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INTRODUCTION

State law in California (Section 65300 of the Government Code) states that "Each planning agency shall prepare, and the legislative body of each county and city shall adopt a comprehensive, long term general plan for the physical development of the county or city and of any land outside its boundaries which in the planning agency's judgment bears relation to its planning."

Section 65302 states that "the general plan shall consist of a statement of development policies and shall include a diagram or diagrams and text setting forth objectives, principles, standards, and plan proposals.

Section 65302 further states that the general plan will include "plan elements" dealing with:

(1) Land use
(2) Circulation
(3) Housing
(4) Conservation
(5) Open space
(6) Seismic safety
(7) Noise
(8) Safety, and
(9) Scenic highways

The St. Helena General Plan combines these elements under the following headings:

1. Land Use Element
2. Circulation Element
3. Housing Element
4. Environmental Resource Element (includes Conservation, Open Space, Seismic Safety, Scenic Highways, and Noise)
The Local Agency Formation Commission (LAFCO) establishes the "Sphere of Influence" of each incorporated city in Napa County as a basis for reviewing requests for changes in city boundaries. The "Sphere of Influence," is defined in Section 54774 of the Government Code as "the probable ultimate physical boundaries and service areas of a local Government Agency."

The St. Helena Sphere of Influence and the area covered by the St. Helena General Plan is the present city limits.

The City Council does not anticipate more than very minor adjustments in the present city boundaries in the foreseeable future.

An exception is the possible deannexation of the hillside area east of the Napa River.

The present city boundaries take in 2,836 acres, or 4.4 square miles.

The St. Helena General Plan is coordinated with the General Plan of Napa County.
LAND USE ELEMENT

Section 65302 (a) of the Government Code requires cities and counties to include within their General Plans a "Land Use Element,"

"which designates the proposed general distribution and general location and extent of the uses of the land for housing, business, industry, open space, including agriculture, natural resources, recreation, and enjoyment of scenic beauty, education, public buildings and grounds, solid and liquid waste disposal facilities, and other categories of public and private uses of the land. The land use element shall include a statement of the standards of population density and building intensity recommended for the various districts and other territory covered by the plan which are subject to flooding and shall be reviewed annually with respect to such areas."

The Land Use Element of the St. Helena General Plan is organized under the following headings: (1) Existing Conditions; (2) Land Use Issues; and (3) Land Use Goals and Policies.

EXISTING CONDITIONS


2. St. Helena has developed slowly over the years as a service center for the agricultural industry in the Upper Napa Valley. In recent years the wine industry has replaced cattle ranching as the dominant industry in the Napa Valley. In 1973 there were 18,500 acres planted in vineyard, compared with 11,900 acres in 1969 and 10,561 in 1963. This rapid change is causing social and economic pressures in the Upper Valley that have a significant impact on land use.
3. Most of the agricultural land in the Upper Napa Valley is zoned "Agricultural Preserve," and is protected against urban development.

4. The City of St. Helena contains 2,836 acres. Approximately 563 acres are already developed for urban uses. Of the remaining 2,273 acres, 1,888 acres are suitable for urban development.

5. A total of 242 acres are presently developed for housing, 29 acres for business, and 68 acres for industry. Public uses (schools, parks, etc.) account for 58 acres, street right-of-way for 166 acres, and the remaining land, amounting to 2,273 acres, is in agricultural use or is vacant.

6. The pattern of land uses in St. Helena is compact, and there are few conflicts in the use of land. Business has built up along Highway 29, and residential areas have developed over the years in areas served by utilities. Some more scattered residential development has occurred in recent years along outlying roads and lanes. Industrial development is largely limited to three major wineries, located at the extreme north and south ends of the city.

7. The general appearance of the city is usually neat and orderly. The wooded hillsides and the vineyards on the Valley floor give St. Helena its distinctive scenic setting.

LAND USE ISSUES

1. Rate of growth is the principal land use issue facing St. Helena. An attractive living environment and recent changes in the economy of the Upper Valley present the prospect of rapid growth. An advisory vote of St. Helena citizens in the summer of 1973 indicated that a majority of those voting favor
a deliberate policy of slow growth. This policy is reflected in specific policies and standards of the General Plan and City ordinances and resolutions dealing with the use and development of land.

2. The provision of public services and facilities is a related issue. Present city water and sewer facilities need to be upgraded. Their extension to new areas of the city is beyond the city's resources unless their cost is paid for by the developers of the land.

3. Large areas of the city are presently in vineyard. Conflicts are already occurring as more and more near-in land is subdivided for homesites. Spraying and other agricultural practices are impeded as more and more homes are built. Such conflicts are increased when new housing development is scattered.

4. There is a growing demand for multifamily dwellings, townhouse-type dwellings and mobile homes. Many owners of single-family detached dwellings believe residential values will be lowered when other types of dwelling units are located nearby. Experience in other communities suggests that diverse types of dwelling units can be arranged in compatible groupings when they are part of a "planned unit."

5. The sanitary sewer system is undersized and will not accommodate new hookups on the west side of the city. Developers are seeking land accessible to the new larger capacity sewers east of the Highway. The resulting pressures for development may cause urban encroachment in areas of the city designated in the General Plan for continuing agricultural use.
LAND USE GOALS AND POLICIES

Specific goals and policies are described under the following headings:

1. Agriculture
2. Urban Reserve
3. Lower-density Housing
4. Higher-density Housing
5. Neighborhood Business
6. Roadside Business
7. Central Business
8. Industry
9. Schools and Parks
10. Utilities

The distribution of land uses is indicated in the General Plan Map, shown below.

Agriculture

Goals:

1. To protect prime vineyard lands from unnecessary urban encroachment.

2. To provide suitable locations for wineries and other agriculture-related industry.

Large areas at the north and south ends of the city are shown in the plan map as remaining in agricultural use. These are mainly large holdings presently planted in vineyard.
Wineries and related uses are permitted, subject to review of their location and design by the Planning Commission.

Single-family dwellings are permitted in agricultural districts when the lot has an area of at least 40,000 square feet.

Farm animals may be kept in an agricultural district only when the Planning Commission has granted a use permit.

**Urban Reserve**

Goals:

1. To provide for orderly urban growth.

2. To protect near-in agricultural land from unnecessary urban expansion.

Large areas on the east side of the city are shown in the plan map as "Urban Reserve." They are intended to remain in agricultural use for many years.

Urban development in these areas will be considered after other sections of St. Helena are built-up or largely so, and additional land is needed in the Upper Valley for urban purposes.

Zoning in areas designated as urban reserve will be the same as in areas designated for agriculture.

**Lower-density Housing**

Goal: To provide a compatible mix of housing types with an overall density of six dwelling units per net acre.
Large areas west of State Highway 29 are shown in the Plan Map for "lower-density housing." These areas are either built-up in single-family housing or are open fields, mostly planted in vineyards.

Densities planned for these areas will range between one and four dwelling units per acre for single-family dwellings and up to twelve dwellings per acre for multifamily dwellings.

"Planned unit development" is encouraged. The city zoning ordinance established a review procedure and design standards that will permit greater flexibility in the design of larger parcels (3 acres or more) that are planned and developed as a single unit.

In general the Planning Commission will approve multifamily dwellings in areas planned for lower-density housing only when they are accessible directly from an arterial or collector street, and when their location and design is compatible with the neighborhood.

Typically, multifamily dwellings will not be permitted in an existing partly built-up area where the "single-family" character of the neighborhood is already established.

The administration of the zoning and subdivision regulations will assure ample yards and public open space to assure a liveable environment as these neighborhoods become fully built-up.

**Higher-density Housing**

Goal: To provide a compatible mix of housing types with an overall density of ten dwelling units per net acre.
Close-in areas on both sides of State Highway 29 are designated in the Plan Map for "higher-density housing."

Densities will range between four and six dwelling units per net acre for single-family dwellings and up to sixteen dwelling units per net acre for multifamily dwellings.

These areas have good access to shopping, schools, and other community facilities. Most of the multiple dwellings in St. Helena are already located in these areas, mixed with single-family homes. This pattern will continue.

As in areas designated for "lower-density housing," planned unit development is encouraged. The city will benefit if larger parcels or tracts of land are planned and developed as a unit.

The Planning Commission will favor planned unit developments that provide generous amounts of open space, covered parking, the separation of pedestrian and vehicle traffic, and on larger tracts, a variety of housing types: single-family, duplex, and multifamily dwellings, in one- and two-story structures.

**Neighborhood Business**

Goal: To provide small neighborhood business centers in convenient locations as more and more homes are built further from the existing business locations along Highway 29.

The General Plan will allow the development of small "convenience centers," limited in size and in locations that do not create conflicts with existing or planned residential development.
Their location is not shown on the General Plan map. Suitable sites will have direct access to an arterial or collector street and will provide adequate off-street parking. Zoning regulations will establish standards for design that will help to protect residential values in the immediate neighborhood.

Roadside Business

Goal:

1. To provide locations for businesses that require a highway location for visibility, access, and parking or for larger sites than are available in the central business district.

2. To improve roadside appearance.

3. To reduce traffic hazards along the highway.

The General Plan map shows locations along the east and west side of Highway 29 south of the central business district for "roadside business."

About half of this area is presently built-up. Much of it has a cluttered appearance and the uncontrolled access to individual properties is a traffic hazard.

Future roadside development will be subject to design standards in the city zoning and subdivision regulations.

Properties will be developed with ample building setbacks to allow for landscaping. Signs will not project above the building they identify. Moving or flashing signs are prohibited. "Quiet" signs are encouraged. Where feasible, business properties along the highway will be served by a frontage road in order to reduce traffic hazards.
Central Business District

Goals:

1. To provide a compact grouping of compatible retail, office, and service businesses in a central location.

2. To reduce conflicts between vehicles and pedestrians.

3. To improve access and parking.

4. To enhance downtown appearance.

The General Plan recognizes the existing concentration of "downtown business" centering on State Highway 29.

The diagram below indicates a schematic plan for the improvement of access and parking and suggests areas suitable for future expansion east of Railroad Avenue.

No expansion of the central business district is planned west of Oak Street or north of Pine Street.

The downtown business district in St. Helena has an attractive character that results from its small scale, the diverse and colorful retail shops, and the number of older stone buildings that remain.

The General Plan gives high priority to the improvement of off-street parking downtown. Because of the large number of small property ownerships and the built-up nature of the business district, it is not possible for each individual business to provide its own separate off-street parking space.
City officials and business leaders have long recognized the opportunity to provide improved parking on the long block bordered by Main Street, Oak Avenue, Spring Street and Adams Street. The General Plan recognizes the continuing public interest in providing improved public parking on these underdeveloped properties. The City Council will actively support a program for their acquisition and development.

The size and location of business and advertising signs in the downtown business district will be controlled by the city's zoning and sign regulations, in the interest of community appearance. As in the case of roadside business, city officials encourage "quiet signs" as opposed to signs that are unnecessarily large and garish.

Industry

Goals:

1. To provide suitable locations for industry, compatible with existing environmental values.

2. To provide employment and add value to the city's tax base.

The General Plan map designates areas south of Mills Lane and east of State Highway 29 for new industrial locations. These areas are flat, free of flooding, have direct access to rail and highway transportation, and are presently undeveloped for urban uses.

The land just east of the central business district, once designated for industry on the city zoning map, is better suited for commercial uses and higher-density housing.
New industry in St. Helena will be subject to zoning and subdivision standards that will result in compatible development patterns such as those typically found in "industrial parks."

**Schools and Parks**

**Goals:**

1. To provide school and park sites in locations that are accessible to the areas they serve.

2. To relate schools and parks to a system of connecting open spaces according to the city's "open space plan."

Present school facilities in St. Helena are adequate to at least 1980. Beyond that, additional classrooms can be built on land already available at the Senior High School and Robert Lewis Stevenson Intermediate School.

The school district owns a vacant 14-acre parcel adjoining the high school and Crane Park. This site is suitable for a future elementary or intermediate school.

No additional school sites are needed in the foreseeable future.

Crane Park, a well developed 14-acre tract adjoining the high school, is the only large park in the city. Lyman Park, adjacent to City Hall, is used mainly by tourists who picnic there.

St. Helena will need additional parks as the city grows. At least two larger parks will be needed, north and west of Spring Street west of the highway and in the vicinity of Hunt Avenue east of the highway as more and more new homes are built.
Suitable locations need to be identified well in advance of the time these areas begin to build up and the land acquired as city resources permit.

The city will continue its present policy of cooperation with the school district to share the responsibility for playgrounds.

As new areas are subdivided, the city will encourage the development of an "open space system" to provide footpaths and bikeways connecting parks, schools, and shopping areas with residential neighborhoods, as detailed in the city's open space plan.

Utilities

Goals:

1. To assure that all new residential subdivisions, and all business and industrial properties are served by the city's water and sanitary sewer systems.

2. To upgrade these systems as necessary to meet public health and safety standards.

3. To assure that the cost of utilities is allocated among all users in a fair and equitable manner.

The city water system has an adequate supply to meet foreseeable growth. The chemical and bacteriological quality of the water is well within public health standards. Turbidity and color, however, are often below normal standards.

The distribution system consists of many 4-inch mains, which are inadequate for fire protection, and many of the mains dead-end, causing low pressure.
The City intends to replace undersized mains and loop existing dead-end lines on a regular schedule as resources permit.

The sanitary sewer system consists of 4-inch and 6-inch laterals except for the newer lines down Hunt and Pipe streets. The older lines are undersized and leaky. Winter flows are as much as five times dry-weather flows as a result of infiltration. Lack of capacity of the older lines causes surcharging, which is both a nuisance and a public health problem.

The City intends to replace existing substandard sanitary sewers on a regular schedule as resources permit.

The sewage treatment plant has adequate capacity in dry weather but exceeds design capacity in wet weather.

The General Plan map shows the need to acquire more land around the plant to allow for the expansion of existing ponds, as the population of the city grows and state water pollution standards are raised.
CIRCULATION ELEMENT

Section 65302 (b) of the Government Code requires cities and counties to include within their General Plan a "Circulation Element,"

"consisting of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals and facilities, all correlated with the land use element of the plan."

The Circulation Element of the St. Helena General Plan is organized under the following headings: (1) Existing Conditions; (2) Community Needs; (3) Policies and Proposals; and (4) Standards.

EXISTING CONDITIONS

1. Regional highway facilities serving St. Helena are State Highway 29 and the Silverado Trail, the two north-south highways through the valley.

2. Other regional transportation facilities are limited to a branch line of the Southern Pacific Railroad, which runs north and south through St. Helena and dead-ends near the north end of the city. The nearest public airport is at Napa; there is a small private airfield at Calistoga.

3. The system of local streets in St. Helena has been developed piecemeal over the years and depends heavily on Highway 29 for north-south movement.

4. Highway 29 and the Silverado Trail are connected by Pope Street, Pratt Avenue, and Deer Park Road. West of Highway 29
the only continuous east-west streets are Madrona and Spring streets.

5. The older part of the city was platted as a grid system with short, straight streets, and four-way intersections. Street width is generally adequate to carry local traffic volumes. Newer streets are curved and looped, with cul-de-sacs.

COMMUNITY NEEDS

1. A major need is a solution to the present traffic congestion on State Highway 29 through downtown St. Helena.

2. A related problem is the lack of other continuous north-south routes within the city. At present the only improved route between most residential districts and St. Helena High School or other destinations south of Pope Street is Highway 29. The Silverado Trail is too far east to serve as an alternative route for local traffic, both now and in the future.

3. There is growing public interest in alternative transportation modes. Bicycles are becoming more common, and people who once took their cars even a short distance are beginning to walk. Many other people and others who do not drive a car would benefit from a system of public transportation.

POLICIES AND PROPOSALS

1. The General Plan provides alternative north-south routes for local traffic, both east and west of Highway 29. The General Plan map shows schematic alignments for these routes, which can be developed as the land is subdivided or as city resources otherwise permit their construction.
2. The General Plan further provides for the improvement of the Silverado Trail as an alternate through route. The implementation of this part of the plan will depend on county and state action to improve the accessibility of the Silverado Trail in the lower Valley and to make improvements in roadway width and alignment.

3. The capacity of Highway 29 will be increased by adding traffic control devices within the existing right-of-way or by making minor adjustments in the right-of-way. Traffic hazards will be reduced by providing left-turn refuge lanes and improved signing and access control.

4. An alternative to the solution indicated in the General Plan is a bypass route for through traffic, located on an alignment east of Highway 29, from near Rutherford to Deer Park Road. Such a bypass would carry fast-moving traffic through what is now prime vineyard land, with a consequent impact on the environment. Winery-bound tourist traffic would still be expected to use the "old highway," and the narrow valley would be left with three major north-south routes.

5. In reviewing new subdivision plats and planned unit developments the Planning Commission will encourage the provision of bikeways and footpaths separate from the street system. The City will further seek opportunities to provide these facilities as a part of its open space plan, as described in the Environmental Resource Element of the General Plan.

STANDARDS

Standards for the design of streets and other circulation facilities are described in this section of the General Plan and in the city's subdivision and other regulating ordinances and resolutions.
1. Short minor streets will have a minimum right-of-way width of 50 feet and a roadway width of 32 feet.

2. Continuous minor streets (longer than 1,500 feet) and collector streets will have a minimum right-of-way of 60 feet and a roadway width of 36 to 42 feet.

3. Minor arterial streets will have a minimum right-of-way of 80 feet and a roadway width of 48 feet.

4. An additional 10 to 15 feet will be added to the right-of-way when bicycle paths are constructed adjacent to the roadway.

5. Sidewalks at least 3 feet wide will be constructed within the street right-of-way of new subdivisions unless an alternative pedestrian circulation system acceptable to the Planning Commission is provided elsewhere within the subdivision.
HOUSING ELEMENT

Section 65302 (c) of the Government Code requires cities and counties to include within their General Plan a "Housing Element,"

"to be developed pursuant to regulations established under Section 37041 of the Health and Safety Code, consisting of standards and plans for the improvement of housing and for the provision of adequate sites for housing. This element of the plan shall make adequate provision for the housing needs of all economic segments of the community."

The Housing Element of the St. Helena General Plan is organized under the following headings: (1) Findings; (2) Goals; (3) Policies; and (4) Program.

In its initial form the Housing Element is a beginning step in a continuing city program to improve the city's housing resources.

FINDINGS

1. St. Helena is the principal urban center in the Upper Napa Valley.

2. A major objective of the Napa County General Plan is the preservation of prime agricultural land in the Valley.

3. A policy of the Napa County General Plan is to concentrate housing in existing urban centers.

4. Most of the land outside the City of St. Helena is zoned for agricultural use and protected from urban encroachment by county zoning regulations.
5. Reducing the supply of land available for urban uses increases its value and increases the cost of housing.

6. Many families who live or desire to live in St. Helena are agricultural workers who have low incomes.

7. The City of St. Helena had 1,153 dwelling units in 1960 and 1,320 in 1970, or an increase of 167 dwelling units. Building permit records since 1970 indicate that St. Helena had approximately 1,500 dwelling units at the end of 1973.

8. The 1970 Census reported that 587 dwelling units were built before 1940, 397 dwelling units were built between 1940 and 1960, and 336 dwelling units were built since 1960.

9. The median value of owner-occupied single-family dwellings in St. Helena in 1970 was $22,256. (Half the houses cost less, half more.) This compares with $21,100 in Napa County, $20,882 in the City of Napa, and $19,409 in Calistoga.

10. The median monthly rent paid for nonowner-occupied dwelling units in St. Helena in 1970 was $84.00. This compares with $101.00 in Napa County, $114.00 in the City of Napa and $69.00 in Calistoga. A total of 309 dwelling units rented for $100 to $150, and 20 rented for more than $150.

11. The Napa County Comprehensive Health Planning Council has identified a shortage of rental and for-sale housing for low- and moderate-income families generally in the county. The shortage is especially apparent for large families and senior citizens.

12. The City of St. Helena has cooperated in a limited program of self-help housing under which eligible low-income families
have low-interest financing through Farmer's Home Administra-
tion. Programs of this kind meet part of the demand for
eligible families.

13. There is a present and continuing demand for low-income
and moderate-income housing in the Upper Valley that is not
met by current programs. The extent of this demand needs to
be further identified as part of an ongoing public responsi-
bility to meet national housing objectives, as defined by
Congress.

14. Small cities such as St. Helena do not qualify by them-
selves for many federal-aid programs. Federal aid is available
to St. Helena mainly through programs administered at the
county or regional level.

GOALS

1. The General Plan for St. Helena will promote a pattern of
pleasant, safe residential neighborhoods, free of unnecessary
traffic and conflicting uses of the land.

2. The General Plan will protect against the location of
dwellings in areas unsuited to residential use because of flood
hazard, excessive noise or air pollution, heavy traffic pat-
terns, or other adverse conditions.

3. The General Plan will provide opportunities for the con-
struction of a range of housing-types: single-family detached
dwellings, duplexes, multifamily dwellings, and mobile homes.

4. The General Plan will encourage, through suitable policies
and programs, the availability of standard housing within the
means of all families in the community.
5. The City will encourage the rehabilitation of older dwellings that can meet minimum health and safety standards.

6. The City will take steps to eliminate housing units that cannot meet minimum health and safety standards.

POLICY

1. St. Helena will share in the public responsibility to improve the supply of housing generally in Napa County and specifically within the urban areas of the county, as provided in the Napa County General Plan.

PROGRAM

1. The City of St. Helena will actively cooperate with the Napa County Housing Authority and other local and regional agencies to improve the supply of housing.

2. The City of St. Helena will establish a Housing Advisory Board, which will be charged with recommending to the City Council a housing program, to include:

   a. A statement of housing needs in St. Helena.

   b. A statement of short-term and long-term objectives, indicating specific objectives to be accomplished, a time schedule for their accomplishment, and an identification of the responsible agency.

3. The Housing Advisory Board will meet at least monthly until an initial housing program is prepared and recommended to the City Council, and thereafter at least once every two months.
4. The City Council will review the work of the Housing Advisory Board at least every six months as a basis for making a determination of progress in the improvement of the housing supply in St. Helena.

5. The Housing Element of the St. Helena General Plan, and subsequent revisions as may be made from time to time, will be submitted to the State Department of Housing and Community Development for review to insure compliance with state law and to be included as part of the State Housing Element.
SAFETY ELEMENT

Section 65302.1 of the Government Code requires cities and counties to include in their General Plan a "Safety Element," for the protection of the community from fires and geologic hazards including features necessary for such protection as evacuation routes, peak load water supply requirements, minimum road widths, clearances around structures, and geologic hazard mapping in areas of known geologic hazard.

FIRE PROTECTION

Existing Conditions

St. Helena has a Class 2 Fire Rating in the downtown area and a Class 5 Fire Rating in the rest of the city. The ratings are established by the American Insurance Association (National Board of Fire Underwriters), based on an evaluation of fire defenses and physical conditions in each municipality. The rating is based on a scale from Class 1 (high) to Class 10 (low).

The city has a single fire station located in the City Hall, with access directly onto Pine Street, one-half block from Main Street (Highway 29). No additional stations will be added in the foreseeable future.

The fire department has three pumper trucks. A new high-capacity pumper will be added in 1974.

St. Helena has a fully volunteer fire department. The city has mutual assistance arrangements with Napa County, Yountville, Calistoga, and the U.S. Forest Service.
Fire trucks are dispatched by the U.S. Forest Service dispatcher located at Railroad Avenue and Fulton Lane.

Policies and Standards

1. The City will continue to take necessary action to maintain its present favorable fire ratings.

2. City Zoning regulations will require adequate space between buildings to avoid unnecessary fire risk and to facilitate fire fighting.

3. City subdivision regulations will require adequate street width and turning radii for fire trucks. The minimum radius of a cul-de-sac street turn-around will be 45 feet. (See street standards in the Circulation Element.)
ENVIRONMENTAL RESOURCE ELEMENT

This General Plan element combines the Open Space, Conservation, Seismic Safety, Scenic Highway, and Noise elements, required in accordance with Sections 65302 (d through h) of the Government Code.

Combining these elements provides a comprehensive set of goals, policies, and guidelines for the preservation of open space and the conservation of natural resources in St. Helena.

This section of the St. Helena General Plan is coordinated with the Conservation and Open Space Element of the Napa County General Plan.

The Environmental Resource Element is organized under the following headings: (1) Conservation of Resources; (2) Open Space Plan; (3) Seismic Safety; (4) Scenic Highways; and (5) Noise.

CONSERVATION OF RESOURCES

"Guidelines for Local General Plans" defines conservation as "...the planned management, preparation and wise utilization of natural resources." As stated in the guidelines, the intent of the conservation section is "...to prevent the wasteful exploitation, destruction or neglect of these resources."

This section identifies the significant natural resources within the city and sets policies and standards for their protection and use.
Resource Inventory

The following inventory of significant natural resources will serve as a check list of "environmental concerns." Developers and city officials will find the inventory useful in preparing or reviewing development proposals and in preparing Environmental Impact Reports.

Water Resources:

1. **Source and availability.** St. Helena obtains its water from surface sources and wells.

The primary source of city water is the Bell Canyon watershed, with storage impoundments at Bell Canyon Reservoir and a lower reservoir on York Creek. The city is presently developing an additional source from wells. A backup source is available through a connection with the City of Napa system. This connection is to a 12-inch pipeline to Rutherford, which draws water from Conn Reservoir in the eastern foothills of Napa Valley.

Municipal water consumption in St. Helena increased by about 20 percent between 1970 and 1972, from 1,070 acre-feet to 1,250 acre-feet. The present usable storage capacity from Bell Canyon watershed is 1,800 acre-feet. Increased storage capacity is needed to keep pace with increasing demand.

Local groundwater resources have been the subject of some study and require management to assure wise utilization. The U.S. Geological Survey (USGS) completed a study in 1973 that is the source of the following information on groundwater.¹

The demand for groundwater for agriculture has increased significantly since 1967. Groundwater is used to provide frost protection for vineyards. Future groundwater withdrawals will depend in part on the length and severity of spring frosts and the amount of land used for vineyards.

The increasing use of groundwater is expected to cause two problems unless there is sound groundwater management. First, preliminary investigations indicate that groundwater levels decline significantly when withdrawal exceeds 24,000 acre-feet per year. Projections indicate the demand for groundwater withdrawal in the future will be in the range of 35,000 acre-feet per year. Second, if water levels decline enough to make the Napa River a major source of recharge to the alluvial aquifer, serious biological and nutrient contamination of the groundwater could occur if the water-quality conditions in the Napa River that were recorded in 1972 are maintained.

2. **Flood control.** St. Helena is located within the Napa County Flood Control and Water Conservation District. There are no man-made flood control projects within St. Helena. The flood loss reduction technique being used by the city is flood plain management.

3. **Water pollution.** According to the USGS report cited previously, the Napa River is a "gaining stream," that is, one that receives water rather than recharging subsurface aquifers. During years of limited rainfall, the river and its tributary streams flow intermittently. Controlled releases of water are made to downstream users from Lake Hennessey on Conn Creek. Measurements in 1972 indicated a significant part of the low flow of the Napa River is water discharged from municipal sewage treatment plant at Calistoga and St. Helena. This not only affects the water quality of the river but of nearby aquifers as well.
The chemical quality of Bell Canyon water, the city's source, is generally well within Public Health standards. Turbidity and color, however, are often above recommended limits. Bacteriological quality is kept within health requirements by chlorination.

The groundwater that occurs in the area fits one of the following categories, when water is described according to its chemical properties:

a. Mixed cation bicarbonate water
b. Sodium chloride water
c. Magnesium bicarbonate water, and
d. Sodium bicarbonate water.

According to the USGS study, the quality of most of the groundwater is adequate for domestic and stock use, even though excessive hardness is common. Sodium chloride water is generally unsuitable for irrigation purposes because of high boron concentrations and relatively high SAR (sodium absorption ratio) values.

4. **Protection of watersheds.** Additional study and planning is required to assure adequate protection of the Bell Canyon watershed. Available information indicates that the average runoff is in the magnitude of 7,000 acre-feet per year. The existing capacity of Bell Canyon Reservoir is 1,800 acre-feet. The availability and utilization of this runoff needs to be determined. Likewise, protection and conservation of the animal life, plant life, and soil in the watershed needs to be studied.

5. **Weather and climate.** The climate of St. Helena is characterized by warm, dry summers and cool, moist winters.
Most of the annual precipitation occurs as rain that falls during the winter and spring months. The mean annual precipitation at St. Helena is 33.5 inches. The water resources of the basin are directly dependent upon precipitation.

Vegetative Resources:

**Vineyards.** A number of major vineyards lie within the city limits. The combination of climate, soil and water supply makes St. Helena, and the Upper Valley in general, a unique environment for growing quality wine grapes.

**Trees.** Part of the city's charm comes from numerous mature deciduous trees, particularly walnuts and oaks. These and other types of trees that grow in the city are primarily ornamental, providing a pleasing setting and shade from the summer sun.

**Grasses.** Various varieties of grasses grow within the city. Their environmental significance lies mainly in retarding storm runoff and providing amenity.

Wildlife and Fish:

**Wildlife.** The city is a habitat for a number of naturally occurring mammals, birds, amphibians, and reptiles. Typical mammals include gophers, rabbits, mice, rats, and moles, with occasional sightings of raccoon, opossum, or skunk. Birds include blackbirds, woodpeckers, jays, magpies, starlings, sparrows, finches, and robins. Amphibians are limited to frogs and toads. Representative reptiles are an occasional garter snake, gopher snake, or lizard.
Fish. The Napa River, Sulphur Creek, and other streams are habitat for rainbow and steelhead trout. There is little annual carryover of these fish due to the seasonal low flow of the river and tributary streams.

None of the local wildlife or fish are known to be endangered species.

Minerals:

There are no significant mineral deposits in the St. Helena area other than the gravel deposits that are mined from Sulphur Creek.

Soils and Erosion:

The soils in the city are generally silty sands, alluvial gravel and sand, sandy loam, and loamy clay. As indicated under Vegetative Resources, the local soils are particularly good for vineyards.

The ground in St. Helena is relatively flat, except for one small hillside area. There is no record of landslides.

In general, buildings in St. Helena are constructed with conventional spread footings.

Geologic Conditions:

The California Division of Mines and Geology describes surface materials in the St. Helena area as "recent alluvium." The depth of alluvium is likely to be in the range of 250 to 500 feet. Other data from the Division of Mines and Geology indicates no known faults, volcanic hazards, subsistence potential, or significant mineral deposits.
Air quality:

The closest air quality monitoring station to St. Helena is the Bay Area Air Pollution Control District (BAAPCD) Station Napa-Jefferson. This station is approximately 14 miles south of St. Helena, and as a result, the correspondence between station readings and conditions at St. Helena is questionable. Air quality readings at this station indicate that the CO (carbon monoxide) and NO₂ (nitrogen dioxide) content of the air is well within required standards. The station also indicates that HC (hydrocarbons) and oxidants exceed standards. However, the high HC and oxidant levels are regional characteristics of the San Francisco Bay area.

Policies and Standards

1. The city will encourage and actively participate with other governmental agencies in an ongoing program for water resource management.

2. The city will implement improvements to the water, wastewater, and drainage systems as financial resources allow.

3. The city will encourage maximum separation between wells due to the hydrologic and geologic conditions that result in rapid draw down on subsurface aquifers.

4. The city intends to protect productive vineyards by guiding urban development to areas that are less suitable for agriculture.

5. The city will encourage the conservation of healthy, existing trees and the replacement inkind of trees removed to facilitate urban development.
6. The city will encourage the preparation and implementation of landscaping plans for all new development in order to provide visual amenity and reduce soil erosion.

7. The city will encourage the development of programs for flow augmentation in the Napa River and its tributaries during periods of low flow in order to enhance year round fish habitat and minimize stagnation and pollution.

8. The city will require grading plans for any proposed development in order to ascertain the stability and safety of cuts and fills.

9. The city will require adherence to the Uniform Building Code, in order to minimize losses due to seismic conditions.

10. The city will request the Bay Area Air Pollution Control District to establish a monitoring station in or near St. Helena so that an accurate and up-to-date record of local air quality can be established and maintained.

OPEN SPACE PLAN

Open space, for purposes of this section, is any land that is not built up. Section 65560 of the Government Code defines open space uses as follows.

(1) Open space for the preservation of natural resources including, but not limited to, areas required for the preservation of plant and animal life, including habitat for fish and wildlife species; areas required for ecologic and other scientific study purposes; rivers, streams, bays and estuaries; and coastal beaches, lakeshores, banks of rivers and streams, and watershed lands.
(2) Open space used for the managed production of resources, including but not limited to, forest lands, rangeland, agricultural lands and areas of economic importance for the production of food or fiber; areas required recharge of groundwater basins; bays, estuaries, marshes, rivers and streams which are important for the management of commercial fisheries; and areas containing major mineral deposits, including those in short supply.

(3) Open space for outdoor recreation, including but not limited to, areas of outstanding scenic, historic and cultural value; areas particularly suited for park and recreation purposes, including access to lakeshores, beaches, and rivers and streams; and areas which serve as links between major recreation and open space reservations, including utility easements, banks of rivers and streams, trails, and scenic highway corridors.

(4) Open space for public health and safety, including but not limited to, areas which require special management or regulation because of hazardous or special conditions such as earthquake fault zones, unstable soil areas, flood plains, watersheds, areas presenting high fire risks, areas required for the protection of water quality and water reservoirs and areas required for the protection and enhancement of air quality.

An additional use of open space is to control "urban form"—the configuration of buildings on the land or the pattern of development. Section 65561 (b) of the Government Code refers to the benefits of Open Space planning that will "discourage noncontiguous development patterns which unnecessarily increase the cost of community services."

The pattern of open space is especially important in parts of the city that are closely built up. The spacing between homes and other buildings, and the amount of space given to streets and paths affect the liveability and character of the city.

This section of the General Plan is organized under the following headings: (1) Existing Conditions; (2) Goals; (3) Policies and Standards; and (4) Plans.
Existing Conditions

1. St. Helena is still largely open land. Of a total area of 2,836 acres, only 560 acres (about 20 percent) have been developed for urban uses.

2. About 400 acres of land are in the flood plain of the Napa River or Sulphur Creek.

3. About 2,300 acres are in agriculture or unused.

4. Most of the land around St. Helena is in the Agricultural Preserve.

5. Public open space owned and maintained for public use is limited to the school properties that are not used for active school purposes, Lyman Park, and the landscaped portions of Crane Park.

6. The Napa River provides an opportunity for joint city-county development of a recreation corridor along the river and the Silverado Trail. (See Scenic Highways Element.)

7. Sulphur Creek and other minor tributary streams provide opportunities for open space corridors for paths and bikeways.

Goals

1. To protect prime agricultural land from unnecessary urban encroachment.

2. To protect natural areas required for the preservation of plant and animal life.

3. To provide for public recreation.
4. To protect public health and safety.

5. To promote orderly urban growth in patterns that help to minimize the cost of public services, streets, and utilities.

Policies and Standards

1. The city will not approve rezoning for urban uses in areas designated in the General Plan Map for agricultural use. In the foreseeable future, or until other areas of the city have been substantially built up, the city will not approve rezoning for urban uses in areas designated in the General Plan Map as "Urban Reserve."

2. The city will protect wildlife habitat by maintaining stream banks in their natural condition, by preserving trees and ground covers, and by discouraging urban expansion into natural areas.

3. When new subdivisions are developed, the city will require the developer to dedicate land for park and recreation purposes, or pay a fee in lieu of such a dedication, in an amount that bears a reasonable relationship to the need for park land by future residents of the subdivision. The city will accept the dedication of park land only when its location and condition is suitable for park purposes. Otherwise, the city will require in-lieu payment and will seek to acquire other land for park purposes in a location reasonably accessible to the residents of the area.

4. In order to make available more open space in residential areas, the city will encourage the planning and development of larger tracts of land as a single unit. The yard requirements in the city zoning ordinance may be varied to allow for
the provision of common open space for active and passive recreation and for pedestrian and bicycle paths. Standards for the provision of open space will be established in the zoning regulations for planned unit development.

5. The minimum lot size in the city zoning ordinance for single and multifamily dwellings will be increased from existing standards to provide more adequate yard space in residential areas.

6. In reviewing future proposals for new school sites and other public uses, the city will require ample setbacks for buildings and other facilities to allow for landscaping and to avoid possible conflicts with nearby residential development.

7. As opportunities arise, the city will promote a system of separate pedestrianways connecting residential neighborhoods with parks, schools, and other destinations. The design of these linkages will be the joint responsibility of the city and private developers as the land is subdivided.

8. In general, the city will not permit the development of properties for urban uses in areas that are subject to flooding.

Plans

1. Areas of the city intended for permanent open space are indicated on the General Plan Map.

2. Zoning regulations designed to maintain permanent open space are contained in the City of St. Helena Zoning Ordinance, Article 3, 4, and 5.
SEISMIC SAFETY

Section 65302 (f) of the Government Code requires cities and counties to include within their General Plans,

"an identification and appraisal of seismic hazards such as susceptibility to surface ruptures from faulting, to ground shaking, to ground failures, or to the effects of seismically induced waves. . ."

The General Plan shall also include

"an appraisal of mudslides, landslides, and slope stability as necessary geologic hazards that must be considered simultaneously with other hazards such as possible surface ruptures from faulting, ground shaking, ground failure and seismically induced waves."

Earthquakes are classified according to "intensity" and "magnitude." Intensity is characterized by earthquake effects, such as destruction and perception, and as a result is a qualitative measure. The scale in common use for describing earthquake intensity is the Modified Mercalli Earthquake Intensity Scale. Magnitude is an instrumentally measured quantity related to the total energy released during the earthquake. The scale in common use for describing earthquake magnitude is the Gutenberg-Richter Scale.

This section of the St. Helena General Plan is organized under the headings: (1) Existing Conditions and (2) Policies and Standards.

Existing Conditions

1. There is no present evidence of any geologic fault in the floor of the Napa Valley. The nearest mapped fault is the Healdsburg Fault, some 15 miles west of Santa Rosa.
2. St. Helena can expect low-frequency waves from a severe earthquake with its epicenter in the Bay Area.

3. Historical data indicates that St. Helena has not experienced significant damage from any major earthquake. The Santa Rosa earthquake in 1969, with a magnitude of 5.7 on the Richter Scale, and a corresponding intensity of VII to VIII on the Modified Mercalli Scale, caused no damage in St. Helena. According to the "Preliminary Map of Maximum Expectable Earthquake Intensity in California," published in 1973 by the California Division of Mines and Geology, the maximum expectable earthquake intensity is a rating of VII to VIII, which is the same as for the Santa Rosa quake.

4. Schools in St. Helena comply with the earthquake standards of the Field Act.

Policies and Standards

1. The city has adopted the Uniform Building Code, 1970 edition, which contains building requirements and standards that will minimize the damage potential to new construction.

SCENIC HIGHWAYS

Section 65302 (h) of the Government Code requires cities and counties to include in their General Plan a Scenic Highway Element,

"for the development, establishment, and protection of scenic highways pursuant to the provisions of Article 2.5 of the Streets and Highways Code."

This plan element is the initial step toward the preparation of scenic corridor plans by appropriate local and state agencies
and the designation of "official scenic highways" by the State Scenic Highway Advisory Committee on application of local jurisdictions.

**Existing Conditions**

1. Roads and highways having significant scenic value through and around St. Helena are

   (a) Sections of Highway 29
   (b) Silverado Trail
   (c) Spring Mountain Road

2. None of the roads and highways in Napa County have been included in the State Master Plan for Scenic Highways.

3. The fine row of old trees on either side of Highway 29 on the north end of St. Helena is a feature of unusual scenic and historic value.

4. The location of the Silverado Trail adjacent to the Napa River provides an opportunity for parkway development of the corridor.

**Policies and Standards**

1. The City will cooperate with Napa County and the State Highway Division as appropriate in studies and plans for the protection of scenic values along Napa County roads and highways.

2. The City zoning ordinance will require building setbacks and landscaping and will set standards for the size, location, and design of signs along major streets and highways through the city. (See Land Use Element)
3. In considering zoning requests and the approval of new subdivision plats, the city planning commission and city council will seek to protect and enhance roadside views and vistas.

NOISE

Section 65302 (g) of the Government Code requires cities and counties to include within their General Plan a Noise Element, expressed,

"in quantitative, numerical terms, showing contours of present and projected noise levels associated with all existing and proposed major transportation elements. These include but are not limited to the following:

(1) Highways and freeways

(2) Ground rapid transit systems

(3) Ground facilities associated with all airports operating under a permit from the State Department of Aeronautics.

These noise contours may be expressed in any standard acoustical scale which includes both the magnitude to noise and frequency of its occurrence. The recommended scale is sound level A, as measured with A-weighting network of a standard sound level meter, with corrections added for the time duration per event and the total number of events per 24-hour period.

Noise contours shall be shown in minimum increments of five decibels and shall be continued down to 65 dBA. For regions involving hospitals, rest homes, long-term medical or mental care, or outdoor recreational areas, the contours shall be continued down to 45 dBA.

Conclusions regarding appropriate site or route selection alternatives or noise impact upon compatible land uses shall be included in the general plan.

The state, local, or private agency responsible for the construction or maintenance of such transportation facilities shall provide to the local agency producing the
general plan, a statement of the present and projected noise levels of the facility, and any information that was used in the development of such levels."

This section of the General Plan is organized under the headings of: (1) Existing Conditions and (2) Policies and Standards.

**Existing Conditions**

1. The principal source of transportation-related noise in St. Helena is vehicle traffic on Highway 29. Noise levels at the edge of the right-of-way are in the range of 65-75 decibels (dBA). The principal residential areas affected are north of Pine Street. The Silverado Trail carries fewer vehicles and little truck traffic and the adjacent land is sparsely developed.

2. The railroad is a source of loud intermittent noise, in the range of 80-90 decibels (dBA).

3. A significant source of noise not related to transportation is from wind machines that are used to protect the vineyards against frost and the pumps and other machinery used in vineyard operations. For the most part they are not located in populated areas of the city.

**Policies and Standards**

1. City Ordinance No. 305 prohibits any noise which disturbs the public peace.

2. The city will consider the environmental impact of transportation-related noise and other noise sources in the review and approval of subdivision plats and requests for changes in the zoning ordinance.
3. In general, the city will not approve new residential subdivisions immediately adjacent to a street or highway if $L_{10}$ noise levels at the property line exceed 55 decibels on the A Scale (dBA). ($L_{10}$ is the noise level that is exceeded 10 percent of the time.)

4. In general, the city will not approve the location of any new street or highway through a residential area if the $L_{10}$ noise level at the edge of the right-of-way is projected to exceed 55 decibels on the A Scale (dBA).

5. Information describing present and projected noise levels on state highways and county roads through and adjacent to St. Helena will be kept on file in the City Hall for use by the general public.