

# Environment

The natural environment is a major determinant of the quality of life of Jamestown. The terrain, climate, and geology of the area can be rugged and challenging. The importance of preserving and respecting the unique mountain environment has been recognized by Jamestown residents. In the Household Survey, public meetings, and through the work of a local environmental study group, the desire to control development in certain environmentally sensitive areas has been expressed. The policies in this section are an expression of this desire to protect the environment and special interest areas, as well as the health, safety, and property of residents in the town and surrounding area.

The policies are also an expression of other Jamestown values - the desire for regulations that provide some control but also some flexibility. There is a concern by residents that the cost of development be borne by the developer and that public utilities and service costs and public liability of the town not be increased. This is an important consideration as extension of services in hazardous areas is expensive and difficult.

The policies have evolved from this set of values and the basic information on the local environment. (More extensive background information is available in the 1979 "Jamestown Planning Study" and the "1978 Natural Resource Inventory").

## Areas of Concern

1. Slopes and soils: The terrain in and around Jamestown is mountainous with steep slopes. Slopes range from relatively level ground to over 100% slope (land which changes at least 100 feet in elevation per 100 feet horizontal distance on the ground). Engineering technology is now available to develop safely on slopes of up to 50%. However, such engineering and mitigation of hazardous conditions can be very costly. Slopes and their soils can produce severe problems for development and the town itself. Septic system runoff may be difficult to control, erosion tendencies may increase and slope failure is possible. Provision of water services and other utilities is difficult and costly on steep slopes. Extensive grading, cutting, and filling are common in steep hillside development which causes further erosion problems and destruction of the natural beauty of hillsides and view.



2. Rockfall: Rockfall in general is not a severe constraint within Jamestown. The naturally recurring rockfall on Porphyry Mountain is remote enough that it doesn't present a hazard to present or probable future development. Rockfall near the southeast section of town along the road coming up from the plains presents a mild hazard to motorists especially during the spring freeze-thaw periods. Also, areas of 100% slope (or more) present potential rock fall problems and hazards should be mitigated when development below is planned.
3. Flood Hazards: Jamestown has a history of flooding, with flash flooding presenting the most serious hazard to Jamestown. Five major floods have occurred in Jamestown in the last 100 years, the latest occurring in 1969. Because there are a number of narrow gulches that drain hillsides from both the north and south sides of James Creek. Peak flooding in Jamestown usually occurs within a few hours after a single storm. Much of the town is presently built in the flood plain and is therefore in danger as well as presenting danger to structures downstream as floating or swept along debris can increase the volume and force of the flood. In areas where little advance notice of flooding is available, a careful control of types of land use and engineering in the flood plain is needed to maintain public safety. A 1978 Federal Flood Insurance Administration study was conducted for the Jamestown area. The 100-year flood plain (area inundated in a flood likely to occur once in a time span of 100 years) was identified and a town ordinance was passed forbidding construction in this area. At present another study is underway by the Federal Flood Insurance Administration that will more accurately define flash flood corridors, and flood plains, as well as give recommendations for mitigation and suitable development in each of these areas.

Following Federal Flood Insurance guidelines is vital for obtaining federal or private lender/bank funds for most private development and town improvements.



#### 4. Alluvial Soils:

Alluvial soils or alluvial debris fans exist where gulches drain into the stream flowing through the valley floor where Jamestown is located. Water flows quickly through these very permeable soils. This quality of the soil is troublesome for building foundations and controlling septic runoff, especially since they are usually adjacent to streams where contamination and pollution can easily occur. Mitigation of the hazard is possible, although the soils are usually located on flood plains and mitigations for flooding is of overriding concern.



#### 5. Wildfire Hazards:

Most of Jamestown and vicinity fall into a severe wildfire hazard area. These areas have potential for difficult-to-contain, rapidly spreading crown fires. Density of vegetation, population, and steepness of slopes (winds and access problems) increase the hazards. There are a number of public education, and preventive/mitigation measures possible. This hazard has other significant impacts on Jamestown because the cost of homeownership is high due to fire insurance rates and the cost of public roads/utilities is high for necessary access and water service.

#### 6. Areas of Special Interests:

Certain areas in the Jamestown area have been identified as important to preserve in their present or natural state. These places are scenic visual resources, and provide the community with an appreciation of its local heritage and a common identity. Some of these areas are outside the legal boundaries of Jamestown, but their importance is not lessened by the lack of jurisdiction. By stating concern and importance now, Jamestown hopes to be influential in their preservation for the future. Identified Special Interest Areas include: the city-owned cemetery; privately owned Blue Jay Mine and the Glory Hole; three areas in Roosevelt National Forest including Porphyry Mountain, Owen's Flats, Gillespie Meadow; and the Little and Big James Creeks.

# Environmental Policies

## General

1. The natural environment is a crucial factor in determining land use in Jamestown because of its isolated, fragile mountain location. Controls on types of use and mitigation of hazards and damage to the environment should be instituted. Controls through building permit review should allow development when safely possible with the burden of regulation and mitigation borne by the developer because of limited resources of the town.

## Slope Hazard Areas

2. Jamestown should require certified engineering and administration of development in slope hazard areas to eliminate slope failures, erosion, aesthetic deterioration, and hard-to-control septic runoffs. Review of development within areas exceeding 20% slope should include soil reports, detailed site plan, professionally engineered foundation, and erosion control plan for building and road construction.

## Rockfall Hazard Areas

3. Jamestown should discourage development in rockfall hazard areas, but allow development if certified mitigation of hazards by stabilizing slopes and reducing the risk of erosion and rock slides is possible. Mitigation should avoid major visual impact.

## Flood Hazard Areas

4. Jamestown should require certified "flood proofing" mitigation and limits of density of development to Flood Insurance Administration (FIA) standards in the floodplain zones defined by FIA maps. Open space uses should be encouraged in the flash flood hazard area. These controls on development should limit encroachment of buildings, activities, landfills, utilities, and bridges into the channel. These controls should assure compatibility of uses in the floodplain and protect down stream settlements. FIA maps and policies presently being developed should be adopted when available.

## Alluvial Soil Hazard Areas

5. Jamestown should require certified mitigation of hazards and limit on density of development in alluvial soil areas in order to keep ground water clean and at high levels, limit flood danger, and assure safe and solid building foundations in these areas of highly permeable soil.

## Wildfire Hazard Areas

6. Jamestown should require certified mitigation of fire hazards for development in severe wildfire hazard areas by the Fire Protection District in order to reduce the possibility of fires and to increase the ability to fight fires once they have started. Mitigations should include adequate roads for fire equipment, fire breaks and other means.

## Special Interest Areas

7. Jamestown recommends that special interest areas be removed from development and preserved in their natural or existing state. The town recognizes that certain natural, aesthetic, and historic features are an integral part of the small town, mountain environment and contribute to the high quality of life in Jamestown. For areas outside the town jurisdiction, Jamestown should strongly state its interest and exert pressure whenever these areas are threatened. Areas include: Gillespie Meadow, Little James and Big James Creek, the Blue Jay Mine, the Glory Hole, the Cemetery, Owen's Flats, and Porphyry Mountain.

## Air and Water Quality

8. Jamestown recommends that regional and national standards for air and water quality be strictly enforced to preserve the high quality of life in Jamestown and to protect the environment.

# Proposed Program

The building permit system should be expanded. The Planning Commission should inspect building sites and review building permit applications and recommend approval or disapproval based on consistency with the Comprehensive Plan. The Town Board should grant or deny all building permits.

