animal species. Most of the mammal species in the area are herbivores, including striped skunk, beaver, muskrat, porcupine, snowshoe hare, eastern cottontail, opossum, and black tail deer. Shrub and forb growth in more open forested areas provide excellent habitat for herbivores, such as deer.

Mammalian predators observed within DuPont include the cougar, coyote, longtail weasel, and raccoon. Smaller mammals found in the terrestrial habitats include western gray squirrel and chickaree, moles, shrews deer mice, and jumping mice.

Gray whales have been reported infrequently in the area during migration in the spring. Harbor seals and the otter are common in the area.

### *Reptiles & Amphibians*

Reptiles and amphibians observed within DuPont are generally common in the region. The most abundant and widespread species include Pacific tree frogs and red-legged frogs (a federal candidate species). Northern rough-skinned newts are also abundant. The bluffs along the shoreline provide habitat for northern alligator lizards and western fence lizards.

### *Rare Animals & Birds*

Wintering peregrine falcons, listed as endangered under the Endangered Species Act, are found along coastal areas in Washington. Habitat used by these falcons includes intertidal mudflats and estuaries. Peregrines perch on pilings and large trees and snags which provide a good view of prey species, including shorebirds and ducks, which are found in estuarine habitats. Peregrine falcons have not been observed within DuPont; however, the mouth of Sequelitchew Creek is potential foraging habitat for these raptors. Large trees and snags along the bluff may also provide hunting perches for this species.

Two active bald eagle nest territories were located on Anderson Island in 1991. One pair formerly nested near Old Fort Lake. A bald eagle nest is present within the Hoffman Hill Village area. Other nesting areas include American Lake, McAllister Creek on the Nisqually National Wildlife Refuge, the Nisqually River, and Spanaway Marsh. Nesting eagles and sub-adult eagles use the Nisqually Delta for foraging. Bald eagles have also been observed at the JBLM landfill. Bald eagles choose large trees and snags along the shoreline as hunting perches and to observe their territory. Trees suitable for bald eagle perches are found in the lower portions of the forested bluff adjoining Puget Sound and near the mouth

of Sequatchew Creek. During surveys conducted in 1992, 12 bald eagles were observed from the former DuPont dock.

Marbled murrelets are listed as threatened species under the Endangered Species Act. Marbled murrelets occur in the Nisqually Reach from May through July and infrequently at other times. The Nisqually Reach represents foraging habitat for murrelets, which nest in old-growth forest.

Murrelets have been observed on Puget Sound in the area from approximately the former DuPont dock south to the mouth of Red Salmon Creek, and from the shoreline to approximately the location of the Nisqually River channel buoy. Murrelets have also been observed farther from shore in the main channel, between Anderson Island and the south end of Ketron Island.

The oak grassland community could provide habitat for the western bluebird and western gray squirrel. Western bluebirds are found in open, riparian, burned, or cut over woodlands and other open country with scattered trees.

Western gray squirrels are also found in oak habitat. No squirrels were observed during site investigations for the Pioneer Aggregates Mining facility conducted in 1991, or more recent investigations of the Weyerhaeuser property (Raedeke Associates, 1993). There have been no recorded sightings of gray squirrels in the City of DuPont since 1978.

The Northern Red-legged Frog is listed as a federal candidate species. The red-legged frog is commonly found in forested swamps. Forested wetland and riparian habitats within DuPont could provide habitat for the red-legged frog, which were observed in abundance during surveys for the proposed Weyerhaeuser Export Facility.

## Marine Animals

### *Fish*

The Nisqually River, local tributaries, Red Salmon Creek, and adjacent marine waters support a variety of fish and wildlife resources. Red Salmon Creek is an important spawning area for salmon and trout.

Anadromous fish produced in McAllister Springs, Sequatchew Creek, the Nisqually River, and areas south may migrate through or offshore of DuPont on their way to and from the ocean. The area supports coho, chinook, and chum salmon, steelhead, sea-run cutthroat trout, and Dolly Varden. The Department of Fish and Wildlife also plants coho, chum, chinook, and pink salmon in the Nisqually River drainage. Cutthroat trout were last released in McAllister Creek in 1988.

Natural production of anadromous fish in Sequatchew Creek is limited because of low flow conditions in the creek. The Washington Department of Fish and Wildlife operated a release program in Sequatchew Lake from 1980 until at least 1994 as part of a cooperative agreement between the Nisqually Tribe, the Department, and JBLM to restore releases of coho salmon into Sequatchew Lake. Sequatchew Creek is the only route for coho salmon smolts migrating from Sequatchew Lake to marine waters.



The DuPont region of the Puget Sound is part of the Nisqually Reach Aquatic Reserve which is a highly diverse, productive, and unique ecosystem located in the Nisqually Delta in southern Puget Sound. As part of its Shoreline Management Plan, the City assigned appropriate environmental designations to help protect this important resource.

*Intertidal & Subtidal Plants and Animals*

Previous studies have identified 75 plant species growing on bottom substrate in the intertidal area (zero to nine feet above MLLW); more than half were red algae, although green algae made up a dominant fraction of the biomass. 270 species of intertidal invertebrates, including limpets, barnacles, and periwinkles, were also identified. The lower intertidal area near the mouth of Sequelitchew Creek has been identified as the most productive intertidal area, in terms of number, diversity, and density of organisms.

Eelgrass beds are among the most productive areas in the marine environment and constitute an important food base for fish and waterfowl in shallow marine waters. A large eelgrass bed has been identified southwest of the mouth of Sequelitchew Creek; and one is believed to exist near the northernmost City limits.

**Natural Environment Goals and Policies**

These goals and policies are drawn from the complete policy framework and included here because of their direct relationship to Cultural Resources.

<b>Goal NE-1</b>	<b>Protect DuPont’s natural environment by meeting the needs of Today’s citizens without compromising the needs of future generations.</b>
NE 1.1	Preserve environmentally sensitive areas and those that are valuable natural and aesthetic resources to the City.
NE 1.2	Institute and regularly update measures which promote development and construction practices that minimize impacts on the environment.
NE 1.3	Facilitate and promote invasive plant removal and restoration projects throughout the City.
NE 1.4	Work with JBLM, the Department of Ecology, Glacier NW, environmental groups, and other affected parties to restore and improve the flow of water through Sequelitchew Creek.
<b>Goal NE-2</b>	<b>Exercise responsible environmental stewardship by considering long range implications of the city policies on the environment, and directing development towards areas of the City where natural systems and amenities present the fewest environmental constraints.</b>
NE 2.1	Limit uses (public and private) within environmentally sensitive areas where the uses are likely to negatively impact the environmental resource and promote passive uses in areas where such impacts are adequately mitigated.

NE 2.2	Maintain unique physical features and environmentally sensitive areas within the City as passive open space areas in order to ensure their protection while providing for access and enjoyment.
NE 2.3	Protect and retain significant trees and vegetation in public and privately dedicated areas.
NE 2.4	Landscaping in public places and Rights of Way should consist of species that are drought resistant and low maintenance such as native plant species.
NE 2.5	Incentives should be provided to encourage the use of energy efficient building construction and design.
NE 2.6	Ensure that the Sequelitchew Nature Trail’s natural character is preserved and or enhanced by any development project that is located on, around, near or adjacent to the trail from beginning to end through site design efforts such as reduced lighting and noise, and enhanced vegetation preservation etc.
<b>Goal NE-3</b>	<b>Protect water resources for present and future generations</b>
NE 3.1	Strive to ensure standards are consistent with the most current draft of Department of Ecology and Pierce County guidelines related to grading, stormwater, and erosion control.
NE 3.2	Protect the quantity of ground waters by encouraging stormwater systems that maximize aquifer recharge and establish site development guidelines to control stormwater runoff from impervious surfaces.
NE 3.3	Work with JBLM, Department of Ecology, Glacier NW, and other affected parties to work towards re-establishment of pre-diversion flows through Sequelitchew Creek.
<b>Goal NE-4</b>	<b>Minimize adverse effects of development on the environment.</b>
NE 4.1	Ensure all development meets or exceeds applicable federal, state, regional, and local air quality standards.
NE 4.2	Address air quality through performance standards within development regulations that promote the least air polluting forms of industrial equipment and manufacturing processes, and encourage the use of alternative non-polluting fuels.
NE 4.3	Site preparation activities should be designed to minimize extensive grading and to retain a portion of significant trees and vegetation. Development standards should implement guidelines and define extensive grading to clarify the circumstances when extensive grading may be appropriate.
NE 4.4	Address light pollution through performance standards within development regulations that promote reduction of light emissions and encourage the use of efficient light sources.
<b>Goal NE-5</b>	<b>Restore historic stream flow, improve habitat conditions, and promote long term preservation efforts within the City.</b>

NE 5.1	Maintain and where possible restore and enhance ecological functions and values of the Sequelitchew Creek Watershed, lakes, marshes, streams, wetlands, bluffs, and recognize the potential for passive public access on or at Old Fort Lake.
NE 5.2	Strive to eradicate invasive plants throughout the City, with particular attention paid to Edmond Marsh, Old Fort Lake, Sequelitchew Creek and the Bluff.
NE 5.3	Maintain important wildlife habitats and function wildlife corridors to link important natural areas such as Edmond Marsh and Sequelitchew Creek.
NE 5.4	Minimize the potential for adverse impacts on the Nisqually Wildlife Refuge.
NE 5.5	Recognize that the Oak Savannah is a unique habitat within the City and region and preserve the highest value oak groupings in the area as open space..
	<b>Shoreline goals and policies are in the SMP.</b>

### Implementation Actions

	<b>Implementation Action</b>
NEA-1	Update the critical areas ordinance to incorporate best available science and current practices for environmental protection, and encourages restoration work within critical areas such as wetlands.
NEA-2	Develop an open space maintenance and stewardship program as well as an urban forest inventory as a conservation management tool.
NEA-3	Institute an aquifer monitoring program to keep track of the quantity and quality of the city's groundwater resources in a cooperative effort with Pierce County and JBLM.
NEA-4	Establish an eradication program for invasive plants for all areas.
NEA-5	Evaluate the potential of including the mouth of Sequelitchew Creek as part of a National Wildlife Refuge.
NEA-6	Develop trail design standards that preserve and protect the natural environment minimize impacts of lighting and sound from adjacent development impacts.

## Chapter 6 - Cultural Resources and Historic Preservation

The City of DuPont has chosen to include a Cultural Resources and Historic Preservation element in its comprehensive plan because of the high importance residents place on its deep and more recent history. This element recognizes how DuPont's cultural and historic resources make DuPont a distinct culturally rich location and that these assets can provide enhanced tourism opportunities. While this element recognizes the value and importance of the area's Cultural and Historic Resources, it does not necessarily inventory those resources.

As early as 5,700 years ago, Native Americans inhabited this area, living in a small village at the mouth of Sequelitchew Creek. The site was well suited for settlement, and the Sequelitchew-Nisqually people thrived on the creek's ample salmon runs.

Much later, in the 1830s, Hudson's Bay Company developed a storehouse in the area, along with the first permanent trading post in the Puget Sound area. Fort Nisqually served as a supply center for early settlers, and it eventually expanded to house the Puget Sound Agricultural Company. With the decline of fur trading in the 1840's, the fort was moved to a flatter inland site just west of Edmond Marsh and south of Sequelitchew Creek. When the U.S. government created a 1,280 acre reservation in the Nisqually River basin in 1854, and then bought Fort Nisqually and surrounding property from Hudson's Bay Company in 1869, the land was auctioned off to a variety of owners.

In 1906, the E.I. du Pont de Nemours Company purchased approximately five square miles of land, including Sequelitchew Creek, the original Fort Nisqually site, and almost all of the original settlement. Soon thereafter, DuPont was designed and built as a company town, home to workers at the DuPont Powder Works plant. Business at the plant thrived for seven decades. In 1951, DuPont sold the company homes to its residents and employees, and many retirees opted to stay in the town because of its strong sense of community. The City of DuPont was officially incorporated that year. Dynamite production continued at the plant until it closed in 1976.

In the late 1970s, the DuPont holdings were sold to Weyerhaeuser, originally for a lumber mill and shipping facility. Instead, the land was transferred to the Weyerhaeuser Real Estate Company and then on to Quadrant (a subsidiary of the Weyerhaeuser Corporation) and planned for residential development. A 3,000-acre community, called Northwest Landing, was planned for this site to include a



*Community residents place a high value on DuPont's cultural and historic resources. (Source: Studio Cascade Inc.)*

mix of uses. The development concept for the community was inspired by the historic DuPont village, including alleyways, front porches, village greens, and a neighborhood-based character. The first phase of development at Northwest Landing increased DuPont’s population and brought new neighborhoods, commercial areas, and community facilities into the City.

Below are a series of bullet points that are guided the development of the goals, policies, and implementation actions that follow

The guiding concepts of for Cultural Resources are:

- Neighborhoods are not isolated and have a distinct focal point and short walking connections to other neighborhoods, services, public features, and jobs.
- There is a broad range of housing opportunities mixed into neighborhoods.
- Residential and commercial buildings are designed to a variety of styles from the 1900- 1940's.
- There is a single, diverse, lively, commercial area, which includes a major public space, retail, office, and residential use.
- There is a civic center containing government, recreational and cultural services.
- Environmentally sensitive areas are preserved.
- Heritage of the early settlements (American Indian, Hudson Bay, and DuPont Company) is featured with development, not obscured.

### Cultural Resources Goals and Policies

These goals and policies are drawn from the complete policy framework and included here because of their direct relationship to Cultural Resources.

<b>Goal CR-1</b>	<b>Protect cultural resources by continuing to implement regulations that insure cultural resources will not be destroyed, damaged, or disregarded during the planning and development process.</b>
CR-1.1	Work with federal and state agencies to utilize historic preservation planning and funding resources.
CR-1.2	Encourage protection and preservation of cultural resources as well as efforts to promote awareness of the community’s natural and historic assets.
CR-1.3	Develop an active preservation program that emphasizes community outreach and involvement including other local governments and agencies.

CR-1.4	Encourage identification, protection, preservation and or restoration of cultural resource sites of documented significance as outlined in the <ul style="list-style-type: none"> <li>○ Memorandum of Agreement among the Washington State Historical Preservation Office, the Weyerhaeuser Real Estate Company, and the City of DuPont dated August 7, 1989 including any subsequent amendments.</li> <li>○ Memorandum of Agreement among Weyerhaeuser Company, Weyerhaeuser Real estate Company, city of DuPont, the Nisqually Point Defense Fund, Committee for the Preservation of the Nisqually Mission Historical Site, the Nisqually Delta Association, and the DuPont Historical Society, December 12, 2000.</li> </ul>
CR-1.5	Explore and use a wide range of funding sources to ensure the financial viability of the mission of promoting and protection the City’s cultural and historic resources.
CR-1.6	Seek ways to capitalize on DuPont’s unique cultural and historic resources to enhance tourism and local education opportunities.

### Implementation Actions

The following actions, ordered by priority and urgency, implement the policies identified above. Each action item contains a direct policy reference, indicating how it relates to economic development policies – or other policies in this plan – as appropriate.

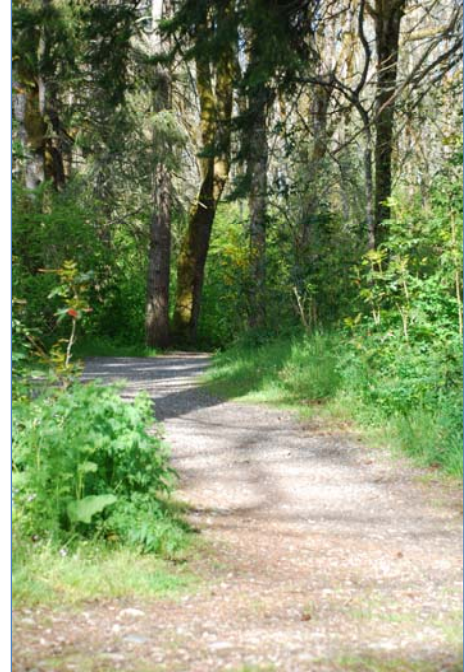
	<b>Implementation Action</b>
CRA-1	Implement a coordinated program of promotional and interpretive signage to identify significant historical sites and points of interest as well as an oversight and management program to coordinate overall promotion and maintenance of significant historic sites.
CRA-2	Create an educational program focused on natural and historic treasures to increase awareness and understanding and appreciation of the community and its visitors.
CRA-3	Identify and mark historic roads, and trails to help preserve the area history. Incorporate these trails into the public trail system.
CRA-4	Coordinate with the Historic Society to identify and implement specific efforts to preserve DuPont’ cultural and historic resources. Explore the potential for a variety of historic preservation tools such as becoming a Certified Local Government, identifying a National Historic District, and looking into the Main Street Association.
CRA-5	Conduct a planning effort to evaluate the potential of restoration of the historic narrow gauge train and tracks located in the Historic District as a tourism and historic preservation idea



## Chapter 7 - Parks and Recreation

In 2014 the City of DuPont updated its Parks, Recreation and Open Space (PROS) Plan. That plan is included as Appendix F of this document.

The PROS plan establishes goals, objectives, recommendations, and actions for the ongoing development, preservation, and maintenance of parks, trails, facilities, and open space; as well as a financing strategy for the implementation of capital and non-capital facilities plan that will benefit the community. The plan serves as a framework to guide the city in updating its comprehensive plans and in developing its parks and recreation services and open spaces now and in the future. It's expected that updates will occur as needed.



*Non-motorized recreational trails, especially natural ones, are an important community resource.  
(Source: Studio Cascade Inc.)*

### Purpose & Relationship to the GMA

Washington State's Growth Management Act (GMA) requires cities to consider as part of the development of their comprehensive plan the goal to:

"Retain open space, enhance recreation opportunities, conserve fish and wildlife habitat, increase access to natural resource lands and water, and develop parks and recreation facilities."

The GMA also requires a Parks and Recreation element be included in comprehensive plans. Specifically, the GMA requires the element to include:

- Estimates of park and recreation demand for at least a ten-year period
- Evaluation of facilities and service needs
- Evaluation of intergovernmental coordination opportunities to provide regional approaches for meeting park and recreation demand

However, the requirement to include a Park, Recreation, and Open Space element in the comprehensive plan is conditioned on the State Legislature providing funding. As of 2015 the Legislature has not provided such funding, so the City opts to include as an appendix to this plan the City of DuPont Parks Master Plan as amended.





## Chapter 8 - Housing

The Housing chapter assesses the City of DuPont's current and future housing needs. It includes an inventory and analysis of the existing housing stock and existing housing conditions followed by strategies to meet future needs.



*The City of DuPont is looking to provide a balance of housing options to accommodate a variety of housing needs. (Source Studio Cascade Inc.)*

This chapter's strategies recognize that housing costs and housing quality are affected by many issues. Household income, demographics, and the local and national economy are examples of factors influencing the housing market and housing affordability. The Housing chapter, together with the policies and action items, seek to ensure that the quality, type and availability of housing provided in DuPont meet the community's future housing needs and objectives.

### Purpose & Relationship to the GMA

This chapter has been developed in accordance with the Washington Growth Management Act (GMA) requirements to address housing issues within DuPont's city limits and the Urban Growth Area (UGA) over the next 20 years.

The GMA requires jurisdictions provide housing to ensure the vitality and character of established residential neighborhoods. Making adequate provisions for the existing and projected needs of all economic segments of the community is also a GMA requirement. Providing a wide range of housing types is basic to meeting this requirement.

The inventory and analysis of the existing housing stock, the assessment of current and future housing and the housing strategies will help city officials and the general public makes informed decisions that will implement GMA requirements.

### Inventory & Analysis

#### *Household Characteristics*

DuPont rests on the coastal lands of Pierce County in the Puget Sound Region of Washington State. With a population of almost 9,000 residents, the City has a slightly younger, more family oriented trend than that of the surrounding areas.

Table 39: Basic Demographics DuPont and Surrounding Areas

	DuPont	Pierce CO	Puget Sound Region
Population (2013 OFM official est.)	8,855	821,300	3,780,900
Median Age (2013 ACS est.)	31.8	35.8	37.4
Average household size (2013 ACS est, owner occupied.)	2.94	2.62	2.55
Families as a percent of households (2013 ACS est.)	75%	67%	63%
Average family size (2013 ACS est.)	3.43	3.15	3.1
Median household income (2013 ACS est.)	\$83,021	\$59,204	\$65,452

### Housing Inventory

Housing in DuPont is predominantly comprised of single-family homes. Table 35 shows the types of housing in the city as of 2013, and includes the percent change by housing type. In 2013, single-family homes represented a little over 80 percent of the housing stock in DuPont, with most of this housing in detached units. The majority of the remaining housing was multifamily with 3 or more units.

Table 40: Type of Housing Units

Housing Units by Type	DuPont	Percent of Total
Total housing units	3,166	
1-unit, detached	2,166	68.4%
1-unit, attached	377	11.9%
2 units	11	0.3%
3 or 4 units	145	4.6%
5 to 9 units	206	6.5%
10 to 19 units	33	1%
20 or more units	228	7.2%

(Source: US Census American Community Survey 209-2013)

### Age

The vast majority of housing in DuPont is relatively young, with just over 93 percent built within the last 25 years and 72 percent built between 2000 and 2009 (see Table H-3). As a result of the new housing units lot redevelopment opportunities are likely limited.

Table 41: Age of Housing Units

DuPont Housing, Year Structure Built	Total	Percent of Total
Total housing units	3,166	100%
Built 2010 or later	60	1.9%
Built 2000 to 2009	2,280	72%
Built 1990 to 1999	614	19.4%
Built 1980 to 1989	83	2.6%
Built 1970 to 1979	40	1.3%
Built 1960 to 1969	0	0%
Built 1950 to 1959	0	0%
Built 1940 to 1949	0	0%
Built 1939 or earlier	89	2.8%

### Housing Tenure

Housing tenure describes the rate of owner occupancy. In 2013, DuPont had an approximate vacancy rate of 6 percent. The majority of housing units (57 percent) were owner-occupied (see Table 37)

Table 42: Occupied Housing Units Owner and Renter Specified

DuPont Housing Tenure	Number of units	Percent
Total Housing units	3,166	100%
Occupied housing units	2,973	93.9%
Vacant housing units	193	6.1%
Owner-occupied	1,826	57.7%
Renter-occupied	1,147	36.2%

### Housing Cost & Affordability

One of the goals of the GMA is to provide Washington residents with affordable housing options. According to federal and state guidelines, a household is considered cost-burdened when 30 percent or more of its gross income is spent on housing (including rent or mortgage and utility costs). As of 2013, the percentage of households that are considered cost-burdened in DuPont was 37 percent (see Table 38).

Table 43: Cost Burdened Households by Type

	Number of Households	Percent of Households
Renters Paying >30% For Housing	502	15.8%
Owner-Occupied Households Paying >30% For Housing	671	21.2%
Total Households Spending over 30% of Income on Housing Costs	1,173	37%

### Forecast Conditions

The forecast conditions and expected housing target can be found in the Land Use Element and Chapter 2 respectively.

In terms of housing, at least two demographic shifts projected to impact DuPont Between 2015 and 2035:

- The trend toward younger, family-oriented residents is expected to continue, which will continue to put pressure on single-family homes.
- Military personnel comprise a larger portion of DuPont’s residential population and the highest portion of any non-military base jurisdiction in Washington. Accordingly, the demographic and economic future of DuPont is linked to JBLM.

## Housing Goals and Policies

<b>Goal 1</b>	<b>Provide a variety of housing opportunities by promoting the creative and innovative use of land to support housing options and densities that respect, support, and reinforce an integrated overall town character.</b>
H-1.1	Ensure standards allow for a mix of lot sizes and diversity of housing types and styles. Homes (single and multi-family) that represent the craftsman style should be predominant in the community.
H-1.2	Encourage developers to use a mix of compatible styles, materials, and configurations when developing individual residential neighborhoods.
H-1.3	Promote sustainable and energy efficient building design.
<b>Goal 2</b>	<b>Preserve and develop housing throughout the city to meet the needs of all age groups and economic segments of the community.</b>
H-2.1	Promote multiple development strategies for achieving housing diversity such as, but not limited to, small scale multi-family housing, mixed residential neighborhoods, clustered units, and small lots to meet the needs of all economic segments of the community.
H-2.2	Disperse low, moderate, and middle income housing opportunities throughout the community rather than concentrating them in single neighborhoods. Multi-family housing should be evenly dispersed in order to reduce gentrification and to support a mix of housing options. Development standards should limit the size and proximity of multi-family housing enclaves in areas outside DuPont Station and Civic Center.
H-2.3	Provide incentives and work in partnership with nonprofit and for profit developers and agencies to build small amounts of permanent low and moderate income housing dispersed throughout the community. Incentives may include, but are not limited to: <ul style="list-style-type: none"> <li>○ Setting affordability unit quotas within larger developments,</li> <li>○ Encouraging Multi-Family Tax Exemptions,</li> <li>○ Providing density or site incentives based on affordability quotas,</li> <li>○ Encouraging cottage style housing and accessory dwelling units.</li> </ul>
H-2.4	Encourage housing for the elderly, such as accessory dwelling units on residential lots and encourage a mix of generations within the social fabric of the City by allowing for senior housing and long-term care facilities to integrate within residential villages and DuPont Station.

H-2.5	Support access to quality and affordable housing for all DuPont’s residents.
H-2.6	Ensure that at least 25 percent of new housing is affordable for households earning up to 80 percent of the countywide median income.
<b>Goal 3</b>	<b>Protect and enhance the existing housing stock.</b>
H-3.1	Encourage ongoing maintenance and rehabilitation of structures in good repair, including establishing incentives that encourage private property owner’s efforts to preserve homes having historical and or architectural significance.
H-3.2	Promote financial assistance for essential repairs to substandard structures that provide housing for low and moderate income persons.

### Implementation Actions

The following actions, ordered by priority and urgency, implement the policies identified above. Each action item contains a direct policy reference, indicating how it relates to economic development policies – or other policies in this plan – as appropriate.

	<b>Implementation Action</b>
HA-1	Track the type and quantity of residential development and review such activity to determine whether established development policies are achieving the housing goals and targets.
HA-2	Invest in a permit tracking system and establish a housing development monitoring program.
HA-3	Assess the effectiveness of the city’s housing efforts based on the city’s fair share of affordable low, moderate, and middle income households as determined in the Pierce County Planning Policies.
HA-4	Promote a code enforcement program to protect the safety and aesthetic quality of existing neighborhoods.



## Chapter 9 – Transportation

Transportation is one of the elements of the City of DuPont’s Comprehensive Plan that is required by Washington’s Growth Management Act (GMA). This chapter briefly summarizes the Transportation Plan adopted as Appendix B to this plan further details about projects and financing are included in the Capital Facilities Plan (Appendix A).

### Concurrency & Consistency

Concurrency is one of the key GMA requirements and refers to the timely provision of public facilities and services. Transportation concurrency means that adequate transportation facilities are in place to serve new development as it (development) occurs, or that a financial commitment be in place to complete the improvements or strategies within six years.

Concurrency may not be used to require new development to correct existing transportation deficiencies. To maintain level of service standards, local governments must have a program in place to correct existing transportation deficiencies.

Transportation is the only public facility where the GMA specifically requires development to be denied if concurrency is not met. While the GMA gives special attention to transportation concurrency, local governments have flexibility regarding how to apply concurrency to other public facilities and services within their plans and regulations. Concurrency is discussed the Capital Facilities & Utilities Chapter.

### Land Use Assumptions

The GMA requires close coordination and consistency between transportation and land use in comprehensive plans. In updating this plan, DuPont’s transportation system forecasts and Level of Service (LOS) standards were coordinated with the plan’s land use policies and growth forecasts. The future land use map found in the Land Use Chapter, is the same as the 2001 plan, which in turn reflects the 1995 master plan.

### Transportation System Overview

#### *Conditions for Driving*

The City of DuPont is a planned development adjacent to I-5, Joint Base Lewis-McChord (JBLM), and the Puget Sound; there are no state transportation facilities within the city. DuPont often experiences congestion during the peak hours on the main arterial streets leading into and out of the City due to its



*The transportation plan is important to community residents, wrestling with providing access to primary employment centers, JBLM, and residential neighborhoods, while managing congestion on I-5 interchanges and local arterials. (Source: Studio Cascade Inc.)*



proximity to the military base and I-5. An important goal for the City is to identify and implement projects that can reduce congestion on I-5, including coordinating with WSDOT to study an interchange reconfiguration at Barksdale Avenue (Exit 119), as well as providing multiple transportation options to reduce the single occupancy vehicle mode share.



*The majority of DuPont's intersections operate within the adopted level-of-service standards. (Source: Studio Cascade Inc.)*

Another challenge for the City is that not all developments are connected to the central downtown area. The El Rancho Madrona development, in the south west region of the

City, does not have a direct auto connection to the rest of the City. Residents of this neighborhood can only access the other residential communities and downtown area via I-5.

#### **Functional Classification**

DuPont's roadway functional classification system is described below.

- **Principal Arterial:** Roadways that provide access between large subareas of an urban region, including access to the Interstate system. (Includes Center Drive).
- **Minor Arterial:** Roadways that connect principal arterials to smaller collector roadways, and distribute travel to small geographic areas and communities. (Includes Wilmington Drive, DuPont-Steilacoom Road, and McNeil Street west of Center Drive).
- **Major Collector:** Roadways that distribute trips from principal and minor arterials to destinations, or collect traffic from local roads and channel it to the arterial network. (Includes Barksdale Avenue, Palisade Boulevard, Bob's Hollow Lane, and Hoffman Hill Boulevard).
- **Local Access:** Roadways the provide circulation and access to residential neighborhoods. (Includes Spencer Court, Bradley Street, and Simmons Street, among others).

A Functional Classification Map of DuPont is shown in Figure U below.

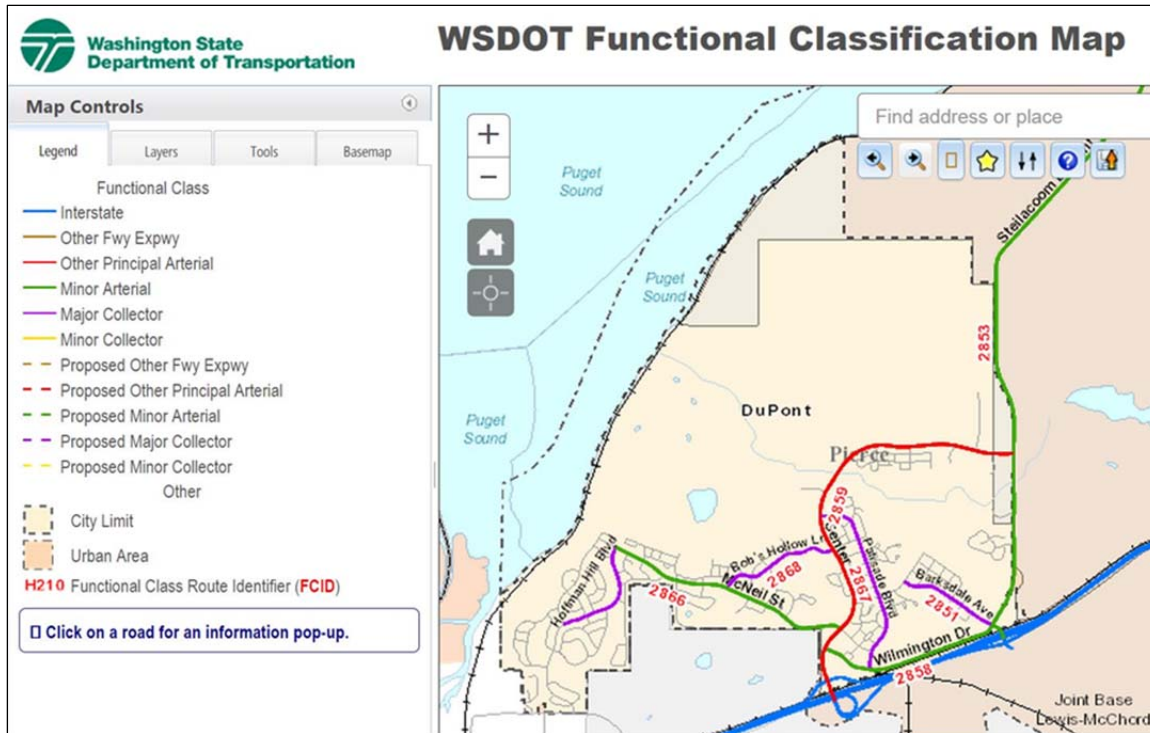


Figure T: Functional Classification Map

### Existing Auto Level of Service Standards

The City streets and intersections have a LOS D threshold for peak hour traffic flow. DuPont-Steilacoom Road can drop to LOS E at the intersections with Barksdale Avenue and Center Drive. Administrative variance may be allowed where deemed necessary due to cost, right-of-way, or impact on other modes.

The two busiest arterials are Center Drive (principal arterial) and Wilmington Drive/DuPont-Steilacoom Drive (minor arterials), as they provide access into and out of DuPont. The existing PM peak hour LOS at intersections along City streets is shown in Figure V: Existing Traffic Conditions, based on traffic studies of recent developments within the City. Except at Center Drive & International Place, all intersections operate at LOS D or better. While the unsignalized Center Drive & International Place intersection is currently operating below LOS D, a capital improvement project will add a traffic signal at this intersection to improve operations to LOS B.

The level of service standards for state-owned transportation facilities is established by the Washington State Department of Transportation, in order to assist WSDOT the City of DuPont identifies that the level of service for Interstate 5 is LOS D. The purpose of identifying the I-5 LOS is to monitor performance of the system, evaluate improvement strategies, and facilitate coordination between the City's 6-year transportation improvement program with the Office of Financial Management's 10-year investment program. The City will continue coordinating with WSDOT to ensure that the capacity at freeway ramps is not exceeded.

## City of DuPont Comprehensive Plan Update

### Existing Transportation Conditions



Figure U: Existing Transportation Conditions 2014 for PM peak hour traffic

#### Future Conditions

Future projects include the construction of Loop Road to provide access to the First Park at Northwest Landing private development. Traffic volumes and operations at the time of project build out found that

most intersections will continue to operate at LOS D or better (see Northwest Landing Attachment). Operations at the I-5 ramps and Barksdale Avenue may drop below LOS D; however working with WSDOT to optimize the signal timing may improve operations. In addition, a potential future reconfiguration of the I-5 and Barksdale Avenue interchange (Exit 119) may alleviate some of congestion on I-5 and in the JBLM area.

The 20-year project list includes other key projects that would provide facilities to improve auto mobility.

*Conditions for Transit*

Sound Transit operates two express bus routes during the peak hours and in the peak direction. Route 592 travels northbound to Seattle in the AM period from Olympia via DuPont, and southbound in the PM period. Route 594 provides a handful of service between DuPont and Seattle via Tacoma. Both routes stop at the DuPont Station, adjacent to I-5 near Wilmington Drive and Palisade Boulevard. There is no local transit service within the City. Table 44 summarizes the available transit service.

*Table 44: Existing Transit Service*

Route	Service Area	Service Hours
592	Olympia – DuPont – Seattle	Weekdays, peak hour/ peak direction only
594	DuPont – Seattle	Weekdays, 1 trip in the peak hour/ peak direction only

Source: Sound Transit, Fehr & Peers, 2015

The City would like to explore opportunities to add appropriate local transit services as DuPont’s employment and population increases, including non-traditional and non-fixed route services such as shuttles and van-share programs. DuPont is also supportive of potential expansion of Sound Transit Sounder service to the south in the future, and restoring DuPont as an Amtrak stop.

*Conditions for Walking & Biking*

There is a strong, connected pedestrian network in the City. As a planned development, there are sidewalks along all arterials and most residential local streets. Walking through the community is pleasant with the landscaped buffers that separate sidewalks from traffic. The wide extent of the sidewalk network and the close proximity of the sidewalks to buildings makes walking a feasible mode choice to destinations.

The pedestrian and bicycle network in DuPont is also composed of paved and unpaved multi-use trails, as shown in Figure W. Bicyclists can use these trails, along with the bicycle lanes on Center Drive and Wilmington Drive, to travel through the City.

Future non-motorized projects the City is interested in exploring are providing appropriate connections between trails, making trails ADA accessible for people of all abilities, adding bicycle racks at appropriate destinations, and adding way-finding and milepost markers on trails for faster emergency response to incidents



Figure V: City of DuPont Trails (Source: City of DuPont 2009)

### Non-motorized and Transit Level of Service Standards

#### Pedestrian and Bicycle Level of Service

Pedestrian and bicycle facilities are evaluated based on the LOS categories in the table below. The acceptable level of service threshold for pedestrian and bicycle facilities is "yellow," to maintain the existing facilities. This includes maintenance and preventing removal or degradation of the sidewalk, bicycle, and trails network.

LOS	Description
	Improve the network of paved trails that are ADA accessible and have marked wayfinding signage and milepost markers. Install bicycle racks at appropriate destination locations throughout the city.
	Maintain the existing sidewalk and bicycle network, including multi-use trails.
	Remove or degrade existing facilities.

## Transportation Project List

The transportation project list found in Table 45 below identifies specific transportation projects for inclusion in the City’s transportation improvement program (TIP). Many of the projects identified are too expensive for the City to implement unilaterally, requiring partnerships and outside funding. The list represents the highest priority projects, a compilation from which the City will draw as it updates its Transportation Improvement Plan (TIP) annually.

Table 45: 20-year Transportation Project List

Project Title	Project Description	Road Name	Begin Terminus	End Terminus	Total Estimated Cost	State Funds	Local Funds
Wilmington Drive Overlay	Grind edges and overlay street.	Wilmington Drive	Barksdale Avenue	Palisade Boulevard	365,000	0	365,000
Center Drive/ International Place Traffic Signal	Install mast arm signal pole and left turn lanes.	Center Drive	International Place	International Place	371,400	0	371,400
DuPont Steilacoom Road Intersection Improvements	Install 2 nouthbound turn lanes and signal modifications	DuPont Steilacoom Road	Center Drive	750 feet south of Center Drive	801,000	0	801,000
Barksdale Avenue Pavement Repair	Install HMA prelevel, asphalt reinforcement grid, and 2" HMA overlay	Barksdale Avenue	DuPont-Steilacoom Road	Haskell Street	295,000	250,734	44,266
Northeast City Access Feasibility Study	Evaluate industrial access on Wharf Road. Evaluate need for traffic signal at Center Drive/ Sequalitchew Drive.				30,000	TBD	30,000
Center Drive Traffic Signal Coordination	Coordinate traffic signals along Center Drive.	Center Drive			25,000	TBD	25,000
Center Drive Pavement Overlay	I-5 to McNeil St	Center Drive	I-5	McNeil St	665,466	565,646	99,820
	McNeil St to Bob's Hollow Ln.	Center Drive	McNeil St	Bob's Hollow Ln	988,691	840,387	148,304
	Bob's Hollow Ln to Powerline Rd	Center Drive	Bob's Hollow Ln	Powerline Rd	1,173,744	997,682	176,062
	Powerline Rd to Hamilton	Center Drive	Powerline Rd	Hamilton Ave	704,246	598,609	105,637
	Hamilton Ave to International PI	Center Drive	Hamilton Ave	International PI	418,000	355,300	62,700

Project Title	Project Description	Road Name	Begin Terminus	End Terminus	Total Estimated Cost	State Funds	Local Funds
Hoffman Hill Blvd. Extension Feasibility Study Update	Preliminary Engineering/Feasibility Study to extend Hoffman Hill Blvd. to Mounts Road	Hoffman Hill Blvd.	Terminus	Mounts Road	63,700	0	63,700
Freight Mobility Study (note also implementation item)	Study to evaluate potential modification to the truck route. related to neighborhood compatibility, access, safety, and delay	Citywide	Citywide	Citywide	100,000	TBD	TBD
Bell Hill Pedestrian and Bike Connectivity Study	Evaluate feasibility of a pedestrian / bike connectivity between Bell Hill and other areas of the City.				30,000		30,000
I-5 Exit 119 Reconstruction	Construct new interchange to add capacity	Exit 119	I-5 interchange		TBD	TBD	TBD
DuPont-Steilacoom Road Improvements	Improve roadway to accommodate increased vehicular traffic	DuPont-Steilacoom Road	Wharf Rd	I-5 Exit 119	TBD	TBD	TBD
Southern portion of Loop Road	Design and construct new roadway				3,599,006		3,599,006
Sidewalk Program	Repair/ replace defective sidewalk panels	Citywide			405,000		405,000

## Transportation Funding

DuPont currently spends approximately \$360,000 per year on transportation projects such as maintenance and street overlays. It is expected that this amount of funding will continue to be available in the future. Additional funding fluctuate year-to-year for various transportation projects depending on how successful DuPont is in competing for grants.

## Transportation Goals and Policies

<b>Goal 1</b>	<b>Continue working with regional partners to develop and implement projects that reduce I-5 congestion, including improvements to DuPont-Steilacoom Road and the Mounts Road connection.</b>
T-1.1	Continue collaborating with regional partners, including Pierce County, PSRC, WSDOT, JBLM, and the Department of Defense to improve and enhance access to JBLM.

T-1.2	Continue to support the street and circulation system that minimizes reliance on I-5 as a means of access from one location in the City to another. Consider alternatives that allows residents in the El Rancho Madrona area to access the City's streets from Mounts Road.
T-1.3	Work with the Washington State Department of Transportation to coordinate access on freeway ramps so Level of Service is not exceeded.
T-1.4	Work with the Washington State Department of Transportation to consider technology that will reduce noise from I-5.
<b>Goal 2</b>	<b>Support measures to restore local transit services, integrating the existing regional bus and rail mass transit services available in DuPont, Lakewood, Tacoma, and Olympia</b>
T-2.1	Explore opportunities for Amtrak to include a future stop in DuPont.
T-2.2	Support Sound Transit efforts to expand Sounder and light rail services to DuPont.
T-2.3	Work with Pierce Transit and Intercity Transit to develop appropriate levels of transit services that will respond to a growing population and increased employment opportunities.
T-2.4	Coordinate the siting of transit facilities (e.g. bus stops and park and ride lots) shall be considered during the development of new residential, commercial and industrial areas where appropriate.
T-2.5	Support and encourage programs to educate citizens and incentivize reducing Single Occupancy Vehicle usage, including the Commute Trip Reduction (CTR) program, in an effort to reduce demand on the City's and the region's roadways.
T-2.6	Promote the use of high occupancy vehicles and other transportation management techniques in order to reduce GHG emissions and to minimize impacts on the region's transportation system.
<b>Goal 3</b>	<b>Maintain the existing transportation system and fill gaps in the non-motorized network (including pedestrian sidewalks, trails, and the bicycle facilities).</b>
T-3.1	Establish a sidewalk maintenance program to monitor long term upkeep, and to maintain safe conditions on existing sidewalks.
T-3.2	Prioritize future pedestrian facility improvements that increase pedestrian safety, link to key destinations, promote multimodal trips, improve conditions for the elderly and persons with disabilities, maintain safe conditions on existing sidewalks, and meet other priorities for pedestrians in DuPont.
T-3.3	Utilize a street grid or modified grid pattern within the villages except where constrained by severe topography (30 - 40 percent slopes). Allow deviations from the grid or modified grid only when, in the opinion of the City, excessive grading would be necessary so that street grades would not exceed 12 to 15 percent, depending on street classification.



T-3.5	Provide a system of streets that reasonably separates commercial traffic from residential traffic.
T-3.6	Add connectivity so that residents and workers have options in how they travel through DuPont. Key examples could include building the Mounts Road connection to provide a southern access to I-5 and focusing on filling gaps in the street network to better connect neighborhoods.
T-3.7	Evaluate the transportation network with the adopted multi-modal level of service (LOS) metrics in the Transportation Chapter.
T-3.8	Investigate funding sources for the maintenance of existing infrastructure.
T-3.9	Require mitigation under GMA and explore funding mechanisms, including local, state and federal grants, impact fees, transportation benefit districts, levies, and other options (including latecomer’s agreements) to implement transportation projects and programs.
<b>Goal 4</b>	<b>Monitor the progress of high speed rail services and ensure that impacts on DuPont are mitigated.</b>
T-4.1	Coordinate with regional partners as plans for high speed rail services develop.
T-4.2	Plan for a commuter rail station at the existing DuPont Station facility.
<b>Goal 5</b>	<b>Support the land use strategy and community values by investing in multi-modal transportation facilities.</b>
T-5.1	Establish a road network that serves planned residential, commercial and industrial areas in an efficient manner and that spreads the traffic loads over a variety of appropriately developed roadways.
T-5.2	Construct arterial streets along the edges of the villages to connect the different City neighborhoods and to act as a defining element of the neighborhoods.
T-5.3	Establish a street pattern that provides choices of routes and integrates developing areas with established areas and does not functionally isolate new developments from the rest of the City.
T-5.4	Establish City streets as two lane-roadways, or two lane roads with turn lanes, that will result in reduced speeds for the safety of City residents. Use four lane roadways only where appropriate outside residential areas.
T-5.5	Provide for on-street parking and the use of traffic control devices, such as traffic circles, chicanes, speed humps, pedestrian crossing bulb-outs, and narrowing of intersections, to maintain residential street speeds at safe levels.
T-5.6	Alleys should be used to access residential garages and to keep the number of cuts in the curb, other than for streets and alleys, to a minimum, especially for developments that front on arterial streets.
T-5.7	Plant appropriate street trees that will have minimal impact to sidewalks in the future.

T-5.8	Require the construction of roads within the City to be concurrent with new development.
T-5.9	Use sound and environmentally responsible design principles in road construction.
T-5.10	Promote the design of roadways to minimize impacts upon the hydrologic system, including surface and ground water.
T-5.11	Provide for internal access roads within commercial and industrial areas to achieve convenient access and minimize pedestrian/ vehicular conflicts.
T-5.12	Restrict freight traffic to identified corridors within DuPont, managing that traffic to minimize negative impacts to adjoining residential areas.
T-5.13	Continue to include emergency service providers in review of roadway designs to ensure safe emergency vehicle passage. Design considerations include turn-arounds, travel lane widths, maximum road grades, parking locations, and avoiding dead-end street lengths and cul-de-sacs.
T-5.14	Encourage and promote the use of electric vehicles as they are developed in all automobile, truck, and commercial vehicle classes. Neighborhood Electric Vehicles and Medium Speed Electric Vehicles (MSV) may travel DuPont’s street network where appropriate and consistent with State law. Encourage the use of such vehicles in a way that conditions are safe and don’t impede traffic flow. Provide for a broad range of charging opportunities at public and private parking venues throughout the city, including minimum standards for new developments that provide parking facilities.
T-5.15	Guide the development of new streets and maintenance of existing streets to form a well-connected network that provides for safe, direct, and convenient access to the existing roadway network for automobiles, transit vehicles, bicycles, and pedestrians. Transportation investments should reinforce the City’s vision of connecting to downtown DuPont and JBLM.

## Implementation Actions

The following actions, ordered by priority and urgency, implement the policies identified above. Each action item contains a direct policy reference, indicating how it relates to economic development policies – or other policies in this plan – as appropriate.

	<b>Implementation Action</b>
TA-1	Perform a freight mobility study that: <ul style="list-style-type: none"> <li>• Considers a variety of route options that would be appropriate for use for commercial trucks into and out of existing and developing commercial, manufacturing, and industrial areas and evaluates potential impacts to existing and proposed residential areas</li> <li>• Analyzes the economic and social costs and benefits for all identified options</li> <li>• Identify spot improvements that would improve safety, and/or reduce delay</li> </ul>
TA-2	Study, design and construct an alternative to Steilacoom-DuPont Road for pedestrians, joggers and cyclists.

TA-3	Identify and remedy trail segments that are under lighted or otherwise fail to serve pedestrian and cyclist needs.
TA-4	Conduct a study to establish a baseline for the number of walkers and bikers, in order to adopt a goal of doubling the walkers and bikers in DuPont.

## Chapter 10 - Capital Facilities & Utilities

The Capital Facilities Plan (CFP) is one of the elements of the City of DuPont's Comprehensive Plan that is required by Washington's Growth Management Act (GMA). This chapter provides the required elements to meet the GMA standards for a capital facilities element.

The focus of the CFP is the planning and provision of needed public facilities for the City's population. A high priority of the CFP is to provide adequate public facilities to support the adopted level of service (LOS) for each type of capital facility within the City. The City's population base and other demand factors, together with the adopted LOS, is the principal basis for the CFP.

The City of DuPont is in a unique position relative to its growth patterns, ultimate development, and provision of capital facilities. DuPont was constructed as a master planned community, with its first community plan established around the DuPont Chemical Company's operations at the turn of the last century. Much of the capital facilities and utilities systems (streets, parks, water distribution, sewers, etc.) within the City have been constructed by developers concurrent with new development – generally since 1990. After construction, these facilities and systems ownership and maintenance become the responsibility of the City. The goal of this CFP is to plan for the maintenance and upkeep of existing facilities. No capital facilities capacity projects are anticipated or included in this CFP cycle. The majority of capital facilities spending for this CFP cycle is allocated to repayment of the Civic Center campus (City Hall and Police/Fire Building).

### Growth Assumptions

The population forecasts for the City of DuPont are expected to stay relatively constant until the Glacier NW aggregate operations are completed and reclamation undertaken. Mining operations are anticipated to continue for the next 18 or more years. Once the mining operations are reclaimed, it is anticipated that the Sequalitchew Village will begin development and will be accompanied by significant growth. Final build-out population for the City of DuPont is anticipated to be approximately 12,100. The growth estimates for housing and employment are found in Chapter 2.



*Most of DuPont's capital facilities are of the same vintage, built at the same as the community's housing boom that began in 1994. (Studio Cascade Inc.)*

## Concurrency

The GMA seeks to have public facilities and services provided concurrent with development. Concurrency means that adequate public facilities will be in place to support new development or will be provided within a specified time thereafter.

Concurrency requires that facilities have sufficient capacity to serve development without decreasing levels of service (LOS) below adopted minimum standards. While the GMA requires concurrency only for transportation facilities, the Washington State Department of Commerce recommends concurrency for water and sewer systems as well. The GMA also requires all other public facilities to be “adequate.”

## Existing Conditions

The City of DuPont has a full range of urban services. This includes, for example, public water and wastewater systems; power and telecommunications facilities; public schools providing K-12 education; and fire, police, and emergency medical services. But not all available services are provided by the City. The Capital Facilities Plan in Appendix A provides separate sections for each type of City public facility that includes:

- Narrative Summary
- Inventory of Current Facilities
- Level of Service Capacity Analysis
- Capital Projects and Financing Plan
- Location of Current and Planned Capital Facilities (Map)

## Level of Service Standards

Level of service standards are a vital component to capital facilities and to a lesser extent utilities. For the purposes of this plan and the Capital Facilities and Utilities Plan, public facilities are identified into four categories as follows:

- Category A: Public facilities are facilities owned or operated by the City of DuPont and subject to the requirement for concurrency.
- Category B: Public facilities are facilities owned or operated by Federal, State or County governments, independent districts, or private organizations and subject to the requirement for concurrency. No level of service standards is adopted for this category.
- Category C: Public facilities are facilities owned or operated by the City of DuPont but not subject to the requirement for concurrency.
- Category D: Public facilities are facilities owned or operated by Federal, State or County governments, independent districts, or private organizations but not subject to the requirement for concurrency. No level of service standards is adopted for this category.

Using the categories above the following level of service standards are adopted to 1) determine the need, 2) test the adequacy of facilities to serve proposed development concurrent with the impacts of the development; and 3) develop annual budgets and Capital Improvement Programs. Note that only

Category A is owned or operated by the City of DuPont and subject to concurrency, thus only Category A will be used for the City’s budget and Capital Improvement Program.

Category A Level of Service Standards are:

Facility	Standard
Fire and Rescue	0.98 Apparatus per 1,000 population 1.00 Aerial Apparatus per 409 Acres of C/I Zoned Land
Law Enforcement	1.79 sworn and 0.21 staff per 1,000 population
Historic Museum	264 sq ft per 1,000 population
Parks and Recreation:	
Neighborhood + Community Parks	4.5 acres per 1,000 population
Natural Areas	33.8 acres per 1,000 population
Transportation:	
Streets (Local)	LOS “D” for City streets(1)
Pedestrian/Bicycle Facilities	Maintain Existing Facilities
Stormwater	Ecology Stormwater Management Manual for Western Washington (2012)
Water:	
Single Family	210 GPD per connection
Multi Family	964 GPD per connection
Commercial	1,300 GPD per connection
Industrial	13,931 GPD per connection
Irrigation	3,060 GPD per connection

(1) DuPont-Steilacoom Road can drop to LOS E at the intersections with Barksdale Avenue and Center Drive.

Category B Level of Service Standards are:

Facility	Standard
Roads (County & State)	N/A
Schools (Steilacoom School District)	
High School:	130 sq ft/Student
Middle School:	117 sq ft/Student
Elementary School	90 sq ft/Student
Sewer (Pierce County):	
Residential	79 GPD per capita(1)
Commercial	1,000 GPD per acre
Office	1,000 GPD per acre
Industrial	1,000 GPD per acre
Franchise (Puget Sound Energy)	
Power	Adjusted every two years through the PSE Integrated Resource Plan, based on consumption trends.
Gas	

(1) Based on 220 GPD per single family household (2.8 persons per household average). Multifamily LOS is 83% of single family residential.

## Capital Improvement Program

Both the six-year CFP and the 20-year Capital Improvement Program (CIP) are presented in this section. These plan and program lists include both capital project, and present a plan for city expenditures to implement this plan. With the exception of transportation facilities, the CFP does not include any capacity related capital facilities projects no new capital facility projects are planned with the six-year CFP but 5 capital improvement projects are planned within the planning horizon of this plan. Other maintenance and non-capacity projects are identified, along with possible funding sources. It also contains the inventory of existing City facilities, the level of service standard, and concurrency requirements.



*Ensuring the all modes of travel are accommodated is important to community residents. (Source Studio Cascade Inc.)*

For transportation the majority of roadway facilities required for new development within the Northwest Landing portion of the City will be developer funded. The City provides maintenance to existing roadways in the Village and in the Northwest Landing area. Maintenance of roadway facilities is currently funded through the City's street fund. Right-of-Way Maintenance Agreements which include payment of phased maintenance costs are required with new development to assist in funding of roadway maintenance activities.

For those transportation project not developer funded, in general, those projects are anticipated to be funded 75% from state and federal grants and 25% from the City's street depreciation fund.

These capital projects - and to a certain extent, non-capital projects - help guide the City to serve a population consistent with the City's anticipated financial resources. In doing so, it also helps the City maintain its adopted LOS standards.

## Potential Revenue Sources for the Financing Plan

One of the most important requirements of the Capital Facilities Plan is that it must be financially feasible; GMA requires a balanced capital budget. The process of identifying specific revenues for the financing plan is as follows:

1. Calculate total costs for each type of public facility.
2. Match existing restricted revenue sources to the type of facility to which they are restricted.
3. Subtract existing restricted revenues from costs to identify unfunded "deficit." (1-2= 3).
4. Apply new restricted revenues to the type of facility to which they are restricted.
5. Subtract new restricted revenues from costs to identify remaining unfunded "deficits" (3-4= 5).

- 6. Allocate new unrestricted revenue to unfunded deficits.

*Real Estate Excise Tax (REET)*

One of the most important sources of municipal revenue for the development and maintenance of capital facilities is REET. A portion of the REET levied by the State on real estate transactions is returned to the City. This amounts to one-half of one percent which is divided into what is referred to as the First Quarter Percent and the Second Quarter Percent. It is anticipated that during the period between 2016-2021 the first and second quarter percent will generate \$200,000 each per year. The estimate of annual REET revenue generation is in addition to a beginning balance of approximately \$60,000. State law defines how the first and second quarter percent can be spent. These general limitations are described below. During the period of this CFP (2016-2021) the REET revenue will be used for repayment of the Civic Center facility.

**REET Limitations**

- 1<sup>st</sup> Quarter Percent** Must be spent “for any capital purpose identified in a capital improvements plan and local capital improvements, including those listed in RCW 35.43.040.” This RCW lists those improvements that can be funded through a local improvements district (LID), including streets, parks, sewers, water mains, swimming pools, and gymnasiums.  
Capital projects not listed in the LID statute (for example, a fire station, city hall or library) are also permitted uses as long as they are included in the city’s capital improvements plan.
- 2<sup>nd</sup> Quarter Percent** Must be spent for “Capital Projects”. This means those public works projects of a local government for planning, acquisition, construction, reconstruction, repair, replacement, rehabilitation, or improvement of streets, roads, highways, sidewalks, street and road lighting systems, traffic signals, bridges, domestic water systems, storm and sanitary sewer systems, and planning, construction, reconstruction, repair, rehabilitation, or improvement of parks.

*Other Potential Revenue Sources*

There are several other potential sources of revenue for the construction of capital facilities. The following are identified with their potential use:

- Sales Tax on Construction** This source of funding accrues from the portion of the general sales tax that is charged to the construction of new facilities. For this CFP 100% of sales tax on construction revenues are allocated to City employee salaries.

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- Business and Occupation Tax on Construction** The City levies a B & O Tax at a rate of 0.15% on all business activities occurring within the City including new construction. Like sales tax, these too are one time revenues, a portion of which is used by most cities for general operations. This revenue is allocated for stabilization and contingency.



<b>Utility Revenues</b>	Utility revenues are those charged by the City for Water, Stormwater, Garbage, and Street services. In general, utility revenues would be used for utility capital improvements. However, a portion of utility revenues could be used for those general government capital facilities from which the utilities receive some level of benefit. For this CFP 100% of utility revenues are allocated for capital facilities.
<b>Percentage of General Tax Revenues:</b>	This would be a percentage of the general taxes of the City, including property, sales, business and occupation, and utility taxes. They are mainly used for general city operations. Most cities allocate a portion of their general revenues for capital purposes. This plan assumes that 0% of general tax revenues will be allocated to capital facilities funding.
<b>Developer Mitigation:</b>	The City has the authority to require developers to mitigate the impacts of their projects either through developer impact fees or general mitigation under SEPA. However, the law does not allow the City to impose both methodologies in a way that charges developers twice for the same mitigation. Developer mitigation would be used to close the gap between what the City can afford and the total cost of necessary capital facility for the City. In addition, the mitigation will only be used to ensure that new development pays its "fair share" of capital facilities (unless precluded by any agreement). During the period of this CFP significant developer impact or general mitigation revenue is not anticipated.
<b>State and Federal Grants</b>	There are various State and Federal Grant programs. However, most of these are intended for parks, streets, water, and stormwater. Each of these sources is discussed in the respective documents for these services. There are no potential grant sources for the other capital improvements specifically identified in this chapter.
<b>Special Assessment Districts:</b>	This would include Local Improvement Districts (LID), Utility Local Improvement Districts (ULID), and Road Improvement Districts (RID). The purpose of these districts is to finance the construction of a public improvement where specific property owners receive greater benefit than the general public.

### Debt Financing

Several forms of debt are available to the City including the following:

**Limited Tax General  
Obligation Bonds**

(Non-voted) Limited tax general obligation bonds, also referred to in Washington State as "councilmanic" bonds, do not require voter approval and are payable from the issuer's general tax levy and other legally available revenue sources. Because these funds are used to run the government, a pledge to repay councilmanic bonds directly affects a municipality's operating budget. Consequently, any money budgeted to pay debt service on limited tax general obligation bonds is money that is unavailable to pay for other municipal services. However, there are constitutional and statutory limits on a municipality's authority to incur non-voted debt. The state constitution limits non-voted municipal indebtedness to an amount not exceeding 1 and 1/2% of the assessed value of the taxable properties in the city limits.

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**Unlimited Tax General  
Obligation Bonds. (Voted)**

These bonds differ from limited bonds in that they require voter approval because they are repaid from ad valorem property taxes in excess of the general tax levy limit. When voters of a city vote for a bond issue, they are being asked to approve: (a) the issuance of a fixed amount of general obligation bonds and (b) the levy of an additional tax to repay the bonds, unlimited as to rate or amount. Once voter approval is obtained, a municipal corporation is still restricted by constitutional and statutory debt limits with these bonds. The statutory debt limits on this type of debt is 2 and 1/2% of the assessed value of property. An additional 2 and 1/2% is allowed for water, light and sewers.

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**Revenue Bonds.**

Revenue bonds are municipal obligations issued to finance a new revenue-producing public enterprise or to make improvements to an existing revenue-producing facility. These are mostly used for utility financing and are discussed in the water and sewer comprehensive plans.

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**State of Washington  
Municipal Debt Programs.**

The State of Washington has several programs to finance municipal improvements. Perhaps the most significant of these is the Public Works Trust Fund. This fund offers low interest financing to Cities. However, this fund is limited to items such as pipes and does not include buildings or equipment. This source is mentioned in the Water and Sewer Comprehensive Plans.

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**Conditional Sales Contracts  
and Lease Purchase  
Obligations**

Generally, most municipal corporations have the authority to enter into conditional sales contracts permitting a city to acquire, over time, certain types of property, including equipment and real property. If the city defaults in its payments, the vendor may repossess the property. A conditional sales contract's term may not be longer than the useful life of the item being purchased. A lease is similar to a conditional sales contract. A lease purchase agreement permits the public entity to lease property and, at the end of the term, exercise an option to purchase the property at a nominal price. This type of debt has to be included in the City's debt limitations.

**Improvement District Financing**

These bonds are issued to finance improvements within a defined area and are repaid from special assessments levied on property owners who receive a direct special benefit from the financed improvement separate and apart from the general benefit accruing to the public

**Capital Improvements**

Each type of City public facility, except Transportation which is presented in Chapter 9 and Parks and Recreation in Chapter 7, is presented in a separate subsection which follows a standard format. Throughout this section, tables of data are identified with abbreviations that correspond to the type of facility: for example, CGB (City Government Buildings) or WSD (Water Supply and Distribution). Each abbreviation corresponds to the name of the type of facility.

1. Narrative Summary

Overview of the data, with sections devoted to Current Facilities, Level of Service, Capital Facilities Projects and Financing.

2. Inventory of Current Facilities

A list of existing capital facilities, including the name, capacity (for reference to levels of service), and location.

3. Level of Service Capacity Analysis

A table analyzing facility capacity requirements is presented for each type of public facility. The analysis begins with the same analytical technique and format as the support document "Capital Facilities Requirements." The statistical table at the top calculates the amount of facility capacity that is required to achieve and maintain the standard for level of service. The capital improvements projects that provide the needed capacity are listed below the requirements table and their capacities are reconciled to the total requirement in the table.

4. Capital Projects and Financing Plan

A list of capital improvements that will eliminate existing deficiencies, make available adequate facilities for future growth and repair or replace obsolete or worn out facilities through December 31, 2021. Each list of capital improvements begins with a financing plan, and then itemizes the individual projects.

Each capital improvement project is named, and briefly described. Project locations are specified in the name or description of the project. The cost for each of the next six fiscal years is shown in thousands of dollars (\$1,000). All cost data is in current dollars; no inflation factor has been applied and do not include land costs because the costs will be revised as part of the annual review and update of the Capital Facilities Plan. All capital improvements projects were prepared by the City of DuPont.

*City Administrative Offices*

**Current Facilities**

City government buildings are located at the locations shown in Table 46 below:

Table 46: Current Facilities Inventory City Government Buildings (CGB-1)

FACILITY	2009 CAPACITY (SQ FT)	2015 CAPACITY (SQ. FT.)	LOCATION
Civic Center	---	11,447	1700 Civic Drive
Community Center	4,525	4,525	303 Barksdale Avenue
Public Works Shop Area	2,740	2,740	301 Louviers Avenue
Total	7,265	18,712	

**Civic Center (City Council Chambers, Reception Area and Administrative Offices).**

The completed Civic Center project provides 11,447 square feet of City Hall space, which not only replaced the previous 4,525 square feet of space at 303 Barksdale Avenue but also provided an additional 6,922 square feet to meet the 2004 CFP level of service standards for both Administrative Space and City Council Chambers. The City Hall is located along with the Law Enforcement and Fire facilities at the Civic Center Campus on the west side of Center Drive north of Palisades Boulevard. The existing City Hall in the Historic Village was retained for community use purposes such as recreation programs and small special events. It is anticipated that the Civic Center building will continue to provide sufficient operational level of service for the period of this CFP

**Public Works Complex.**

The proposed Public Works Complex will consist of four buildings and limited outside storage. The buildings will include an administrative office/crew building, a shop with small shop office, an enclosed storage building, and a roofed three-sided storage building. The size of these buildings will be determined based on City adopted policies regarding the level of use of outside vendors for public works functions vs. in-house capabilities. Timing of development of the Public Works Complex will probably not occur until after 2021.

**Capital Facilities Projects and Financing**

No new City Government Building facilities projects are scheduled for the 2016-2021 CFP cycle. The majority of City Administrative Offices spending for this cycle will be used to repay the construction of the new Civic Center project.

**20-year Project List**

Over the planning horizon of this plan, the year 2035, the City expects to build a Community Center, a recreation complex, and redevelop Historic Sites - this is not the same as the museum expansion, below, because it would enhance the existing historic sites we already have such as a replica fort.

These projects do not have estimated costs at this time, though possible funding sources include a public levy. The projects can be thought of as a wish list based on existing available information and those identified through the public process. It's expected that the project will eventually be on the 6-year plan are completed. As this is done, it will be necessary to develop cost estimates and identify revenue sources.

**Concurrency (Adequate Public Facilities)**

In compliance with GMA and City policy, adequate City government buildings must be available at the time of occupancy and use of new development.

Table 47: City Government Buildings (Administrative Offices and Council Chambers) Financing Plan - (CGB-2)

COSTS/REVENUES <sup>1</sup>	2016	2017	2018	2019	2020	2021	TOTAL
<b>Costs</b>							
Completed City Hall and Police/Fire Building	1,156.41	1,164.86	1,162.31	1,163.13	1,161.98	1,163.76	6,972.45
<b>Total Costs</b>	1,156.41	1,164.86	1,162.31	1,163.13	1,161.98	1,163.76	6,972.45
<b>Revenue</b>							
<b>Existing Revenue</b>							
REET 1	150.00	150.00	150.00	150.00	150.00	150.00	900.00
Utilities	242.85	244.62	244.09	244.26	244.01	244.39	1464.22
Public Safety Mitigation	115.64	116.49	116.23	116.31	116.2	116.38	697.25
Taxes (Property, B&O, Square Footage)	647.92	653.75	651.99	652.56	651.77	652.99	3910.98
<i>Subtotal</i>	1156.41	1164.86	1162.31	1163.13	1161.98	1163.76	6972.45
<b>New Revenues</b>							
No new Revenues expected	0	0	0	0	0	0	0
<i>Subtotal</i>	0	0	0	0	0	0	0
<b>Total Revenue</b>	1156.41	1164.86	1162.31	1163.13	1161.98	1163.76	6972.45
<b>Surplus or (Deficit)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

<sup>1</sup> All dollars are in 1,000s

*Fire Protection*

**Current Facilities**

The location of the “central” fire station is within the Civic Center Campus site on the west side of Center Drive north of Palisade Boulevard, as shown in Table 48 below. The combined fire and law enforcement building is 30,025 square feet.

Table 48: Fire Protection Facilities Inventory (FP-1)

FACILITY	CONDITION	LOCATION
Combined Fire and Law enforcement Building	As New	1700 Civic Center
Pierce Arrow - Fire Pump	Good	1700 Civic Center
Ford E450 - Medic	Good	1700 Civic Center
Sutphen 65’ quint - Fire Aerial	Fair	1700 Civic Center
Ford F550 - Fire Pump	As New	1700 Civic Center
H &W-International - Fire Pump	Fair	1700 Civic Center
Chevy 1500 - Fire Marshall	Good	1700 Civic Center
SCOTT Liberty - Air/Light	Good	1700 Civic Center
Surrey Smoke House - Fire Prevention	Good	1700 Civic Center
Ford Interceptor - Response	As New	1700 Civic Center

### Level of Service (LOS)

The current level of service (LOS) of 1.08 fire apparatus per 1,000 population is based on the existing inventory divided by the 2015 Citywide population (9,250). The purposed LOS target for the CFP is 0.98 fire apparatus per 1,000 population, matching the previous CFP. At the estimated 2021 population (9,500) the LOS would be 1.05 fire apparatus per 1,000 population resulting in a reserve. Due to the age and number of hours of use on the existing equipment some are scheduled to be removed from service and replaced as shown in Table 50 below.

In addition to the fire apparatus LOS based on population there will be a need for specialized apparatus to serve the growing commercial and industrial sectors of the City. These commercial and industrial developments will require aerial capabilities that cannot be met by traditional apparatus. With large, multi-story buildings housing a variety of commercial and industrial uses there will be a need to provide aerial fire suppression and rescue. It is anticipated that at full build-out of the commercial/industrial zoned land there will be a need of an aerial unit with dual capabilities for suppression and rescue. However, it is anticipated that by 2021 development of commercial/industrial zoned land be limited. This means no new aerial units are planned to be put in service.

In future plan updates the Fire Department plans to move toward a level of service standard based on the National Fire Protection Association standard 1710 (NFPA 1710), which sets standards for the staffing of fire fighter crews and they will respond and operate at emergency scenes.

### "Capital" vs. "Operational" Level of Service (LOS).

The "operational" level of service in this CFP not only considers fire stations and apparatus needs, but also considers the location of future fire station(s), and manpower requirements. For the purposes of the City's Capital Facilities Plan, however, the Fire Protection Facilities LOS considers only the capital facilities required to support the "operational" LOS. It is anticipated that the combined fire and law enforcement building will continue to provide sufficient operational level of service for the period of this CFP.

### Capital Facilities Projects and Financing

No new Fire Protection facilities projects are scheduled for the 2016-2021 CFP cycle. The City's fire protection projects include replacement and rehabilitation of existing equipment. The proposed financing plan is shown on Table 50.

### 20-year Project List

There is a long term plan for construction of an outside training facility. Funding has not been identified for this facility so it is not included in this CFP. Possible funding sources include a public levy. The



*The Civic Center is home to administrative offices, the police station, and the fire station. (Source: Studio Cascade Inc.)*

training facility will be for joint-use by both law enforcement and fire personnel. This facility will include paved areas to simulate roadways and building areas as well as a 3-story building tower. Use of this facility would reduce training costs for DuPont law enforcement and fire personnel as well as generate limited revenue through rental use by other area agencies. It's expected that the project will eventually be on the 6-year plan are completed. As this is done, it will be necessary to develop cost estimates and identify revenue sources.

**Concurrency (Adequate Public Facilities)**

In compliance with GMA and City policy, adequate fire protection facilities must be available at the time of occupancy and use of new development.

*Table 49: Fire Protection Analysis of Capital Facility Requirements (FP-2)*

CURRENT LOS = 1.08 APPARATUS PER 1,000 POPULATION				
TIME PERIOD	CITYWIDE POPULATION	APPARATUS REQUIRED @ 0.00108 PER CAPITA	FIRE APPARATUS AVAILABLE	NET RESERVE OR DEFICIENCY
1997 ACTUAL	915	1.0	1.0	0
2003 ACTUAL	4,425	4.8	2.0	-2.8
ACTUAL TOTAL AS OF 2015	9,250	10.0	10.0	0
PROJECTED GROWTH 2016-2021	250	0.3		
TOTAL AS OF 2021	9,500	10.3	10.0	-0.3
PROPOSED LOS = 0.98 APPARATUS PER 1,000 POPULATION				
(1) TIME PERIOD	(2) CITYWIDE POPULATION	(3) APPARATUS REQUIRED @ 0.00098 PER CAPITA	(4) FIRE APPARATUS AVAILABLE	(5) NET RESERVE OR DEFICIENCY
1997 ACTUAL	915	0.9	1.0	0.1
2003 ACTUAL	4,425	4.3	2.0	-2.3
ACTUAL TOTAL AS OF 2015	9,250	9.1	10.0	0.9
PROJECTED GROWTH 2016-2021	250	0.2		
TOTAL AS OF 2021	9,500	9.3	10.0	0.7

CAPACITY PROJECTS: None

Table 50: Fire Protection - Projects and Financing Plan (FP-3)

COSTS/REVENUES <sup>1</sup>	2016	2017	2018	2019	2020	2021	TOTAL
<b>Costs Replacement or Rehabilitation Projects - Fire Apparatus</b>							
1. Replace Pierce Arrow - Fire Pump	0.00	0.00	0.00	0.00	550.00	0.00	550.00
2. Replace Ford E450 - Medic	0.00	0.00	0.00	250.00	0.00	0.00	250.00
3. Replace Sutphen 65' quint - Fire Aerial	0.00	1,000.00	0.00	0.00	0.00	0.00	1,000.00
4. Replace H &W-International - Fire Pump	0.00	0.00	0.00	0.00	550.00	0.00	550.00
5. Replace Chevy 1500 - Fire Marshall	0.00	0.00	40.00	0.00	0.00	0.00	40.00
6. Replace SCOTT Liberty - Air/Light	0.00	0.00	0.00	0.00	0.00	200.00	200.00
7. Replace Ford F-550 - Response	0.00	0.00	0.00	0.00	40.00	0.00	40.00
8. Replace Self-Contained Breathing Apparatus (SCBA )	0.00	0.00	0.00	101.00	0.00	0.00	101.00
<b>Total Costs</b>	<b>0.00</b>	<b>1,000.00</b>	<b>40.00</b>	<b>351.00</b>	<b>1,140.00</b>	<b>200.00</b>	<b>2,731.00</b>
<b>Revenue</b>							
Existing Revenue							
E R & R	397.74	410.66	401.77	405.00	410.00	415.00	2,440.17
<i>Subtotal</i>	<i>397.74</i>	<i>410.66</i>	<i>401.77</i>	<i>405.00</i>	<i>410.00</i>	<i>415.00</i>	<i>2,440.17</i>
New Revenues							
Fire Impact Fees <sup>2</sup>	340.00	290.00	250.00	200.00	200.00	225.00	1,505.00
<i>Subtotal</i>	<i>340.00</i>	<i>290.00</i>	<i>250.00</i>	<i>200.00</i>	<i>200.00</i>	<i>225.00</i>	<i>1,505.00</i>
<b>Total Revenue</b>	<b>737.74</b>	<b>700.66</b>	<b>651.77</b>	<b>605.00</b>	<b>610.00</b>	<b>640.00</b>	<b>3,945.17</b>
<i>Surplus or (Deficit)</i>	<i>737.74</i>	<i>-299.34</i>	<i>611.77</i>	<i>254.00</i>	<i>-530.00</i>	<i>440.00</i>	<i>1,214.17</i>

<sup>1</sup> All Projects Are Times \$1,000

<sup>2</sup> Fire Impact Fees are development based and are only estimates, actual fees may vary.

### Law Enforcement

#### Current Facilities

The location of the law enforcement facilities is within the Civic Center Campus site on the west side of Center Drive north of Palisade Boulevard, as shown in Table 51 below. The combined fire and law enforcement building is 30,025 square feet.

Table 51: Law Enforcement Capital Facilities Inventory (LE-1)

FACILITY	2015 CAPACITY (SQ. FT.)	LOCATION
Combined Fire and Law enforcement Building	30,025	1700 Civic Drive



### Level of Service (LOS)

The adopted Level of Service (LOS) for law enforcement functions is based on two criteria. The first is the ratio of sworn officers per 1,000 population and the second is the ratio of support (non-sworn) personnel per 1,000 population.

The City has 12 sworn officers and support staff. This results in a current LOS of 1.30 sworn officers and 0.16 support staff per 1,000 population. The new LOS is proposed to be 1.79 sworn officers and 0.21 support staff per 1,000 population (see Table 52). To meet this LOS, staff will increase to 17 sworn officers and 2 support staff by 2021. It is anticipated that the combined fire and law enforcement building will continue to provide sufficient operational level of service for the period of this CFP.

### Capital Facilities Projects and Financing

No new Law Enforcement facilities projects are scheduled for the 2016-2021 CFP cycle.

There is a long term plan for construction of an outside training facility. Funding has not been identified for this facility so it is not included in this CFP. Possible funding sources include a public levy. The training facility will be for joint-use by both law enforcement and fire personnel. This facility will include paved areas to simulate roadways and building areas as well as a 3-story building tower. Use of this facility would reduce training costs for DuPont law enforcement and fire personnel as well as generate limited revenue through rental use by other area agencies.

### Concurrency (Adequate Public Facilities)

In compliance with GMA and City policy, adequate law enforcement facilities must be available at the time of occupancy and use of new development.

The Department plans to hire a part time clerk in 2017, non-commission, which is already an established position. This position will provide needed support to the administrative specialist. The Department also plans to add a Community Resource Officer by 2017.

In 2015 the Washington Association of Sheriffs and Police Chiefs conducted a review of the DuPont Police Department and identified several recommendations. One recommendation, to be completed by mid-2016, included restructuring the personnel within the Department. The restructuring will include the additional position of Lieutenant which creates the upgrade Patrol Officer to Sargent as the senior Sargent takes on the Lieutenant position.

An additional recommendation include providing supervision 24-7 which would add two more Sargent positions by 2021 to handle the increase in Patrol Officer positions. As the Department increase and the amount of follow-up investigations increase a second Detective position should be added too. These added positions will provide DuPont with the level of service for the future.

The total number of commission personal, with the additions, will be 19, with 2 non-commission personal.

Table 52: Law Enforcement Analysis of Capital Facility Requirements

<b>CURRENT LOS = 1.3 SWORN &amp; 0.16 SUPPORT PERSONNEL PER 1,000 POPULATION</b>				
(1) TIME PERIOD	(2) CITYWIDE POPULATION	(3) TOTAL PERSONNEL @ 0.00146 PER CAPITA	(4) PERSONNEL AVAILABLE	(5) NET RESERVE OR DEFICIENCY
1997 ACTUAL	915	1.3		
2003 ACTUAL	4,425	6.5	8.0	1.8
ACTUAL TOTAL AS OF 2015	9,250	13.5	13.5	0
PROJECTED GROWTH 2016-2021	250	0.4	5.5	
<b>TOTAL AS OF 2021</b>	<b>9,500</b>	<b>13.9</b>	<b>19.0</b>	<b>5.1</b>
<b>PROPOSED LOS = 1.79 SWORN &amp; 0.21 SUPPORT PERSONNEL PER 1,000 POPULATION</b>				
(1) TIME PERIOD	(2) CITYWIDE POPULATION	(3) TOTAL PERSONNEL @ 0.00200 PER CAPITA	(4) PERSONNEL AVAILABLE	(5) NET RESERVE OR DEFICIENCY
1997 ACTUAL	915	1.8		
2003 ACTUAL	4,425	8.9	8.0	0.9
ACTUAL TOTAL AS OF 2015	9,250	18.5	13.5	-5.0
PROJECTED GROWTH 2016-2021	250	0.5	5.5	---
<b>TOTAL AS OF 2021</b>	<b>8,500</b>	<b>19.0</b>	<b>19.0</b>	<b>0</b>
<b>CAPACITY PROJECTS: None</b>				

### Historic Museum

#### Current Facilities

The City's Historic Museum facilities consist of one building located on Barksdale Avenue in the Historic Village. The size of this facility has not been increased since 1998. Size and location of the museum is shown in Table 53 below:

Table 53: Historic Museum Inventory (HM-1)

FACILITY	CAPACITY (SQ FT)	LOCATION
Historic Museum Building	2,512	207 Barksdale Avenue

#### Level of Service (LOS)

The current level of service (LOS) of 272 square feet per 1,000 population is based on the existing inventory divided by the 2015 citywide population (9,250). The proposed new LOS is 264 square feet per 1,000 population (See Table 54).

#### Capital Facilities Projects and Financing

No new Museum facilities projects are scheduled for the 2016-2021 CFP cycle. Money has been allocated to assess the need for future repair and maintenance. Future repairs and maintenance is funded at \$80,000.

Other planned future facilities projects include: 1) Expansion of display area for historic fire truck and police car, 2) Expansion/Remodel of display area for historical artifacts, currently in storage, 3) conduct a planning effort to evaluate the potential of restoration of the historic narrow gauge train and track located in the Historic District for a tourism and historic preservation idea. Funding has not been identified for these projects so they are not included in this CFP. It's expected that the project will eventually be on the 6-year plan are completed. As this is done, it will be necessary to develop cost estimates and identify revenue sources.

**Concurrency (Adequate Public Facilities)**

In compliance with GMA and City Policy 6.3, adequate historic museum facilities must be available at the time of occupancy and use of new development.

*Table 54: Historic Museum Analysis of Capital Facility Requirements (HM-2)*

<b>CURRENT LOS = 272 SQUARE FEET PER 1,000 POPULATION</b>				
(1) TIME PERIOD	(2) CITYWIDE POPULATION	(3) SQ FT @ 0.272 SQ. FT. PER CAPITA	(4) SQUARE FEET AVAILABLE	(5) NET RESERVE OR DEFICIENCY
1997 ACTUAL	915	249	2,512	2,263
2003 ACTUAL	4,425	1,204	2,512	1,308
ACTUAL TOTAL AS OF 2015	9,250	2,512	2,512	0
PROJECTED GROWTH 2016-2021	250	68		
<b>TOTAL AS OF 2021</b>	<b>9,500</b>	<b>2,580</b>	<b>2,512</b>	<b>-68*</b>
<b>PROPOSED LOS = 264 SQUARE FEET PER 1,000 POPULATION</b>				
(1) TIME PERIOD	(2) CITYWIDE POPULATION	(3) SQ FT @ 0.264 SQ. FT. PER CAPITA	(4) SQUARE FEET AVAILABLE	(5) NET RESERVE OR DEFICIENCY
1997 ACTUAL	915	242	2,512	2,270
2003 ACTUAL	4,425	1,168	2,512	1,344
ACTUAL TOTAL AS OF 2015	9,250	2,446	2,512	66
PROJECTED GROWTH 2016-2021	250	66		
<b>TOTAL AS OF 2021</b>	<b>9,500</b>	<b>2,512</b>	<b>2,512</b>	<b>0</b>
<b>CAPACITY PROJECTS: None</b>	<b>NOTE:</b> Adequacy of the existing museum facility should be determined based on the actual projected display and support area needs.			

\* Adequacy of the existing museum facility should be determined based on the actual projected display and support area needs.

*Sanitary Sewer*

**Current Facilities**

The City of DuPont The City does not own or maintain any sanitary sewer system components. Sanitary sewer services are provided by the Pierce County Sewer Utility (Utility). The City has interlocal agreements for the provision of sewer service with the Utility.

Established in 1969, the Pierce County Sewer Utility (Utility) is charged with providing residential, commercial, and industrial sewer services to a 117 square mile service area basin. As of December 31, 2010 the Utility served 58,960 residential, commercial and industrial accounts serving 252,000 residents in the cities of Lakewood, University Place, DuPont, Milton and the unincorporated areas of Parkland,

Spanaway, Midland, South Hill, Frederickson, Fife Heights, Browns Point/Dash Point, Sunrise, and Cascadia – approximately 37% of the service area basin is currently served with sanitary sewers. The Utility also provides contract sewer services to the Town of Steilacoom and portions of the cities of Tacoma, Fife, and Edgewood.

The Utility is comprised of the following amenities:

- Chambers Creek Regional Wastewater Treatment Plant rated at 28.7MGD (2010),
- 2.56MGD of Purchased Capacity at Tacoma Central WWTP,
- 669 Miles of Utility Owned Sewer Lines,
- 172 Miles of Privately Owned Sewer Lines,
- 15,964 Service Manholes,
- 95 Lift Stations (4 New Stations in Design),
- Stormwater Pump Stations (Maintenance Only),
- Community Drainfield Systems (Etloh, Cypress Greens, Cascadia),
- 825 Residential Grinder Pump Systems,
- 19 Automated Flow Meters, and
- Odor Control Facilities

The Utility and capital facilities are further described in the 2010 Unified Sewer Plan of Pierce County.

**Level of Service (LOS)**

Wastewater LOS is adjusted by Pierce County in conjunction with updates to their Unified Sewer Plan. In general residential and commercial wastewater flows have been declining due to conservation measures and infiltration & inflow reduction programs. The latest update to the Unified Sewer Plan in 2010 projected wastewater flows as shown in Table 55.

*Table 55: Wastewater Flow Criteria (SS-1)*

LAND USE TYPE	PIERCE COUNTY WASTEWATER FLOW PROJECTIONS
Single Family Residential	79 gallons per capita per day
Multi-Family Residential	66 gallons per capita per day
Commercial	1,000 gallons per acre per day
Office	1,000 gallons per acre per day
Industrial	1,000 gallons per acre per day

**Capital Facilities Projects and Financing**

Sanitary sewer capital facilities are generally constructed by developers through developer's agreements or directly by Pierce County. Construction and maintenance of capital facilities by Pierce County are financed through utility rates and impact fees. Anticipated capital projects are described in the 2010 Unified Sewer Plan, in that plan no projects within DuPont were identified.

**Concurrency (Adequate Public Facilities)**

In compliance with GMA and City policy, adequate sanitary sewer facilities must be available at the time of occupancy and use of new development. Per the LOS standards adopted by the Utility, the district can accommodate future demand growth.

## Schools

### Current Facilities

School in the City of DuPont are owned and operated by the Steilacoom Historical School District No 1 (District). Descriptions of existing Capital Facilities are provided in the Districts 2014 Capital Facilities Plan.

### Level of Service (LOS)

School LOS is adjusted by the District with updates to their Capital Facilities Plan. The latest update to the District's Capital Facilities Plan in 2014 projected school LOS as shown in Table 56.

Table 56: Steilacoom Historic School District LOS (SH-1)

TYPE	LOS
High Schools	130 square feet per student
Middle Schools	117 square feet per student
Elementary Schools	90 square feet per student

### Capital Facilities Projects and Financing

The District's projected enrollment growth will continue to be focused in the near term at the elementary grade levels and in particular the City of DuPont area where the population growth continues, though at a slower rate than in recent years. In addition, in 2010, the Washington State Legislature passed Substitute House Bill 2776, which requires implementation of full day Kindergarten by the school year 2017-18. With the exception of Anderson Island Elementary (which started full day kindergarten the 2014-15 school year), the District anticipates that it will start phasing in full day Kindergarten beginning in the 2016 school year. (In addition, SHB 2776 identifies the potential of reduced class sizes for grades K-3. The District will closely monitor actions related to class size reductions and make adjustments as necessary in future updates to its Capital Facilities Plans.) Existing capacity in elementary schools is also impacted by increased special education needs and increases in other programs such as ELL classes.

To meet these capacity needs, the Board envisions the potential need for another elementary school in DuPont. Chloe Clark Elementary School's Phase II & III projects have been completed. If a new elementary school is not constructed, the District would need to add additional classrooms at Chloe Clark. The Board of Directors and the District have explored options for the location of a new elementary school and have found the newly acquired 14.71 acres to be very well suited as the location for a future elementary school. The District plans to construct the first phase of this school during the six year planning period of their Capital Facilities Plan (2014-2020).

In addition, the district has reviewed options to increase capacity at all of the primary and elementary schools to allow for future expansion of existing programs such as special education and other programs. Two modular classrooms were recently added at Saltar's Point Elementary School.

School capital facilities are funded from a variety of sources including bonds, levies, state assistance and impact fees.

### Concurrency (Adequate Public Facilities)

In compliance with GMA and City policy, adequate sanitary sewer facilities must be available at the time of occupancy and use of new development

### Stormwater Management

#### Current Facilities

Storm drainage facilities within the City of DuPont consist of a combination of ditches and hard piped conveyance systems, biofiltration swales, and infiltration ponds and trenches. Stormwater is infiltrated or discharged directly to one of the many natural water bodies within the City. The majority of the City is underlain by Spanaway soils, which are excessively drained and allow infiltration to be used as a primary means of stormwater management within the City. The Stormwater Comprehensive Plan map can be seen in Appendix A.

The area of the original DuPont Village drains to Bell Marsh, which, in turn, drains to the Puget Sound through the Department of Defense (DOD) drainage ditch which crosses the City from southeast to north. The area within the Historic Village relies on surface infiltration for stormwater management. Surface flow, which does not infiltrate, flows overland to Bell Marsh. Stormwater from the existing Historic Village does not receive treatment prior to discharge to the marsh.

DOD has constructed an 84-inch diameter storm drain under I-5, which drains runoff from Fort Lewis into Bell Marsh. DOD also constructed a drainage channel from Bell Marsh through Mackay Marsh and Hammer Marsh on the Fort Lewis Reservation. The DOD drainage channel discharges directly into the Puget Sound at Tatsolo Point. The Fort Lewis stormwater discharges are included in the Fort's NPDES permit. The NPDES permit does not contain limits on the volume discharged, but does contain limits on the amount of total oil and grease, floatable material, and pH of the water discharged. The Fort maintains oil-water separators on base, and monitors the discharge from the DOD channel twice per month.

Table 57 shows the inventory of existing storm drainage facilities within the City of DuPont.

Table 57: Stormwater Management Facilities Inventory (SWM-1)

FACILITY	TYPE OF SYSTEM	QUANTITY
Pipe: City-Owned	Conveyance	153,000 Lineal Feet
Ditch: City-Owned	Conveyance	33,000 Lineal Feet
Ditch: DOD-Owned	Conveyance	8,000 Lineal Feet
Infiltration Pond: City-Owned	Storage/Infiltration	55,172 Square Feet
Infiltration Trench: City-Owned	Storage/Infiltration	11,750 Square Feet

### Level of Service (LOS)

#### Department of Ecology Requirements.

All new development and redevelopment, as defined by the Department of Ecology Stormwater Management Manual for Western Washington (2012), within the City of DuPont must provide stormwater quality and/or quantity control as required by the Department of Ecology Stormwater Management Manual.

Specifically, development should include biofiltration swales to treat 91% of the annual stormwater runoff prior to discharge. The preferred option for discharge of treated stormwater throughout the City is by infiltration, although discharge to existing surface water is acceptable where feasible with proper measures to control erosion and sedimentation.

#### Stormwater Facility Design Criteria.

Stormwater design criteria required of new development and redevelopment within the City is identified in the City's Comprehensive Stormwater Management Plan (2015), the Department of Ecology Stormwater Management Manual for Western Washington (2012) and the Northwest Landing Master Drainage plan (1992). In summary, water quality treatment is required prior to stormwater infiltration or discharge into the marsh or any lakes. Biofiltration swales or equivalent systems are considered as water quality treatment. Biofiltration swales must be designed to treat 91% of the annual stormwater runoff.

#### **Capital Facilities Projects and Financing**

Stormwater facilities required for new development within the Northwest Landing portion of the City will be developer funded. Capital improvements for stormwater facilities will be identified as the type and amount of development is proposed. Scheduling of stormwater improvements will be proposed by the developer to coincide with the scheduling of development within the City. The City provides maintenance to existing stormwater facilities in the Village and in the Northwest Landing area. Maintenance of stormwater facilities is currently funded through the City's stormwater fund.

Maintenance projects anticipated for this CFP cycle include:

- City-Wide Catch Basin Vactoring Contract
- Bioswale Maintenance
- Enforcement of Private Facilities Maintenance

The City's 2004-2009 Capital Facilities Plan included no stormwater-related projects. Additionally, the City does not currently plan capital improvements in a formal Capital Improvement Program (CIP) due to the lack of available resources to fund recurring or non-recurring projects. As needs arise and funds are made available, Capital Improvement Projects are budgeted in the Capital Projects Fund. There are no projects budgeted in the 2015 Adopted Budget.

Planned projects that may be constructed, as funding is available, during this CFP cycle include:

- Public Works Facility Storm System
- Edmond Village Swale Rehabilitation
- Center Drive/Sequalitchew Creek Ditch Rehabilitation
- Bob's Hollow Lane Swale Rehabilitation
- Edmond Village Pump and Electrical Upgrades
- Aldrich Place Swale Rehabilitation
- El Rancho Madrona Catch Basin Improvements
- Stormwater Pond Security Upgrades
- Kittson Street Pipe Adjustment
- Barksdale Station Drywell Replacement
- Hoffman Hill Development Div. 5 Stormwater Facility Rehabilitation
- Stormwater Management Plan Update

#### **Concurrency (Adequate Public Facilities)**

In compliance with GMA and City policy, adequate stormwater management facilities must be available

at the time of occupancy and use of new development.

## *Water*

### **Current Facilities**

The inventory of City water system facilities is included in the City of DuPont Water System Plan 2010 Update. The Water System Plan is intended to meet all requirements of Part 246-290-100 WAC, including revisions of the Water Regulations known as the Water Use Efficiency Rule adopted in February 2007, and further detailed in the DOH Water System Planning Handbook. The Water System basemap can be seen in Appendix B.

### **Pressure Zones**

There are two City-owned and operated water systems within the City limits. The City water system, which operates two pressure zones, currently provides service to the Historic Village, Palisade Village, DuPont Station, Edmond Village, Manufacturing Research Park, Industry, and portions of the Civic Center, Fort Lake Business and Technology Park, and Sequelitchew Village. Water from the Bell Hill Pump Station and Hoffman Hill Reservoir serves the areas listed above at a nominal 400 foot Hydraulic Grade Line (HGL). The Historic Village is served from the upper 400 foot pressure zone through two pressure reducing valves (PRV). As development occurs, the upper pressure zone will be expanded to increase service to Yehle Park Village, Hoffman Hill Village (including El Rancho Madrona), and Fort Lake Business and Technology Park.

### **Water Supply**

The City of DuPont currently uses only groundwater sources for its water supply. The City holds water rights for two wells in the Historic Village which are no longer in use, three wells at Bell Hill, and one developed well at Hoffman Hill. A second well has been drilled but not developed at Hoffman Hill, which is contained within the same water right.

The Historic Village Wells, now dormant, are completed in the shallow, unconfined Vashon aquifer. One of the wells is also located near a 30 inch Fort Lewis sewer line. As such, the wells have historically experienced difficulties with bacteriological contamination. Bacteriological contamination may also be attributable to the proximity of the sewer line. The capacity of these wells is 60 gpm and 150 gpm and were issued as a municipal water right and are not automatically subject to relinquishment for non-use. Given these difficulties, use of the Historic Village wells has been suspended by the City.

The Bell Hill wells (3) supply the City water system from deeper aquifers with less contaminant susceptibility, with Well No. 1 and 2 equipped with an auxiliary power generator for continuous operation during power outages. Bell Hill Well No.1 and 2 tap separate aquifers, with Well No. 2 experiencing a high concentration of manganese. In order to utilize Well No. 2 blending with Well No. 1 is required, however this does not allow for full utilization of the City's water right. Therefore, a third well was drilled, Bell Hill Well No. 3 in the same aquifer as Well No. 1 in order to maximize the blending potential of Well No. 2. Bell Hill Well No. 3 is located approximately 1,150 feet east of the previously installed Bell Hill Wells No. 1 and 2.

The Hoffman Hill Wells Nos. 1 and 2 are situated in the southwest corner of the City's service area in the vicinity of the El Rancho Madrona neighborhood. Both wells utilize a single water right and have been



added to the system to increase capacity. Under normal operating conditions the Hoffman Hill well(s) will act as the primary source for the water system.

### Water Storage

The City of DuPont currently owns and operates three storage facilities. Two reservoirs serve the main pressure zone, the 1.0 million gallon (MG) reservoir located at Bell Hill and the 3.0 MG Hoffman Hill Reservoir serve the City water system. The El Rancho Madrona water system is served by a 38,000 gallon ground level reservoir via booster pumps and a pressure tank. The old Historic Village ground level reservoir is 100,000 gallons in capacity and is no longer in use.

#### *Bell Hill*

The 1.0 million-gallon pre-cast, post-tensioned concrete reservoir at Bell Hill was constructed in 1991 to provide storage for the LID #88-1 area. The Bell Hill reservoir's interior diameter is 85 feet with a height of 23.75 ft. The base elevation of the reservoir is approximately 250 feet above mean sea level (MSL), providing an overflow elevation of 273.75 feet. The reservoir is served by the three adjacent Bell Hill wells. The reservoir supplies the City water system via the Bell Hill Pump Station.

#### *Hoffman Hill*

The 3.0 MG steel reservoir at Hoffman Hill was constructed in 1999 to provide storage capacity for the planned expansion of the City of DuPont. The Hoffman Hill reservoir's interior diameter is 160 feet with a height of 24 feet. The base elevation of the reservoir is approximately 380 feet MSL, providing an overflow elevation of 401.5 feet. The reservoir is served by the adjacent Hoffman Hill well field. One of the two Hoffman Hill wells is in operation and the other has been drilled but not developed. The reservoir supplies the City water system via the distribution system along the McNeil Street extension.

### Booster Pump Stations

The City of DuPont owns and operates three pump stations. The Bell Hill pump station provides water for the City water system, while the El Rancho Madrona station supplies that system. The third pump station provides water for use in the Hoffman Hill area. This pump station has been constructed but is not yet in use.

#### *Bell Hill*

The Bell Hill pump station is equipped with six vertical turbine pumps which supply the 400 foot pressure zone of the City water system from the 1.0 MG Bell Hill Reservoir. Pumps No. 1, 2, and 3 each have a nominal capacity of 1,350 gpm and are driven by 50 HP motors. Pumps No. 4 and 5 are 500 gpm in capacity with 20 HP motors. Pump No. 6 is driven by a 15 HP motor with a 350 gpm capacity. The pump station is fully operational via an auxiliary power generator.

The Bell Hill control system activates the Bell Hill pump station pumps according to an operator specified sequence when low pressures are detected in the 400 foot pressure zone. The control system deactivates pumps sequentially as appropriate when the combined nominal flow rate of the operating pumps exceeds the net pump station discharge to the water system.

#### *Hoffman Hill*

The Hoffman Hill Booster Pump Station is a skid mounted modular unit installed inside a building structure. In total, four Variable Speed pumps are incorporated into the station. Two of these pumps provide for peak day demands and are capable of delivering a capacity of 425 gpm at 150 feet of TDH.

The other two variable speed pumps provide fire flow and are capable of delivering a capacity of 500 gpm at 150 feet of TDH. With one of the largest pumps out of service (500 gpm), the remaining three pumps are sized to provide peak day demand plus fire flow.

Control of the Hoffman Hill Booster Pump Station is maintained via a SCADA system similar to the Bell Hill facility with a master panel control (MPC) at City Hall and a PLC at the booster station. The monitoring points for the booster station are integrated with the City of DuPont water telemetry system. In the event normal power service is interrupted, the station is equipped with a standby generator to keep the system operational until power service is restored.

#### Water Distribution System

Existing piping in the Northwest Landing portion of the City water system includes 8, 10, 12, and 16 inch diameter ductile iron mains, which have primarily been installed subsequent to the 1991 construction of the various Bell and Hoffman Hill facilities. Significant upgrades to the Historic Village system were made in 1977 and included replacement of valves and hydrants, installation of individual service meters, and the 1997 construction upgrade of an emergency intertie with the adjacent Fort Lewis water system. In 2000 and 2003, the original Historic Village distribution system, composed primarily of 6 inch unlined cast iron pipe and a few hundred feet of 4 inch cast iron pipe, installed in the 1920s was replaced. Piping improvements have also included the completion of a small number of additional system loops and completion of the piping grid in the Historic Village.

The El Rancho Madrona distribution system was constructed in the late 1960's and is primarily comprised of 6 inch diameter PVC pipe. The current system is not fully looped and residents report low pressures during periods of high demand.

Table 58: Water Supply and Distribution Facilities Inventory (WSD-1)

TYPE OF FACILITY	NAME	LOCATION	CAPACITY
Well	Bell Hill Well No.1	Upper Salmon Springs	900 gpm
Well	Bell Hill Well No.2	Undifferentiated/Outwash/Lakewood Glacial	1,000 gpm
Well	Bell Hill Well No. 3	Upper Salmon Springs	1,000 gpm
Well	Hoffman Hill Well No. 1	Upper Salmon Springs	1,100 gpm
Well	Hoffman Hill Well No. 2	Upper Salmon Springs	1,100 gpm
Well	El Rancho Madrona (Offline)	Upper Salmon Springs	50 gpm
Treatment	Bell Hill Chlorination Facility	Bell Hill Place	Output of Bell Hill Wells Nos. 1-3
Booster Station	Bell Hill Pumps 1-3	Bell Hill Place	1,350 gpm
Booster Station	Bell Hill Pumps 4-5	Bell Hill Place	500 gpm
Booster Station	Bell Hill Pump 6	Bell Hill Place	350 gpm
Reservoir	Bell Hill Reservoir	Bell Hill Place	1,000,000 Gallons
Reservoir	Hoffman Hill Reservoir	Hoffman Hill Blvd.	3,535,000 Gallons
Booster Station	Hoffman Hill Pump 1-2	Hoffman Hill	425 gpm
Booster Station	Hoffman Hill Pump 3-4	Hoffman Hill	500 gpm
Distribution	3-In or Less 4-In 6-In 8-In 10-In 12-In	710 LF 1,530 LF 22,830 LF 137,350 LF 120 LF 56,690 LF 30,480 LF	Throughout City of DuPont outside of El Rancho Madrona

**Level of Service (LOS)**

Level of service criteria for water consumption have been established to estimate water use in order to project future demands on water supply. These criteria have been established based on historic water use data.

Water Consumption. Specific projections of build out water demand are included in the City of DuPont’s Water System Plan 2010 Update. Table 59 below summarizes the average daily water consumption for the City of DuPont between 2005 and 2009.

Table 59: Water Consumption (WSD-2)<sup>1</sup>

LAND USE TYPE	METERED WATER CONSUMPTION (2005-2009)
Single Family Residential	210 gal/conn/day
Multi-Family Residential	964 gal/conn/day
Commercial	1,300 gal/conn/day
Industrial	13,931 gal/conn/day
Irrigation	3,060 gal/conn/day

<sup>1</sup> This table is based on Table 2-5 of the City of DuPont’s Water System Plan 2010 Update.

Water Demand Projections.

The water consumption data (See Table 59) is combined with projected land use areas to estimate projected water demands for the next 19 years (2012-2031). According to the City of DuPont’s Water System Plan 2010 Update, residential water consumption is based on average day demand of 223 gallons per day per equivalent resident unit (ERU), with 2.92 persons per single-family dwelling unit, 2.0

persons per multifamily dwelling unit. The average day demand of 223 gallons per day per ERU was selected based on 2009 consumptions data only, see Water System Plan 2010 Update for more information.

Table 59 shows average daily consumption projections for five major customer classifications: single-family residential, multi-family residential, commercial, industrial and irrigation. Average daily consumption rates for single-family residential and multi-family residential usage are projected proportionate with population to buildout levels in year 2031. Estimated future water consumption rates for commercial, and industrial usage are based on existing total water use per acre and projected proportionate to anticipated future land use. Consumption rates for irrigation are estimated as 33% of total water demand based on existing use trends.

Table 60: Water Demand Projections for 2012-2031 (WSD-3)<sup>1</sup>

Projected Equivalent Residential Unit (ERU)							
Year	Residential ERUs (SF)	Residential ERUs (MF)	Commercial ERUs	Industrial ERUs	Irrigation ERUs	Distribution System Leakage ERUs	Total ERUs
2012	2,777	305	574	164	1,882	456	6,158
2013	2,860	314	685	180	1,977	479	6,468
2014	2,943	323	742	196	2,071	502	6,777
2015	3,026	333	825	212	2,165	525	7,085
2016	3,026	333	908	228	2,214	537	7,245
2017	3,026	333	992	244	2,263	549	7,406
2018	3,026	333	1,075	260	2,312	560	7,565
2019	3,026	333	1,158	276	2,361	572	7,725
2020	3,026	333	1,242	292	2,410	584	7,886
2021	3,026	333	1,325	308	2,459	596	8,046
2022	3,026	333	1,408	324	2,507	608	8,205
2023	3,026	333	1,492	340	2,557	620	8,367
2024	3,026	333	1,575	355	2,605	631	8,524
2025	3,026	333	1,575	379	2,617	634	8,563
2026	3,164	348	1,575	403	2,704	655	8,848
2027	3,302	363	1,575	427	2,791	677	9,135
2028	3,440	378	1,575	451	2,878	698	9,420
2029	3,578	393	1,575	475	2,965	719	9,705
2030	3,716	408	1,575	499	3,053	740	9,991
2031	3,854	424	1,575	522	3,140	761	10,275

<sup>1</sup> This table is based on Table 2-13 of the City of DuPont’s Water System Plan 2010 Update.

Projected water demands are quantified by consumption, production, and lost and unaccounted for water. Water consumption, shown in Table 60, is the sum of all metered water use. Water production is the sum of all metered source production from the City’s wells. The difference between production and consumption is “lost and unaccounted for water.” “Lost” water includes any water loss due to leaks or unauthorized uses, such as illegal service connections. “Unaccounted for” water results from accounting errors, inaccurate source and customer meters, and water leaving the system for unmetered usage,

such as flushing of mains, fire flows, and use by unmetered connections. Projected water demands have also been classified by average day demands, peak day demands, and peak hour demands.

Table 61 presents projected average daily, peak day, and peak hour rates of consumption, production, and lost and unaccounted for water through the year 2031 (anticipated buildout) based on the average daily demand projections presented in Table 60 and peaking factors consistent with Department of Health guidelines. According to conservation planning and efforts to reduce lost and unaccounted for water to 10 percent throughout the planning period. Production is projected as the sum of annual consumption and lost and unaccounted for water.

### Capital Facilities Projects and Financing

There are no capital facilities capacity projects planned for this CFP cycle. Planned water utility projects are shown in Table 62. Projects will be implemented as funding is available.

In future years, after the gravel mine is reclaimed and the as the City continues to experience growth, additional water capacity projects such as, source development, storage construction, and transmission mains will be required. The City’s Water System Plan (2010) contains a financial analysis of the City’s water utility, including projected rate impacts through the year 2031.

Table 61: Water Consumption and Production for 2012-2031 (WSD-4)

Year	Projected Consumption (gdp) (1)			Projected Lost/Unaccounted for Water(4)	Projected Production (gdp)		
	Average Daily	Max Daily(2)	Peak Hourly(3)		Average Daily	Max Daily	Peak Hourly
2012	1,348,600	3,668,192	6,103,958	8.2%	1,459,185	3,968,984	6,604,483
2013	1,403,600	3,817,792	6,403,046	8.2%	1,518,695	4,130,851	6,928,096
2014	1,459,100	3,968,752	6,701,170	8.2%	1,578,746	4,294,190	7,250,666
2015	1,509,100	4,104,752	6,998,328	8.2%	1,632,846	4,441,342	7,572,191
2016	1,521,400	4,138,208	7,152,696	8.2%	1,646,155	4,477,541	7,739,217
2017	1,555,200	4,230,144	7,308,029	8.2%	1,682,726	4,577,016	7,907,287
2018	1,588,700	4,321,264	7,461,432	8.2%	1,718,973	4,675,608	8,073,269
2019	1,622,300	4,412,656	7,615,800	8.2%	1,755,329	4,774,494	8,240,296
2020	1,656,100	4,504,592	7,771,133	8.2%	1,791,900	4,873,969	8,408,366
2021	1,689,700	4,595,984	7,925,501	8.2%	1,828,255	4,972,855	8,575,392
2022	1,723,000	4,686,560	8,078,904	8.2%	1,864,286	5,070,858	8,741,374
2023	1,757,000	4,779,040	8,235,202	8.2%	1,901,074	5,170,921	8,910,489
2024	1,790,100	4,869,072	8,386,675	8.2%	1,936,888	5,268,336	9,074,382
2025	1,798,300	4,891,376	8,424,302	8.2%	1,945,761	5,292,469	9,115,095
2026	1,858,200	5,054,304	8,699,270	8.2%	2,010,572	5,468,757	9,412,610
2027	1,918,300	5,217,776	8,976,168	8.2%	2,075,601	5,645,634	9,712,214
2028	1,978,100	5,380,432	9,251,136	8.2%	2,140,304	5,821,627	10,009,729
2029	2,038,000	5,543,360	9,526,104	8.2%	2,205,116	5,997,916	10,307,245
2030	2,098,100	5,706,832	9,802,037	8.2%	2,270,144	6,174,792	10,605,804
2031	2,157,800	5,869,216	10,076,040	8.2%	2,334,740	6,350,492	10,902,275

(1) Based on Table 4-2 of the City of DuPont Water System Plan 2010 Update.

(2) Based on Maximum Daily Demand per Table 2-10, as 2.72.

(3) Based on Peak Hour Demand (PHD) per Table 2-10, as  $PHD = (0.67 * (\# \text{ of ERUs}) + 113) * 1440$ .

(4) Value based on average loss between 2005-2009 from Table 2-7 of the City of DuPont Water System Plan 2010 Update.

### Concurrency (Adequate Public Facilities)

According to the 2010 Water System Plan the City of DuPont has adequate water rights to meet projected 6-year growth demands of the system. However, in planning for buildout, the City of DuPont will pursue transferring existing water rights (Weyerhaeuser golf course wells) from one point of withdrawal to another. Additionally, this should be pursued with the well that are no longer used at Historic Village.

In compliance with GMA and City policy, adequate water supply and distribution facilities must be available at the time of occupancy and use of new development.

Table 62: Water Facilities Projects (WSD-5)<sup>1</sup>

Priority	Projects	2012	2013	2014	2015	2016	2017	2018-2031
1	Install on-site generation sodium hypochlorite disinfection at Hoffman Hills.	\$50,000						
2	Replace El Rancho Madrona water mains	\$443,200						
3	Replace all six control valves (Cla-valves) at the Bell Hill Booster Station		\$23,100					
4	Install Variable Frequency Drives (VFDs) at the Bell Hill Booster Station		\$126,400					
5	Upgrade telemetry system at the Bell Hill Booster Station		\$27,500					
6	Feasibility Study investigating operational alternatives for Bell Hill Well No. 2			\$12,500				
7	Transfer existing water rights from Historic Village Wells to another point of withdrawal		\$2,500					

Priority	Projects	2012	2013	2014	2015	2016	2017	2018-2031
8	Transfer existing water rights from El Rancho Madrona Well to another point of withdrawal		\$2,500					
9	Formalize Intertie agreement with Joint Base Lewis-McChord		\$5,000					
10	Irrigation control/modifications to weather station and system reprogramming			\$27,500				
11	Billing Software Upgrades		\$8,000					
12	Upgrades to current GIS system components		\$15,000					
13	Increased security measures to water system components		\$22,000					
14	Install 100 lf of 8-inch waterlines between Center Plaza – Building 2 and DuPont Steilacoom Road		\$20,500					
15	Change from direct read meters to remote read meter technology		\$189,900	\$195,600	\$201,500			
16	Hoffman Hill Booster Pump Station Modifications Analysis		\$3,500					
17	Internal inspection and routine cleaning of Bell Hill Reservoir				\$7,000			\$14,000

Priority	Projects	2012	2013	2014	2015	2016	2017	2018-2031
18	Internal inspection and routine cleaning of Hoffman hill Reservoir							\$14,000
19	Replace approximately 2,600 lf of AC water pipe in the Historic Village							
20	Update Water System Comprehensive Plan in year 2017							\$75,000
21	Leak Detection Survey	\$12,600	\$12,600	\$12,600	\$12,600	\$12,600	\$12,600	\$163,800
22	Repair/replace defective water meters	\$32,100	\$32,100	\$32,100	\$32,100	\$32,100	\$32,100	\$417,300
23	Conservation Program	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$19,500
24	Annual Consumer Confidence Report	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$19,500
<b>Total</b>		<b>\$540,900</b>	<b>\$493,600</b>	<b>\$283,300</b>	<b>\$371,820</b>	<b>\$482,180</b>	<b>\$47,700</b>	<b>\$723,100</b>

<sup>1</sup> Based on Table 8-1 of the City of DuPont Water System Plan 2010 Update.

### Franchise Utilities

#### Electrical

##### Current Facilities

Puget Sound Energy (PSE) is a private utility providing electric and natural gas service to homes and businesses in Puget Sound region and portions of Eastern Washington, covering 10 counties and approximately 6,000 square miles. PSE's regional and local electric and natural gas planning efforts are integrated and centered on providing safe, dependable, and efficient energy service. PSE provides electrical power to more than 1.2 million electric customers throughout 8 counties. As of March 2015, PSE provides electric service to approximately 3,926 customers in the City of DuPont.

To provide the City of DuPont with electricity, PSE builds, operates, and maintains an extensive integrated electric system consisting of generating plants, transmission lines, substations, switching stations, sub-systems, overhead and underground distribution systems, attachments, appurtenances, and metering systems.

Electricity provided by PSE to the City of DuPont is often produced elsewhere and is interconnected to the Northwest's regional transmission grid through an extensive network of transmission facilities providing bulk transmission service to meet the demands of electricity customers within the region's



eight states. The PSE electric transmission facilities in the City of DuPont are important components of the electric energy delivery grid serving the Puget Sound region. As electricity reaches the City of DuPont the voltage is reduced and redistributed through lower-voltage transmission lines, distribution substations, overhead and underground distribution lines, smaller transformers, and to individual meters.

#### Level of Service (LOS)

In order for PSE to meet regulatory requirements, it updates and files an Integrated Resource Plan (IRP) with the WUTC every two years. The IRP presents a long-term forecast of the lowest reasonable cost combination of resources necessary to meet the needs of PSE's customers to provide dependable and cost effective service over the next 20 years. The current plan, which was filed in May of 2013, details both the energy supply and transmission resources needed to reliably meet customers' wintertime, peak-hour electric demand over the next 20 years. The plan, which will be updated in the fall of 2015, forecasted that PSE would have to acquire approximately 4,900 megawatts of new power-supply capacity by 2033. This resource need is driven mainly by expiring purchased-power contracts and expected population and economic growth in the Puget Sound region. The IRP suggests that roughly more than half of the utility's long-term electric resource need can be met by energy efficiency and the renewal of transmission contracts. This reduces the need down to 2,200 MW by 2033. The rest of PSE's gap in long-term power resources, the IRP stated is likely to be met most economically with added natural gas-fired resources.

PSE generates approximately 46 percent of the electricity for its customers' from its own generation specifically generation plants; hydro, thermal, solar and wind. PSE currently has about 3,000 megawatts of power-generating capacity, and purchase the rest of its power supply from a variety of other utilities, independent power producers and energy marketers across the western United States and Canada.

#### Capital Facilities Projects and Financing.

PSE's operations and rates are governed by the Washington Utilities and Transportation Commission (WUTC). PSE electric utility operations and standards are further governed by the Federal Energy Regulatory Commission (FERC), the National Electric Reliability Corporation (NERC), and the Western Electricity Coordinating Council (WECC). These respective agencies monitor, assess and enforce compliance and reliability standards for PSE. The residents of the City of DuPont and the region rely on the coordinated effort between PSE and the City for the adoption and enforcement of ordinances and/or codes to protect transmission and distribution line capacity and support federal and state compliance of safe, reliable, and environmentally sound operation of PSE's electric facilities. Routine utility maintenance work, including vegetation management is required to maintain compliance with FERC, NERC, and WECC regulations

To meet regional and City of DuPont electric demand, new transmission lines and substations may need to be constructed. In addition, existing facilities will need to be maintained and possibly rebuilt to serve current and future demand. The system responds differently year to year and PSE is constantly adding or modifying infrastructure to meet electrical demands.

## Gas

### Current Facilities

PSE provides natural gas to more than 770,000 customers, throughout 6 counties, covering approximately 2,900 square-mile area. As of March 2015, PSE provides natural gas service to approximately 2,965 customers in the City of DuPont.

To provide the City of DuPont and adjacent communities with natural gas, PSE builds, operates, and maintains an extensive system consisting of transmission and distribution natural gas mains, odorizing stations, pressure regulation stations, heaters, corrosion protection systems, above ground appurtenances, and metering systems. When PSE takes possession of the gas from its supplier, it is distributed to customers through more than 21,000 miles of PSE-owned natural gas mains and service lines.

PSE receives natural gas transported by Williams Northwest Pipeline's 36" and 30" high pressure transmission mains at pressures ranging from 500 PSIG to 960 PSIG. The custody change and measurement of the natural gas occurs at locations known as Gate Stations. PSE currently has 39 such locations throughout its service territory. This is also typically where the gas is injected with the odorant methyl mercaptan. Since natural gas is naturally odorless, this odorant is used so that leaks can be detected. The Gate Station is not only a place of custody transfer and measurement but is also a common location of pressure reduction through the use of "pressure regulators". Due to state requirements, the pressure is most commonly reduced to levels at or below 250 PSIG. This reduced pressure gas continues throughout PSE's high pressure supply system in steel mains ranging in diameter of 2" to 20" until it reaches various other pressure reducing locations. PSE currently has 755 pressure regulating stations throughout its service territory. These locations consist of Limiting Stations, Heaters, District Regulators, and/or high pressure Meter Set Assemblies.

The most common of these is the intermediate pressure District Regulator. It is at these locations that pressures are reduced to the most common levels ranging from 25 PSIG to 60 PSIG. This reduced pressure gas continues throughout PSE's intermediate pressure distribution system in mains of various materials consisting of polyethylene and wrapped steel that range in diameters from 1-1/4" to 8" (and in a few cases, larger pipe). The gas flows through the intermediate pressure system until it reaches either a low pressure District Regulator or a customer's Meter Set Assembly.

To safeguard against excessive pressures throughout the supply and distribution systems due to regulator failure, over-pressure protection is installed. This over-pressure protection will release gas to the atmosphere, enact secondary regulation, or completely shut off the supply of gas. To safeguard steel main against corrosion, PSE builds, operates, and maintains corrosion control mitigation systems to prevent damaged pipe as a result of corrosion.

### Level of Service (LOS)

In order for PSE to meet its regulatory requirements, it updates and files an Integrated Resource Plan (IRP) with the WUTC every two years. The IRP identifies methods to provide dependable and cost effective natural gas service that address the needs of retail natural gas customers. Natural gas sales

resource need is driven by design peak day demand. The current design standard ensures that supply is planned to meet firm loads on a 13-degree design peak day, which corresponds to a 52 Heating Degree Day (HDD). Currently, PSE's supply/capacity is approximately 970 MDth/Day at peak. This figure will be updated in the fall of 2015. The IRP suggests the use of liquefied natural gas (LNG) for peak day supply and support the needs of emerging local maritime traffic and truck transport transportation markets.

PSE controls its gas-supply costs by acquiring gas, under contract, from a variety of gas producers and suppliers across the western United States and Canada. PSE purchases 100 percent of its natural-gas supplies needed to serve its customers. About half the natural gas is obtained from producers and marketers in British Columbia and Alberta, and the rest comes from Rocky Mountain States. All the gas PSE acquires is transported into PSE's service area through large interstate pipelines owned and operated by Williams Northwest Pipeline. PSE buys and stores significant amounts of natural gas during the summer months, when wholesale gas prices and customer demand are low, and stores it in large underground facilities and withdraws it in winter when customer usage is highest; ensuring a reliable supply of gas is available.

#### Capital Facilities Projects and Financing

PSE's operations and rates are governed by the Washington Utilities and Transportation Commission (WUTC). PSE natural gas utility operations and standards are further regulated by the U.S. Department of Transportation (DOT), including the Pipeline and Hazardous Materials Administration (PHMSA). PHMSA's Pipeline Safety Enforcement Program is designed to monitor and enforce compliance with pipeline safety regulations. This includes confirmation that operators are meeting expectations for safe, reliable, and environmentally sound operation of PSE's pipeline infrastructure. PHMSA and the WUTC update pipeline standards and regulations on an ongoing basis to assure the utmost compliance with standards to ensure public safety. The residents within the City of DuPont rely on the coordinated effort between PSE and the City for the adoption and enforcement of ordinances and/or codes to support on the safe, reliable, and environmentally sound construction, operation and maintenance of PSE's natural gas facilities.

To meet the regional and City of DuPont's natural gas demand, PSE's delivery system is modified every year to address new or existing customer growth, load changes that require system reinforcement, rights-of-way improvements, and pipeline integrity issues. The system responds differently year to year and PSE is constantly adding or modifying infrastructure to meet gas volume and pressures demands. With that said, the major construction that is anticipated in the City of DuPont in the next 10 to 20 years includes the following:

- The replacement of DuPont manufactured polyethylene main and service piping and certain/qualified steel wrapped intermediate pressure main and service piping. There will be ongoing pipe investigations throughout the city to determine the exact location of any DuPont pipe and qualified steel wrapped pipe to be replaced.
- There will be ongoing investigations throughout the city to determine the location of where gas lines have been cross bored through sewer lines and make subsequent repairs.

## Implementation

The following programs shall be implemented by December 31, 2021, or such earlier date as may be adopted by the City, to ensure that the goals and policies established in the Capital Facilities Plan will be achieved or exceeded, and that the capital improvements will be constructed. Each implementation program will be adopted by ordinance, resolution or executive order, as appropriate for each implementation program.

### Review of Applications for Development Permits

The City shall amend its land development regulations to provide for a system of review of various applications for development permits which, if granted, would impact the levels of service of certain public facilities. Such system of review shall assure that no final development permit shall be issued which results in a reduction in the levels of service below the standards adopted by the City.

The land development regulations shall also address the circumstances under which public facilities may be provided by applicants for development permits. Applicants may offer to provide public facilities at the applicant's own expense in order to insure sufficient capacity of certain public facilities.

Development permits may be issued subject to the provision of public facilities by the applicant subject to the following requirements:

- The City and the applicant enter into an enforceable development agreement which shall provide, at a minimum, a schedule for construction of the public facilities and mechanisms for monitoring to insure that the public facilities are completed concurrent with the impacts of the development, or the development will not be allowed to proceed.
- The public facilities to be provided by the applicant are contained in the schedule of capital improvements of the Comprehensive Plan and will achieve and maintain the adopted standard for levels of service concurrent with the impacts of development.

### Impact Fees

Impact fee ordinances shall require the same standard for the level of service adopted by this plan. Impact fee ordinances shall also comply with the requirements of RCW 82.02.060 as currently adopted or hereinafter amended.

### Annual Budget

The annual budget shall include in its capital appropriations all projects in the schedule of capital improvements that are planned for expenditure during the subsequent fiscal year.

### Update of Capital Facilities Plan

The Capital Facilities Plan shall be reviewed and updated annually. The Plan shall be updated in conjunction with the budget process and the release of the official population estimates and projections by the Office of Financial Management of the State of Washington. The update shall include:

- Revision of population projections.
- Update of inventory of public facilities.
- Update of costs of public facilities.

- Update of public facilities requirements analysis (actual levels of service compared to adopted standards).
- Update of revenue forecasts.
- Revise and develop capital improvements projects for the next six fiscal years.
- Update analysis of financial capacity.
- Amendments to the CFP, including amendments to levels of service standards, capital projects, and/or the financing plan sources of revenue.

#### Concurrency Implementation and Monitoring System

The City shall establish and maintain Concurrency Implementation and Monitoring Systems. The Systems shall consist of the following components:

- A. Annual Report on the Capacity and Levels of Service of Public Facilities. The report shall summarize the actual capacity of public facilities compared to the standards for levels of service adopted in Policies 5.2 - 5.5, and forecast the capacity of public facilities for each of the six succeeding fiscal years. The forecast shall be based on the most recently updated schedule of capital improvements in the Capital Facilities Plan. The annual report shall provide the initial determination of the capacity and levels of service of public facilities for the purpose of issuing development permits during the 12 months following completion of the annual report. Each application will be analyzed separately for concurrency, as described in B, below.
- B. Public Facility Capacity Review of Development Applications. The City shall use the procedures specified in Implementation Program 1, at the time each application for development is reviewed. Review of applications for development will be conducted according to the terms of interlocal agreement(s) between the City and other governmental agencies within the City. Records shall be maintained during each fiscal year to indicate the cumulative impacts of all development permits approved during the fiscal year-to-date on the capacity of public facilities as set forth in the most recent annual report on capacity and levels of service of public facilities.

The land development regulations of the City shall provide that applications for development permits that are denied because of insufficient capacity of public facilities may be resubmitted after a time period to be specified in the land development regulations. Such time period is in lieu of, and not in addition to, other minimum waiting periods imposed on applications for development permits that are denied for reasons other than lack of capacity of public facilities. Land development regulations shall require that development commence within a specified time after a development permit is issued, or the development permit shall expire, subject to reasonable extensions of time based on criteria included in the regulations.

- C. Review of Changes to Planned Capacity of Public Facilities. The City shall review each amendment to this Capital Improvement Element, in particular any changes in standards for levels of service and changes in the schedule of capital improvements.

D. Concurrency Implementation Strategies. The City shall annually review the concurrency implementation strategies of this Capital Facilities Plan. Such strategies may include, but are not limited to, the following:

- (1) Standards for levels of service may be phased to reflect the City's financial ability to increase public facility capacity, and resulting levels of service, from year to year. Standards for levels of service may be phased to specific fiscal years in order to provide clear, unambiguous standards for issuance of development permits.
- (2) Standards for levels of service may be applied according to the timing of the impacts of development on public facilities. Final development permits, which impact public facilities in a matter of months, are issued subject to the availability of public facilities prior to the issuance of the building permit (except roads and transit which must be available within 6 years of the final development permit).

Preliminary development permits may be issued subject to public facility capacity, but the capacity determination expires unless the applicant provides financial assurances to the City and obtains subsequent development permits before the expiration of the initial development permit. As an alternative, the determination of public facility capacity for preliminary development permits can be waived with an agreement that a capacity determination must be made prior to issuance of any final development permit for the subject property. Such a waiver specifically precludes the acquisition of rights to a final development permit as a result of the issuance of the preliminary development permit.

- (3) Public facility capital improvements are prioritized among competing applications for the same amount of facility capacity according to rational criteria determined by the City. If any applications have to be deferred to a future fiscal year because of insufficient capacity of public facilities during the current fiscal year, the applications to be deferred will be selected on the basis of rational criteria.

E. Capacity of Public Facilities for Development Permits Issued Prior to Adoption of the Plan.

The City will "reserve" capacity of public facilities for vested development permits that were issued by the City prior to the adoption of this Comprehensive Plan.

The City will recognize legitimate and substantial vested development rights obtained with some previous development permits. The City will identify properties which have vested development rights pursuant to procedures to be adopted in the land development regulations. Properties not identified by the City as having vested development rights may petition for a determination of such rights.

The City will reserve capacity of public facilities to serve the needs of properties with vested development rights. In the event that there is not sufficient capacity to serve the vested properties, the City will create a "lien" on future capacity of public facilities in order to serve

the vested property at the adopted level of service standard before allowing non-vested property to use future public facility capacity. In such circumstances, the vested development will be allowed to commence in order to avoid a "taking" of the vested rights.

The City intends to require vested properties to commence development and to continue in good faith in order to maintain the "reservation" of capacity of public facilities which are provided by the City. The City also intends to evaluate the timing and estimated density/intensity of vested properties in order to phase the reservation of capacity to meet the probable needs of such properties. Experience indicates that some vested development permits are not used to the maximum allowable uses, densities or intensities, or reach such development limits over extended periods of time.

The City finds that it is not necessary to automatically "reserve" capacity of public facilities for non-vested development permits issued prior to the adoption of the plan. Such development permits should be subject to the concurrency requirement. The City finds that the population forecasts that are the basis for this plan are a reasonable prediction of the absorption rate for development, and that the capital facilities which are planned to serve the forecast development are available for that absorption rate. Reserving public facility capacity for non-vested previously issued development permits would deny new applicants access to public facilities, and would arbitrarily enhance the value of dormant development permits.

- F. Evaluation Reports. Evaluation reports will address the implementation of the goals and policies of the Capital Facilities Plan. The monitoring procedures necessary to enable the completion of evaluation include:
  - (1) Review of Annual Reports of the Concurrency Implementation and Monitoring System.
  - (2) Review of Annual Updates of this Capital Facilities Plan, including updated supporting documents.
- G. Contractor Performance System. The City will develop a system of monitoring the actual performance of contractors who design and/or construct public facilities for the City. The monitoring system shall track such items as actual vs. planned time schedule, and actual vs. bid cost. The performance of contractors shall be considered when the City awards contracts for public facilities.

## Capital Facilities and Utilities Goals and Policies

- CF-Goal 1** | **To plan for the provision and development of roads, water system, wastewater and storm drainage systems, parks, civic facilities, schools, and police and fire protection that are adequate to meet the needs of the City at full development. The funding of those capital facilities requiring concurrency shall be the responsibility of the developer.**

CF-1.1	Each application shall be evaluated for Concurrency. Concurrency for the provision of roads, water system extensions, waste water system extensions, schools, fire protection, and parks shall mean that they are in place at the time of occupancy of the housing and/or businesses to be served.
CF-1.2	Require all development projects, both public and private, to demonstrate there are adequate public facilities and infrastructure to support the project or to demonstrate how such facilities will be provided as part of the project.
CF-1.3	Require projects that demand large amounts of water to demonstrate that their use will not increase costs, degrade water quality or system dependability to existing and future users.
CF-1.4	Revise interim Level of Service standards to guide the development of necessary public facilities in accordance with the land use element of the City of DuPont's Comprehensive Plan.
CF-1.6	Require wastewater system extensions to continue to connect to the County's treatment facility to accommodate all new development.
CF-1.7	The City will place substantive reliance on the following facilities plans when reviewing development proposals and undertaking public improvements: <ul style="list-style-type: none"> <li>• DuPont Water Comprehensive Plan</li> <li>• DuPont Storm Drainage Plan</li> <li>• DuPont Street Standards</li> <li>• Pierce County Sewer Plan</li> <li>• DuPont Fire Service: Resource Allocation and Public Fire Safety Plan</li> <li>• DuPont Capital Facilities Plan</li> </ul>
CF-1.8	Collaborate with regional and neighboring public safety services providers to ensure adequate emergency response preparedness.
CF-1.9	Require new developments to incorporate appropriate on-site storm-water facilities or connect to regional facilities in order to prevent pollution, siltation, erosion, flooding and other surface water degradation.
CF-1.10	Water, wastewater and storm drainage lines are to be developed within public rights-of-way.
CF-1.11	Coordinate with utility providers at early stages in planning for needed facilities: <ol style="list-style-type: none"> <li>1) The City shall require that utility providers use the Land Use Element of this Plan in planning future facilities;</li> <li>2) The City should continue to use and adopt procedures to review and comment on proposed actions and policies of public and private utility providers; and</li> <li>3) City coordination may include involvement in consideration of alternatives to new facilities and alternate locations for new facilities.</li> </ol>
CF-1.12	Coordinate with non-city providers of public facilities on a joint program for maintaining adopted levels of service standards, concurrency requirements, funding, and construction of public facilities, to ensure consistency with the Countywide Policy Plan and service providers.



CF-1.13	Provide an efficient and adequate water supply to the residents and businesses of the City.
CF-1.14	Secure additional water rights to provide adequate water supplies either concurrent with or in advance of new development.
CF-1.15	The City should continue to use best available science (BAS) to protect the aquifer, including promoting water conservation, education, and landscape standards.
CF-1.16	Extend sewers to serve development where there are limitations to on-site treatment due to soils, topography, or water resources.
CF-1.17	Require all new development to have sanitary sewer service.
CF-1.18	Continue to use and adopt updated Washington DOE standards for stormwater runoff.
CF-1.19	Provide an adequate and cost effective method of preventing property damage from local storm water.
CF-1.20	Encourage non-structural as well as structural solutions to storm water control.
CF-1.21	Finance the six-year Capital Facilities Plan within the City's financial capacity. If the projected funding is inadequate to finance needed capital facilities based on adopted level of service and forecasted growth, make adjustments to the level of service, the land use element, the demand for public facilities, the sources of revenue, or any combination, to achieve a balance between available revenue and needed capital facilities
CF-1.22	Prepare an annual update of the Capital Facilities Plan, including the inventory of facilities, list of capital projects, and financing plan. The annual update should be coordinated with the annual budget process, and the annual amendment of the Comprehensive Plan.
CF-1.23	Trails, parks, and open space should be required in residential and commercial planning and should connect to the City's trail system and neighboring local trails. Trail and park locations may be determined during the land use review process
<b>CF Goal 2</b>	<b>Provide adequate public facilities that achieve and maintain City level of service standards for existing and future population.</b>
CF-2.1	Use the level of service standards adopted in the Capital Facilities Plan and to 1) determine the need for Category A public facilities, 2) test the adequacy of such facilities to serve proposed development concurrent with the impacts of the development; and 3) develop annual budget and 6-year Capital Improvement Program
CF-2.2	Coordinate with providers of public facilities and utilities to ensure that the adopted level of service standards are maintained.
<b>CF Goal 3</b>	<b>Protect public health and environmental quality through the appropriate design and installation of public facilities.</b>
CF-3.1	Promote conservation of energy, water and other natural resources in the location and design of public facilities

CF-3.2	Practice efficient and environmentally responsible maintenance and operating procedures
<b>CF Goal 4</b>	<b>Ensure that public facilities necessary to support new development are available and adequate concurrent with the development, based on the City’s adopted level of service standards.</b>
CF-4.1	Provide the following options for each development for which adequate public facilities are not available concurrent with the impacts of development: <ul style="list-style-type: none"> <li>• Mitigate all their impacts on levels of service; or,</li> <li>• Revise the proposed development to reduce impacts to maintain satisfactory levels of service; or</li> <li>• Phase the development to coincide with the availability of increased water, sewer, and transportation facilities.</li> </ul>
CF-4.2	Exempt the following from the concurrency management program: <ul style="list-style-type: none"> <li>• Development vested by RCW 19.26.095, 58.17.033, 58.17.170.</li> <li>• Development that creates no added impact on public facilities.</li> <li>• Expansions of existing development that were disclosed and tested for concurrency as part of the original application.</li> </ul>
<b>CF Goal 5</b>	<b>Make the Capital Facilities Plan consistent with other city, county, regional and state adopted plans.</b>
CF-5.1	Reassess the City of DuPont’s Comprehensive Plan annually to ensure that capital facilities needs, financing and level of service are consistent, and that the plan is internally consistent.
<b>CF Goal 6</b>	<b>To ensure that needed public facilities and improvements will be provided in a manner that is proportional with the development of the City</b>
CF-6.1	Work with the school district to coordinate the development of new schools to coincide with the growth of the City's population.
CF-6.2	Identify appropriate sites for construction of schools to meet the needs of the school age population
CF-6.3	Ensure that plans consider the best available lifecycle cost of an improvement, including operation and maintenance costs, environmental economic and social impacts, and any replacement or closure costs.
CF-6.3	Public facilities shall be located to protect natural areas.
CF-6.4	To allow for the appropriate siting of essential public capital facilities of a state-wide or countywide nature.
CF-6.5	Essential Public Facilities should be equitably located throughout the City, County and State due to their potential impacts. No jurisdiction should absorb a disproportionate share of Essential Public Facilities.
CF-6.6	Allow new development only when and where such development can be adequately served by essential public utilities without reducing levels of service for existing users below acceptable levels.

CF-6.7	Require the location Encourage additions to and improvements of utility facilities in conduits, shared corridors and trenches to reduce costs, minimize the amount of land allocated for this purpose, and to minimize construction disturbances.
CF-6.8	Minimize adverse environmental, aesthetic, and fiscal impacts associated with the siting, development, and operation of utility services and facilities
CF-6.9	Require any annexations to connect with City of DuPont utilities.
CF-6.10	Design the size of new water utility systems to the anticipated future requirements of the area's land use.
CF-6.11	Design new water systems to allow for their extension into potential future service areas.
CF-6.12	Coordinate with Pierce County to provide an efficient and adequate sanitary sewerage service to the residents and businesses of the City in order to maintain adequate water quality.
CF-6.13	Design the size of new sanitary sewerage systems to the anticipated future requirements of the area's planned land use.
CF-6.14	Design new sanitary sewerage systems to allow for their extension into potential future service areas.
CF-6.15	Siting Essential Public Facility proposals shall be made in accordance with the DuPont Municipal Code and Countywide Planning Policies
CF-6.16	Preserve and enhance water quality by providing adequate sewerage systems adjacent to waterways and wetland areas.
CF-6.17	Limit the development of new pump stations.
CF-6.18	New construction should be designed so that peak storm water discharge is no greater than the discharge was prior to any previous or supposed development
CF-6.19	Design and install utilities with sufficient capacity to meet anticipated land use intensity.
<b>CF Goal 7</b>	<b>Provide a variety of responses to the demands of growth on capital facilities.</b>
CF-7.1	Make the most efficient use of existing public facilities, including such techniques as: <ul style="list-style-type: none"> <li>• conversation;</li> <li>• demand management;</li> <li>• improved scheduling;</li> <li>• encourage development that uses existing facilities;</li> <li>• other methods of improved efficiency.</li> </ul>
CF-7.2	Provide additional public facility capacity when existing facilities are used to their maximum level of efficiency (consistent with adopted standards for levels of service).
CF-7.3	Provide conservation and demand management programs that reduce the demand on public facilities.

CF-7.4	Encourage development where adequate public facilities and services exist or can be provided in an efficient manner.
CF-7.5	If responses are insufficient to meet the demands of growth while preserving the level of service of public facilities, restrict the amount and/or direct the location of new development where necessary.
CF-7.6	Provide needed public facilities that are within the ability of the City to fund or within the City's authority to require others to provide.
CF-7.7	Base the financing plan for capital facilities on realistic estimates of current local revenues and external revenues that are reasonably anticipated to be received by the City
CF-7.8	Finance the six-year Capital Facilities Plan within the City's financial capacity to achieve a balance between available revenue and needed capital facilities and utilities. If the projected funding is inadequate to finance needed capital facilities and utilities based on adopted level of service standards and forecasted growth, the City could do one or more of the following: <ul style="list-style-type: none"> <li>• Lower the level of service standard;</li> <li>• Change the Land Use Element;</li> <li>• Increase the amount of revenue from existing sources and/or</li> <li>• Adopt new sources of revenue.</li> </ul>
CF-7.9	Ensure that existing development pays for capital improvements that reduce or eliminate existing deficiencies, and pays for some or all of the cost to replace obsolete or worn out facilities. Existing development may also pay a portion of the cost of capital improvements needed by future development. Existing development's payments may take the form of user fees, charges for services, special assessments and taxes.
CF-7.10	Ensure that future development pays a proportionate share of the cost of new facilities which it requires. Future development may also pay a portion of the cost to replace obsolete or worn-out facilities, but impact fees will not be used to pay for such costs. Future development's payments may take the form of voluntary contributions for the benefit of any public facility, impact fees (Fire and Rescue facilities not part of a fire district, parks, open space, and recreational facilities, Streets, and schools), mitigation payments, capacity fees, dedications of land, provision of public facilities, and future payments of users fees, charges for services, special assessments and taxes.
CF-7.11	Match revenue sources to capital projects on the basis of sound fiscal policies.
CF-7.12	In the event that revenues needed for concurrency are not received from other sources the City will arrange for financial commitments from sources under its control (i.e., councilmanic bonds).
CF-7.13	Revise the financing plan in the event that revenue sources for capital improvements which require voter approval in a local referendum are not approved.
CF-7.14	Ensure that the ongoing operating and maintenance costs of a capital facility are financially feasible prior to constructing the facility.

<b>Goal 8</b>	<b>Ensure the efficient and equitable siting of essential regional capital facilities through cooperative and coordinated planning with other jurisdictions within the region and through streamlining of the City of DuPont’s zoning permit process.</b>
CF-8.1	Develop criteria for the evaluation of siting proposals for countywide or statewide capital facilities. The criteria shall include efficiency and effectiveness of service delivery; environmental, societal, and economic impacts on the City of DuPont; regional needs; public input; geographic distribution of the facility; and site design.
CF-8.2	Provide early public notice and opportunity for public review of proposed location of essential regional public facilities.
<b>CF Goal 9</b>	<b>Engage in direct catalytic investments in property and infrastructure that take advantage of limited City resources to strategically invest in capital improvements for key business sites to preserve and enhance the visual quality of the City of DuPont.</b>
CF-9.1	Develop a civic center area to include a community center, and possibly a library and museum
CF-9.2	Remain “grant-ready,” ensuring maximum competitiveness by maintaining cash on-hand for grant match and leveraging, maintaining partnerships with service providers to enhance “in-kind” and regional participation, keeping capital facilities plans current, building local support for public investment, and ensuring that local economic development, parks and recreation, transportation, and capital facilities plans are consistent.
CF-9.3	Coordinate with the Property Owners Association and Commercial Owners Association to ensure sustained, cost-effective maintenance of public open spaces.
CF-9.4	Develop revenue sources that will ensure continued maintenance of the community’s landscaped streets and trails
CF-9.5	Increase the level of communications and community conversation of civic issues.
CF-9.6	Work with major landowners and developers to project future capital improvements to be proposed over the next six years
CF-9.7	Encourage public amenities and facilities which serve as catalysts for beneficial development.
CF-9.8	Maintain public spaces and enhance their appearance.
CF-9.9	Preserve existing significant natural vegetation and features in the development of public facilities.
CF-9.10	To facilitate the development and maintenance of all utilities at levels that ensure adequacy to meet DuPont's projected population and employment growth.

CF-9.11

To ensure provision of reliable utility services in a manner that balances the public concerns over safety and health impacts of utility systems; consumers' interest in paying no more than a reasonable price for utilities' products and services; DuPont's natural environment and the impacts that utility development may have on it; and the community's desire that utility projects be aesthetically compatible with surrounding land uses.

### Implementation Action

The following action implements the policies identified above.

	<b>Implementation Action</b>
CFA-1	Consider the implementation of impact fees for residential and commercial development so that new development also contributes to the increased park system infrastructure needs

# Appendices

Appendix A – Stormwater Comprehensive Plan Map

Appendix B – Water System Comprehensive Plan Map
























Appendix C – Economic Development Report

Appendix D – Parks, Recreation, and Open Space Plan (to be added prior to adoption)

# Appendix A – Stormwater Comprehensive Plan Map



# Storm Legend


-  CIP Areas
- Public Catch Basins**
  -  CB TYPE 1
  -  CB TYPE 2
  -  CB TYPE 2 W/OWS
  -  CLEANOUT
  -  DRY WELL
  -  INLET
  -  OUTLET
  -  STORM OUTFALL
- Private Catch Basins**
  -  CB TYPE 1
  -  CB TYPE 2
  -  CB TYPE 1 W/OWS
  -  CB TYPE 2 W/OWS
  -  CLEANOUT
  -  INLET
  -  OUTLET
  -  STORM OUTFALL
- Public Storm Lines**
  -  Pipe
  -  Ditch
- Private Storm Lines**
  -  Pipe
  -  Ditch
-  Public Stormwater Facility
-  Private Stormwater Facility

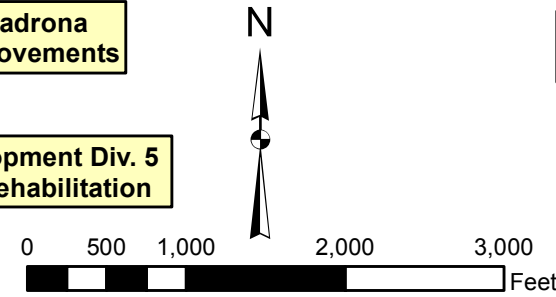
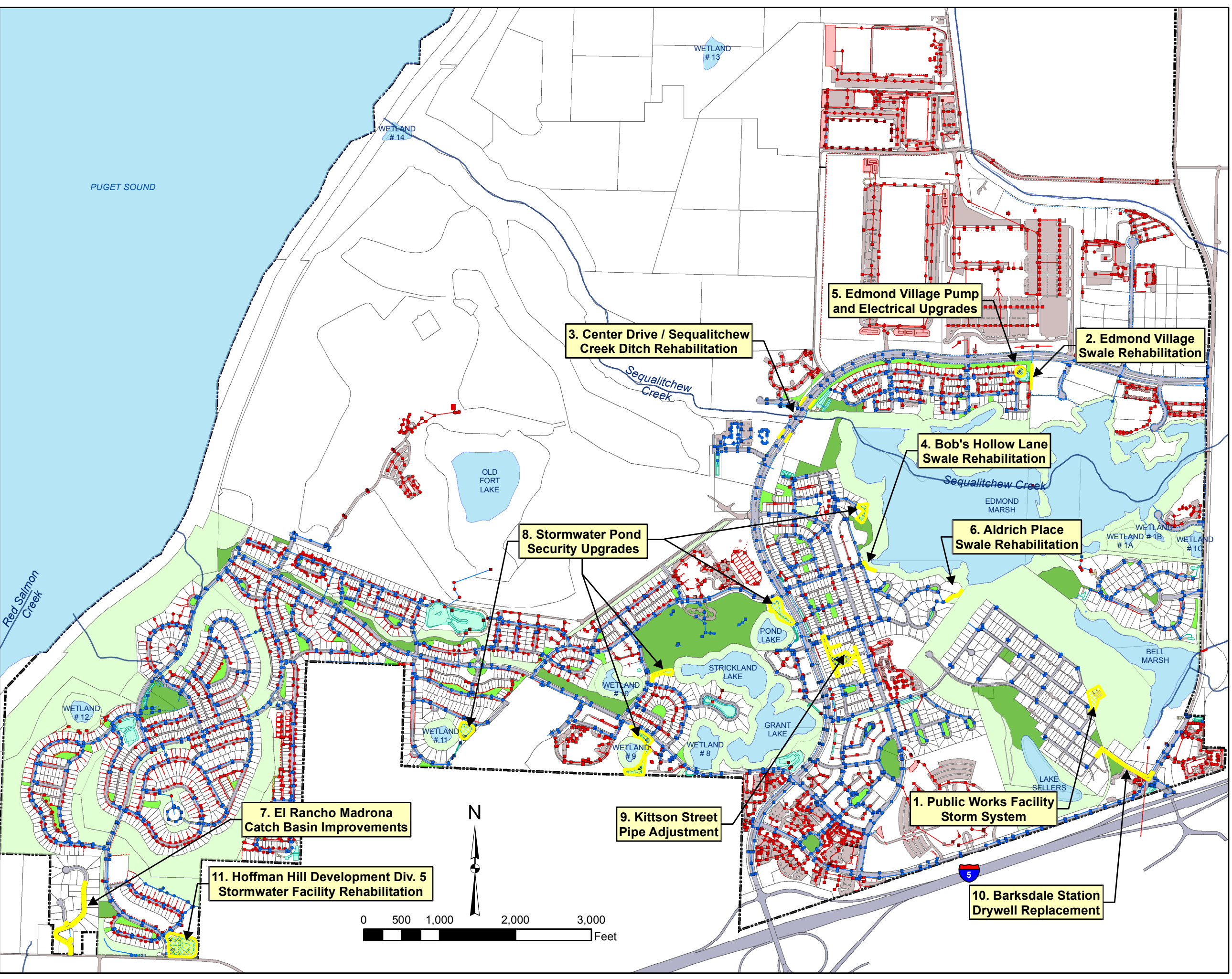
# Land Use Legend

-  Waterways
-  Water Bodies
-  Facility Road
-  Private Road
-  Public Road
- Parks**
  -  City Park
  -  Neighborhood Green
  -  Open Space, Sensitive Areas, Buffer

**CITY OF DuPONT**

STORMWATER COMPREHENSIVE PLAN  
FIGURE 8-1  
CIP AREAS















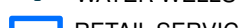


# **Appendix B – Water System Comprehensive Plan Map**

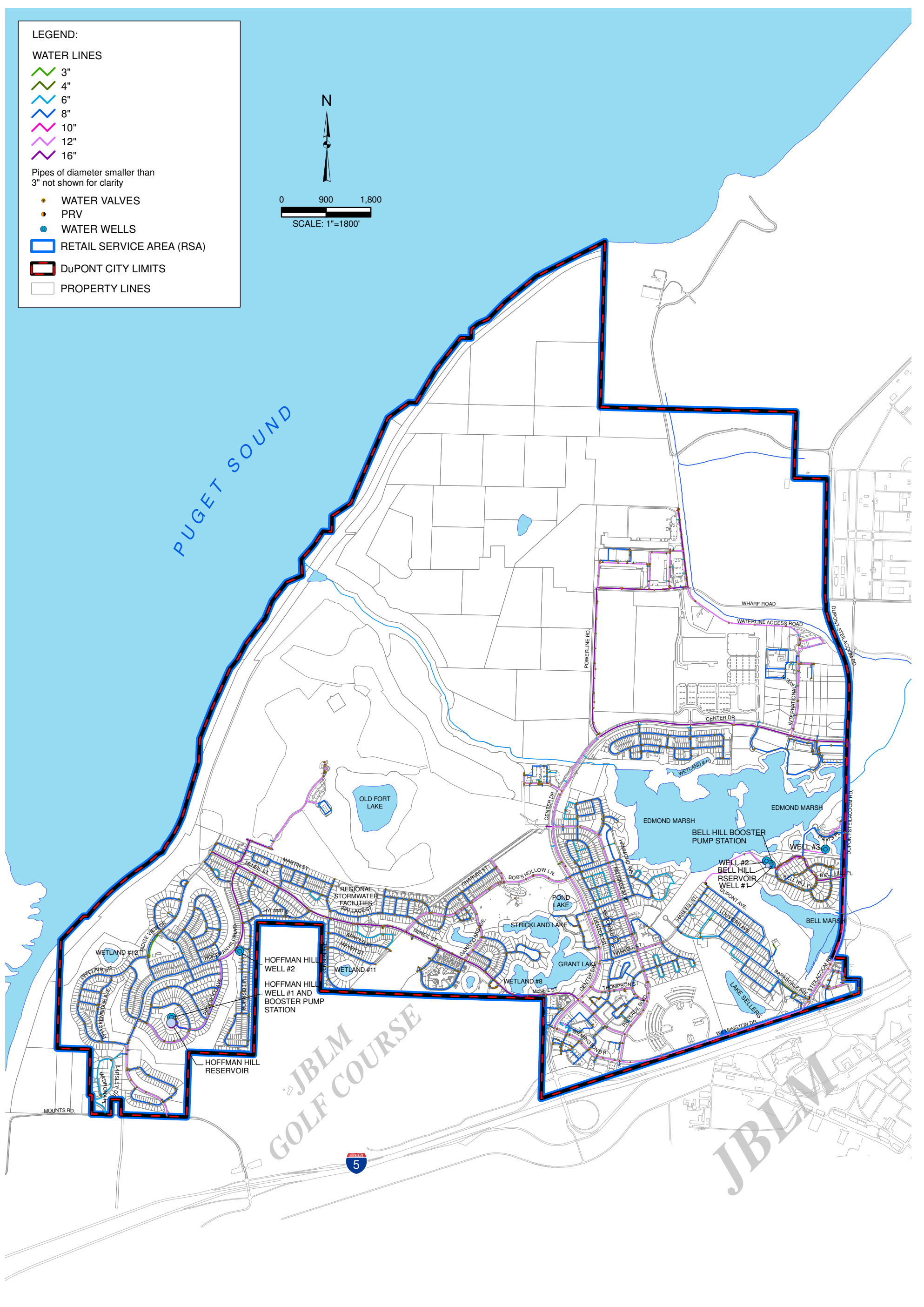
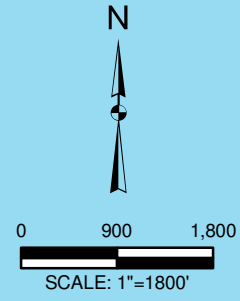
**LEGEND:**

**WATER LINES**

-  3"
-  4"
-  6"
-  8"
-  10"
-  12"
-  16"

Pipes of diameter smaller than 3" not shown for clarity

-  WATER VALVES
-  PRV
-  WATER WELLS
-  RETAIL SERVICE AREA (RSA)
-  DuPONT CITY LIMITS
-  PROPERTY LINES



# Appendix C – Economic Development Report

# Appendix C

## ECONOMIC DEVELOPMENT ASSESSMENT

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*EXISTING CONDITIONS, ISSUES & POTENTIAL FUTURE OPPORTUNITIES*

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## Executive Summary

This section summarizes the past, current, and future conditions and trends in DuPont, WA and the surrounding region.

The section looks at four key areas (economics, demographics, land use, and revenues) to analyze economic development conditions in the DuPont. A fifth and final section includes key takeaways from stakeholder interviews with brokers and employers.

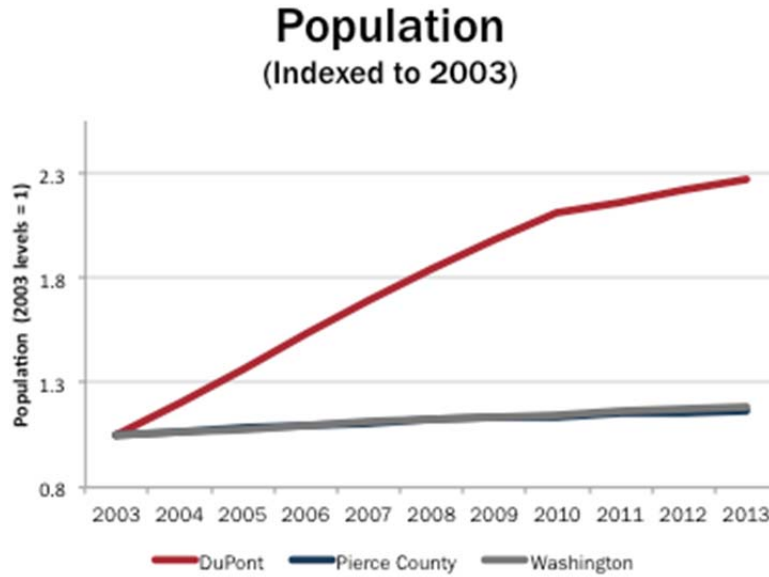
Below is a summary of key findings.

- The population of DuPont has grown remarkably in the past decade, propelled by the Pentagon's base consolidation and growth of JBLM. Military personnel comprise a larger portion of DuPont's residential population relative to ten years ago – and the highest portion of any non-military base jurisdiction in Washington. Accordingly, the number of housing units has grown, particularly single-family residential. The demographic and economic future of DuPont is yoked to JBLM.
- The age profile of DuPont residents is very different from Pierce County. Residents are more likely to have very young children and be in their 20s, 30s, and early 40s. They are also more educated than Pierce County residents. This age group will likely become more political engaged and active as their children further enter the K12 school system.
- The Regional economy shapes DuPont's in many ways. Transportation and Warehousing activity is growing increasing in DuPont and in Pierce County, though it is creating transportation and congestion challenges. This comes at a time when I-5 traffic and local traffic are accommodating impacts of increased JBLM activity. However, the lack of regional strength in professional, scientific, and technical services will mean filling the recently vacated Intel facility with a similar user will be a challenge.
- Taxable sales have jumped up in the past year, but sales in DuPont are driven heavily by construction activity of recent facilities. These revenues represent a one-time bump and are difficult to sustain over the long-term.
- Vacant developable land is running out in DuPont. Most areas with large amounts of development potential have important competing uses or lack significant infrastructure.
- Rapid community growth has shifted the makeup of the City's finances, particularly as development slows and maintenance and service needs grow. This presents City residents will several choices about what kind of community and city government they would like over the next decade.

## Demographics

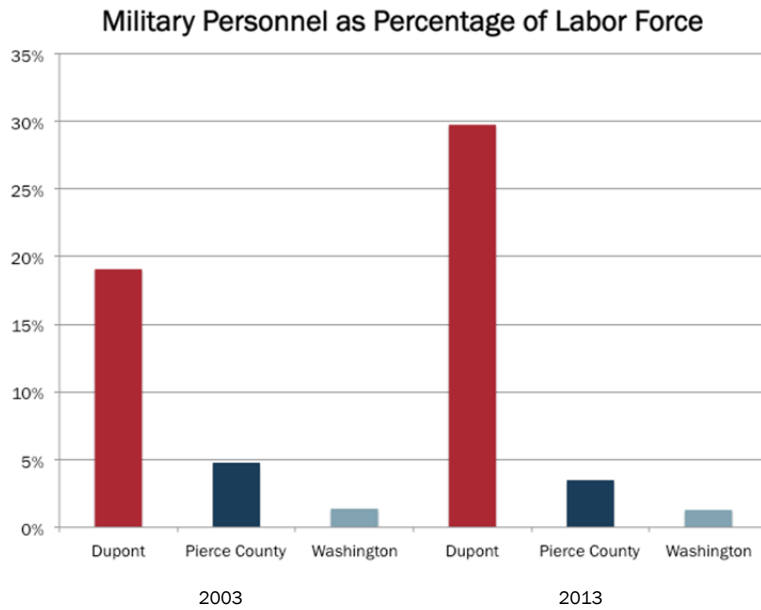
The following section assesses the characteristics of the region's changing demographics with particular emphasis on how the Study Area has evolved over time.

**Key Take-Away: The population of DuPont has grown rapidly in the past 15 years**



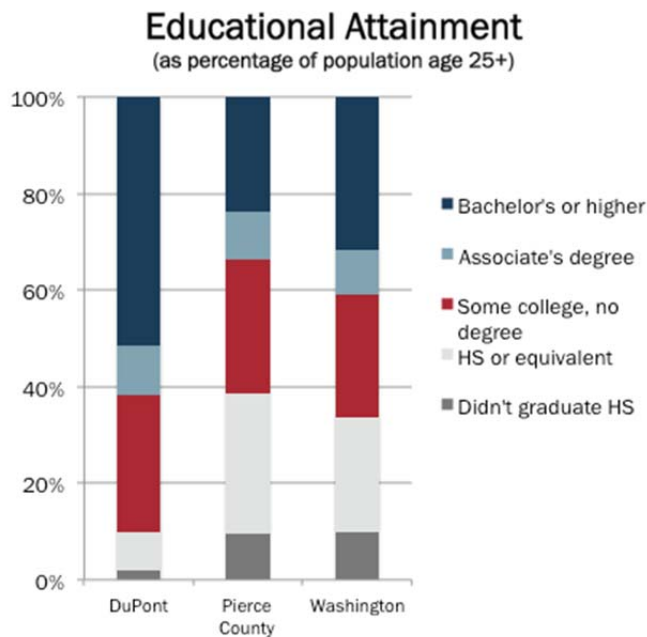
- Growth at this rate can pose major challenges for cities, particularly small cities. DuPont's population has essentially doubled in the past decade, which has meant infrastructure expansion and new development. As this slows, DuPont will enter a period of rebalancing and maintenance.

*Key Take-Away: Military Personnel have grown as a percentage of the population and are much more concentrated in the city relative the county or the state.*



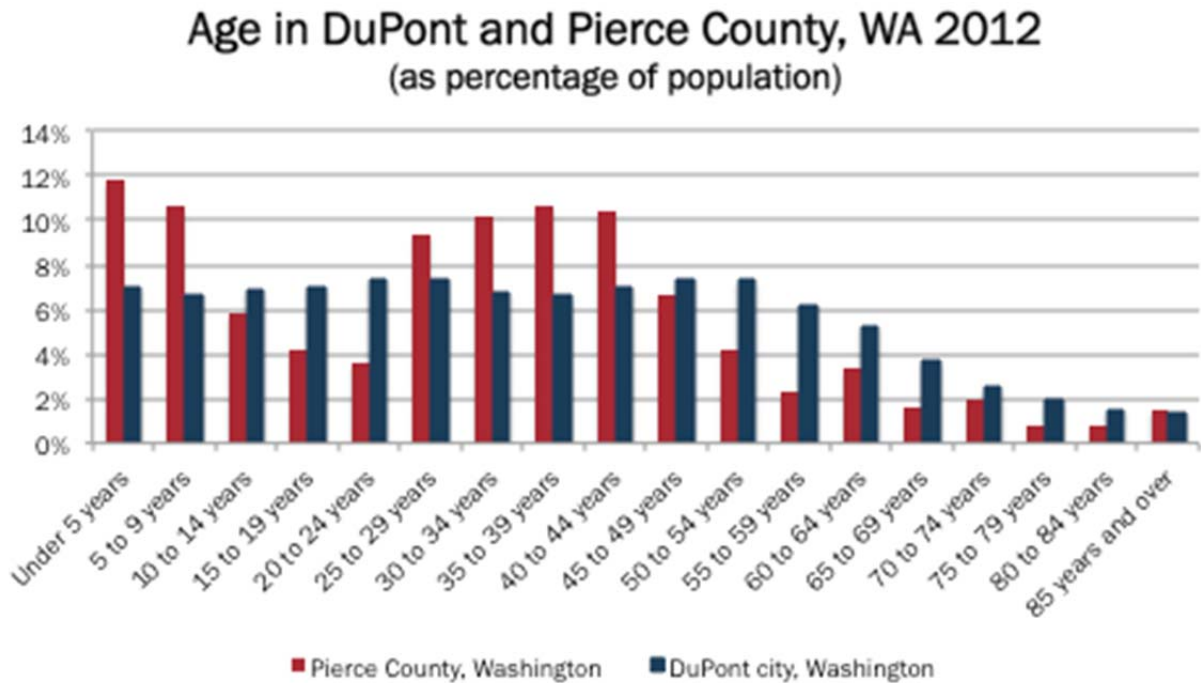
- Pentagon’s base realignment and consolidation brought many military personnel to JBLM. DuPont’s natural amenities – and unrivalled proximity – made it an attractive community for military and their families.

*Key Take-Away: DuPont Residents are on average more educated than Pierce County and WA residents.*



- DuPont is a beautiful city in the Sound, with many quiet streets, proximity to golf courses, and connectivity via I-5. It will naturally attract a wealthy – and more well educated - population.
- This also reflects the advanced military activities that occur at JBLM, including many management

*Key Take-Away: DuPont residents are more likely to be of family-oriented age than Pierce County and WA residents.*



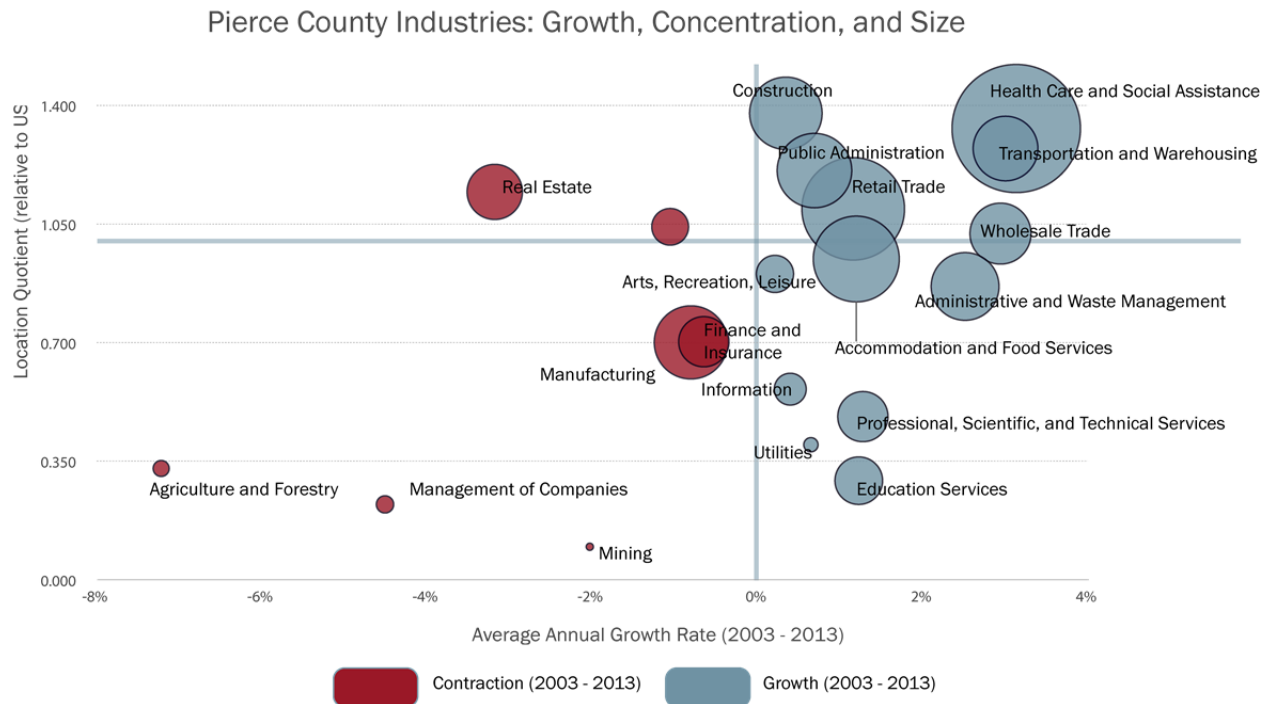
- As mentioned above, DuPont is a beautiful city, and it attracts a young professional, family-oriented population. The median age of DuPont (35.7) is slightly below that of Pierce County and Washington (37.2).
- A population of this age group – and this level of education – is likely going to advance in their careers and be more involved in community and political issues. The youth in DuPont are mostly under 9 – in ten years, they will all be in the K-12 school system.

## Economic Activity

This section discusses key economic trends that impact DuPont.

### Driving Regional Industries

The Pierce County economy has undergone significant change over the past ten years, and given rates of growth and decline, is still experiencing transition. The bubble graph below shows the key industry sectors in the Pierce County – in which 80% of residents work.



**Key Take-Away: Healthcare and Social Assistance is of the County's largest, fastest growing, and second-most concentrated sector in the County.**

- With an aging population, growth in this sector is expected. Median wages (\$46,600) are slightly above median wages in the region (\$44,542). Education and Health Care employ almost one-third of DuPont's labor force, which is encouraging for long-term employment stability.

**Key Take-Away: Transportation and Warehousing is concentrated and growing, though it's unclear how much additional expansion can take place.**

- Transportation and Warehousing is also concentrated and growing in the region, reflecting a recovering economy, the rise of online commerce, well-connected transportation infrastructure, and regional land-use patterns. Growth in Pierce County is expected to continue.
- The Amazon distribution center is only the most recent footprint this sector has left on DuPont. However, location of these centers is highly dependent on land use and transportation connectivity.

***Key Take-Away: Public Administration is one of the region’s largest, most concentrated, and highly paid sectors.***

- Public Administration can be a stable sector, but looming retirements and fiscal uncertain make the outlook in this sector less certain. Government is expected to shrink as a share of the total employment base. 21.5% of DuPont residents work in Public Administration.

***Key Take-Away: Professional, scientific, and technical services are not concentrated in the region.***

- Employment in professional, scientific, and technical (PSTS) services have been growing and are anticipated to keep growing, but this sector is not concentrated in the region, indicating a lack of regional competitiveness. Employment is less than 10% of the size of King County’s PSTS sector, whose growth is expected to outpace Pierce County’s. Intel’s R&D facility was special feature of DuPont’s industry portfolio, but R&D is not one of the region’s economic strengths.

***Key Take-Away: Construction is concentrated and slated to grow, which is good for mine activity in DuPont.***

- Construction is the county’s most concentrated sectors, and while average growth has been sluggish over the past decade, growth over the next is expected to increase remarkably. DuPont’s gravel pit plays a critical role in development projects and construction activity in the region. A positive outlook in this sector is a positive outlook for

***Key Take-Away: Military activity is central to DuPont and the region.***

Location Quotient of Military Personnel	
Pierce County	6.25
King County	0.5
Snohomish County	1.75

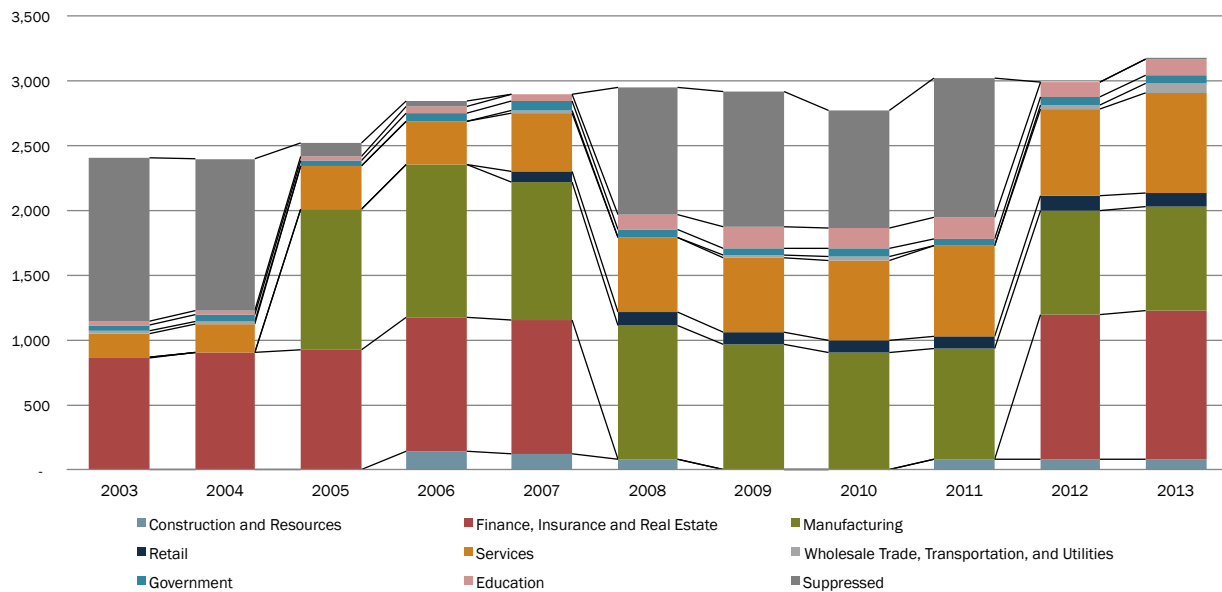
- Military activity also plays a major role in the Puget Sound economy. Puget Sound Regional Council identifies military as one of its regional clusters. Joint-Base Lewis McCord (JBLM) is the anchor of this activity and houses both Air Force and Army resources. The supply chain of the military bases includes manufacturing and transportation.
- Military presence has grown faster in Pierce County relative to the state of WA and much faster in DuPont. Military personnel have grown as a portion of DuPont’s workforce over the past twelve years, and today, constitute a much higher percentage relative to the County. In 2005, the Pentagon implemented the Base Realignment and Closure (BRAC), consolidating military facilities across the United States. JBLM became one of the recipients of relocated military resources, contributing to rapid growth in military personnel and contractors. Pierce County received many of these people and DuPont was at the center.

## Local Employment Conditions

This section assesses DuPont’s local employment data. Below is a summary of key findings.

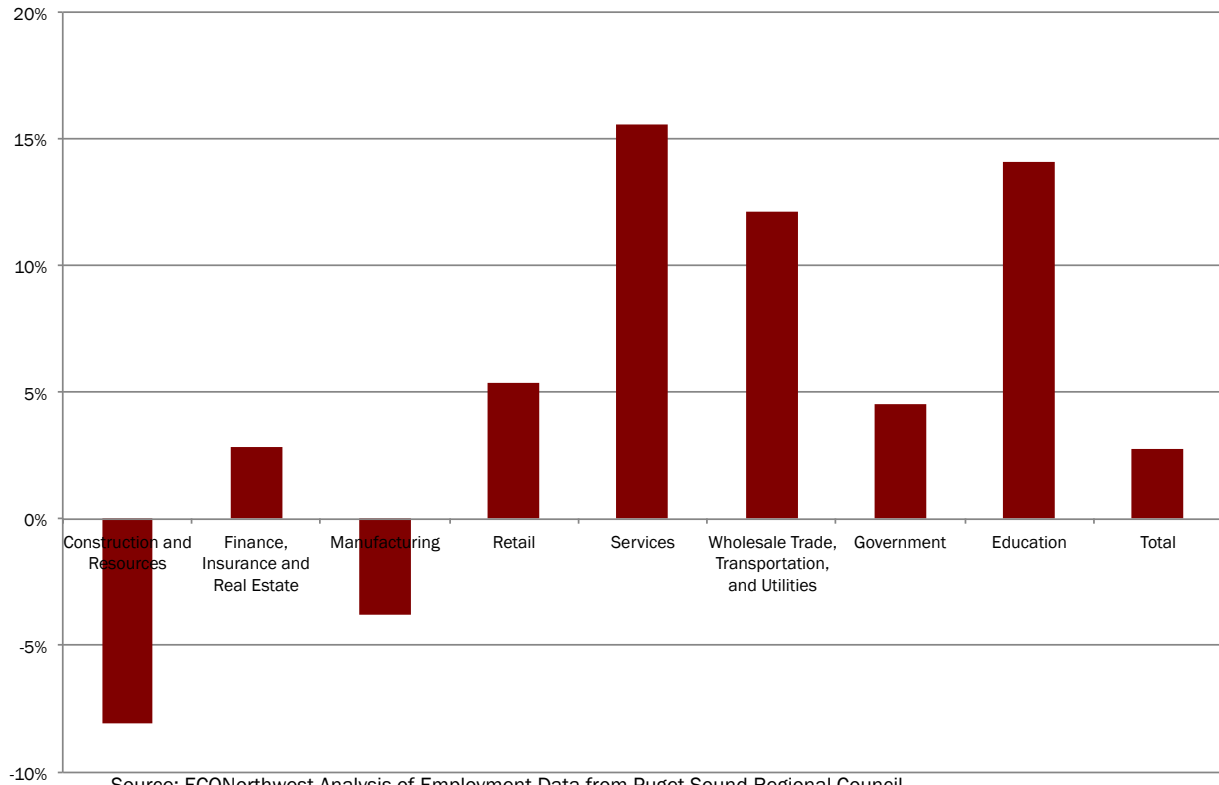
- Finance, Insurance, and Real Estate is the City’s largest sector, and has comprised approximately 35% of employment for the past decade. Overall employment in DuPont has grown by 32% over the past decade at an average annual rate of 3%. This rate is much higher than economic growth throughout the Puget Sound Region (12% overall, 1% average annual), but it is also less than the City’s population growth (122% overall, 8% average annual).
- Employment in Services, once just 8% of the City’s employment, has grown to become 24% of employment in DuPont.
- Employment in Manufacturing, once almost 40% of the City’s employment, has shrunk at an average annual rate of 4% and in 2013, was 25% of the City’s employment.
- Employment in Trade, Transportation, and Utilities have grown over the past decade but the sector still comprises just 2% of employment in the City.
- Employment in Education has grown, likely to address to additional educational needs of DuPont’s growing population.

**Employment in DuPont, WA**  
(2003 - 2013)



Source: ECONorthwest Analysis of Employment Data from Puget Sound Regional Council

## Average Annual Growth Rate of Employment in DuPont, WA By sector (2003 - 2013)\*

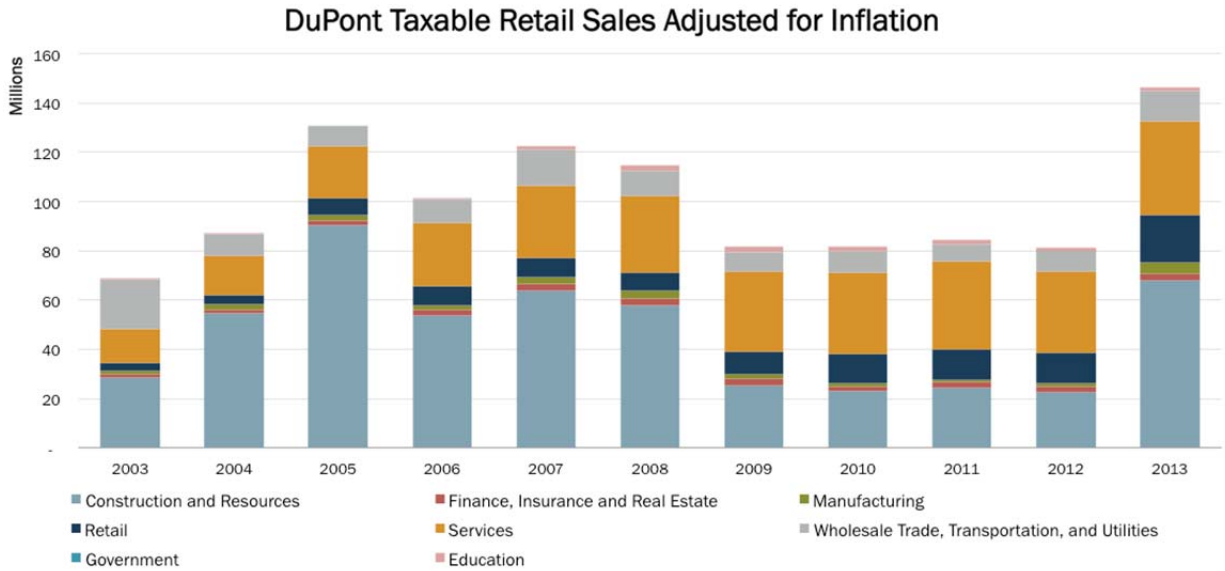


Source: ECONorthwest Analysis of Employment Data from Puget Sound Regional Council.  
\*For some sectors, rate is calculated as far back as data allow.



## Taxable Sales

*Key Take-Away: Taxable Sales in DuPont – a key source of City revenue – are driven heavily by construction activity.*



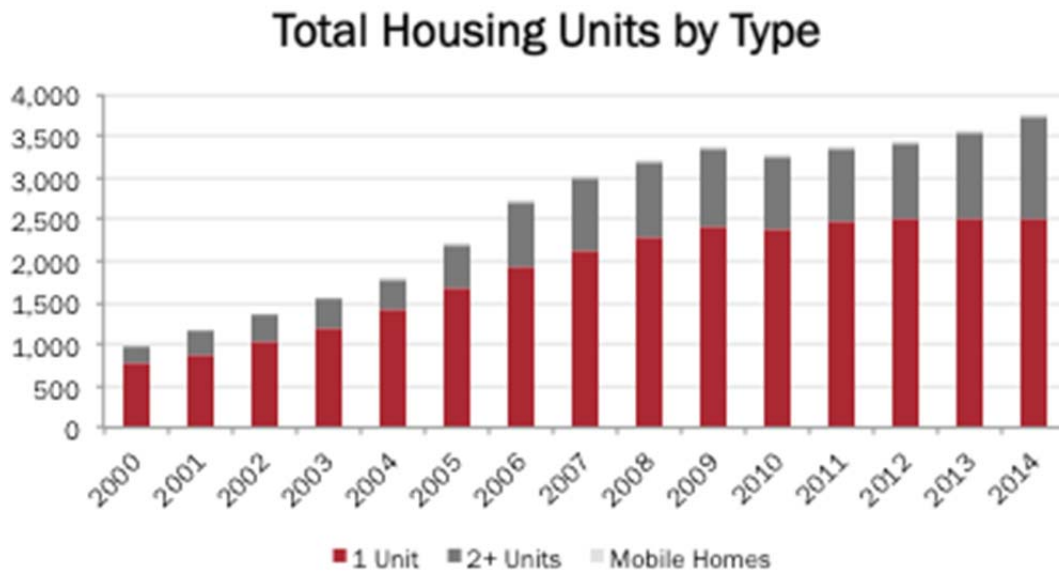
- Reliance on construction activity is a fiscal vulnerability for the City if it runs out of places to grow. Sales for retail and services have grown steadily at an average annual rate of 18% and 10%, respectively. This is less growth than population but nonetheless reflects increased commercial activity over the past decade.

## Land Use and Development

This section discusses key land use and development patterns in DuPont.

### Housing

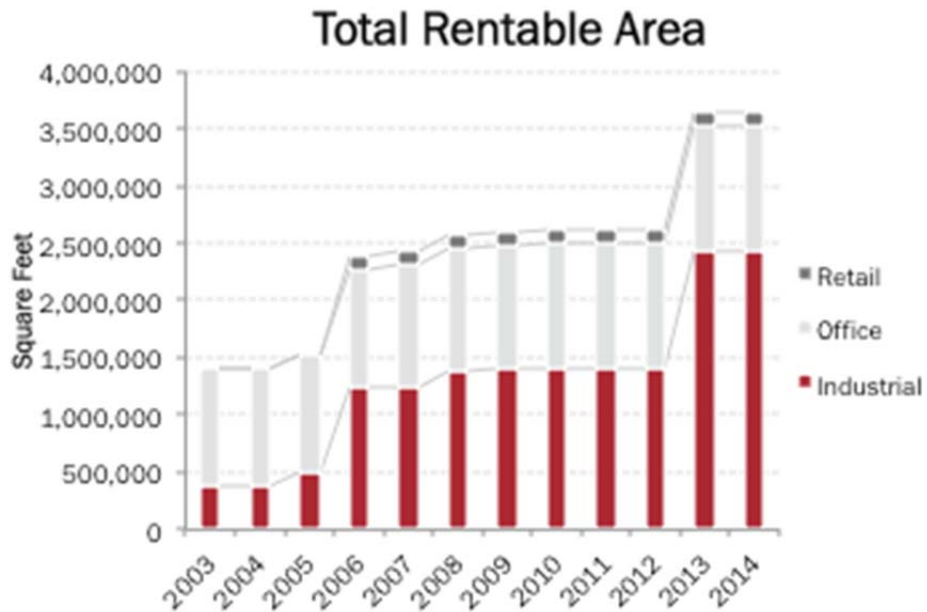
*Key Take-Away: The number of housing units has increased immensely in the past decade, though recent growth has been in multi-family housing.*



- This growth is unsurprising, given population growth in the past decade.
- Growth in single-unit housing has been flat since 2009, and most gains in capacity have been in some form of multi-family housing. The mixed-use centers on Wilmington Drive and near the downtown area have added to the mix of housing. Shortage of available land, discussed below, will likely mean more densification in DuPont.

## Rentable Area

*Key Take-Away: Development over the past decade has vastly increased total rentable capacity in the DuPont and most of it today is in industrial use.*



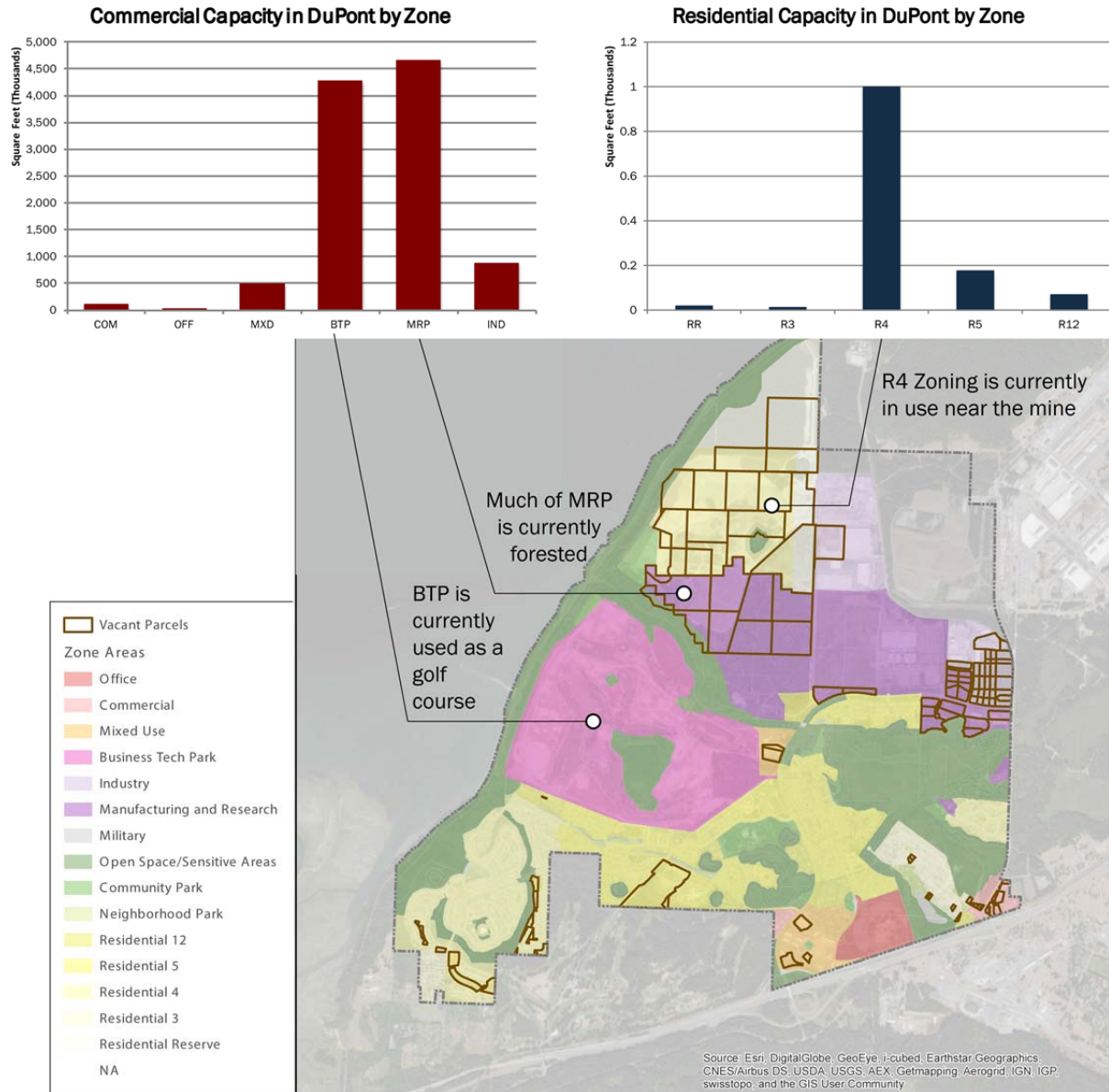
## Capacity

*Key Take-Away: DuPont is running out of easy places for residential or commercial expansion. In addition, DuPont is running out of residential capacity.*

The Pierce County Buildable Lands inventory indicates DuPont has over 10 million total square feet of capacity, but the vast majority is contained in two zones – both of which either lack suitable infrastructure or having competing uses.

The Pierce County Buildable Lands inventory indicates DuPont has 1,285 total unit capacity in the City, but almost all is contained in R4 zoning, which currently competes with the gravel pit for a current use.

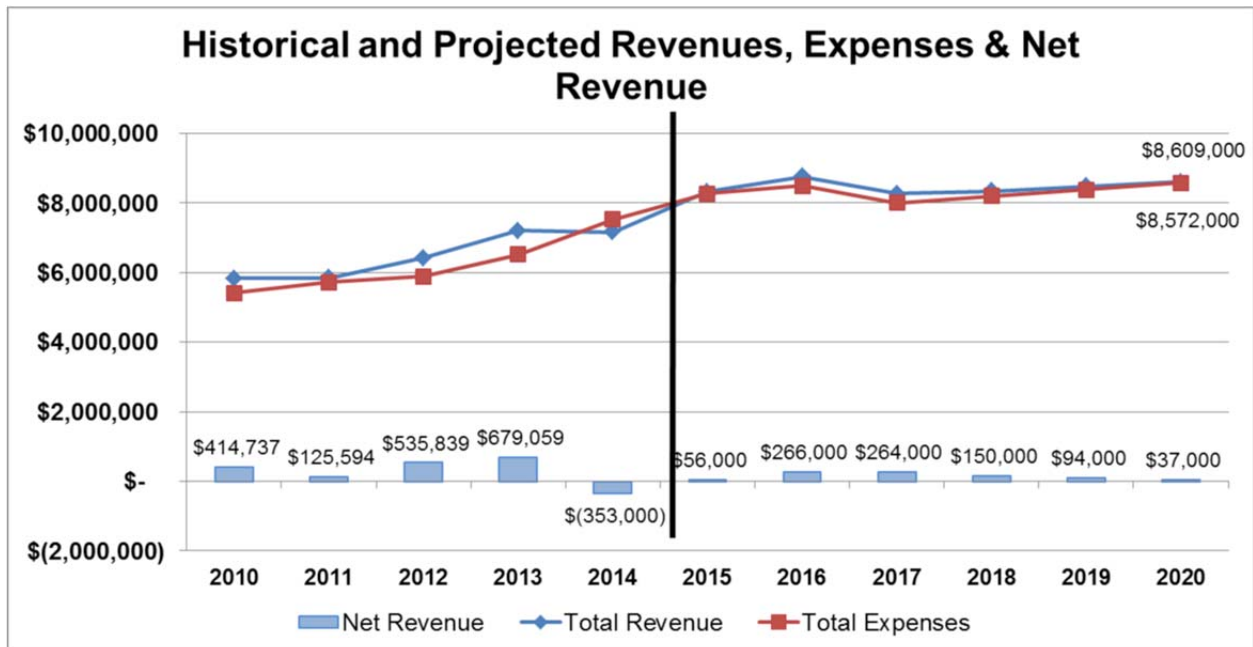
## Development Capacity in DuPont, WA



## City Fiscal Position

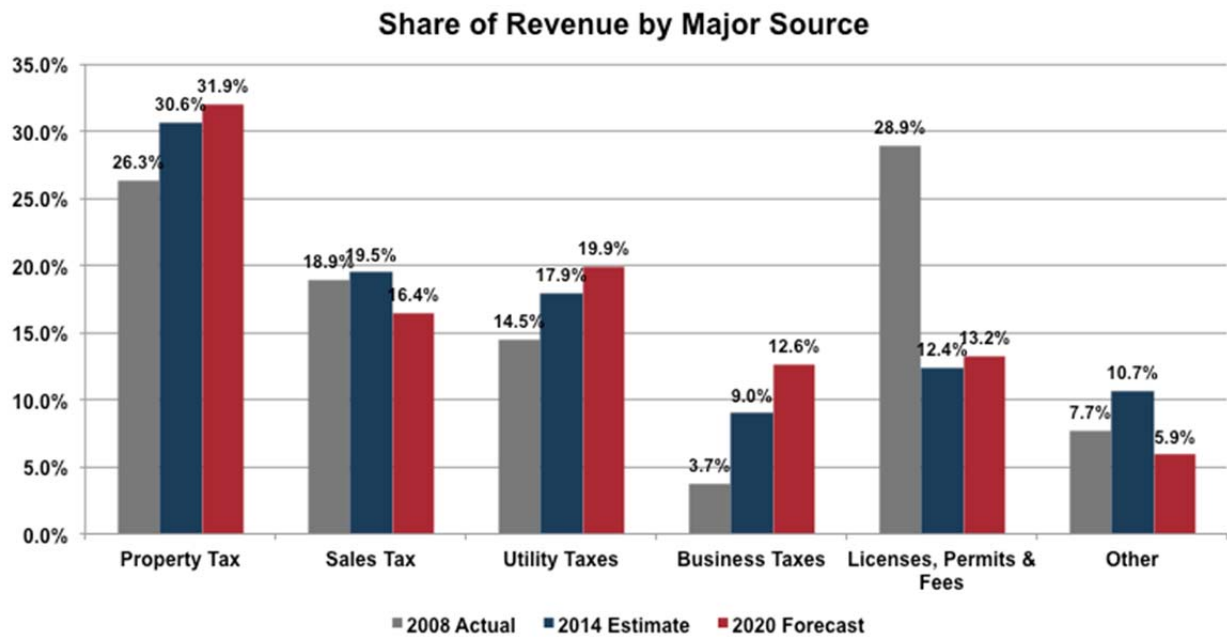
This section looks at DuPont’s fiscal health.

*Key Take-Away: DuPont’s fiscal position is projected to stabilize, with expenses slowly closing on revenues.*



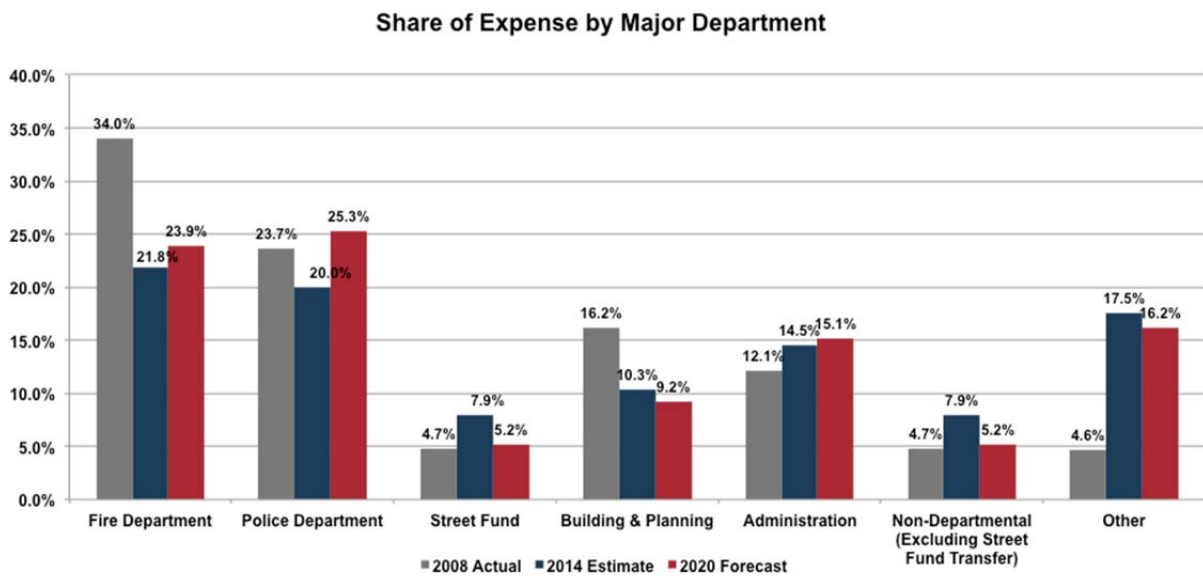
- Stabilizing finances and a small growing fiscal gap over the next half decade reflects a city in transition. Development activity before the Recession and during the recovery period after it brought an influx of resources and people. Growth-related construction generally brings one-time influxes of sales taxes and permit fees, while the actual growth in population and business residency brings more slowly growing service demands.
- The rate at which expenses are catching up to revenues is a sign of concern about whether revenues can keep up with rising demands for City expenditures and how the City can adjust its costs and income sources to sustain balance.

*Key Take-Away: Slowing development patterns and trends are helping shift reliance on revenues toward residents.*



- Development activity in DuPont over the past decade had brought in a steady source of revenue in the form of constructions sales taxes, permits, and fees, but as constructions slows, these will become a smaller portion of revenue. While retail sales taxes have risen and will continue to rise, they will not offset the drop from slowing development activity. Instead, revenues are shifting to property taxes, business taxes, and utility taxes. In many ways, this is intuitive. The past decade saw immense investment in property, and going forward, these investments will yield a return. Similarly, investments in infrastructure to serve all the new residents will also need higher revenues for maintenance.
- The shifting sources of revenue will place residents – people and businesses – as the primary sources of revenue.

*Key Take-Away: DuPont expenses have also shifted to a more diverse set of services, reflecting a growing population and growing complexity of service demand.*



- Non-department funding primarily includes transfers to utility services, and in particular, the capital projects fund. This reflects the growing need for infrastructure maintenance, which typically is not funded by development activity even if the market and land capacity supported it in DuPont. The growing needs of the Street Fund further demonstrate this trend.
- Administration demands will also grow as the city matures. Finance, legal, HR – all support the functioning of a City that needs to serve twice as many residents as it did 10 years ago.
- Expenses on Building and Planning are slated to decline in tandem with slowing development activity.

## Key Data Sources

U.S. Census Bureau: American Community Survey, 2003 - 2013 American Community Survey 5-year Estimates.

U.S. Census Bureau: County Business Patterns, 2003 – 2013 County Business Patterns 2-digit Industry Size.

U.S. Census Bureau: U.S. Census, 2002 Census population estimates.

CoStar: CoStar Development Activity and Capacity; 2002 - 2012 Residential, Commercial, Industrial, and Retail, 2002 – 2012.

CoStar: CoStar Development Activity and Capacity; 2002 - 2012 Residential, Commercial, Industrial, and Retail, 2002 – 2012.

Pierce County: County Development Capacity, DuPont 2030 Development Capacity by Land Use.





# **Appendix D –2014 Parks, Recreation, and Opens Space Plan**

# CITY OF DUPONT

PIERCE COUNTY,

WASHINGTON



## Parks Master Plan

Adopted by Ordinance No. 14-965

May 2014

**CITY OF DuPONT  
WASHINGTON**

ORDINANCE NO.

14-965

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AN ORDINANCE OF THE CITY OF DuPONT,  
WASHINGTON, ADOPTING THE UPDATED PARKS,  
RECREATION AND OPEN SPACE PLAN; PROVIDING FOR  
SEVERABILITY; AND ESTABLISHING AN EFFECTIVE  
DATE

WHEREAS, the City Council desires to update the adopted Parks, Recreation and Open Space Plan; and

WHEREAS, the Parks Agency began a deliberative process to update the Parks, Recreation and Open Space Plan to incorporate construction data since 2007 and results of a community survey conducted February 2014.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF DuPONT, WASHINGTON, DO ORDAIN AS FOLLOWS:

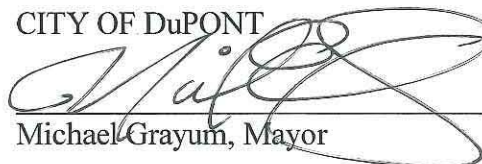
Section 1. Parks, Recreation and Open Space Plan Adopted. The City of DuPont hereby adopts the "Parks, Recreation and Open Space Plan" attached hereto as Exhibit "A" and by this reference fully incorporated herein.

Section 2. Severability. Should any section, paragraph, sentence, clause or phrase of this Ordinance, or its application to any person or circumstance, be declared unconstitutional or otherwise invalid for any reason, or should any portion of this Ordinance be pre-empted by state or federal law or regulation, such decision or pre-emption shall not affect the validity of the remaining portions of this Ordinance or its application to other persons or circumstances.

Section 3. Effective Date. This Ordinance shall be published in the official newspaper of the City, and shall take effect and be in full force five (5) days after the date of publication.

**ADOPTED BY THE CITY COUNCIL AT A REGULAR MEETING THEREOF ON THE 27 DAY OF May, 2014.**

CITY OF DuPONT



Michael Grayum, Mayor

ATTEST/AUTHENTICATED:

  
Erin Larson, City Clerk

Approved as to form:

  
John P. Long, Jr., City Attorney

Filed with the City Clerk: 6-3-14  
Passed by the City Council: 5-27-14  
Date of Publication: 6-3-14  
Effective Date: 6-8-14  
Ord. NO: 14-965

## EXECUTIVE SUMMARY

The City of DuPont developed its first Parks, Recreation and Open Space Plan to identify and prioritize parks and recreation improvements. Based on strong community involvement, DuPont’s Parks, Recreation and Open Space Plan presents a vision for a walkable and accessible recreation system that reflects community priorities, expands recreation opportunities, meets community needs, and incorporates the city’s unique cultural history and identity. This second Parks Master Plan for the city is intended to support and carry forward the efforts of the existing plan, while reflecting those parks and facilities that have been completed since its adoption. The plan establishes goals, objectives, recommendations, and actions for the ongoing development, preservation, and maintenance of parks, trails, facilities, and open space; as well as a financing strategy for the implementation of capital and non-capital facilities plan that will benefit the community. This plan serves as a framework to guide the city in updating its comprehensive plans and in developing its parks and recreation services and open spaces now and in the future. Updates will occur as needed.

## KEY FINDINGS ON NEEDS AND PRIORITIES

The City of DuPont has recently grown from a small, historic company town into a quickly developing community with large employers, strong connections to Joint Base Lewis-McChord and many new residents. With so many new members of the community, identifying residents’ needs was a critical part of this plan. The community participation efforts brought to light important data about DuPont residents and their recreation opinions and preferences.

***Demographic Findings***

- 51% of households have connections to the military.
- 57% have at least one child in the household.
- 36% of residents have been in DuPont for four years or more.

- Residents believe parks, recreation and open space are important to the quality of life in DuPont: 98% of respondents think that they are at least somewhat important, and nearly 75% indicated the highest level of importance.
- People highly value the walk ability and small town character of DuPont.
- DuPont residents are very active in a wide range of recreation activities, and on average are more active than residents of other communities. Residents would like additional active facilities for sports and exercise throughout the park system.
- People highly value trails and open space, and would like to see better access and connectivity.

## Executive Summary

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- A theme of all public input was the need for better and more accessible information about parks, trails, and natural resources.
- Overall, residents see the community's natural and historic resources as a major asset, and would like to see these highlighted in the park system.

## PLAN FRAMEWORK

The Parks, Recreation and Open Space Plan establishes a vision for providing park land, services, facilities and natural spaces in DuPont. From this vision the community has developed a series of goals and objectives that will guide the immediate projects needed to move toward this vision. All recommendations within the Plan contribute to implementation of the goals and objectives.

### *Guiding Vision*

*... a walkable, accessible, park and open space system that supports a wide variety of recreation experiences and opportunities, serves all age groups and abilities, and connects the community.*

## SUMMARY OF RECOMMENDATIONS

Plan recommendations are summarized in the tables on the following pages, including an indication of the implementation timeline. Short-term projects are those anticipated within the next five to six years, longer term projects are envisioned further in the future, and ongoing projects are those that the City should begin now and continue into the future. The recommendations for developed parks, recreation facilities, and natural areas and trails are organized into separate tables.





	TIMELINE		
	SHORT TERM	LONGER TERM	ONGOING
<b>DEVELOPED PARKS</b>			
Provide a developed park and a playground within ½ mile walking distance of each resident.			X
Provide access to active recreation opportunities within at least ½ mile walking distance of each resident.			X
Further development of the Wilkes Observatory and trail to 1833 Fort Site once Loop road is established		X	
Add a park at the Wilkes Observatory site and one on the north side of Sequatchew Creek to highlight unique cultural sites and improve community connections to Puget Sound.		X	
With the input of neighbors, provide improvements at most neighborhood parks: <ul style="list-style-type: none"> <li>▪ Tract I Park</li> <li>▪ PowderWorks Park</li> <li>▪ Edmond Village Park</li> <li>▪ Iafrati Park</li> <li>▪ Robinson Park</li> <li>▪ Ethel Lumsdon Park</li> </ul>			X
Develop new master plans for four sites: <ul style="list-style-type: none"> <li>▪ Chief Leschi, Ross Plaza &amp; Clock tower</li> <li>▪ Sellers Park</li> </ul>			X
Implement master plans as funding is available			X
Implement park identification signs and historical/cultural interpretive signs system wide.	X		X



Executive Summary

RECREATION FACILITIES	TIMELINE		
	SHORT TERM	LONGER TERM	ONGOING
At minimum, provide 1 softball/baseball field per 2,200 residents and 1 soccer field per 3,300 residents.		X	
Consider a sports complex and locate an appropriate site in the north end of the City.		X	
Obtain use of the former DuPont School fields from JBLM in order to rehabilitate the site.		X	
Evaluate the feasibility of artificial turf at DuPont PowderWorks Park and school sites.	x		
Improve existing outdoor basketball courts			X
Remodel or build new community center	X		
Add an off-leash dog area to the park system. Identify an appropriate centralized location.	x		
Provide at least one spraypad at a central location.	x		
Continue support to the community garden site.			X
Consider providing new recreation opportunities along the Puget Sound.	x		
Evaluate an indoor recreation center in 5 to 7 years, once the City has grown and the park system has matured.	x		



	TIMELINE		
	SHORT TERM	LONGER TERM	ONGOING
<b>NATURAL AREAS AND TRAILS</b>			
Secure formalized agreement for public access to the Puget Sound along the Sequelitchew Creek corridor.	x		x
Secure a natural area corridor above Puget Sound connecting from Tract I Park to the Sequelitchew Creek corridor and further to the north. Provide Puget Sound viewpoints and trail access through this corridor and switchback trail.		x	
Secure access to Old Fort Lake natural area.	x		
Develop a natural area management strategy so that resources are maintained and preserved.			x
Increase natural area interpretation throughout the City.			x
Upgrade existing trails.			x
Pursue a regional trail linkage to Nisqually Wildlife Preserve and to Steilacoom.		x	
Develop a trail signage plan and implement new signs throughout the system.			x
Provide formal trailhead facilities throughout the trail system. The highest priority formalized trailheads (including trail map kiosks) should be pursued at DuPont Museum, the Civic Center, and DuPont PowderWorks Park.			x
Provide viewpoints and overlooks along the trail system, with the highest priority viewpoints along Puget Sound, and overlooks of historic sites another high priority	x		



## MANAGING RECREATION SERVICES

This Plan provides guidance to help the City prepare for the changes caused by an increasing population and growing park system, and to meet the challenges of increased service demands. The services recommendations summarized on the next page are aimed at building capacity and improving the delivery of recreation services in DuPont.

Executive Summary \_\_\_\_\_

	TIMELINE		
	SHORT TERM	LONGER TERM	ONGOING
<b>MANAGEMENT AND OPERATIONS</b>			
Transition to a Parks Department or Division.	x		
Develop and implement a Neighborhood Park Improvement program that encourages donations from residents and involves neighbors in designing park improvements.	x		
Improve cost and revenue tracking for parks and recreation services.			x
Develop a maintenance management plan that addresses the full range of maintenance responsibilities, including sports fields and asset management/preservation. Support additional skills and training for staff.			x
Support partnerships with other agencies and organizations to increase recreation opportunities in DuPont. Partners include the Nisqually Tribe, Joint Base Lewis-McChord, YMCA, Boys/Girls Club the School District, and neighboring jurisdictions.			x
Coordinate with the Residential Owners Association and local businesses on funding or otherwise supporting parks, facilities, and recreation programs.			x
Explore a Metropolitan Park District.	x		
Implement Rental Fees.			x
Allocate REET funds (averaging \$75,000 annually) for park improvements.	x		
Seek grant funding, including allocating staff time or contracting with a professional.			x
Update the City's Capital Facilities Plan to include parks projects.			x
Allocate adequate budget for park maintenance to preserve DuPont's park assets.			x
Update the PROS Plan every six years.			x

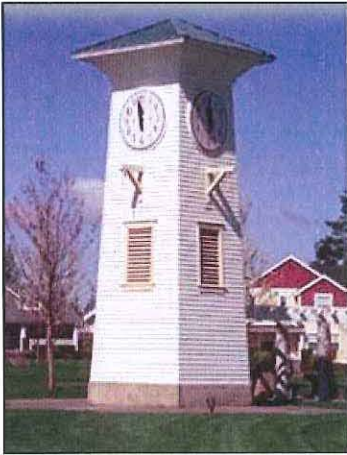


## IMPLEMENTATION

All projects recommended in the Parks, Recreation and Open Space Plan assist in meeting Plan goals and objectives. However, not all of these projects can be implemented immediately, given the City's limited funding resources. For this reason, the following criteria were developed to include, prioritize and schedule projects in the City's Capital Facilities Plan:

- *Maintenance efficiency.* These are projects that will reduce maintenance costs and improve efficiency.
- *Availability of alternative funding resources or partnerships.* Projects that have potential for other types of funding, such as grants, donations, or partner contributions, should receive higher priority than projects without other funding opportunities.
- *Availability of other resources.* There is adequate staffing and financial resources to support maintenance and operations of the project.
- *Addresses service deficiencies.* These projects address service deficiencies, such as gaps in active recreation opportunities or needed natural area links.
- *Equitable distribution of neighborhood improvement projects.* Consideration should be given to ensure that neighborhood improvement projects are distributed equitably throughout the city.

These criteria should be used to update the Capital Facilities Plan periodically.



## INTRODUCTION

In January 2006, the City of DuPont, Washington, began developing a community-supported plan for the provision of high quality parks, recreation facilities, and natural areas within the city. That first Parks, Recreation and Open Space Plan created a vision for a walkable and accessible recreation system that reflects community priorities, expands recreation opportunities, meets community needs, and incorporates the city's unique cultural history and identity. As an update to the recreation plan for the City of DuPont, this Plan establishes specific goals, objectives, recommendations, and actions for developing, preserving, and maintaining parks, trails, facilities, and open space. In addition, the Plan recommends a financing strategy for the implementation of capital and non-capital projects that will benefit the community.

### 1.1 PLANNING CONTEXT

The City of DuPont is located in Pierce County, about ten miles south of Tacoma, along the Interstate 5 corridor. DuPont is situated between West Coast installation, and the Puget Sound. The Burlington Northern Santa Fe (BNSF) railroad runs through the city along the Sound and paralleling I-5. Nearby communities include Steilacoom and Lakewood.

The DuPont area is historically rich, and the town's fascinating cultural background is worth noting and preserving within its park system. As early as 5,700 years ago, Native Americans inhabited this area, living in a small village at the mouth of Sequelitchew Creek. This site was well-suited for settlement, and the Sequelitchew-Nisqually people thrived on the creek's ample salmon runs.

Much later, in the 1830s, Hudson's Bay Company developed a storehouse in the area, along with the first permanent trading post in the Puget Sound area. Fort Nisqually served as a supply center for early settlers, and it eventually expanded to house the Puget Sound Agricultural Company. With the decline of fur trading in the 1840's, the fort was moved to a flatter inland site just west of Edmond Marsh and south of Sequelitchew Creek. When the U.S. government created a 1,280 acre reservation in the Nisqually River basin in 1854, and then bought Fort Nisqually and surrounding property from Hudson's Bay Company in 1869, the land was auctioned off to a variety of owners.

In 1906, the E.I. du Pont de Nemours Company purchased approximately five square miles of land, including Sequatchew Creek, the original Fort Nisqually site, and almost all of the original settlement. Soon thereafter, DuPont was designed and built as a company town, home to workers at the DuPont Powder Works plant. Business at the plant thrived for seven decades. In 1951, DuPont sold the company homes to its residents and employees, and many retirees opted to stay in the town because of its strong sense of community. The City of DuPont was officially incorporated that year. Dynamite production continued at the plant until it closed in 1976.



In the late 1970s, the DuPont holdings were sold to Weyerhaeuser, originally for a lumber mill and shipping facility. Instead, the land was transferred to the Weyerhaeuser Real Estate Company and then on to Quadrant (a subsidiary of the Weyerhaeuser Corporation) and planned for residential development. A 3,000-acre community, called Northwest Landing, was planned for this site to include a mix of uses. The development concept for the community was inspired by the historic DuPont village, including alleyways, front porches, village greens, and a neighborhood-based character. The first phase of development at Northwest Landing increased DuPont's population and brought new neighborhoods, commercial areas, and community facilities into the City.

In recent years, DuPont has changed significantly. The City has extended roads, sewer, and water into new development areas. The historic part of town has been placed on the National Register of Historic Places. Today, DuPont is one of the fastest-growing communities in western Washington. What was a town of 601 residents in 1990 now has a certified population of 8,850 (2013). Moreover, the population is predicted to double by the time Northwest Landing is completed, growing to an estimated 12,100 residents.

Within this rapidly growing community, the City of DuPont strives to provide and maintain a walkable, accessible, and historically-rich system of parks, trails, and natural areas that will serve residents of all ages, abilities, and interests. The development of Northwest Landing has greatly expanded the community's recreation system, creating challenges for the City to maintain parks and facilities while simultaneously expanding recreation programming and building new facilities. The Parks, Recreation, and Open Space Plan will establish a community-supported road map for the provision of high quality parks, services, programs, and facilities to meet growing community needs.

## 1.2 PLANNING PROCESS

The development of the first Park, Recreation, and Open Space Plan involved three phases, which are noted in Figure 1 and summarized below:

- **Phase I: Resource Analysis.** The purpose of Phase I was to take inventory of the community's current recreation resources, including parks, facilities, and programs. Tasks in this phase included a community analysis, a park evaluation and condition assessment, regional facility identification, park operations review, and an assessment of recreation programming. Recreation resources within the DuPont area were identified and mapped. Results were summarized in the Park, Facility, and Program Analysis report.
- **Phase II: Vision Formulation.** Based on the data collected in Phase I, Phase II tasks helped identify the community's vision for parks and recreation. Public involvement activities, including a recreation questionnaire, community workshop and open house, helped identify public preferences and community needs for local parks and facilities, along with directions, goals and objectives for the Plan. Phase II tasks were incorporated into a Recreation Needs Assessment report.
- **Phase III: Plan Development and Adoption.** Based on the goals and objectives identified in Phase II, Phase III included the development of specific recommendations and actions for improving and developing DuPont's park and recreation system. Capital projects were prioritized to create a 6-year Capital Improvement Plan, and funding strategies to implement these projects were discussed. Data from all three phases were summarized and refined in this Plan.



Figure 1: Planning Process

### 1.3 PUBLIC INVOLVEMENT

To develop a solid foundation for the update to the Parks, Recreation and Open Space Plan and to understand the recreation preferences and needs of all City residents, the planning process involved community input through several public involvement activities:



- **Community Questionnaire.** A statistically valid online questionnaire designed to elicit information about recreation interests, behavior, attitudes, and participation was conducted in DuPont in February 2014. This community questionnaire was available to all households in DuPont. Paper questionnaires were also distributed at Patriot's Landing. Over 400 responses were received.
- **Open House and Community Workshops.** On March 12, 2014, the City of DuPont held an open house and community workshop to gather public input for the update to the Parks, Recreation, and Open Space Master Plan. From 6:00 to 8:00 pm, community members dropped by City Hall to provide comments, ideas, and responses to interactive displays. Workshop attendees participated in small group discussions about parks, trails, open space and recreational programming.

The planning process also included input and review by the following advisory groups:

- **Planning Advisory Committee (PAC):** The PAC comprised community members and Park Agency representatives. This group met during the planning process to discuss their vision for the park and recreation system, goals and objectives for the Plan, recommendations, project priorities, and funding options. Committee members also reviewed key reports in the development of this Plan.
- **Park Agency:** The Park Agency is DuPont's advisory committee for park and recreation matters. The Park Agency was important in completing the original Plan, and has served as lead the efforts to review the Plan in developing this update as the agency will be instrumental in overseeing implementation.



## 1.4 PLAN ORGANIZATION

The Parks, Recreation and Open Space Plan is organized as seven chapters. These include:

- **Chapter 1: Introduction** describes the purpose of the Plan, the planning context and area, the planning process, public involvement in Plan development, and the organization of this document.
- **Chapter 2: Existing Resources** defines the City's classification system for park land and summarizes the current and planned inventory and availability of parks, recreation facilities, and programs in DuPont.
- **Chapter 3: Park and Recreation Needs** presents key findings from the public involvement process and summarizes community needs for park land, recreation facilities, programs, and maintenance.
- **Chapter 4: Vision, Goals, and Objectives** describes the community's vision for parks, open space, and recreation services, along with the primary goals and objectives for this Plan.
- **Chapter 5: Park and Facility Improvements** describes strategies for enhancing the park system in DuPont, which includes new parks, existing and planned sites, recreation facilities, natural areas, and trails. The chapter includes specific recommendations for developing the proposed system.
- **Chapter 6: Park and Recreation Services** describes the City's approach in providing recreation services community-wide, including recommendations for administration and management, finance and budget, planning and design, maintenance and operations, and recreation programs.
- **Chapter 7: Implementation** introduces a six-year Capital Improvement Plan, along with cost estimates for maintenance and operations. Potential funding resources for capital projects, maintenance and operations are described.

## EXISTING RESOURCES

DuPont residents and visitors are served by a variety of parks that provide both active and passive recreation opportunities. This chapter identifies the City's park and recreation resources and describes the park classification system used to categorize and analyze specific park sites. It includes an overview of the inventory of City-owned park sites, along with an inventory of specific recreation facilities within the planning area.

### 2.1 PARK CLASSIFICATION

A strong park system is made up of different types of parks, recreation facilities, and open space areas, each designed to provide a specific type of recreation experience. Separately, a specific type of park may only serve one function, but collectively the entire system will meet the needs of a diverse community by providing a wide variety of opportunities for leisure. The point of classifying parks by their function is to identify what types of opportunities are being provided in DuPont and what needs are being met. For example, a small play area may serve children and families who live within walking distance of this site, while a larger sport field complex may draw people from throughout the city. Both provide desired recreation opportunities, but they meet very different needs. By classifying parks by their function, a community can plan for and evaluate recreation needs more easily, providing a more efficient and usable park system that minimizes conflicts between park users.

In this plan, six distinct park classifications are recommended:

- **Neighborhood Parks.** Neighborhood parks are designed primarily for unsupervised recreation. Located within walking and bicycling distance of most users, they are generally no more than five acres in size and serve residents who live within a ½-mile of the site. Neighborhood parks provide access to basic recreation opportunities for residents, enhance neighborhood identity, and preserve neighborhood open space. Neighborhood parks often include amenities such as playgrounds, turf areas, picnic tables, pathways and benches.
- **Community Parks.** Community parks provide active and passive recreation opportunities and provide public gathering places within the community. Ranging from 10 to 50 acres in size,



community parks are used by all segments of the population and generally draw residents from a one to three-mile service area. Community parks often include facilities for organized sports, such as sports fields, pools, community centers, and other special facilities. Community parks may also incorporate passive recreation space or natural areas. Because of their large service area, community parks often require more support facilities, such as parking and restrooms, than neighborhood parks.



- **Special Use Areas.** Special use areas include stand-alone specialized facilities such as community centers, aquatic centers, sports complexes, or skate parks. Since special use areas vary widely in function, there are no size guidelines. However, these sites must be sufficiently large to accommodate the intended use, and they should include adequate support facilities such as parking and restrooms.
- **Natural and Open Space Areas.** These sites are City-owned properties preserved for a variety of reasons. Natural areas are preserved from development, and these sites are often managed for their natural resource value. Natural areas vary in size and may include wetlands, uplands, habitat areas, stream corridors, and other sensitive areas. The level of public access to these sites may vary, but natural areas often provide an opportunity for nature-based recreation via trails. Open space areas generally include sites that are not appropriate for park use. They add value to the community primarily as undeveloped green space. In DuPont, open space areas may also be publicly owned to preserve historical or archeological sites.
- **Linear Parks.** Linear parks are developed, landscaped areas that follow corridors such as abandoned railroad rights-of-way, streets, canals, power lines, or other linear, elongated features. This type of park usually includes trails, viewpoints, seating and landscaping.
- **Beautification Areas.** Beautification areas are landscaped areas around buildings, greens, entryways, and street islands, along with maintained strips along street right-of-ways and pathways. The landscaping in beautification areas varies widely, ranging from low-maintenance trees and mulch to high-maintenance flowerbeds and associated facilities. Facilities may include fountains, picnic tables, hanging baskets, sculpture/artwork, gardens, façade improvements, and entrance signage. Because of

their limited recreational capacity, beautification areas do not constitute a recreation resource. In addition to City-owned beautification areas, many privately-owned parcels exist, and are maintained by Residential Owners Association.

## 2.2 EXISTING PARKS

Map 1 identifies the location of all existing parks and trails in DuPont. The inventory of existing park resources in DuPont is presented in this section, including the following:

- Developed parks;
- Open space and natural areas;
- Beautification areas; and
- Other recreation land.



### A. DEVELOPED PARKS

#### *Publicly Owned Developed Parks*

The City of DuPont owns 61.1 acres of developed park land at 17 different sites. Table 2.1 lists City-owned parks by their classification, with acreage based on data developed and maintained by Gray & Osborne Consulting Engineers, Inc., under contract to the City of DuPont.

#### *Privately-Owned Developed Parks*

The number of privately-owned parks in DuPont is significant, as noted in Table 2.2. In total, private parks in DuPont occupy 59 separate sites, with an average acreage of 0.23 acres per park. In Northwest Landing these privately owned sites are known as “neighborhood greens” and are scattered throughout the development. These green spaces are focal points in the community, providing close-to-home recreation opportunities for nearby neighbors. Most neighborhood greens are smaller than the minimum size for a neighborhood park and fall into a category often called mini parks or pocket parks.



**Table 2.1**  
Developed, City-Owned Park Land by Classification

Existing Park Land	Total Park Land
<b>Neighborhood Parks</b>	
<ul style="list-style-type: none"> <li>▪ Chief Leschi Park (4.7 acres)</li> <li>▪ Clocktower Park (2.3 acres)<sup>1</sup></li> <li>▪ Edmond Village Park (1.6 acres)</li> <li>▪ Ethel Lumsdon Park (0.6 acres)</li> <li>▪ Iafrati Park (0.3 acres)</li> <li>▪ Parkview Neighborhood Park (0.3 acres)</li> <li>▪ Bell Hill Neighborhood Park (0.4 acres)</li> <li>▪ Hoffman Hill Neighborhood Park (1.0 acres) <i>(turning over to City in 2014)</i></li> <li>▪ Creekside Neighborhood Park (0.5 acres) <i>(Built in 2013, maintained by developer through agreement for 5 yrs.)</i></li> </ul>	11.7 acres
<b>Community Parks</b>	
<ul style="list-style-type: none"> <li>▪ DuPont PowderWorks Park (23.8 acres)</li> <li>▪ Sellers Park (7.2 acres)</li> <li>▪ Bell Hill Community Park (3.3 acres)</li> </ul>	34.3 acres
<b>Special Use Areas</b>	
<ul style="list-style-type: none"> <li>▪ Robinson Park (0.4 acres)</li> <li>▪ Ross Plaza Park (0.8 acres)<sup>1</sup></li> </ul>	1.2 acres
<b>Linear Parks</b>	
<ul style="list-style-type: none"> <li>▪ Garry Oaks Park (12.9 acres)<sup>2</sup></li> <li>▪ Tract I Park (1.0 acres)</li> </ul>	13.9 acres
<b>Total Developed Park Land</b>	<b>61.1 acres</b>

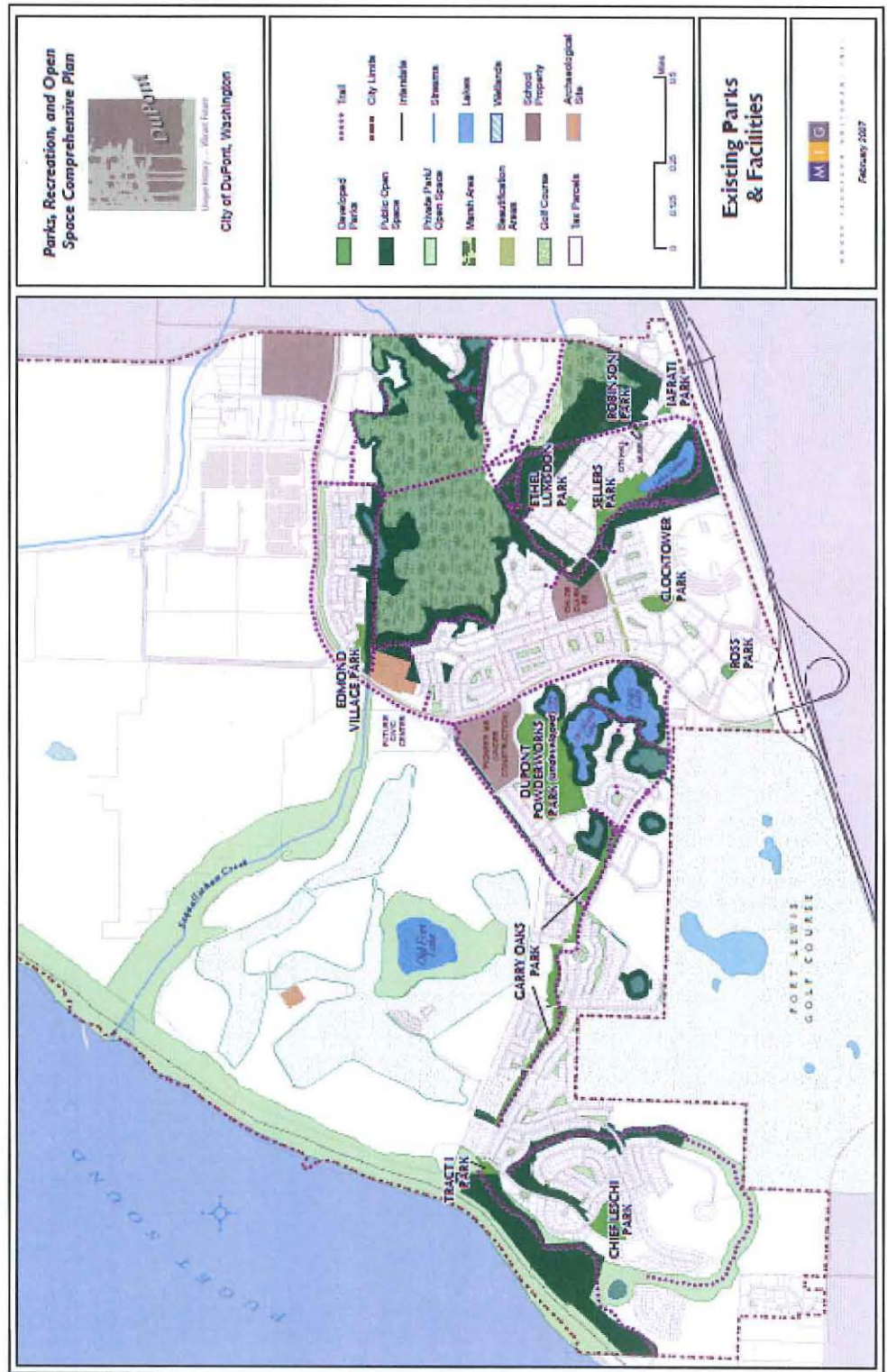
<sup>1</sup>*Clocktower Park and Ross Plaza Park were turned over to the City in 2006.*

<sup>2</sup>*For the purposes of this table, the Garry Oaks Park corridor along McNeil Street also includes the Jensen Park site sometimes referred to as Village II Division 5 Park*

All of the above categories are labeled as “Developed Parks” on the map on the next page.

**Table 2.2**  
Developed, Privately-Owned Park Land by Neighborhood

<b>Neighborhood</b>	<b>Acres</b>	<b># of sites</b>
Edmond Village	0.5	4
Historic Village	0.0	0
Hoffman Hill	2.6	10
Palisade Plat	5.2	21
Yehle Village	5.4	24
<b>Total Private, Developed Park Land</b>	<b>13.7 acres</b>	<b>59 sites</b>



## B. Open Space and Natural Areas

DuPont’s location on Puget Sound and its multitude of marshlands provide the City with a variety of open spaces and natural areas. Table 2.3 notes the acreage encompassed by these areas. Some of these sites may have the potential to provide recreation opportunities; however, environmental constraints limit the recreational value of many sites. The difference between a natural area and an open space is noted below:



- **Open Space.** Situated within developed areas, open space is undeveloped land that may or may not be landscaped or maintained. Parcels included in this category may be undevelopable due to size, shape, or slope considerations, but unlike natural areas, these sites have no significant natural resources or specific environmental value. Open space areas may be preserved to augment nearby sites or to preserve sites for future park development and use.
  
- **Natural Area.** A natural area is defined in this Plan as land that is protected to preserve natural resources. Natural areas contain features such as wetlands and endangered species habitat, for example, or may serve as environmental buffers. Natural areas often include trail corridors.

**Table 2.3**  
Public Open Space and Natural Areas by Classification

Existing Open Space and Natural Areas	Acreage
Open Space	
▪ Public Open Space	54.0
Natural Areas	
▪ Lakes (45.8 acres)	409.4
▪ Wetlands (12.0 acres)	
▪ Marshes (122.8 acres)	
▪ Protected Land (45.2 acres)	
▪ Natural Area Buffers (38.5 acres)	
▪ Other (145.1 acres)	
<b>Total</b>	<b>493.4 acres</b>

In addition to the City-owned acreage noted above, another significant natural area in DuPont is the Sequelitchew Creek corridor. The creek passes through the core of DuPont and portions of which are owned by the City and several private owners. Because of its resource value and cultural history, Sequelitchew Creek has significant potential recreation



value. The creek corridor is part of the former DuPont PowderWorks site. Formal agreements with land owners along the corridor have been secured by the city to allow DuPont's residents public access. The Sequatchew Creek corridor serves as a major link between historic DuPont and the Puget Sound, a connection that has not existed for over 100 years.

### C. BEAUTIFICATION AREAS

Because of their relatively high cost for maintenance and limited recreational value, beautification areas are considered separately from other types of classified park land. Table 2.4 summarizes beautification areas maintained by the City and private associations. Beautification areas owned by the City account for 7.3 acres of land contained in planting strips and eight roundabouts. Areas owned by private entities account for 4.1 acres of land, primarily located in four large planting strips surrounding the Edmond Village development.

**Table 2.4**  
Beautification Areas

Existing Beautification Areas	Total Beautification Area
Publicly-Maintained Areas	7.3 acres
Privately-Maintained Areas	4.1 acres
<b>Total Beautification Areas</b>	<b>11.4 acres</b>

### D. OTHER RECREATION RESOURCES

Several additional sites, located just beyond the DuPont planning area, are worth noting here. Owned by both public and private entities, these recreation areas currently serve or potentially could serve City residents.

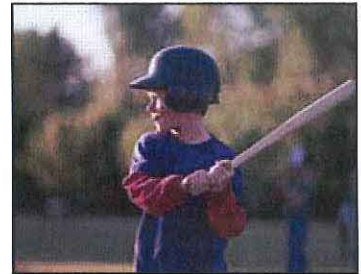


For example, JBLM owns a site, northeast of DuPont's city limits and adjacent to I-5, which includes the former playing fields for the DuPont School (no longer in existence). Although the site has not been maintained, remnants of bleachers and a track demarcate the boundaries of this parcel, which includes a soccer/football field and a baseball field. Even though major renovation would be required to make the fields usable, this site has significant potential for recreation. Although previous negotiations in the past with JBLM to acquire this site have not been successful, efforts should continue to be made to pursue this site.

Other parks and recreation areas are located throughout Pierce County and the region. The Pierce County Parks Department maintains over 2,000 acres of park land at over 30 park sites, including two recreation centers, five boat launch sites, trail corridors, two golf courses, and a large variety of passive and active facilities. The City Of Lakewood maintains several city parks, including the 340-acre Fort Steilacoom Park, north of DuPont. This park draws users from throughout the region with soccer, baseball, and softball fields, a playground, picnic area, lakeside trail, and green space. The Nisqually National Wildlife Refuge, six miles west of DuPont, is a 2,925 acre natural area providing significant environmental education opportunities. Hiking, fishing and slow boating are allowed in season, and educational programs are conducted on-site throughout the year. Additionally, Mount Rainier National Park is located at the eastern edge of Pierce County, allowing year-round hiking and camping.

### 2.3 RECREATION FACILITIES

Existing recreation facilities in DuPont are managed and maintained by a number of different providers, including the City of DuPont, the Steilacoom Historical School District, JBLM, and several privately owned businesses. This section discusses the availability of public and private sport facilities and trails within the community



#### A. PUBLIC SPORTS FACILITIES

Table 2.5 presents a complete inventory of public sports facilities in DuPont. These facilities are owned by the Steilacoom Historical School District and are located on school grounds. In most cases, these facilities are first scheduled for school use and then are available for general public use (including team sports).

**Table 2.5**  
Existing Public Sports Facilities

Type	Number	Location
Multi-use field	1	Chloe Clark Elementary
Gymnasium	1	Chloe Clark Elementary
Track	1	Pioneer Middle School
Football field	1	Pioneer Middle School
Baseball field	1	Pioneer Middle School
Softball field	1	Pioneer Middle School
Softball field	1	PowderWorks Park
Multi-use field	1	PowderWorks Park
Basketball Court	1	PowderWorks Park
Multi-use field	1	Chief Leschi Park
Multi-use field	1	Clocktower Park

The construction of Pioneer Middle School and DuPont PowderWorks Park has considerably increased the availability of sports facilities in DuPont. DuPont PowderWorks Park includes a multi-use soccer field and a softball field. Pioneer middle school includes the following facilities:

- Softball field;
- Football field;
- Soccer field (overlay)
- Track; and
- Gymnasium.

Finally, the DuPont Parks Agency and City Council consider the construction of a public skate park a low priority, but will reconsider the viability of building one in the long term. Several suitable locations were considered, preferred site identified, grant funding pursued, but to date no action was taken. Any final decision will be made by the City Council in the future.

## **B. OTHER SPORTS FACILITIES**

JBLM and several other private, for-profit facilities offer additional opportunities for recreation and sports in DuPont. However, these availability of these facilities is limited, either due to their for-profit nature or, as is the case with JBLM, user restrictions. While some facilities owned by JBLM are open to the public (such as the golf course), others are open to military personnel and family members only.

Table 2.6 (on the next page) lists the privately-owned or otherwise restricted recreational facilities in the DuPont Planning Area. Due to the size of JBLM, only the Jensen and McVeigh Sports & Fitness Center facilities are detailed. Other significant JBLM recreation facilities are noted.

## **C. TRAILS**

DuPont has developed an expansive system of trails connecting many parts of the city. The system is made up of both paved and unpaved trails, as well as several miles of designated bike lanes. In addition to these trails, the design of Center Drive includes trail-like meandering paths instead of sidewalks at the curb. These paths serve both transportation and recreational purposes. Table 2.7 (on the next page) summarizes existing trails in DuPont by type. Existing trail routes are also included on Map 1.



Table 2.6

Other Public Access Sports Facilities

Owner	Facility Name	Comments
JBLM	Eagle's Pride Golf Course	Open to the public
WSGA / PNGA	The Home Course	Open to the public

**Table 2.7**  
Existing Trails by Type

Trail Type (length in miles)	Total Trail Mileage
<ul style="list-style-type: none"> <li>▪ Grassy or Gravel Trails (5.0 miles)</li> <li>▪ Asphalt or Concrete Trails (4.1 miles)</li> <li>▪ Designated Bike Lanes (3.5 miles)</li> </ul>	12.6 miles

## 2.4 NATURAL RESOURCES

DuPont is surrounded by natural resources that are environmentally, commercially, and historically important. In addition to the publicly accessible resources such as the Nisqually National Wildlife Refuge, DuPont contains a significant stream corridor along Sequelitchew Creek, which flows through the city to the Puget Sound. This creek has both environmental and historic significance as a connection to the Puget Sound. The land surrounding the creek is currently held by several parties, including the city of DuPont.

More than 400 acres of public natural areas are preserved within the City limits. This includes buffer zones for several lakes, as well as the extensive marsh lands north of the Historic Village area. These areas are important resources for protecting wildlife habitat, managing storm water, and creating a natural setting for the community.

Other natural resources support the economic vitality of the city. A productive aggregate quarry, operated by Cal Portland, is located in north DuPont. The company has plans to expand this operation when the current parcel is exhausted. Although the aggregate site is currently being mined, in the long-term future this area is planned for residential and

other uses. Future recreation opportunities should be considered in this area in anticipation of future reclamation and redevelopment.

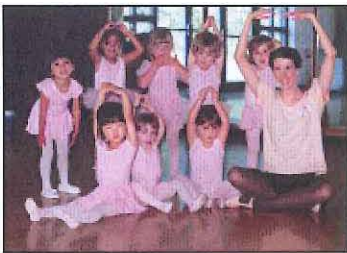


## 2.5 CULTURAL RESOURCES

The City of DuPont operates a small historical museum near City Hall in the Historic Village. The museum contains information and artifacts of the Native American tribes of the area, history of the DuPont Powder Works, and memorabilia from the former DuPont School (now demolished).

The Historic Village area of DuPont is also a significant resource as an intact company town of the early 20th century. Other cultural resources include archeologically significant sites related to early settlement of the area. The original and second Fort Nisqually were both located in DuPont near the site of traditional Nisqually encampment at the mouth of Sequelitchew Creek. The Fort was a commercial outpost of the Hudson's Bay Trading Company and the first European settlement in Washington State. Remnants of the fort existed on the second site until 1932 when it was moved to Point Defiance Park in Tacoma.

The City of DuPont and the former DuPont Powder Works site rest upon land that has a diverse and multi-layered history – history worthy of interpretation by cultural and historical specialists, as well as presentation in a variety of community forums. Interpretive history can be featured throughout the City's park system by including interpretive signage along trails and sites, incorporating historic structures and landscapes into trail systems or park inventories, and providing recreational programs that educate the public about a community's past.



## 2.6 RECREATION PROGRAMMING

The City of DuPont offers a variety of recreation programs, which are supplemented by activities provided by the Residential Owners Association and other organizations within and around DuPont. The City employs a .75 program coordinator to manage the many recreation opportunities in DuPont.

### A. PROGRAMMING IN DUPONT

#### *City-Provided Programs*

The City of DuPont both sponsors and coordinates a number of recreation programs for its residents. Special events, which constitute the majority of the City's program offerings, include holiday festivals, walks, concerts, etc. The City also arranges a myriad of youth sports opportunities,

including soccer summer camp, summer and fall baseball, winter basketball, fall and spring soccer, and track club offered by independent organizations. The City hosts very popular series including concerts in the parks and a springtime tea.

#### *Programming Provided by Others*

Other providers also play an important part in meeting community recreation needs. For example, the Northwest Landing Residential Owners Association (ROA) offers a number of special events for City residents, including a Daddy-Daughter Valentine's Day dance, a wine and cheese tasting, Fourth of July parade, Halloween party, Kids Night Out, a home and garden show, two community-wide yard sales per year, etc. The DuPont Library hosts story times and book clubs; the Forever Young Seniors Club holds weekly coffee meetings; and other organizations, such as the Lions Club, and the MOMS Club, provide recreation outlets for area residents as well.

### **B. PROGRAMMING IN NEIGHBORING CITIES**

DuPont residents also benefit from recreational resources offered by neighboring cities, such as Lakewood, Lacey, and Steilacoom. These communities have parks and recreation departments that offer a more diverse variety of age- and content-specific programming. For example, the parks and recreation department in Lakewood hosts camps, adult and youth sports, trips, tours, classes, and an extensive summer concert series.

### **C. PROGRAMMING AT JBLM**

JBLM military base, located adjacent to DuPont, offers recreation programs through their Community Recreation Division. Programs include arts and crafts, swimming, computer courses, sports, singles dating groups, outdoor recreation and outings, and more. There also is a Youth Center that offers a variety of programs to young children and teens, including team sports, outdoor activities, arts, and academic assistance. Recreation programs at JBLM are offered to family members of military personnel, civilian employees working at JBLM, and retired military personnel.



## PARK AND RECREATION NEEDS

### 3.1 PUBLIC INVOLVEMENT FINDINGS

Public involvement during the planning process was critical in determining recreation needs in DuPont. Through a city-wide recreation questionnaire, community open house, and public workshop, participants offered significant input regarding their recreation preferences, participation, and vision for the community. Specific improvements desired by residents were noted, and several key themes emerged.

## RECREATION QUESTIONNAIRE

An online questionnaire, through Questionnaire Monkey, designed to elicit information about recreation interests, behavior, attitudes, and participation was conducted in DuPont in February 2014. This community-wide questionnaire was available to all households in DuPont. Paper questionnaires were also distributed at Patriots Landing.

### A. QUESTIONNAIRE OVERVIEW

The questionnaire instrument was designed to obtain a variety of information, including the demographic characteristics of questionnaire respondents. In addition, questionnaire questions solicited the following information relating to parks, recreation facilities, programs, and participation:

- Parks and pathways (use, development, and maintenance);
- Programs, services, and special events (desires, scheduling and programming);
- Community priorities (park facilities, sports fields, trails, water access, and natural open space);
- Funding;
- Recreation participation and preferred activities.

Key findings from the questionnaire are summarized below:

*Question 1: What is your age? 413 answered, 2 skipped*

Results from Question 1

Total	413
18-24	6 1.45%
25-34	54 13.08%
35-44	128 30.99%
45-54	93 22.52%
55-64	70 16.95%
65-74	47 11.38%
75+	15 3.63%

- Overall the respondents represent most age categories, with the exception of the 18-24 age group. This age group generally has a low response rate to questionnaires of this type.
- This questionnaire received responses from a large percentage of 35-44 year-olds. Typically mailed questionnaires are skewed towards older age groups which may indicate a generally younger population in DuPont.



*Question 2: How long have you resided in DuPont? 412 answered, 3 skipped*

Results from Question 2

Total	412
1-3 years	75 18.20%
4-9 years	150 36.41%
10-15 years	141 34.22%
15+ years	48 11.65%

- Nearly half of all respondents have lived in DuPont for three years or less, which is consistent with the growth of the city and the turn-over of military households connected to Fort Lewis.
- When results to this question were broken down by their response to question 5, “Are you or is someone in your household active or retired military,” non-military households are more evenly spread between categories up to ten years of residence in DuPont.
- Further breakdown of results indicated that families with children are concentrated in the 3 years or less category, with over 60% of families who indicated having children in the household also selecting the shortest residency option.

*Question 3: Which of the following best describes your household?  
414 answered, 1 skipped*

Results from Question 3

<b>Total</b>		<b>414</b>
Two adults with children	210	50.72%
Two adults with no children	126	30.43%
One adult with no children	39	9.42%
One adult with children	17	4.11%
Three or more adults with children	9	2.17%
Three or more adults with no children	15	3.62%

- Most (81.5%) respondents' households consist of two adults.
- More than half of all respondents (57%) report having at least one child in the household. Households with children are important to the planning process because they tend to be the heaviest users of the park system.

*Question 4: Are you or is another member of your household active or retired military? 413 answered, 2 skipped*

Results from Question 4

<b>Total</b>	<b>413</b>
Yes	210 50.85%
No	203 49.15%

- Based on the responses, more than half of DuPont's households have connections to the military.
- Respondents with current or retired military members are also more likely to have children in their household than those who do not have military connections.

## PARKS & FACILITIES

Questions in this topic area that appear on only the adult questionnaire or on both the adult and youth questionnaires are included below.

*Question 5: How important are parks, recreation services, & open space to DuPont's quality of life? 410 answered, 5 skipped*

Results from Question 5

<b>Total</b>	<b>410</b>
Not Important	6 1.46%
Not Important - Somewhat Important	9 2.20%
Somewhat Important - Very Important	92 22.44%
Very Important	303 73.90%



- Respondents indicate that parks, recreation services and open space are very important to DuPont’s quality of life. 98% of respondents think that they are at least somewhat important, and nearly 74% indicated the highest level of importance.
- Respondents from households with children tended to rate parks as very important to quality of life.

*Question 6: What are the primary reasons you use parks? 409 answered, 6 skipped*

Results from Question 6

Total	Adult 409
Walk or bike for exercise	307 75.06%
Enjoy the outdoors or nature	305 74.57%
Participate in family activities	169 41.32%
Picnic and general leisure activities	146 35.70%
Play Sports	121 29.58%
Use a specific facility at a park	56 13.69%
Meet friends	108 26.41%
Attend special events/concerts	172 42.05%

- Both adults and youth use parks (97% of each group)
- From these responses, respondents are primarily using parks for exercising by foot or by bike and enjoying the outdoors and nature. These activities are more popular amongst respondents with no children in the household.
- Youth responses to a similar question show a very different pattern of use, focused on playing sports and meeting friends.

*Question 7: If you seldom use or do not use the parks in DuPont, what are your reasons? 126 answered, 289 skipped*

Results from Question 7

<b>Total</b>	<b>126</b>
Lack of Facilities	40 31.75%
Not interested/No time	36 28.57%
Don't know what is available	16 12.70%
Too far away; not conveniently located	10 7.94%
Too Crowded	5 3.97%
Lack of transportation	2 1.59%
Poorly Maintained	32 25.40%
Feel Unsafe	4 3.17%

- In the top responses several respondents indicated they were not interested or did not have time.
- Crowding, transportation, maintenance and safety do not appear to be significant issues in DuPont.

*Question 8: When funds are available, which of the following facilities should have priority in DuPont? 413 answered, 2 skipped*

## Results from Question 8

<b>Total</b>	<b>413</b>
Community Center/Indoor Space for activities	154 37.29%
Parks	158 38.26%
Trails	188 45.52%
Open Spaces	82 19.85%
Additional Sports Fields	39 9.44%
Off-leash dog park	118 28.57%
Skateboard park or facilities	57 13.80%
Water play features	89 21.55%
Swimming Pool	152 36.80%

- A city-wide trail system was a more popular priority for respondents, ranking number one for this sub-group.
- Also rated highly is a swimming pool.

## PROGRAMMING & LOGISTICS

*Question 9: What types of cultural programs should DuPont offer?  
388 answered, 27 skipped*

### Results from Question 9

Total	388
Concerts in the Park	301 77.58%
Community Art Festivals and special events	239 61.60%
Performing Arts Programs (theater, dance, music, etc.)	110 28.35%
Visual Art classes (drawing, painting, photography, etc.)	97 25%
Literary arts (reading groups, lectures)	74 19.07%

- Concerts in the parks were clearly favored. Additional events such as the Residential Owners' Association Jazz Festival at Clocktower Park could meet this need.
- Concerts and art festivals, the primary existing cultural arts programs in the city, were the most cited.
- Performing art programs and visual arts classes are not currently available, but there appears to be support.

*Question 10: How should dogs be accommodated for in public spaces? 405 answered, 10 skipped*

Results from Question 10

<b>Total</b>	<b>405</b>
Create an off-leash area and enforce leash laws in all parks and on all trails	166 40.99%
Enforce leash and scoop laws requiring leashes on dogs	190 46.91%
Create off-leash park or areas for dogs	149 36.79%
Do not allow dogs in parks	48 11.85%



- Creating off-leash areas and enforcing leash laws was the option preferred by respondents over not allowing dogs in parks.
- Nearly 90% of respondents supported some kind of accommodation for dogs in parks.



## TRAILS & NATURAL OPEN SPACE

*Question 11: What type of amenities should be provided to encourage trail use? 401 answered, 14 skipped*



Results from Question 11

Total	401
Viewpoints and overlooks	61 15.21%
Trail signage and mileage markers	157 39.15%
Additional access points and trailheads	35 8.73%
Restrooms	71 17.71%
Active recreation features (playgrounds, paved courts, etc.)	23 5.74%
Educational features	25 6.23%
Picnic Areas	29 7.23%

- Additional signage and mileage markers are the amenities that most respondents feel should be provided to encourage use of trails.

*Question 12: How would you rate the importance of open spaces to the community? 413 answered, 2 skipped*

Results from Question 12

Total	413
Not Important	12 2.91%
Somewhat Important	99 23.97%
Very Important	302 73.12%

- 97% of respondents indicated that natural open space is at least somewhat important, with almost 75% rating it very important.
- This result was consistent across all subgroups.

*Question 13: How should open spaces be used? 411 answered, 4 skipped*

Results from Question 13

<b>Total</b>	<b>411</b>
No public use (preserved for wildlife habitat)	21 5.11%
Limited public use (trails, viewpoints, etc.)	132 32.12%
Semi-active recreational use (picnicking, playgrounds, etc.)	53 12.90%
Combination of the above	238 57.91%

- More than 95% support some type of public use of natural areas.
- The largest grouping of responses is made up of those who responded “Combination of the above.”

## POLICY & FINANCING

*Question 14: Would you support a voluntary non-smoking in DuPont? 406 answered, 9 skipped*

Results from Question 14

<b>Total</b>	<b>406</b>
Yes	312 76.85%
No	94 23.15%

- The vast majority of respondents indicated support for a voluntary non-smoking policy in city parks.



*Question 15: In general, would you support a tax measure to maintain and improve existing parks and trails, open spaces, recreational programs and facilities? 403 answered, 12 skipped*

## Results from Question 15

Total	403
Yes	295 73.20%
No	108 26.80%

- A large portion of responses (73.2%) indicated unconditional support for a funding tax measure for parks.

*Question 16: Which of the following athletic facilities are needed most in DuPont? 370 answered, 45 skipped*

## Results from Question 16

Total	370
Additional Multi-Use Fields	93 25.14%
Tennis Courts	80 21.62%
Indoor Sports Facility	125 33.78%
Skateboard Facilities	71 19.19%
Swimming Pool	177 47.84%

- Nearly half (42.8%) of the respondents indicated a desire for a swimming pool.
- Additional fields and sports facilities were also highly rated by respondents.

*Question 17: How important are special events and recreation programs to you? 415 answered, 0 skipped*

Results from Question 17

<b>Total</b>	<b>415</b>
Not important	57 13.73%
Somewhat important	190 45.78%
Very important	168 40.48%

- Over 85% of respondents identified special events and recreation programs as “somewhat important or “very important.”

## **B. COMMUNITY OPEN HOUSE AND WORKSHOP**

The City of DuPont held an open house and community workshop on March 12, 2014 to gather public input for the Plan update. This event was held at the DuPont Civic Center.

The open house was held from 6:00 – 8:00 pm, so that community members could provide comments, ideas, and responses to interactive displays. Twenty-one participants signed in at the door, and a number of other adults and children dropped in to share their ideas. The participants were encouraged to write their thoughts and comments about needed improvements. Many residents spent time talking with City staff, Park Agency members, and representatives from City Council, who were on hand to discuss existing facilities, needed improvements, and additions to DuPont’s park and trail system.

Participants were asked to share their vision for the future park system and ideas about the needs of the community, and asked to share their thoughts on a series of questions about parks, trails, open space and recreational programming.

Several themes emerged during the workshop and open house:

- **Park Improvements.** Improvements are needed at many existing parks. Participants suggested a wide range of improvements and upgrades that will help city parks meet community needs.
- **Trails.** Expanding the trail system is a top priority. Most participants enjoy existing trails and would like to see the city's trail network expanded and improved.
- **Diverse Programming.** DuPont's parks and programs should serve the city's diverse population. Participants expressed a desire for programming that targets different ages, abilities, and recreation interests.
- **Partnerships.** DuPont should seek partnerships to provide services. Many participants noted that there are numerous opportunities to partner with other agencies and groups to maximize public benefits. Suggestions included the School District, the Nisqually Tribe, Northwest Landing ROA/COA, Joint Base Lewis - McChord, and surrounding communities.

## 3.2 PARK LAND NEEDS

Community needs for park land were determined in the Needs Assessment completed with development of the first park plan by evaluating the level of service provided by parks within the City. Level of service (LOS) is a measure of the amount of park land or facilities needed to serve City residents at a desired level. In other words, it indicates the amount of parks and facilities needed to provide the recreation experiences that DuPont residents want. LOS may be expressed quantitatively as a ratio of acres or facilities per population or geographically as a measure of a specific service area as defined by the distance users would have to travel.

### A. COMPARISON TO OTHERS

One method of determining if City park resources are adequate is to compare DuPont's service levels (LOS) to similar communities in the State. Existing service ratios for the City of DuPont's parks were determined by dividing known park acreages into the city's 2005 for comparison. In particular, DuPont's overall service ratio was comparable

to those of other Washington communities and is a good indicator of how DuPont fares in providing recreation opportunities to the public.

Table 3.1 compares DuPont's existing service ratios to those of Steilacoom, Camas, and Lakewood (all data from 2005 for comparability.) The data illustrate a number of things about the existing park system in DuPont. The City is served by a relatively large amount of total park land for its population. However, these parks are predominately natural areas and open space. DuPont had more than three times as much public natural and open space per 1,000 residents as Camas, a city that has focused on maintaining an extensive open space network. The 2005 developed park ratio in DuPont was 4.84 acres per thousand residents. This was slightly lower than Camas and Steilacoom, which provided between 5 and 6 acres of developed park land per 1,000 residents, but was considerably higher than Lakewood, which had a ratio of 0.66 acres per thousand.

**Table 3.1**  
2005 Existing Park Land Service Ratios - Comparison Chart  
DuPont and Comparable Washington Communities

Park Type	DuPont	Steilacoom	Camas	Lakewood
<b>2005 Population<sup>1</sup></b>	<b>8,855</b>	<b>6,175</b>	<b>15,460</b>	<b>58,850</b>
<b>2005 Total Park Acres</b>	<b>530.2 acres</b>	<b>412.6 acres</b>	<b>817.7 acres</b>	<b>64.10 acres</b>
<b>RATIO OF ACRES PER 1,000 RESIDENTS</b>				
Community Park	1.33	4.05	N/A	0.29
Neighborhood Park	0.89	2.15	3.44	0.23
Special Use Area	0.07	N/A	1.60	0.14
Linear Park	2.55	N/A	N/A	N/A
Natural and Open Space	85.66	15.28	29.18	0.35
Undeveloped Sites <sup>2</sup>	4.40	45.34	1.29	0.07
Private Park Land	3.11	N/A	17.38	N/A
<b>TOTAL RATIO:</b>	<b>98.0</b>	<b>66.8</b>	<b>52.9</b>	<b>1.1</b>

<sup>1</sup>2005 Population Estimates based upon the 2005 Population Trends analysis conducted by the State of Washington, Office of Financial Management – Forecasting Division. (The June 2013 OFM Population Estimate was 8,855.)

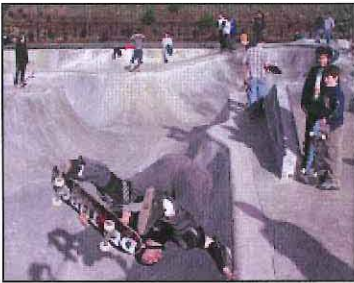
<sup>2</sup>DuPont PowderWorks Park Site

The data in the table reflect the existing park system in DuPont in 2005, without several soon-to-be-added sites at that time. In 2005 DuPont had a developed park system that provides just over 8 acres per 1,000 residents. Nevertheless, DuPont's park system is being planned in anticipation of significant population growth in this area. When the

community is built out as planned, it is anticipated these ratios will be more in line with other communities that value parks and recreation.

Quantity of park land is not the only measure of the quality of a park system. For example, Camas had slightly less park land for each resident but provided many more recreation opportunities in each of the developed parks in the city. Amenities such as basketball courts, baseball fields, and picnic shelters, spread throughout the park system, provide a highly valued experience to the park user. DuPont's parks offered much fewer amenities and facilities, even though the quantity of park land was higher.

## B. SERVICE INDICATORS



DuPont is a distinctive community because of its unified design and recent development. Northwest Landing, which covers a large portion of the City, is designed around the concept of providing easily accessible open space, walkability, and small private parks to all residents. These small parks create a sense of openness and make the community very attractive. However, they do not satisfy the full range of recreation needs in the DuPont. Based on public input received through the Park Agency, the Community Questionnaire, and the Community Open House and Workshop, five indicators for the provision of basic park service has been identified for DuPont:

- **Public Park Access.** Every resident should have convenient access to some type of public, well-developed park.
- **Playgrounds.** Playgrounds should be located within convenient walking distance of every resident. This walking distance should be manageable even for young children.
- **Access to Active Recreation.** According to residents, more active recreation opportunities are needed in DuPont. Close-to-home, accessible facilities that support active recreation are desired.
- **Trail Access.** Trail-related recreation has been growing locally, regionally, and nationally. DuPont's current trail system is used frequently. Providing trail access and community linkages should be a community priority.
- **Access to Natural Areas.** Natural areas throughout the community provide a "Pacific Northwest" character for DuPont. Residents desire opportunities for passive recreation in natural

areas, such as walking, wildlife watching, and enjoying the outdoors and scenic views.

These indicators summarize the community’s values about recreation and leisure, as well as aspirations about desired service level.

### C. GEOGRAPHIC LOS ANALYSIS

In the needs assessment conducted in 2006, a geographic analysis was conducted for each of the five indicators noted above, using a four-step process:

- **Step 1 – Identify Barriers.** The first step in assessing need for basic park services in DuPont included identifying the applicable barriers that prevent users from accessing parks. Barriers within DuPont include major roadways, steep slopes, and a lack of connectivity.
- **Step 2 – Identify Travel Mode.** Park accessibility depends largely upon the type of transportation used to travel to parks. In DuPont, the underlying park concept is that all residents should be able to walk or bike to obtain basic recreational amenities. Transit access and auto parking should be addressed as well in applicable parks.
- **Step 3 – Identify Service Area.** The distance people are willing to travel to a park is dependent on the appeal of its amenities and, as mentioned above, the mode of travel. People are willing to travel further for unique or large-scale amenities. According to local preferences, the service area reach (how far people are willing to travel) for various amenities was calculated (Table 3.2).



**Table 3.2**  
Service Area Reach

Amenity	Service Area Reach (miles)
Public Park Access	0.5
Playground	0.25
Access to Active Recreation	0.50
Trail Access	0.25
Access to Natural Area	0.50



- **Step 4 – Determine Service Area Type.** Service areas for park land can be determined by considering the distance people must travel to get to a park (how far away they live) and the routes residents must use to get to a park. While much of DuPont is well-connected by a network of streets, bike lanes, and trails, several of the villages are isolated from the central part of the city and each other by natural areas. In these cases, nearby parks may be more accessible by trails than by streets, which must be routed around the natural area. Considering the network routes used by residents is especially important in making sure that parks are accessible by foot.

The results of this four-step analysis were mapped to show gaps and overlaps in recreation service. In this manner, underserved areas were identified.



#### **D. PARK LAND STANDARDS AND NEEDS**

In order to meet community needs in underserved areas, this Plan proposes the following specific acreage standards for park land to support the projected population at build-out (12,100 residents):

- DuPont should provide 4.52 acres of developed parks per 1,000 residents.
- The City should provide 33.8 acres of natural area per 1,000 residents at build-out.

Standards for specific park types within the developed park category are not proposed at this time. Additional park guidelines and needs include the following:

- Playgrounds should be provided within ½ mile of residences in DuPont, meaning that additional playgrounds should be added to the park system.
- Active recreation opportunities should be provided within ½ mile of most DuPont residents. Small scale active recreation features should be added into the linear corridor that forms Garry Oaks Park (as labeled in Table 2.1). Additional active recreation features should be incorporated into Edmond Village Park and Chief Leschi Park.
- Natural area access should be provided at south end of the golf course for Yehle Village and at the south side of Hoffman Hill.

- Looped routes are needed to make the trail system more usable for residents.

### 3.3 RECREATION FACILITY NEEDS

This community's need for outdoor recreation amenities and recreation facilities within the parks and open space system is growing. Recreation facilities range in scale, depending on the number of people and the area served, from regional-scale to community and local facilities for different types of indoor and outdoor recreation facilities, including:

- Sports fields;
- Other outdoor sports facilities, such as paved courts;
- Outdoor amenities;
- Aquatic facilities; and
- Indoor recreation space.



Community needs for recreation facilities are summarized below.

#### A. SPORTS FIELD AND FACILITY NEEDS

- At minimum, maintain the current level of service for ball fields and soccer fields. DuPont currently provides 1 softball/baseball field per 2,200 residents and 1 soccer field per 3,300 residents.
- Continue efforts to obtain use of and rehabilitate the former DuPont School fields from JBLM, as well as the former city landfill.
- Evaluate the feasibility of artificial turf and continue to seek opportunities for new fields, especially in the northeast portion of the City.
- Incorporate informal field areas into new parks to provide usable play space.
- Build a community-scale skate park and incorporate at least four local "skate spot" features into parks throughout the community.
- Provide a paved basketball court at the west end of DuPont, in the Hoffman Hill area (a half-court exists in Chief Leschi Park).
- Work with residents to identify small-scale sports facilities that can be incorporated into existing parks.

## B. NEEDS FOR OTHER INDOOR AND OUTDOOR AMENITIES

- Add an off-leash dog area to the park system.
- Provide shelters so that every resident has a covered park area within about ½ mile of home. Provide at least two covered playgrounds in DuPont: one toward the west side of the City and another toward the east.
- Provide viewpoints and overlooks along the trail system, with the highest priority viewpoints along Puget Sound, and overlooks of historic sites another high priority.
- Maximize interpretation of historic and cultural resources throughout the park system.
- Prioritize the need for at least one spraypad or water-play facility in a central location in the community.
- Consider developing a more functional community center (by building or converting an existing building) to meet indoor recreation needs in the next 5 to 7 years.
- In the long term, evaluate the need for an aquatics center, once the City has grown and the park system has matured.
- Careful stewardship, prioritization, and planned use of limited available city land should be a consideration in all parks planning in the long term.

### 3.4 RECREATION PROGRAMMING



As noted in Chapter 2, a variety of recreation opportunities are provided in the DuPont area by DuPont, Lakewood, Steilacoom, JBLM, the Northwest Landing Residential Owners Association, other clubs, private organizations, and for-profit businesses. However, user restrictions, travel distances, and fees prohibit some DuPont residents from taking advantage of these programs.

As the City of DuPont continues to grow, the community's demand for recreation services will increase. Residents will find it increasingly inconvenient to travel out of the city to participate in sports programs, recreation classes, leisure activities, and special events. In the public involvement activities, residents indicated that they wanted close-to-

home, convenient, and accessible recreation experiences—particularly opportunities for active recreation. This desire has implications for facility development and recreation programming. An expansion in active recreation programming can provide a number of benefits to City residents of all ages, including increased health and wellness, lifelong human development, and improvements in quality of life. In addition, activities such as concerts in parks also contribute to community sociability, and art festivals and other special events will help reinforce community identity.

As the City of DuPont grows and changes, the provision of recreation opportunities should grow and change as well. A recreation strategy is needed to identify how to accommodate this change, which will involve expanding City programming, along with strengthening partnerships with the Residential Owners Association and other agencies and groups to maximize public benefits.

### **3.5 MAINTENANCE**

The City of DuPont’s Public Works Department is responsible for the maintenance of public parks within the city. The City currently shares the cost of maintaining beautification areas along the sides of Center Drive and other streets with Quadrant and the Residential Owners Association.

Currently, a significant amount of private park land is owned and maintained by the Northwest Landing Residential Owners Association. An important consideration is the long-term maintenance of these sites. Some beautification areas and small parks developed by Quadrant have been transferred to the City to become part of the publicly owned park system. At this point, the village greens spread throughout Northwest Landing are privately held and maintained by the Residential Owners Association. The City should carefully consider the increase in maintenance responsibilities and costs, particularly the expense of maintaining multiple small sites, before accepting any additional properties.

The parks operations expenditures for the City of DuPont in 2005 (excluding minor capital items) totaled \$91,059, which was approximately \$3,959 per developed acre of park land (at that time). This amount was within the typical range of maintenance expenditures for smaller cities with limited park facilities. However, it was very low in comparison to Camas, for example, a city with a high standard of park maintenance, which spent just over \$7,000 an acre maintaining parks. Due to the economic recession and Council priorities for allocating limited resources,





## VISION, GOALS, AND OBJECTIVES

DuPont's values and the community's aspirations for the future are guiding forces for the Parks, Recreation and Open Space Plan. This chapter focuses on the vision, goals, and objectives that illustrate the preferred future for DuPont's parks and open spaces and provide a foundation for all services and programs. These elements also introduce a planning framework for the recommendations, strategies, and actions that appear later in this Plan.

### 4.1 VISION

During the Park, Recreation and Open Space Plan process, DuPont residents developed a vision for park and recreation services:

*DuPont provides a walkable, accessible, park and open space system that supports a wide variety of recreation experiences and opportunities, serves all age groups and abilities, and connects the community.*

The vision provides a foundation for the goals, objectives, and strategies contained in this Plan. As such, it will guide the development of DuPont's park system and the provision of recreation services.

### 4.2 GOALS AND OBJECTIVES

Goals and objectives are statements describing how the City will achieve its vision for parks and recreation. Goals define the broad outcomes to be produced by implementing the Parks, Recreation and Open Space Plan. Objectives set forth clear directions for providing services and for creating a visionary park system. Taken together, goals and objectives can be a means of measuring the performance of a leisure services program.

These goals and objectives were developed based on input from members of the Park Agency, City staff and officials, and community members. The recommendations presented in Chapters 5 and 6 of this document include specific actions that should be implemented to achieve the goals and objectives set forth below. All goals, objectives, recommendations, and actions flow from the DuPont vision for park and recreation services.



## A. GOALS

- Goal 1.** Provide a coordinated system of well-designed parks and facilities that strengthens community livability and promotes community sociability.
- Goal 2.** Enhance and continue to grow individual and community health and wellness by providing high-quality opportunities through active recreational programs that are engaging and convenient to users.
- Goal 3.** Integrate natural resources and open spaces, including Sequatchew Creek, Edmond Marsh, and Puget Sound, into the park system.
- Goal 4.** Recognize cultural and historical resources as an essential part of DuPont's identity and heritage.
- Goal 5.** Provide a comprehensive network of trails and pathways to improve community walkability, connectivity, and park access.
- Goal 6.** Provide efficient and effective stewardship of parks, facilities, and natural areas to maintain these community assets.
- Goal 7.** Encourage and support public involvement in park and recreation issues and planning.
- Goal 8.** Encourage and pursue partnerships to maximize local resources for parks and recreation.

## B. OBJECTIVES

The objectives below are presented under the goal they support. Specific actions and recommendations to implement the goals and objectives are contained in the next two chapters.

- Goal 1. Provide a coordinated system of well-designed parks and facilities that strengthens community livability and promotes community sociability.**
- 1A. Provide developed parks that are accessible and convenient to DuPont residents. Each resident should have access to a developed park within  $\frac{1}{4}$  mile walking or biking distance of their homes. In areas where this is not feasible, provide a developed park within  $\frac{1}{2}$  mile.
  - 1B. Provide at least 4.52 acres of developed park land per 1,000 residents.
  - 1C. Ensure that year-round recreation opportunities, such as indoor facilities or covered outdoor recreation areas, are available in the community.
  - 1D. Provide a variety of park types that support a wide range of active and passive recreation experiences and meet the needs of diverse age groups, recreation interests, and abilities.

- 1E. In park design and development, incorporate community input, new trends in recreation, and changing community needs as DuPont continues to grow
- 1F. Accept only those parks and facilities that are consistent with this Parks, Recreation and Open Space Master Plan.
- 1G. Actively seek funds for the acquisition and development of park land, recreation facilities, and trails to meet community recreation needs.

**Goal 2. Enhance individual health and wellness and support community livability by providing high-quality opportunities for active recreation that are engaging and convenient to users.**

- 2A. Ensure convenient access to active features. All residents should have a developed active recreation park within ½ mile walking or biking distance.
- 2B. Provide playground facilities within ¼ mile of most residents.
- 2C. Provide an adequate number of sports fields to serve DuPont residents. At minimum, provide 1 softball/baseball field per 2,200 residents and 1 soccer field per 3,300 residents.
- 2D. Coordinate with park users and private providers to ensure there is an adequate range and supply of active recreation facilities and programs in DuPont.
- 2E. Monitor community demand for additional recreation services as the city grows. Consider adding more special events or offering diverse recreation programs at a variety of times, locations, and skill levels.
- 2F. Consider the need for indoor and outdoor recreation facilities with the capacity to support increased recreation programming. Considering adding additional ball fields/amenities at Chief Leschi.

**Goal 3. Integrate natural resources and open spaces, including Sequelitchew Creek, Edmond Marsh, and Puget Sound, into the park system.**

- 3A. Continue to develop our park system that provides access to natural areas within ½ mile of most residents, via the city's network of streets, bike paths, and trails.
- 3B. Coordinate the trail system with natural area preservation areas, responding to environmental conditions and preservation priorities while providing public access where feasible.



- 3C. Incorporate interpretative signage and viewpoints of local natural resources throughout the park system.
- 3D. Secure public access between the unnamed overlook trail along the Puget Sound bluff to connect to the Sequelitchew Creek corridor to preserve and protect this significant community resource and to provide access to the Puget Sound.
- 3E. Develop a natural area management strategy so that resources are maintained and preserved. The management strategy should address issues such as staff expertise and capacity, long-term funding, and community volunteerism.
- 3F. Seek development of basic facilities along the waterfront where the Sequelitchew Creek corridor meets the Puget Sound. Coordinate with landowner, Quadrant,

**Goal 4. Recognize cultural and historical resources as an essential part of DuPont's identity and heritage.**

- 4A. Identify and protect historic and cultural resources to enhance community identity.
- 4B. Maximize historical and cultural interpretation within DuPont's park system and recreation programs.
- 4C. Locate trails and viewpoints to facilitate access to cultural and historical resources.
- 4D. Coordinate with the DuPont Historical Society on cultural and historical resources.
- 4E. Support local partnerships for cultural and historical resource preservation and events, including with the Nisqually Tribe, School District, and neighboring jurisdictions.
- 4F. Consider DuPont's cultural heritage in all recreation master planning, including park design concepts, park and facility names, and facility development.

**Goal 5. Provide a comprehensive network of trails and pathways to improve community walkability, connectivity, and park access.**

- 5A. Develop names and signage for trail systems; develop and enhance trail connectivity in order to provide a variety of options for users, including a variety of lengths, surfaces and access points.

- 5B. Provide a public trail access to unique local points of interest, including trails on the Puget Sound bluff, through the Sequelitchew Creek corridor, and to the historic fort site and Old Fort Lake.
- 5C. Develop new pathways and fill in missing trail links to connect parks, open space, schools, neighborhoods, and other key destinations in the community.
- 5D. Link the DuPont trail system with the regional trail system and provide connections to regional points of interest, such as the Nisqually National Wildlife refuge and Steilacoom. Seek linkage to trail system by working with JBLM for access.
- 5E. Increase public awareness of the trail system, through special events and tourism.
- 5F. Provide user facilities, such as trailheads, signage, seating, viewpoints and overlooks.

**Goal 6. Provide efficient and effective stewardship of parks, facilities, and natural areas to maintain these community assets.**

- 6A. Consider the maintenance costs and staffing levels associated with acquisition, development, or renovation of parks or natural areas, and adjust the annual operating budget accordingly for adequate maintenance funding of the system expansion.
- 6B. Implement maintenance frequency protocols that maximize the life of the City's park and recreation assets.
- 6C. Maintain an operating budget that reflects the amount needed to preserve park assets.
- 6D. Invest in preventative maintenance and upgrades to parks and facilities to maximize long-term benefits.
- 6E. Collect and track data on the costs of maintaining City parks, natural areas, and facilities to facilitate informed decision-making.
- 6F. Maximize operational efficiency to provide the greatest public benefit for the resources expended.
- 6G. Encourage staff growth and development by encouraging participation in professional organizations, educational classes, and training seminars.

**Goal 7. Encourage and support public involvement in park and recreation issues and planning.**

- 7A. Support the Park Agency as the forum for public discussion of park and recreation issues.

- 7B. Provide opportunities for public input in park planning and design decisions.
- 7C. Increase publicity efforts to inform citizens of the recreation opportunities available in neighborhoods, villages, and citywide.
- 7D. Periodically review local park and recreation preferences, needs, and trends.
- 7E. Promote volunteerism to enhance community ownership and stewardship of parks, recreation programs, and services. In particular, encourage citizen involvement and participation in maintaining, improving, and restoring parks and natural areas. Continue to participate in local Parks Appreciation Day efforts.

**Goal 8. Encourage and pursue partnerships to maximize local resources for parks and recreation.**

- 8A. Avoid duplication of recreational opportunities by facilitating cooperation and communication among service providers.
- 8B. Continue cooperative planning and use of recreation facilities with public and private groups in the community.
- 8C. Maintain partnership with the School District to provide public access to school grounds, gymnasiums, and classrooms in DuPont.
- 8D. Coordinate with the Residential Owners Association and local businesses on funding or otherwise supporting parks, facilities, and recreation programs.
- 8E. Encourage a “good neighbor” relationship with residents and businesses located adjacent to parks, trail, and natural areas.
- 8F. Pursue partnerships with other regional entities, such as the Nisqually Tribe, Joint Base Lewis-McChord, and private or non-profit groups, to increase recreation opportunities in DuPont.

## PARK & FACILITY IMPROVEMENTS

This chapter describes strategies for enhancing DuPont's parks, natural areas, and recreation facilities. Needs were developed based on the Needs Assessment findings, which included feedback obtained through the public involvement process and a comprehensive analysis of existing parks open space, facilities, programs, and services. Recommendations for park and facility improvements are organized into the following categories:

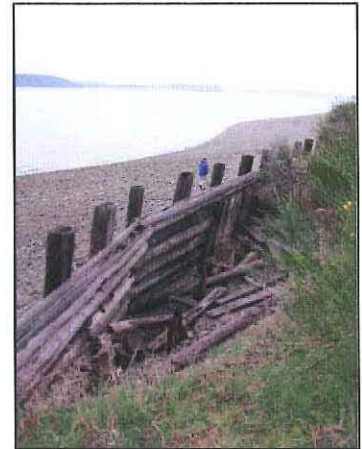
- **Overall improvements.** These system-wide improvements are needed throughout the park system.
- **New parks.** This category includes recommendations for acquiring new park sites or redesigning public open space as developed parks.
- **Existing parks.** Improvements at existing park sites.
- **Natural areas.** These recommendations address natural area acquisition and amenities.
- **Trails.** Recommendations for new trails and trail improvements are noted in this section.
- **Recreation facilities.** This category includes recommendations for recreation facilities, including sports fields, aquatic center, indoor space, community center and others.

In addition to these recommendations, strategies for meeting the increasing demand for recreation services are addressed in Chapter 6. Guidelines for the design and development of park land are presented in Appendix E.

### 5.1 OVERALL IMPROVEMENTS

According to the results of the needs assessment, along with the vision and goals identified for DuPont, many system-wide improvements are needed to enhance the park system. Improvements are needed in the following areas:

- **Playgrounds.** More updated, age appropriate playground equipment, such as swings, slides and equipment designed for a wider range of age groups, should be provided at all playground sites. At appropriate locations, consider innovative or theme-oriented play areas that may be unique to a particular site and, if possible, highlight a piece of DuPont's environment and history.



This type of playground is most appropriate at community-scale parks, not at neighborhood-serving parks.

- **Park signage.** All public parks should have signs to identify the site and to help make residents aware of available park resources. The City should design and implement a standard park identification sign and follow the existing Park Naming Policy.
- **Park amenities.** Improved benches, trash receptacles, picnic tables, and bicycle racks are needed throughout the system.
- **Accessibility.** Most parks are not compliant with accessibility standards. At a minimum, ADA criteria should be met to provide an accessible path of travel to all major recreation amenities within each park. Facility upgrades may be needed in some instances as well.
- **Historical and cultural interpretation.** Historical and cultural interpretation can be incorporated throughout the park and trail system and on City-owned land. This may be done through interpretive signage and facilities, art, and historical markers.

## 5.2 PARK IMPROVEMENTS



The vision for DuPont's park system, as noted in Chapter 4, is one of a walkable, accessible, interconnected park and open space system that supports a wide variety of recreation experiences and opportunities. This ideal park system will consist of a variety of park types, each offering certain types of recreation and/or open space opportunities. Separately, each park type may serve a primary function, but collectively these parks will meet the needs of the entire community. In this manner, the park system will serve DuPont residents on several levels. It also will provide the facilities needed to support a variety of programs and a balance of both active and passive opportunities.

One of the objectives noted in this Plan is to provide developed parks that are accessible and convenient to DuPont residents. Where feasible, each resident should have access to a developed park within 1/4 mile walking or biking distance of their homes. Some important notes about the system map include:

- Each park site is coded with a letter and number (such as P12). The code is for site identification only. These reference numbers are included on the system map and with recommendations for

each existing site. Parks are numbered roughly clockwise, beginning with Hoffman Hill Park in west DuPont.

- The final location of park sites will be determined later in the development of City plans and will be influenced by land availability, acquisition costs, and property ownership. When possible, the proposed location matches existing City plans.
  
- Sequalitchew Creek Village.

Table 5.1 presents an alphabetical listing of the parks in the DuPont system where improvements are recommended. The map reference number is included for each site, along with the page number where recommendations are noted in this chapter. This table serves as a quick reference to find recommendations for specific parks.

**Table 5.1**  
Developed, Privately-Owned Park Land by Neighborhood

Map Code	Park	Page Number
P11	Bell Hill Community Park	54
P12	Bell Hill Neighborhood Park	55
P17	Clocktower Park	57
P2	Chief Leschi Park	51
P7	DuPont PowderWorks Park	53
P9	Edmond Village Park	54
P16	Ethel Lumsdon Park	56
P6	Garry Oaks Park	53
P1	Hoffman Hill Neighborhood Park	51
P13	Iafrati Park	55
P4	Parkview (at Hoffman Hill)	52
P10	Proposed New Park	46
P19	Proposed Wilkes Observatory Park	47
P20	Proposed New Park	47
P8	Proposed Playground	48
P14	Robinson Park	55
P18	Ross Park	58
P15	Sellers Park	56
P3	Tract I Park	52
P5	Yehle Village Park (proposed)	48

Recommendations for new parks sites are noted below. Recommended improvements at existing and planned sites are presented in Section 5.3.

### **PROPOSED NEW PARK (P10)**

The area approximately ½ mile east of Edmond Village Park is planned for development as a commercial/research campus. A park/open space area there will serve residents in eastern Edmond Village, along with the workforce and customers in this business area. A park site here can provide healthy opportunities for employees to relax and socialize during lunch and work breaks, along with an accessible or attractive gateway between the residential and commercial area. In addition, the location of

this park will address deficiencies in access to nearby playgrounds and active recreation space, and the park can provide some elements missing from Edmond Village Park. Recommendations for this site include:

- Develop a new park east of Edmond Village, providing a playground, open grass area, and other park amenities.

### **PROPOSED WILKES OBSERVATORY PARK (P19)**

Overlooking Puget Sound from just south of the mouth of Sequalitchew Creek is a site known locally as Wilkes Observatory. This site is at the conjunction of two major proposed trail routes, making it a prime opportunity for a trail head. The park will also be a valuable amenity to the planned commercial office park surrounding the golf course.

- Now that we have acquired the site, the City should consider developing the park to include parking, signage and site amenities that support access to the trails and create a local destination for trail users from other parts of the city.

### **PROPOSED NEW PARK (P20)**

DuPont's current comprehensive plan indicates a park site north of the mouth of Sequalitchew Creek. Working with the property owner of the aggregate mining parcels north of the creek to secure park land on the north side of the canyon will provide a variety of near and long-term recreation opportunities. The site would secure land to serve eventual residential development in the Sequalitchew Village area of the city as well as protect the natural and recreational values of the creek corridor.

- Acquire land along the north edge of the Sequalitchew Creek corridor, focusing on the land near the mouth of the creek.
- Develop facilities and amenities that support the trail and natural open space uses of the creek corridor.
- In the long-term a portion of this land may serve open space and developed park needs of the Sequalitchew Village residential development.
- Vehicular access and trail connection to beach.



### **PROPOSED PLAYGROUND (P8)**

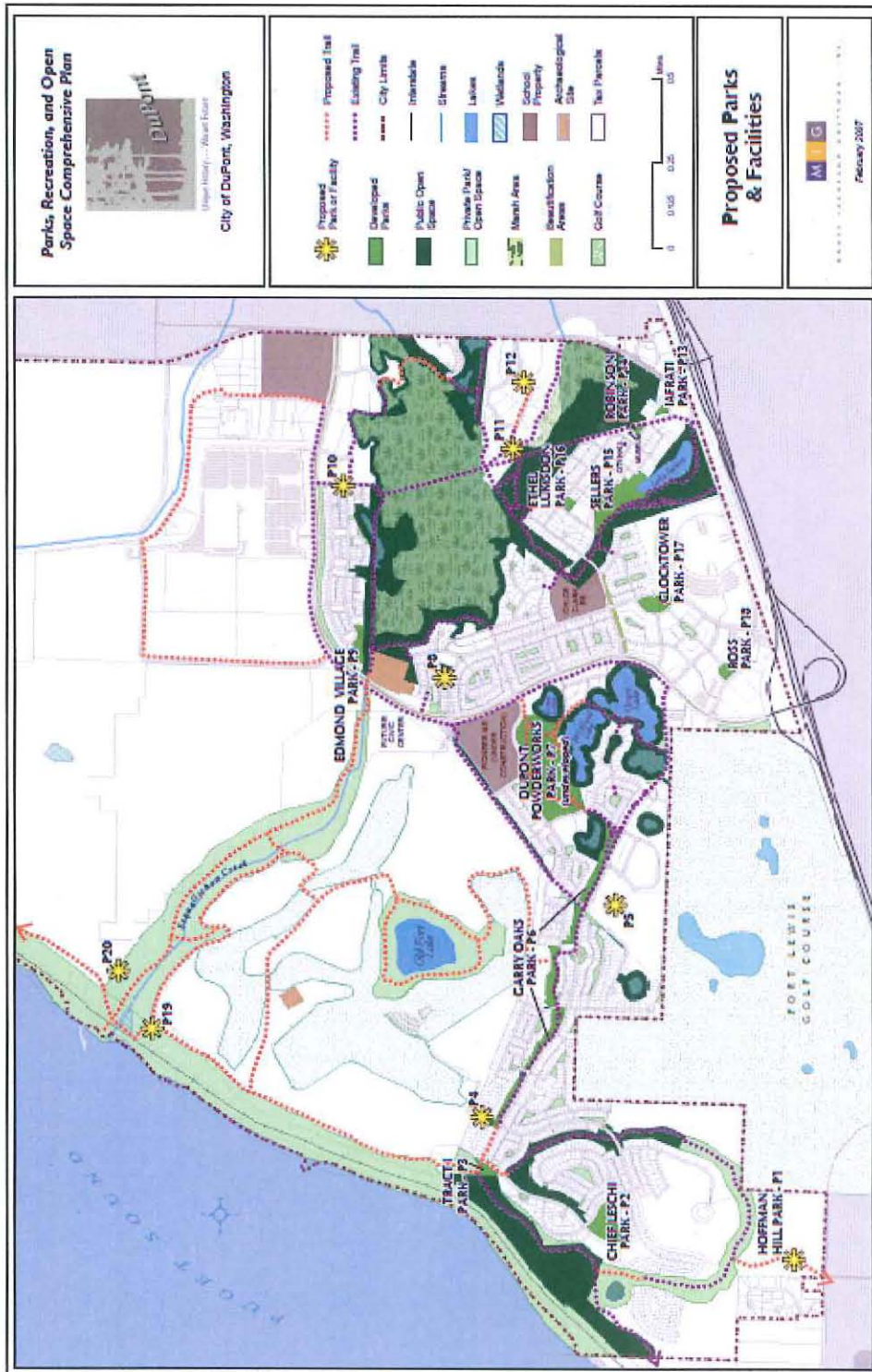
A parcel of publicly owned land is located south of Edmond Village Park and the old fort site, as depicted on Map 2. This site could be used for development with a playground and other active and passive amenities to meet recreation needs in this area. Recommendations include:

- Develop a new playground to include amenities for parents and families, such as seating and picnic areas.
- Incorporate historic/cultural interpretation of neighboring sites, including the fort site, the burial grounds, and Edmond Marsh.

### **ADDITIONAL PARK LAND**

In the long term, other sites should be considered for acquisition and development to meet community-wide recreation needs. Additional recommendations for park land include:

- **New Sports Complex/Community Center** Consider a sports complex in the north end of the City. The community's need for outdoor recreation facilities, such as sport fields and paved tennis and basketball courts, is growing. The City of DuPont should continue to seek opportunities to develop a sports complex in the northern portion of the city. (This includes all available property owned by the City)





- **Developed Parks to Serve Reclaimed Aggregate Site:** Consider future use of the aggregate site. Although the aggregate site is currently being mined, in the long-term future this area is planned for residential and other uses. Future plans for this site should include the preservation of open space and the development of park and recreation amenities to serve future reclamation and redevelopment. The parks should be laid out to provide playgrounds and trail access within ¼ mile of each resident; and active recreation features and natural area access within at least ½ mile of each resident.

### 5.3 EXISTING AND PLANNED PARKS

This section includes recommendations for park improvements at existing sites and facility development at planned sites. Unlike new parks, described in the previous section, these sites have already been acquired. Parks are presented in geographical order, as they are numbered on Map 2. See Table 5.1 for an alphabetical reference to all sites.

#### HOFFMAN HILL NEIGHBORHOOD PARK (P1)

Hoffman Hill Park is a neighborhood park located in southwest DuPont. The park includes a unique play area with climbers, hill slides, and spinners, along with a picnic area and open grass area (play lawn).

Recommendation for this site:

- Consider a shelter structure, while maintaining an open grass area large enough to support casual active recreation (Frisbee tossing, games of catch, etc.).

#### CHIEF LESCHI PARK (P2)

Chief Leschi Park is a 4.7 acre neighborhood park, located in west DuPont, south of Tract I Park. The site is a public park in the Northwest Landing development. It includes a wood play structure, rocks for climbing, an open grass area, a basketball half-court, and site amenities.

Recommendations for this park include:

- Analyze storm water drainage.
- Add restrooms to this park.
- Consider adding sport(s) field(s).

#### TRACT I PARK (P3)

Tract I Park is a one-acre park, located in west DuPont, adjacent to the protected natural area. The park supports passive recreation activities and includes a paved looping path, limited site amenities, and a sloping open turf area. The site is in a sensitive area, including a midden (a mound or deposit containing refuse that indicates the site of a human settlement). Recommendations for this park include:

- Formalize a name for this park site.
- Provide interpretation of the midden site and the surrounding environment.
- After public access to natural areas adjacent to Puget Sound is secured, Tract I park should be considered for access into the trail corridor.

#### **PARKVIEW NEIGHBORHOOD PARK (P4)**

This park is located northeast of Tract I Park in west DuPont. The site includes a small open lawn area, a looping path, landscaping, and limited site amenities. In the future, this site could help meet the needs of nearby residents for a playground and spray pad in this area. Recommendations for this site include the following:

- Reconsider whether a spray pad should be included. Water features are costly to maintain, and the City may have difficulty operating it for the long-term.
- Consider incorporating a playground or play features into this site.

#### **GARRY OAKS PARK (P5)**

Garry Oaks Park is a 12.9 acre linear park, which includes the Village II Division 5 Park. Although the two sites have been inventoried separately in the past they are an extension of the same linear corridor. This Plan recommends that the two be considered jointly for development, and that a single name designate this linear corridor. As a linear park, this site includes a pathway system and provides many opportunities for passive recreation. The park also includes two play structures, landscaping, and limited amenities. Recommendations for this linear park include the following:

- Add adult amenities such as shuffleboard, bocce ball, etc.



- Provide more active recreation amenities along this linear corridor, such as a skate spot and climbing features.
- Upgrade the older playground, and provide more amenities for parents.

### **DUPONT POWDERWORKS PARK (P6)**

This 23.8 acre site is a community park in central DuPont. As the largest park in the City, it provides much-needed community sports facilities, such as a baseball field, a soccer/multi-use play field, and an outdoor basketball court. Other amenities and facilities include a picnic shelter, tot lot, youth play structure, open grassy field, parking, restrooms, and a trail head. Recommendations include:

- Consider artificial turf in the long term, especially on the soccer/multi-use field.

### **EDMOND VILLAGE PARK (P7)**

Edmond Village Park is a 1.6 acre neighborhood park, located adjacent to the Edmond Marsh. It has a play structure, a half basketball court, and some park amenities. The main trail corridor through the City passes near the park, and the park is within view of the historic Fort Nisqually site. Recommendations include:



- Provide more engaging playground equipment.
- Improve the irrigation and the treatment of edges to facilitate maintenance.
- Incorporate additional small-scale active recreation features at this site, such as a skate spot.
- Provide a shelter structure.
- Incorporate interpretation of the neighboring historic fort site, the marsh, and Sequatchew Creek.
- Improve the connection of this site to the community-wide trail system.

- Consider restrooms or a designated portable restroom location to allow this park to function as a wayside for trail users, as well as to facilitate neighborhood use.

### **BELL HILL COMMUNITY PARK (P8)**

This park is in the Bell Hill area, adjacent to the Edmond Marsh. Located at the intersection of three existing gravel trails, the site has limited amenities and provides opportunities for passive recreation.

Recommendations for this site include:

- Provide a wetland buffer, erosion control, and other protections as needed in this ecologically sensitive area.

### **BELL HILL NEIGHBORHOOD PARK (P9)**

This park is a small neighborhood park serving residents along Bell Hill Place. The site is located near the main entrance to the Bell Hill neighborhood. This park has a play structure, octagon shelter, benches, trash receptacle, and a trail connecting the site to a planned cul-de-sac.

### **IAFRATI PARK (P10)**

Iafrati Park is a 0.3 acre neighborhood park, located at the entrance to the historic village, near the Robinson Park and DuPont Historical Museum. Currently, the site has very limited amenities, but it could support additional development. Recommendations include:

- Kiosk and signage, similar to rest areas, describing the area, history of DuPont, cultural interpretation, historic homes, points of interest, etc.
- Provide more amenities at this site, preferably covered picnic facilities. Other amenities appropriate for this site include a perimeter walking path and a trail system kiosk.
- Any improvements should be visually compatible with the historic village and should support the trail that passes next to the site on the old railroad grade.

### **ROBINSON PARK (P11)**

Robinson Park is a 0.4 acre special use area, located adjacent to the DuPont Historical Museum. The site has a gazebo, landscaping, mature trees, and a few site amenities. A narrow gauge engine, once used at the DuPont plant to haul material to the company's dock, is also located here. The DuPont Historical Society continues to restore the train and open it to the public. Recommendations for this site include:

- Continue the historic and cultural interpretation focus of this site, including the Museum.
- Complete the train project. Incorporate the train elements into the site, including providing pathways.
- Provide accessibility improvements, including a path to the gazebo.

### **SELLERS PARK (P12)**

This site is a 7.2 acre community park. Sellers Park is located in the historic DuPont village, adjacent to the Lake Sellers natural area. It is the second largest park in DuPont. It has many amenities and facilities, including a large picnic shelter in DuPont. Recommendations for this site include:



- Develop an updated master plan for the park that considers the adjacent reservoir site, incorporates more amenities, and provides connections to the trail system.
- Improve access and parking. On-street parking should be considered.
- Provide permanent restrooms.
- Incorporate more active elements into the updated master plan.
- Maintain an open lawn area.
- Provide pathways throughout the site.
- Fix and upgrade the basketball court.
- Provide more amenities near the picnic shelter.

### **ETHEL LUMSDON PARK (P13)**

Ethel Lumsdon Park is a 0.6 acre neighborhood park, located in the historic village. It is surrounded by chain link fence and has limited amenities. However, it is the only public park in the city that contains swings. Recommendations for this site include:

- Rehabilitate the park, including pathway improvements, new playground equipment, and amenities for parents. Keep swings at this site.
- Improve the appearance of the perimeter. Consider upgrading fencing to be more attractive fencing and in keeping with the character of the historic village.
- 

### **CLOCKTOWER PARK (P14)**

Clocktower Park is a 2.3 acre neighborhood park, located northeast of the commercial area. This park was designed as a community green or center, and it has been used for very popular Residential Owners Association-sponsored events each year utilizing the city's only outdoor stage. Except for the playground area, Clocktower Park is a primarily passive park. Recommendations for this site include:



- Develop a master plan for the site that incorporates new uses and provides a new vision for this park.
- Add permanent restrooms.
- Update the playground area with new, more engaging equipment. Make accessibility improvements and provide seating for parents.
- Address the clocktower structure, which was not constructed to a public facilities standard and requires ongoing maintenance.
- Provide overall path and site amenity improvements (doggie bags, trash cans, etc.).
- Consider public-private partnerships to assist in the upkeep of the park.
- Consider establishing restrictions on pets during the events season.



- Consider incorporating more smaller-scale active elements on the north end of the park, taking into account the potential for impacts on the surrounding residential uses.

### **ROSS PLAZA PARK (P15)**

Ross Plaza is a 0.8 acre special use site in DuPont's city center area also serving as a war memorial. Ross Plaza has extensive landscaping, and a pergola was included to function as an informal bandstand.

Recommendations for this site include:

- Rename to Ross Memorial Park.
- Consult with business community about the best additional uses to activate this park.
- Evaluate maintenance costs, and if needed, adjust the plantings and landscaping to reduce maintenance costs.
- Provide more welcoming signage.
- Consider banning all pets.
- Consider parking restrictions on Ross Loop.

## **5.4 NATURAL AREAS**

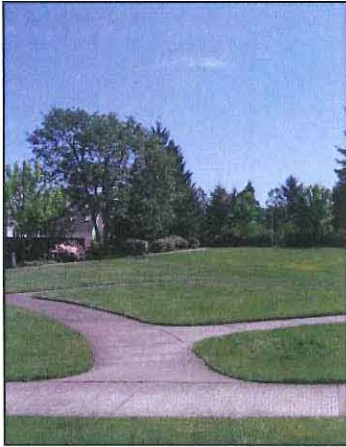
Natural areas are an important component of DuPont's park and open space system. DuPont's location on Puget Sound and its multitude of marshlands provide the City with a variety of open spaces and natural areas. Some of these areas have recreation potential, while others are ecologically sensitive and should be preserved for their resource value. Recommendations for natural areas in DuPont, including both management and acquisition strategies, include the following:

- Promote public access to provide the public the opportunity to enjoy the physical and aesthetic qualities of natural shoreline of the state. Use every effort to preserve these qualities to the greatest extent feasible consistent with the overall best interests of the community.
- The civic center shall continue to provide a trailhead and parking for this corridor.



- Secure a natural area corridor above Puget Sound connecting from Tract I Park to the Sequalitchew Creek corridor and further to the north. Provide Puget Sound viewpoints and trail access through this corridor. Locate development away from the Puget Sound bluff to maintain its value as habitat and as a visual amenity of the City and trails.
- Develop a natural area management strategy so that resources are maintained and preserved. DuPont's park maintenance staff currently does not have expertise in natural area management, nor is there staff capacity to take on more responsibilities. The management strategy should consider the long-term effect on the City's maintenance budget and provide ways for community members to volunteer their time.
- Develop a comprehensive noxious weed program to protect our natural areas. The control and eradication of destructive vegetation like scotch broom is an important maintenance program.
- Secure access to Old Fort Lake natural area.
- Provide a waterfront park on bluff north of Sequalitchew Creek, where it enters Puget Sound. (See recommendations for Site P20.
- Increase natural area interpretation throughout the City.
- Incorporate viewpoints throughout the City.

## 5.5 TRAILS



The recommendations provided in this section describe DuPont's desired off-street trail system. This trail system is designed to provide linkages throughout the community, to Puget Sound and other natural resources, and to regional destinations. DuPont's trail system generally follows parks, natural areas, and open space. Wherever possible, linkages should be provided between individual developments and the citywide trail system. Map 3 illustrates the trail network and delineates existing and proposed trails.

### A. PROPOSED TRAIL CORRIDORS

Map 3 illustrates the trail network, and codes each trail corridor with a letter and number (such as T8). The trail corridors depicted on this map represent conceptual linkages, not specific trail alignments. Specific trail alignments will be determined based on development patterns, topography, and other considerations. Trail names indicated in the descriptions below are for reference purposes only. Official trail names, if desired, should be selected by the Park Agency.

- **T1 - Hoffman Hill Loop:** This 1.6 mile trail encircles Hoffman Hill Village within the natural area and connects to trails T2 and T3. Connections to this trail from the surrounding neighborhood will be important to both usability and safety.
- **T2 - Puget Sound Bluff Regional Trail:** Extending the entire length of the Puget Sound frontage within DuPont (3.8 miles), this trail could link the region to the Nisqually Wildlife Refuge, and Steilacoom although the connection at the southern city limits is down a steep slope. The trail should also provide scenic overlooks of the Sound and connections to the shore where possible to include a boulevard with undisturbed views of water and mountains.
- **T3 - Garry Oaks Trail:** This 1.8 mile trail connects Center Drive/DuPont Station through Yehle Village to Hoffman Hill. The trail is a major east-west route in the system and for much of its length is contained within Garry Oaks Linear Park.
- **T4 - Old Fort Trail:** This segment includes 0.6 miles of trail, connecting trails T2 and T6. The trail also provides access to the 1832 Fort Steilacoom site.



**T5 - SEQUALITCHEW CREEK TRAIL: THIS 1.4 MILE TRAIL PROVIDES ACCESS TO SEQUALITCHEW CREEK FROM CENTER DRIVE, CONNECTING TO PUGET SOUND.**

- **T6 – PowderWorks Trail:** This trail begins in Yehle Village, loops Old Fort Lake and follows the southern ridge of the Sequelitchew Creek valley. The 3.0 miles of T6 along with T2 and T3 create a large loop through the site of the former DuPont Powder Works.
- **T7 - Yehle Connector:** This 0.7 mile trail follows a power line corridor between Garry Oaks Park and Center Drive.
- **T8 - Lake Loop:** This corridor is made up of 1.4 miles of trails that start at the east end of Garry Oaks Park and loop through DuPont PowderWorks Park and around Strickland, Pond and Grant Lakes before connecting with trail T3 near McNeil Station.
- **T9 - Center Drive:** The separated path/sidewalk along Center Drive serves as a major route for pedestrians and bikers through the city. This spine also connects many of the trail segments together. The length of this segment, from McNeil Station to International Place, is 1.9 miles.
- **T10 - DuPont Railroad Trail:** This 2.2 mile segment (including a connection south into Palisade Village) is primarily located on the railroad bed for the small gauge railroad used by the DuPont Company for transportation from the company town to the powder works. This trail provides important access to the Edmond Marsh natural area and between Edmond Village and the Historic Village.
- **T11 - North Loop Trail:** This 1.8 mile loop from International Place to Wharf Road and back to Center Drive provides access to the trail system for the industrial and office workers in the north portion of the city. It will also provide links to the Sequelitchew Village area after completion of aggregate operations.
- **T12 - Edmond Marsh Trail:** This trail provides access to the northeast portion of the Edmond Marsh natural area and links to the Girl Scout Council offices on DuPont-Steilacoom Road and to the Bell Hill residential area. The length of this segment, including one connector, is 1.2 miles.
- **T13 - Historic Village Loop:** This 2.7 mile set of trails is formed from numerous existing trails in the natural area buffer between

the Historic Village and Northwest Landing. The trails provide connections for pedestrians through the buffer and a perimeter walking path around the Historic Village from Lake Sellers to Bell Marsh.

- **T14 - El Rancho Madrona Trail:** This 0.3 mile connector trail links T1 and Hoffman Hill Village to the existing El Rancho Madrona subdivision, which is not directly connected to the DuPont street system. This trail also has potential to connect to additional regional connections south of the city.

## **B. TRAIL PLANNING AND DESIGN**

Policy statements and design guidance for trail planning and design are contained in this section. These guidelines are intended to assist the City of DuPont in developing an off-street trail system that is user friendly and functional.

### **Planning**

- Wherever possible, recreation pathways and trails should be separated from the roadway.
- Maintain natural views by setting development back.
- Maximize the use of utility corridors and other linear features for trail corridors to achieve multiple benefits, where feasible.
- During the land development approval process, dedication of right-of-way for recreational trails shown on the Trails Plan map should be required.
- Local trails should be required in residential and commercial planning and should connect to the City's trail system and neighboring local trails. Trail locations can be determined during the land use review process.
- Include pedestrian/bicycle facilities in the planning and design of new roads. Develop both a paved and non-paved pedestrian trail system to enhance public enjoyment of natural areas, and historic and cultural sites, and to take advantage of scenic views.
- Multi-use trails are the preferred trail type for DuPont, because they have the potential to serve the broadest spectrum of the public, including walkers, hikers, and runners, and cyclists. Trails

should be planned, sized, and designed for multiple uses, except where environmental or other constraints preclude this goal and in some cases where single use trails are needed for particular user groups.

- A series of trailhead areas should be provided for trail access. These sites should include parking, orientation and information signs, and any necessary specialized unloading features. Primary trailheads should have restrooms and trash receptacles, while secondary trailheads might only have some parking and signage. Secondary trailheads may have 1-2 parking spaces, whereas primary trailheads may have 10 or more parking spaces. Trailheads can be incorporated into parks or community facilities in many cases. Where trails may have a regional draw they should be designated as primary trailheads and adequate parking should be provided. A parking management plan may be necessary when trailheads are located in neighborhoods.

#### Design

- Trail alignments should take into account soil conditions, surface drainage, and other physical limitations that could increase construction and/or maintenance costs. Hazard areas such as unstable slopes and critical habitat should be avoided.
- Route trails to minimize user shortcut potential.
- If the trail runs adjacent to a sensitive area, at minimum the buffer specified in the Critical Areas Ordinance should be provided. Trails within sensitive areas should be located to minimize views of roads, sidewalks, development as much as practical. Locate development away from the Puget Sound bluff to maintain its value as habitat and as a visual amenity of the City.
- Trails should be located and designed to provide a diversity of challenges. Enhance accessibility wherever possible, the high priority being loop or destination opportunities on portions of trails near staging areas.
- Where routes use existing streets, the pathway should be designed to minimize potential conflicts between motorists and trail users.
- Wayfinding and orientation signage should be provided to facilitate trail users. Signage should be provided at each major

intersection and trail entrance, and should include route, mileage information and any use limitations.

- Trail surfacing (paving versus other types of surface) should take context into account, mainly the location and expected use.



### C. TRAIL RECOMMENDATIONS

The recommendations below address specific implementation steps for providing the trail system envisioned for DuPont.

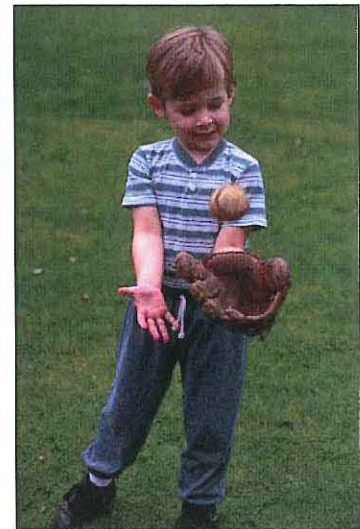
- Printed copies of City Trail Map should continue to be available at locations in the community, such as City Hall, DuPont Historical Museum, and the library. This brochure should be updated periodically as new segments are added.
- Actively seek funding to implement the trails plan depicted on Map 3.
- Upgrade existing trails. DuPont has existing trails that are a mix of paved, gravel, and unpaved trails with varying degrees of formality. These should be upgraded to a consistent standard. In some cases, multiple routes exist and should be simplified into one route for ease of maintenance. An example of this is T13 in the vicinity of P11 (Bell Hill Park 1).
- Pursue a regional trail linkage to Nisqually Wildlife Preserve and Steilacoom.
- Develop a trail signage plan and implement new signs throughout the system. The signage plan should include standards for kiosks with system maps, trailhead signs indicating distance and difficulty, and trail signs posted along the route.
- Provide formal trailhead facilities throughout the trail system. The highest priority formalized trailheads (including trail map kiosks) should be pursued at Iafrazi Park, the proposed Civic Center, and DuPont PowderWorks Park. In the future, a trailhead should be provided along the Puget Sound bluff trail (T2).
- Provide viewpoints and overlooks along the trail system, with the highest priority viewpoints along Puget Sound, and overlooks of historic sites another high priority.
- Where trails are proposed on land not owned by the City, work with property developers and owners to provide access for the public through easements or other dedications of land to provide this amenity to both city residents and employees of DuPont businesses.

## 5.6 RECREATION FACILITIES

### A. SPORTS FIELDS

An increase in sports fields, along with other types of athletic facilities, will greatly increase opportunities for active recreation in the community. Currently, DuPont has an extreme shortage in available sports fields for use. Based on the results of the needs assessment, the following strategies are recommended to meet provide for the field demand generated by DuPont residents:

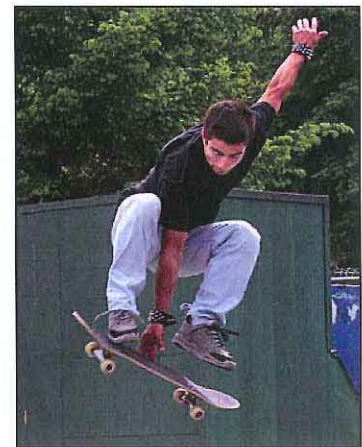
- At minimum, provide 1 softball/baseball field per 2,200 residents and 1 soccer field per 3,300 residents..
- Evaluate the feasibility of artificial turf at DuPont Powder Works Park.
- Continue to seek opportunities for new fields, especially in the northeast portion of the City. A sports complex in this area would expand resources in the community tremendously.
- Incorporate informal field areas into new parks to provide usable play space.



### B. OTHER OUTDOOR ATHLETIC FACILITIES

The citywide recreation questionnaire noted that active use facilities, such as sports fields, basketball courts, and tennis courts, were types of facilities most desired in neighborhood parks. An increase in all types of athletic facilities in neighborhood and community parks will help meet the goals and objectives in this Plan. The following is recommended to meet community needs for outdoor athletic facilities:

- Improve the Edmond Village half-court and Sellers Park court.
- Work with residents to identify small-scale sports facilities that can be incorporated into existing parks. Because DuPont's parks are smaller in size, small-scale athletic facilities have an advantage because they can be integrated into existing parks more easily due to their space requirements. Examples of small-scale sports facilities include bocce, a bowling game played on dirt courts 20-30 yards long and 8-12 feet wide; horseshoes, a throwing game using stakes placed 40 feet apart in a narrow corridor; disc golf,



played with a variety of different Frisbee discs used for throwing from a tee to the “holes” (standing baskets to catch discs); and bouldering, the sport of low-height, problem-solving climbing.

- Develop and maintain a partnership with ROA/COA

### C. OTHER RECREATION FACILITIES

Additional recreation facilities will be needed throughout the park system to help meet DuPont’s goals and objectives for ensuring convenient access to diverse recreation opportunities and active and passive recreation features. Based on the results of the community needs assessment and public involvement findings, this Plan recommends the following:

- **Add an off-leash dog area to the park system.** Land [approximately 1-2 acres] needs to be identified suitable for a off-leash dog park. Consider Steilacoom Historical School District property at the north end of the city as potential locations. An off-leash dog area provides a location where residents can exercise dogs. Ideally, the site would be one to two acres in size, and in a location away from natural resource areas. Because of a shortage of suitable sites, DuPont may need to have a smaller dog park. An off-leash area should be fenced with a double-gated entry, have nearby parking, and include amenities such as pooper scooper stations, water, benches, and trash cans. The site should also be safe, not isolated, and noise impacts on neighbors should be considered.
- **Provide sheltered areas in parks.** Picnic shelters should be provided so that every resident has a covered park area within about ½ mile of home. In addition, at least two covered playgrounds should be provided in DuPont: one toward the west side of the City and another toward the east.
- **Consider providing new recreation opportunities along the Puget Sound.** In public involvement activities, residents suggested that park frontage and/or park amenities along the Puget Sound are highly desirable. A proposed trail through the Sequelitchew Creek corridor can provide walk-in access to the Sound. This may create new recreation opportunities to consider, such as local camping on the bluff above Puget Sound; (unattended) beach swimming in the Sound; and picnicking at a Sound viewpoint. In considering the feasibility of supporting such activities, the City should address maintenance and safety concerns that may arise.

## D. AQUATIC CENTER

Swimming is one of the community's top ten recreation activities in terms of participation, and one of the top five activities in which youth and adults would most like to participate. It is suggested that the City partner with associations such as YMCA, Boy/Girls Club, etc. Consequently, this plan recommends the following:



In the long term, the City could consider a multi-purpose community recreation and aquatic center in five-ten years that serves all age groups and diverse interests, while meeting financial goals. In the past, smaller recreation centers and stand-alone pools were favored nationally as a means of providing indoor recreation space. However, current regional and national trends favor larger, more cost-efficient, multi-purpose community/aquatic centers that provide a range of recreation opportunities and meet a variety of community needs. These recreation centers tend to be large facilities (40,000-80,000 square feet), capable of incorporating revenue-generating activities. These facilities are often shared between multiple agencies and user groups in order to support the high cost of operation.

## E. INDOOR FACILITIES

In the Community Open House and Workshop, residents expressed a desire for increased programming that targets different ages, abilities, and recreation interests. The community's desire for more programming creates a need for both indoor and outdoor facilities that will support different types of classes, activities, and events. While amenities and facilities to support outdoor activities may be met by plans to develop new, planned, and existing parks, the need for indoor programming space may be more difficult to meet. In the long term, the city may consider the feasibility of building a multi-purpose recreation and aquatic center. However, in the short term, this Plan recommends the following:

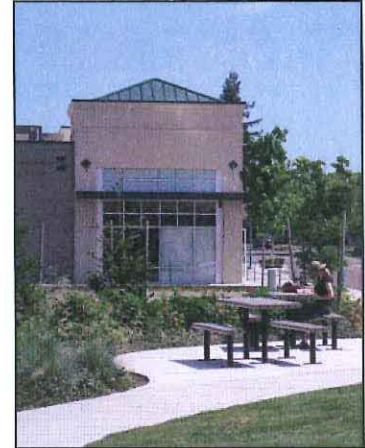
- **Community Center:** Pursue investing in upgrading existing community center at 303 Barksdale Ave. City should consider building a new facility that could be a multi-purpose, multiple age groups center. Pursue utilizing the current Civic Center for programs, events and rentals.
- **DuPont Historical Museum:** Continue to partner with the Historical Museum to offer interpretive, educational, or cultural learning opportunities.



- **Joint Use of Public Facilities:** Plan for multiple users for any future public buildings, such as school sites. Designing for community use along with the basic uses will improve compatibility and reduce the cost to the public of providing important facilities.

## **PARK AND RECREATION SERVICES**

Currently, DuPont's Public Works Department is responsible for the provision and maintenance of parks, along with the coordination of the Park Agency. However, significant changes over the next several years will affect the provision of park and recreation services. In the next several years, DuPont's park inventory will continue to expand to include additional parks. In addition, the City's growing population is creating an increasing demand for services, such as additional recreation programming and open spaces. This plan provides guidance to help the City prepare for these changes and meet the challenges of increased service demands.



While Chapter 5 presented strategies for developing and improving parks and recreation facilities in DuPont, this chapter includes recommendations for improving the delivery of recreation services, including strategies in the following areas:

- Administration and management
- Finance and budget
- Park planning and design
- Maintenance and operations
- Recreation programs

The strategies in each area are presented in no particular order and should be implemented in a way that best moves DuPont forward in meeting the goals and objectives of this plan.

### **6.1 ADMINISTRATION AND MANAGEMENT**

#### **1. Transition to a Parks and Recreation Division or Department.**

The Public Works Department is currently responsible for parks maintenance and street beautification, as well as maintenance of other City infrastructure such as streets, sewer, and water. Because of the increased workload, staff dedicated to parks and recreation is needed. This could take the form of a Parks Division within Public Works, or a separate Parks Department. In addition to responsibility for parks ground maintenance and recreation programs, the Parks Division or Department could also be responsible for landscaped medians and grounds maintenance at City facilities, such as City Hall. Whether a division or department is created, a supervisor or director will be needed. Transitioning to a parks and recreation department or division will facilitate the delivery of park and recreation services, allow

for better coordination with other providers, and improve cost tracking.

2. **Continue to support the Park Agency.** The Park Agency should continue to be the main body for public discussion of parks and recreation in DuPont.



3. **Increase public awareness of park and recreation resources.** Neighboring JBLM and the percentage of rentals of Northwest Landing provide a continuous influx of new residents who will need information about parks and recreation. DuPont's website features a map of existing parks, trails, and information about amenities available at each of the parks. Recreation information is posted online with links to the websites of local sports leagues. The City provides park and trail maps and brochures. This plan also recommends a citywide signage program, discussed later in this chapter, which will also increase awareness when implemented.
4. **Create a parks and recreation policy manual.** DuPont should prepare a policy manual that defines procedures and policies for how the City will react to given issues in the near term. This will help maintain a level of consistency in the provision of recreation services and help staff render consistent decisions. For example, policies should be documented on designating park names, establishing park rules, restroom hours of operation, and facility rentals. The policy manual should include specific customer service policies that provide methods for collecting complaints, methods for seeking public input (such as evaluation forms for recreation classes), policies on refunds, and standards for response time to complaints.
5. **Update the Parks, Recreation and Open Space Plan every six years.** DuPont's plan will need to be periodically updated in order to maintain compliance with the Recreation and Conservation Office (RCO). The RCO is a Washington agency that creates and maintains recreation opportunities and protects and preserves lands. The RCO is the agency responsible for managing multiple grant programs for recreation and habitat enhancement, and requires a plan as part of the grant criteria. To maintain eligibility for these grants, DuPont should update the plan at least every six years.

## 6.2 FINANCE AND BUDGET

1. **Update the City's Capital Facilities Plan to include park projects.** In order to use some financing options, such as the first quarter percent of Real Estate Excise Tax (REET) funds, projects must be included in the Capital Facilities Plan.
2. **Improve cost and revenue tracking for parks and recreation services.** One of the most important items in controlling costs and producing revenue is a good budget reporting system. At a minimum, the City should review the cost of maintaining its parks, trails, and natural open space areas on a per acre and per Full Time Equivalent employee (FTE) basis. As recreation programs are added, program costs and revenues should be tracked by major program area (e.g., sports, general recreation, aquatics, seniors, and outdoor/environmental programs). Good budget tracking of program costs will allow the City to make management, marketing, or programming improvements. As an added benefit, accurate cost tracking also provides information for budgeting and for planning future facilities. It is suggested to implement an online registration process for recreation programs and special events. Fees associated with this shall be included with the registration fee.
3. **Maintain Park Impact Fees.** Implement Park Impact Fees (PIF) for residential and commercial uses. Park impact fees are fees imposed on new development to pay for capital projects required to accommodate the impacts of development on the City's infrastructure. Residential and commercial development in DuPont adds additional users to the parks, trails and other recreation resources, requiring additional and upgraded facilities. With almost all the residential areas completed, special attention and emphasis should be given to new commercial development adjusting policies and the DuPont municipal code to recognize the shift should be undertaken. Projects funded with impact fees must be on an adopted capital facilities plan.
4. **Pursue new sources of revenue for operations as well as capital projects.** DuPont has expanded its park system through the development process, but has not used many sources of park funding. Public involvement results show that residents value parks and recreation as a critical element of quality of life. However, DuPont has budget constraints. Rather than cutting services, the City should pursue new sources of revenue to garner





more resources for parks and recreation. All current sources of funding should be continued, and the City should seek new sources for capital projects, programs, and maintenance/operations, including options such as private grants, user fees, rental revenue, donations, sponsorships, naming rights, and corporate partnerships. Increased revenue generation can reduce reliance on the General Fund while providing additional resources to provide park and recreation services. While increased services may result in a bigger budget, the net financial cost to the taxpayer may be nearly the same, or even less. Identifying new sources and diversifying revenue will require staff time.

5. **Evaluate maintenance funding options.** DuPont's expanding park system has created increasing maintenance demands, but funding has not kept up. Funding of maintenance is an issue, yet residents have indicated that they value parks and recreation and may be willing to pay for these services. The City should evaluate new maintenance funding options such as a Metropolitan Park District, levy lid lift, or park utility fees.

A Metropolitan Park District is a special tax district, authorized under RCW 35.61.210, with a board of park commissioners. A park district has taxing authority, and can levy up to \$0.75/\$1000 of property value. Formation of a district may be initiated by the local governing body or by citizen petition, and must be approved by a majority of voters. If a district were proposed that included only land in the City of DuPont, the City Council could adopt a resolution submitting a ballot proposition to establish the district. Under this scenario, members of the City Council could also be designated to serve as the board. The City would also have the option of turning over its park land to the district, or keeping ownership. The district could have its own maintenance crews, or could contract with the City to provide park maintenance using city crews.

The primary advantage of a Metropolitan Park District over City-supported park systems is the dedicated funding for parks and recreation (both capital projects and operations). When cities provide park and recreation services, there are a number of competing priorities for General Fund resources, including public safety. A park district has a dedicated revenue stream that can only be used for park and recreation purposes. However, a park district would result in an overall increase in taxation for DuPont residents.

A levy lid lift allows the City, with a majority vote, to increase property tax rates beyond the 1% maximum per year up to the statutory maximum tax rate (\$3.375/\$1000 of property value). A lift could be offered to the voters specifically for parks and recreation to provide a steady source of ongoing funding for maintenance and operations. The lid lift can be either temporary or permanent, although if used to fund bond repayments the limit is nine years.

The important difference between the City increasing its taxing authority and establishing a Metropolitan Park District is the extra layer of organization involved in a park district. Maintaining the park district will have some additional administrative costs but would keep park and recreation funding apart from the rest of the City's budget decisions.

Park utility fees apply the concept of a utility fee for services such as water and sewer to city parks. A fee is assessed on all businesses and households in the city for use of parks. Park utility fees differ from water and sewer fees because usage cannot be easily metered. Park utility fees have a potential to be a significant and stable revenue stream for local jurisdictions. Park utility fee revenue will grow with population growth, and local jurisdictions can increase the fee to reflect increased costs of providing park facilities. For example, Medford, Oregon has implemented a park utility fee of \$0.31 per unit per month, which is included in properties' water bills and will be used to offset operations and maintenance costs.

- 6. User fees for park facilities.** As part of the effort to diversify revenues and gain more resources for maintenance, DuPont collects user fees for park facilities, such as picnic shelters and sports fields. User fees are set to recover the increased cost of maintaining a facility as a result of a reserved private use. The fee balances the need to recover costs with the overall community benefit provided by a use. For example, a private party at a picnic shelter provides significant private benefit, although there is public benefit to having affordable locations for family events. An independent league's use of a public field for games and practices provides private benefit for the players, but community benefit in terms of positive youth activity.



7. **Devote staff time to developing alternative resources.** In order to secure grants or donations and to recruit and manage volunteers, staff time must be assigned. Professional assistance should be contracted. Although the use of staff time or contracted help will involve a cost to the City, successful efforts will increase the resources available for parks and recreation.
8. **Explore whether cost savings can be gained through joint purchasing or joint contracting.** Other agencies, including the ROA, are building and maintaining parks, buildings, and landscapes. DuPont continues to explore whether cost savings can be achieved by partnering with other groups. For example, the ROA contracts for maintenance of grounds throughout Northwest Landing. If DuPont and the ROA jointly contracted for maintenance, perhaps cost-savings could be realized due to the increased volume. The ROA or other local jurisdictions may be able to partner on purchases of supplies and shared equipment.



### 6.3 PARK PLANNING AND DESIGN

1. **Consider banning smoking in public parks.** DuPont supports healthy, active, family-oriented recreation, as supported by the vision and goals in Chapter 4 of this document. In support of health and wellness goals, the City should consider implementing a new rule banning smoking in public parks. There was significant community support for this effort in the recreation survey.
2. **Develop and implement a citywide park and trail signage program.** Continue to improve park identification, historic interpretation, and way-finding signage is needed throughout DuPont to identify public parks and to mark trail and path routes. A citywide signage program should specify the design of signs and standards for sign locations.
3. **Base capital project decisions on lifetime maintenance impacts.** Capital projects decisions should include an evaluation of lifetime maintenance impacts. Since maintenance funding is more difficult to obtain than capital funding, design decisions should take maintenance costs into effect. For example, spending more on higher quality materials up front can sometimes reduce lifetime maintenance costs and extend the lifespan of assets. Spending additional money on soil preparation for athletic fields can greatly reduce the lifetime maintenance and operations costs, and at the same time result in projects that support increased

public use. Other design decisions, such as using path locations to separate turf from planting areas, adding concrete mow strips under fences, and using a consistent palette of materials and site furnishings, also have potential to reduce lifetime maintenance costs. Designing projects that use less energy or water also can reduce the long-term cost of a project.

4. **Incorporate labor-saving technology.** Incorporate labor-saving technology into parks to facilitate maintenance, such as computerized irrigation, automatic lights and locks, etc. Although there is a higher upfront cost for these elements, they will result in lower maintenance costs over the lifetime of the park. Involving park maintenance staff in these decisions will help create a maintenance-friendly park system.
5. **Integrate stormwater facilities into parks.** When stormwater facilities are required in parks, these should be integrated into the design of the park. For example, the edges of a stormwater facility can be designed to be curvilinear, rather than rectilinear. The stormwater pond area can be stepped, with some areas experiencing more frequent inundation and other areas remaining dry except in large storm events. However, stormwater facilities required for private development should not be incorporated into parks.
6. **Update the costs in the parks capital facilities plan annually.** Update the parks capital facilities plan annually to reflect the current cost of construction of public facilities.
7. **Implement a neighborhood park improvement program.** DuPont residents strongly desire increased active recreation opportunities throughout the park system. In addition, most of the newer parks were designed as part of the development process long before residents moved in, and did not have the benefit of user input into the design. DuPont should implement a neighborhood park improvement program by allocating funds each year for additions to existing parks. Each park will be the subject of a neighborhood workshop led by the Park Agency aimed at guiding improvements based on the needs of immediate neighbors to the site. Taking on one or two parks per year, in different parts of the community, the Park Agency will set a schedule to regularly review each park to ensure that it is meeting the recreational needs of the surrounding neighborhood as well as possible.



## 6.4 MAINTENANCE AND OPERATIONS

1. **Prioritize capital improvements at existing parks that will reduce M&O costs.** Many of DuPont's older parks were not designed with maintenance in mind. In addition, aging equipment can be found in many of the historic parks. In prioritizing park improvements, the City should give a high priority to capital improvements at existing parks that will reduce the maintenance workload. A detailed study should be completed to identify specific improvements that will reduce M&O costs, noting project cost and maintenance cost savings. These projects should be prioritized on a cost/benefit basis, where the highest benefits are provided for the least cost.
2. **Evaluate maintenance arrangements to maximize efficiency and cost-effectiveness.** While full-time parks maintenance employees are an important asset, there are seasonal fluctuations in service demands. In addition, there are multiple ways to complete a job. DuPont should evaluate its maintenance arrangements to maximize efficiency and cost-effectiveness, while keeping the desired level of control over the park system. For example, the City has contracted for maintenance of street landscaping. Other cities contract out specific maintenance tasks, such as mowing, pest control, or tree care. Some cities contract their maintenance crews out to other agencies, and receive revenue for providing services. Seasonal employees are another alternative way of maintaining parks during peak seasons. A larger ratio of seasonal employees can help meet the increase maintenance demands in a more cost efficient manner. Community service workers are another source of alternative maintenance, especially for low-skill tasks.
3. **Evaluate the need for new skill sets to meet long-term park maintenance needs.** With the expansion of the park system, DuPont may have a need for new skill sets to preserve and maintain the many diverse assets in the system. Natural resource management and maintenance is one such set of skills, encompassing tasks such as oversight of forest and natural area maintenance, volunteer management, wildlife or habitat management, and trails development and management. Other areas where staff skills will be needed are trail maintenance,



arboriculture, and facilities maintenance. There are a variety of ways to bring new skills into DuPont's maintenance crews, ranging from training existing employees, to targeting new hires with specific skills, to contracting services.

4. **Track street landscaping and grounds maintenance of City facilities separately from parks maintenance.** In order to understand the cost of providing parks and recreation services, DuPont should track park maintenance in its own category. Other grounds maintenance completed by the parks maintenance crew, such as grounds maintenance at City Hall, fire stations, and at any City utility infrastructure (reservoirs, wellheads, etc.), should be tracked separately. Maintenance of street beautification areas, such as along Center Drive, should also be tracked separately.
5. **Budget adequately for asset preservation.** Inadequate maintenance funding will result in depletion of the City's park assets. In 2013, DuPont spent just under \$2,020 per acre to maintain its parks, which included a basic level of maintenance for a park system with high maintenance features such as sports fields (maintenance for which was donated), fountains, and landscaped beds. At minimum, the City should budget \$4,500-\$5,000 per developed acre of park land to continue a basic level of care. As the new facilities come on line, DuPont should monitor its maintenance costs and adjust the budget if needed to account for the increased maintenance demands.
6. **Establish a park maintenance management plan.** A park maintenance management plan is a management approach where maintenance and time standards are established, priorities are identified, and yearly work schedules prepared. By approaching park and facility maintenance on a systematic basis, crisis maintenance can be reduced, the quality of maintenance improved, and work tasks spread out more evenly throughout the year. This type of plan can also help the City track maintenance costs, so that the costs of different parks can be compared and the cost of different tasks can be compared. The park maintenance management plan should include a tiered level of service for parks in DuPont. This means that parks of different types will have differing maintenance frequencies and protocols to place the highest effort in parks with the highest use or most facilities. The maintenance management plan framework can provide staff and Council with the data needed to make informed judgments about

how to balance the budget and how to match level of service with community expectations.

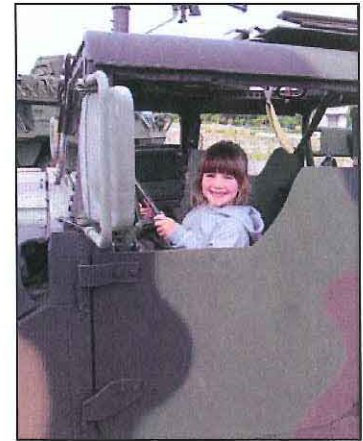


- 7. Develop maintenance procedures for city-owned sports fields.** DuPont Powder Works Park contains the only City-owned sports fields. Additional fields will require new maintenance tasks, in addition to basic turf care practices, including:
- Higher frequency mowing
  - Over-seeding
  - Intensive fertilization
  - Aeration
  - Rigorous weed control
  - Heavy irrigation
  - Priority repair of irrigation
  - Priority drainage fixes
  - Spot sod replacement
  - Chalking field lines
  - Infield repair and
  - Priority maintenance of backstops, fencing, goals, etc.
- 8. Develop a detailed list of the assets at each site and evaluate asset condition annually.** This task is important for the long-term management of DuPont's park system. By developing detailed inventories and rating the condition of the assets on a scale of 1 to 3 or 1 to 4, the Parks Maintenance division will be able to plan its workload more effectively and budget for repairs and upgrades. The asset inventory can also be used in the City's maintenance management plan, to assign maintenance frequency. Since DuPont's system is still relatively small, establishing an asset management system will be a manageable task if it is done soon.
- 9. Coordinate parks capital project location decisions, such as trail locations, with other city infrastructure to maximize maintenance resources.** The maintenance of parks and recreation projects that are co-located with sewer, water, and stormwater infrastructure can be partially addressed through maintenance of the infrastructure. For example, a sewer line maintenance road that is also used as a trail can be maintained using sewer fund dollars.
- 10. Implement a preventative weed and pest management program.** DuPont should develop and implement a preventative weed and pest management program for its parks and natural open space areas, with noxious weeds addressed as the highest priority. Although devoting staff hours to weed prevention will result in

less time available for routine maintenance, preventing weeds before they grow and keeping them from spreading will pay off in the long-run, by improved park appearance and reduced weed removal efforts.

## 6.5 RECREATION PROGRAMS

1. **Expand on coordination and partnerships.** The City should expand on partnerships to further leverage local park and programming resources.
  - *Steilacoom Historical School District.* DuPont maintains a good relationship with the School District, and has formalized agreements for joint use of Chloe Clark Elementary School and Pioneer Middle School.
  - *JBLM.* JBLM is adjacent to DuPont, and a high percentage of City residents have ties to the base. As a result, JBLM is also a provider of recreation facilities and services to many DuPont residents. The City should continue to maintain open communication with base representatives about park and recreation resources and opportunities.
  - *Steilacoom, Pierce County, and Other Jurisdictions.* DuPont is one of several jurisdictions that provide leisure services in the area. The City should coordinate with these other local providers to ensure that public resources are maximized and regional opportunities are pursued.
  - *Residential Owners Association.* The Residential Owners Association (ROA) represents all of the homeowners within Northwest Landing. DuPont should continue to coordinate with the ROA, particularly on recreation programming and events.
  - *Nisqually Tribe.* The City should build a stronger relationship with the Nisqually tribe, including exploration of recreation programs or events and discussion of historical and cultural interpretation opportunities within DuPont.
  - *Nisqually National Wildlife Refuge.* DuPont should coordinate with Refuge staff to increase local awareness of Refuge resources, and should build a trail connection to the Refuge.





- *Other Partners.* DuPont should also work with other local organizations that provide programming, such as organized sports groups.



2. **Provide volunteer opportunities and policies.** Volunteerism has many benefits: volunteers can supplement paid staff in maintaining and improving the park system; volunteers can be a major resource for recreation programs and events; and volunteer opportunities are a recreation activity for some community members. In addition to adult volunteers, a variety of parks projects are suitable for completion by youth, such as Boy and Girl Scouts and high school students in need of community service hours. Specific volunteer opportunities should be identified and publicized on the web site and any city publications. A staff person should be assigned responsibility for coordinating volunteers.
3. **Adopt-a-Park and Adopt-a-Trail programs.** To gain more ownership of and pride in the park and trail system, as well as maintenance help, the City has established Adopt-A-Park and Adopt-A-Trail programs. In this type of program, agreements are made with private citizens, neighborhood groups, or service clubs to perform and assume certain responsibilities and duties at specific park sites. Typically, volunteers will provide limited maintenance tasks, such as litter pick-up, watching for and reporting vandalism or other inappropriate behavior, or hosting neighborhood activities.
4. **Make additional programming available in DuPont, especially in program areas where community surveys indicate the most interest.** Some of the top responses for desired programming areas include:
  - Concerts in the parks;
  - Community Art Festival
  - Performing Arts Programs
  - Visual & Literary Arts

Programming should meet the needs of DuPont residents, with a diverse range of options to accommodate differing interests, time availability, and abilities.

5. **Revise programming as needed to meet community demand.** Recreation interests change over time and as community demographics change. Programming should respond to these trends.

6. **Establish cost recovery goals for each major program area.** Cost tracking of recreation programs provides data to inform management, marketing, or programming improvements, at the same time ensuring that DuPont is meeting community recreation needs while maintaining a solid financial footing. As an added benefit, accurate cost tracking also provides information for budgeting and for planning future facilities. To evaluate programming based on costs, DuPont should establish a cost tracking system that accurately reflects the costs of services offered and the revenues generated by each service area. The revenue and costs can then be compared to assess performance of recreation programs. Costs that should be attributed to each program area include direct costs (supplies, etc.), the fees for the contractor who provides the program, room rental, facility or field maintenance, recreation coordinator, and administration. Some agencies charge a share of administration time out to different program areas as part of identifying the actual cost of services.
  
7. **Fee schedules for programs.** The City charges fees for programs as new programs are implemented. In general, fees for programs that provide high individual benefit and low community benefit should be set to recover all costs or even turn a profit as directed by the city council; programs with high community benefit should be highly subsidized. In addition, development of the fee structure should address scholarships and affordability to ensure access.
  
8. **Once programs are provided, institute program evaluation protocols.** Programs should be evaluated in terms of cost, revenue, participation levels, and user feedback. User evaluation methods should be developed (questionnaires offered after classes, internet comment forms, etc.) and implemented, and the results should be reviewed regularly. Participation should be tracked, and participation rates should be reviewed regularly so that programming can be adjusted to meet demands. Cost and revenue generation of each major program area should be reviewed annually.



## IMPLEMENTATION

This chapter identifies an implementation strategy for achieving DuPont's vision for parks and recreation. It includes a comprehensive list of priority capital projects and a short-term, 6-year Capital Improvement Plan (CIP). This CIP provides a detailed, realistic list of proposed capital improvements that can be funded over the next six years. An overview of potential funding sources is provided below.

### 7.1 COMPREHENSIVE PROJECTS LIST

Table 7.1 presents all capital and non-capital projects proposed in this plan.

**Table 7.1**  
Comprehensive Projects List

Map #	Project Name	Project Description	Type of Park/ Facility		
			New	Existing	Other
<b>Parks</b>					
P1	Hoffman Hill Park	Finalize land acquisition, completion of design and development			x
P2	Chief Leschi Park	Addition of restrooms and additional active recreation amenities		x	
P3	Tract I Park	Addition of interpretive signage		x	
P4	Parkview at Hoffman Hill	Addition of amenities for further development of the park		x	
P5	Yehle Village Park	Acquisition of a 1 to 2 acre site, design and development of new park		x	
P6	Garry Oaks Park	Upgrade of playground, addition of more active recreation elements in park		x	
P7	DuPont PowderWorks Park	Upgrade of fields, development of additional amenities for this park, retaining natural areas in accordance with approved plan		x	
P8	Proposed Playground	Design and development of playground and supporting amenities on existing site		x	

P9	Edmond Village Park	Upgrade of playground, irrigation system, and half-court. Addition of shelter structure, interpretive signage, and small-scale active recreation features. Potential inclusion of a restroom.		x	
P10	Proposed New Park	Acquisition of a 1 to 2 acre site, design and development of new park	x		
P11	Bell Hill Community Park	Development of park in accordance with approved plan		x	
P12	Bell Hill Neighborhood Park	Development of park in accordance with approved plan		x	
P13	Iafrati Park	Addition of a playground, shelter structure, pathways, trail kiosk, and interpretive signage		x	
P14	Robinson Park	Accessibility improvements. Completion of train project by volunteers		x	
P15	Sellers Park	Updated master plan, overall site upgrade including restrooms, larger playground, and more amenities		x	
P16	Ethel Lumsdon Park	Rehabilitation, including playground replacement, swing upgrade, pathways, and fencing upgrade		x	
P17	Clocktower Park	Updated master plan, overall site upgrade including larger playground, more pathways, more active recreation elements, and rehabilitation or replacement of pergola and clocktower		x	
P18	Ross Park	Signage improvements, event amenity upgrades		x	
P19	Proposed Wilkes Observatory Park	Acquire, develop as trailhead and destination	x		
P20	Proposed New Park	Acquisition of land, develop within context of natural area corridor	x		
-	Park Signage Program	Design of consistent park identification, historical, and way finding signage, implementation in all City parks	x	x	
All	Maintenance Efficiency Projects	Capital improvements targeted to reduce maintenance needs.		x	
<b>Natural Areas</b>					
	Sequalitchew Creek Corridor	Secure public access, develop trail corridor, enhance natural habitat		x	

	Puget Sound Bluff	Secure public access, develop trail corridor, enhance natural habitat	x		
	Old Fort Lake	Secure public access, develop trail corridor, enhance natural habitat	x		
	Puget Sound Waterfront Park	Acquire land and develop a Puget Sound waterfront park on the bluff north of Sequalitchew Creek. This will be a natural area with appropriate site amenities	x		
<b>Facilities</b>					
	Community-Scale Skate Park	Construction of a 10,000 s.f. community-scale skate park	x		
	Skate Spots	Design and implementation of four skate spots	x		
	Community Center	Conversion of existing City Hall for use as a multi-purpose, multi-age group community center	x		
	Sports Complex		x		
	Field Upgrades	Field upgrades to support additional use. Artificial turf if fields are lighted.		x	
	Rehabilitation of Old DuPont School Fields	Agreement for public use of Old DuPont School fields, rehabilitation of fields			x
	New Courts and Small-scale Active Recreation Elements	Construction of a pair of tennis courts at an existing park, and incorporation of new facilities at existing parks		x	
	Off-leash Dog Area	Development of an off-leash dog area on an existing site, no land acquisition		x	
	Picnic Shelters	2 new picnic shelters in addition to shelters at Edmond Village Park and Bell Hill Park 2		x	
	Covered playgrounds	2 covered playgrounds at existing sites		x	
	Sprayground	Design and implementation of a sprayground		x	
	Community Garden	Development of a community garden at an existing site		x	
<b>Trails</b>					
	Trail sign program	Development of a trail sign program and implementation			x

T1	Hoffman Hill Loop	Partially complete, total length: 1.7 miles		x	
T2	Puget Sound Bluff Trail	Proposed, total length: 3.7 miles	x		
T3	Garry Oaks Trail	Needs connection to Tract I Park, total length: 1.8 miles		x	
T4	Old Fort Lake Trail	Proposed, total length: 1.2 miles	x		
T5	Sequalitchew Creek Trail	Proposed, total length: 1.4 miles	x		
T6	Powderworks Trail	Proposed, total length: 1.9 miles	x		
T7	Yehle Connector	Existing, total length: 0.7 miles		x	
T8	Lake Loop	Partially complete, total length: 1.4 miles	x		
T9	Center Drive	Existing, total length: 1.9 miles		x	
T10	DuPont Railroad Trail	Existing, total length: 2.2 miles		x	
T11	North Loop Trail	Proposed, total length: 1.8 miles	x		
T12	Edmond Marsh Trail	Partially complete, total length: 1.2 miles	x	x	
T13	Historic Village Loop	Existing, total length: 2.7 miles		x	
T14	El Rancho Madrona Trail	Proposed, total length: 0.3 miles	x		
<b>Non-Capital Projects</b>					
	Parks and trails brochure	Update and publish a brochure that describes and locates park and trail facilities			x
	Website upgrade	Improve website to keep the public informed of park and recreation resources and Park Agency activity			x
	Joint use agreement for Steilacoom Historical School District properties	Formalize agreement with the school district to share recreation resources and the costs associated with them.			x
	Natural Area Management Plan	Develop policies to maintain and improve the natural areas in the city.			x

## 7.2 CAPITAL PRIORITIES

All projects on the comprehensive project list in Table 7.1 assist in meeting Plan goals and objectives. However, not all of these projects can be implemented within the next six years, given the City's limited funding resources. For this reason, the projects on the comprehensive capital projects list have been prioritized to determine those projects that should be included in the six-year CIP. The following criteria were used to include, prioritize and schedule projects in the CIP:

- *Maintenance efficiency.* These are projects that will reduce maintenance costs and improve efficiency.
- *Availability of alternative funding resources or partnerships.* Projects that have potential for other types of funding, such as grants, donations, or partner contributions, should receive higher priority than projects without other funding opportunities.
- *Availability of other resources.* There is adequate staffing and financial resources to support maintenance and operations of the project.
- *Addresses service deficiencies.* These projects address service deficiencies, such as gaps in active recreation opportunities or needed natural area links.
- *Equitable distribution of neighborhood improvement projects.* Consideration should be given to ensure that neighborhood improvement projects are distributed equitably throughout the city.

Using these criteria, the 6-Year Capital Improvement Plan was developed, and will be updated periodically.

## 7.3 SIX-YEAR CAPITAL IMPROVEMENT PLAN

DuPont has only spent a small amount of capital dollars on parks in the recent past, although the city has accepted new parks built by the developer under the master developer agreement with Quadrant

### A. PROJECTED REVENUE

The revenue projections below reflect resources to fund capital improvements, outside of those improvements being provided as part of the Northwest Landing development agreement. Revenue sources are described below, and projected revenue is summarized in Table 7.2.

- **General Fund.** General Fund revenue comes from a variety of sources, including charges for services (plan check fees, development fees, hearings examiner fees); sales tax; licenses and permits (building permits, business licenses, franchise fees); property taxes (increasing as development occurs); and other revenues for which a special fund has not been created (intergovernmental revenues, fines, interest, park user fees, etc.)

While General Fund revenues have the greatest flexibility, these funds have not been used in recent years for parks capital projects, although the General Fund provides parks maintenance funding. Given the many financial obligations of the City, the General Fund cannot be depended upon to provide a significant stream of capital project funding. However, the City should allocate a small amount of General Fund dollars annually to park improvements for projects where grant matches are needed or other funding is not available. This Plan projects that the City will allocate on average of \$50,000 per year in General Fund revenues for park improvements, similar to the level of support identified in the 2007 plan. This would provide a total of \$300,000 over six years.

- **Park Impact Fees (PIF).** Park Impact Fees are fees imposed on new development to pay for capital projects required to accommodate the impacts of development on the City's infrastructure. Projects funded with impact fees must be on an adopted capital facilities plan. Because most development in DuPont has occurred through the Northwest Landing development agreement, the city does not currently charge impact fees. Since Northwest Landing is reaching completion, DuPont should consider implementation of impact fees for residential and commercial development so that new development also contributes to the increased park system infrastructure needs.
- **Real Estate Excise Tax (REET).** Real Estate Excise Tax is a tax on the sale of real estate. It is typically paid by the seller of property. The state tax rate is .0128 percent. A locally-imposed tax is also authorized. However, the rate at which it can be levied and the uses to which it may be put differs by city or county size and whether the city or county is planning under the Growth



Management Act (GMA). All cities and counties may levy a quarter percent tax. This is a quarter percent of the real estate excise tax and is commonly called "REET 1". Cities and counties that are planning under GMA have the authority to levy a second quarter percent tax (REET 2). DuPont currently levies REET 1 and REET 2 for a rate of .50%.

REET 1 monies may be used to fund a wide variety of public works projects, and may fund land acquisition for parks. REET 2 monies may be used to fund public works projects for planning, acquisition, construction, reconstruction, repair, replacement, rehabilitation, or improvement of streets, roads, highways, sidewalks, street and road lighting systems, traffic signals, bridges, domestic water systems, storm and sanitary sewer systems, and planning, construction, reconstruction, repair, rehabilitation, or improvement of parks, as noted in the Revised Code of Washington at RCW 82.46.035(5). Acquisition of land for parks is not a permitted use of REET 2 receipts, although it is a permitted use for street, water, and sewer projects. REET has been an increasingly significant revenue source for DuPont, and will likely continue to be an important source. DuPont has used REET funds for public works and some parks projects in the past, and has allocated a significant portion of the future REET funds for the new Civic Center.

DuPont should allocate REET funds for park improvements over the next six years. At an average of \$75,000 per year, REET would generate \$450,000 for park improvements over six years.

- **Grants.** Grants have not been used for parks capital improvements in the past three years. While grants provide outside money, these opportunities are competitive and they require staff or volunteers to track grants, write requests, and complete documentation. RCO funding cycles will occur in 2015 and 2017, with the application process starting in 2014 and 2016. Other small grant opportunities may also be available. Since achieving grant funding will mean assigning a staff person or contracting with a professional, the six year revenue projection assumes \$200,000 in grant funds, based on pursuing a larger grant or several smaller grants.
- **Donations.** The City has not pursued donations in recent years for park improvements. Community questionnaire results indicated a willingness among DuPont residents to support parks financially.

There are several park improvements that may be promising in attracting donations (either cash or in-kind), including sports field improvements, a skate park, and park improvements throughout the community. If DuPont writes criteria for the neighborhood park improvement program that favorably weight projects with donations or funding matches, donations could be actively encouraged. Based on an assumption that the park improvement program will encourage donations, DuPont should target \$10,000 in donations a year, or a total of \$60,000.

The six year revenue projections are summarized below. As the table notes, this Plan projects that the City can generate \$1,430,000 over six years

**Table 7.2**  
Proposed 6-Year Revenue Projection

<b>Revenue Source</b>	<b>6-Year Total</b>
General Fund	\$300,000
Park Impact Fees	\$420,000
REET	\$450,000
Grants	\$200,000
Donations	\$60,000
<b>TOTAL</b>	<b>\$1,430,000</b>

## B. CAPITAL IMPROVEMENT PROGRAM

Table 7.3 presents the Capital Improvement Plan along with the estimated costs for each project. Projects are listed by reference number, corresponding to its location on Map 3, and not in a priority order. This list should be periodically updated and adjusted during the budget process in consultation with the public.

**Table 7.3**  
Proposed 6-Year CIP

Map #	Project Name	Project Description	Project Cost
<b>Parks</b>			
P13	Iafrati Park	Design and implementation of Phase I including playground and perimeter path	\$250,000
P15	Sellers Park	Update master plan	\$100,000
P17	Clocktower Park	Master plan	\$50,000
P18	Ross Park	Signage improvements, event amenity upgrades	\$80,000
-	Maintenance Efficiency Projects	Capital improvements targeted to reduce maintenance needs.	\$60,000
<b>Facilities</b>			
-	Community-Scale Skate Park	Construction of a 10,000 s.f. community-scale skate park	\$250,000
-	Community Center	Minor improvements for conversion from City Hall to community center	\$10,000
-	Community Grant Program	Small grants for community imitated improvements to developed parks. Allocates \$50,000 per year.	\$300,000
-	Off-leash Dog Area	Development of an off-leash dog area on an existing site, no land acquisition	\$55,000
<b>Trails</b>			
T5	Sequalitchew Creek Trail	Develop the trail corridor along Sequalitchew Creek from Center Drive to Puget Sound. The total length of the trail is 1.4 miles.	\$125,000
-	Various Trail Development	Funding for opportunity based development of new trails and trail connections	\$150,000
<b>Total</b>			<b>\$1,430,000</b>

In addition to these capital items the City should also fund the non-capital special project to produce an updated parks and trails brochure. The brochure should be created to distribute electronically and on paper at important community sites such as City Hall. A \$10,000 budget for this item should fund design and a significant first printing run for an update.

## **7.4 PROJECTED MAINTENANCE COSTS**

While the replacement of outdated, deteriorating, or unsafe facilities may reduce overall maintenance costs, adding new amenities and facilities to the City of DuPont's park system will increase maintenance costs. The City must consider the proposed impacts for grounds and facilities maintenance and facility operations prior to pursuing new acquisitions, accepting parkland transferred from Northwest Landing, and approving individual projects. This will ensure that that appropriate level of maintenance and staffing are planned and budgeted.

During the next 2-4 years the emphasis of the Public Works department will transition to an organization tasked with the primary maintenance responsibility for City infrastructure and facilities. In preparing for this transition, it is important to understand the additional infrastructure and facilities that will transferred to the City. In the next two years, the City will become responsible for the full maintenance costs for four new right-of-way and greenway areas. In addition, the City is scheduled to accept the transfer of one Neighborhood Park in 2014 and the new Creekside Neighborhood Park in 2018. This plan also recommends additional facilities such as picnic shelters, trails and active recreation facilities that will have additional maintenance impacts that are yet to be determined.

The City previously spent in excess of \$150,000 per year for contracted and maintenance services for greenways alone. The effect of the additional greenways and park areas and the likelihood for cost increases in these contracts was estimated in the first park plan to increase this portion of the budget to \$400,000 by the FY 2009 budget year.

The majority of the developed park maintenance is performed directly by the Public Works staff. In 2005 the City spent approximately \$4,000 per acre per year to maintain the then current park system, now reduced to just over \$2,000 per acre in 2013. The additional parks transferred to the City since then have included nearly an additional 40 acres of developed park. At the recommended maintenance cost per acre of \$5,000 (Chapter 6), this represents an increase of nearly \$185,000 in the parks annual budget. These estimates do not include costs associated with increased active use of parks and its impact on the maintenance of these facilities.