Springwater Community Plan

Springwater Summary

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City of Gresham
Community & Economic Development Department
- New Communities and Annexation

Department of Environmental Services

Table of Contents

Section		*Page*
1.	**Introduction**	**1**
	1.1 Executive Summary	1
	1.2 Purpose	5
	1.3 Plan Area	5
2.	**Public Involvement**	**8**
	2.1 Introduction	8
	2.2 Key Methods	8
	2.3 Key Findings: Stakeholder Interviews	10
	2.4 Goals and Policies	11
3.	**Concept Plan**	**13**
	3.1 Introduction	13
	3.2 Scenario Planning	13
	3.2.1 Community Workshop	14
	3.2.2 Alternative Scenarios	15
	3.2.3 Evaluating the Scenarios	17
	3.2.4 Key Results of Scenario Evaluation	18
	3.3 Concept Plan Overview	20
4.	**Community Plan**	**24**
	4.1 Introduction	24
	4.2 Land Use	24
	4.2.1 Plan District Map and Code	24
	4.2.2 Industrial Lands	29
	4.2.2.1 Background	29
	4.2.2.2 Summary of Major Issues	30
	4.2.2.3 Summary of Proposed Plan Elements	31
	4.2.3 Village Center and Commercial Lands	31
	4.2.3.1 Background	31
	4.2.3.2 Summary of Major Issues	32
	4.2.3.2 Summary of Proposed Plan Elements	33
	4.2.4 Residential Lands	33
	4.2.4.1 Background	33
	4.2.42 Summary of Major Issues	34
	4.2.4.2 Summary of Proposed Plan Elements	35
	4.3 Economic Element	36
	4.3.1 Background	36
	4.3.2 Summary of Major Issues	36
	4.3.3 Summary of Challenges	40
	4.3.4 Summary of Proposed Plan Elements	41

Section *Page*

4.4 Natural Resources 46
4.4.1 Background 46
4.4.2 Summary of Major Issues 47
4.4.3 Summary of Proposed Plan Elements 49
4.5 Transportation 50
4.5.1 Background 50
4.5.2 Summary of Major Issues 50
4.5.3 Summary of Proposed Plan Elements 51
4.6 Sustainable Development 52
4.6.1 Background 52
4.6.2 Summary of Major Issues 52
4.6.3 Summary of Proposed Plan Elements 53
4.7 Public Facilities 54
4.7.1 Background 54
4.7.2 Summary of Major Issues 56
4.7.3 Summary of Proposed Plan Elements 56
4.7.3.1 Water 56
4.7.3.2 Wastewater 57
4.7.3.3 Stormwater 58
4.8 Parks, Open Spaces and Trails 59
4.8.1 Background 59
4.8.2 Summary of Major Issues 60
4.8.3 Summary of Proposed Plan Elements 60

Section 1

Introduction

The purpose of this document is to summarize the planning process, public involvement, and the major elements of the Springwater Community Plan and its implementing Springwater Plan District. It is a "stand alone" summary document that explains the why, where, how, and what of the Springwater Community Plan. It summarizes the factual information that is the basis for the proposed Springwater Goals and Policies and the Springwater Plan District land use and development code. It amends Volume 1 – Findings of the Gresham Community Development Plan.

The preferred concept plan served as the basis for development of the Springwater Community Plan as a series of documents that update the Gresham Community Development Plan (GCDP) and meet the requirements of Metro Urban Growth Management Functional Plan (UGMFP) Title 11 regarding planning for urbanization. The Springwater Community Plan includes the following elements:

- Summary Report (amendment to Volume 1 GCDP)
- Annexation and Development Strategy (amendment to Volume 1 GCDP)
- Development Plan Policies (amendment to Volume 2 GCDP)
- Public Facilities Plans (amendment to Volume 2 GCDP)
- Development Plan Map (map amendment to Volume 2 GCDP)
- Development Code (amendment to Volume 3 GCDP)
- Natural Resources Report with an ESEE Analysis (amendment to Volume 1 GCDP)
- Transportation System Plan (amendment to Volume 4 GCDP)

1.1 EXECUTIVE SUMMARY

The Springwater Community Plan (Plan) describes an urbanization plan for the Springwater Community that will meet the intent of the December 2002 Urban Growth Boundary (UGB) expansion of bringing high value, family-wage jobs to Gresham. The Springwater Community[1] is 1,272 acres of unincorporated Multnomah County land that lies south (to the County line) and east (as far as 282nd Avenue) of the current Gresham city limits (see Figure 1). This Plan was developed by the City of Gresham in partnership with Multnomah County and in cooperation with Metro, Clackamas County, and others through an 18-month planning process involving residents and property owners, area stakeholders, City staff and appointed and elected officials, and consultant team members.

[1]It consists of 1,152 acres that were added to the Urban Growth Boundary in December 2002 and 120 acres that have been in the Gresham urban services boundary since 1983 but which has never been annexed to the city or had planning done for future urbanization. The Springwater study area included, in addition to the Springwater Community, the "Brickworks site" and unincorporated Clackamas County land. The Brickworks site is 183 acres of existing Heavy Industrial designated land in Gresham and was analyzed to help determine how it could work with the Springwater Community. A separate report will be issued for the Brickworks site. The Clackamas County land was initially studied for analysis purposes primarily concerning public facilities. It is now part of the City of Damascus. All areas were included in the study, scenario development, and concept plan. Only unincorporated Multnomah County is included in the Springwater Plan District. See Figure 2.

The Plan is the blueprint for a new community that emphasizes economic development and livability in a sustainable environment. It has a planned capacity for 17,000 new jobs through a mix of employment areas that maintains opportunities for large scale industrial development while allowing the flexibility to respond to market conditions and promoting development within the area's natural topography. Residential areas are proposed in portions of Springwater that are not suitable for employment uses. These areas include a mix of housing from medium-density attached housing units in an urban setting to very large lot residential areas nestled at the foot of Hogan Butte. A Village Center will have services for employees and residents and serve as a focal point for the community. A natural resource protection and enhancement program will protect water quality and habitat in Springwater, and will help maintain the scenic character of the region as development occurs. Finally, new infrastructure – including an interchange on Highway 26 – will support the community's urbanization.

The major steps in the planning process were:

- Inventory of base conditions and projections of land-use, transportation, natural resources, and infrastructure needs.
- Market analysis evaluating current market conditions and trends impacting economic development of industrial uses, village center characteristics, and housing needs.
- Initiation of public process to gain input and provide information including utilizing open houses and workshops, newsletters and other mailings, surveys, and posting of draft documents, schedules, and other information on the web at www.ci.gresham.or.us/springwater/.
- Establishment of an advisory group, the Community Working Group (CWG), a 23 member body representing a diversity on interests including Springwater residents and property owners; neighborhood associations; business owners and developers; school districts; fire, police, and urban services providers; elected and appointed officials; and environmental and livability organizations.
- Establishment of project goals.
- Development of four scenario plans.
- Evaluation of the scenarios and preparation of a draft Concept Plan.
- Endorsement of final draft Concept Plan.
- Development of Comprehensive Plan Amendments to establish the Springwater Plan District.

The Springwater Community will be a major employment district. Key elements of the Plan are:

- A 384-acre industrial sub-district located east of Teleford Road and Johnson Creek. These industrial lands will accommodate large site (50+ acres) development but be flexible enough to allow for business park type development. Initial targeted industries include specialized software applications, recreational equipment and technology, corporate headquarters, specialty food processing, and renewable energy technologies.
- A research and technology industrial sub-district of approximately 106-acres located between Hogan Road and Teleford Road south of the proposed Village Center near McNutt Road. This sub-district provides for future industrial uses that primarily occur in office buildings. Targeted uses include corporate headquarters, knowledge-based industries such as graphic communication and creative services; research and prototype development and testing; professional services such as computer, accounting, and legal services; and medical services. Retail and professional service uses that cater to the daily needs of its customers are limited in size and are primarily to serve the industrial workers and businesses.

- A 23-acre mixed-use Village Center located near McNutt Road between Hogan Road and 252nd/Palmblad. This sub-district will provide retail and service opportunities for nearby residents and employees. It is intended to be anchored by a grocery store. Housing will be permitted in the second or third stories about the commercial uses. The Village Center will also have civic opportunities including a small park and park blocks.
- The Village Center will be supported by about 43 acres of a townhouse sub-district located near the Village Center along Hogan and 252nd. This is a moderate density sub-district allowing attached or detached housing on individual lots and will provide housing choices for the industrial and office sub-district employees.
- About 99 acres of a low density residential (6,000 square foot lots) sub-district located generally north of the Village Center between Hogan and Johnson Creek with a small area located on the east side of 252nd Avenue/Teleford Road. The lands for this sub-district have modest slopes that are not generally suited for the industrial uses that were originally envisioned in this area at the time the Springwater Community was brought into the UGB.
- About 97 acres of a very low density residential (12,000 square foot lots) sub-district located on the west side of Hogan Road and east side Hogan Road north of Botefuhr Creek. The lands for this sub-district provide large lot and estate housing choices and are generally located on more sloped lands. The acreage does not include the improved golf course lands. Lands on the west side of Hogan Road were brought into the UGB primarily as residential lands.
- An emphasis on sustainable design and in the industrial lands on sustainable industries.
- A new arterial and collector system to serve the new land uses. Phased improvements to US Highway 26 to allow for incremental industrial development. When completed there will a new interchange at a new southern arterial that will connect to Rugg Road and Orient Drive, and a new grade separated bridge-crossing at a new northern collector street that will connect 257th Avenue, Teleford Road, and the Village Center. Regional transit service will loop through the Springwater Community via Hogan Road, the new southern arterial, and 257th Avenue/Orient Drive.
- A natural resources program that integrates the main stem of Johnson Creek and its tributaries with the new urban land uses while providing for the protection and enhancement of its natural resource functions including riparian habitat, water quality, and flood control
- Three new parks that will provide recreational opportunities for residents and workers, and a trails system that will provide connection to the regional trail system and bike and pedestrian travel between employment, village center, and residential neighborhoods.

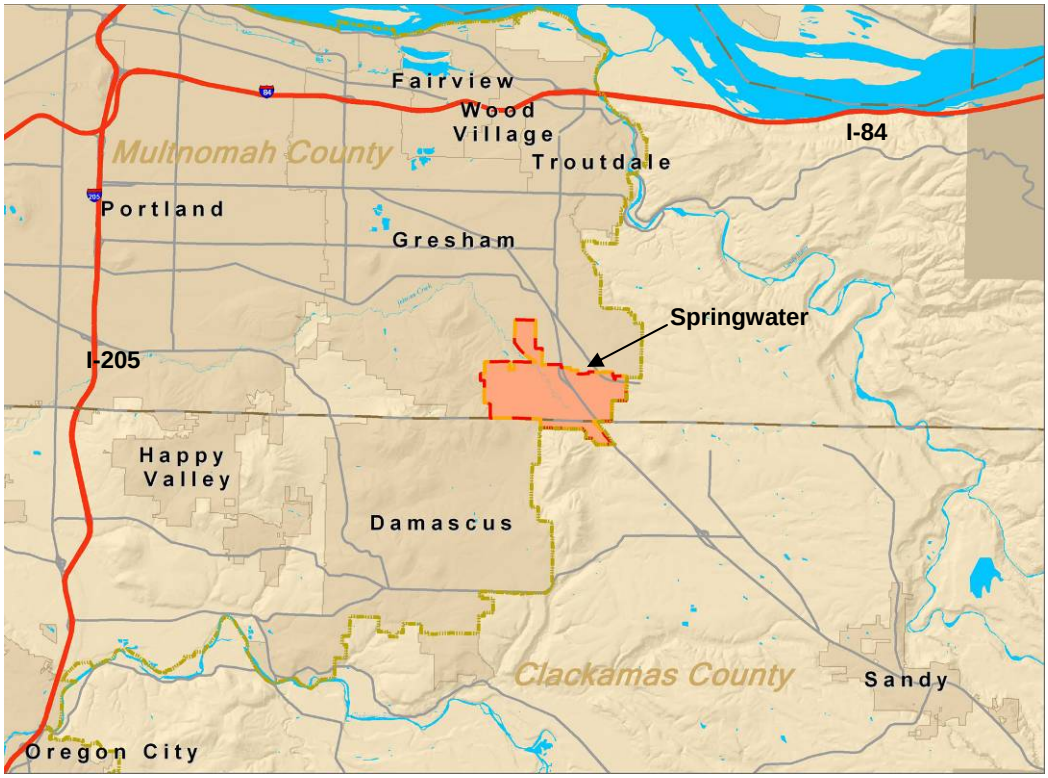

FIGURE 1 – SPRINGWATER REGIONAL CONTEXT

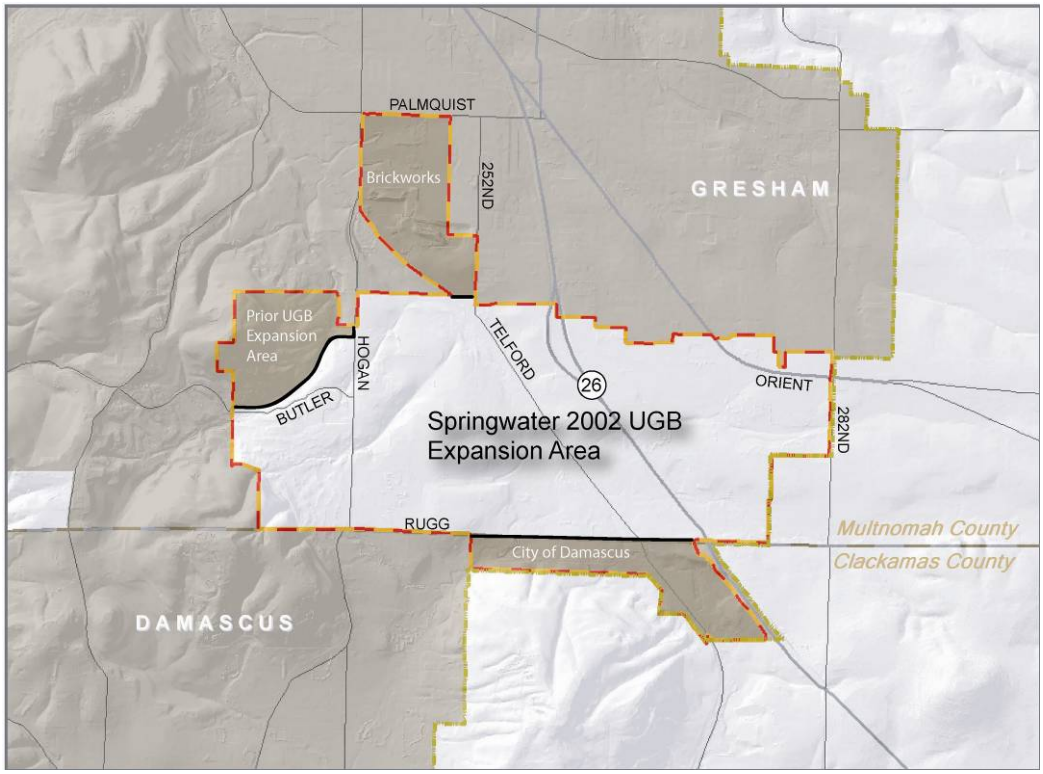

FIGURE 2 – THE SPRINGWATER STUDY AREA

1.2 PURPOSE

In December 2002, Metro brought 18,700 acres of previously unincorporated land into the Metro area UGB for future urbanization. Metro is required by the State to expand the UGB to accommodate future population growth. This expansion included the Springwater area, much of which was designated by Metro as Regionally Significant Industrial Area (RSIA). Previously Springwater was intended primarily for exclusive farm and multiple agricultural uses. The UGB expansion included 4,300 acres of land in Clackamas County south of Gresham and Springwater. The development of the Springwater Community Plan was closely coordinated with planning efforts related for that area.

What is RSIA? *RSIA refers to Regionally Significant Industrial Areas. The Springwater area was designated a RSIA by Metro in 2002. The purpose of RSIA is "to provide and protect a supply of sites for employment by limiting the types and scale of non-industrial uses in RSIAs." Because there are a limited number of areas appropriate for large-scale industry in the region, it is important to preserve these, and to help industry operate efficiently by ensuring that RSIAs have access to high-quality transportation facilities.*

Before urban development can happen in Springwater a comprehensive planning effort is required. Oregon state law (Planning Goal 14) requires planning for newly urbanized areas in order to ensure orderly, efficient growth. Title 11 of the Metro UGMFP has plan requirements for the UGB expansion area that the City needs to address and adopt into its comprehensive plan. The Metro ordinance bringing Springwater into the UGB and an Intergovernmental Agreement (IGA) between the City of Gresham and Multnomah County also establish guidelines and requirements when planning for the Springwater Community.

Comprehensive planning is also required to ensure that the Plan meets the City and region's needs of providing high-quality jobs in east Multnomah County, while balancing other priorities for the area such as preserving and enhancing natural resources and providing infrastructure in the most cost-effective method possible.

1.3 PLAN AREA

Springwater enjoys a geographical location that is aesthetically pleasing and ecologically diverse. Its environmentally sensitive natural features include unique habitats such as the western buttes with their steep terrain; seasonal drainages; springs and seeps; ponded wetlands; a two-mile section of mainstem Johnson Creek; and four miles of major tributaries. Johnson Creek is the region's principal basin that feeds into the Willamette Valley.

Steeper slopes on the western buttes are typically forested and contain some areas of seeps and springs that feed the tributaries of Johnson Creek. The buttes are basaltic lava domes and were formed during the Pliocene epoch, which was a time of sporadic small-scale volcanic activity throughout the region. The buttes were cleared in the early 1900s, but are now covered mostly by mid-succession forest that is 60 to 100 years old. The lowlands were originally forested but were cleared in the late 1800s and early 1900s for farming and timber. The majority of the lowland areas has remained in agricultural and residential use and in many areas has been tiled for drainage.

Johnson Creek is one of the primary tributaries to the Willamette River. Its fish-bearing waters and riparian corridor form the spine of the natural resources through the Springwater Community. Nearly two miles of Johnson Creek runs through Springwater flowing west before entering Gresham. NOAA Fisheries considers the main stem of Johnson Creek (including the Springwater section) as critical habitat for Lower Columbia River steelhead and Chinook, and it has been listed as essential fish habitat for Coho and Chinook. The Oregon Department on

Environmental Quality (DEQ) lists Johnson Creek as a water quality limited stream and on the 303(d) lists for various toxins, temperature, and fecal coliform. DEQ is required by the federal Clean Water Act to maintain a list of stream segments that do not meet water quality standards.

As an urban stream, Johnson Creek is affected by the concentration of human activities along its banks. Numerous groups and jurisdictions, including the City of Gresham, are working to improve fish passage facilities and water quality in Johnson Creek and to restore native vegetation to its banks.

Springwater contains forest types in the Willamette Valley vegetation zone including Douglas fir and Western red cedar that are the primary conifer species while broadleaf trees include red alder, Oregon ash, big leaf maple, and black cottonwood. Other woody vegetation such as Nootka rose, Indian plum, willow, and red-osier dogwood also are found in Springwater. One distinctive species found in Springwater is the Hogan Cedar. Hogan Cedars are a unique species of the Western Red Cedar and are found in a large grove along Johnson Creek at the southern corner of the Brickworks site. These cedars are well over 100 years old and many are as tall as 150 feet, and it is believed they are only found naturally in nearby surrounding areas.

Wildlife in the Springwater area is diverse, but typical for western Oregon. Black-tailed deer are the largest mammals to be commonly found in and around the site. Smaller animals include skunks, raccoons, chipmunks, squirrels, and opossums. Common species of bird include red-tailed hawk, robin, song sparrow, Berwick's wren, house finch, cedar waxwing, violet-green swallow, belted kingfisher, great blue heron, mallard, wood duck, and the black-capped chickadee.

Rural residential uses primarily characterize Springwater. In the 2000 census there were 298 households and 833 people in Springwater (includes Brickworks site but not the City of Damascus.) Of these residents, 58 percent were over 35 years old and 22 percent were school age children. The population in Springwater is older than that of Gresham as a whole although school age children are about the same. White, non-Hispanic/Latino residents made up 90 percent of the Springwater population in 2000, with Hispanic/Latinos comprising the next largest ethnic group, which closely mirrors the ethnic make up of Gresham.

Other uses include a portion of a golf course (Persimmon) that occupies much of Springwater on the west side of Hogan Road, and few small commercial buildings especially near Orient Drive. The study area includes a total of 437 tax lots, of these 27 parcels are over 10 acres, 40 parcels are between 5 and 10 acres, and 370 lots are 5 acres or less. The largest single undeveloped parcel is approximately 40 acres.

The existing transportation system was designed primarily to serve the rural residential uses and farm to market route for past agricultural uses. The existing roadway network has mostly rural characteristics. The arterials are generally fast moving with most intersections either having no traffic control or only stop signs. Highway 26 is the major thoroughfare that traverses the study area, connecting Gresham with both Portland (to the west) and Sandy (to the southeast). Hogan Road/242nd Avenue also provides a north/south connection through the western portion of Springwater between cities north of Gresham and Damascus.

There are no public water, wastewater, or stormwater systems. Water is currently accessed via underground wells and wastewater is primarily treated in private subsurface disposal systems. Stormwater runoff is conveyed to natural drainage areas or to drainage ditches adjacent to local roads.

There are no public parks in Springwater, although the area is bisected by the Springwater Corridor Trail – a regional trail running parallel to Johnson Creek. This trail was created by the cities of Gresham and Portland to replace the rail line that once ran between Portland and Clackamas County.

Section 2

Public Involvement

2.1 INTRODUCTION

Public involvement was used early in the planning process to help identify community values and incorporate goals and opportunities identified by members of the public into initial planning efforts. The public involvement process continued through development of the Plan to gain public input, help evaluate issues and alternatives, and guide the process to maximize the interests of all community stakeholders. A public involvement plan was drafted and submitted to the Citizen Involvement Committee who endorsed it at their November 6, 2003 meeting.

The goals of the public involvement and information program for the Plan were to:

- Maximize the community's voice, provide information about the plan and the process, and to gain community consensus
- Include City and regional stakeholders in the planning process
- Consider the existing diversity of the communities
- Provide specific and relevant information and answers to the public
- Coordinate with Damascus and other regional governments
- Provide community education
- Consider other issues and initiatives

2.2 KEY METHODS

To achieve these goals, the project team developed a public involvement and outreach plan that included the following elements:

- An extensive multi-media public outreach effort including a project website, six newsletters (including four, full-color newspaper inserts), press releases, and four postcards
- Stakeholder interviews with 42 area property owners; neighborhood groups; neighboring jurisdictions; and business, natural resource, and other interest groups
- A 23-member Community Working Group which met monthly throughout the project and participated in open houses and workshops
- Four community open houses and one community workshop used to gain input regarding preferred development patterns, issues to address, and ideas to consider
- Informational displays at the open houses and workshops, and for viewing at Gresham City Hall and the Gresham-Barlow School District
- Two web-based surveys, implemented in conjunction with two open houses, and used to gather community input on the scenarios
- Focus groups used to gather professional experts to discuss issues related to sustainability, industry, residential development, industrial development, natural resources, and the Brickworks site
- A brokers panel to answer questions related to property values, annexation, plan adoption and timing
- Community/Agency briefings with City of Gresham elected officials, appointed commissions, business and neighborhood groups, and interest groups
- A postcard mailing in June 2005 providing information on the legislative hearing and how to testify

Through these efforts and through the personal communications of the project team, a number of stakeholders were included in the planning process. These include the following:

- Gresham Area Chamber of Commerce
- Gresham Chamber Governmental Affairs Committee
- City of Gresham Advisory Committees
    - Transportation
    - Parks
    - Historic Resources
    - Finance Committee
    - Development Advisory Group
    - Neighborhood Coalition
- Educational Groups
- Mount Hood Community College Joint Leadership Council
- Gresham-Barlow School District Long Range Planning Committee
- Partner Jurisdictions
    - Damascus/Boring Advisory Committee
    - Multnomah County Board of Commissioners
    - City of Damascus City Council
    - Clackamas County Commissioners (tour and meeting)
    - City of Sandy
- State Organizations and Agencies
- Oregon Economic and Community Development (tour)
- State Legislators (tour & meetings)
- Joint meeting, Senate Transportation and Economic Development Committee and House Trade and Economic Development Committee
- Governor's Economic Revitalization Team
- Oregon Department of Transportation (tour)
- State Treasurer
- Johnson Creek Watershed Council
- League of Oregon Cities -- Industrial Lands session
- East Metro Cities Regional Issues Forum
- Metro/Hood River Economic Revitalization Team
- City of Gresham Industrial Workshop
- Port of Portland
- Gresham Board of Realtors
- Oregon Science & Technology Partnership
- Kelly Creek Neighborhood Association
- Southwest Gresham Neighborhood Association
- Portland General Electric
- East Metro Association of Realtors

Table 1 shows the timeframe for public involvement activities. Highlights of key findings are included below.

TABLE 1 – TIMELINE OF PUBLIC INVOLVEMENT ACTIVITIES

	Technical Steps						
	Inventory & issues identification	*Develop scenario alternatives*	*Evaluate & analyze scenario alternatives*		*Recommend alternative & develop Concept Plan*		*Implementation Plan review & adoption*
Task	Fall '03	Winter '04	Spring '04	Summer '04	Fall '04	Winter '04	Spring '05
Public Information	◆	———	———	———	———	———	——— ◆
Stakeholder Interviews/ Meetings	◇	◇					◇
Community Working Group		✡ ✡	✡ ✡ ✡	✡ ✡ ✡	✡ ✡	✡	✡ ✡
Community Open Houses	◇	◇		◇	◇		◇
Community Agency Briefings	◆	———	———	———	———	———	——— ◆
Documentation	◆	———	———	———	———	———	——— ◆

2.3 KEY FINDINGS: STAKEHOLDER INTERVIEWS

In November 2003 the City of Gresham conducted 13 meetings involving 42 property owners and other stakeholders, and also provided a briefing to the Gresham Citizen Involvement Committee. The individuals selected for interviews represented a range of local and regional interest groups, neighborhood associations, developers, agricultural users, property owners, and community facilities. The purpose of the interviews was to provide an opportunity for community leaders and residents to:

- Find out about the project
- Identify other community members who should be involved
- Inform the project team about how they would like to be involved in the project as it developed
- Allow stakeholders to share their perceptions of issues or concerns regarding the project

All participants were asked the same questions related to how they had been involved in Springwater planning to date. Common question were what opportunities or constraints they saw, what they thought would be the biggest issues to address in urbanization and why, and issues or concerns regarding specific topical areas applicable to Springwater (i.e., industrial development, residential development, public services, natural resources, etc.). A complete stakeholder interview summary is included in the Reference Documents. Major opportunities and constraints identified by the stakeholders are outlined in Table 2.

TABLE 2. STAKEHOLDER IDENTIFIED OPPORTUNITIES AND CONSTRAINTS

Opportunities	Constraints
▪ Bringing jobs to the area ▪ High end housing ▪ Regional park facilities ▪ Improving protection for natural areas ▪ Limiting commuter miles driven ▪ Bring high paying jobs to the area not just warehousing or service industry jobs ▪ Balances the region with a good job to housing mix ▪ The natural setting is a unique and compelling selling point	▪ Transportation connection to I-84 (lack of) ▪ Ability for the area to attract large employers ▪ Competition is on a statewide and national scale for attracting industry ▪ Once the natural areas are removed from consideration for development, there isn't a lot of land to develop ▪ Property owners who don't want to annex or sell ▪ Too much protection for natural resources ▪ Lack of infrastructure and inability to pay to put it in ▪ Assembling property into large parcels may be challenging

2.4 GOALS AND POLICIES ADOPTED BY THE COMMUNITY WORKING GROUP

A 23-member Community Working Group (CWG) was formed to provide "on the ground" guidance to the City regarding issues of importance to the community. The CWG served as the advisory group to City technical staff. The CWG represented the range of interests and issues that needed to be addressed as the Plan was developed.

The CWG helped develop goals and policies to guide the development and evaluation of the planning alternatives. The following Goals[2] were adopted by the CWG in order to guide the plan and provide a 'yardstick' by which to evaluate plan proposals in the following topic areas:

- Create a Community
- Economic Development
- Sustainability
- Livability
- Transportation
- Natural Resources

Create a Community

The Springwater Community shall be an economically and environmentally sustainable community. The primary focus of the Plan will be on providing a high number of industrial and industrial related jobs that enhance the economic viability of Gresham, the greater east Multnomah County region, and their citizens. Industrial and employment lands will be complemented with a village center and housing and will be carefully integrated with the upper Johnson Creek system. Sustainable "green" building and development practices will enhance the community's unique character while supporting the protection and restoration of the area's natural resources.

Economic Development

The Springwater Community shall provide industrial land that will generate a variety of family- wage job opportunities. Job creation is aimed at correcting the imbalance between the number of households and the number of jobs in the East Metro region and increasing the City's economic strength. The Plan will actively encourage businesses with an interest in sustainability and protecting the community's rich natural resources. Springwater will include a village center that can serve residents, employees, and businesses.

[2] A detailed list of the goals and policy statements is provided in the Springwater Goals and Policies section of the Springwater Community Plan report.

Sustainability

The Springwater Community shall foster sustainability through encouraging businesses, industries and homes that are built with and practice good environmental stewardship. This shall be accomplished through green practices that include energy-efficiency, water conservation, and reduced pollution, but avoid environmentally harmful materials and processes. The Springwater Community strives to be a model for successful sustainable industrial development. Development also shall preserve, restore, and enhance natural resources by meeting or exceeding local and regional standards. Land uses, transportation systems, and natural resources shall be carefully integrated and balanced.

Livability

The Springwater Community shall have a high quality of life. This will be accomplished through compact and sustainable development; a range of housing choices; walkable neighborhoods; access to natural resource areas and open spaces for employees in the community; preservation of natural resources; and a variety of transportation choices. The community will encompass a village center or series of village centers that provides needed services for employees and residents in an attractive and human-scale environment. A range of housing choices will be provided within close proximity to services and/or employment areas. Overall, the community shall be a unique environment that creates a sense of place both for residences and businesses, and acts as economic attractor.

Transportation

The Springwater Community will encompass a well-planned transportation system that supports the Springwater Community Plan, while promoting transit, walking and bicycling. Good design can also avoid the effects of heavy traffic on neighborhood safety and the natural environment. A well-connected transportation system using trails, bike routes, and a variety of street types reinforces a sense of community and provides adequate routes for travel. The site should provide good connections to and from the employment areas and the surrounding community, as well as regional freight and transportation centers.

Natural Resources

The plan will preserve, protect and enhance natural resources. It will define, protect, restore, and enhance significant natural resources, including stream corridors, wetlands, and forested areas. Resource areas will provide the basis for identifying development constraints as well as serving as open space amenities for the Springwater Community. Resource protection and enhancement will be a shared responsibility of property owners, developers, and governments.

Section 3

Concept Plan

3.1 INTRODUCTION

An essential step in developing the Plan was to create a Concept Plan. A Concept Plan addresses land use, transportation, natural resources, and public facilities patterns and strategies. It provides the basis for future decisions on land use (land use designation and development code), protection of natural resources, and the provision of urban services and facilities. The Springwater Concept Plan[3] was developed using a scenario planning process. Utilizing a number of variables that will impact the development of Springwater over the next 20 to 40 years scenario planning considers several possible land use patterns and sees how they match with the community's goals.

3.2 SCENARIO PLANNING

Scenarios are not forecasts or predictions. The Springwater scenarios (Figure 4) are possible futures as Springwater transitions from a rural to an urban area. They are based on existing conditions; on economic, environmental, demographic, and other trends; and on the community's values, goals, and objectives for Springwater. The scenarios are tools to compare how different land use patterns and polices are likely to affect the urbanization of Springwater and which strategies will best meet the Springwater goals while providing for flexible responses as circumstances change in the future.

Scenario planning involves a hands-on workshop process. For Springwater there were three distinct workshop participant groups. The first participant group was project and City staff. The second group was the Gresham Planning Commission. And the third group was Springwater residents and property owners and other stakeholders at a public workshop held at the Hogan Cedar Elementary School. Volunteers from the City's mediation program facilitated at the public workshop.

The hands-on process is that each table (about 8-10 persons at the public workshop) has a map and a chip set. Each map was the same and included the existing road system as well as environmental and topographic features. Each map showed areas considered unbuildable. These included a 200 foot area along both sides of Johnson Creek, a 100 foot area along both sides of all tributaries to Johnson Creek, a 50 foot area around all wetlands, FEMA 100-year flood plain, 25% or greater slopes, and the golf course.

The workshop also featured other maps to help inform the participants' map-making decisions. These included maps that showed the lands that:

- Are relatively flat, have potential to be in larger sites, are adjacent to Highway 26, and relatively not constrained by environmental features (the lands were east of Teleford Road)

[3] A Concept Plan was developed for the entire 1,700-acre Springwater area including the "brickworks site" and the "Clackamas County site". A later decision was made that the Concept Plan could be used as the basis for a future plan map changes to the brickworks site. A Concept Plan was created in Clackamas County for analysis purposes and with its incorporation as part of the new City of Damascus a decision was made to forward the concept plan recommendations to the City of Damascus for their use.

- Have similar characteristics as above but have significant site improvements (primarily housing).
- Have similar characteristics as the first bullet except not adjacent to Highway 26 (these lands west of Teleford Road and south of McNutt Road.)
- Moderately sloped (6-15%) and most affected by streams features (primarily between Hogan Road and Telford Road, north of McNutt Road)

Three chip sets were developed, each representing an economic development program based on the economic research and on the land use, transportation, and environmental needs analyses. The dominant element of the chip sets was the type and character of the employment designations. Each set had differing amounts of large lot industrial (RSIA), small lot industrial, and business park/office chips. A commercial component included commercial center and mixed-use chips. The housing component was added to the chip sets according to the types of housing most likely to be demanded by the employment uses and included small and large lots single family and apartments and townhouses.

Each chip was scaled to the map and represented a specific area and a specific number and type of jobs or housing. Participants were able to modify transportation elements, designate the location of industrial, office, retail, and housing uses, and consider access to open space and trails. The same unbuildable lands (steep slopes, wetlands, floodplains, and stream buffers) were held constant in each scenario developed.

3.2.1 January 2004 Community Workshop

A community workshop was held at the Hogan Cedar Elementary School in January 2004 to obtain public input to help create three different scenarios. Approximately 85 persons were in attendance. The hands-on scenario process teaches participants about the land use issues involved in Springwater planning and allows the project team to learn what solutions the participating public will support. The format of the workshop included a presentation; small group development of a scenario map; group presentation of each scenario; and a question and answer session (Figure 4).

At this community workshop, eleven maps were developed. The maps had the following common themes:

- The large site industrial chips tended to be placed on the east side of Teleford Road.
- Instead of industrial chips, office and mixed-use chips tended to be placed between Hogan Road and Teleford Road.
- Wide spread support for majority of the area to be employment. However, also support for some residential between Hogan Road and Teleford Road and west of Hogan Road in the more sloped areas.

Small Group Table

Scenario Presentation

Q & A Session

FIGURE 3 COMMUNITY WORKSHOP

3.2.2 Alternative Scenarios

The January workshop resulted in eleven scenario maps, and five maps were developed by City staff and the Planning Commission. All of the maps were converted to digital maps using a geographic information system (GIS), which allows them to be viewed in combination and separately. By combining all the maps together into a composite it is was evident that participants in general saw the eastern portion of the site as the most suitable for large-scale employers and the sloped land to the west for residential uses. The land in between was seen as best for industrial-related office uses. There was no clear distinction on where to locate the Village Center.

Utilizing these digitized maps project staff developed three scenarios. After reviewing the results from the workshop and three preliminary scenario concepts, a small group of CWG members felt that they wanted to derive a fourth option. The fourth scenario was developed as a sketch. These four scenarios are shown in Figure 4.

The three scenarios had similarities and differences. [As the fourth scenario was a sketch is was more difficult to evaluate number of jobs, housing, etc. than the GIS derived scenarios.] The scenarios all emphasized an employment-based community built around a strong natural resource network. Each accommodated more than the target 15,000 new jobs – the scenarios ranged from 16,700 to 17,700 projected jobs, reflecting differences in both the amount of land used for jobs and the types of jobs created. Each of the three scenarios had approximately 1,000 jobs in the commercial center and Village Center (except the Fourth Scenario which had about 400). Each of the scenarios had a balanced mix of housing types, with large lot residential housing being the least amount of housing units. Industrial (large and small site) were located in each scenario east of Teleford. Each had a village center that anticipates housing over retail and is located between Hogan and Johnson Creek, although not in the same place. Each has a park and trail system although located at different place. All of the scenarios were based on the same buildable lands analysis, and therefore used the same amount of land for development. Several key differences between the scenarios are highlighted below and in Table 3.

- Scenario A emphasizes industrial employment, providing more large-scale, regionally significant industrial jobs than the other scenarios. Only the fourth scenario provided less housing. It has the smallest Village Center. A community park is proposed at the confluence of McNutt Road and Johnson Creek. Highway 26 has two elevated crossing and one at-grade intersection.
- Scenario B has more emphasis on smaller-scale industrial and office/business park jobs. It has the second most housing. It has a larger Village Center than Scenario A. A community park is located at the “five creeks” confluence where Johnson Creek bends to the east. Highway 26 has two at-grade intersections.
- Scenario C provides significantly more housing as the other scenarios and focuses much more heavily on office and business park type employment, with less emphasis on industrial employment. It has the largest of the Village Centers. Highway 26 has a interchange at the northern and two southern overpasses.
- The fourth scenario appears to provide for the most industrial jobs and the second most office/business park jobs with the least number of households. It was created primarily to show how development could occur in a way that meets the basic economic development goals of the project while putting more emphasis on environmental protection.

Figures 4 through 7 and Table 3 show the differences between the three scenarios. A rough analysis of the fourth scenario sketch was also included for comparison purposes.

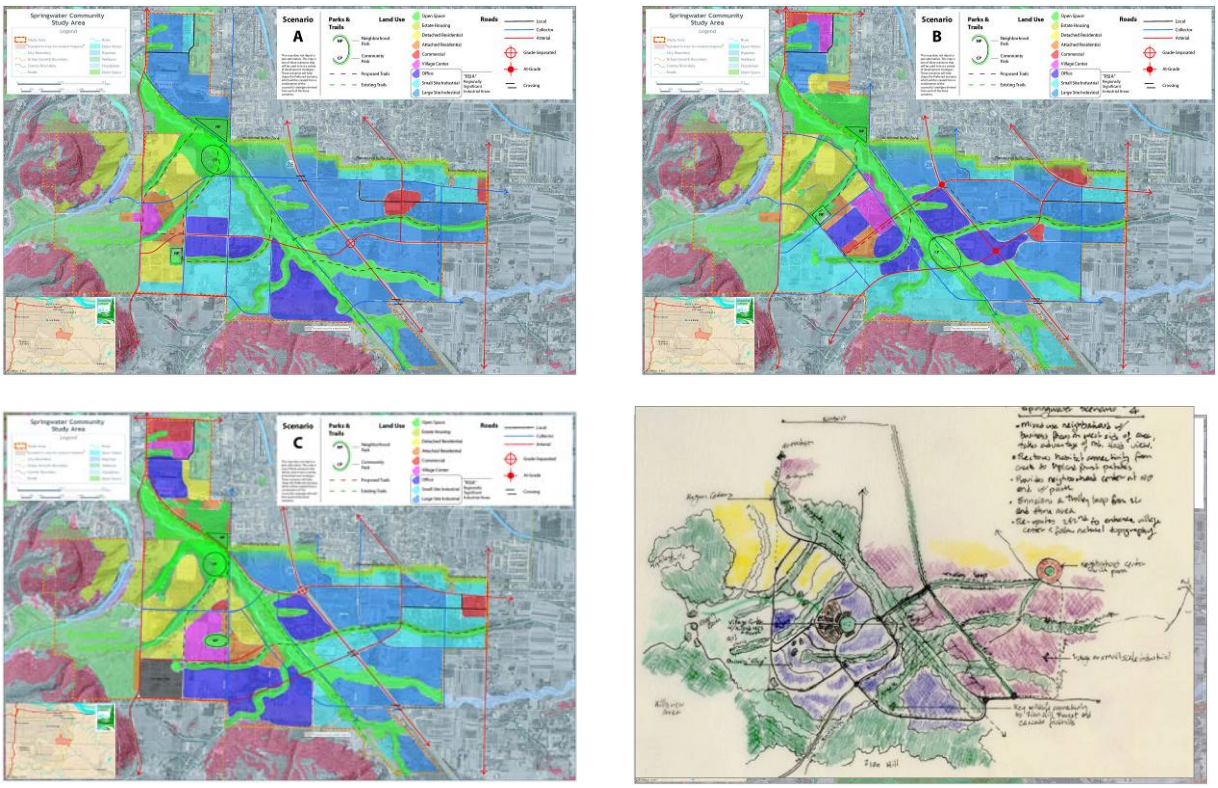

FIGURE 4 – SCENARIO MAPS AND FOURTH SCENARIO SKETCH

TABLE - COMPARISON OF THE SCENARIOS

	Jobs	Housing units
Scenario A	16,724 Includes 6,915 RSIA, 4,929 small scale industrial, 3,840 office/business park*	1,600
Scenario B	17,615 Includes 4,603 RSIA, 5,955 small scale industrial, 5,865 office/business park*	2,542
Scenario C	17,688 Includes 2,120 RSIA, 4,287 small scale industrial, 9,872 office/business park*	3,695
Fourth Scenario	14,847 Includes 6376 RSIA, 2680 small scale industrial, 5360 office/business park*	1,341

See Reference Documents for a full table of acreages and a breakdown of housing types.
* Breakdown of jobs does not include “commercial center” and “village center” employment which averaged around 1,000 jobs in scenarios A, B, and C and about 400 in the fourth scenario.

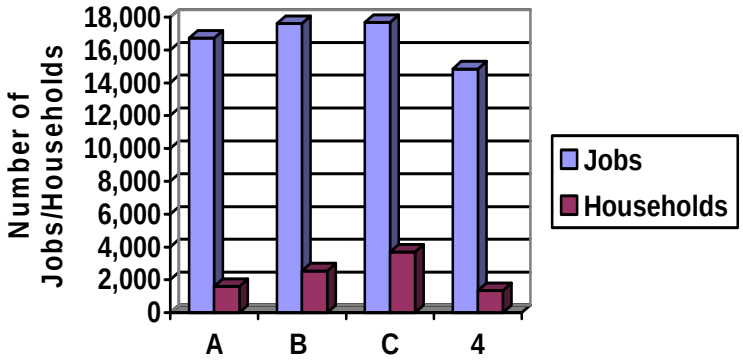

FIGURE 5 – JOBS/HOUSING COMPARISON OF THE SCENARIOS

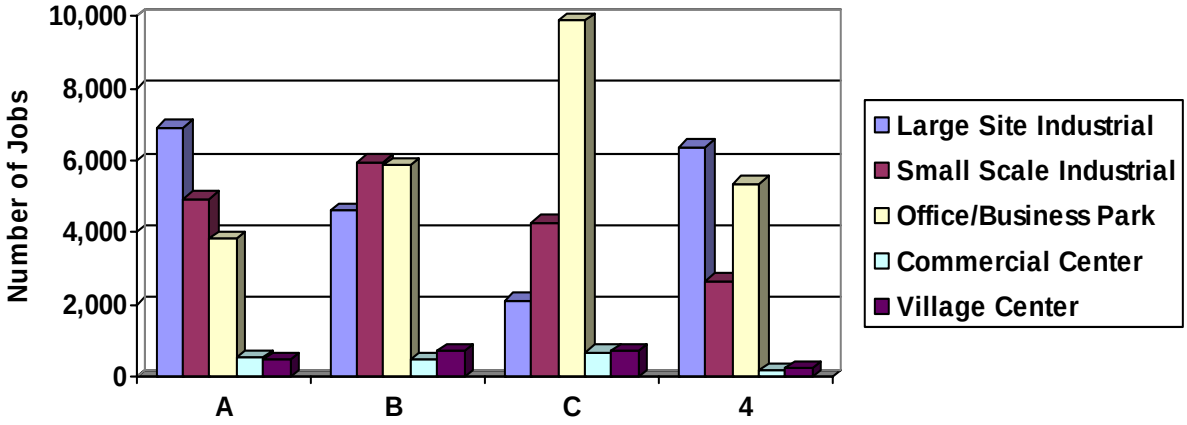

FIGURE 6 – JOBS MIX COMPARISON OF THE SCENARIOS

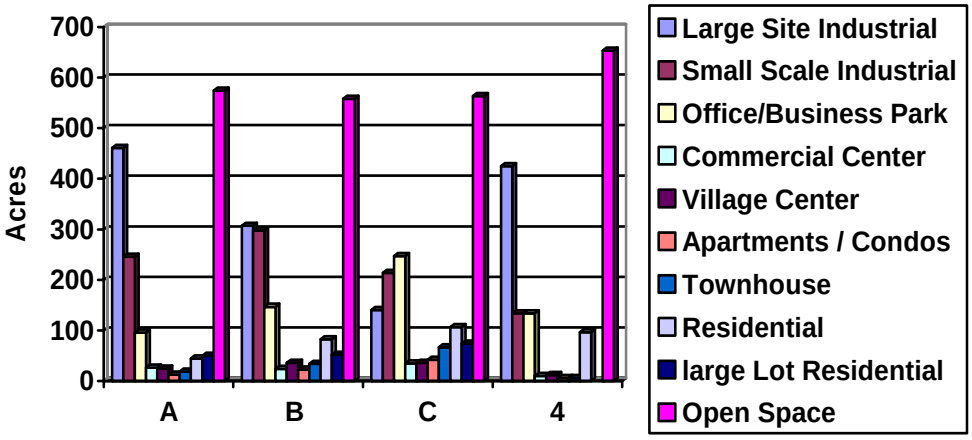

FIGURE 7 – LAND USE COMPARISON OF THE SCENARIOS

3.2.3 Evaluating the Scenarios

The Springwater Project Goals and Policies (as endorsed by the CWG) provided the basis for evaluating the scenarios. Does the scenario show an economically and environmentally sustainable community? Will the scenario foster family-wage job opportunities? Would the

scenario foster environmental stewardship? Would the scenario provide a high quality of life for residents? Does the scenario show a well-planned transportation system that supports non-vehicular transportation? Would it preserve, protect, and enhance natural resources? Each of these questions was answered by evaluating a range of measures for each scenario, and determining which elements from the different scenarios best met the goals and policies.

Computer modeling and other analytical tools were used in evaluating the scenarios.

- A land use model, which not only maps existing conditions but also allocates future growth using various assumptions, was used. The land use model keeps a running inventory of how land resources are used and other data such as number of jobs and households, acreage of parks, and the average annual wage for each of the scenarios.
- A transportation model which is used to design future transportation systems and evaluate the consequences of these systems in terms of congestion measures, pollution, time spent in traffic, and trade-offs between cars and public transportation was used.
- Other models used to evaluate the scenarios included stormwater runoff, sanitary sewage generation, and water demand. This evaluates where public infrastructure should be located, how big it should be, and estimated rough costs.

Based on the model results and input from the project team, evaluation sheets were prepared for each of the project goals. These sheets contained a listing of all of the evaluation measures used to evaluate how well the scenario met the goal, a description of the evaluation measure, and the results of applying that measure to each of the scenarios. The purpose was to use the public values as captured in the goals to objectively evaluate the strengths and weaknesses of each scenario.

Examples of the evaluation criteria include:

- Number of jobs and households
- Amount of land used for jobs and households
- Job to household ratio
- Wastewater, stormwater, and water systems cost
- Total jobs annual wages
- Future assessed property values by development type
- Housing mix
- Employee and residents accessibility to open space
- Land devoted to open space
- Employee and residents distance from trails and parks
- Number of new stream crossings
- Miles of roadways within natural resources areas
- Number of transit trips generated
- Miles of roadway created
- Cost of roadway

Utilizing evaluation sheets, the CWG and the project team determined the best performing elements, or strategies, of the scenarios that should be carried forward for consideration in the Concept Plan.

3.2.4 Key Results of the Scenario Evaluation

The purpose of the scenario evaluation was to develop a Springwater Concept Plan Map as a blueprint for the implementation strategies for a proposed Plan. A key result of the public participation process was that fundamental to the Concept Plan is that it:

- Designate enough land for jobs to meet the project target of 15,000
- Provide housing in support of the jobs and the village
- Preserve the natural environment
- Recognize that topography and existing development patterns may complicate the development process that will require implementation strategies

Other key results were:

- The best opportunities for large site industrial (RSIA on 50 acre parcels) are east of Teleford Road. This is because it is generally level (less than 5% slope); would have good access and visibility at Highway 26 without being constrained by the Springwater Trail and Johnson Creek; and there are a few larger parcels that could be combined with smaller parcels to create 50+ acre sites.
- Large site employers were deemed important, but also significant was the need to provide a mix of different types of employment. Of primary importance was the need to be flexible, allowing a range of uses that can respond to market changes.
- Employment and family wage creation is best achieved by a mix of small and large site industrial uses and by research, technology and professional service uses in office buildings rather than by RSIA designation on all lands east of Hogan Road as originally anticipated by the Metro 2040 Growth Concept Plan.
- The area located between Hogan Road and the Springwater Trail/Johnson Creek and to the south of McNutt Road is suitable for office development. It will have arterial access to Highway 26, have frontage on Hogan Road, and be close the Village Center. Office uses are less constrained by slope than is industrial development and will be supportive of the industrial uses.
- The Village Center is important for establishing a “place” for Springwater, can be a moderate size of retail, mixed use and housing, and should take advantage of views of Mt. Hood.
- Housing was determined necessary for attracting businesses, supporting the Village Center, and providing a balanced, sustainable community. Housing was located in those areas less desirable for employment (mainly slope/environmental and access constraints). Provisions for office uses (shifted from industrial uses) suggest the need for less multi-family and more single family and other homeownership opportunities. Standard size residential subdivisions north of the Village Center would be a good transition from the Village Center and integrate on both sides of Brigman Creek.
- Estate housing would be located in the sloped areas north of Botefuhr Creek and on both side of Hogan Creek.
- Attached housing near the Village Center provides support of the Village Center and the industrial employee housing needs.
- The transportation system should follow the natural terrain to minimize stream crossing, and use existing roadways to the extent possible for costs savings. There should be two locations for access to or crossing of Highway26. Evaluation of specific access configurations is being conducted through a separate study called the Springwater US 26 Concept Design and Access Plan funded by at State Transportation Growth Management grant.
- Already improved parcels pose a greater development constraint than vacant sites especially in the near term. This may be especially true for industrial development as opposed to residential (which can incorporate a residential building) or commercial (which command higher rents). However, the overall marketing/economic development strategies for Springwater can mitigate constraints through techniques such as public-

private partnerships, public investment in infrastructure, fee waivers/tax credits, and tax increment financing.

3.3 CONCEPT PLAN OVERVIEW

As a result of the scenario evaluation a Concept Plan Map was developed. It shows the general locations of different land uses, in broad categories such as industrial, office, village, attached housing, and detached housing. The Concept Plan Map is a blueprint that will be refined and implementation strategies added, and will ultimately shape the community development plan and land use designations. The Concept Plan map shown in Figure 8 represents a blend of elements from the four scenarios that were evaluated to best meet the Springwater goals and policies.

Major elements of the Concept Plan are described below.

Economic Development

The land use plan supports the economic development goals adopted by the CWG. The majority of land in the plan is for economic development; and at buildout could result in approximately 17,000 jobs. These jobs will be varied and not solely in traditional manufacturing and warehousing, providing the flexibility for this area to grow under different economic and job growth conditions. The Concept Plan brings the opportunity to lower Gresham's jobs to households ratio closer to the regional average (approximately 1.5).

Employment Areas

Industrial sites, often with large buildings, generally prefer lands on 5% or less slope. The draft concept plan locates the majority of the large site industrial development on the flatter lands east of Telford Road. To support those industrial areas (and serve the neighborhoods to the north) a small commercial area has been sited near 267th Avenue and Orient Drive. The map depicts two separate types of industrial land. Areas with more potential to attract large scale employers are designated as 'Large Site Industrial', while other industrial areas with smaller parcels or some constraints are labeled 'Small Site Industrial'. A third employment category, 'Office', is also shown on the map. Amid these employment designations is one large single parcel marked with a dotted line. This property was being considered by private parties as a site for a mixed area comprised of education, employment, and living space.

Transportation

An improved transportation system for Springwater was developed as part of the Concept Plan. The transportation system includes a network of arterial, collector, community, and local streets that accommodate travel demands and provides multiple routes for travel. Improvements include new east-west arterial connections from 242nd Avenue to Telford Road, improved access to US 26, regional and community transit service, street and trail improvements to accommodate bicycling and walking, and direct and convenient access to employment centers that lead to regional facilities and reduce the possibility of traffic intrusions into neighborhood and rural areas.

The Village Center

The Village Center is located east of Hogan Road along McNutt Road with good planned access to Highway 26. This site has one of the best perspectives with views of rolling hills, buttes, and Mt. Hood to the east. The Village Center needs to have approximately 2,000 households within a 2-mile radius without competing services for the Village Center to develop a grocery store. The Concept Plan accomplishes this.

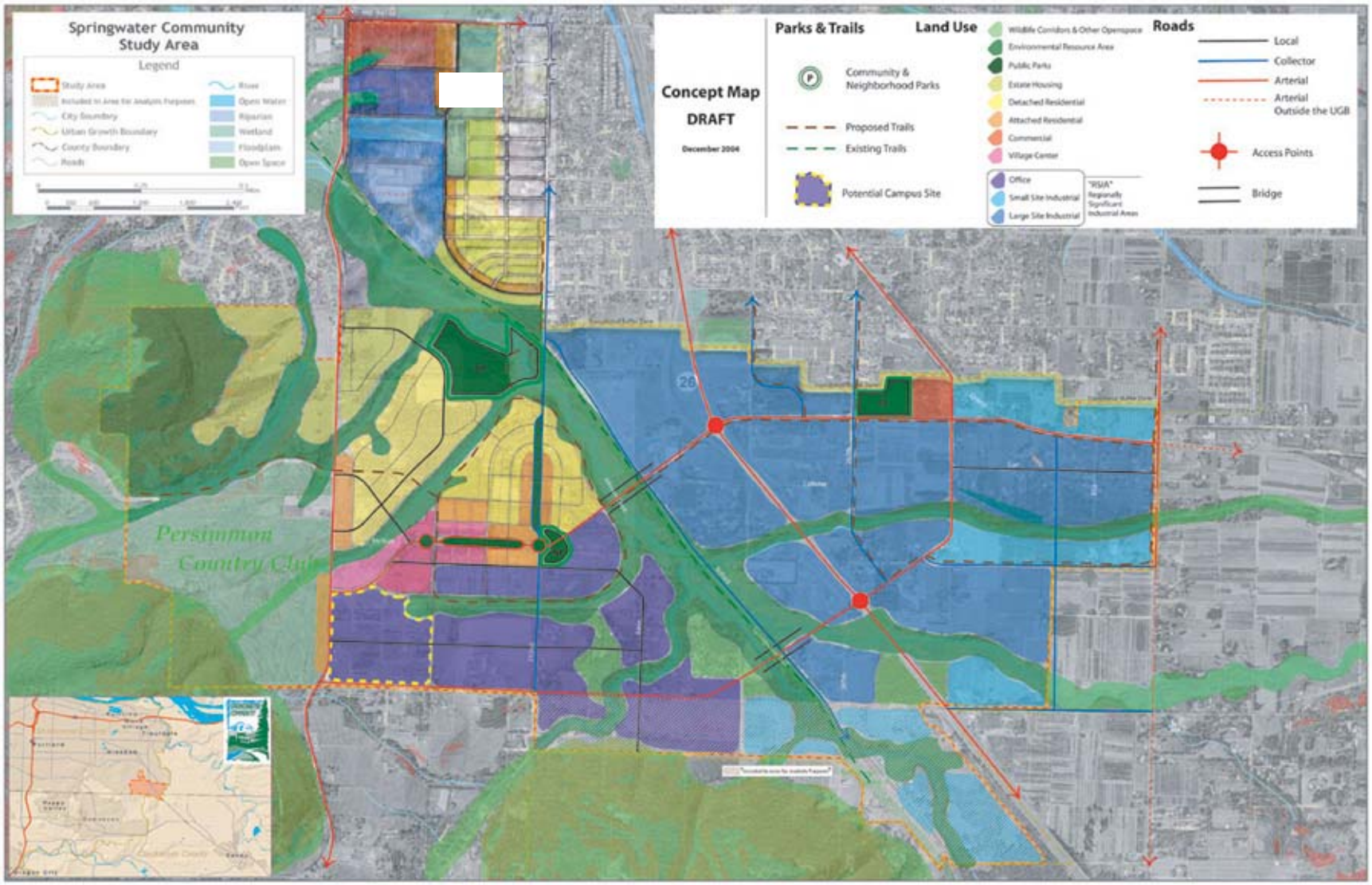

FIGURE 8 – CONCEPT PLAN MAP

Park blocks
Park blocks in the Village Center take advantage of the views of the buttes and Mt. Hood to create a dramatic linear open space. This is an axis for the attached residential uses to be located in a manner that provides ample park space and an appealing pedestrian environment. The park blocks will intersect in a Neighborhood Park Plaza that can serve as a gathering place for the community and help establish an identity for the Village Center.

Development of a "main street"
The main street, as the heart of the Village Center, is envisioned as a comfortable pedestrian environment, with ample on-street parking in from on retail stores, and the location for multi-story, mixed use buildings.

Providing quality housing
The Concept Plan represents a sound housing strategy with a wide variety of housing types including a mixed-use Village Center, small lot housing around the park block, standard lot size single-family housing, and large lot single-family homes with views of Mt. Hood to support executive or estate-type housing. The housing supports the other plan goals by helping to create a real community where residents have close access to services and jobs, and takes advantage of the natural beauty and views of the area to provide attractive housing options for business owners and executives.

Environmentally Sensitive Resource Areas
The Concept Plan identifies over one third of the land in the study as environmentally sensitive. All critical lands have been identified, including the critical habitat located around Johnson Creek and its tributaries. These are areas that are anticipated to have a range of protection, from lightly limited development to City purchase for protection and enhancement. The Concept Plan places a high emphasis on resource protection and habitat connectivity.

Parks and open space
In addition to the park blocks and Neighborhood Park in the Village Center, the Concept Plan includes two community parks, two trail loops, and acquisition of public open space within Springwater. The community parks are located on opposite sides of the study area, and are designed to serve the needs of the surrounding neighbors. The nature-oriented Springwater Community Park is located along the Johnson Creek Corridor adjacent to the residential districts. It will provide two youth sports fields and a regionally significant natural park area, providing interpretive educational opportunities. The athletic facility-oriented East Springwater Park will be located east of US. 26, and will provide sport fields to serve employees in the industrial areas as well as Gresham neighborhoods to the north. The two loop trails – the Village Center Loop and Employee Loop – will provide bicycle and pedestrian connectivity between the Village Center and riparian areas west of Telford Road, employment areas east of Telford Road, and neighborhoods surrounding Springwater.

Public Infrastructure
Recommended infrastructure improvements for transportation, water, wastewater, and stormwater service are designed around supporting the Concept Plan's implementation, meeting the needs of potential industrial developers, and promoting sustainable development. Water and wastewater improvements were developed to build on Gresham's existing infrastructure, and minimize cost by locating most facilities in planned road right-of-way. Recommended stormwater improvements include a combination of Green Street swales and

culverts for stormwater conveyance, as well as regional detention and water quality treatment facilities.

Buffering existing neighborhoods
Along the north edge of the site is a “transitional buffer area” that ensures current Gresham neighborhoods adjacent to the study area will not be adversely affected by the new industrial development. The plan requires that planned industrial development adjacent to residential uses reduce conflict with neighboring activities by providing and maintaining proper transitional zones for industrial uses. Section 9.0100 of the Gresham Code contains updated specific guidelines for buffering and screening.

Section 4

Springwater Community Plan

4.1 INTRODUCTION

This section of the report summarizes the Springwater Community Plan. The Plan provides recommendations regarding the unincorporated Multnomah County Springwater area (both the 2002 UGB expansion area and the pre-2002 UGB expansion area), a 1,272 acre area. It does not include the Brickworks area (183 acres) that is already within the city limits. Applying a new land use plan to the Brickworks area will be considered as a separate comprehensive plan amendment process. Nor does the Plan include the portion of the study area in Clackamas County (139 acres) as it is now part of the newly incorporated City of Damascus.

This summary consists of the following elements:

- Land Use
- Economic
- Natural Resources
- Transportation
- Sustainable Development
- Public Facilities (Water, Wastewater, Stormwater)
- Parks

4.2 LAND USE ELEMENT

4.2.1 Springwater Plan District Map and Code

The Springwater Plan District Plan Map (Figure 9) will serve as the key regulatory map for land use in Springwater. The Springwater Plan District Map includes the following land use types: industrial and employment; mixed-use and commercial; and residential. This section summarizes these major land use types.

Part of Metro Council bringing Springwater into the UGB in December 2002 was the adoption of Metro 2040 Growth Concept Design designations. The Metro 2040 Growth Concept map designated the Springwater area east of Hogan Road (242nd Avenue) as Regionally Significant Industrial Areas (RSIA). RSIA are industrial areas with site characteristics that are relatively rare in the region that render them especially suitable for industrial use. The area adjacent to Hogan Road was designated as a Corridor. Corridors are along good quality transit lines, feature a high-quality pedestrian environment, convenient access to transit, and a density recommendation of 25 persons per acre. The rest of the lands were designated as Inner Neighborhood. Inner Neighborhoods are residential areas accessible to jobs and neighborhood businesses with smaller lot sizes with a density recommendation of 14 persons per acre. In developing this Plan, some land was found to be unsuitable for industrial uses; however, most of the developable lands have been designated for industrial and employment related uses.

The Plan represents a greater level of detailed planning, site analysis, and setting community goals than was done at the time it was brought into the UGB and Metro 2040 Growth Concept Design designations were applied. Part of the Plan adoption process is to show compliance with Metro UGMFP, specifically Title 11 – *Planning For New Urban Areas*. Included in the Plan are recommended revisions to the 2040 Growth Concept Design designations based on this greater level of planning. The Plan compliance is outlined in the separate UGMFP Title 11 Compliance Report. The following 2040 Growth Concept Design Types are proposed:

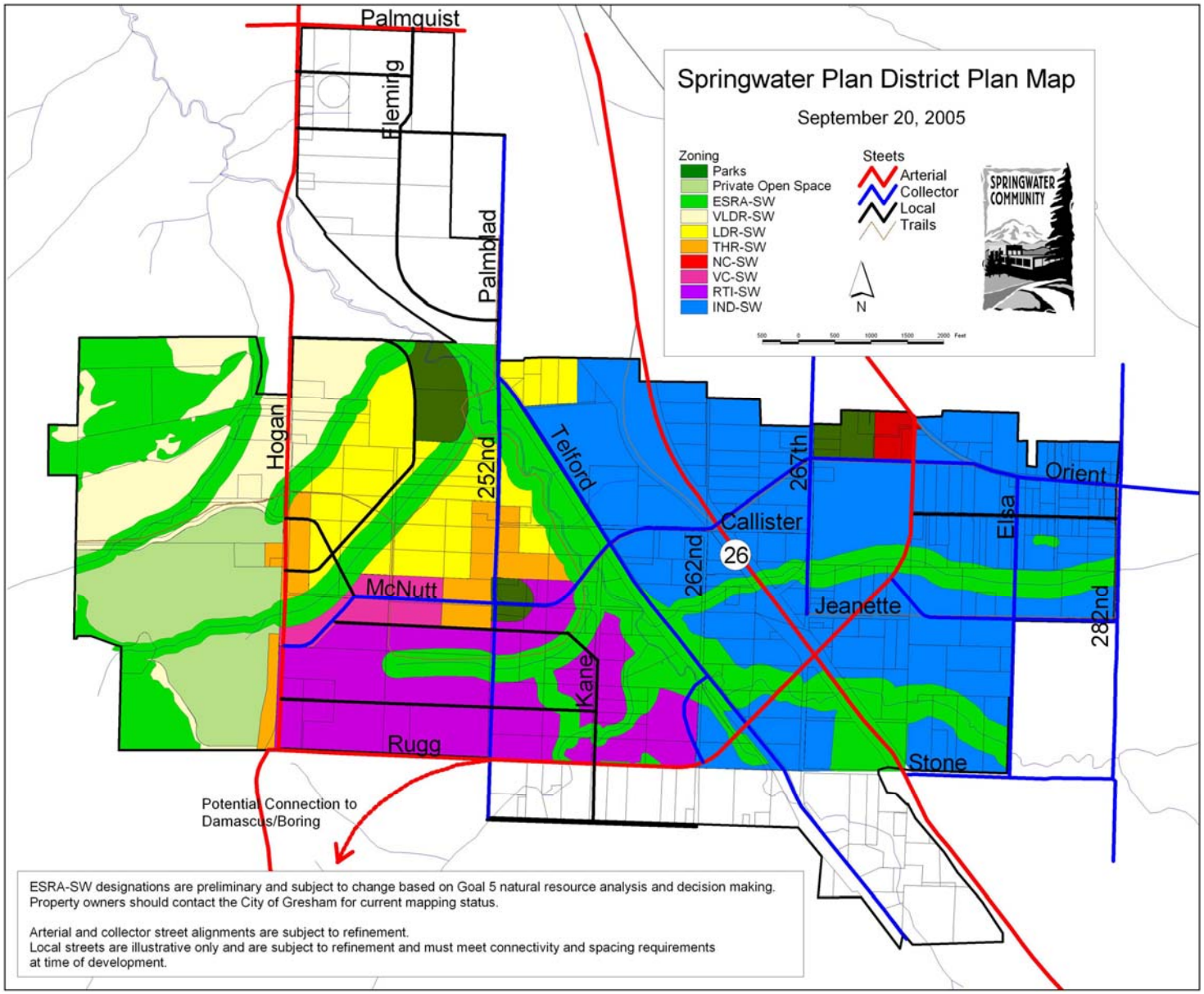

FIGURE 9 – SPRINGWATER LAND USE PLAN

- The land east of Teleford Road and 262nd Avenue will remain as RSIA with two exceptions. One is a small area of sloped land southeast of Palmblad Road/262nd Avenue and Teleford Road that is proposed as Low Density Residential and would be Inner Neighborhood. The second is a small commercial area near Orient Drive that is proposed as Neighborhood Commercial and would be Employment. Employment areas include various types of employment and some residential development with limited commercial uses and recommended density of 20 persons per acre.
- The Corridor designation along Hogan Road would remain and would encompass the Village Center along with some of the Townhouse residential sub-district.
- The land generally between Hogan Road and Teleford Road/262nd Avenue and just to the south of McNutt Road that is proposed as Office would be Employment.
- The rest of the land, including the Low Density Residential, Village Low Density Residential, and the Townhouse sub-districts that are not on the corridor would be Inner Neighborhood.

Employment and housing capacity estimates are 15,330 jobs and 1,609 dwellings. One hundred and fifty three of the dwellings are located in the "Prior UGB Expansion Area" (see figure 2) in the VLDR-SW sub-district. The rest of dwellings and all of the jobs are located in the "2002 UGB Expansion Area". The following tables illustrate assumptions used arriving at the capacity estimates.

Table 1: Springwater Buildable Land Analysis – Gross Acres by Classification

Plan Sub-District	Plan Data Estimate Prior UGB Expansion Area	Plan Data Estimate 2002 UGB Expansion	Plan Data Estimate Total
ESRA	66.2	304.8	371.0
Parks		33.6	33.6
VLDR-SW	54.0	43.1	97.1
VLDR-SW (Private Open Space)[1]		105.1	105.1
LDR-SW		99.4	99.4
THR-SW		43.5	43.5
NC-SW		7.4	7.4
VC-SW		23.3	23.3
RTI-SW		106.8	106.8
IND-SW		384.2	384.2
Total Acres	**120.1**	**1,151.3**	**1,271.5**

[1] Comprised entirely of Persimmon Golf Course lands - not expected for development

Table 2: Springwater Buildable Land Analysis – Gross to Net Assumption

Plan Sub-District	Description	Gross Buildable Acres	Gross to Net Calculation[2]	Net Buildable Acres
VLDR-SW (Prior UGB Expansion Area)	Very Low Density Residential	54.1	22%	42.2
VLDR-SW (2002 UGB Expansion Area)	Very Low Density Residential	43.1	22%	33.6
LDR-SW	Low Density Residential	99.4	22%	77.5
THR-SW	Townhouse Residential	43.5	22%	33.9
NC-SW	Neighborhood Commercial	7.4	22%	5.8
VC-SW	Village Commercial (mixed use)	23.3	22%	18.2
RTI-SW	Industrial (office buildings)	106.8	22%	83.3
IND-SW	RSIA Industrial	384.2	22%	299.7
Total Acres		**761.9**		**594.3**

[2] Gross-To-Net of 22% is based on the 25% standard presented by Metro in the 2002-2022 Urban Growth Report: A Residential Land Need Analysis Final Report - December 2002 Page 20 Appendix A, Item #3, Ordinance 02-969. The 3% discount represents land deducted in Table 1 to account for parks.

Table 3: Springwater Buildable Land Analysis – Density Assumptions

Plan Sub-District	Net Buildable Acres	Assumed Residential Lot Size	Assumed Square Feet Per Unit[3]	Assumed Floor Area Ratio	Dwelling Units	Employment Land Building Square Feet	Square Feet Per Employee	Jobs
VLDR-SW (Prior UGB Expansion Area)	42.2	12,000		NA	153		0	
VLDR-SW (2002 UGB Expansion Area)	33.6	12,000		NA	122		0	
LDR-SW	77.5	6,000		NA	563		0	
THR-SW	33.9	2,500		NA	591		0	
NC-SW	5.8	0		0.33		83,316.7	550	151
VC-SW[3]	12.7	0	1,000	0.71	396		0	
VC-SW (Employment Portion)	5.5	0		0.50		118,820.8	350	339
RTI-SW	83.3	0		0.55		1,995,797.2	350	5,702
IND-SW	299.7	0		0.35		4,568,860.3	500	9,138
					1,825			
					(216)	village capacity beyond requirement		
Total	**594.3**				**1,609**			**15,330**
Village In Residential	70%							
Village In Employment	30%							

[3] Unit size applies only in potential capacity for mixed-use housing development

Table 4: Springwater Buildable Lands Analysis - Summary of Development Capacity

New Dwelling Capacity	Net DU Per Residential Acre	Net Residential Land Acres	DWELLING UNITS
VLDR-SW (Prior UGB Expansion Area)	3.63	42.20	153
VLDR-SW (2002 UGB Expansion Area)	3.63	33.62	122
LDR-SW	7.26	77.55	563
THR-SW	17.42	33.93	591
VC-SW		NA = MU Land[4]	180
Total New Units			**1,609**
New Net Residential Land Acres		**187.30**	
Dwelling Units per Net Residential Buildable Acre			**8.6**[5]
New Job Capacity			
NC-SW			151
VC-SW (Employment Portion)			339
RTI-SW			5,702
IND-SW			9,138
Total Job Capacity			**15,330**

[4] The residential component of the mixed-use village will be stipulated in the master plan requirement for certainty of capacity.

[5] For 2002 UGB Expansion area, the dwelling units capacity is 1,456; the net residential land acreage is 145.1; and the dwelling units per net residential acre is 10.04.

The CWG adopted a series of goals that were used in evaluating the scenarios and creating the Concept Plan and the Springwater Plan District. The goal for the overall community was:

Create a Community
The Springwater Community shall be an economically and environmentally sustainable community. The primary focus of the plan will be on providing a high number of industrial and industrial related jobs that enhance the economic viability of Gresham, the greater East County region and its citizens. Industrial and employment lands will be complemented with a village center and housing and will be carefully integrated with the upper Johnson Creek system. Sustainable "green" building and development practices will enhance the community's unique character, while supporting the protection and restoration of the area's natural resources.

4.2.2 Industrial Lands

4.2.2.1 Background

The major goal of the Springwater Community Plan is to develop new land for future employment, primarily for specific targeted industries. This is consistent with the regional and local goals of improving the jobs-housing balance in east Multnomah County, and also of improving the region's competitiveness and supply of land for economic growth.

To comply with Metro UGMFP Title 11, Gresham's planning for Springwater must include:

*Provision for sufficient commercial and **industrial** development for the needs of the area to be developed for the needs of the area to be development consistent with 2040 Growth Design types.*

The CWG adopted a series of goals that were used in evaluating the scenarios and creating the Concept Plan and the Springwater Plan District. The goal for industrial and employment lands was:

Economic Development
The Springwater Community shall provide industrial land that will generate a variety of family-wage job opportunities. Job creation is aimed at correcting the imbalance between the number of households and the number of jobs in the East Metro region and increasing the City's economic strength. The plan will actively encourage businesses with an interest in sustainability and protecting the community's rich natural resources. Springwater will include a village center that can serve residents, employees and businesses.

The following are some of the major issues that were considered in the urban plan for industrial and employment lands in Springwater:

4.2.2.2 Summary of the Major Issues

Fulfilling the expected role of the Springwater area for regional and City employment
In addition to the area being identified for industrial land, a Springwater project target of approximately 15,000 jobs was set. A goal of the Plan is to help achieve the jobs-housing balance generally experienced in the region. If at least 15,000 jobs can be located in Springwater, east Multnomah County's jobs-housing balance would rise from the current 1.1 jobs per household to 1.5 jobs per household, greatly improving regional transportation performance, and reducing commute times for Gresham residents.

Creating an area that is attractive for targeted industries and other employment
A number of amenities that will be attractive to targeted industries are planned. This includes a Village Center that will serve as a gather place for nearby employees and residents as well as support services. It also includes an interconnected system of trails and open spaces that will be a transportation corridor and a recreational opportunity for employees and nearby residents. In addition, a neighborhood commercial area adjacent to a community park has been located in the northeast area between 267th Avenue and Orient Drive. Together these serve both the residents of the eastern part of the city and the employees that desire either convenient retail services, or recreation opportunities (such as ball fields).

Identifying the best areas for the targeted industries to locate
Generally the constraints to development for employment uses were used to decide the extent of the industrial (RSIA) sub-district and the research and technology industrial (office buildings) sub-district. Factors in making this decision were slope, streams, and other topographic concerns. Additionally access and visibility to an improved Highway 26 and planned arterial and collectors were considered. The flattest and most accessible and visible sites were designated for industrial use. These sites are generally between Johnson Creek to the west and the Springwater (UGB) boundary to the east. The area generally between Hogan Road and Johnson Creek and south of McNutt Road has some slope and access concerns so that it is suitable for research and technology industrial development in office buildings rather than the large industrial sites planned on the east side of Johnson Creek (Teleford Road).

Developing this area while meeting the high environmental standards included in the Plan
A key attraction and goal for Springwater and especially the industrial and employment development is sustainable design. Springwater development can enhance the sensitive environmental areas and the Johnson Creek watershed by using stormwater management techniques that mimic the natural hydraulic system. Other sustainable techniques will include landscaping that maximizes plantings that are adapted to the climate and the use of LEED building techniques. Future actions will include developing programs to attract eco-park industries, waste stream recycling, on-site energy generation and other Natural Step programs.

4.2.2.3 Summary of the Plan Element

The Plan designates about 70% of the gross buildable lands of the site for industrial and related employment uses. Two sub-districts form the bulk of the plan district and lands for industrial and related employment jobs - Industrial-SW (IND-SW) and Research and Technology Industrial-SW (RTI-SW). Both use the North American Industrial Classification System (NAICS) as the use definition. This provides a detailed and standardized way to identify permitted and prohibited uses. On the east side, a single, industrial land use designation (IND-SW) was used rather than the two designations (large site industrial/small site industrial) included in the Concept Plan in order to maximize the Plan's ability to be responsive to market drivers while meeting the intent of Metro's expectations for large site industrial development. Research and Technology Industrial (RTI-SW) was used rather than the office designation in the Concept Plan in order to better describe it as an industrial district that occurs in office buildings.

Industrial-SW (IND-SW)
This sub-district provides a wide range of uses, including all the targeted industries such as advance materials, specialized software applications, recreational equipment and technology, and corporate headquarters as well as many traditional industrial uses. The prohibited uses include those that are heavy, traditional industrial uses (tanneries, metals manufacturing, chemical plants). Large format retail is restricted to ensure the availability and vitality of the lands for industrial uses. Warehousing and distribution are permitted only as accessory uses and for no more than 20 percent of the site. Limits are placed on retail commercial and professional services that cater to daily customers by limiting such uses to no more than 3,000 square feet for a single use, and to no more than 20,000 square feet for multiple uses in single building or multiple buildings that are part of the same development project.

Research and Technology Industrial-SW (RTI-SW)
This sub-district is intended to provide industrial and related employment opportunities in office buildings. Primary uses include knowledge-based industries (graphic communications, creative services), research and development facilities, professional services primarily serving industrial businesses and workers, and medical facilities. The design will create pedestrian friendly areas and utilize green development practices. Development can take advantage of the views and access to creeks in the area. Its proximity to the Springwater Trail, Village Center, and Village Center Loop trail provides amenities. Limits are placed on retail commercial and professional services that cater to daily customers by limiting such uses to no more than 5,000 square feet for a single use, and to no more than 20,000 square feet for multiple uses in single building or multiple buildings that are part of the same development project.

4.2.3 Village Center and Commercial Lands

4.2.3.1 Background

The need for a Village Center comes from a desire to deliver a high degree of amenities to the industrial employees by providing a place for commercial and retails services to gather and to

live. These employees will need commercial services, and generally have the ability to work in an environment that meets many of their daily needs. In addition a small Neighborhood Commercial site will be located adjacent to the Industrial-SW sub-district and provide for daily needs of nearby employees and residents to the north.

To comply with Metro UGMFP Title 11, Gresham's planning for Springwater must include:

Provision for sufficient ***commercial*** *and industrial development for the needs of the area to be developed for the needs of the area to be development consistent with 2040 Growth Design types.*

The CWG adopted a series of goals that were used in evaluating the scenarios and creating the Concept Plan and the Springwater Plan District. The goal for commercial lands was:

Economic Development
The Springwater Community shall provide industrial land that will generate a variety of family-wage job opportunities. Job creation is aimed at correcting the imbalance between the number of households and the number of jobs in the East Metro region and increasing the City's economic strength. The plan will actively encourage businesses with an interest in sustainability and protecting the community's rich natural resources. ***Springwater will include a village center that can serve residents, employees, and businesses.***

The following are some of the major issues that were considered in the urban plan for industrial and employment lands in Springwater:

4.2.3.2 Summary of the Major Issues

The following is a summary of the major issues associated with the development of the Village Center and Neighborhood Commercial.

Develop it to provide day-to-day services for residents to the north and east, and off site as well
Future housing as well as existing housing nearby needs a neighborhood retail center for everyday needs such as groceries, personal services, and other neighborhood uses. The Village Center should be close by, within walking distance. The Village Center is also easily accessed by the employment areas to the east using trails and roadways. An additional Neighborhood Commercial area is needed near the Industrial district but should be located away from 282nd Avenue to avoid conflict with rural commercial uses and the rural arterial street in unincorporated Multnomah County adjacent to the east of Springwater.

Provide for a variety of small-scale retail and upper-floor residential uses in a mixed-use environment and size the Village Center so that it will not compete with the larger Town Centers to the west and south
One of the key issues in designing a Village Center is that it not compete for customers with the Gresham Regional Center and the planned Damascus and Pleasant Valley Town Centers. To meet the day-to-day needs of residents and the commercial service and entertainment needs of employees, the development program conceived was for one to three-stories, mixed-use buildings, and a small urban grocery store. This Village Center can be located on only 15 acres of land.

Design an area that is appealing to walk in, and provides social gathering places on its wide sidewalks. Design a district that encourages sidewalk uses such as outdoor eating and limited marketing including a "Main Street" design with ample on street parking.

The urban design concept for the Village Neighborhood is integrated with the nearby residential neighborhood to the north and the employment/office area to the south. The design is centered on a pedestrian friendly main street, with the buildings located close to the sidewalk. In order to reduce the size of parking lots, to provide a shared parking resource, and to develop an active street life, the main street is conceived as a broad boulevard with ample on street parking, with both curbside and median parking. Bike lanes are incorporated to enhance opportunities for multi-modal transportation.

Maximize views of Mt. Hood
The small, walkable Village Center was conceived on a site that is between the employment and housing areas. It is located on top of a small hill, and has excellent views of Mt. Hood.

4.2.3.3 Summary of the Plan Element

Village Center-SW (VC-SW)
This sub-district is intended to be gathering place for employees and residents of Springwater. It will contain a mix of retail, office, and civic uses, and housing opportunities in a pedestrian oriented area. It will serve the daily needs of the local neighborhood and the adjacent employment areas. It shall be served by a multi-modal transportation system with good access by vehicular, pedestrian, bicycle, and when appropriate, transit traffic.

Neighborhood Commercial-SW (NC-SW)
This sub-district is to provide for small to medium sized shopping and service facilities and limited office uses adjacent to the existing residential neighborhoods to the north and the adjacent planned industrial district. It is located at the intersection of planned arterial and a collector street.

4.2.4 Residential Lands

4.3.4.1 Background
The Springwater area was brought into the UGB primarily for employment uses; however, residential uses were intended west of Hogan Road. The planning process found that some areas east of Hogan Road were better suited for residential development. The planning process also found that housing was needed to support the Village Center and the large industrial and employment areas. The areas selected for residential uses are generally less suitable for industrial and office development. They often have significant slope and relatively small parcel sizes. Several small creeks flow the residential areas, and they are the least accessible from the planned Highway 26 access points and are more oriented to Hogan Road corridor.

A portion of the site is very suitable for large lot “estate”-type housing, a housing product that can help attract top executives to Springwater.

The housing element provides workforce housing close to the major employment district. People could work, live, and play in a neighborhood designed around the area’s natural amenities – Johnson Creek and it tributaries. The extensive trail and park system provide for recreation, and also make walking to work in the employment areas not only feasible but very pleasant. This adds an amenity to employers and employees that increases the livability of the area, and will help with the marketing of the employment areas.

To comply with Metro UGMFP Title 11, Gresham's planning for Springwater must address "provisions for residential densities", "measures that will provide a diversity of housing stock that will fulfill needed housing, and "demonstration of affordable housing".

The CWG adopted a series of goals that were used in evaluating the scenarios and creating the Concept Plan and the Springwater Plan District. The goal for residential lands was:

Livability
The Springwater Community shall have a high quality of life. This will be accomplished through compact and sustainable development; a range of housing choices; walkable neighborhoods; access to natural resource areas and open spaces for employees in the community; preservation of natural resources; and, a variety of transportation choices. The community will encompass a village center, or series of village centers that provide needed services for employees and residents in an attractive and human-scale environment. A range of housing choices will be provided within close proximity to services and/or employment areas. Overall, the community shall be a unique environment that creates a sense of place both for residences and businesses, and acts as economic attractor.

The following are some of the major issues that were considered in the urban plan for industrial and employment lands in Springwater:

4.2.4.2 Summary of the Major Issues

The following are the major issues that were addressed in developing the residential component of the plan:

Develop a variety of housing types that take advantage of the varied landscape in this area
Several kinds of homes are anticipated for this area. They are placed in an area that provides opportunities that are well suited to their characteristics.

Large lots with views
Hogan Butte (west of Hogan Road) provides a perfect site for large lots as with slopes ranging from 15% to 25%. The concept is to allow for flexible site development standards at fairly low densities. Large lots also extend on the east side of Hogan Road on the west side of Botefuhr Creek. These areas are adjacent to the existing golf course. Maximum density is 3.6 units per net acre – the lowest current density in Gresham.

Single-Family Residential near creeks
In the less sloped areas east of Hogan Road (and Botefuhr Creek), two small creeks that have extensive natural resources bisect an area of about 108 acres of gross buildable land. This area is rolling terrain, with extensive natural areas and streams. It provides an excellent site for more conventional single-family detached homes. Development densities would be from 5.8 to 7.3 units per net acre. With the extensive protected natural areas associated with the creek, however, the streams will provide an amenity and lower the density of the overall development.

The development pattern envisioned provides a quiet residential area surrounded by creeks, but near the Village center – accessible by an easy walk, on streets or trails.

Townhouse/Small Lot
Small lot single-family home – either attached as a townhouse or detached on a small lot can be located near the Village Center and along the Hogan corridor. The Hogan corridor is planned for regional transit service to support these additional housing options. Density ranges from –

12.0 to 15.6 units per net. Design elements can include incorporating common open spaces or greens.

Mixed-use in Village Center
The Village Center can provide for attached residential on upper floors. This can be cost effective either as owner occupied units or as rental units.

Provide opportunities for affordable housing and a variety of housing types, particularly new housing types designed for ownership
The mixed density and size of units, especially the smaller lots coming from the Townhouse and Mixed-use Village, provide attractive affordable options. These designations will enable housing to be developed for a price that the median income can afford.

Ensure quality design, especially in the smaller lot homes and in the mixed-use housing, ensuring that they contribute to a quality neighborhood
The higher density homes have some basic design standards applied in the zoning. Homes on less than 75 feet of width require that alley access to garages be provided. Safe Neighborhood Design Performance Standards also apply. Attached housing and housing on small lots in the Townhome Residential sub-district also have special design standards to ensure that these homes have the requisite open and private space for a successful neighborhood.

Residential variety
As described previously, residential uses were directed primarily to lands less suitable for industrial or employment use, and in sufficient quantity to serve a successful Village Center. Accordingly residential designations have been limited to the northwestern portion of the site. The higher density home sites are located in close proximity to the walkable village, while the larger lots have been targeted for the sloping hillsides and other areas where development impacts should be minimized.

4.2.4.3 Summary Of The Plan Element

The plan element resolves these issues with the development of three new sub-districts, which, when combined with the natural area protection in the plan, the park and trail system, and the sustainable development practices, result in the development of a residential area with a high degree of variety and quality.

Very Low Density Residential-SW (VLDR-SW)
This sub-district is designed for the most constrained lands where low-density development will result in less disruption of the landscape. In addition, the areas on the small volcanic butte with views of Mt. Hood are included, offering the opportunities for larger lots with scenic views. The expected average lot size is 12,000 square feet.

Low Destiny Residential-SW (LDR-SW)
This sub-district permits detached single-family dwellings on an average 6,000 square foot lot. Duplexes are allowed only on corner lots.

Townhouse Residential-SW (THR-SW)
This sub-district is intended to allow for single-family homes on small lots, as small as 3,000 square feet for detached homes, and 2,200 square feet for attached houses. Like the LDR-SW sub-district, each home must be on its own lot, and duplexes are not allowed.

Pedestrian Orientation and Crime Reduction
Gresham has adopted a Safe Neighborhoods Design program that increases casual surveillance of the street by requiring that a number of windows and doors face the street. This has been adopted for the residential sub-districts in Springwater. In addition, alley access is required for lots of less than 75 feet in width.

4.3 ECONOMIC ELEMENT

The following section describes the background, major issues, and plan elements associated with economic development in Springwater.

4.3.1 Background

Bringing industrial development and family-wage jobs to east Multnomah County was one of the primary drivers for bringing the Springwater area into the UGB. Gresham offers several advantages as an employment center, including a skilled manufacturing workforce, close proximity to the Portland International Airport and regional rail hubs, a respected community college system, and a strong economic development program backed by committed leadership. The Springwater area has scenic views and access to high-end recreational amenities such as the Springwater Corridor Trail, Mt. Hood, and the Columbia River Gorge.

An economic and industrial employment site study, a Village Center study, and a residential housing study were completed to help inform the land use and economic planning for Springwater. They have informed the planning process and helped shape the scenarios and the concept and the final Plan.

The CWG adopted a series of goals that were used in evaluating the scenarios and creating the Concept Plan and the Springwater Plan District. Two of the goals address economic development:

Create a Community
The Springwater Community shall be an economically and environmentally sustainable community. The primary focus of the plan will be on providing a high number of industrial and industrial related jobs that enhance the economic viability of Gresham, the greater East County region and its citizens. Industrial and employment lands will be complemented with a village center and housing and will be carefully integrated with the upper Johnson Creek system. Sustainable "green" building and development practices will enhance the community's unique character, while supporting the protection and restoration of the area's natural resources.

Economic Development
The Springwater Community shall provide industrial land that will generate a variety of family-wage job opportunities. Job creation is aimed at correcting the imbalance between the number of households and the number of jobs in the East Metro region and increasing the City's economic strength. The plan will actively encourage businesses with an interest in sustainability and protecting the community's rich natural resources. Springwater will include a village center that can serve residents, employees and businesses.

The following are some of the major issues that were considered in the urban plan for economic development in Springwater:

4.3.2 Summary of Major Issues

Industrial Development – Current and Projected Employment Trends
While recent employment growth trends in the region have reflected the recession, economic indicators show that the Portland area is in a good position relative to other urban areas to take advantage of industrial growth as the economy recovers. Furthermore, based on its 2025 forecast, Metro clearly sees the East Multnomah County area emerging as more of a job center than it has been in the past, with the area forecast to gain more than 20,000 jobs in the 2000-2010 period. This is more than one-fifth of all new jobs in Multnomah County and 8 to 9 percent of all new jobs metro wide during the decade. Another 30,000 jobs are anticipated for East Multnomah County over the following 15 years, from 2010 to 2025.

However, Metro's forecast suggests that traditional manufacturing will not be a significant factor in the region's job growth. East Multnomah County currently has less than 5 percent of the metro wide industrial employment, and this share is only projected to rise modestly over the next 20 years. As a percent of total jobs added, industrial employment falls from 1 in every 3 jobs added in the 2000-2005 period (32.3 percent) to roughly 1 in 7 by 2020-2025 (13.7 percent).

In addition to global trends affecting manufacturing expansion in general, one reason for the area's relative lag in anticipated industrial job growth may be its occupational structure. Although Gresham does have a skilled blue-collar labor force, these existing skill sets may not be compatible with the new technology job growth (such as those in advanced processing, and computer and design, for instance) that the metro area – and Gresham – hopes to attract in the coming years.

Land Use Implications
The Portland area industrial vacancy rate is above average for the metro area, and analysis of current trends seems to show sufficient industrial land to support future job growth over the long-term. However, if industrial jobs are targeted successfully, the demand for industrial land in east Multnomah County could be higher than the regional average. Furthermore, in the short-term, some recent studies indicate that the region's supply of "shovel-ready" land is quite constrained. Therefore, while the region as a whole may not be at a shortage for industrial land in the long-term, large parcels such as those available in Springwater may be successfully marketed for development in the short term.

Target Industries
The team used a combination of quantitative and qualitative methods to identify appropriate industrial targets for Springwater. The target industry list is based on consideration of:

- Existing regional industries and their support services as revealed by an analysis of historical and projected employment patterns in the region and interviews with local economic development and industry professionals
- National growth trends and current market conditions
- A review of published reports and industry cluster studies completed by other researchers and economic development organizations for the region and the state
- The limitations and advantages presented by the Springwater site
- The experience of the project team

The target industries were selected based on existing industry strength in Multnomah County and the Metro region, local industry growth trends higher than those seen nationally, potential to leverage existing research initiatives in the region, ability of the industry to bring high-wage occupations, and the interest of state and local officials in targeting the industry.

Based on this analysis, the target industry list in Table 4 was prepared. Each of these industry targets is profiled in detail in a Target Industry Matrix included in the Reference Documents. For purposes of this table, "Short-term" timeframe refers to 1 to 3 years, "Mid-term" 3 to 5 years, and "Long-term" greater than 5 years.

TABLE 4 - SUMMARY OF TARGET INDUSTRIES

Target	Appropriate for Springwater?	Timeframe
Advanced Materials	Yes	Short-term
Medical Devices	Yes	Mid-term
Specialized Software Applications	Yes	Short-term
Forestry & Agricultural Biotechnology	Yes	Mid-term
Nanotechnology	Yes	Long-term
Recreational Equipment/Recreation Technology	Yes	Short-term
Headquarters	Yes	Short-term
Professional Services	Yes	Short-term
Specialty Food Processing	Possible	Short-term
Transportation Equipment/Technology	Possible	Short-term
Logistics	Not Likely	Short-term
Renewable Energy Technology	Yes	Mid-term

Core industries (those companies already established in the region) represent the first tier of economic development opportunity. However, the ability to retain "traditional manufacturing," even if successfully lured to an area, is increasingly unlikely. With increasingly advanced fabrication requirements, manufacturing should be seen in a new light. Industries were once thought of as the working of raw material, but are now a matter of design, process control, and assembly. Therefore, identifying companies employing specialized engineering and advanced manufacturing processes should be part of a successful recruitment strategy for Springwater. Within this broad concept, a few specific industries are worthy of consideration, including medical devices, advanced materials, recreational technology, and specialized software applications.

An additional target, corporate headquarters, is also recommended for the study area. There are several obvious benefits from professional service employment, especially when connected with a corporate center. These include environmental friendliness, highly educated workers, and the prestige factor associated with a corporate "brand." Add to these the potential cluster effect of additional professional activity, such as the need for ancillary services in legal, marketing and accounting activity and the argument becomes stronger.

Portions of the Springwater area are in many ways extraordinarily well suited for a corporate center. The quality golf course, the beauty of the setting, and the availability of housing all come into play. In addition, corporate center recruitment in other parts of the country has resulted in the ability to attract manufacturing, distribution, and commercial development in near proximity. Recruiting a corporate headquarters may prove to be the signature project by which the Springwater study area can become known throughout the State.

Village Center
Workers and residents of the Springwater community will require supporting commercial services. The development of a Village Center is one means for accomplishing this goal. Two important assumptions guided planning for the Village Center:

- The design of the Village Center should meet the needs of future area industries, businesses and residents, as well as nearby existing urban and rural residents. It should not compete directly with existing retail centers in the Gresham area, such as Historic Downtown, the Rockwood Town Center and planned new areas such as the Pleasant Valley Town Center.
- The Village Center should be a walkable, mixed-use district, including medium-density housing, retail and commercial areas.

An assessment was made of the current retail environment in Gresham and the broader region, and of national data on shopping center characteristics to develop an understanding of uses typically found in neighborhood-serving retail areas. There was an evaluation of whether projected population growth in east Multnomah County and expected increases in retail spending would be sufficient to support a Village Center.

The market assessment indicates sufficient demand in east Multnomah County to support the retail portion of the proposed Village Center. The analysis of market demand, coupled with the City's vision for the area, and Metro's regulations governing neighborhood-serving retail developments[4], suggests that an incremental, long-term build-out of the Village Center may be the best strategy for serving the needs of future area industries, businesses, and residents, as well as nearby existing urban and rural residents. The use of an incremental build-out plan would allow specific phases that could be triggered by certain population and employment thresholds.

Residential
Springwater was envisioned as a community in which people could live, work, and play. Accomplishing this vision requires some level of housing. As part of the planning process the characteristics of housing needed for the Springwater community and crafting an overall strategy for housing within the area were assessed.

Based on the average number of jobs per household in the region, it would take more than 10,000 households to provide the targeted 15,000 employees in Springwater. While some of these jobs could be filled by current residents of Gresham and Springwater or residents of nearby communities such as Pleasant Valley, it is unlikely that all of them would be. Furthermore, one of the key planning requirements was that the commercial and retail services in Springwater would not compete with adjacent centers. For Springwater's commercial and retail services to be self-supporting, a minimum population of approximately 3,000 people is required. While some of the support for the Village Center may come from outside Springwater, it is difficult to estimate the extent to which existing residents would help support the Village Center. Both of these issues point to the need, and capability, of Springwater to support a certain level of housing.

[4] The Metro Code does not yet provide density recommendations for the Village Center design type. However, an appropriate target would be 25-30 people per acre. This figure is less than the 39 to 40 people per acre recommended under Title 3.07.170 for the Main Street and Town Center design types, respectively, but above the 20 person per acre for Employment Areas. This level of density should accommodate the housing and employment generated by a mixed-used development.

Housing demand within Springwater is likely to be driven to some extent by the industry targets chosen and the City's success in attracting specific companies to the area. However, given the City's goals and the characteristics of the property, the team views some executive housing as a logical strategy for Springwater. The topography of the site, particularly the buttes on the western edge, and the abundant natural features make it an appealing site for high-end residential development. Existing amenities, such as the Persimmon Golf Course and access to Mt. Hood, make the area attractive to outdoor enthusiasts. With the right mix of uses and scale, the Village Center development could be an important element in creating the "complete environment" for corporate executives and upper-level management.

4.3.3 Summary of Challenges

There are several challenges associated with economic development in Springwater.

Interstate Access

Perhaps the most significant drawback of the Springwater area for many industrial uses is the lack of interstate access. The property is served primarily by US 26, which currently does not offer direct connection to either I-84 or I-205. Scheduled improvements contained in Metro's regional transportation plan, including plans to improve the linkage with both interstates from US 26, will improve access to the area. Businesses with a strong distribution/warehousing component will likely look for sites that are better connected to the region's transportation infrastructure. On the other hand, many businesses such as the recreation technology group, particularly those start up businesses with small component products, are minimally dependent on interstate access.

The transportation network will be significantly improved over time as the results of the concurrent North-South Transportation Corridor Study and the Damascus/Boring Concept Plan work for the area to the south of Springwater are implemented. These studies will result in recommendations that will provide more direct linkages to both I-84 to the north and to I-205 to the south and west through the Damascus area.

Land Assembly

Land assembly will also be a significant challenge for very large-scale industrial development. An analysis of tax lot value per acre revealed a few areas where land assembly would be important for near-term marketing of sites. These are generally areas where there are smaller lots, many with improvements such as existing residences already on the parcel, and where owners may feel less motivated to sell. In more general terms, the number of parcels also creates challenges for land assembly - the more owners involved, the more complicated the process.

There are several examples of property owners agreements, and new ones can be created, which can be effective in land assembly, and in both giving more control to a group of property owners and in providing a simpler negotiations and potential purchase process for a potential buyer/end user. A Real Estate Investment Trust (REIT) is one of those entities, which could be explored to achieve these goals.

The City has identified this issue and has taken some steps, such as a "Brokers Forum", to help property owners in the Springwater area to consider this issue as it relates to future sale of properties. A second forum will be scheduled focusing on the land assembly strategies that property owners may want to consider. Ongoing work may be needed in this area to overcome the challenge.

Recruitment
Recruitment of technology-related companies is likely to be hampered by a number of issues. In the short-term, Springwater faces competition from existing vacant industrial property in the Metro area, particularly for tech-related space. In addition to existing sites in the Portland region, the feasibility of attracting certain high-tech companies and prominent industrial developers to Springwater is complicated by competition from other metropolitan areas in the Northwest, primarily the Puget Sound. Finally, the state's relatively low ranking in terms of federal research and development funding suggests a challenge for technology-related recruitment. However, the development of signature research centers, such as the new MMD Signature Research Center and the collaboration between Hewlett Packard and Oregon's higher educational infrastructure, indicates the leadership's willingness to address some of these challenges. Some industry groups such as recreation technology where an individual may be marketing his or her own "invention" or idea for an improved product, or is in fact, marketing the idea itself, are well suited as short-term recruitment targets.

There are also existing significant efforts on a statewide economic development level which would be natural venues for Springwater recruitment. The State's emphasis on the official list of "shovel-ready" sites for potential new industrial recruitments would provide a broad forum and exposure for sites in Springwater once the planning and annexations have been completed.

4.3.4 Summary of Proposed Plan Element
The information gained through the Village Center, residential, and economic and employment industrial site studies were used to help develop the land use allocations that were used in the scenarios and the selected Concept Plan for Springwater. However, this is just the start of the economic development effort. Implementing the plan will require an effective recruiting and marketing program to ensure that the Plan can be carried forward as intended. This section focuses on the marketing and recruiting strategy necessary to attract economic development to Springwater.

In light of the competitive nature of industrial recruitment and Springwater's challenges, City leaders will need to be innovative and flexible in their approach to developing the area, both in terms of the targets selected and the incentives offered.

Flexibility and innovation in terms of the targets selected means that the City must not limit its recruitment efforts to the manufacturing sector. While these jobs were once seen as the primary drivers of the economy because they paid high wages and served non-local demand, this notion is outdated. As the country transitions to a service-oriented economy, there are many high-end business and professional services that pay wages above that of manufacturing and are exporters of their services, thereby also bringing in outside dollars. Furthermore, global trends suggest that many traditional manufacturing industries are poor targets for expansion. This is due to the diminishing number of such firms in the U.S. and the intense competition among jurisdictions to attract those companies that remain on-shore.

The City may be in a good position to take maximum advantage of the unique opportunities in the Springwater area for professional and technical services, which may not otherwise be attracted to a more traditional historic downtown setting, and which may not be suited to some of the RSIA lands.

Flexibility and innovation in terms of incentives offered means that the City must identify specific actions that can serve as a stimulus for the private sector. Current trends, including the region's high vacancy rates, suggest that market demand will not bring Springwater to the attention of

developers for a number of years. Providing developer incentives, such as road improvements, sewer and water lines, utilities, as well as non-traditional infrastructure such as cable and wireless connectivity, landscaping, signage, and other scenic enhancements could help move Springwater up the list.

Recruitment Team
One of the first steps in marketing Springwater is developing a recruitment team including representation from the City, the development community, local residents and neighborhood associations affected by the City's plans, and business leaders from the region with specific areas of expertise related to marketing or to the industries being recruited.

As with any economic development effort, it is essential that barriers to a successful strategy be made as clear as possible. One barrier to marketing Springwater is that, for the most part, specific industrial and commercial sites do not have clearly defined individual ownership. As a result, the promotion of those sites may simply drive up land prices and make acquisition more difficult. Infrastructure requirements (especially road and highway access) and site preparation (including run-off issues and related environmental concerns) compound this problem regardless of how the land is zoned.

The City should begin addressing these issues by conducting a parcel-level inventory for all land within industrial and commercially zoned tracts of Springwater. This inventory should result in the creation of "land briefs" for each parcel that describes all available information on the property including ownership, assessed valuation, current sales listing and pricing, and available infrastructure.

In addition to the parcel inventory, the City should prepare a list of brokers and owners and establish a meeting schedule with those brokers and owners to ascertain interest levels in selling the land. Since the land will be zoned industrial-commercial, it should be in the interest of sellers to work with the community both in the sale and assembly of land. City supported infrastructure improvements will most likely be the strongest incentive both for businesses to locate there and for owners to sell at reasonable costs. These steps should be undertaken before any formal marketing or promotion is undertaken. To initiate an actual campaign before there is definitive understanding of what land is available (and at what level of service) could seriously compromise the Springwater development effort.

Target Market
The primary purpose of economic development marketing is to generate interest in an area from companies with expansion or relocation plans. However, economic development marketing must also focus on attracting workers to the region. To do so, the City will need to clearly differentiate Springwater from its competitors, both regionally and nationally, and provide focus to the community's efforts.

One important yet often overlooked audience is the people and businesses that are already in Gresham. These people have made some level of investment in the city already. They are also the ones who represent the city on a daily basis and who can best tell the Gresham story to the outside world. Building awareness locally among the region's business leadership that the community is dedicated to advancing business opportunities is another key step. Other significant groups include employers in the targeted industries, major allies (such as state and regional economic development organizations, institutions of higher education), members of the media, and site location consultants.

Springwater and other key sites should be promoted through a combination of partner advertising, public relations, and networking. An important decision point for this action is whether the City should hire a professional marketing firm to assist it. While this approach has obvious benefits, it should not be undertaken until the development community and, if possible, major employers have had an opportunity to comment on the sites.

Incentives
The successful recruitment of corporations, as well as high profile start-ups, always involves some form of public inducement. In fact, incentive packages now typically involve multiple units of government. In broad terms, the degree to which incentives tie back to the economic well-being of the community affects the degree to which their use can be defended. For example, infrastructure improvements are tangible assets a City can draw upon even if the business does not achieve its goals. Direct cash subsidies represent the opposite end of the spectrum.

In the case of Springwater, incentives should be made available to developers and businesses that conform to the broad goals of the project, and should be developed in conjunction with the State when possible. Potential incentives include:

- *Infrastructure (developer-oriented)* — Roads, road improvements, sewer and water lines, utilities, and other traditional and non-traditional infrastructure (such as cable and wireless connectivity, as well as landscaping, signage, and other scenic enhancements) may be candidates for incentives. In a broad sense, these can be subsumed under a tax increment financing (TIF) or tax increment reinvestment zone (TIRZ) program.
- *Tax abatements* — Tax increment financing is unlikely to be a viable tool in a greenfield development such as Springwater. Graduated tax forgiveness for capital intensive businesses, however, should be an option. Proposed changes to the state's Strategic Investment Program (SIP) may make this incentive an important tool, particularly if Springwater becomes a designated zone under the program. An additional related incentive is the state's lack of sales tax.
- *Developer support* — It is reasonable to expect that the initial marketing and recruitment of businesses will be conducted in tandem with the development community. Marketing assistance, both from a technical as well as a financial standpoint, should be available to the developers.
- *Promotions* — In addition to joint marketing with developers, the City should actively promote Springwater sites in its overall economic development efforts. The same should be true of the State and the Portland metropolitan area (including the Portland Development Commission, Regional Partners, and Metro).
- *Industry-specific* — If Gresham is to be successful in attracting companies in emerging industries or advanced technologies to Springwater, the State would need to be aggressive in providing tax incentives that encourage investment and aid capital formation. Ideal targets such as biotechnology or nanotechnology would almost certainly require significant state incentives, and marketing to reach these targets would also have to be a joint effort. The marketing package should address the question of incentives, based on the State's available resources. These include:
    - Tax incentives that encourage investment (such as capital gains tax cuts; tax credit transferability; research and development tax credits; and investment tax credits)
    - Government programs that encourage capital formation (such as capital access funds; targeted pension fund investments; incubators or other means of shared facilities; and loan programs targeted for the mid-level or clinical trials stage of product development)

- Indirect assistance (such as legal support from the City to developers, builders and target industry representatives; off-budget financing, such as lease arrangements and land swaps; and planning and zoning related bonuses for conforming uses)

Sustainability
There is significant interest in the region in progressing Springwater as a sustainable community. This positioning could take several forms. Some level of sustainability will be achieved through the development standards adopted for Springwater. Additional incentives could be provided by developing an outreach program to inform developers of the benefits of green building practices. A Developer's Forum could be used to promote green site development and building practices by educating local developers about the benefits, preferably through the use of local examples (e.g., American Honda).

The formation of an eco-industrial park (EIP) at Springwater would be another way to incorporate sustainability into the community. The EIP concept entails identifying manufacturing and service companies that would benefit from co-location and collaboration in the management of resources and environmental concerns such as energy, water, and materials management. One promoter of EIPs, Indigo Development, suggests the following types of companies as targets for this type of facility: "manufacturers using recycled feed stocks; remanufactures of capital or consumer equipment; companies with major supply requirements that could be filled by the outputs of other tenants or plants in the area; users of reclaimed materials and energy by-products or agriculture and aquaculture firms if there is by-product energy or water available to the site." The region's existing metal cluster (primarily small and medium sized companies in plating and steel products) could be considered as a foundation for the development of an EIP in Springwater, or the City could identify other potential industries with synergistic needs through the recruiting process. Such an effort may require developing a more detailed understanding of the industries' manufacturing processes, raw product needs, and waste characteristics than may typically be considered during recruiting.

Third would be the targeting of green companies — those that produce environmentally friendly or "holistic" products (i.e., products that use organically produced materials). There is currently no clear method for identifying such companies as a group, although these types of companies are clearly a growing business sector. Because these companies are responding to a consumer trend that cuts across many different industries, marketing Springwater to environmentally responsible companies may require developing marketing messages that are tailored to each specific industry identified.

While none of these concepts would necessarily change the targeting approach recommended in this document, they do provide a set of criteria that could be applied when deciding among alternatives or in developing the incentive package that would be offered to a particular company.

Land Development
A major land development project is a long and painstaking process. From the community's point of view, managing the process is essential. As a result, organizational issues must be addressed as early as feasible. Other communities often deal with this time consuming effort by forming a development authority or similar commission. This has several advantages, including the ability to communicate clearly with landowners and developers, and to address concerns expressed by neighborhood associations and private individuals. Finally, such an organization provides continuity often lost as a result of elections or staff changes.

City's Role
The City should assess how development can occur and its own role in that process. If it is decided that the public sector should play an active part in developing specific properties, a long-term approach for development is necessary. Possible approaches include:

- *Master developer strategy* — In this scenario, the City serves as a primary participant. The City acquires land, and then leases or sells land to a private developer and allows that party to develop the land according to pre-approved guidelines. In return, the developer is allowed to realize the long-term revenue streams.
- *Cooperative city-developer acquisition* — Here, the City serves as a facilitator. For instance, a developer agrees to make an investment in a property in return for improvements to the existing physical infrastructure by the city.
- *Public/private partnership* — In this case, the City serves as both a participant and a facilitator. The City could choose to develop a portion of a development on its own or could confer the rights to a property in exchange for certain improvements. In addition, the City could enter into ground leases (short or long-term) with individual landowners as a way of assembling property for development purposes. From a financing and marketing standpoint, long-term ground leasing is more viable for commercial/industrial property, than it is for residential property.
- *Private equity models* — There are many examples of private development in conjunction with existing landowners. Individual properties or groups of properties could be optioned by the City through an LLC (Limited Liability Company) or REIT for the purpose of assembling the property subject to various contingencies. The option holder could then assemble the needed properties, obtain the necessary entitlements and financing, and begin to negotiate with future tenants/buyers. They would then be in a position to exercise the option to purchase.

Such an approach, encouraged and supported by the City, can function as a useful mechanism for enfranchising landowners who might not otherwise want to sell their land. Under this scenario, landowners would retain ownership of the land while allowing development to occur according to established "preferred uses." In other words, through a REIT or similar mechanism, the City could purchase the land, with the underlying landowners holding shares in the REIT. This innovative land assembly tool allows landowners to participate in the overall economic growth of the district, while providing a defined mechanism for purchasing and selling land within the REIT.

Closely related to this model are quasi-private corporations such as the Milwaukee Economic Development Corporation. While it remains private, it is non-profit and works closely with the municipality to see that development occurs in way beneficial to the city.
Additional closely related options include:

- *Development Agreements.* While not traditionally used as a land assembly tool in Oregon, ORS 94.504 et seq, provides a statutory mechanism for cities and counties to enter into development agreements with persons having legal or equitable interests in real property to facilitate development of that property. A development agreement could be used to assemble land, seek entitlements, and market the property based upon the terms of a development agreement approved by the governing body of the city or county involved.
- *Urban Renewal/Tax Increment Financing*. ORS Chapter 457 defines the urban renewal and tax increment financing powers of a city, under state law. Under this scenario, the City would form an urban renewal agency, area and plan, which would allow the agency

to sell bonds to acquire and develop property in the district. The bonds would be financed by the property taxes attributable to the increased value of property within the district, over the life of the urban renewal plan. The agency would have the power to assemble, plan for, clear, acquire, rehabilitate and develop property within the urban renewal district, as provided for in the plan.

Financing Considerations
The Springwater project must be of financial benefit for the City. Monies lost through typical planned unit (housing) developments can be regained through a project in which commercial and industrial properties carry the cost of services. This is also true of housing development that exceeds the break-even point of residential property taxes versus cost of City services.

Since the financial viability of cities is always of concern, the use of tax incentives must be structured with great care. The best way to achieve that goal is to reserve tax abatements for those businesses that meet high standards of wage and capital investment. Typically, this would be in the total number of jobs at 125 percent of the regional median wage, and with significant capital investment.

The timing of development has a specific relationship to its financial performance. The community's goal for Springwater to be a self-sustaining community requires that a broad range of services be made available to residents, employees, and business owners. The presence of services and other amenities, including food and retail services, has a bearing on the appeal to potential homeowners and business location decision-makers. Based on this consideration, the Village Center should be seriously considered as one of the potential initial sites for development.

From a financial standpoint, high-end retail and commercial property envisioned for the area would provide an immediate source of tax revenue. Starting with industrial property, in contrast, would likely delay tax revenues due to the longer timeframe required for industrial recruitment and the potential for any tax abatements to take effect. The Village Center, if properly conceived, can also help to establish an image for Springwater, increasing its desirability as a location for both residential and industrial users.

One tool for spurring investment in a specific site is the inclusion of public uses, such as post offices or City services like police and fire. The advantage of beginning development with those uses (which a community can influence directly) is especially important. The location of a public use in a commercial area, such as the Village Center, can increase the viability of related activity, such as medical and professional services, as well as retail, which would benefit from the traffic generated by the public facility.

4.4 NATURAL RESOURCES

4.4.1 Background
The Springwater Community has an extensive natural resource system that includes a two-mile section of mainstream Johnson Creek, four miles of major tributaries, and other unique habitats such as the steep slopes of Hogan Butte. The Johnson Creek Watershed Council has characterized one reach of Johnson Creek (JC16) that flows through Springwater as one of the watershed's highest quality reaches.

To comply with Metro UGMFP Title 11 in bringing the Springwater area into the UGB, Gresham's planning for this area must include:

Identification, mapping, and a funding strategy for protecting areas from development due to fish and wildlife habitat protection, water quality enhancement and mitigation, and natural hazards mitigation. A natural resource protection plan to protect fish and wildlife habitat, water quality enhancement areas and natural hazard areas shall be completed as part of the comprehensive plan and zoning for lands added to the Urban Growth Boundary prior to urban development. The plan shall include preliminary cost estimates and funding strategies, including likely financing approaches, for options such as mitigation, site acquisition, restoration, enhancement, or easement dedication to ensure that all significant natural resources are protected.

The Natural Resources Plan must also comply with Metro Ordinance 02-969B, Exhibit M regarding the inclusion of the project area in the UGB, and an IGA between the City of Gresham and Multnomah County establishing guidance for planning for urbanization in Springwater. Specifically, the IGA states that the Springwater Plan shall:

Establish a consistent and comprehensive plan for urban and rural watershed management of stormwater, stream corridors and confluences, and riparian areas for the Upper Johnson Creek Basin (upstream of the 2002 Gresham city limits). Utilize the City's Johnson Creek Master Plan, Metro Goal 5 requirements (which consider the Endangered Species Act, Clean Water Act, and Statewide Goal 5 planning provisions), and habitat protection measures that are at least equivalent in the level of protection to the County's West of Sandy River Rural Area Plan in development of the watershed plan.

The CWG was convened to provide input through the planning effort. Together, the CWG and the project team developed a set of goals and policies that were ultimately adopted by the CWG. The purpose of the goals and policies was to identify the City's intent to accomplish certain results through the Plan. The following goal was adopted for natural resources:

The plan will preserve, protect, and enhance natural resources. It will define, protect, restore and enhance significant natural resources, including stream corridors, wetlands, and forested areas. Resource areas will provide the basis for identifying development constraints as well as serving as open space amenities for the Springwater Community. Resource protection and enhancement will be a shared responsibility of property owners, developers and governments.

The work of the Natural Resource team used this goal as a basis for developing the Environmentally Sensitive Resource Areas (ESRAs). After a thorough inventory of resources in the study area, the work team presented its findings through a series of inventory maps at public meetings. Local residents made additions and corrections to the maps. This information, combined with extensive field studies conducted by the project team, formed the basis for assigning significance levels to each resource in the study area. The final ESRA was determined through an Environmental, Social, Energy, and Economic (ESEE) study to determine where urban development in resource areas should be allowed, limited, or prohibited.

4.4.2 Summary of Major Issues

The following are the major issues that were addressed in development a natural resources component of the plan:

Inventory

Considerable inventory data was available from Metro, Johnson Creek Watershed Council, Multnomah County, the Oregon Department of Fish and Wildlife (ODFW), and others. However,

some of this data needed to be supplemented with field surveys that were conducted by project staff.

Existing Regulatory Issues
In creating a natural resources plan for Springwater, consideration of other programs related to Springwater was necessary. Multnomah County has adopted a protection plan (West of Sandy River Plan) for unincorporated rural Multnomah County including Springwater. A Gresham and Multnomah County adopted agreement is that the Plan will be at least as protective as the West of Sandy River Plan. Metro requirements for water quality, floodplain, and erosion control (Title 3) apply to Springwater. These, however, do not address all natural resource issues. Metro is in the process of creating a regional Goal 5 program. Metro has adopted a Goal 5 Inventory that is included in the Springwater program. To the extent possible consistency with the Metro process was maintained.

Johnson Creek
Nearly two miles of Johnson Creek runs through Springwater flowing west before entering Gresham. Two (16 and 17) of the four Johnson Creek reaches (ODFW stream segments) are exceptional for their high channel complexity, lack of human disturbance, and good fish habitat. NOAA Fisheries considers the main stem of Johnson Creek (including the Springwater section) as critical habitat for Lower Columbia River steelhead and Chinook and it has been listed as essential fish habitat for Coho and Chinook. Oregon DEQ lists Johnson Creek as a water quality limited stream and on the 303(d) lists for various toxins, temperature, and fecal coliform. DEQ is required by the federal Clean Water Act to maintain a list of stream segments that do not meet water quality standards.

Tributaries
Six creeks feed Johnson Creek from the west and one from the east. The creeks are: Hogan Creek; Botefuhr Creek; Brigman Creek; Sunshine Creek; Badge Creek; seasonal Bus and Ops Creeks, and the North Fork Johnson Creek.

Natural Resources Wetland
A local wetland inventory was conducted and six emergent marsh type wetlands were identified to be locally significant. The wetlands total less than six acres and are generally part of larger a wetland, floodplain, and/or forest complex.

Riparian Areas
Riparian areas are essential to wildlife passage, stream bank protection and erosion control, fish and aquatic habitat, and other ecological functions. Some of the Springwater riparian reaches have relatively intact diverse, mature riparian growth, however many areas lack high quality riparian vegetation. Areas that appear as wide canopy trees in aerial photography hide under-story that has been cleared, with significant stream bank erosion occurring. There are about 430 acres of riparian acres (in the Springwater study area) of which about 14% has been altered, e.g. mowed, cut down or lacking in high quality riparian vegetation.

Wildlife Habitat
Wildlife habitats include woodland and tree groves and riparian wetland complexes. Springwater's mature forests are valuable wildlife areas within the watershed's landscape because of their relatively pristine natures, large patch size, and proximity to the Johnson Creek riparian zone. Forested patches often provided continuous wildlife passages between the major western tributaries and Johnson Creek.

Rural Development and Agricultural Practices
Major issues associated with natural resource planning and enhancements in Springwater are related to the existing rural development and agricultural practices in the area. MacDonald Creek (Badger) has been modified by Telford Road, and urban development at the headwaters of Botefuhr Creek has changed the flow regime of the creek channel. A Himalayan blackberry monoculture has been established in the area west of Hogan Road, and an incised channel has minimized the channel's connectivity to its floodplain. Open (ditched) stormwater systems and failing septic systems contribute negatively to water quality in Johnson Creek and the other tributaries in the study area.

State Goal 5 Natural Resources
In order to protect natural resource values, Statewide Planning Goal 5 and its administrative rules require that jurisdictions complete a natural resource inventory, a determination of resource significance, an analysis of the consequences of resource protection (to the resource and adjacent areas), and develop resource protections standards. This work is one of the major elements in the effort to create an urban industrial and employment district in Springwater.

4.4.3 Summary of Proposed Plan Element

The ESRA forms the green infrastructure around which other Plan elements were developed. The intent of protecting and enhancing the natural resources in Springwater is not only to preserve and protect the natural resources in the area to recognize their contribution to the environmental and ecological health of the watershed and the region, but to maintain these areas as amenities for future employees and residents of Springwater.

Selected characteristics of the ESRA include:

- The ESRA designation is applied to 200 feet from top of bank on both sides of Johnson Creek and associated tree groves, locally significant wetlands, or unique habitats; to locally significant wetlands, to tributary reaches (100 feet from top of bank on both sides) and associated tree groves (within 150 feet of top of bank).
- Wetlands, riparian habitat, and upland habitat offering both opportunities for protection of high value resources and opportunities for enhancement of degraded resources
- Habitat migration routes along the waterways and between the buttes
- Implementation strategies including planning-level project cost, funding strategies, regulatory and incentive options, and enhancement priorities

In addition to defining the ESRA, the team identified key objective elements of the environmentally sensitive resource areas management. These measures are intended to allow the entire planning area to be more ecologically sustainable, to improve the aquatic habitat through healthy streams with cool, clear water, and allow continued wildlife migration within and beyond Springwater. The measures include:

- Restoring the headwater wetlands of McNutt Creek and riparian habitat along the tributaries of Johnson Creek
- Retaining undeveloped land as green wildlife corridors between the buttes and major tributaries of Johnson Creek
- Protecting the mature forests and riparian habitat within the five-creek confluence area in the southeastern part of the study area
- Preserving the integrity of large stands of mature forests such as the Hogan Cedars grove

Specific projects, project costs, and potential funding sources to achieve these objectives are identified in the Springwater Natural Resources Report.

4.5 TRANSPORTATION

4.5.1 Background

A well-planned transportation system is critical to attracting economic development to Springwater and to achieving the area's goals for livability and sustainable development.

Metro UGMFP Title 11 requires "a transportation plan consistent with the applicable provisions of the Regional Transportation Plan" and "the protection of natural resources".

The CWG was convened to provide input through the planning effort. Together, the CWG and the project team developed a set of goals and policies that were ultimately adopted by the CWG. The purpose of the goals and policies was to identify the City of Gresham's intent to accomplish certain results through the Springwater Community Plan. The following goal was adopted for transportation:

The Springwater Community will encompass a well-planned transportation system that supports the Springwater Community Plan, while promoting transit, walking, and bicycling. Good design can avoid the effects of heavy traffic on neighborhood safety and the natural environment. A well-connected transportation system using trails, bicycle routes and a variety of street types reinforces a sense of community and provides adequate routes for travel. The site should provide good connections to and from the employment areas and the surrounding community, as well as regional freight and transportation centers.

The transportation plan for Springwater was developed in compliance with transportation plans adopted by the State, Metro, Multnomah County, and the City. Guidelines from these entities were used as a primary resource to develop the policy framework for the mobility standards and street spacing set forth in the Springwater Transportation System Plan (TSP). Review of the Gresham and Multnomah County Transportation System Plans also revealed the current street functional class designations for existing streets and highways, any planned pathways or trails, and any planned transportation improvements within or close to the Springwater area that should be included in the basic framework of the new planning area.

4.5.1 Summary of Major Issues

Major issues faced in the transportation planning for Springwater are described below.

Develop a network of arterial and collector streets adequate to serve future growth in Springwater, while protecting environmentally sensitive areas and adjacent neighborhoods and rural areas from the effects of urbanization.

Traffic analysis conducted as part of the update to the Regional Transportation Plan (RTP) demonstrated that future growth in Springwater would likely have widespread effects on the regional transportation system, despite significant improvements to the primary routes serving the area. Springwater's transportation plan must support the land use goals of the community, protect the natural features that define the area, and improve community access by all modes of travel by providing a variety of travel choices.

The availability of alternative arterials and highways leading away from Springwater are limited. The rural Springwater community today, in general, is adequately served by US 26, and several City and County two-lane arterial roadways. Recurring congestion occurs during peak periods at major intersections along Burnside Road, Hogan Drive, and Powell Boulevard just north of Springwater inside city limits, but delays are within acceptable levels according to City and State standards.

The planned job growth will create much higher demand for regional travel to I-84, I-205, and the future Sunrise Corridor. A long-time need for freight traffic on US 26 has been more direct and reliable routes connecting to I-84 and I-205. On-going work by the City and east Multnomah County communities on a parallel study to the Springwater Master Plan is reconsidering the north / south corridor issue which is identified as a need in the Regional Transportation Plan. A separate study has been conducted to examine options for access to US 26 within Springwater. This study is included in the Reference Documents. Gresham's ongoing participation in these studies is critical to coordinate the studies' evaluations and outcomes with needs for Springwater.

The existing street system is not adequate to serve future growth. Connect Springwater to major streets in Gresham, Pleasant Valley, and Damascus/Boring in a manner that provides alternatives to US 26 while protecting existing neighborhoods from traffic infiltration. Additional connections and improvements to existing streets are needed to increase access from Springwater to other parts of the region. However, evaluation of appropriate north/south street connections needs to address the potential impact of traffic generated in Springwater area on adjacent neighborhoods. The Plan must balance the need to provide appropriate connectivity between Springwater and the surrounding neighborhoods while minimizing "through" traffic from Springwater to residential Gresham neighborhoods and maintaining a "hard urban edge" at the eastern boundary of the community as required by Gresham's intergovernmental agreement with Multnomah County.

US 26 Concept Design and Access Plan study. The City with the Oregon Department of Transportation analyzed and created a design and access plan for the Springwater segment of US 26 in order to support the Springwater Plan. This plan identifies US 26 improvements for traffic, freight, transit, and pedestrian travel that will be needed to support the land uses planned for Springwater.

4.5.3 Summary of Proposed Plan Element

Key features of the transportation element of the Plan are:

- Create a network of arterial, collector, neighborhood, connector, and local streets that accommodate travel demands and provide multiple routes for travel. Key new street extensions and connections include:
    - One (or two) new east-west arterial connections from 242nd Avenue to Telford Road between Rugg Road and 252nd Avenue
    - Phased improvements to provide access to US 26, including a new at-grade controlled intersection in the northern part of Springwater (intersection with a new collector) that ultimately will be a grade separated bridge crossing after an interchange with an new arterial is constructed at the southern part of Springwater
    - A new street connection to Orient Drive around the east side of the existing Gresham neighborhoods

- Upgrade existing streets and design all new streets to accommodate biking and walking, with special pedestrian amenities on transit streets. Upgrade intersections with safety issues identified as part of the inventory work.
- Provide regional and community transit service on key roads in Springwater, with direct connections to Gresham, Sandy, Clackamas regional center, Damascus, the Columbia Corridor, and downtown Portland. Transit streets include 242nd Avenue, Orient Drive, and US 26.
- Provide a logical and connected street system that connects directly to community destinations while also avoiding the ESRA where possible. Plan for a local street system that complements the arterial and collector street system and meets regional connectivity requirements within the residential areas of the plan.
- Provide for direct and convenient access to employment centers that lead to regional facilities, and reduce the possibility of traffic intrusions into neighborhood and rural areas.
- Use Green Street designs that are an integral part of the stormwater management system and provide walkable, tree lined streets.
- Plan for a long-term arterial connection from Hogan Road to US 26 north of the Springwater Corridor Trail, to serve long-term regional mobility needs.
- Implement a Transit Plan that includes a primary transit route on Hogan as well as secondary and neighborhood circulation routes.

4.6 SUSTAINABLE DEVELOPMENT

4.6.1 Background

The City's goal for Springwater is to develop an economically, environmentally, and socially sustainable community. Providing sustainable development will help integrate the quality of life with the quality of the community that develops as Springwater is urbanized and annexed. The philosophy of sustainable development starts at the community planning level and continues through the design and construction of individual buildings. Each element along the continuum from community to structure is critical to this systematic model. This approach seeks to balance the use of natural resources with the creation of spaces and places needed to meet the community's social, functional, and economic needs.

Early in development of the Plan, a Community Working Group (CWG) was convened to provide input through the planning effort. Together, the CWG and the project team developed a set of goals and policies that were ultimately adopted by the CWG. The purpose of the goals and policies was to identify the intent of the City to accomplish certain results through the Plan. The following goal was adopted for sustainability:

The Springwater Community shall foster sustainability through encouraging businesses, industries and homes that are designed and built with good environmental stewardship. This shall be accomplished through green practices that provide for energy efficiency, water conservation, reduced pollution, and avoid environmentally harmful materials and processes. The Springwater Community strives to be a model for successful sustainable industrial development. Development shall also preserve, restore, and enhance natural resources by meeting or exceeding local and regional standards. Land uses, transportation systems and natural resources shall be carefully integrated and balanced.

4.6.1 Summary of Major Issues

The following are some of the major issues that were considered in planning for sustainable development in Springwater. These issues represent the full range of sustainable development opportunities, from the community level to the building level.

Economic Development

Positioning Springwater as a sustainable community can take several approaches, all of which should be considered during implementation of the Plan.

- Targeting companies that produce environmentally-friendly or holistic products
- Targeting groups of industries that would benefit from co-location and collaboration in the management of resources and environmental concerns such as energy, water, and materials management
- Promoting or requiring green building practices for industrial, commercial, and residential development. The U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) Green Building Rating System includes standards for building construction and operation that aim to improve occupant wellbeing, environmental performance, and economic returns of buildings. The LEED program uses both established and innovative practices, standards, and technologies to improve the environment for building occupants and minimize the impact of building construction. Incorporating elements of the LEED program in the Springwater code and supporting developer participation in the U.S. Green Building Council's LEED Program will result in a more sustainable built environment in Springwater, as well as supporting other sustainability goals.

Site Development Practice

Green site development practices are implemented through a combination of techniques that minimize the impact of development on the natural areas and surrounding communities. Green site development incorporates the following elements:

- *Stormwater Management.* The high level of industrial and urban development planned for Springwater will increase stormwater runoff and pollutant load beyond what is currently experienced. Green or low impact development uses a system of landscaping features that treat and infiltrate stormwater on the development site instead of using a traditional piped collection and conveyance system. Stormwater that is not managed on individual sites will be conveyed using Green Street swales rather than a conventional piped system. The benefit of green development is that it minimizes the production of stormwater runoff and manages it close to the source. These practices mimic the natural hydrology of the area, minimizing erosion and enhancing water quality in the streams. Green development practices include the following:
    - Minimizing impervious surface coverage
    - Using eco-roofs to absorb precipitation and reduce runoff from developed areas.
    - Maximizing tree canopy through preserving and planting trees in landscaped areas and parking lots, on residential property, in street medians, and in neighborhood and community parks
    - Using onsite stormwater treatment techniques such as bioswales and landscape planters.
    - Using Green Streets for all streets that do not have a high level of on-street parking (as in the Village Center).
- *Xeriscape Landscaping*. Xeriscape landscaping promotes water conservation by minimizing the amount of native vegetation removed, limiting new vegetation to native or drought tolerant vegetation, and limiting irrigation. This approach also supports and

encourages protection and restoration of natural areas where development occurs on parcels adjacent to Environmentally Sensitive Resource Areas.

- *Minimizing Night Sky Impacts*. Urbanization of Springwater will result in new lighting sources that could increase night sky illumination and impact the nocturnal environment. Applying site lighting restrictions reduces the development impact by avoiding off-site lighting and night sky pollution.
- *Water Reuse*. The high density of proposed industrial development, distance from the City's existing wastewater treatment plant, and potential demand for reclaimed water for either non-contact industrial uses or environmental benefits (such as aquifer recharge, stream flow augmentation, etc.) support investigating wastewater reuse in Springwater.

4.6.3 Summary of Proposed Plan Element

The City is encouraging sustainability in Springwater in three ways: regulation, recruitment, and incentives.

Regulation

Several green building techniques are incorporated into the Springwater Land Use Code in order to promote sustainability. The code requires all mixed-use, industrial, and office building to earn three points toward meeting Green Building standards by applying two or more of the practices identified in the development code. These practices include:

- Alternative transportation measures (bicycle storage, alternative fuel vehicle parking or refueling stations)
- Vegetated roofs (Eco-roofs)
- Wastewater reuse
- Water conservation
- Renewable energy
- Building recycling and use of recycled materials for construction
- Improving the building working environment (prohibiting smoking, providing operable windows, improving daylighting)

The code also requires developers to comply with low impact stormwater development practices, minimize impervious surfaces, reduce night lighting, and use xeriscape landscaping principles.

While the Springwater code does not require buildings to be certified by the U.S. Green Building Council's LEED program, it does provide a straightforward starting point if a developer elects to apply for certification.

Recruitment

Springwater's marketing and recruitment plan suggests several methods for positioning Springwater as a sustainable community. One of the suggestions is to incorporate elements of green building techniques in the development code, which as been addressed as described above. Other options include:

- Targeting "green" companies that produce environmentally friendly or holistic products
- Considering forming an eco-industrial park (EIP). This concept entails identifying manufacturing and service companies that benefit from co-location and collaboration in the management of resources and environmental concerns such as energy, water, and materials management.

Incentives

A group of Portland State University graduate students is working with the City to identify incentives for sustainable practices within Springwater. Incentives might include funding from outside sources (such as State or federal programs), tax credits, fee reductions and other City programs.

The City is also exploring the option of certifying Springwater as a LEED Neighborhood Development. This is a program under development by the U.S. Green Building Council. It is similar to the LEED certification for individual buildings, but looks at the neighborhood as a whole.

4.7 PUBLIC FACILITIES

4.7.1 Background

The Metro Council brought Springwater into the UGB in December 2002. When land is brought into the UGB, Metro UGMFP Title 11 requires that the added territory be brought into a City's Comprehensive Plan prior to urbanization with the intent to promote the integration of the new land into existing communities.

Title 11 requires conceptual public facilities plans for each of these services that demonstrate how Springwater can be served. The conceptual plans are to include preliminary cost estimates and funding strategies, including likely financing approaches and maps that show general locations of the public facilities.

To address this need, conceptual public facility plans were developed for water, wastewater, stormwater, and parks during the Concept Plan phase of the project. The general steps in generating the conceptual public facilities plans were:

- Inventory of existing system
- Needs analysis based on planned future uses
- Developing a conceptual system layout for each planning scenario, including facility needs and cost estimates
- Evaluating each conceptual public facility system with respect to project evaluation criteria
- Creating a preferred public facility alternative based on the preferred land use, transportation, and natural resource concepts and the scenario evaluation results.
- Refining facility needs, cost estimates, and funding strategies for the recommended plan.

The Concept Plan also included the CWG's adoption of plan goals. No specific goals were developed for water, wastewater, stormwater, or parks public facilities. However, evaluation measures associated with these public infrastructure areas were incorporated into evaluation measures for the broader community goals (i.e., create a community, livability, sustainability, etc.).

The Concept Plan and concurrent master utility plan work was the basis for the Public Facilities Plans that are included in this document. These Public Facilities Plans describe the elements necessary to comply with Statewide Planning Goal 11 and OAR 660-011-000 necessary to amend the City's Public Facility Plan for each of the public facilities:

<u>660-011-0010</u>
The public facility plan shall contain the following items:

- An inventory and general assessment of the condition of all the significant public facility systems which support the land uses designated in the acknowledged comprehensive plan
- A list of the significant public facility projects that are to support the land uses designated in the acknowledged comprehensive plan. Public facility project descriptions or specifications of these projects as necessary
- Rough cost estimates of each public facility project
- A map or written description of each public facility project's general location or service area
- Policy statement(s) or urban growth management agreement identifying the provider of each public facility system. If there is more than one provider with the authority to provide the system within the area covered by the public facility plan, then the provider of each project shall be designated
- An estimate of when each facility project will be needed; and
- A discussion of the provider's existing funding mechanisms and the ability of these and possible new mechanisms to fund the development of each public facility project or system

4.7.2 Summary of Major Issues

Current residents of Springwater have no public water, wastewater or stormwater systems. Water is currently accessed via underground wells and wastewater is primarily treated in private subsurface disposal systems. Stormwater runoff is conveyed to natural drainage areas or to drainage ditches adjacent to local roads.

Urbanization of Springwater requires that a public infrastructure system be constructed and maintained. Therefore, new water services, wastewater services, and stormwater management services will be required for Springwater. Urban service needs were evaluated for the entire Springwater area, although service provider responsibility for the portion of Springwater in Clackamas County has not yet been determined.

The major issues associated with the water and wastewater network revolved around providing connections to the existing City systems that maximize the use of available capacity without providing undue strain on the existing system. The City is currently taking measures to maximize the amount of wastewater conveyed by gravity and eliminate pump stations wherever possible, so wastewater system alternatives were designed to minimize or eliminate the need for future pump stations.

The stormwater system was designed around low impact development practices to be consistent with the desire to make Springwater a sustainable community, minimize public infrastructure needs, and be consistent with the stormwater management approach adopted for Pleasant Valley.

4.7.3 Summary of Proposed Plan Element

4.7.3.1 Water System

Recommendations for the water system in Springwater include a distribution network to serve the Springwater community, and improvements to existing infrastructure in the City to provide additional flow to Springwater from the City's current sources. To maintain consistency with the City's current practices, parallel piping is included in some areas to minimize the use of pressure reducing valves where possible. Improvements are summarized below.

- The Springwater system is divided into three service levels – extensions of the South Hills, Intermediate, and Lusted service levels. Within each service level there is a network of distribution mains ranging in size from 12-inch to 18-inch. These mains are looped to the maximum extent possible.
- Existing 8-inch and 12-inch mains in two areas will need to be upsized to accommodate the demands anticipated in Springwater.
- Two new pumps will need to be added to Regner Pump Station. These pumps are to be of similar capacity to those existing at the pump station (1,100 gpm capacity).
- Two new reservoirs will be required. One will be located near and of a similar size as the existing South Hills Reservoir (2.6 MG) and the other will be located near and of the same size as the existing Wheeler Reservoir (3.2 MG). Controls at the Regner, Barnes, and Salquist Pump Stations will have to be modified to incorporate these new tanks.

No provisions are included in the recommended plan to serve the Phase 2 Springwater area. It is possible that service will be provided by the Sunrise Water Authority, but no formal agreements regarding potable water service have been reached.

The estimated cost of the water system is $23.2 million. These improvements will be funded through system development charges (SDCs). SDCs adopted for Springwater should be sufficient to fund required improvements over the life of the development; however depending on the location of the early developments, initial investment by Gresham may be required. This investment will be minimized if the initial development is within a single service area, and is located in relatively close proximity to an existing storage tank.

4.7.3.2 Wastewater System

The recommended wastewater system for Springwater includes a gravity collection system to serve the Springwater community, and improvements to existing infrastructure in the City to convey the additional flow from Springwater to the City's treatment plant. Improvements are summarized below.

- The backbone of the Springwater collection system is the extension of the Johnson Creek interceptor along Telford Road. The interceptor will extend from the terminus of the existing system at 252nd Avenue/Telford Road to approximately Stone Road/Telford Road. The interceptor size will range in diameter from 12 inches at Stone Road to 21 inches at the connection to the existing system.
- A series of 8-inch to 18-inch gravity sewers will convey wastewater from the development areas to the interceptor extension. These new sewers will be routed in existing or proposed roadways.
- Two new 8-inch collectors are required to facilitate proposed development on the Brickworks site.
- Several new sewers will discharge directly to the existing Johnson Creek interceptor. These include the collectors from the Village Center area, the residential neighborhood north of the Village Center.
- A portion of the existing Johnson Creek Interceptor pipeline will require upsizing (approximately 2,100 feet of 15-inch diameter pipe will be replaced with 21-inch diameter pipe) between Hogan Road and the Linneman Pump (lift) Station near SW Pleasant View Drive (190th Street).
- The Linneman Pump (lift) Station is currently capacity limited and will be replaced by a larger pump station (and force main) or a gravity pipeline to convey the Johnson Creek Interceptor flows to the City's treatment plant.

- Preliminary infrastructure improvements to serve Springwater Phase 2 (southwest of the current planning area) were developed. These improvements are based on the assumption that all of the area that drains by gravity to Springwater will be served by the City of Gresham. The topography in the Phase 2 area results in gravity wastewater flow being conveyed along Sunshine Creek. It is anticipated that flow from the Phase 2 area would enter the Springwater system at approximately the intersection of 252nd Avenue and Rugg Road. In order for the City to provide service to this area, the main interceptor through Springwater would need to be upsized, and a new interceptor provided to route this flow from approximately the intersection of 252nd Avenue and Telford Road to the treatment plant. An alignment study for this new interceptor would need to be provided in the future to determine the optimal routing of such an interceptor.

The estimated cost of the wastewater conveyance system to provide service for Springwater is $26.7 million. This cost does not include the reimbursement (or future investment required) for wastewater treatment plant capacity.

While the system was developed based around conventional conveyance and treatment of wastewater, there may be opportunities to investigate alternative treatment and reuse in Springwater. Satellite wastewater treatment is becoming more cost-effective for onsite treatment of sanitary wastewater from large industrial sites. There could be multiple benefits of satellite treatment in Springwater, including:

- Providing irrigation water for public parks or other public areas (schools, government facilities, etc.)
- Providing flow augmentation in Johnson Creek
- Providing irrigation water for nursery or agricultural land outside of the study area in exchange for water rights

In addition to these benefits, satellite treatment and effluent reuse is consistent with the desire to make Springwater a green development. Use of satellite or onsite treatment could even be incorporated in a public demonstration project in a highly visible area such as the Village Center to educate the public and further promote sustainable development in the community. The opportunities associated with reuse are strongly dependent on the specific types of industries that locate in Springwater. The City should continue to evaluate opportunities for satellite treatment and effluent reuse as development occurs, and should conduct early discussions with the Oregon DEQ to determine requirements associated with this type of system.

4.7.3.3 Stormwater System

Historical drainage practices in Springwater have resulted in a significantly altered watershed and have had a dramatic adverse impact on watershed health, especially in riparian areas. The recommended stormwater system for Springwater is intended to minimize the impact of development and maintain or restore watershed functionality.

As in Pleasant Valley, stormwater management in Springwater is based on green practices that include both onsite stormwater management and public infrastructure facilities. Both components use techniques and processes that mimic natural hydrology to the greatest extent practical, reducing impacts of runoff to pre-development conditions, or improving over current conditions.

Rather than routing runoff to underground pipes for conveyance, runoff will be conveyed through green street swales and swale culverts. Vegetated swales located between the

roadway and sidewalks will slow the flow of runoff and also provide some infiltration, reducing the quantity of stormwater that must be managed in regional facilities. These swales will generally have an 8-foot top width, 2-foot bottom width, and 4:1 side slope. In areas where the standard swale geometry does not provide adequate capacity, a 10-foot top width will be provided. Approximately four miles of swale improvements are recommended. In addition, 21 stream crossings have been identified. These crossings, which will be a combination of reinforced concrete box culverts, circular culverts, and bridges, will be constructed in conjunction with roadway improvements and will be designed to provide fish passage.

Regional facilities will control the flow of runoff back to the streams in order to regulate the rate and volume of flow entering the stream. In addition, vegetation in the facility will improve water quality by "polishing" the runoff to remove excessive sediment and pollutants[5]. Fifteen new regional stormwater facilities have been identified for the Springwater planning area. This includes two facilities in the Brickyard area in the existing city limits, one facility at the base of the Persimmon Country Club, and 13 facilities within the area added as part of the 2002 Urban Growth Boundary expansion. All of the proposed facilities are located in Multnomah County. The facilities range in size from 4 acre-feet to 22 acre-feet, providing volume for flood control, channel stability enhancement, and water quality enhancement. Flow that does not enter a regional facility will be treated in local facilities. The total cost of recommend stormwater improvements in Springwater is $22.6 million.

In conjunction with recommended capital improvements for stormwater management, onsite stormwater management in Springwater will require the use of green development practices. Green development practices are a set of techniques that mimic and incorporate the predevelopment hydrology of a site into future development. Green development practices include site management techniques that minimize (1) disturbance to existing soils, tree canopy, and other sensitive natural resource features and (2) impervious surfaces, to reduce the production of surface runoff. They also manage runoff through techniques that use natural areas and landscaping to treat, retain, attenuate, and infiltrate stormwater within each development site instead of using traditional piped collection and conveyance systems.

4.8 PARKS, TRAILS, AND OPEN SPACE

4.8.1 Background

There are currently no parks in Springwater. There is one trail – the Springwater Trail – that bisects the planning area. Both regional and site conditions directly affect the potential of parks, open space, and trails in Springwater. These regional and site conditions include the following:

- *Regional Trails* outlined in Metro's Trails Master Plan, including the Springwater Trail that runs through Springwater, the 40 Mile Loop Trail planned to be located less than a mile to the northeast of Springwater along Beaver Creek, and the proposed East Buttes Loop Trail that will be located directly to the west of Springwater.
- *Natural Features* including the local buttes (Hogan Butte in the northwest portion of Springwater, and additional buttes directly south of Springwater), Johnson Creek and its tributaries running throughout the study area, and significant forested areas along creek corridors and in upland areas.
- Nearby *parks and open spaces* including the Gradin Youth Sports Park, Southeast Neighborhood Park, the privately owned Persimmon Golf Course, and public open space adjacent to the Springwater Trail.

[5] Pleasant Valley Implementation Plan Report, December 2003.

The City provides a number of park and recreational amenities for the community. These are categorized as follows:

- *Neighborhood Parks* provide access to basic recreation opportunities for nearby residents of all ages. They are located within walking and biking distance of all users, and may include urban plazas in denser areas to provide space for community events.
- *Community Parks* are generally located adjacent to natural resources and/or in areas with good vehicular access. They accommodate larger group activities, provide a variety of accessible recreation opportunities for all age groups, offer environmental education opportunities, serve recreational needs of families, and create opportunities for community social activities.
- *Open Space, greenways, and corridors* protect natural and scenic resources, and create nature-oriented outdoor recreation and trail-oriented activities.

4.8.2 Summary of Major Issues

The City currently has Level of Service standards for determining the acreage of particular park types required to meet the needs of a community. Historically, parks have been developed largely to serve the needs of residential communities. Therefore, using the City's current Level of Service standards would not provide amenities to support the anticipated 17,000 employees working in Springwater. To address this need, a Level of Service standard for employees was added to the typical residential Level of Service standards for community park areas. Similarly, and employee contribution was included in the Level of Service calculation for open space needs, with the intent of providing appropriate opportunities for employees to recreate in Springwater. The Level of Service was based on the City of Portland's practice of calculating parks levels of service including each employee as 0.32 residential equivalents. Subsequent to completion of the Parks Master Plan for Springwater, it was determined through a separate study that the City of Gresham's current ratio is 0.10 employees per resident.

Determining trail locations also reflected the unique nature of Springwater. The purpose of trails is to interconnect parks and open spaces; to maximize access to programs and facilities; to promote physical fitness and health for a variety of users; to encourage social interaction and community pride; to provide opportunities for rest and relaxation within natural settings through trail related recreation; to reduce auto-dependency and enhance connections to transit facilities; to link open space amenities with homes, workplaces and other community facilities; and to provide outdoor classroom opportunities for environmental education. Balancing these various purposes in Springwater resulted in the identification of two distinctly different trail facilities.

4.8.3 Summary of Proposed Plan Element

The proposed parks and open space plan for Springwater incorporates the following elements:

Neighborhood Park

Recommended neighborhood parks include a Village Center park and park blocks. The park blocks are proposed along the north-south and east-west axes of the Village Center, and provide pedestrian access to the Village Center through the heart of the commercial and mixed-use development. At the intersection of these park blocks is a Village Center Park and Plaza that will serve as the primary public park for the area. The Village Center Park is envisioned to include a multi-use plaza with seating, public art, pedestrian walks, permanent restrooms, children's play equipment, and room for non-organized sports such as bocce ball. The Village Center Park could also be used for sustainable demonstration projects such as small-scale stormwater management or wastewater treatment and reuse facilities.

Community Parks
The Plan recommends creating two new community parks, located adjacent to natural resources and/or in areas with good vehicular accessibility.

The nature-oriented Springwater Community Park is envisioned to be located along the Johnson Creek Corridor and adjacent to the residential districts. It will provide two youth sports fields, and a regionally significant natural park area, providing interpretive educational opportunities. This park is intended to tie together open space, trails, and interpretive opportunities into a respectful and educational encounter with the natural environment. By locating the park along the Johnson Creek and Springwater Trail corridor, visitors would be able to enjoy the natural features of the district and become informed of the challenges facing the overall watershed. It is envisioned that this park would become the identity of the district. The larger district goals of sustainability should be expressed in the design and implementation of the park.

The athletic facility-oriented East Springwater Park will be located east of US. 26, and will provide two to three adult sports fields for employee recreational opportunities as well as for the adjacent neighborhood to the north. This park is intended to be a community-wide resource with organized sports fields for adults and youth, and therefore be accessible by pedestrians, bikes and cars.

Trails
The recommended trails plan for Springwater creates two loop trails to provide resident and employee access within the area, and also creates connections to existing and planned trails adjacent to Springwater. The precise alignment of the Employee Loop Trail will need to be further considered during implementation of the Springwater Plan.

Village Center Loop Trail
To the west of US 26, the trail system will follow creek corridors to create a roughly 1-mile trail loop. This loop trail will be located between the protected creek corridors and either street right of way or residential parcels. At special points along the trail an overlook can be implemented to allow better views into the protected corridor. The overlook should be implemented to create the least impact possible. Requirements for trail construction in the ESRAs are outlined in the ESRA section of the Springwater Community Plan Development Code.

Employee Loop Trail
To the east of US. 26 the trail system will follow the road network or parallel stream corridors. The option providing trails adjacent to the roadway would be implemented as a multi-use corridor located between private property and the roadway swales. This option would include a slightly wider trail corridor to allow for a more informal planting arrangement of native species to distinguish the street edge as a special corridor. The option providing trails adjacent to stream corridors would include a multi-use trail located between private property and the ESRA adjacent to the stream. The trail could be located immediately adjacent to private property, or separated from the private property by a vegetated stormwater swale.

The Employee Loop Trail alignment options (roadside and streamside) are under continuing investigation. The following considerations will be weighed in selection of the final location of the Employee Loop Trail:

- *Maintenance*: The selection of the roadside vs. streamside alignment option has potential implications for on-going maintenance responsibilities and practices. The roadside option could result in shared maintenance responsibilities between parks and transportation divisions within the City, while the streamside option and its more complex natural area maintenance requirements requires specialized expertise that could be developed in the Parks and Recreation Division. The approach to maintenance practices in the roadside option are pathway litter patrol and conventional landscape maintenance. The streamside option would require litter patrol and a carefully-considered vegetation management plan for habitat preservation and enhancement goals.

- *Trail R.O.W. Acquisition*: The evaluation of the acquisition costs for trail ROW alignment options is on-going. The roadside trail has the advantage of being incorporated in the Street ROW acquisition effort, while the streamside option would require a separate negotiation.

- *Implementation Cost*: Trails along creeks are potentially more costly to implement because of environmental restrictions and access limitations.

- *Connectivity*: Both the roadside and streamside trail alignment options offer similar connections to surrounding neighborhoods and the broader Gresham community. The primary difference in this evaluation is that the streamside option greatly enhances trail users connections to the natural environment over the roadside alignment.

Open Space/Greenways
The Plan recommends purchasing between 120 and 150 acres of Parks-funded open space and greenways to make available as a public amenity for residents and employees of Springwater. This allocation will be prioritized first for the acquisition of property along the Johnson Creek and Springwater Trail corridor, and along the McNutt and Brigman Creek corridors for the Village Center Loop Trail. Additional open space acquisition should be used for the acquisition of natural resource areas, based on the strategy identified in the Natural Resources Report.