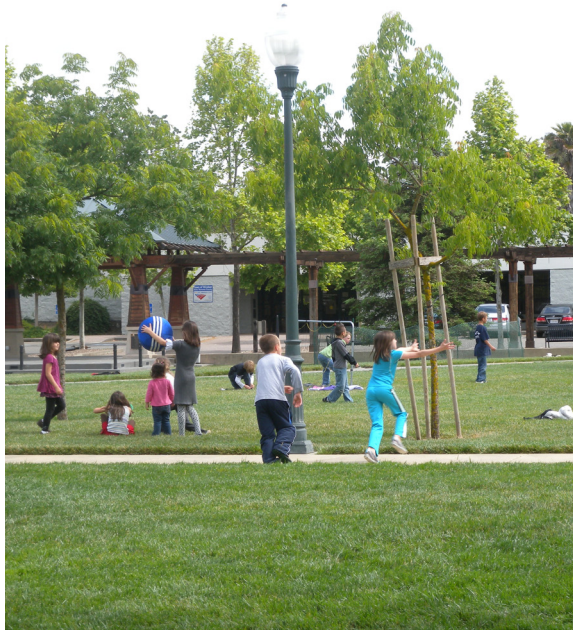






6 PUBLIC FACILITIES, SERVICES, AND INFRASTRUCTURE

The Station Area/Downtown will experience significant residential and commercial growth by 2035 with the intensified land uses and expanded Downtown core established in the Chapter 2: Land Use. This growth must be supported by a complete network of public facilities, services, and infrastructure to support existing and new residents and businesses. This chapter elaborates on the additional facilities, services and infrastructure that will be required under the Plan and includes policies to ensure a high quality environment in the Planning Area.







The Town Green and Huerta Gym are some of the park and recreation resources within the Planning Area.

6.1 PARKS AND OPEN SPACE

The Planning Area includes just over 31 acres of parkland, including the Town Green and Keiser Park. The Planning Area also includes the Huerta Gym recreational facility and several trails that serve the area along the railroad south of Duncan Drive and along East Windsor Creek. These parks and trails serve an existing population of approximately 2,800 residents in the Planning Area, which results in about 11 acres per 1,000 residents, more than double the Town standard of 5.0 acres of parkland per 1,000 residents. These assets serve all of Windsor's residents as local destinations and community gathering places, and the Plan includes several policies aimed at increasing access to these destinations, detailed in Chapter 4: Circulation and Access. Further policies in Chapter 3: Streetscape, Building Design, and Development Standards relate to park and open space design. Policies in this section seek to expand and further enhance the park and open space resources in the Planning Area.

The Plan would add 2,420 new residents to the Planning Area and add three new neighborhood parks totaling 2.4 acres:

- A one-acre park as part of the Windsor Mill proposed project.
- A 0.7-acre park located in conjunction with the new Medium Density housing located near Starr Creek and Oak Park Street.
- A 0.5- to 0.7-acre park/plaza/preserve as part of the redeveloped Civic Center site that would preserve the oak grove on that site.

These parks are located to build on existing assets, such as the oak grove at the Civic Center, and to serve new residential development that is not in close proximity to existing park resources. Table 6-1 compares the total existing and future population and park acreage in the Planning Area.

TABLE 6-1: COMPARISON OF POPULATION TO PARK ACRES IN THE PLANNING AREA

	Existing	Increase to 2035	2035 Total
Population	2,800	2,420	5,220
Park Acres	31.2	2.4	33.6
Ratio (acres per 1,000 persons)	11.14	0.99	6.44

Source: Dyett & Bhatia, 2011.

GOALS AND POLICIES

Goal PF-A: Encourage outdoor and active living with more opportunities for healthy choices including walking and biking, access to parks, play spaces, and open space for residents to enjoy.

Parks and open spaces continue to be a central focus of the high quality of life in Windsor and an important asset for maintaining a healthy community. While the Planning Area is already well served with parks and community facilities, the Plan proposes a three additional park spaces and strives to ensure that these spaces serve the needs of the Windsor community. In addition, the community has expressed interest in seeing more smaller plazas and open spaces incorporated as part of developments, and ensuring that parks cater to the needs of diverse population groups, including children.

Also see policy LU-21 related to continuing to activate the Town Green with programmed uses.

PF-1 Ensure that parks and public spaces in the Planning Area offer a diverse range of amenities and activities, such as: picnic areas; places to walk dogs; restrooms; children's play areas; sports fields; urban plazas with landscaping, paving, benches, and trees; a community center with Town recreation programs and classes; senior playgrounds; and staging areas along trail networks where people can access bike and pedestrian trails.

PF-2 Require the following public park spaces as part of new residential development:

- A one-acre park as part of the Windsor Mill proposed project.
- A 0.7-acre park located in conjunction with the new Medium Density housing located near Starr Creek and Oak Park Street. This park should be located such that it is accessible to the surrounding residential neighborhood and establishes a connection to Starr Creek and the Starr Creek trail.

PF-3 Preserve the existing oak grove located on the Civic Center site as a public open space.







Windsor High School (top and middle) and Windsor Creek Elementary School (bottom) are located within the Planning Area.

6.2 SCHOOLS

Windsor's award-winning public school system is a source of pride in the community and an important factor contributing to the town's livability. The Planning Area is served by the Windsor Unified School District (WUSD), with two schools, Windsor High School and Windsor Creek Elementary School, in the Planning Area. The Plan seeks to work closely with WUSD to maintain and enhance this asset.

Windsor High School

Established in 1995, Windsor High School is located at the southwestern edge of the Planning Area. Enrollment is higher than the county and State averages for high school enrollment, and has been steadily increasing. Continued student growth has necessitated additional classrooms on campus. A new science building was recently completed and a new stadium featuring a synthetic field and all-weather track will be complete in 2010. Plans for a Career Technical Education building to house the digital media and design program are underway.[1]

Windsor Creek Elementary School

Windsor Creek Elementary School, which serves second and third grade students, is located in the southeast corner of the Planning Area. WUSD is currently planning to restructure the Windsor Creek Elementary School site to become the Windsor Educational Center. The Elementary School would relocate to a site outside of the Planning Area, as discussed below. The Educational Center would house all the alternative programs (special education, preschool, developmentally-delayed adults, students with physical disabilities, and physical therapy), which serve the region. The site would serve approximately 300-400 students and 25 employees, plus 20 district office employees. The site design would also include increased parking. District offices, currently located in the Civic Center complex, would likely relocate to the Educational Center.[2]

Projected Enrollment

Buildout of the Plan is expected to result in an addition of 1,230 households and an associated population of 2,420. Based on student generation rates used by WUSD, the new population would result in approximately 570 new students within the Planning Area, as shown in Table 6-2. The District primarily uses the "Oklahoma/Midwest Model" grade level configuration, under which all students at a grade level attend the same school and students attend multiple schools during their elementary education. Therefore, Table 6-2 shows new students by grade level as well as the total new students.

1 *Windsor Unified School District, Windsor High School: School Accountability Report Card, 2008-2009.*

2 *Herrington, Dr. Steve. Windsor Unified School District Superintendent, Stakeholder Meetings, July 2010.*

WUSD has continued to experience increased enrollment in recent years and projects a five percent cumulative increase in enrollment over the next five years (249 new students by the 2014) and a 12 percent cumulative increase in enrollment over the next ten years (626 new students by 2019).[3] This projection is more than the number of students that would be expected under the Plan; however the Plan could represent an increase over WUSD's projections, depending on the timing of new development.

As a result of this growth, and the fact that all of the district schools are or will be in need of additional capacity or major renovations in the near future, the District has identified the need for a new elementary school of 12 acres to be located in northeast Windsor.

GOALS AND POLICIES

Goal PF-B: Promote adequate and accessible school facilities for the Planning Area.

PF-4 Work closely with the Windsor Unified School District to ensure appropriate accommodation of the future student population in Windsor.

PF-5 Work with project proponents of residential and mixed-use developments to create and/or improve safe routes to nearby schools.

TABLE 6-2: PLAN NEW STUDENTS BY GRADE LEVEL (2035)

Grade Level	Generation Rate	Preferred Plan New Students
K-5 students per new home	0.2208	272
6-8 students per new home	0.0983	121
9-12 students per new home	0.141	173
TOTAL K-12 STUDENTS PER NEW HOME	**0.4601**	**566**

Note: Calculations are based on 1,230 new housing units as part of the development potential of the Preferred Plan in 2035.

Source: Dyett & Bhatia, 2011.

3 *Windsor Unified School District, Facilities Utilization Master Plan 2011-2015, October, 2010. The district calculation for projecting future enrollment assumes that future trends will be similar to recent historical trends. The calculation includes movement between grade levels of cohort groups and students who are projected from future new housing units based on the District's students per new housing factor.*







The Police Station (above) is located in the Civic Center and Fire Station #2 (middle and bottom) is located at the southern edge of the Planning Area.

6.3 EMERGENCY SERVICES

Police

The Windsor Police Department is staffed by the Sonoma County Sheriff's Department, which is comprised of over 1,000 employees, servicing a county of over 1,600 square miles and population of nearly 500,000. The Windsor Police Department consists of 14 patrol officers, one school-resource officer, one traffic officer, two sergeants, one chief, two youth and family services counselors, one community service officer, and two administrative staff. The average response time in 2009 was 5:11 minutes. Sampling from the League of California Cities shows 6-8 minutes as an acceptable range. As of 2009, the Windsor Police Department operates with 0.71 sworn positions per 1,000 residents.[4] Although a lower ratio than the county-wide average, crime rates in Windsor are lower than both State and county rates, and have been declining over the past few years.

Fire

Windsor Fire Protection District

Founded in 1965 as the Windsor Volunteer Fire Department, the Windsor Fire Protection District (WFPD), established in 1986, is a combination paid/volunteer fire department. WFPD responded to a record number of service calls (2,019) in 2009, but remains below the minimum staffing recommended.[5] WFPD also provides extensive public education and fire/life safety services. The WFPD serves 30,000 people in 30 square miles. Four paid firefighters are on duty each day (24 hours a day, seven days per week), including two captains & two engineers. There are an additional 23 volunteer (on-call) suppression personnel, including two battalion chiefs, one engineer, six residential firefighters, and 14 firefighters. The WFPD provides emergency and nonemergency services to the community of Windsor, including fire prevention; fire suppression, rescue, and property conservation; emergency medical services; and disaster planning and response.

Fire Station #2

Fire Station #2 is located at the southern edge of the Planning Area. The Station recently completed construction and was awarded LEED Gold certification. Station #1/Headquarters is located outside of the Planning Area.

4 *Town of Windsor 2009 Annual Growth Control Report.*

5 *Town of Windsor 2009 Annual Growth Control Report, 2001 Town-commissioned Citygate Associates study.*

GOALS AND POLICIES

Goal PF-C: Maintain Windsor as a safe and livable community.

Goal PF-D: Ensure that new development adequately addresses public safety considerations in building design and site planning.

PF-6 Work with the Windsor Fire Protection District to ensure that all new development in the Planning Area has adequate emergency access.

PF-7 Work with the Windsor Fire Protection District to ensure that fire flow capacity is adequate for new development and that necessary improvements, such as fire access roadways and fire hydrants, are installed and in service prior to building construction.

PF-8 Work with the Windsor Fire Protection District to ensure that fire services have the capacity to serve four and five story buildings prior to construction of buildings of that height.

6.4 UTILITIES

Potable Water

Water Supply

The Town's current water supply is provided under water rights held by Sonoma County Water Agency (SCWA). The current agreement with the SCWA allocates 5,625 acre-feet per year (AFY) under average annual conditions and 8.7 million gallons per day (MGD) under maximum flow conditions. Future water demand, both when considering Plan buildout and without Plan buildout, show that demand may be greater than what is available under the current agreement. Further, there is currently some uncertainty about the amount of water that will be available in the future with SCWA, which could result in insufficient water availability for current permitted, entitled and planned developments.[6]

In order to meet water demands for future development, additional water supply may be needed. The Town will need to address these concerns through a variety of approaches. One of these approaches, which is addressed in the Plan, is to reduce potable water demand through conservation measures and use of recycled water, which may be effective at reducing the gap between available water and projected need. For instance, as a result of the Town's implementation of reclaimed/recycled water for irrigation purposes,

6 *Town of Windsor 2010 Annual Growth Control Report.*





The Town Green and Windsor High School are both irrigated with recycled water.

the actual demand may trend lower because irrigation use is currently included in potable water calculations.

Potable Water System

The Town's potable (domestic) water system is comprised of laterals that service users, pumps, reservoirs, transition mains, and hardware (valves, meters, etc.). The Town's water system draws on surface water provided through the Sonoma County Water Agency Santa Rosa Aqueduct and the Russian River Well Field to meet water demands.

Currently, the system has the ability to meet the existing demands, estimated at 4,445 AFY as of 2005. Under the Plan, water demand at build-out is expected to increase by 64 percent to 7,286 AFY, a two percent increase over the water demand expected in 2035 without the Plan (7,129 AFY). Modeling of future water demand indicates that the system will be capable of delivering the increased demand flows.

Sanitary Sewer

The Town of Windsor owns, operates, and maintains a wastewater collection system that includes approximately 79 miles of public branch and truck sewers, one mile of private branch sewers, 1,310 manholes, 525 cleanouts, and approximately 6,100 private service laterals. The branches tie into trunk pipes which then carry all flows to the Town's wastewater treatment plant, with a design capacity of 2.25 MGD. The Town of Windsor's 2001 Water Reclamation Master Plan recommends increasing the treatment facility capacity to 3.0 MGD by 2020 at an estimated cost of $2.2 million. This expansion would be sufficient to handle the increase in flows due to the Plan buildout.

Buildout of the Plan is expected to increase flows in the Planning Area, resulting in minor and major deficiencies to specific trunks and branches under extreme rainfall events. For instance, the already overcapacity trunk line within Windsor Road would experience higher flows. An additional impact to the system occurs in the branch in Windsor River Road, east of Windsor Road. This branch (NB5) consists of an 8-inch diameter pipe extending from its connection to the trunk out to Conde Lane. The flows within this branch increase substantially under the Plan, resulting in overcapacity. However, implementation of improvements to the system as identified in the Master Trunk Sewer Plan (2000) would also address the points of overcapacity identified as a result of Plan buildout. These improvements are listed in Table 6-3. Alternatively, the NB5 branch could be addressed through complete replacement of this line with a 10-inch diameter pipe is estimated to cost $400,000.

Recycled Water

Windsor's wastewater treatment system produces and supplies disinfected tertiary recycled

TABLE 6-3: RECOMMENDED SEWER SYSTEM CAPACITY IMPROVEMENT PROJECTS IMPACTING CAPACITY IN THE PLANNING AREA

Project Name	Brief Project Description	Estimated Capital Cost	Status (June 2009)
South Trunk Relief Sewer	1,840 lf of new 18-inch diameter sewer.	$233,000	Remaining to be completed, sequence and timing to be coordinated with associated development.
West Trunk Phase II	2,090 feet of new 12-inch diameter sewer.	$281,000	Project scheduled for construction in Summer 2009 (not including abandonment of sewer lift station).
West Trunk Phase III	3,040 feet of new 12-inch diameter sewer.	$340,000	Remaining to be completed, sequence and timing to be coordinated with associated development.
West Trunk Phase IV	5,150 feet of new 10-inch diameter sewer.	$618,000	Remaining to be completed, sequence and timing to be coordinated with associated development.

Source: Town of Windsor Sewer System Management Plan, June 2009.

water to an area of approximately 550 acres. The recycled water system includes a Water Reclamation Plant, recycled water storage ponds, discharge to Mark West Creek, and irrigation. Much of this infrastructure is located within the half mile radius of the Station, just south of the Planning Area, off of Windsor Road. The Town's recycled water system works in conjunction with the sanitary sewer collection system to provide irrigation water.

The Town Council has made providing reclaimed water for irrigation throughout the Town a priority and the Town is permitted to provide recycled water for irrigation of rural pasture, crops and vineyards and for irrigation of Town parks, playgrounds, and commercial and residential landscaping. The advanced treated recycled water is currently used to irrigate urban and agricultural lands, including the Town Green area, Wilson Soccer Park, the Windsor Golf Course, the Windsor High School, homes in the newly built Vintage Greens subdivision, and the Santa Rosa Junior College's Shone Farm pasture land.

Approximately 20,000 linear feet of recycled water main piping would need to be installed and connected to the existing system to provide service to the parcels in the Planning Area. It is estimated that 8- and 12-inch PVC pipes will need to be installed within major arterial roads, such as Windsor River Road and Windsor Road, and minor collector streets, such as Johnson Street and Oak Park Drive, at a cost of approximately $2.6 million.







Examples of storm water management techniques that increase on site infiltration.

Although producing sewer flows that can meet future recycled water demands shouldn't be an issue, storage volumes of the treated water in excess of demand should be reviewed. Storage may become an issue when peak hour sewer generation does not coincide with peak hour irrigation demand. This would be due to differences in individual suppliers and users of the two systems. It may also be related to the physical limitations of the collection and distribution pipes resulting in a time shift between when the sanitary sewer flows reach the treatment plant, when they are processed, and when the irrigation water is provided to users.

Storm Water System

The Town's storm water conveyance system is designed to capture, direct, and convey peak storm event flows away from buildings thereby protecting life and public property from flood hazards associated with events that have a less than or equal to one percent chance of occurrence. The Sonoma County Water Agency has set forth guidelines to help developers and municipalities in the design of storm drain systems under peak flow rate conditions. The Town's system consists of interconnected catch basins, drop inlets, pipes, and culverts discharging into streams, creeks, and eventually the Russian River. Major and secondary waterways essential for flood impact mitigation include Starr, Windsor, and East Windsor Creeks.

Changes in land use as a result of the Plan will impact storm water discharge rates because land use categories influence the allowable percentage of impervious surface improvements. Impervious surfaces are materials that do not allow for the natural infiltration of storm water into soil where it can be absorbed by plants or contribute to subsurface water systems. By not allowing infiltration, storm water runoff is forced to runoff as sheet flow into creeks and streams, resulting in higher flow rates, soil erosion, and more detrimental scouring effects. Asphalt concrete, Portland cement concrete, roof shingles, and wood/Trex® patios are just some examples of impervious surfaces. While runoff coefficients would vary from existing and future projections without the Plan, significant impacts to major and secondary waterways, not already identified in the Windsor Cumulative Drainage Impact Mitigation Program Update during peak events are unlikely and associated infrastructure improvements are not anticipated.

Adoption of Santa Rosa's Standard Urban Storm Water Mitigation Plan (SUSMP) significantly reduces the risk of drainage impacts. In addition, various guidelines for development, such as Low Impact Development (LID) guidelines, Green Building Ordinances, USGBC LEED certification requirements, California's CalGREEN code, and the current State-wide Construction General Permit requirements, all focus on post-development runoff rates for small storms and their need to mimic pre-devel-

opment runoff rates. While most of these are optional development opportunities, they do represent a movement towards "no net increase" runoff rates, and in some cases, volume policies. Policies designed to reduce runoff rates are included in the Plan.

Solid Waste

Windsor Refuse & Recycling, Inc. provides the following solid waste services within the Town of Windsor:

- Collection, transportation, and disposal of all residential solid waste, recyclables and green waste.
- Collection, transportation, and disposal of all commercial solid waste and green waste.
- Optional collection of commercial recyclables.
- Street sweeping of all public streets within the Town.

The Plan seeks to further reduce per capita waste flows through recycling and composting.

Natural Gas and Electricity

Pacific Gas & Electric (PG&E) provides electricity and natural gas to the Station Area. PG&E has an obligation to provide the public with a safe and reliable energy supply as mandated by the California Public Utilities Commission (CPUC). As the franchised provider, PG&E is tasked with providing service now and into the future, meaning it is responsible to plan for changes in load growth for both services.

Utility Undergrounding

The Town currently requires that all existing and proposed utilities within a new subdivision and along street frontages adjacent to the subdivision be placed underground. Further, the Five-Year Implementation Plan for the Windsor Redevelopment Project for 2010 to 2014[7] includes funding for public facilities and infrastructure improvements, including undergrounding of overhead transmission lines.

Telecommunications

A robust telecommunications infrastructure is an important component of a positive business climate and high quality of life. Currently telecommunication services are provided by AT&T and Comcast. These services are provided in response to consumer demand. For any new telecommunication infrastructure, the Town requires that related electrical and equipment wiring shall be placed underground.

7 *Town of Windsor Redevelopment Agency Five Year Implementation Plan for the Windsor Redevelopment Project 2010-2014, adopted December 2009. The Redevelopment Plan for the Windsor Redevelopment Project Area (the "Fourth Amendment") was adopted August 2009, which extended the Redevelopment Plan effectiveness limit by two years until November 27, 2017, and the time period to collect tax increment and repay debt until November 27, 2027.*



The Town currently requires utilities to be undergrounded as part of a subdivision project. Undergrounding has occurred in the Downtown core (top), but not in all of the surrounding neighborhoods (middle and bottom).

GOALS AND POLICIES

Goal PF-E: Continue the successful provision, maintenance and operation of infrastructure and public utilities to maintain the quality of life and sustainability of the Station Area/ Downtown.

Goal PF-F: Continue efforts to safeguard the quality and availability of water supplies.

PF-9 Actively pursue and secure additional water sources and supply for the town to meet the community's future water needs.

PF-10 Implement the improvements outlined in Table 6-4.

PF-11 To reduce water consumption, require new development to install:

- Low-flow showerheads, faucets, and toilets;
- Smart irrigation controllers; and,
- Drought-tolerant landscaping.

PF-12 Promote use of rainwater harvesting systems.

PF-13 Design new streetscape and landscaped areas for stormwater management and the efficient use and conservation of water, such as:

- The installation of drought-resistant plant palettes.
- Use of low-flow irrigation systems in the public rights-of-way, public parks, and recreation areas.
- Use of bioswales and rain gardens in planting areas and curb extensions to provide retention basins and improved stormwater management.

PF-14 Extend recycled water infrastructure to serve new development areas.

PF-15 Require new development to be plumbed to receive recycled water. Require that all new and retrofitted water connections to the potable system use recycled water to the greatest extent feasible, provided adequate recycled water can be reliably delivered to the user.

PF-16 Require new development to incorporate natural drainage systems and/or groundwater recharge features.

PF-17 Require new development to conform with the Standard Urban Storm Water Mitigation Plan, and promote additional low impact design through use of Russian River-Friendly Landscape Guidelines to conserve water, preserve water quality, promote groundwater recharge, and protect habitat.

PF-18 Require all new development to participate in all recycling and hazardous waste reduction and solid waste diversion programs in effect at the time of issuance of building permits.

PF-19 Require recycling and green waste opportunities in all new multifamily and non-residential development.

PF-20 Support local utility providers in the undergrounding of utilities. Work with PG&E and other public agencies to underground existing overhead utility lines.

TABLE 6-4: INFRASTRUCTURE REQUIREMENTS REQUIRED FOR THE PLAN

Potable Water Infrastructure	
Location/Required Infrastructure	
Potable water system impacts due to the SAP were not found; however, specific potable water system requirements should be further evaluated through preparation of an updated potable water master plan at an appropriate time in the future.	
Sewer Infrastructure	
Location	***Required Infrastructure***
North Trunk	Replacement of 8-inch with 10-inch pipe from Conde Lane to Windsor Road if the following ALT-1 improvements are not implemented per the 2000 Master Trunk Sewer Plan.
ALT-1: North Trunk	Construct relief sewer between nodes NT8 and NT10 in Windsor Road per 2000 Master Trunk Sewer Plan.
ALT-1: South Trunk	Construct relief sewer between nodes ST6 and BT7 in Conde Lane per 2000 Master Trunk Sewer Plan.
ALT-1: Los Amigos Trunk	Extend under Highway 101 to serve north part of Town per 2000 Master Trunk Sewer Plan.
ALT-1: West Trunk	Construct Phases 1-4. This will provide additional relief in North Trunk per 2000 Master Trunk Sewer Plan.
Treatment Plant	Capacity expansion of the treatment plant was addressed in the 2001 Water Reclamation Master Plan for build-out conditions. The following facilities would be required to meet demand at build-out with or without the SAP improvements: • Construction of a fourth set of flocculation tanks • Installation of a fourth Advanced Waste Treatment (AWT) clarifier • Installation of an eighth filter These additional improvements are associated with the plant's anticipated Phase II improvement and would allow the plant to process 3.0 MGD ADWF.
Recycled/Reclaimed Water Infrastructure	
Location/Required Infrastructure	
Recycled/reclaimed water system currently serves the Town Green area, Wilson Soccer Park, the Windsor Golf Course, the Windsor High School, homes in the newly built Vintage Greens, and the Santa Rosa Junior College's Shone Farm pasture land. If all areas identified in the Planning Area should receive service, approximately 20,000 linear feet of pipe will need to be installed. The 2001 Water Reclamation Master Plan addresses the need for additional storage ponds for build-out conditions without the Plan. Additional volume under the SAP should be reviewed further because future discharge locations will depend on the construction of transition mains and the amount of volume required.	
Stormwater Infrastructure	
Location	***Required Infrastructure***
Individual Parcels	Improvements of individual parcels should be reviewed for conformance with current SUSMP guidelines limiting the runoff discharge rate and volume. Minor systems should be evaluated for impacts at time of development.

Source: Green Valley Consulting Engineers, 2011.

This page intentionally left blank.