

6 UTILITIES

The Utility polices of the Specific Plan establish requirements for sanitary sewers, water supply, storm drainage, fire and police services, schools, solid waste disposal, and private utilities. Necessary improvements are illustrated in Figure 6-1. On-site designations shown in this Plan are schematic only. Precise locations should be established when each applicant submits a tentative map for their respective parcel. More detailed design standards and guidelines pertaining to utility construction and landscape improvement are provided in Chapter 7 of this Plan.

6.1 OBJECTIVES

Objective U-1 New Development to Pay for Utilities Demanded. New on-site utilities and upgrades or replacements of off-site utilities necessary to serve new Plan-related development shall be financed by new development based on projected demand or discharge.

Objective U-4 Stormwater Flows Remain Static After New Development. The quality of waters receiving stormwater

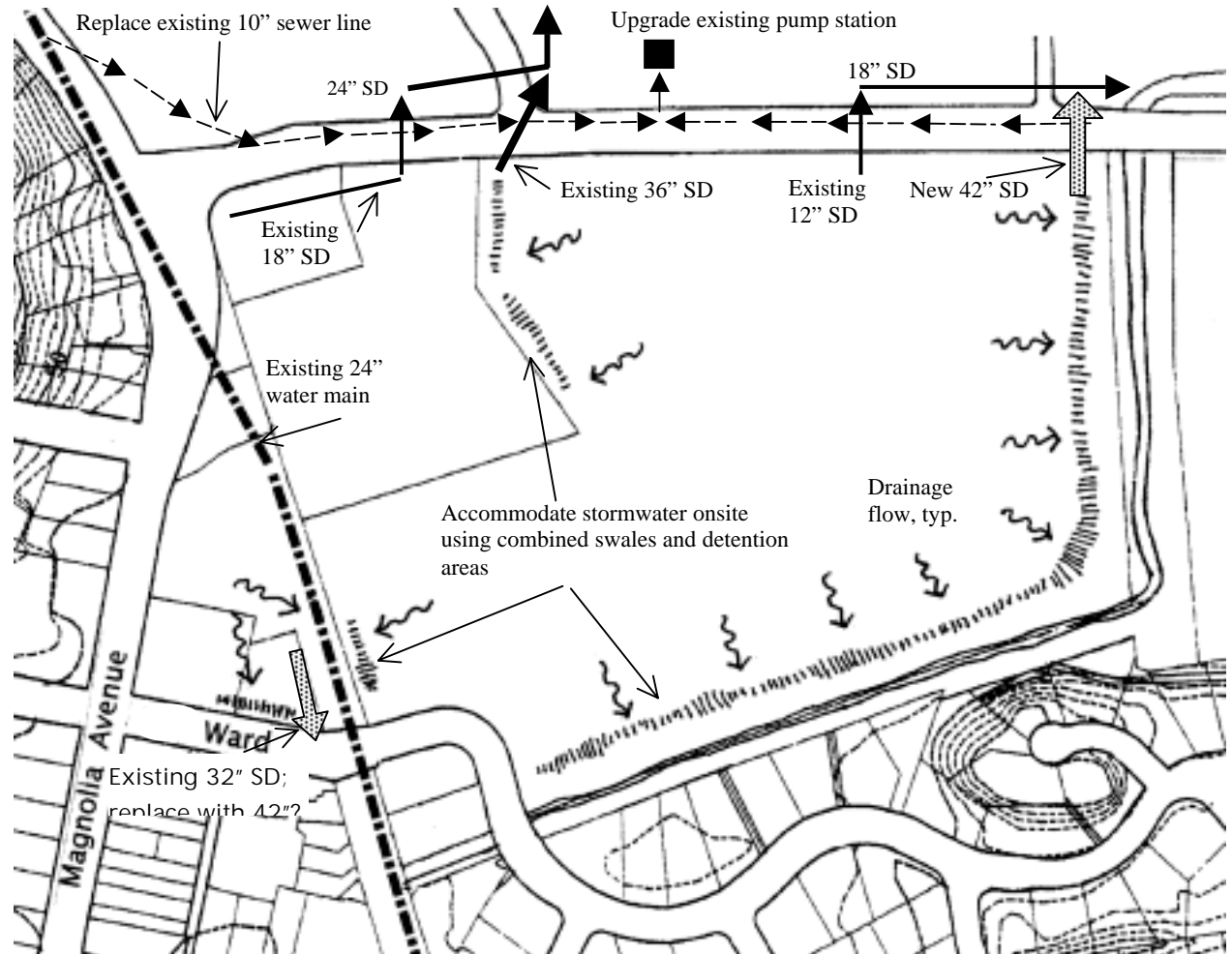


Figure 6-1 Existing and Required Utility Improvements (SD = storm drain)

flow and the amount of stormwater flow to those waters shall not be impacted by Plan-related development.

Objective U-5 Utilities Meet Regulations Protecting Natural Resources. Installation, operation and maintenance of utilities demanded by Plan-related development shall meet City regulations to protect natural resources.

6.2 UTILITY POLICIES AND STANDARDS

Policy U-1. Utilities and Services. Provide utilities and services to the Specific Plan area sufficient to serve existing and future development. The following providers provide services to the planning area:

- ❖ Domestic water is provided by the Marin Municipal Water District (MMWD).
- ❖ Sanitary sewer service is provided by Sanitary District No. 1 (Ross Valley).
- ❖ Storm drainage and flood control is provided by the City of Larkspur.
- ❖ Fire protection services are provided by the City of Larkspur Fire Department.
- ❖ Police services are provided by the Twin Cities Police Department.
- ❖ Public elementary and middle school education services are provided by the Larkspur School District. The Tamalpais

Union High School District provides public high school education.

- ❖ Electrical and gas service is provided by Pacific Gas and Electric Company.
- ❖ Telephone and telecommunication services are provided by AT&T.
- ❖ Solid waste disposal and recycling is provided by Marin Sanitary Services.
- ❖ Cable TV and information facilities are provided by Comcast, an approved cable provider.

Policy U-2. Undergrounding. Locate all new utility lines underground within street rights-of-way and in easements on private property.

Policy U-3. Applicants' responsibility. Each applicant shall be responsible for all fees and interior extensions and connection charges for extending utilities.

Policy U-4. Actual costs. Actual costs attributable to each applicant shall be determined upon submittal of a development application to the responsible agency.

Water Supply

The Marin Municipal Water District serves the Plan area. The District obtains its water from seven reservoirs and from the Russian River Intertie Pipeline System. A major 24-inch supply line passes through the Plan area within the former railroad right-of-way.

Existing lines serving the Plan area consist of 6-inch line in Ward Street, an 8-inch main in Magnolia Avenue, an 8-inch main in Meadowood Drive, an 8-inch main in Doherty Drive, and an 8-inch loop in the Larkspur Plaza Shopping Center. These lines have sufficient capacity to serve the maximum development permitted by this Specific Plan. The following policies and standards shall apply to future development.

Policy U-5. Water Service. Extend water service in the Specific Plan area as necessary to ensure continuous water service and reliability for existing and new development.

Policy U-6. Water Conservation. Require water conservation measures as a condition of approval for development proposals.

Standard U-1. Water Conservation. New development and remodels shall comply with Marin Municipal Water District Ordinance No. 385.

Sanitary Sewers

Sanitary District No. 1 (Ross Valley) is responsible for wastewater collection in the Plan area. The Central Marin Sanitary Agency provides wastewater treatment for Sanitary District No. 1. No upgrades to the treatment plant would be required to accommodate the proposed development of Subarea 3.

An existing sewer line crosses a portion of Subarea 3. That line will have to be rerouted to avoid conflicts with new development. This may require off-site improvements. Reduction of wet weather flows due to the installation of new pipe may allow the existing collection system to serve future development.¹

¹ Brian Kangas Faulk Engineers, Max Keech, civil engineer.

Facilities consist of a 10-inch main in Doherty Drive and a pump station located on the north side of Doherty Drive west of the Hall Middle School site. The capacity of the main is adequate to accommodate future Plan-area development; however, it is nearing the end of its service life and may need to be replaced.

The pumping station currently experiences operational problems during peak demand times, and it will require upgrading to accommodate existing and future wastewater discharges. The problem results from the build-up in pressure in the force mains served by the station. At present the full extent of needed improvements to the pump station have yet to be determined by the Sanitary District. But these could involve upgrades to the generator, pump, electrical system, and (depending upon the extent of these changes) changes to the structure of the pump house and well.

Policy U-7. Sanitary Sewers. Provide necessary on-site sanitary sewer facilities as required by Sanitary District No. 1 to adequately serve planned development.

Stormwater Drainage

Discharge of stormwater from the Plan area is currently handled by a 42-inch Ward Street outfall to Larkspur Creek and a 24-inch storm drain along the north side of Doherty Drive with 24-, 36- and 12-inch connections to the Plan area (see Figure 6-1). An open-channel storm drain is also located along the north side of Ward Street. This channel collects water from properties south of Ward Street outside the Specific Plan area via two 12-inch storm drains under Ward Street and a 32-inch storm drain under Ward Street, which carries runoff from Subarea 1.

A preliminary review of Plan-area storm drainage identifies the potential need for the following new facilities. Actual size required may vary based on the extent of on-site detention and retention provided, and should be confirmed at the time of approval of each applicant's tentative map. The listed improvements are shown schematically on Figure 6-1.

1. The existing 32-inch storm drain under Ward Street should be upgraded to 42 inches.
2. A 42-inch storm drain should be provided under Doherty Drive to serve a major portion of Subarea 3. This storm drain should be located at the easternmost end of the parcel, in the approximate vicinity of the new Piper Park intersection. Its construction should be coordinated with construction of the east entrance road to Subarea 3 and the rebuilding of the bridge over Larkspur Creek.

Policy U-8. Storm Drainage Service. Provide necessary on-site storm drainage facilities to protect property and public safety.

Policy U-9. Storm Drainage Facilities Designs. All storm drainage from new development in the Plan area shall meet the requirements of the City of Larkspur Urban Runoff Pollution Prevention Ordinance. (Larkspur Municipal Code: Chapter 15.48). All new development in the Plan area shall pay fees to provide clean storm water activities (Larkspur Municipal Code: Chapter 15.50).

Standard U-2. Flood Discharge, Off-site Drainage Facilities. Flood discharge rates shall not increase off-site flood hazards or exceed the design capacity of any off-site drainage facility.

Standard U-3. Flood Discharge, Larkspur Creek. Post-project peak flood discharge rates into Larkspur Creek shall not exceed existing discharge conditions.

Standard U-4. Required Discharge Facilities. Storm water shall be discharged to storm drain facilities or water courses to prevent damage to natural or graded areas.

Policy U-10. Drainage Plan, Subarea 3. A detailed drainage plan shall be required for the development of Subarea 3. The Subarea 3 drainage plan shall meet the following standards:

Standard U-5. Project Flows. The drainage plan shall document pre-project and post-project flows

Standard U-6. Available Flow Capacity. The drainage plan shall document available flow capacity in any offsite drainage system proposed to receive discharge from Subarea 3.

Standard U-7. Documentation. The plan shall include an analysis to demonstrate that the project design will minimize pollutants in surface runoff.

Policy U-11. Pollutants. Minimize discharge of surface pollutants to Larkspur Creek and Corte Madera Creeks and to off-site drainage facilities by implementing site planning and design techniques that may include, but are not limited to, the following:

- ❖ Infiltration systems, such as basins and grassy swales, to filter pollutants through the soil.
- ❖ Storm water retention and detention systems to reduce downstream peak flows, capture fine sediments and to allow wetland vegetation to uptake dissolved nutrients.

- ❖ Biofilters, including vegetated slopes and channels.
- ❖ Design approaches such as pervious concrete, porous asphalt, narrow streets to reduce impervious surfaces, and brick pavers on sand.

Standard U-8. Parking Lots. Public-serving surface parking areas should employ hybrid construction consisting of crushed aggregate stalls and asphalt aisles.

Policy U-12. Subarea 3 Drainage Improvements. Subarea 3 drainage improvements should include on-site grass/vegetated swales and detention areas along the west, south and east edges of Subarea 3 to filter, receive and detain stormwater before discharge into Larkspur Creek.

Fire and Police Service

The Plan area is located within one-quarter mile of Larkspur Fire Station No. 1, at 400 Magnolia Avenue near the intersection of Magnolia Avenue and King Street. Specific Plan related demand for fire protection and emergency services would not necessitate the expansion of existing fire protection or construction of new facilities.²

The Twin Cities Police Department headquarters are located in Piper Park directly across Doherty Drive from the Specific Plan area. The Department is currently preparing plans to build a new headquarters building to replace the existing facilities at the same location. The new facility is intended to meet the community's future needs, including demand that may be generated by development in the Specific Plan area.

² Telephone conversation, May 23, 2002, Robert Sinnott, Chief, Larkspur Fire Department.

Policy U-13. Fire Protection. Require the following fire protection measures:

1. The capability to provide not less than 1,000 GPM at 150 PSI fire flow from MMWD hydrants on public water mains every 300 feet.
2. Access roads to provide adequate width and turning radii for emergency vehicles.
3. Dead-end streets longer than 150 feet to have a cul-de-sac or other suitable turnaround.

Policy U-14. Police Protection. Incorporate Police Department recommendations for traffic safety and crime prevention in all development approvals.

Sold Waste Disposal

Marin Sanitary Service (MSS) provides waste collection and disposal in Larkspur. Recyclable glass, cardboard, newspaper, other types of paper, and metal are removed from the waste stream by Marin Recycling, and the solid waste is taken to the Redwood Sanitary Disposal site in Novato.

Policy U-15. Solid Waste Disposal. Incorporate MSS's recommendations into all development approvals to assure access by waste haulers. Provide adequate storage for waste and recycling bins.

Schools

The Larkspur School District provides public K-5 and middle school services to the Plan area. The District's Neil Cummins Elementary

School is located within one-mile at 58 Mohawk Avenue in Corte Madera. The Henry C. Hall Middle School is located directly across Doherty Drive from the Specific Plan area.

The Tamalpais Union High School District serves grades 9 through 12 at Redwood High School directly across Larkspur Creek from the Plan area.

Policy U-16. Public School Services. Assist and coordinate with the collection of School Impact Fees by the affected school districts.

Private Utilities

Private utilities serving the Specific Plan area are AT&T (telephone and telecommunication), Pacific Gas and Electric (electric power and gas service) and Comcast (cable and information services).

Policy U-17. Private Utilities. Extend electricity, gas, telephone and cable television services to undeveloped portions of the Specific Plan area in accordance with the requirements of the utility companies.