APPENDIX D: INFRASTRUCTURE CHAPTER ASSESSMENT

STATUS OF POLICIES: INFRASTRUCTURE CHAPTER

The following is summary of the status of implementation of the North Fair Oaks Community Plan (NFOCP). Information about the status of each policy is included. Priority policies are indicated by a diamond symbol (♦) and summarized on pages 34-39 of the North Fair Oaks Community Plan Review.

GOALS, POLICIES, AND STATUS	DESCRIPTION OF CURRENT STATUS
GOAL 4.1: Improve the potable water system, which currently contains older conveyance pipes and lacks emergency storage facilities.	
(♦) **Policy 1A:** Pursue agreements with the City of Redwood City and California Water Service Company to ensure that emergency water storage is available in North Fair Oaks. The agreements should include a discussion of both the timing and funding of any future emergency water storage facilities. Any such new storage or distribution systems should be located such that cost and environmental impact to surrounding areas is minimized. A separate study should be undertaken for any future water tank locations. **STATUS: NOT INITIATED**	▪ There have been no formal agreements between San Mateo County and Redwood City or Cal Water to provide emergency water storage specifically for North Fair Oaks. ▪ The public utilities commission requires water purveyors to maintain emergency water for its entire district including NFO. Cal Water and Redwood City Water do not have specific agreements with different jurisdictions for emergency water storage, rather there are regulatory requirements that provide emergency water to the entire service areas. ▪ Several San Mateo County jurisdictions, including North Fair Oaks, have no emergency source other than through tie-ins with surrounding cities. Local water providers typically look to other cities to share water resources in a deep drought or catastrophic failure of their own system. Most jurisdictions have interties or pipe systems that allow them to move water from one municipality to another.
Policy 1B: Pursue a new standard to ensure that any future street improvements within North Fair Oaks include replacing existing water lines with new cast iron (or non-asbestos containing water line materials suitable for the existing soil condition) water lines. Since water service is provided by the City of Redwood City and California Water Service Company, the County should coordinate the new standard with these water purveyors. **STATUS: NOT INITIATED**	Cal Water and the City of Redwood City are responsible for determining pipe conditions and replacing water lines in North Fair Oaks. Based on specific criteria, Cal Water and the City of Redwood City maintain a prioritization schedule for replacing existing waterlines. In Redwood City's system, 95% of the system has already been upgraded to larger diameter pipes that do not contain asbestos. Replacement of asbestos containing water pipes with PVC (Polyvinyl Chloride) was initiated in the 1990s. In certain locations, there are still 2-inch water lines alongside 8-inch pipes. There are a few areas with older cast iron pipes, but these are limited in number. Redwood City Water is creating standards that require PVC or HDPE (High-Density Polyethylene) pipes as they are newer standards and less susceptible to corrosion.

GOALS, POLICIES, AND STATUS	DESCRIPTION OF CURRENT STATUS
	Cal Water identifies the risk associated with all mains in its service area and has an extensive program for water line replacement. Cal Water primarily replaces existing water lines with ductile iron because of its strength, longevity, and fire resistance. Replacement of water lines is prioritized based on leaks, materials, condition of pipe and seismic activity. In the past 8 years, Cal Water has replaced an estimated 20,000 feet of water mains in the North Fair Oaks area. All employees are trained in how to remove asbestos-containing water lines safely when it needs to be removed or repaired.
Policy 1C: Require that any future developments that will result in an increase of water usage equivalent or greater than the water usage of 500 dwelling units must complete a Water Supply Assessment (WSA), to determine if adequate water supply is available prior to issuance of any development permits. **STATUS: COMPLETE**	Senate Bill 610 The County is in compliance with Senate Bill 610, which requires new developments that result in an increase of water usage equivalent to the water usage of 500 dwelling units will be required to complete a Water Supply Assessment (WSA) to determine if adequate water supply is available. County zoning regulations require that new developments demonstrate that they have adequate water supply capabilities before being approved. Adequacy of Existing Water Lines for New Development The North Fair Oaks area is served by turnouts that receive flow from a San Francisco Public Utilities Commission water transmission line, and there is adequate flow and pressure available to the area. Local improvements may be needed if high density construction were to occur in an area currently served by undersized lines. Based on existing utility block maps from Cal Water and Redwood City, some areas identified for increased development capacity are currently served by water lines as small as 2 to 4 inches in size. Individual developments will need to request that fire flow tests be performed to determine if these small lines will provide adequate water capacity. Based on the test results, it is likely that portions of these small lines will need to be replaced and upsized to larger water lines. Rezoning Program Environmental Impact Report (Draft EIR) An Environmental Impact Report (Draft EIR) was prepared for the North Fair Oaks Rezoning and General Plan Amendment in 2023 which evaluated the environmental impacts of changes to the County's Zoning Regulations that would result in new development in North Fair Oaks. The EIR assumes maximum development standards such as building height and residential density. The EIR did not identify water line replacement as a required mitigation measure.
Policy 1D: Create new landscaping and building design criteria for new developments to reduce water use. The design criteria shall include incentives for all major new developments to provide dual-plumbing for future recycled water use, use the	Water Efficient Landscaping Ordinance In 2015, San Mateo County adopted a Water Efficient Landscaping Ordinance (WELO), stormwater treatment regulations to comply with state and regional regulations. The Ordinance applies to new landscape projects equal to or greater than 500 square feet (the

GOALS, POLICIES, AND STATUS	DESCRIPTION OF CURRENT STATUS
latest water efficient technologies (i.e., low-flow fixtures, infrared detectors, waterless urinals, etc.), and plant drought tolerant and native non-invasive landscaping). STATUS: COMPLETE	previous threshold was 2,500 square feet) and rehabilitated landscape projects equal to or greater than 2,500 square feet. The ordinance includes requirements related to incorporating compost, types of plants and minimizing their water use, minimum number of mulch layers, limitations on turf area, and requires the use of certain irrigation system technology to help conserve water usage. The Planning & Building Department implements WELO requirements through the development review process.
(♦) Policy 1E: Engage in discussions with the California Water Service Company and the City of Redwood City to develop a suitable, proactive replacement plan for the existing water distribution system. This replacement plan should identify older and/or undersized water lines that need to be repaired or replaced and ensure that such lines within North Fair Oaks are prioritized for replacement. STATUS: NOT INITIATED	Cal Water and the City of Redwood City are responsible for determining pipe conditions. Based on specific criteria, Cal Water and the City of Redwood City maintain a prioritization schedule for replacing existing waterlines. The prioritization of repair and replacements within the Redwood City water system is guided by the Redwood City Water Master Plan. The first criterion for this is the diameter of the pipes, specifically targeting small diameters ranging from 2 to 4 inches. Other factors include the age of the pipes, the critical nature of their location and what they feed, as well as their history of breaks. In the past 8 years, Cal Water has replaced an estimated 20,000 feet of water mains in the North Fair Oaks area. Cal Water identifies the risk associated with all mains in its service area and has a robust program for water line replacement. Replacement of water lines is prioritized based on criteria including the type of material, age, criticality of the leaks or impact of a leak (if main only has 1 or 2 leaks but the outcome of the leak is hazardous such as flooding, environmental damage), size of the pipe, and previous number of leaks.
GOAL 4.2: Improve conveyance and treatment capability of sanitary sewer system facilities within North Fair Oaks.	
(♦) Policy 2A: Negotiate with adjacent sanitary sewer jurisdictions, such as the City of Redwood City and the South Bayside System Authority wastewater treatment plant, to secure additional sewer allocations at the earliest opportunity possible. Obtaining additional sewer allocations will allow larger new developments to be located in North Fair Oaks. STATUS: INITIATED AND PARTIALLY COMPLETE	The San Mateo County Sewer District does not own or manage treatment facilities and relies on other agencies to treat sewage discharged to their facilities. Flow from the SMC Sewer District is treated at the Silicon Valley Clean Water (SVCW) (formerly known as South Bayside System Authority) treatment facility. The Sewer District is not a member of SVCW and therefore rely on the City of Redwood City for treatment of sewage that exceeds the existing allotted treatment capacity for the SMC Sewer District. Developments that significantly increase discharges to the SMC Sewer District facilities must mitigate the increased volumes of sewage. As development in this area continues, sewage discharge could exceed the allotted treatment capacity of existing SMC Sewer District facilities and discussion with the member agencies would be required to reach a new agreement. The SMC Sewer District is currently undertaking a condition assessment and master plan update that would inform how much additional sewage treatment capacity would be

GOALS, POLICIES, AND STATUS	DESCRIPTION OF CURRENT STATUS
	needed to accommodate new development. The assessment includes future development projected by the 2023-2031 Housing Element, North Fair Oaks Rezoning Program, as well as existing pipeline development projects identified by the Planning & Building Division. This assessment is a critical component to inform future negotiations regarding sewer treatment allocations with SVCW and member agencies.
Policy 2B: Revise existing County water demand and sewer generation standards to reflect the latest water efficient technologies. Incentives programs should also be created for new developments that implement more stringent water demand and sewer generation standards. This will promote water reduction measures and reduce the amount of sewage generated. **STATUS: ONGOING**	Water Demand and Sewer Generation Standards Water demand and sewer generation standards refer to regulations that dictate the acceptable levels of water usage and wastewater generation in a given area or for a specific purpose. These standards are established to ensure efficient use of water and sewer resources. They may include criteria such as maximum water usage per capita, permissible levels of pollutant discharge into sewer systems, and requirements for water conservation practices. Adherence to these standards helps manage water resources effectively and mitigate the impact of human activities on water quality and availability. Since the NFO Community Plan was adopted, the County updated its water demand and sewer generation standards to require that new development estimate their water demand and sewer generation using the latest available technologies. Incentive Programs for Development Projects Advancements in water-efficient technologies present opportunities to mitigate water scarcity and reduce environmental impact. By requiring water-efficient technologies in new developments, the County can encourage new projects to conserve water resources and minimize sewage generation. The County has established incentive programs for new developments to encourage eco-friendly practices in their projects such as incorporating water efficient fixtures (such as low flow toilets, water efficient shower heads, etc.). These incentives help projects meet the updated water demand and sewer generation standards.
(♦) **Policy 2C:** Perform regular inspections of sanitary sewer facilities to identify leaks within the system. Identify priority lines and structures within the sanitary sewer system, on an annual basis, that need repair and/or replacement. High priority should be given to existing facilities that receive high infiltration and inflow, to mitigate unnecessary flows downstream. In addition, continue existing routine and maintenance repairs of the collection system. **STATUS: ONGOING**	The Fair Oaks Sewer Maintenance District (FOSMD) provides wastewater collection services to an approximate 5-square-mile area south of the City of Redwood City in San Mateo County. In 2022, San Mateo County undertook the FOSMD Sanitary Sewer Lines Cleaning and CCTV Inspection Project. This includes inspection of the pipes and manholes in the FOSMD system which includes most of North Fair Oaks. The sewer facilities to be inspected include approximately 1,336 sewer segments totaling approximately 292,000 feet of sewer pipes ranging from 4 to 24 inches in diameter and associated manholes and other structures (most of North Fair Oaks and portions of Atherton, Menlo Park, Redwood City, Woodside, and Sequoia District). The Department of Public Works contracted with Woodard & Curran to update the Fair Oaks Sewer Maintenance District's (FOSMD) Sewer

GOALS, POLICIES, AND STATUS	DESCRIPTION OF CURRENT STATUS
	Master Plan. The project is underway, and development of the sewer infrastructure rehabilitation/replacement plan (R/R Plan) is in progress. In addition, the Middlefield Road Improvement Project, which began construction in May 2021, included the replacement of sanitary sewer lines along Middlefield Road south of Douglas Avenue to north of 6th Avenue in North Fair Oaks.
Policy 2D: Pursue new standards requiring that each new development minimize infiltration and inflow into the sewer system by contributing to replacement of existing sanitary sewer laterals and/or mains. The extent of the replacements should be based on the new development's net increase in sewage generation. **STATUS: COMPLETE**	The County requires multi-unit new development projects to mitigate the additional sewage to be generated by the change in use with a sanitary sewer project to reduce the amount of inflow and infiltration (I/I) in its collection system. The mitigation offsets the development project's effect on downstream SMC Sewer District pipes and downstream pipes owned by other agencies by reducing or eliminating wet weather inflow and infiltration. The project applicant is responsible for the cost of designing, constructing, and managing such sanitary sewer improvement projects. Developments with significant increases in sewage flow are subject to a more detailed plan review. The SMC Sewer District performs a capacity analysis of the additional sewage anticipated to be generated by the new development and delivered into the SMC Sewer District facilities to determine whether the SMC Sewer District facilities have sufficient capacity to accommodate the increased flow. The applicant will be responsible for the capacity analysis cost incurred by the Sewer District as it is a direct cost associated with the proposed development. This evaluation and the design of any resulting upgrades to SMC Sewer District facilities must be completed and approved by the SMC Sewer District prior to final approval of the building plans.
Policy 2E: Reassess sanitary sewer maintenance costs annually and update connection and usage fees accordingly, to ensure that both new and existing users of the sanitary sewer system contribute their fair share of sanitary sewer costs. **STATUS: ONGOING**	Usage fees are updated according to sanitary sewer maintenance costs regularly (typically every 5 years or less). Connection fees are not based on sanitary sewer maintenance costs, but instead adjusted annually based on inflation. The Sewer System Management Plan (SSMP), most recently updated in 2019, prepared by the San Mateo County Department of Public Works, describes the County's management, operations, and maintenance activities for the ten Sewer Maintenance and Sanitation Districts operated and maintained by the County, including the Fair Oaks Sewer Maintenance District (FOSMD). Sewer District operation and maintenance costs are assessed annually. San Mateo County reviews the SMC Sewer District annual budget to ensure that sewer service charge rates can adequately fund the operation and maintenance of the sewer district. SMC Board of Supervisors approves 5-year sewer service rates (most recently in 2023) that will fund operation and maintenance of the district (typically completed every 5 years or less). Connection fees are billed by "equivalent residential unit" for new development and are updated annually to accommodate inflation.

GOALS, POLICIES, AND STATUS	DESCRIPTION OF CURRENT STATUS
Policy 2F: Create a new program to share and gather sewage conveyance data from Redwood City and the South Bayside System Authority treatment plant on an annual basis. This information can then be used for planning and determining the basis for cost-sharing and/or fee adjustments. STATUS: COMPLETE	Since 2011, San Mateo County has updated flow meter equipment to provide more accurate sewage conveyance data for North Fair Oaks. The County has an agreement with the City of Redwood City to provide sewage treatment capacity at the SVCW treatment plant. The City of Redwood City bills San Mateo County based on the flow that the system conveys to the City of Redwood City transmission lines. The County uses Redwood City's share of SVCW treatment capacity. The current agreement has been in effect since 1985.
GOAL 4.3: Improve stormwater treatment facilities.	
(♦) **Policy 3A:** Continue to implement all local and state mandated stormwater treatment controls(C.3 requirements), including requiring that all new developments adhere to the current thresholds for requiring stormwater treatment and that all new developments provide a Stormwater Maintenance Agreement that will be recorded with the property deed to ensure on-going maintenance of these private stormwater treatment areas is being performed. Continue to require all new developments to comply with the Countywide Stormwater Pollution Prevention Program (SWPPP) and to provide erosion and sediment control plans and Best Management Practices (BMPs) for all construction activities. STATUS: ONGOING	The County complies and implements all local and state mandated stormwater treatment controls (C.3 requirements) and stormwater pollution prevention practices. San Mateo County Public works incorporates C.3 requirements and green infrastructure in all road projects and the Planning and Building Division ensures compliance with C.3 requirements for private development projects. Since July 1, 2023, Stormwater treatment requirements will apply to most projects that create and/or replace 5,000 square feet or more of impervious surface.
Policy 3B: Create a new program to perform regular inspections of stormwater treatment facilities at all new developments. These inspections should be performed by Public Works, and the frequency and extent of such inspections will depend on the size of new developments and potential for pollutants to enter the storm drain system. STATUS: COMPLETE	Since 2005, nearly 200 acres of development in unincorporated County have been subject to the Provision C.3 regulations. The County tracks the locations of these facilities and conducts an operation and maintenance verification inspection program to ensure that they are maintained properly (SMC 2019 Green Infrastructure Plan). The Office of Sustainability develops an annual report with a list of sites that have green infrastructure in the unincorporated county. The MRP requires ongoing maintenance of constructed LID measures and inspection of these measures by the County at least every 5 years. The responsibility for the maintenance of stormwater treatment measures belongs to the property owner. Maintenance duties are described in an Operation and Maintenance Agreement. A County-approved Operation and Maintenance Agreement will be required prior final approval of the building permit. The Department of Public Works completes maintenance and inspections of public and ROW encroachment projects but does not complete inspections of new private

GOALS, POLICIES, AND STATUS	DESCRIPTION OF CURRENT STATUS
	development projects. For county-installed stormwater treatment at public facilities, typically in public buildings, maintenance is conducted annually by Public Works and the Office of Sustainability.
Policy 3C: Create a new program for existing public streets to be redesigned with integrated stormwater treatment areas such as bioretention areas, vegetated swales, rain gardens, and other passive retention and filtration facilities. These stormwater treatment areas will remove pollutants from stormwater runoff that would otherwise have flowed from public street surfaces directly into the storm drain system and then the Bay. The new program should also consider adopting a regional green street program that requires stormwater treatment areas in all new developments. **STATUS: COMPLETE**	For public works projects that meet C.3 eligibility criteria, the Department of Public Works incorporates all C.3 requirements and green infrastructure. Early Implementation Projects are green infrastructure projects that have already been implemented by the County or are already scheduled and funded for implementation: ▪ Reconstruction of San Benito Avenue in North Fair Oaks was reconstructed to include over 2,650 cubic feet of stormwater storage. The project utilized 610 linear feet of Stormtech chambers with installed rock swale and French drains. The project was completed in April 2015. ▪ Athlone Way Drainage Improvements – Improvements to drainage on Athlone Way in North Fair Oaks included installation of a 600-foot-long, 3-foot-wide infiltration trench. The installed trench is 4 feet deep with a 24-inch perforated underdrain. The project was completed in January 2016. ▪ Middlefield Road Improvement Project will reconfigure Middlefield Road between Pacific Avenue and 5th Avenue from a four lane, two-way roadway to a three-lane roadway with parallel parking, bike lanes, and wider sidewalks. The Middlefield Road Improvement Project will include green Infrastructure/stormwater treatment features, bioretention, and irrigation work, including six bioretention planters and eight flow through planters. ▪ Reconstruction of Oak Drive and Placitas Avenue: The project area is in a single-family residential neighborhood of North Fair Oaks without sidewalks. As part of the street reconstruction, about 510 linear feet of subsurface stormwater chambers were installed, creating over 2,000 cubic feet of storage. ▪ County Unincorporated/North Fair Oaks, Connect Community Charter School and KIPP Excelencia Community Prep Safe Routes to School (SRTS)/Green Streets Infrastructure Pilot Project – San Mateo County sponsored this pilot project to integrate a linear bioretention facility behind the sidewalk on Fair Oaks Ave. The project collects runoff from the campus and the adjacent right of way through a trench drain. The project also includes an improved crossing at the intersection with new Americans with Disabilities Act (ADA) improvements and an improved mid-block crossing on the same street segment.

GOALS, POLICIES, AND STATUS	DESCRIPTION OF CURRENT STATUS
Policy 3D: Pursue new Low Impact Development (LID) standards that promote both treatment and storage of stormwater runoff. These Low Impact Development standards should require new developments to minimize impervious surfaces, use stormwater as a resource (rain water harvesting for irrigation or other select uses),and preserve/re-create natural landscape features. New developments could adhere to these standards through the use of rain gardens/bioretention areas, green roofs, cisterns, permeable pavement, or other tools. STATUS: COMPLETE	This is accomplished through the implementation and enforcement of Provision C.3 of the MRP described above. The implementation of Provision C.3 is primarily accomplished through the implementation of low impact development (LID) techniques. Planning & Building provides guidance on how LID standards should be implemented for private development. WELO, C.3, and state building code standards, which are all required at the project application/permitting stage, have largely superseded County LID standards for individual projects. According to the County's Green Infrastructure Plan, the County is expanding upon its existing Guidelines for Drainage Review by updating its Municipal Code to create a new Stormwater and Drainage Control Ordinance section to codify the requirements for drainage and water quality review. The Stormwater and Drainage Control Ordinance would establish the requirements for new and redevelopment projects related to the design, construction, and post-construction operations and maintenance of project drainage and treatment systems. The County also intends to include language giving the County authority to require green infrastructure improvements in the public right-of-way along the street frontage of a private development on a case-by-case basis.
Policy 3E: Create new incentive programs for the County's Planning, Building, and Engineering staff to continue stormwater treatment education, as technology and treatment techniques change continuously. STATUS: COMPLETE	Department of Public Works and Planning and Building staff generally undertake at least 20 hours of training annually. DPW has developed their own guide internally to help with stormwater treatment design for road projects. San Mateo County complies with the requirement in the state Municipal Regional Permit 3.0 for maintenance staff to have training on the permit requirements. At a minimum, training must be provided once within the 5-year MRP term to municipal staff on the following topics as relevant to municipal staff responsible for maintenance activities: ▪ Stormwater pollution prevention; ▪ Appropriate BMPs for maintenance and cleanup activities; ▪ Street and road repair and maintenance BMPs; ▪ Sidewalk/plaza maintenance and pavement washing; ▪ Bridge and structure maintenance and graffiti removal; ▪ Corporation yard SWPPPs and BMPs; and ▪ Spill and discharge response and notification procedures and contacts.
GOAL 4.4: Improve the conveyance facilities of the current storm drain system within North Fair Oaks.	
Policy 4A: Pursue new standards that require new developments in areas where there are no existing storm drain lines to install	There are no examples of this happening in the last 13 years. There are no sites available for new development in North Fair Oaks that are located in areas where there are not

GOALS, POLICIES, AND STATUS	DESCRIPTION OF CURRENT STATUS
new lines and extend them to downstream connection points. The size and length of the new storm drain lines will vary based on the new development's location, size, and potential for future development at adjacent parcels. All new developments should also be required to provide on-site detention facilities (tank or oversized pipes) so that the new development does not cause an increase of flow into the storm drain system and contribute to local and regional flooding. STATUS: COMPLETE	existing storm drain lines. If a site did not have existing storm drain lines, Planning and Building would require that the development include this in their project. Since new development cannot increase runoff more than the current levels, the assessment of a development project with no existing storm drain lines would likely require that these be built as a mitigating measure. The Stormwater and Drainage Control Ordinance establishes the requirements for new and redevelopment projects related to the design, construction, and post-construction operations and maintenance of project drainage and treatment systems. San Mateo County Planning and Building Department enforces the surface water runoff flow control, or drainage, on private properties with detailed requirements.
(♦) Policy 4B: Support increasing the capacity of the current Athlone storm drain pump/lift stations to increase conveyance capability. The increased capacity should take into account both existing conditions and potential future improvements to the storm drain system. This will allow future storm drain lines to be connected to the upgraded pump station. STATUS: NOT INITIATED	In 2018, there was an evaluation to study the feasibility of increasing the capacity of the Athlone storm drain pump/lift stations. Athlone capacity improvements were subsequently put on hold due to concerns about exacerbating downstream flooding conditions. Despite downstream improvements in recent years, particularly at the Bayfront Canal, the issue of limited capacity in the Atherton Channel system where North Fair Oaks water drains to, persists. There is concern about the Atherton Channel system's capacity including Redwood City and Atherton pump stations, to handle additional conveyance from the Athlone pump station. In addition, there is concern about the existing infrastructure's ability to convey water effectively from the North Fair Oaks to the Bayfront Canal through the Atherton Channel. The County should evaluate potential improvement of storm drainage facilities, particularly focusing on evaluating improvements to prevent issues like an oversized pump station exacerbating downstream flooding. Improvements to the Athlone storm drain pump/lift stations should be a joint effort with neighboring jurisdictions, various agencies and stakeholders like the City of Redwood City and the Town of Atherton which is crucial in addressing storm drainage and flooding challenges.
(♦) Policy 4C: Discuss joint upgrades of regional storm drainage facilities with the City of Redwood City, the Town of Atherton, and other appropriate jurisdictions. These regional upgrades, such as improvements at the Bayfront Canal located downstream from North Fair Oaks, are a necessary component of any efforts to reduce local flooding in North Fair Oaks. STATUS: ONGOING	<u>Bayfront Canal Improvement</u> A divergent structure completed in 2022 diverts overflow from the Bayfront Canal to a controlled pond system. This project aimed to reduce flooding for mobile home parks along the Bayfront highway and increased the capacity of the Bayfront Canal. However, challenges remain, including undersized pipes and pumps in mobile home parks, which contribute to localized flooding issues. In order to address flooding in North Fair Oaks, it is important to assess both the regional watershed system as well as the subwatershed for each drainage system. Regional

GOALS, POLICIES, AND STATUS	DESCRIPTION OF CURRENT STATUS
	vulnerabilities due to sea-level rise and flooding in considerations of upstream creeks along the entire Atherton channel should be assessed. It is also critical to assess the root cause of localized flooding in North Fair Oaks, for example, whether there are undersized pumps on private property that are failing to successfully convert water to the Atherton Channel in the first place. Collaborative efforts between various agencies aim to address these challenges. While there are ongoing discussions about potential improvements, there is a need for further evaluation to ensure that proposed solutions do not exacerbate existing issues. Participation in initiatives like the Shoreline projects listed above as well as collaboration between different agencies and stakeholders, including the county's involvement in emergency action plans, remains crucial in addressing the challenges posed by storm drainage and flooding. San Mateo County Stormwater Resource Plan (SRP) The San Mateo County SRP is a countywide evaluation of opportunities for stormwater capture, treatment and use, required by the State to allow stormwater capture projects to be eligible for State grant funds. Development of the SRP was led by City/County Association of Governments (C/CAG) and San Mateo Countywide Water Pollution Prevention Program (SMCWPPP), representing twenty cities and towns, the County of San Mateo, and the San Mateo County Flood Control District.
Policy 4D: Continue to implement all local and state mandated stormwater treatment controls (C.3 requirements), ensuring that new developments implement stormwater treatment measures to reduce peak flows in the storm drain system and maximize on-site retention and reuse of storm water for irrigation purposes. **STATUS: ONGOING**	The County will continue to require future C.3 regulated projects to incorporate appropriate GI measures, as part of the County's long-term GI implementation strategy. An estimated 35 acres will be treated by approved new or redevelopment projects currently under or planned for construction. The amount of new and redevelopment to occur between present day and 2040 was projected by C/CAG to support the development of GI plans within the County. (Memorandum to C/CAG Green Infrastructure Committee from Community Design + Architecture re: SMCWPPP Green Infrastructure Plan Development Support – methodology and initial estimate of land area for new and redevelopment from 2015 to 2040, January 30, 2017.) San Mateo County Drainage Manual In 2019 the County has developed a Drainage Manual which provides guidance to landowners, developers, engineers, landscape architects, and the public on the County's drainage policies and compliance with the new Stormwater and Drainage Ordinance for all stages of the development process, from design through permitting, construction, and post-construction. In addition to National Pollutant Discharge Elimination System (NPDES)/stormwater treatment requirements, all projects resulting in an increase in impervious surface must also comply with the County's Drainage Policy. Projects submitted

GOALS, POLICIES, AND STATUS	DESCRIPTION OF CURRENT STATUS
	after January 1st, 2020, should follow the guidelines outlined in the County's Drainage Manual. C.3 Regulated Projects Guide September 2023 San Mateo County published a C.3 Regulated Projects Guide for use by developers, builders and project applicants to design and build low impact development projects. The C.3 Regulated Projects Guide is intended to be a "one-stop shop" for developers, builders, and project managers throughout San Mateo County covering a broad range of design, construction, and maintenance guidance for stormwater control measures in parcel-based regulated projects, in order to meet local municipal requirements and requirements in the Municipal Regional Stormwater Permit (MRP). Flows to Bay Program All 21 jurisdictions in San Mateo County have obtained the Municipal Regional Permit (MRP), and the Flows to Bay program works to prevent illicit discharges and progress towards more sustainable stormwater management in San Mateo County, including finding opportunities to use green infrastructure instead of traditional pipes and channels to manage flows and to capture and reuse rainwater where it makes sense. San Mateo Countywide Water Pollution Prevention Program The San Mateo Countywide Water Pollution Prevention Program has developed the GreenSuite of guidance materials consisting of this C.3 Regulated Projects Guide and the Green Infrastructure Design Guide (GI Design Guide). San Mateo County Planning and Building Department, together with, the San Mateo Water Pollution Prevention Program (SMCWPPP), enforces the State requirements for stormwater quality control and provides guidance resources.
GOAL 4.5: Reduce the impact of flooding in North Fair Oaks.	
(♦) **Policy 5A:** Work with adjacent jurisdictions to find workable solutions to mitigate regional flooding. Since several factors outside of North Fair Oaks contribute to local and regional flooding, working closely with these adjacent jurisdictions is critical to implementing a solution to the existing flooding issues. **STATUS: ONGOING**	OneShoreline The San Mateo County Flood and Sea Level Rise Resiliency District, also known as OneShoreline, is an independent government agency that works across jurisdictional boundaries to secure and leverage public and private resources for the long-term resilience of our region. OneShoreline focuses on building solutions to the climate change impacts of sea level rise, flooding, and coastal erosion in San Mateo County. OneShoreline has led a multijurisdictional effort to evaluate upgrades to regional storm drainage facilities and improve infrastructure to prevent flooding within the Atherton Channel system (which includes North Fair Oaks) and which drains downstream to the Bayfront Canal.

GOALS, POLICIES, AND STATUS	DESCRIPTION OF CURRENT STATUS
	The following projects have been completed or are in the planning stage: ▪ A divergent structure completed in 2022 diverts overflow from the Bayfront Canal to a controlled pond system. This project aimed to reduce flooding for mobile home parks along the Bayfront highway and increased the capacity of the Bayfront Canal. However, challenges remain, including undersized pipes and pumps in mobile home parks, which contribute to localized flooding issues. ▪ Release of planning policy guidance for updates to jurisdiction general plans and zoning ordinances to incorporate flood-resilient regulations in their land use and zoning ordinances. ▪ Development of local coordinated emergency action plans to address flooding conditions will include North Fair Oaks (NFO) and neighboring jurisdictions, including an early warning system, emergency response center, mutual aid agreements, and facilitation of coordination of resources available leading up to, during and for the recovery phase of flooding events. ▪ Advocacy for stream maintenance programs aims to enable local jurisdictions to perform regular maintenance activities in local creeks to help prevent flooding. ▪ The future resiliency of shoreline infrastructure is being evaluated by the City of Redwood City and the City of Menlo Park, including efforts to assess sea-level rise vulnerability along the shoreline and considerations for improvements like elevated road surfaces, and other and protection measures along the shoreline. Climate Risk Assessment for North Fair Oaks El Concilio partnered with the San Mateo County Office of Sustainability, the Stanford University Sustainable Urban Systems Initiative, North Fair Oaks Community Council, and Siena Youth Center to investigate how North Fair Oaks and the broader region of the mid and lower peninsula are vulnerable to flooding.
Policy 5B: Create a new program for existing public streets to be redesigned with integrated stormwater treatment areas such as bioretention areas, vegetated swales, rain gardens, and other features to reduce the peak storm flows. The new stormwater treatment areas should also be designed to provide stormwater retention, which will hold back stormwater runoff for a period of time so that downstream flooding is reduced. STATUS: COMPLETE	For public works projects that meet C.3 eligibility criteria, the Department of Public Works incorporates all C.3 requirements and green infrastructure. The County's Green Infrastructure Plan was approved by the Board of Supervisors in September 2019, and includes a prioritization of the County's existing public streets and public parcels for green infrastructure projects. Early Implementation Projects are green infrastructure projects that have already been implemented by the County or are already scheduled and funded for implementation: ▪ Reconstruction of San Benito Avenue in North Fair Oaks was reconstructed to include over 2,650 cubic feet of stormwater storage. The project utilized 610 linear feet of

GOALS, POLICIES, AND STATUS	DESCRIPTION OF CURRENT STATUS
	Stormtech chambers with installed rock swale and French drains. The project was completed in April 2015. ▪ Athlone Way Drainage Improvements – Improvements to drainage on Athlone Way in North Fair Oaks included installation of a 600-foot-long, 3-foot-wide infiltration trench. The installed trench is 4 feet deep with a 24-inch perforated underdrain. The project was completed in January 2016. ▪ Middlefield Road Improvement Project will reconfigure Middlefield Road between Pacific Avenue and 5th Avenue from a four-lane, two-way roadway to a three-lane roadway with parallel parking, bike lanes, and wider sidewalks. The Middlefield Road Improvement Project will include green Infrastructure/stormwater treatment features, bioretention, and irrigation work, including six bioretention planters and eight flow-through planters ▪ Reconstruction of Oak Drive and Placitas Avenue: The project area is in a single-family residential neighborhood of North Fair Oaks without sidewalks. As part of the street reconstruction, about 510 linear feet of subsurface stormwater chambers were installed, creating over 2,000 cubic feet of storage. ▪ County Unincorporated/North Fair Oaks, Connect Community Charter School and KIPP Excelencia Community Prep SRTS/Green Streets Infrastructure Pilot Project – San Mateo County sponsored this pilot project to integrate a linear bioretention facility behind the sidewalk on Fair Oaks Ave. The project collects runoff from the campus and the adjacent right of way through a trench drain. The project also includes an improved crossing at the intersection with new ADA improvements and an improved mid-block crossing on the same street segment.
Policy 5C: Continue to require new developments that might result in an increase in stormwater runoff to provide on-site detention facilities to address increased flows. The on-site detention facilities (tank, oversized pipes, or other facilities) shall be sized so that the new development does not cause an increase of flow into the storm drain system. **STATUS: ONGOING**	<u>Stormwater and Drainage Control Ordinance</u> The Stormwater and Drainage Control Ordinance established the requirements for new development and redevelopment projects related to the design, construction, and post-construction operations and maintenance of project drainage and stormwater treatment systems. The Ordinance contains requirements related to three measures of system performance: conveyance, flow and volume control, and water quality treatment. All projects must have the capacity to convey peak flows from the specified design storm and must also provide adequate flow and volume controls such that neither the runoff flow rate nor total volume is increased from pre-development conditions. <u>San Mateo Drainage Manual</u> The County of San Mateo Drainage Manual provides guidance to landowners, developers, engineers, landscape architects, and the general public on the County's drainage policies

GOALS, POLICIES, AND STATUS	DESCRIPTION OF CURRENT STATUS
	and compliance with the new Stormwater and Drainage Ordinance for all stages of the development process, from design through permitting, construction, and post-construction. C.3 Regulated Projects The goal of Provision C.3 of the MRP is for the municipalities regulated by the permit, including the County of San Mateo, to use their permitting authority to include appropriate source control, site design, and stormwater treatment measures in new development and redevelopment projects to address both soluble and insoluble stormwater runoff pollutant discharges and prevent increases in runoff flows from these projects. This goal is mainly accomplished through implementing LID techniques.
Policy 5D: Pursue new Low Impact Development (LID) standards that require new developments to reduce stormwater runoff. LID strategies include, but are not limited to, the use of permeable pavement, green roofs, rainwater cisterns, and landscaping that is designed appropriately to capture and retain stormwater. **STATUS: COMPLETE**	This is accomplished through the implementation and enforcement of Provision C.3 of the MRP described above. LID treatment measures treat stormwater using harvesting and re-use, infiltration, evapotranspiration, or biotreatment methods. The MRP requires each C.3 Regulated Project to treat the amount of runoff identified in the project's drainage area(s) with LID treatment measures on-site or with LID treatment measures at a joint stormwater treatment facility. The C.3 Regulated Projects Guide includes technical guidance for Specific Treatment Measures, such as: ▪ Bioretention ▪ Flow-through Planter ▪ Tree Well Filter ▪ Infiltration Trench ▪ Extended Detention Basin ▪ Pervious Pavement ▪ Grid Pavements ▪ Green Roof ▪ Rainwater Harvesting and Use ▪ Media Filter ▪ Subsurface Infiltration System

GOALS, POLICIES, AND STATUS	DESCRIPTION OF CURRENT STATUS
(♦) GOAL 4.6: Establish infrastructure to enable the use of recycled and "gray" water within the North Fair Oaks community.	
Policy 6A: Pursue new standards that require new developments to provide dual plumbing in anticipation of available recycled water. STATUS: NOT INITIATED	Not initiated in North Fair Oaks. The California Building Code does not require it, but local jurisdictions can adopt local dual plumbing ordinances requiring new developments to provide it. For example, new buildings in neighboring Redwood City are required to provide dual plumbing in some capacity (typically for landscaping to common areas). An increase in overall costs without immediate benefit poses a challenge for new development projects. Evaluate the feasibility of recycled water in North Fair Oaks. From a developer's perspective until the recycled water line is constructed by water purveyors in the main water line system, it is too expensive to design the development with the dual plumbing system. From a water purveyor's perspective, there is a critical need to identify large users for recycled water, otherwise it would not make sense to make a significant investment. The types of users might include cemeteries, golf clubs, institutional buildings, large commercial office buildings and large multifamily apartments.
Policy 6B: Negotiate with the City of Redwood City and South Bayside System Authority (SBSA) (renamed to Silicon Valley Clean Water) regarding the timing of improvements and proposed pipe routing to address the possibility of bringing recycled water to North Fair Oaks. STATUS: NOT INITIATED	Not initiated in North Fair Oaks.
Policy 6C: Create a new program to provide funding sources to bring recycled water to North Fair Oaks. STATUS: NOT INITIATED	Not initiated in North Fair Oaks.
Policy 6D: Create new incentive programs to encourage new developments to use gray water or harvested rainwater for irrigation purposes. STATUS: ONGOING	San Mateo County adopted a Water Efficient Landscape Ordinance (MWELO), which promotes efficient water use in new and retrofitted landscapes. The Ordinance will apply to new landscape projects equal to or greater than 500 square feet. The ordinance encourages graywater use for irrigation purposes.
Policy 6E: Create a new program to identify existing users with large water demands who would benefit from the availability of recycled water. These users should be on a high priority list of recycled water users and should be considered when planning future recycled water line expansion. STATUS: COMPLETE	Redwood City Water and Cal Water have not identified any existing users with large water demands that would benefit from the availability of recycled water within their service areas in North Fair Oaks.

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