

Chapter 6. Utilities

The Utility Element of the Specific Plan establishes on- and off-site requirements for sanitary sewers, water supply, and storm drainage. 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 set forth in Section 6 of this Plan.

6.1 Objectives

Objective U-1 *Equitable Financing* of the cost of extending new utilities and upgrading or replacing off-site utilities by developers, based on projected demand or discharge necessitated by Plan-related development.

Objective U-4 *Stormwater flows* that do not diminish the quality of receiving waters; or create an overall increase in flows.

Objective U-5 *Natural resource protection policies and standards* integral to the installation, operation and maintenance of utilities.

6.2 Utility Policies and Standards

Policy 1. Utilities and Services. Provide utilities and services to the Specific Plan area sufficient to serve existing and future development. Establish the following services and providers in the planning area:

- Domestic water to be provided by the Marin Municipal Water District.
- Sanitary sewer service to be provided by the Ross Valley Sanitary District.

- Storm drainage and flood control to be provided by the City of Larkspur.
- Electrical and gas service to be provided by Pacific Gas and Electric Company.
- Telephone service to be provided by the Southern Bell Company.
- Cable TV facilities to be provided by an approved cable provider.

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

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

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

6.2.1 Water Supply

The Marin Municipal Water District serves the Plan area. 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 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 6. Water conservation. Require water conservation measures as a condition of approval for development proposals.

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

6.2.2 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.

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.

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 the future development.

Policy 7. Sanitary Sewers. Provide necessary on-site sanitary sewer facilities as required by the Ross Valley Sanitary District to adequately serve planned development.

6.2.3 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.

- The existing 32-inch storm drain under Ward Street should be upgraded to 42 inches.
- A 42-inch storm drain should be provided under Doherty Drive to serve a major portion of Parcel 7. 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.

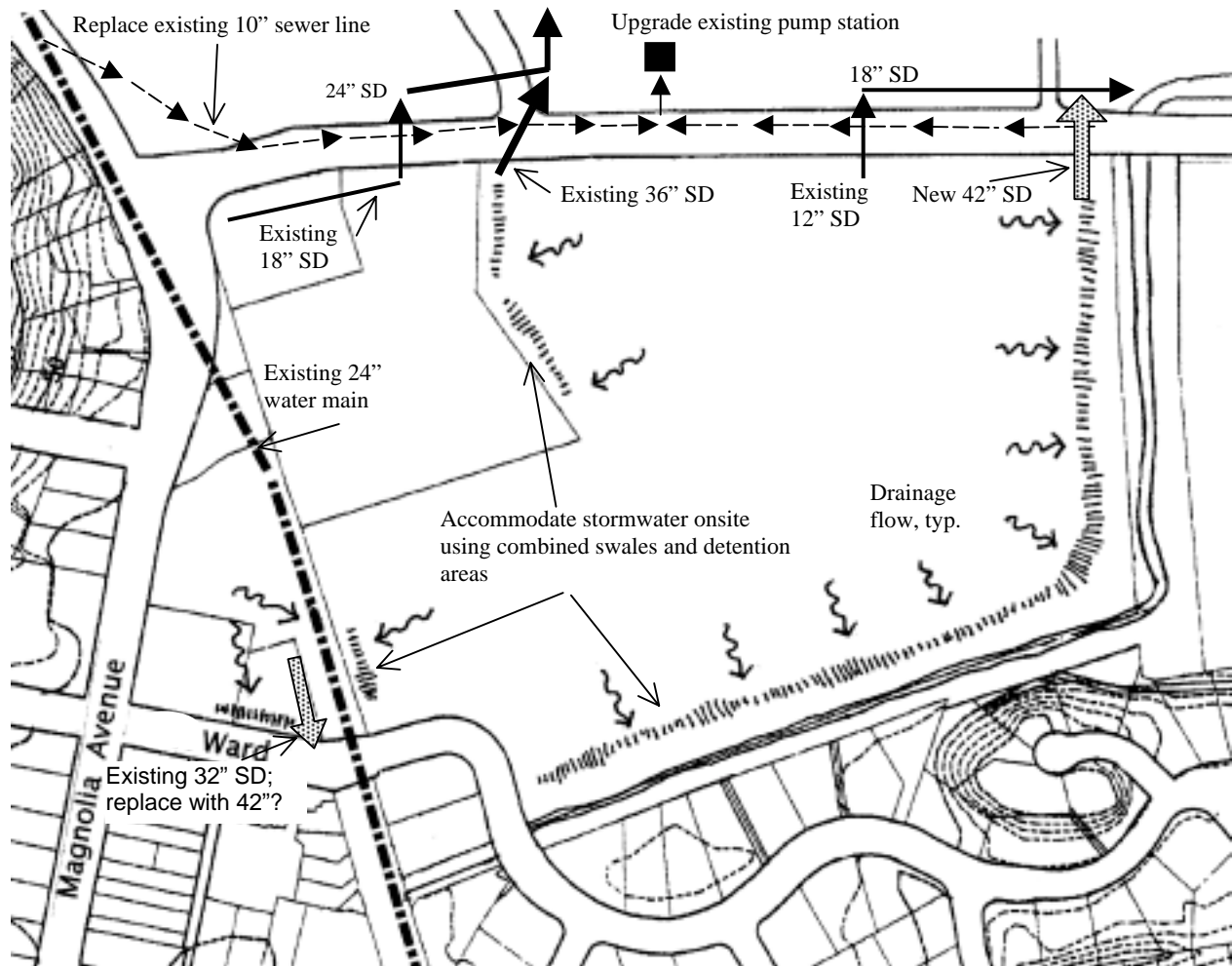


Figure 6.1. Existing and Required Utility Improvements (SD = storm drain)

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

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

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

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

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

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

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

Policy 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 and porous asphalt, narrow streets to reduce impervious surfaces, and brick pavers on sand.

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

Policy 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

6.2.4 Private Utilities

Private utilities serving the Specific Plan area are Southern Bell Company (telephone), Pacific Gas and Electric (electric power and gas service) and AT&T Broadband (cable services).

Policy 12. 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.