

**CIRCULATION ELEMENT**

**A. PURPOSE.....1**

**B. EXISTING CONDITIONS .....2**

**1. ISSUES OF LOCAL SIGNIFICANCE.....4**

**2. RELATIONSHIP TO REGIONAL CIRCULATION PLANS .....6**

**C. TRAFFIC .....6**

**1. PATTERNS.....6**

**2. VOLUME.....7**

**3. TRUCK TRAFFIC .....8**

**4. INTERSECTIONS .....8**

**5. TRAFFIC POLICIES .....9**

**D. PARKING .....10**

**E. PUBLIC TRANSIT.....12**

**F. ALTERNATE MODES OF TRANSPORTATION .....13**

**G. ENERGY .....15**

**H. PUBLIC SERVICES .....18**

**1. SOLID WASTE, REDUCTION AND RECYCLING .....19**

**2. STORMWATER SYSTEM .....21**

**3. TRANSMISSION AND UTILITY FACILITIES .....23**

**4. WASTEWATER DISPOSAL / ONSITE WASTEWATER TREATMENT SYSTEMS .....24**

**5. WATER SERVICE .....25**

**A. PURPOSE**

The Circulation Element is a required element of the City’s General Plan. Government Code Section 65302(b) states that a circulation element shall consist of: “...*the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other local public utilities and facilities, all correlated with the land use element of the plan.*” The California General Plan Guidelines describe the circulation element as “*an infrastructure plan addressing the circulation of people, goods, energy, water, sewage, storm drainage, and communications.*”

The State of California General Plan Guidelines require a Circulation Element to address the following issues at a minimum:

- Major thoroughfares
- Transportation Routes
- Terminals
- Other local public utilities and facilities

Public facilities and services are required to be addressed in a General Plan, but is not one of the seven required elements. Instead, these topics are often included in the Land Use or Circulation Element. In this case, public facilities (such as the school and town

hall) are discussed in the Land Use Element and public services, including water, solid waste and utilities are included within this Circulation Element.

Similarly, energy does not require its own element, but is also closely linked with land use and circulation issues and included in this element as Item G. According to the General Plan Guidelines, an Energy Element should address both energy efficiency and energy conservation along with energy generation facilities. Further, more recent regulations require local jurisdictions to do their part to reduce greenhouse gas emissions and include policies for complying with AB 32.

This combined Element provides goals, objectives and policies that will help to control traffic volume and reduce traffic issues in Trinidad; it also provides information and guidance regarding the adequacy, provision and expansion of City's public services. Because the City is generally built-out, the focus of the transportation policies is to maintain a safe environment for vehicle and non-motorized transportation (e.g. pedestrians and bikes) and encourage alternative modes of transportation to help minimize the adverse affects associated with single-occupant, gas-powered cars. The main goal of the energy policies is to reduce greenhouse gas emissions. The focus of the public service policies is to ensure provision of adequate services into the future while conserving natural resources.

## **B. EXISTING CONDITIONS**

### *Roads and Traffic*

Located 15 and 25 miles north of Arcata and Eureka respectively, Trinidad and the surrounding roadway system are comparable to that of many rural communities. Trinidad residents are dependent on a single highway (U.S. Highway 101) for access to major services, employment, and commercial areas. Highway 101 also facilitates visitor access to Trinidad. Scenic Drive and Westhaven Drive provide access to some areas south of the City. Stagecoach Road and Patricks Point Drive provide access to the north. However, Hwy 101 is the only access for traveling more than a few miles north or south, including to the closest towns; this is true for autos, pedestrian and bicycle modes of transportation. There are also no east-west connections, with the Pacific Ocean to the west and private commercial timber land to the east. This condition puts Trinidad and the surrounding communities at risk of being cut off in an emergency that compromises Hwy 101; a tsunami for example could cut off both north and south routes.

In the City, there are approximately 6.27 miles of paved, impermeable roadway. The majority are narrow, local streets, with the exception of Trinity, Main and Edwards Streets that wind through the Planned Development / Mixed Use district and provide access to the Harbor and beaches. These heavily traveled streets should be kept well maintained, and where necessary, paved. It should also be recognized that wider, straighter streets often result in faster traffic speeds, which is an issue of local concern. Most of the roads around the City are minimally improved and inadequate to handle

significantly more development. Some streets have no gutters or sidewalks—this is to preserve the small village character desired by the residents and sought after by visitors. These undeveloped right-of-ways have advantages; there are high absorption and drainage potentials for surface runoff from adjacent paved areas. However, certain locations could be appropriate for traffic calming improvements (such as street intersection bulb-outs) and plantings, should funding become available.

Roadways tend to have a uniform classification system, which is defined below and can be seen on Figure 11.

**Highway:** A high-speed, limited access roadway serving primarily regional and county-wide travel. California State Department of Transportation (Caltrans) controls the design, operation, and maintenance of highways. Highway 101 provides the primary access into Trinidad.

**Arterial:** A medium-speed, medium capacity roadway that provides travel and access within the City and access to highways. Trinidad does not have any roads that would be considered arterials.

**Primary Collector:** A relatively low-speed, street that provides access within and between neighborhoods. Major Collectors usually serve short trips and are intended for collecting trips from local streets and distributing them to Arterial streets or the Highway. Main, Trinity and Edwards Streets are the primary collectors in Trinidad.

**Secondary Collector:** A relatively low-speed street that provides a connection between Arterials and Major Collectors and direct access to parcels. They handle a lower volume of traffic than Major Collectors.

**Local Street:** A low-speed, low-volume street that provides access to adjacent land. Local streets are designed for trips within neighborhoods and to Collector and Arterial streets, and not to serve through-traffic.

**Access Road:** A small road, such as a service road, that provides access to a limited area where cars or public are not normally allowed. The roadway on Trinidad Head is an example.

Many roads in the Trinidad area embody the character of this unique coastal area, due to the spectacular views of the ocean that can be seen while driving down these roads. Scenic Dr., Stagecoach Rd., Patrick's Point Dr., and Edwards Street are four such roads that are considered the main scenic routes in the Trinidad Planning Area. Although these routes have not been state or regionally dedicated, they are still scenic and may be locally designated.

### *Energy, Greenhouse Gasses and Climate Change*

The State of California has taken significant steps to combat climate change through legislation. The one most pertinent to local jurisdictions is AB 32, passed in 2006. This Assembly bill instituted a mandatory limit on greenhouse gas (GHG) emissions – reducing emissions in California to 1990 levels by the year 2020, or 25% below

forecasted levels. The bill also directs the California Air Resources Board (CARB) to establish a mandatory reporting system to track and monitor emission levels and requires CARB to develop various compliance options and enforcement mechanisms.

Although a comprehensive emissions inventory and targets have not been completed for Trinidad, a Climate Action plan has been developed to provide measures and recommendations for reducing GHG emissions in Trinidad. Since 1990, transportation has been one of the fastest-growing sources of GHG emissions in CA. It is the largest sector emitting CO<sub>2</sub>, the most prevalent GHG, which is especially true in Trinidad, where there is no industry or power generation or other large producers of GHG. In addition, because Trinidad is fairly isolated with few services as well as being a destination community. With few connecting corridors, automobiles are the dominant means of transportation. For this reason, reduction of GHG emissions in Trinidad is closely tied to traffic patterns, and is therefore included within the Circulation Element.

### *Public Services*

The City's provision of public services can affect land use and development patterns in and around the City. Most residents have expressed a desire to maintain Trinidad's small-town, rural character. This indicates that public services should be kept to a minimum that adequately serves the needs of residents, and that encourages limited sustainable growth. Services provided by the City of Trinidad include land use regulation, administrative responsibilities associated with being an incorporated City, operation of the City water system, police protection (currently the City contracts with the Sherriff's Office for police services), street maintenance, cemetery maintenance, and a storm drain system. The City also provides support for the Volunteer Fire Department, the Trinidad Branch of the Humboldt County Library and others. Private companies own the electric, gas, telephone, cellular, and cable services, though they are regulated by the Public Utilities Commission. Public facilities, such as buildings and parks are discussed in the Land Use Element.

Increasing land use conflicts and issues have resulted in a recent increase in the development of additional land use ordinances, including a Views and Vegetation ordinance (2006-02), and OWTS Management Program (Ordinance # 2010-01), a VDU Ordinance (2012-01) and an ADU ordinance (2012-02). Major expenditures of the City have been limited to police protection, improving local streets, updating the water supply system on Luffenholtz Creek, and responding to increased State regulations.

## **1. Issues of Local Significance**

Traffic in the City of Trinidad is unique in that it experiences heavier, peak periods during weekends and during the summer when there are a high number of tourists rather than during traditional commuter peak hours. Many of the visitors travel by car from other areas into Trinidad for fishing and vacation during summer and peak fishing seasons. Though welcome, this influx of people can, at times, place a burden on Trinidad's circulation, car speeds, and parking facilities—particularly on Trinity Street.

Speeding and blind driveway intersections on Edwards Street are current issues of significant concern in town.

Though much of Trinidad's traffic is generated by tourism, which is inherently auto based, Trinidad is small enough that it is generally a very walkable community for both residents and visitors with a few exceptions. One of the areas with the most congestion is at Trinidad Elementary School when parents are dropping off and picking up their children. Special events such as the Fish Festival also cause traffic congestion and parking problems. Sometimes opening days of fishing or crabbing seasons or holiday weekends also cause truck or vehicle congestion, especially in the Harbor area. There is a general consensus that a problem exists with the Freeway entrance/exit area, where seven access ways converge, and not every direction has a stop sign. Solutions that have been discussed include a redesign of the intersection, additional stop signs, and limiting the amount of directional signage.

Parking is an issue that tends to come and go as being perceived a problem. When the sport fishing industry was more prevalent, prior to recent restrictions and shorter seasons, trucks with boat trailers would park all over town, leading to a lack of available parking for residents and other tourists. Currently, parking is not considered a major problem except during special events such as the Fish Festival.

In Trinidad, maintenance of the street system is an ongoing problem. The Pavement Management System Plan (2000) exists to address street management. The document outlines the pavement surface condition of roads in Trinidad, recommends repair actions, gives estimated repair costs, and prioritizes each section. This document, which is to be regularly updated, reflects both the needs and desires of the residents, as well as availability of funding.

Residents also expressed interest in other road and traffic issues in the City, including:

- bicycle and pedestrian safety on Scenic Drive
- coastal trail connections
- pedestrian access around the City entrance, including the freeway underpass and Westhaven drive
- lower and/or shielded or directed street lights in town (to balance public safety and light pollution)
- slowing traffic on Trinity Street and Edwards
- lack of visibility and parking spaces defined for the various users and modes of transportation (e.g. RV's, boat trailers, etc.) along Edwards Street
- public transportation improvement
- a decrease in street signage
- walking tour of Trinidad with benches and trail markers
- support for alternative modes of transportation

An issue that has recently evolved is the potential for an interchange to be built on Hwy 101 south of Trinidad to access Trinidad Rancheria. This will be a large CalTrans project that will include collaboration of the Trinidad Rancheria with the City. An

interchange will not only significantly affect traffic patterns in and around town, but also facilitate development on the Rancheria property, an issue that will also have serious implications to the town of Trinidad.

Another issue that relates to circulation outside City limits is emergency access to the east. Due to factors such as severe winter storms and geologic hazards such as earthquakes, landslides and tsunamis, Trinidad could potentially be cut off from other population centers and services both north and south on Hwy 101. The only available routes to the east are logging roads, and there is interest by residents in obtaining emergency access, and this would require coordination with the Green Diamond Resource Company.

In addition to traffic issues, Trinidad residents express a strong desire to make the community more sustainable long-term. This includes energy efficiency and local self-reliance, such as local, community production of foods.

## **2. Relationship to Regional Circulation Plans**

There are several regional and county planning documents that should be considered when planning for traffic circulation in and around the City. An example of such a document is the Humboldt County General Plan Circulation Element and background document "Moving Goods and People" (2002). This also includes the Humboldt County Association of Governments (HCOAG) regional planning efforts, including: the 2008 Regional Transportation Plan Update; the 2008 Regional Pedestrian Needs Assessment; the 2004 Regional Bicycle Transportation Plan Update (currently being updated); the 2010 Regional Trails Plan and the 2008 Coordinated Public Transit Human Services Transportation Plan. Because of Trinidad's small size, it does not have a large impact on these regional planning efforts. However, Trinidad should continue to participate in HCOAG, and this Circulation Element is consistent with these plans and documents. Future reference to documents referenced by the Circulation Element shall use the current versions or revisions.

## **C. TRAFFIC**

### **1. Patterns**

The traffic-carrying function of Trinidad streets is well established. One main route provides access between the freeway interchange and the boat harbor: Main to Trinity to Edwards Streets. All other city streets primarily provide access to residential lots. The location of existing and planned land use does not require non-residential related traffic on these local streets. As mentioned in a previous section, much of the traffic in Trinidad is generated from outside City limits; residents from the surrounding areas depend on Trinidad shops and the elementary school. A significant portion of tourists and visitors also enter the City for its many scenic and coastal resources.

Hwy 101 is the only paved route that connects Trinidad with towns to the north or south, which limits alternative transportation options. A coastal trail exists, but it currently requires crossing a river and traveling by beach. This alternative transportation limitation is particularly a problem since most residents are either older and retired or work, commuting south to McKinleyville, Arcata or Eureka. According to the 2000 Census (this data is not yet available for the 2010 Census), 66.5% of Trinidad residents drove alone to work, 6.7% carpooled with one other person, 1.2% (or 2 people) used public transportation, 8.5% walked to work, and 17.1 worked from home. Among those who commuted to work, most left between 7:30am-7:59am. Seventeen and a half percent of people took less than 10 minutes to get to work, but almost 30% drove for 30 to 34 minutes, which likely means driving to Eureka. Reducing these vehicle miles traveled would reduce energy consumption and thus, reduce greenhouse gas emissions.

Scenic Drive, Stagecoach Road, Patrick's Point Drive north of the intersection with Stagecoach Road, and Edwards Street are the four scenic and heavily-used roads in the planning area. These roads, with the exception of Edwards Street, are still used by the local Trinidad Elementary School bus, even with school bus route cutbacks. The current route extends as far north as the intersection of Patricks Point and Westgate Drives and goes as far south to the Crannel Road exit on Hwy 101.

## 2. Volume

Traffic counts on Highway 101 at the Trinidad exit are recorded by CalTrans and posted on their website (<http://traffic-counts.dot.ca.gov/index.htm>). South of the Trinidad exit the current average daily traffic (ADT) count is approximately 8,800 and on the north side of the Trinidad exit, ADT is 5,100. Streamline Planning Consultants recorded traffic counts in 2009 for major city streets in Trinidad (in ADT):

- Edwards St: ~1,290
- Main St: ~3,170
- Trinity St: ~2,500

Stagecoach Road, Patrick's Point Drive, the east side of Frontage Road, Westhaven Drive, Fox Farm Road, Trinidad Scenic Drive and other county roads are secondary collectors that provide access into the City from the surrounding County areas. These take the pressure off the major roads. Traffic counts were recorded by Streamline Planning Consultants in 2009 for county roads in the Trinidad area (in ADT):

- Westhaven Dr.: ~865
- Scenic Dr.: ~870
- Patrick's Pt. Dr.: ~1,600

The Humboldt County Pedestrian Needs Assessment (2008) revealed five main trip generators in the City: (1) the Shopping Center which currently houses the major shopping market, Post Office and other service industries; (2) the elementary school;

(3) public beaches, Trinidad Head and coastal trail system; (4) Trinidad Pier and Harbor; and (5) the RV Park.

Streamline Planning Consultants, contract City Planners, analyzed traffic counts performed by the County of Humboldt and Streamline Planning Consultants from May 27, 2010 to July 5, 2010. The vehicle volumes provide information regarding direction and volume of traffic, peak hours, and average daily traffic during the early summer. Although the data does not provide an entire year's worth of information, summer traffic scenarios, trends, and conditions can be speculated. One traffic counter was located at the entrance to Trinidad and the other, on Edwards Street, southwest of Van Wycke Street. This portion of Edwards Street provides only vehicular access to the harbor, beach and Trinidad Head.

At the entrance to Trinidad, peak vehicle trips going east or west ranged from 240 to 348 per hour during the peak hours. The peak hours varied, but noon or 4pm were the most frequent peak times during the week, possibly corresponding with the lunch hour and tourist activity. Peak traffic during the weekends occurred most frequently at 1pm with a traffic average of 332 vehicle trips per hour. Total vehicle trips for the entire data collection period averaged 3,392 per day.

The harbor and beach are important access to Trinidad Bay for fishermen. The only other large boat launches with ocean access can be found 23 miles south in Eureka or 60 miles north in Crescent City. Traffic data was collected from May 27, 2010 to July 5, 2010 to capture the salmon sport-fishing season. During that time period, the most harbor traffic occurred over the weekend of May 29-30, the opening weekend of salmon season; there were over 2,000 vehicle trips per day. The majority of cars were passenger cars; pick-up trucks were the second most prevalent vehicle.

### **3. Truck Traffic**

Currently, Trinidad does not have defined truck routes, although through-truck traffic naturally uses Main Street. There are a few truck traffic problems, mainly centered on Edwards Street. Truck noise, hours, speed, and lack of traffic calming structures are the major complaints. It can be presumed that much of the truck traffic crossing through town is serving businesses such in the Harbor area, and along Trinity and Main Streets, particularly for the shopping center. Excluding traffic counts, traffic destination studies have not been performed.

### **4. Intersections**

As noted earlier, the intersection at the entrance of town has been identified as a problem for all users, including vehicles and pedestrians due to the number of accessways that converge here and the fact that not all of them have stop signs. There have also been issues noted with the intersection of Main, Stagecoach and Trinity, and Trinity and Edwards Streets, mainly due to speeding vehicles. Program CIRC-4.1.1

encourages the use of traffic-calming measures to provide safer pedestrian and bicycle access and consequently, increased vehicular safety as the result of slower speeds.

Several intersections were also analyzed in the Trinidad Walkability Study. Overall, because of its small size, most areas of Trinidad are accessible on foot. However, there are still some existing limitations. Again, the main entrance intersection was the one with the most problems. In addition, there are areas of low connectivity that make it difficult for pedestrians to get from one place to another. Solutions may include establishing walkways, traffic-calming measures, and additional trails and connectors, especially through residential areas. Installing benches on trails for respite may increase trail use as a viable alternative for avoiding exposure to dangerous intersections. Intersections will also be impacted if and when large-scale development, such as that on Trinidad Rancheria, or large subdivisions come to fruition. Impact studies should be seriously taken into consideration and modifications made to intersections to protect public safety, if necessary.

## 5. Traffic Policies

**Goal CIRC-1: Provide and maintain a traffic-flow design of the City for the efficient transport of goods, control of congestion, and preservation of the characteristics and small-town atmosphere of the City.**

*CIRC-1.1* Maintain the current street configurations. Maintain or reduce current paving or undeveloped right-of-ways and widths of streets with the exception of Main, Trinity and Edwards Streets. This will maintain safe speeds compatible with pedestrian safety and circulation and preserve the residential character of Trinidad.

*CIRC-1.2* Construct all road maintenance and improvements in accordance with a Pavement Management System Plan and the standards established by the City Engineer. This should be updated annually or as needed to ensure roadway improvements are designed to improve circulation in Trinidad and to meet the projected travel demands.

*CIRC-1.3* Any land use that generates significant amounts of auto or truck traffic should have direct access to Trinidad's main route via Main, Trinity, and Edwards Streets, which connect Highway 101 to the Harbor.

*CIRC-1.4* Any new or existing lot in the City intended for a new residential occupancy shall have at least 25 feet of frontage on a publicly dedicated road. On lots, when a private right-of-way serves as access to more than one dwelling, the right-of-way should be at least 25 feet wide and shall be offered to be dedicated to the public. Gated communities that restrict public access shall not be allowed within City limits.

*CIRC-1.5* Private right-of-ways serving as access to more than one dwelling shall not be allowed to restrict public access by placement of a gate or other obstacles.

*CIRC-1.6.* Pursue funding to study and construct an appropriate traffic control option at the Trinidad/Highway 101 Intersection.

*CIRC-1.7* Participate in the review process for any future proposal for a new Hwy 101 interchange. Request that CalTrans keep the City informed of any proposals and provide pertinent background information and studies.

*CIRC-1.8* Encourage the Trinidad Rancheria to coordinate with the City, particularly by keeping the City informed of upcoming projects, providing pertinent background information and studies related to such projects and allowing the City to provide input on development proposals.

*CIRC-1.9* Work with Green Diamond Resource Company, or the current owner of the timberland to the east of the City, to provide access to residents to logging roads as an alternative route to Hwy 101 in the case of an emergency that compromises Hwy 101.

*CIRC-1.10* Decrease individual reliance on vehicles by participating in regional programs and otherwise encourage the reduction of vehicle miles traveled in order to reduce greenhouse gas emissions and energy consumption.

*Program CIRC-1.10.1:* Promote Car Pool or Ridesharing programs through outreach and education

## **D. PARKING**

Parking in Trinidad is provided both by on-street parking as well as off-street parking for residences and commercial areas. Handicapped parking is also available for visitors and residents. Commercial establishments require parking for both employees and customers.

As of 2011, 85 on-street parking spaces exist in Trinidad in the Mixed Use / Commercial zone which includes two handicapped and three 20-minute limit spaces (see Figure 11). Off-street parking includes parking spaces, aisles, access drives and landscaped areas. Generally 2 off-street parking spaces are required for residences within City limits. The number of spaces required for businesses are based on square footage. The Planned Development zone (now MU) along Main, Trinity, and Edwards Streets includes a mix of parking requirements depending on the mix of uses. Currently a parking-in-lieu fee is also allowed in this zone by the zoning ordinance if parking requirements can not be met; however, this system has been controversial.

The City Council occasionally appoints a Parking Committee to assess parking sufficiency. Recommendations from the Ad Hoc Parking Committee (14 October 1999) address parking issues in and near properties zoned PD (since revised to MU). Though

no “parking crisis” was found and any minor problems can be resolved by signage or ordinance revisions, the following recommendations were made:

- An alternative to parking, such as a payment of in-lieu fees, should continue to be an option;
- Parking spaces are also needed for other types of vehicle storage, such as boats and recreational vehicles;
- More visitor parking is needed—especially near public access points, such as along Edwards Street between Van Wycke Street and the Memorial Lighthouse. Time limits, such as designating a 2-hour parking limit along the south side of Edward Street. Impacts to adjacent residential areas should be considered;
- Street improvements on the East side of Hector Street should be required to provide additional public parking when the land is developed; and,

Parking spaces result in an increase of impermeable surfaces within the city and increased surface runoff. Sometimes they conflict with septic system area requirements and slope stabilization.

**Goal CIRC-2: Develop adequate parking to meet the reasonable needs of all building and land users while retaining the City’s characteristics and without establishing regulations that unnecessarily encourage automobile usage**

Parking Policies

*CIRC-2.1* Insure that sufficient parking facilities are provided for all land uses by requiring new developments to provide parking to meet their needs on-site or within close proximity to their sites.

*Program CIRC-2.1.1:* Conduct circulation and parking studies as needed to stay abreast of potential new opportunities and problems

*CIRC-2.2* In-operable vehicles and other storage should not be allowed in required off-street parking spaces.

*CIRC-2.3* Public parking areas with 2-hour parking limits should be provided, when found necessary, along the South side of Edwards Street for public access to trails and vista points.

*CIRC-2.4* Increase the flexibility of parking requirements for the Mixed Use Zone to allow existing structures to be utilized for commercial uses.

*Program CIRC-2.4.1:* If alternate parking options are developed, they should be implemented in a manner that reduces the impact of development, encouraging fewer parking lots, and more buildings, better transit, and safer streets. Such programs may include developers paying “in lieu” fees rather than providing required parking so the City can grant fees toward a fund for sustainable transportation, sidewalks, trails, etc.

**CIRC-2.5** Consider partnering with landowners inside or near the City limits with large vacant parcels, parking lots or shuttles (such as the Trinidad Rancheria) to accommodate parking for special events such as the Fish Festival.

**CIRC-2.6** Provide parking for tourists in centralized locations that encourage walking around town.

## **E. PUBLIC TRANSIT**

Prior to the establishment of bus service in Trinidad in 1975, there was no real means of transportation for those that did not have access to an automobile since there are no alternative routes to Hwy 101 for pedestrians or bicyclists to get to McKinleyville or other destinations south. Today, the Trinidad area is the northernmost stop of the Redwood Transit System, but there are only six stops per day on the weekdays and four stops during the weekend. Since the formation of this bus route, the City has participated in the program and provided bus stops. This gives residents some options for taking the bus. According to the 2000 census, only 1.2% of Trinidad residents (or 2 people) use public transit as a way to travel to work. This low ridership problem has been attributed to the infrequent bus trips and the number of stops/time involved in a ride between Trinidad and Eureka. In talking with residents, many say they would ride the bus if it were more convenient.

Based on Trinidad demographics, transportation for seniors or disable persons is especially important since Trinidad has a large older population. According to an American Association of Retired Persons (AARP) research brief by the Public Policy Institute, *Understanding Senior Transportation: Report & Analysis of a Survey of Consumers 50+*, "transportation is an essential part of the community infrastructure that individuals need to gain access to the goods, services, and social contacts that support their day-to-day existence and quality of life." Transportation equates to mobility, independence, self-sufficiency, accessibility and safety. Transportation enables many senior adults to live independently and to stay connected with family, friends, and community resources. Alternatives to public transportation exist, however these options, such as taxis and dial-a-ride, are not nearly as cost-effective and can be cost-prohibitive.

**Goal CIRC-3: Maintain and improve a safe, effective, and sustainable public transportation system that interconnects the public, institutional, residential, commercial, and recreation areas.**

### Transit Policies

**CIRC-3.1** Work to improve and expand regional bus service via Humboldt Transit Authority (or other provider such as Trinidad Rancheria) to meet those transit needs that can be reasonably met, with particular emphasis on the needs of the elderly, handicapped, low income, and community college students. Support the regional bus

service so as to continue to offer transit services, and to ensure that the financial stability of the transit system continues.

*Program CIRC-3.1.1:* Encourage the bus service to expand hours and increase trips between the towns so more individuals can utilize the service. Support a McKinleyville-restricted bus system so the existing Trinidad-Eureka trips have consolidated stops and take less time.

*Program CIRC-3.1.2:* Provide information to the extent possible to encourage Trinidad-friendly bus service.

**CIRC-3.2:** Public transportation should support access to social services and mitigate the impacts of service changes to social service clients.

*Program CIRC-3.2.1:* Promote a Trinidad dial-a-ride service for the elderly and disabled.

**CIRC-3.3** Encourage a shuttle system with a fixed route to the Trinidad Harbor. This would reduce individual vehicle use and provide easy access to the Harbor.

## **F. ALTERNATE MODES OF TRANSPORTATION**

The community desires transportation alternatives to the automobile and the same time, solutions to present-day congestion. Citizens want traffic in residential neighborhoods to be slower, less disruptive and less dangerous to pedestrians. Feasible alternatives to traditional automobiles are bicycle and pedestrian ways—including trails, paths, sidewalks, bike lanes and similar facilities—and facilities for alternative vehicles, such as charging stations or ecologically-friendly fuel stations, such as biodiesel or petroleum. Though there are not any alternative fuel stations as of yet, Trinidad is open to offering their community resources that align with the Energy goals and Climate Action Plan goals found in the Land Use Element.

The City implemented a previous General Plan policy requiring that the City formalize its trail system. This system included the “beaches, the existing Trinidad Beach State Park trails, and ascends the bluff at Galindo Street to provide convenient pedestrian access from Edwards Street to the Harbor, the Old Wagon Road from Wagner Street to Parker Creek Trail, the private road extending from Scenic Drive along the East branch of Parker Creek to the beach, and the beach extending Southeasterly from Parker Creek to the City limits.” This was completed through the development of the “Trinidad Trails Plan.” This draft document describes each of the existing trails and their history and conditions. The City has approved trail marker descriptions so a uniform method for trail identification is implemented on all these trails.

The City also installed benches through a grant from the Air Quality Control Board to increase both pedestrian traffic and reduce local reliance on automobiles. The Trinidad

Planning Commission established a priority ranking for locating benches. And the plan for placement of these amenities can be reviewed in the Trinidad Trails Plan.

The Humboldt County Association of Governments published the *Regional Bicycle Facilities Plan 2004 for Humboldt County*. The plan designates one Class III route (shared road with signs) from Highway 101 to the end of Edwards Street. The following are general policies related to pedestrian and bicycle facilities. Additional related policies are also found in the Recreation section.

**Goal CIRC-4: Provide a pedestrian, bike and equestrian-friendly environment that allows Trinidad residents and visitors reasonable access to the City and its views, but also preserves the characteristics of Trinidad and the surrounding area.**

#### Alternative Transportation Policies

*CIRC-4.1* Provide for and develop pedestrian and bicycle facilities to serve the transportation and recreational needs of the residents. Where feasible, these can include benches and attractive, secure and accessible bike parking, etc.

*Program CIRC-4.1.1:* Use traffic calming measures, where appropriate, as a means of providing safe pedestrian and bicycle access. Traffic calming measures include, but are not limited to, roundabouts, horizontal traffic diversions that create curves in the road, curb extensions, and traffic circles. These can be used to encourage the safety awareness and cycle and pedestrian education of drivers.

*Program CIRC-4.1.2:* Review land development along and adjacent to designated pedestrian and bicycle routes to ensure that adjacent new development is consistent with established right-of-ways and compatible with the safety and capacity of the corridor.

*Program CIRC-4.1.3:* Encourage the placement of secure, weather-protected bicycle parking and/or storage facilities at bus stops, businesses, and public buildings.

*CIRC-4.2* Provide safe and convenient pedestrian access to all areas of the City through routine maintenance and repair of sidewalks on the main arterial routes, so that visitors are encouraged to park vehicles in a centralized area and walk.

*Program CIRC-4.2.1:* Complete an assessment of pedestrian and bicycle needs as background information to prioritize allocation of funds consistent with the goal of increasing the safety, functional efficiency, interconnectivity, and capacity of pedestrian and bike routes. The level, design and quality of service for pedestrians and bicycles should be increased when expanding roadway capacity for motorized circulation. If road expansion is infeasible, the City should consider shared lane markings (sharrow). Road resurfacing projects should provide improved access and safety for bicycles.

*Program CIRC-4.2.2:* Published design standards, such as the Caltrans Highway Design Manual or equivalent, shall be used by the City Public Works Department for the design and construction of pedestrian and bicycle paths. All new hard surfaced walkways shall be wheelchair accessible. Existing hard surfaced walkways should be improved to be wheelchair accessible when funding is available or when development projects occur on adjacent parcels.

*Program CIRC-4.2.3:* Continue to update the City's Trails Plan, where necessary, to encourage pedestrian and / or non-motorized vehicular access to appropriate areas open to the public.

*CIRC-4.3* Both sides of Main Street and Trinity Street shall have continuous sidewalks. Edwards Street should have a sidewalk on at least one side of the street, providing linkage to pedestrian trails. Parking should be limited to one side of Edwards Street.

*CIRC-4.4* Install sidewalks where necessary for pedestrian safety. Limiting sidewalk installation and street improvements helps retain the present undeveloped right-of-ways and will preserve its rural character.

*CIRC-4.5* Promote horseback riding as a form of recreation and transportation by providing equestrian trails, where feasible.

*CIRC-4.6* Support the Coastal Conservancy's 'Completing the California Coastal Trail project (SB 908) and encourage trails and connectors.

*CIRC-4.7* Pursue opportunities to provide transportation corridor linkages for pedestrian trails and bike routes as well as scenic recreational routes. Linkages that should be considered include the Hammond Trail and Pacific Coast Bicycle Route (CONS-20.5)

## **G. Energy**

Energy consumption and production are closely linked to the physical development of land. Land use development policies strongly impact how much energy is consumed, and zoning and development strategies can affect the ability to develop and transport future energy resources. The majority of the energy consumed in the county is imported, with the exception of biomass energy and a small amount of natural gas, as per the findings of the Background Technical Report for the Humboldt County General Plan 2025 Energy Element dated October 2005. There are also several potential local renewable energy resources that are as yet mostly untapped, including wind, wave, biomass, solar and micro-hydroelectric. Conservation and increased efficiency are also ways in which to essentially boost energy capacity by reducing demand.

In 2003, the Redwood Coast Energy Authority (RCEA) was formed as a joint powers authority (JPA), representing seven municipalities, including Trinidad, and Humboldt

County. As a JPA, RCEA is governed by a board composed of a representative from each jurisdiction. RCEA's mission statement is:

*The Redwood Coast Energy Authority's purpose is to develop and implement sustainable energy initiatives that reduce energy demand, increase energy efficiency, and advance the use of clean, efficient, and renewable resources available in the region.*

As the regional energy authority RCEA implements County Energy Element strategies on a regional basis through a Comprehensive Action Plan for Energy. This action plan will be maintained by the RCEA Board. The City will also implement Energy Element strategies through policies, implementation measures, and standards contained in this Plan.

This Energy section promotes self-sufficiency, independence, and local control in energy management and supports diversity and creativity in energy resource development, conservation, and efficiency. This strategy can reduce the drain on the county's economy for energy, stimulate local businesses and the economy, and help the City meet greenhouse gas emission reduction targets.

### **Goal CIRC-5 Reduce dependence on non-renewable energy resources.**

#### Energy Policies

**CIRC-5.1** Encourage energy efficiency and use reduction and conservation in new and existing development and set an example by improving the City's own energy efficiency and conserving energy wherever feasible.

*Program CIRC-5.1.1:* Work with the RCEA to conduct energy audits on all City facilities and add recommended energy improvements into the City's capital improvement program utilizing RCEA to take maximum advantage of utility incentive programs to minimize project costs.

*Program CIRC-5.1.2:* Purchase or operate Energy Star® electrical equipment (considering life – cycle costs) to follow principals of energy efficient source reduction and resource recovery for its own operations and promote these principals in the community.

*Program CIRC-5.1.3:* Coordinate with the RCEA (Redwood Coast Energy Authority) to educate and encourage property owners to conduct energy audits to reduce energy consumption through utilization of free programs sponsored by utilities and other incentives.

*Program CIRC-5.1.4:* Review and revise the Zoning and Subdivision Ordinances and Design Review to incorporate State energy standards for energy-efficient development. Consider encouraging LEED certification for new and renovated

commercial structures and GreenPoint rating for residential dwellings. Provide information, technical assistance, and other incentives or conditions of approval when appropriate.

*Program CIRC-5.1.5:* Obtain assistance from community resources (such as RCEA) when reviewing commercial buildings and major subdivisions during the design and approval process to incorporate energy-efficient design suggestions into the plans.

**CIRC-5.2** Encourage renewable energy such as wind, solar, micro-hydro and waves in new and existing development and set an example by utilizing renewable energy in City facilities where feasible.

*Program CIRC-5.2.1:* Conduct renewable energy feasibility studies for city facilities and program feasible projects into the City's capital improvement program. Update feasibility studies periodically as the renewable energy incentive and technology landscapes change and as new grant opportunities arise.

*Program CIRC-5.2.2:* Adopt a solar access ordinance which would require development applications to be reviewed for site orientation and to ensure that the development will not adversely impact solar access of neighboring properties by shading.

*Program CIRC-5.2.3:* Revise the zoning ordinance to allow alternative energy facilities for onsite use as a conditional use in all zones within the City. Solar energy facilities for on-site use shall be allowed as a permitted use in all zoning districts.

*Program CIRC-5.2.4:* Work with RCEA to provide information, marketing, training and education to support renewable energy development.

*Program CIRC-5.2.5:* Investigate micro-hydro opportunities in Luffenholtz Creek during the wet season to provide energy for the water treatment plant (the City's largest municipal energy consumer).

**CIRC-5.3** Use renewable energy to reduce greenhouse gas emissions.

*Program CIRC-5.3.1:* Install alternative energy systems in public buildings and consider renewable energy generation options in any future municipal buildings.

*Program CIRC-5.3.2:* Support installation of a public charging station for electric vehicles and an alternative fuel station as these technologies become more widely available.

*Program CIRC-5.3.3:* Adopt the 2010 California Green Building Standards for use in any new and remodeled construction that requires a building permit

*Program CIRC-5.3.4:* Engage in community outreach to inform people of financial aid options and long-term benefits of utilizing alternative energy sources. Provide incentives as available for installation and utilization of alternative energy sources

### **Goal CIRC-6 Improve air quality.**

*CIRC-6.1* Participate in Regional Planning to Improve Air Quality: Continue to cooperate with the North Coast Air Quality Management District (NCAQMD) in implementing the *Regional Clean Air Plan*.

*CIRC-6.2* Air Quality Standards: Seek to exceed State and Federal standards for air quality. Review new project proposals for consistency with NCAQMD regulations and guidelines.

*Program CIRC-6.2.1:* Adopt a plan and timelines to reduce greenhouse gas emissions for City operations through the establishment and implementation of a Greenhouse Gas Reduction Action Plan or Climate Action Plan. As part of the Greenhouse Gas Reduction or Climate Action Plan, create greenhouse gas reduction measures in program areas. As part of this plan, recommend replacing internal combustion vehicles with zero emission vehicles (ZEV) to maintain compliance with AB 32, the California Global Warming Solutions Act passed in September 2006.

*Program CIRC-6.2.2:* Revise the Zoning Ordinance to require that all new wood burning stoves and heaters meet current EPA standards for wood burning devices.

*Program CIRC-6.2.3:* Include thorough dust control provisions in the Grading Ordinance.

*Program CIRC-6.2.4:* Permeable pavement is encouraged in appropriate circumstances. Unpaved driveways of more than 50 feet and unpaved accessways in all new development are prohibited. Unpaved driveways of less than 50 feet are prohibited unless it is proven that they will not contribute dust or sediment to the Trinidad Head ASBS.

## **H. PUBLIC SERVICES**

The purpose of this section is to identify the essential public facilities, buildings, and services and to describe policies and programs that will ensure that the existing and future population of Trinidad is provided the best and most appropriate level of public services and infrastructure. Included in this section are policies regarding City water service, regulation of septic systems, solid waste and recycling services, and the storm water system.

## 1. Solid Waste, Reduction and Recycling

Humboldt Sanitation and Recycling currently contracts their services for garbage pick-up with residents, businesses and public service municipalities. Most refuse is transferred to a municipal transfer station and then hauled out of state where it is disposed in, for example, the Dry Creek landfill in Oregon. There is no local landfill since the Cummings Road landfill reached capacity. Other alternatives are currently being pursued.

In 1989, the state passed Assembly Bill (AB) 939 that mandated cities and counties to reduce their waste by 25 percent by 1995 and 50 percent by the year 2000. In June of 1992, a Source Reduction and Recycling Element (SRRE) (not to be confused with a General Plan Element) was adopted by the City as a further fulfillment of AB 939. This document serves as a guide to implement waste reduction strategies to meet the required 50% diversion rate. Because Trinidad is a small town, these amounts are significantly affected by what is happening on the survey dates. Annual diversion rates currently range from 52% to almost 70%. The City Clerk is currently responsible for completing the requirements under that element.

One recurring problem has been the dumping of yard wastes over bluff tops and the banks of streams in the City. These yard wastes can affect bank stability, cause erosion, and introduce invasive plant species and pests into the natural environment. Many communities utilize this yard waste, after it is collected, chipped and composted, as a soil amendment available to the community.

**Goal CIRC-7: Protect public health, conserve natural resources and enhance and protect the natural environment of Trinidad and the surrounding areas by properly reducing and disposing of waste and encouraging recycling and the wise use of resources.**

### Waste & Recycling Policies

*CIRC-7.1* Implement waste reduction, re-use and recycling programs on a continuous basis, City-wide, to achieve waste diversion goals. Utilize the following criteria for program prioritization and selection:

- (1) Achieve the maximum feasible reduction in volume and/or weight of waste requiring landfill disposal;
- (2) Maximize the economic value of materials heretofore discarded;
- (3) Benefit the environment and health and safety of citizens;
- (4) Implement on a timely, practical, and cooperative basis;
- (5) Lower impacts to existing or planned waste diversion programs;
- (6) Include support and sustainability over the long-term by residents, businesses, and jurisdictions;
- (7) Allow cost-effective achievement of the above criteria.

*Program CIRC-7.1.1:* Develop an effective waste reduction ordinance for the City of Trinidad that limits or bans specified carbon-intensive consumer goods such as Styrafoam or plastic-ware. Identify opportunities and constraints for reducing waste, considering in particular carbon-intensive consumer goods utilized in the City that have viable alternatives.

*CIRC-7.2* Continue to contract for solid waste disposal and recycling services in a manner that meets the needs of the residents, and with the solid waste disposal service provider that gives residents the most access to services and is feasible with budget constraints.

*CIRC-7.3* Maintain the Source Reduction and Recycling Element (or Integrated Waste Management Plan). Continue to use the Plan's hierarchy that lists, in order of importance, source reductions, followed by reuse and repair, recycling, composting, materials recovery, environmentally safe energy recovery, environmentally safe transformation, and as a last resort, landfill disposal. Include investigating options for an appropriate, screened, permanent location for a recycling center that will accommodate technology upgrades in the recycling section of the Integrated Waste Management Plan.

*CIRC-7.4* Maintain and improve programs included in the City's Source Reduction and Recycling Element to reduce litter and other illegal solid waste disposal and to minimize the amount of wastes requiring disposal.

*Program CIRC-7.4.1:* Develop a program that allows collection and reuse of yard waste and discourages dumping such wastes over the bluff top. Create a local City facility (program) for compost disposal separate from existing solid waste collection provider (determine feasibility of pick-up service / drop-off facility). Consider partnering with the school, park / museum or community garden as community composting resources.

*Program CIRC-7.4.2:* As feasible, provide no- or low-cost compost bins to residence and business owners and provide composting incentives to businesses.

*Program CIRC-7.4.3:* Implement or support training workshops to effectively educate the community of composting techniques and benefits

*CIRC-7.5* Promote the diversion of construction waste by requiring contractors to recycle as much construction debris as feasible. Work with construction contractors to find methods and means to recycle construction waste.

*CIRC-7.6* Work with local business to promote recycling opportunities and to educate people regarding recycling options.

## 2. Stormwater System

The City has an old and incomplete stormwater drainage system (Figure 15). The location, type and condition of parts of the components are unknown. Studies to date reveal that stormwater runoff originating in the northern portion of the City of Trinidad is routed through a series of roadside ditches, drain inlets, and culverts which discharge to the Mill Creek drainage. Stormwater originating in the central portion of the City of Trinidad watershed is also routed through a series of roadside ditches, drain inlets, and culverts to a storm drain outfall adjacent to the boat launch on Trinidad Bay Beach. Some areas, such as Wagner Street, have no curbs or drain inlets, so drainage is generally south towards the bluff areas or towards Parker Creek. Stormwater from the HSU Telonicher Marine Lab (TML) is also routed in a storm drain that parallels the City's stormwater system and discharges to Trinidad Bay near the Rancheria's boat launching facility. The Harbor Area mainly has limited stormwater runoff from the parking areas, the pier, and Trinidad Head.

The Trinidad Kelp Beds Area of Special Biological Significance (ASBS) is located around Trinidad Head and the Bay and is adjacent to these stormwater outfalls. The SWRCB Ocean Plan prohibits all discharges to an ASBS unless an exception is granted by the SWRCB. Both the City and TML have requested an exception to the Ocean plan discharge prohibition. The TML has completed CEQA for the exception request and is moving forward with a formal permit with the SWRCB. The City is proceeding with implementation projects that will reduce bacterial contamination in the waters at Trinidad Beach and Trinidad Bay Beach in addition to minimizing direct stormwater discharge into the ASBS. The City has conceptually developed water quality improvement projects as part of an ongoing integrated watershed planning process. Low Impact Development stormwater treatment techniques such as utilizing infiltration and bio-retention swales are recommended to be incorporated into the system. Projects reducing direct stormwater discharge into the ASBS region and bacterial contamination in the bay and beach waters should also be encouraged.

### **Goal CIRC-8: Maintain and improve the City's stormwater treatment system to reduce impacted runoff into the surrounding environment**

#### Stormwater System Policies

**CIRC-8.1** Develop a comprehensive stormwater management program to minimize the volume and loading of stormwater-related constituents of concern entering Trinidad Bay. Drainage paths may be elongated to reduce erosion potential and decrease sediment carrying capacity. Pipes may be replaced with meandering open ditches to increase infiltration, attenuation of constituents of concern and bioretention opportunities. (CONS-2.7)

**CIRC-8.2** Undertake improvements to the City's stormwater drainage system to minimize the volume and loading of stormwater-related constituents of concern entering Trinidad Bay. Such improvements may include Low Impact Development (LID)

techniques such as re-direction of and elongation of drainage paths and installation of bio-retention and infiltration components where feasible to reduce constituents of concern from entering surface water.

**CIRC-8.3** Implement a comprehensive water quality monitoring plan for Trinidad Bay and its tributary streams in order to assess nonpoint source pollution entering the Trinidad Head Area of Special Biological Significance and track improvements over time. (CONS-5.1.2)

**GOAL CONS-9: Minimize stormwater runoff and the introduction of constituents of concern into the waters in and around the City from new and existing development:**

Development & Stormwater Policies

**CIRC-9.1** Incorporate storm water runoff, erosion and sediment control, and water quality considerations into the staff recommendations or implementation regulations for all Coastal Development or other discretionary permit application reviews. Applicants shall be responsible for any required monitoring. Specific water quality goals include, but are not limited to:

- (1) Limit erosion and sediment loss resulting from construction.
- (2) Limit the extent and duration of land disturbing activities.
- (3) Limit removal of existing vegetation to only what is necessary to construct projects
- (4) Upon project completion, replace non-native and invasive species as soon as possible, preferably with native plants.
- (5) Maintain natural drainage conditions.
- (6) Conform, wherever possible, to the natural topography of the area.

**CIRC-9.2** Encourage Low Impact Development techniques to preserve hydrologic function and maximize on-site infiltration of runoff, to the greatest extent practicable. In development where infiltration is precluded, implement appropriate treatment control BMPs, such as filtration to reduce the adverse impacts on water quality from the stormwater runoff. Low Impact Development techniques include the use of rain gardens (bioretention), infiltration, disconnected roof drains, pervious pavement and/or pavers, and green roofs. Maintaining existing vegetation and planting new vegetation as a buffer to improve the quality of the stormwater discharged from the site should always be considered for construction projects

**CIRC-9.3** Limit the use of curb drains to avoid conveying runoff directly to the City's stormwater conveyance system. (CONS-2.9)

**CIRC-9.4** The selection of appropriate BMPs to protect water quality shall be guided by the most recent version of the California Stormwater Quality Association (CASQA) *Stormwater BMP Handbooks*, or an equivalent BMP manual that describes the type, location, size, implementation, and maintenance of BMPs suitable to address the

constituents of concern generated by the development. A site specific infiltration rate may be required of the designer to assist with stormwater quality mitigation design and to facilitate the City's review of the proposed development.

### 3. Transmission and Utility Facilities

Private companies own the electric, gas, telephone, cellular and cable services, though they are regulated by the Public Utilities Commission. Pacific Gas and Electric (PG&E) has a facility (a substation) within the City. There is also a cellular installation utilized by several providers located on Trinidad Head. Many of the overhead utility lines in town have already been undergrounded either through requirements for new development or utilizing available funding from PG&E for such activities in scenic areas. Propane fuel is provided by individual private propane tanks, as there are no natural gas lines in the City.

Verizon has a lease from the City for a cellular phone transmission facility on Trinidad Head, who in turn sublease to several other providers that also have antennas and other equipment on the site. This facility has become controversial in the last few years and interest in removing the facility and finding an alternative location has been expressed.

Some solar systems have been installed on private residences, and the City has implemented measures to help streamline the process for such installations such as exempting a certain number from design review and abbreviating the building permit process and costs. There has been interest in generating electricity from wave energy offshore. There is a significant amount of wind in Trinidad year-round, and wind energy may be a good source of alternative energy if it can be installed without causing nuisance from noise and view blockage. Interest has also been expressed in micro-hydro power on local creeks that does not divert a significant amount of water and that can provide a reliable source of power in the winter when traditional power lines are often compromised. This should only be considered when negative impacts to fish can be avoided.

#### **Goal CIRC-10: Ensure that the transmission of utilities shall meet consumer needs and energy efficiency goals consistent with the character of the City.**

##### Transmission and Utility Policies

*CIRC-10.1* Coordinate land use planning with the location of existing and planned utilities and pipelines (including water, gas, sewer, electric and telephone) to ensure compatibility between land uses and transmission facilities to the extent possible.

*CIRC-10.4* Lines and cables shall not obstruct the coastal views, both public and private, for which Trinidad is known. The City should seek funding and otherwise take advantage of any programs that would accomplish undergrounding existing above-ground utility lines in town.

*CIRC-10.5* It is intended that development on Trinidad Head be kept to a minimum, with passive recreation such as hiking trails and vista points are allowable use. Phase out the cellular facility and encourage the providers to find an alternative location or utilize new technology to provide the same services. (CONS-14.2)

*CIRC-10.6* Regulate lighting in the City to prevent light pollution while maintaining lighting necessary for public safety.

*Program CIRC-10.6.1:* Require that lighting in commercial areas be kept to the minimum necessary for safety and minimize light spillage from the property

*Program CIRC-10.6.2:* Through design review or other ordinance provisions, require residential lighting to be contained on-site so as not to spill on to neighboring properties

*Program CIRC-10.6.3:* Require street lighting and other public safety lighting to be low in elevation and shaded or directed so as not to cause light pollution

#### **4. Wastewater Disposal / Onsite Wastewater Treatment Systems**

The City of Trinidad does not have a centralized sewer system, and instead relies entirely on individual on-site wastewater treatment systems (OWTS). It has been suggested that Trinidad eventually build a sewage treatment plant because lots are relatively small for systems, bacterial pollution is a problem in certain areas, and many of the City's systems are old, inadequate or malfunctioning when compared to existing standards. However, residents and property owners inside and outside the City resist the idea of a sewer-treatment plant due to potential growth-inducing impacts in the area.

Because septic tanks are the most feasible type of individual wastewater disposal system available at the present time, residential land uses are limited to those types that are consistent with the community's development preferences and can best be adapted to the service constraints of septic tank systems. Only when individual disposal systems that can accommodate high wastewater discharge uses become feasible should the General Plan allow the consideration of high discharge commercial uses. The types of permitted commercial and residential uses and densities are limited to those recommended in this General Plan and subsequent Zoning Ordinance provisions.

**Goal CIRC-11: Accommodate the wastewater production while protecting the health, natural resources and property values in Trinidad.**

##### Wastewater Disposal / OWTS Policies

*CIRC-11.1* Develop and maintain an OWTS Management Program, consisting of an ordinance and guidelines, in compliance with the CA OWTS regulations and the North Coast Basin Plan that include regular monitoring, maintenance, and pumping

requirements to assure that State and federal water quality standards are met. This Program will require accurate and current septic information as part of any development application, including subdivisions. OWTS upgrades may be required based on the proposed development. Uses with large quantities or high strength discharges are subject to more stringent reviews and requirements. Encourage the County to adopt a similar program in the Trinidad-Westhaven area. (LU-1c.8 / CONS-2.6)

*CIRC-11.2* Pursue grant funding or the feasibility of a revolving loan program to monitor and implement projects within the City's entire Planning Area to reduce pollution from onsite wastewater treatment systems. Encourage Humboldt County to participate to the maximum extent possible, though projects within the City boundaries are the first priority. Project goals include determining what areas and which onsite wastewater treatment systems are contributing the most pollution and offering financial incentives or other assistance to help landowners fix problems. The City and County should consider the feasibility and desirability of forming a Septic Maintenance District from Trinidad to Moonstone. (LU-9.6.1)

*CIRC-11.3* Encourage the County to update its regulations to make the installation of alternative wastewater treatment systems such as wetlands and greywater reuse systems more feasible (CIRC-12.3.3).

## 5. Water Service

The City of Trinidad operates a municipal water supply system that services the occupied parcels within the City and a number of properties outside City limits. Potable water for the City system is currently supplied from Luffenholtz Creek. The water system includes an infiltration gallery, water treatment plant and several storage tanks. The City also has some unused water rights on Mill Creek.

The Trinidad water system is now serving near its maximum number of metered connections at 323 (as of 2011) both inside and outside of City limits, including Trinidad Rancheria. The flow rate and quality of water is highly dependent on the weather. In the winter the water can be difficult to treat at times due to the high turbidity; the current filtration treatment system can not meet the water quality requirements and occasionally shuts down, resulting in a significant drop in the storage tank levels. Several water treatment issues, including, bacterial contamination, water turbidity and chlorine contact time are important issues that the City needs to address in the near future.

To address current water system needs, the City's engineering firm completed a comprehensive water supply feasibility report in 2003 ("City of Trinidad Proposition 204 Water Supply Feasibility Study" by Winzler and Kelly – September 2003). The City continues to monitor and upgrade the water plant as feasible. Some current characteristics of the City's water plant are as follows:

- There is a limited available water supply based on the flow in Luffenholtz Creek

- Constant monitoring and adjustment of the current filtration system requires the oversight of an operator at all times (little automation.)
- The treatment plant is not able to treat all water at all times due to turbidity. The plant is shut down when treatment requirements cannot be met and storage reserves may not be enough to handle additional hookups or emergency services.
- The treatment system is currently limited by pump capacity to a maximum flow rate of 340 gpm (3 pumps, each 120 gpm).
- Filtration unit is limited to an over-all flow rate of 170 gpm based on state regulations.

The City is currently working on developing plans and obtaining funding to improve the existing water system to address the concerns noted above, particularly because turbidity standards have increased. The City has received a grant to add new turbidity meters and other monitoring equipment along with system controls to meet these new turbidity requirements along with cryptosporidium standards. Other planned improvements will include additional storage, which will provide water for fire suppression in the summer and allow additional settling time in the winter which will decrease the turbidity.

Demand for water is expected to increase due to new development in the Trinidad area in the upcoming years; hence, a plan needs to be developed for this increase in demand. There are several water supply concerns:

- If they have riparian water rights, many property owners in the area outside the City use coastal streams as a water source. However, California Department of Fish and Game is already concerned about shortages in Mill Creek and Luffenholtz.
- Expanding the current water supply at Luffenholtz Creek may be an option, though the watershed is located entirely outside of City limits. The City needs to coordinate with the County to ensure the creek is protected from development.
- In several areas, groundwater supply is highly variable. Wells in the area do not produce enough volume of water to meet the demand. Other concerns include contamination of wells from failed septic systems and use of pesticides and other chemicals.
- Additional water use in the Planning Area may overburden soil capacity septic tanks and increase ground and surface water pollution.
- The Trinidad Rancheria has proposed development plans for a substantial project; they anticipate using the Luffenholtz water supply.

The lack of water has acted as a development constraint along with the use of septic systems. The City previously lost a large amount of its water, approximately 40%, through leaks or unmetered users. A large leak was recently found along the main line in Scenic Drive, which gives the City somewhat more leeway for future water service.

In the past, the City had the ability to hook-up users outside the City along the main water lines, with 101 properties being served outside City limits. However, more recent Local Agency Formation Commission (LAFCO) regulations, the agency in charge of boundary changes, prohibit expansion of services outside jurisdictional lines without requiring annexation. Exceptions may be made in the case of polluted wells or other emergency situations, and/or if the property owner is adjacent to the City and agrees to annexation. Additionally, because Luffenholtz Creek is near capacity, the City must retain water for additional connections and future uses inside the City

**Goal CIRC-12: Ensure that the City's water system, supply, and demand are managed for sustainability and the health and needs of users.**

Water Policies

*CIRC-12.1* Periodically assess the capacity of Luffenholtz Creek to provide domestic water; include variables such as existing and potential riparian rights, groundwater wells, proposed developments, and impacts to water supply due to climactic change. (LU-8.1)

*Program CIRC-12.1.1:* Prepare an annual water report to be presented to the City Council to keep the City up to date on the condition of the water system, need for improvements, level of use and capacity of the system.

*CIRC-12.2* Upgrade the City's water plant to improve efficiency, water quality and storage capacity as funding becomes available. (LU-8.2)

*Program CIRC-12.2.1:* Develop a program for periodically upgrading existing distribution lines, including fire hydrants to current standards. Top priorities are repairing leaking lines and improving storage capacity at the treatment plant, and installing meters at currently unmetered public or other buildings.

*CIRC-12.3* Promote an effective water conservation program to minimize water consumption. Extend the City's conservation program to properties outside the City that are hooked up to the City's water system. Encourage the County and/or Watershed Council to provide water education. Encourage the County to implement a similar program in the Trinidad-Westhaven area. (CONS-4.1)

*Program CIRC-12.3.1:* Implement a progressive water rate structure to encourage water conservation. Periodically review and amend the water rate structure to ensure that it promotes water conservation. (CONS-4.1.1)

*Program CIRC-12.3.2:* Adopt a water efficiency landscape ordinance in accordance with AB 1881 and Department of Water Resources (DWR) requirements. (CONS-4.1.2)

*Program CIRC-12.3.3:* Promote the use of rainwater collection and greywater

systems. Encourage the County to update their regulations to improve opportunities for greywater reuse (/ CIRC-11.3)

*CIRC-12.4* If capacity and / or storage is adequate, study the feasibility of forming a Water District that includes the area to the east and southeast of the City on either side of the freeway, where some properties are already connected to the system, to allow for additional connections outside the City, as the system allows. Eventual annexation should be considered. An 'annexation agreement' (agreeing not to object to future annexation) with the City is a minimum requirement for providing any new connections outside of City limits. Areas to the north of the City should be part of such a district if services are to be provided there in the future. (LU-8.3)

*CIRC-12.5* The existing commercial area on the west side of Patrick's Point Drive south of Anderson Lane and the area on the east side of Patrick's Point Drive north to the CalFire (CDF) station, should be included in the City service area / water district to allow for future consideration of water service. Annexation, or an annexation agreement, is a requirement for water service expansion, unless it is already part of a services district. (LU-8.4)

*CIRC-12.6* Depending on service capacity, the City's Sphere of Influence should be defined to include the City's water service connections, as well as all properties adjacent to the City's trunk line and those properties that are not zoned for timber production within the Luffenholtz and Mill Creek watersheds (refer to Fig. 4). The watersheds are to be included to provide directions and oversight on land use decisions that affect the City's Water Supply, including OWTS management. (LU-7.1)

*CIRC-12.7* Consider expanding City services to areas outside City limits only if it can be done without significantly increasing the costs to residents within City limits, or if it is a public health emergency; annexation is a prerequisite for any service expansions. (LU-7.2)

*Program CIRC-12.7.1:* In the event of a proposal to expand the City water system, prospective customers shall provide the necessary funds in whole or in part to defer the cost of system improvements through an agreement with the City. This policy shall be implemented by provisions of the City Water System Service Ordinance.

*CIRC-12.8* Connection to Humboldt Bay Municipal Water District shall not be allowed unless there is a compelling public necessity and only when enforceable measures are included to assure that the general small-town community characteristic of the service area around the City does not adversely change.

*CIRC-12.9* Assess the effects of proposed development, such as the Trinidad Rancheria plans and subdivisions, on the reduction flow in Luffenholtz Creek. Address negative impacts or threats to the City's water supply as soon as possible. (LU-9.2.4)

# Trinidad General Plan

Figure 11. Transportation & Parking



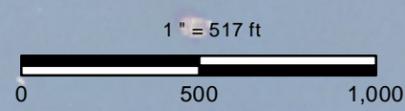
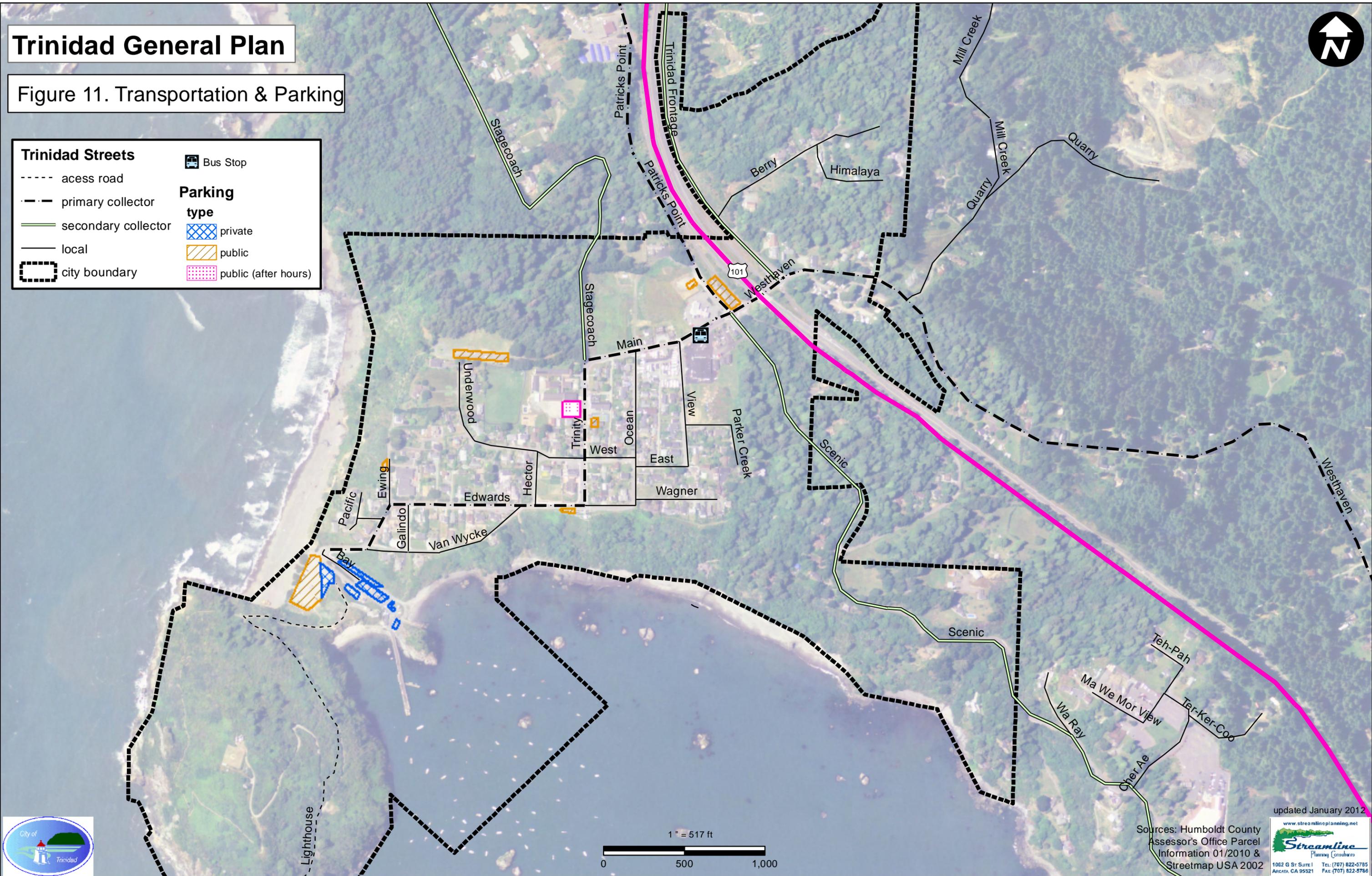
Trinidad Streets	
-----	access road
- - - -	primary collector
— — — —	secondary collector
————	local
⬢⬢⬢⬢	city boundary

Parking type	
	private
	public
	public (after hours)

	Bus Stop
--	----------



updated January 2012

Sources: Humboldt County Assessor's Office Parcel Information 01/2010 & Streetmap USA 2002

www.streamlineplanning.net

**Streamline**  
Planning Consultants

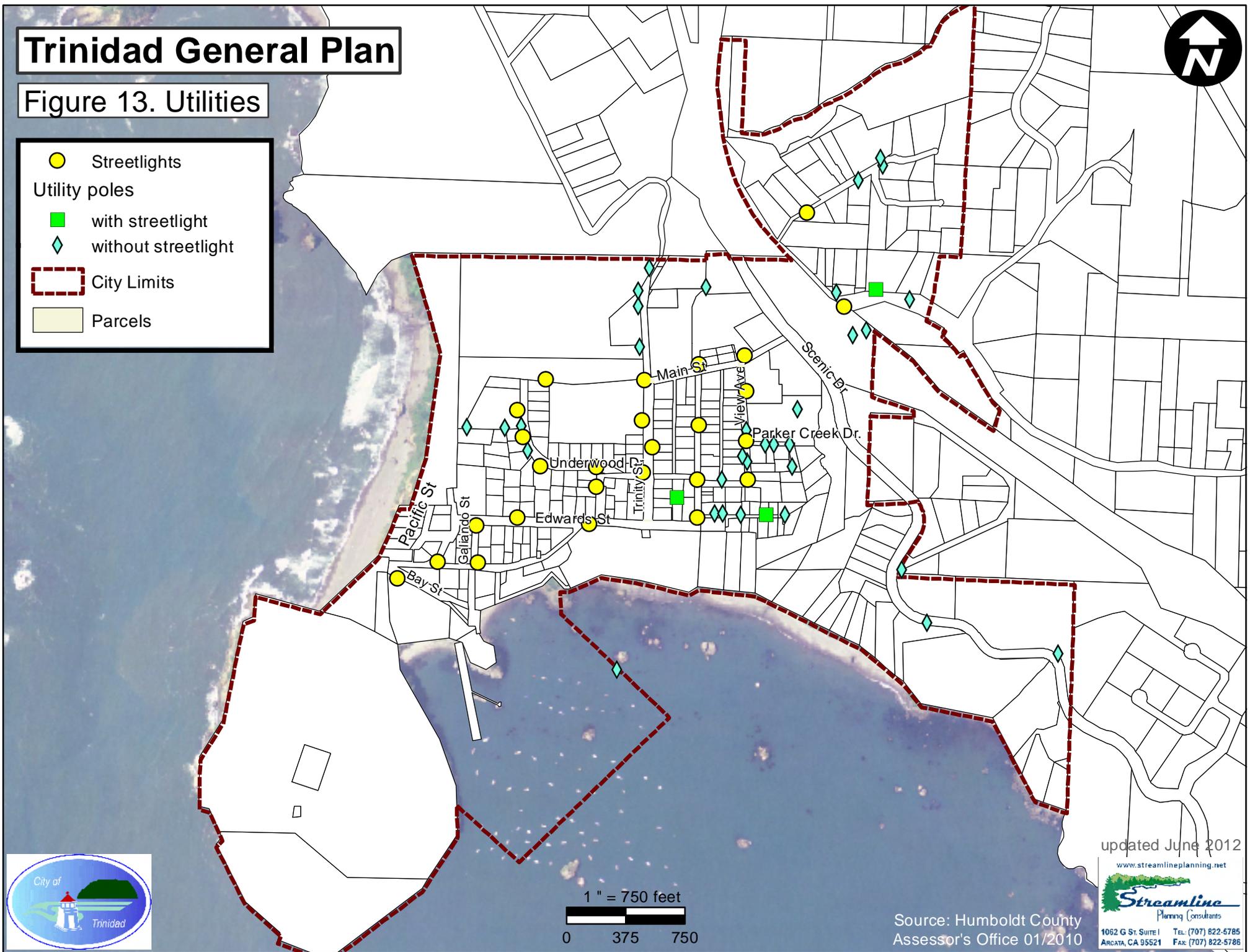
1062 G St. Suite 1 Arcata, CA 95521  
Tel: (707) 822-5785 Fax: (707) 822-5786

Figure 12 Reserved for Planned Street / Infrastructure Improvements

# Trinidad General Plan

## Figure 13. Utilities

- Streetlights
- Utility poles
  - with streetlight
  - ◆ without streetlight
- ▭ City Limits
- ▭ Parcels



updated June 2012  
[www.streamlineplanning.net](http://www.streamlineplanning.net)

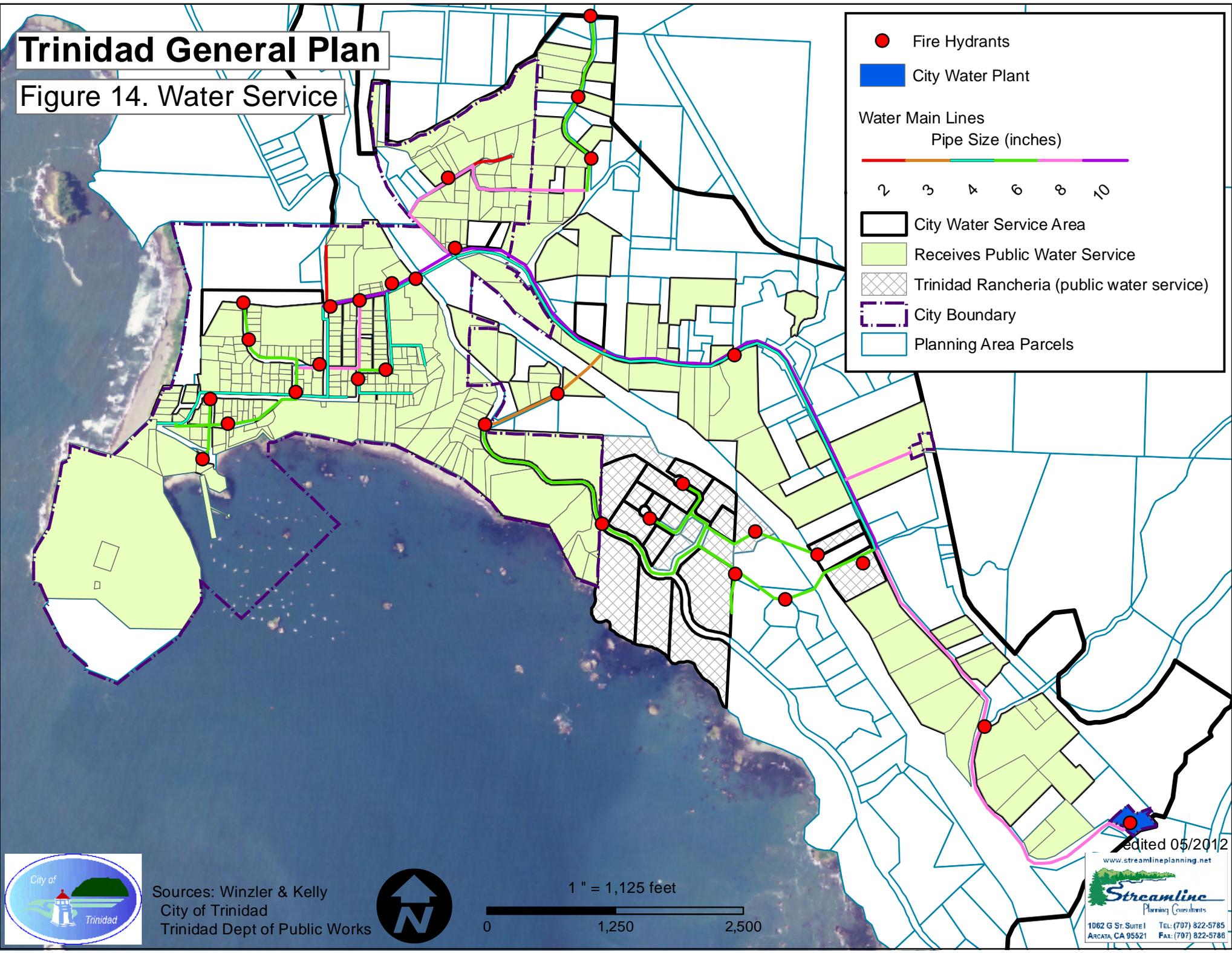


Source: Humboldt County Assessor's Office 01/2010

1062 G St. Suite 1 TEL: (707) 822-6786  
ARCATA, CA 95521 FAX: (707) 822-5786

# Trinidad General Plan

## Figure 14. Water Service



Sources: Winzler & Kelly  
City of Trinidad  
Trinidad Dept of Public Works



1" = 1,125 feet  
0 1,250 2,500

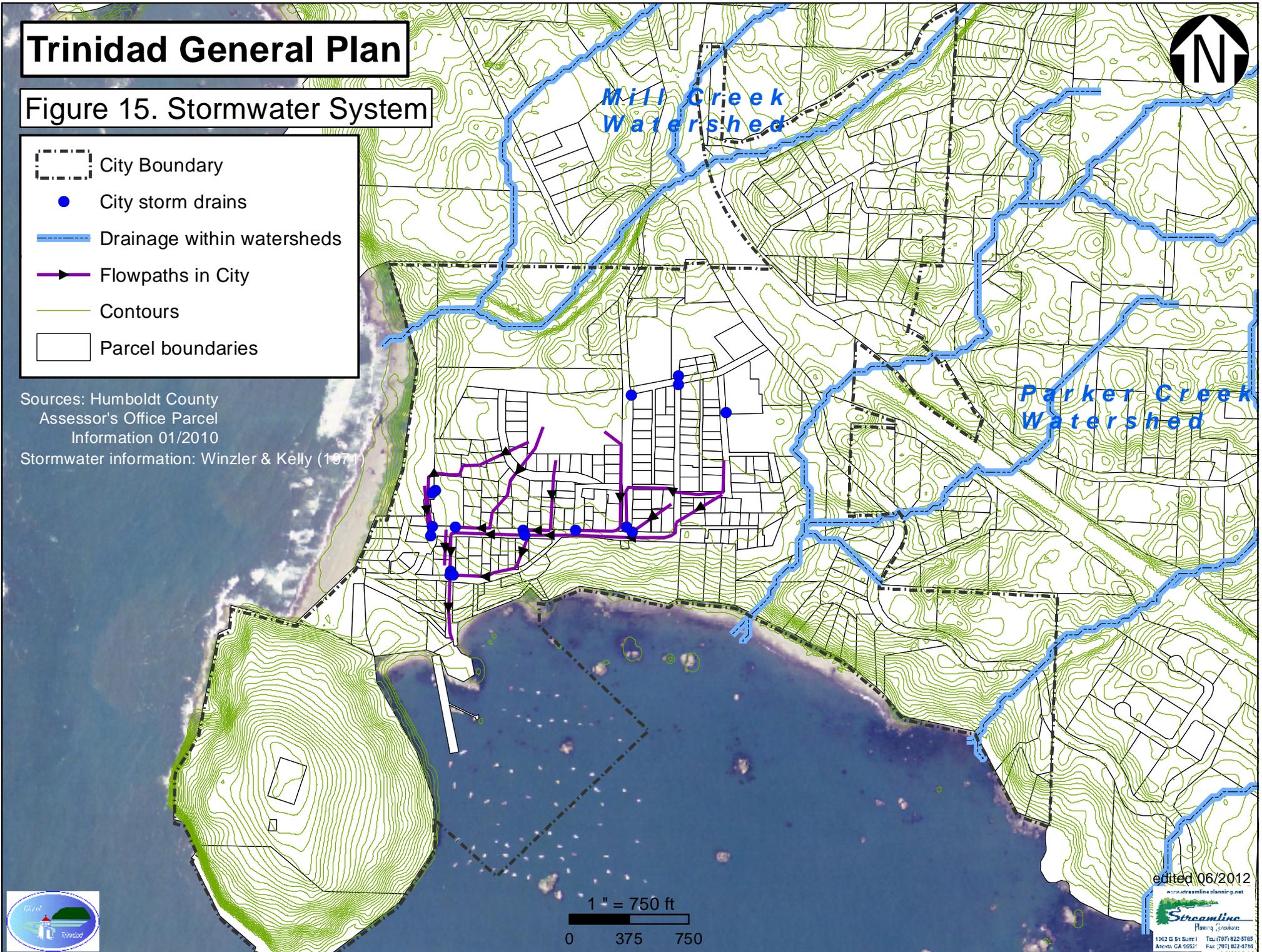
Updated 05/2012  
www.streamlineplanning.net  
**Streamline**  
Planning Consultants  
1062 G St. Suite 1 TEL: (707) 822-5785  
ARCATA, CA 95521 FAX: (707) 822-5786

# Trinidad General Plan

## Figure 15. Stormwater System

-  City Boundary
-  City storm drains
-  Drainage within watersheds
-  Flowpaths in City
-  Contours
-  Parcel boundaries

Sources: Humboldt County Assessor's Office Parcel Information 01/2010  
Stormwater information: Winzler & Kelly (1971)



1" = 750 ft  
0 375 750

edited 06/2012

[www.streamlineplanning.net](http://www.streamlineplanning.net)

**Streamline**  
Planning Consultants

1062 G St Suite 1 Trinidad, CA 95561  
Alameda, CA 94501  
Tel: (707) 822-9785 Fax: (707) 822-9786