

Chapter 5. Community Infrastructure and Services Element

5.1 Purpose

This Element identifies community infrastructure and service issues that affect Plan implementation. The Board of Supervisors opted to prepare this Element because of the pivotal role that infrastructure and services play in the growth of the County. The Element provides direct focus on existing infrastructure and service capacity, future demand, levels of service, timing, and funding issues.

5.2 Relationship to Other Elements

Infrastructure and services are important to many Plan elements, especially Land Use, Circulation, Safety, and Economic Development. The Telecommunications Element is also closely associated. The Community Infrastructure and Services Technical Report provides background information and policy **provide** support for this Element.

5.3 Background

Community Infrastructure and Services and Land Use

Adequate public infrastructure and services provide a foundation for growth and are essential for community health, safety, and quality of life. The availability of land for development and the pattern of land development within the County over the next 20 years will depend more on the availability of infrastructure than any other single factor. But the ability to maintain existing infrastructure and finance infrastructure has decreased over time and will remain limited in the future. In this fiscal environment it is absolutely essential to focus finite resources on clear priorities.

Finding new **funding** resources is also essential. This Plan proposes multiple approaches to fund capital projects and maintenance, including “pay as you go” standards for new development, assessment programs, and competing for state and federal infrastructure funds.

While the County has a direct role in maintaining or providing roadways, law enforcement, and drainage, various other providers are responsible for delivering the remainder of infrastructure and services. This Element includes policies that will strengthen partnerships between the County and local service providers.

Combining efforts and resources on mutually agreed upon infrastructure and service priorities is one of the most important goals of this Plan.

Roadways

Humboldt County contains approximately 1,400 miles of County and city roads, state highways, and roadways on federal lands. Issues affecting the County road system include roadway safety, capacity, and condition. Maintaining the condition of existing roads during the planning period will be a significant challenge. Urban roads are heavily used and are in constant need of maintenance. In rural areas, lower population densities and long travel distances mean that limited road maintenance funds are spread across an extensive network of roads. Roadway capacity is generally less of an issue for rural areas due to the lower population densities. However, some roadways in urbanized portions of unincorporated areas (such as those surrounding Eureka and McKinleyville) are subject to existing and projected areas of congestion.

Lack of funding is the limiting constraint on maintenance and increases in roadway capacity. The Public Works Department has identified a \$100 million current roadway maintenance backlog on County maintained collector and arterial roads. Statewide budget shortfalls in transportation improvement funding have severely limited new roadway improvement projects. Developing funding mechanisms for roadway capacity improvement projects is critical to the successful implementation of this Plan.

Storm Drainage and Flood Control

The Humboldt County Public Works Department is responsible for storm drainage within the unincorporated areas of the County and is responsible for the maintenance of flood control levees along the Eel River at Sandy Prairie, the Mad River at Blue Lake, and Redwood Creek at Orick. Aside from McKinleyville and the unincorporated area around Eureka, the majority of the County does not have improved stormwater conveyance systems. Outside of the County's urban areas, stormwater follows a natural drainage pattern before either infiltrating or entering a waterway. The County also maintains a significant number (estimated in the thousands) of culverts under roadways, which are located throughout the many drainage swales, creeks, and streams.

The County's stormwater system varies in condition. Much of the infrastructure is very old and is reaching the end of its design life. The County lacks a dedicated source of funding for drainage maintenance and does not have sufficient funding to make improvements to this system. A systematic master planning and replacement program intended to upgrade and expand stormwater infrastructure is needed, but funding to do so is lacking.

Law Enforcement

The Humboldt County Sheriff's Office is responsible for law enforcement in the unincorporated area and provides a range of law enforcement services throughout the County as well, including criminal investigation, court services, and corrections. Sheriff's Office facilities are insufficient for current needs and the Department does not have adequate funding to maintain generally accepted officer-to-population ratios.

Fire Protection Services

Fire protection services include more than fire suppression. Fire departments provide a range of services, including emergency medical services (approximately 80% of calls for service are emergency medical), auto extrication, technical rescue (rope, swift water, and confined space rescue), hazardous materials, and general public assistance responses. In responding to emergencies, local fire departments work closely with law enforcement, public utilities, the County Office of Emergency Services, and ambulance companies. Fire departments and ambulance companies are both dispatched to medical calls. In most cases, fire departments arrive on scene prior to the ambulance and are expected to gather vital signs, stabilize the patient, and prepare the patient for transport.

For the purposes of this General Plan Element, fire protection is defined to include all of the response types described above. Fire protection in Humboldt County includes one County Service Area (CSA), five Community Service Districts (CSDs), sixteen Fire Protection Districts (FPDs), one Resort Improvement District (RID), and two city fire departments. There are also 18 non-profit corporations which are volunteer fire departments not associated with a district. All but four of these departments are staffed entirely by volunteers. In spite of the array of fire-related districts and non-district related departments providing service to Humboldt County communities, substantial portions of the County are outside district boundaries. Fire departments regularly provide service to areas outside district boundaries. In addition, many areas within fire-related district boundaries are underserved.

The most critical issue facing fire protection service providers is the lack of adequate funding. Lack of funding for fire service providers results in limited administrative capacity; inadequate facilities, equipment, and apparatus; and contributes to the lack of adequate personnel. The *Master Fire Protection Plan, 2006 (2013 Community Wildfire Protection Plan)* and *Community Infrastructure and Services Technical Report* outlines a series of actions intended to address these issues. This Element focuses on improving existing fire protection funding, requiring that new development pays its fair share of fire protection costs, and expanding fire-related districts to help ensure stable ongoing sources of funding.

Water and Wastewater Systems

There are 17 cities and special districts in Humboldt County that currently provide wastewater services, 14 of which operate wastewater collection systems and treatment plants; the remaining 3 operate only collection systems. In addition, there are two privately owned water and wastewater systems in company towns, served by privately owned water and wastewater systems that are not regulated by the California Public Utilities Commission, as public utilities that are transitioning to municipal systems. At least two additional special districts are considering developing new wastewater systems to address public health concerns in their community. The remainder of the County is served by on-site septic systems. Almost all of the wastewater service providers also provide water service. In addition, there are 18 other entities that provide water service, including cities, special districts, and public utility companies.

Most water and wastewater systems in the County were constructed using grant funds in the 1950s and 1960s. In general, the systems are quite old and deteriorating and are in need of improvement. Without exception, all service providers face the need to invest in

maintenance and upgrades required to keep their systems in compliance with state standards. Almost all service providers lack the funding to make the necessary improvements. Furthermore, many of the service providers in small communities have limited managerial, financial, or technical resources to draw from.

Developing new wastewater treatment and conveyance capacity in Urban Development Areas will be necessary to meet regional housing needs, particularly in the Eureka Community Plan Area. As such, wastewater system expansion and extension is a high priority of this Plan.

Parks and Recreation

As a rural area, Humboldt County has a wealth of outdoor recreational opportunities. More than 20% of the County's 2.3 million acres are protected open space, forests, and recreation areas. Within the County boundaries, there are federal and state parks, 16 County parks and beaches operated by the Humboldt County Parks Division, recreational areas and reserves, city parks, and parks operated by special districts and non-profit organizations. These areas contribute to the quality of life in Humboldt County and provide needed recreation opportunities for residents of neighboring counties and visitors from all over the world. However, most parks in Humboldt County are regional in scope. Outside the seven Humboldt County cities, there are few local community or neighborhood parks. Providing neighborhood parks in conjunction with new development is a goal of this Plan.

Street Lighting

Carefully placed street lighting can reduce accidents in urban and suburban areas where there are intersections and concentrations of pedestrians. In addition, lighting may serve as a crime deterrent, may aid law enforcement agencies, and contribute to a sense of safety and community pride. In Humboldt County, street lighting is provided by each of the seven cities, three community services districts, and eight street lighting districts formed by Humboldt County and governed by the Board of Supervisors. Street lighting services are available in only about half of the urbanized areas of the County. Streetlights should avoid unnecessary glare and night sky pollution, light trespass, and energy waste.

Other Public Utilities and Services

Communities are also served by public schools, libraries, social services, as well as public and quasi-public utilities providing energy and broadcast, cable, solid waste collection and recycling, and telecommunication services. Land use decisions should be closely coordinated with other service providers, particularly school districts and public utilities, to ensure that capacity is available when development occurs.

5.4 Goals and Policies

Goals

- IS-G1. Adequate Infrastructure and Services.** Well maintained public infrastructure and services supporting existing development.
- IS-G2. Sustainable Funding.** Adequate and sustainable revenue sources for capital improvements and maintenance of infrastructure and services.
- IS-G3. Interagency Coordination.** Coordinated planning, prioritization, funding, and implementation of infrastructure and public service projects across jurisdictional boundaries.

Policies

- IS-P1. Coordination with Service Providers.** The County shall work cooperatively with cities and service providers to identify needs and service limitations, secure funding, and implement infrastructure and public service projects consistent with this Plan and capital improvement plans.
- IS-P3. Public Infrastructure and Services Standards.** Use objective public infrastructure and service standards to:
- A. Assess service conditions;
 - B. Identify deficiencies; and
 - C. Rank priorities.
- IS-P4. Requirements for Discretionary Development.** The adequacy of public infrastructure and services for discretionary development greater than a single family residence and/or second unit shall be assessed relative to service standards adopted by the Board of Supervisors, local service providers, and state and federal agencies. Such discretionary development may be approved if it can be found that:
- A. Existing services are adequate; or
 - B. Adequacy will be attained concurrent with project implementation through project conditions; or
 - C. Adequacy will be obtained over a finite time period through the implementation of a defined capital improvement or service development plan; or
 - D. Evidence in the record supports a finding that approval will not adversely impact health, welfare, and safety or plans to provide infrastructure or services to the community.
- IS-P5. Fiscal Impact Assessment.** The fiscal impacts of discretionary development (i.e. projects that require the preparation of an Environmental Impact Report that may have significant impacts on existing and planned public infrastructure and services) shall be considered during the project review process. Significant adverse affects shall be mitigated to the extent feasible.

- IS-P7. Mitigation of Cross-jurisdictional Impacts.** The County shall work with the cities to ensure impacts associated with new development are mitigated for each affected jurisdiction.
- IS-P8. Infrastructure and Services Capacity.** In coordination with service providers, the County shall periodically monitor the capacities of infrastructure and services in relation to existing and planned demand.
- IS-P9. Capacity of Facilities and Land Use Decisions.** The County shall evaluate the capacity and sizing of road and drainage facilities in coordination with water and wastewater service providers to determine adequacy for proposed land uses and discretionary development.
- IS-P12. State and Federal Advocacy.** Coordinate with local service providers' efforts to influence legislation or regulations to achieve outcomes consistent with the goals and policies of this Plan.
- IS-P13. District Boundaries, Spheres of Influence, and Community Plans.** District boundaries, spheres of influence, municipal service reviews, and community plans shall be mutually compatible and support the orderly development and timing of infrastructure and services.
- IS-P14. Changes in District Boundaries.** Support the adjustment of service district or city boundaries to eliminate service area gaps, align district boundaries with already served areas, consolidate districts, improve service delivery, or to address an existing or impending threat to the public health or safety of the residents of the affected territory, consistent with this Plan.
- IS-PX. Out of Area Service to Address Threats to Public Health.** Encourage the Humboldt LAFCo to amend its policies and procedures to allow local agencies to provide new or extended services outside jurisdictional boundaries and outside spheres of influence to respond to existing or impending threats to the public health or safety, consistent with Government Code 56133, without requiring an annexation agreement.
- IS-P15. Road and Drainage System Funding Sources.** Develop funding mechanisms and sources to support the construction and maintenance of road and drainage facilities consistent with the policies and standards of the Circulation and Water Resources elements.
- IS-P16. Drainage and Flood Control.** Develop and maintain a countywide drainage and flood control plan to guide capital improvements and maintenance and serve as a basis for long-term sustainable funding mechanisms.
- IS-P17. Law Enforcement.** The County shall continue to monitor law enforcement needs and coverage.
- IS-P18. Expanded Fire Protection Services.** Encourage and support the expansion of existing special district boundaries, or the formation of County Service Areas with agreements to fund contract fire services, as a means to provide fire protection services to areas outside of fire district boundaries.

- IS-P19. Water and Wastewater System Capital Improvement Programs.** Support the efforts of service providers to develop and maintain capital improvement programs for construction of water and wastewater systems.
- IS-P120. On-Site Sewage Disposal Requirements.** Maintain regulations governing construction and maintenance of on-site sewage disposal systems to protect health and safety and to reflect changes in state law and advances in treatment technologies. Recognize and allow the use of alternative onsite sewage disposal systems that meet state standards.
- IS-P21. Parks and Recreation Service in Urban Development Areas.** Encourage and support special districts to provide neighborhood parks and recreation services within Urban Development Areas.
- IS-P23. Private Recreation Facilities.** The development of private or joint public-private sector recreation facilities shall be encouraged.
- IS-P25. Street Lighting.** Street lighting shall be required when necessary to improve public safety in urban and suburban areas and Village Centers.
- IS-P26. County Facilities.** Proposed County capital projects and facilities shall be analyzed for consistency with this Plan and applicable city general plans.
- IS-P27. County Library Facilities and Services.** Continue to assess needs of the County's residents and expand library facilities and services as necessary.
- IS-P29. Conversion of School Facilities.** Conversion of closed school sites and facilities to other uses shall be compatible with existing or planned land uses of adjacent areas and involve affected residents in the decision-making process.
- IS-PX1. Building Permit Referrals.** Provide building permit referrals to the appropriate local fire chief for new buildings within the fire related district boundary and/or the identified response area.
- IS-PX2. Fire Service Impacts from New Development.** During review of discretionary permits within fire related district boundaries or identified response areas, utilize recommendations from the appropriate local fire chief as feasible mitigation measures to reduce impacts to emergency response and fire suppression services from new development.
- IS-PX3, Unincorporated Legacy Communities.** On or before the due date for each subsequent revision of its Housing Element, the County shall review, and if necessary amend, the General Plan to update the analysis of unincorporated legacy communities. [Mitigation Measure 3.1.3.2.c]
- IS-Px. Parks Master Plan.** In cooperation with other park service providers, the County shall establish and maintain a Parks Master Plan that would assess current facilities within each inland and coastal planning area, determine appropriate locations for new facilities, and identify funding options. [Mitigation 3.15.3.1.a]

5.5 Standards

- IS-S1. Adequate Public Infrastructure and Services Ordinance.** Adequate public infrastructure and services standards shall be used to determine the level of infrastructure and services necessary for discretionary development greater than a single family residence and/or second unit or minor subdivision. Standards shall be specified by ordinance for County provided services. County standards shall be consistent with Plan policies. Standards for non-County services should be consistent with levels of service adopted by local service providers or, if standards have not been adopted, the County shall work in coordination with the local service providers to identify generally accepted standards.
- IS-S2. Service Inadequacies and Development Limitations.** The County shall request that water and wastewater service providers submit formal notice approved by their governing body of any newly identified capacity limitations within Urban Development Areas that have the potential to result in a development moratorium or other limitation of development ~~rights~~ otherwise ~~permitted~~ **allowed** by this Plan. The County shall take appropriate actions as necessary to reflect new capacity limitations in land use and permitting decisions and communications to the public.
- IS-S3. Infrastructure Project CEQA and NEPA Land Use Consistency Determinations.** Policies of this Plan which avoid or mitigate environmental effects shall be considered by CEQA lead agencies and federal agencies conducting NEPA evaluations in the evaluation of the environmental impacts of proposed infrastructure projects. Policy conflicts should be considered potentially significant land use impacts pursuant to California Public Resources Code 21083 and Code of Federal Regulations Title 40, Part 6.
- IS-S4. Subdivisions Outside of Fire District Boundaries.** Subdivisions outside of fire district boundaries shall be conditioned to ensure the findings required by Government Code Section 66474.02 can be made.
- IS-S5. Other Development Outside of Fire District Boundaries.** New industrial, commercial, and residential development, excluding subdivisions pursuant to the Subdivision Map Act, outside of fire district boundaries shall be responsible prior to permit approval, to obtain from an appropriate local fire service provider written acknowledgement of the available emergency response and fire suppression services and recommended mitigations.
- If written acknowledgement indicates that no service is available or no acknowledgement is received, the following shall apply:
- A. For building permits, a note shall be placed on the permit indicating that no emergency response and fire suppression services are available.
 - B. For discretionary permits findings shall be made that no service is available and the project shall be conditioned to record acknowledgment of no available emergency response and fire suppression services.

- IS-S6. Water and Wastewater Service Commitment for Proposed Development Projects.** Discretionary development served by public water and/or wastewater service shall receive written service commitments from the appropriate district or agency prior to receiving final approval from the County.
- IS-S7. Parkland Requirements** New residential subdivisions shall dedicate land or pay in-lieu fees for parkland pursuant to the Quimby Act, which requires up to five (5) acres of parkland per thousand persons, **and** consistent with parkland dedication standards.
- IS-S10. Street Lighting.** Where development is required to install streetlights, they shall be designed to block upward transmission of light, avoid light trespass, and achieve design illumination in prescribed areas with limited scatter.
- IS-Sx. Interim Parks and Recreation Standards.** Parks and recreation standards contained in the Government Code Section 66477 shall be used as the standard for parkland dedication in the review of divisions of land for which a tentative map is required pursuant to Section 66426, until such time that the County has established parks and recreation standards for new development that differentiate between urban and rural settings; specify acreage of parkland of 3 acres per 1,000 residents; and specify land dedication, in-lieu fee, or other mechanisms to fund park and recreation improvements and funding for operation and maintenance. [Mitigation 3.15.3.1.a]

5.6 Implementation Measures

- IS-IM1. Coordination with Service Providers.** Coordinate as appropriate with special districts, cities, LAFCO, and other local service providers by reviewing and commenting on capital improvement plans, proposed spheres of influence, municipal service reviews, annexations, and changes in organization. Enter into formal cooperative relationships when appropriate to plan, fund, and implement infrastructure and service delivery projects.
- IS-IM2. Adequate Public Infrastructure and Services Standards.** Develop and adopt an ordinance establishing adequate public infrastructure and services standards.
- IS-IM5. Fiscal Impact Assessment.** Prepare guidelines for the preparation and evaluation of fiscal impact assessments for large scale discretionary projects. Establish threshold criteria to identify applicable large-scale projects.
- IS-IM9. Reimbursement.** Develop the ability to enter into voluntary reimbursement agreements to reimburse developers over time as subsequent development is approved for expenditures in excess of the developer's fair share costs.
- IS-IM10. State and Federal Legislation, Appropriations, and Grant and Loan Programs.** The County shall actively advocate for state and federal legislation, appropriations, and grant and loan programs that increase funding for community infrastructure.

- IS-IM11. State and Federal Advocacy.** Maintain a list of legislative and regulatory priorities that include infrastructure and service issues and advocate actions that benefit the County and local service providers.
- IS-IM13. Drainage and Flood Control Plan.** Prepare a countywide Drainage and Flood Control Plan that inventories existing facilities, and prioritizes needs.
- IS-IM20. Fire Protection Levels of Service.** Support the development of a level of service standards by the Humboldt County Fire Chief's Association.
- IS-IM21. Standards of Fire Protection Response.** Encourage fire districts to prepare Standards of Coverage Studies and address substandard conditions. These studies may include: establishment of baseline conditions, risk assessment, level of service standards and objectives, critical task capability assessment, reliability assessment, and policy recommendations.
- IS-IM22. County Service Area-Fire Protection.** In close coordination with fire-related districts, non-agency fire departments, and CAL FIRE, establish county service areas and adequate ongoing fire protection funding sources in areas with developed and developable land that cannot be served by existing fire-related districts and where new districts cannot feasibly be established. Utilize fire protection service agreements with existing fire service providers, where appropriate. Utilize County Service Areas to augment the level of service and capacity of existing fire service providers, where appropriate.
- IS-IM23. Fire Protection Municipal Service Review.** Support the preparation of a comprehensive countywide fire protection municipal service review by the Humboldt LAFCO to determine the best approaches to improving levels of service countywide and expand service to areas outside existing fire-related district boundaries.
- IS-IM24. Monitor Infrastructure and Services Capacity.** Coordinate with water and wastewater providers to monitor the capacities of infrastructure and services to ensure that growth does not exceed acceptable levels of service.
- IS-IM25. Organization of Water and Wastewater Providers.** Assist in the establishment of an organization of local water agencies, such as an association or authority, to improve water quality, service capacity, and level of service of all water and wastewater services providers.
- IS-IM26. Sizing of Water and Wastewater Systems.** Provide this Plan and land inventory data to service providers for system planning, facility sizing, and CEQA evaluations of land use consistency. Coordinate with service providers to update the County land inventory.
- IS-IM28. Use of Parkland and Fees.** The County shall develop a schedule for the use of land and fees collected under parkland dedication provisions, including mechanisms for tracking the expenditure of funds for a five-year period in coordination with special districts providing parks and recreation.
- IS-IM29. Parks and Recreation.** Prepare parks and recreation standards for new development that consider community preference and differentiate

between urban, suburban, and rural settings; specify acreage of park land per 1,000 residents; and specify land dedication, in-lieu fees, or other mechanisms to make park and recreation improvements.

- IS-IM30. Street Lighting.** Prepare street lighting standards that allow for community-specific priorities and standards and that specify when streetlights are required based on intersection type and functional classification. Establish lighting design criteria, considering AASHTO and International Dark-Sky Association guidelines.
- IS-IMX. Public Facilities and Services Funding Sources.** Investigate and implement funding sources for public facilities and services, such as state or federal appropriations, grant and loan programs, special taxes, special assessments, tax increment financing, and fees, as directed by the Board of Supervisors.
- IS-IMX2. Fire Protection Services Funding Sources.** Support the development of funding sources, such as state or federal appropriations, grant and loan programs, special taxes, special assessments, and fees to support fire protection services, as directed by the Board of Supervisors.

Chapter 6. Telecommunications

6.1 Purpose

Telecommunications infrastructure and services include basic telephone, wireless telephone, and broadband internet. This chapter addresses telecommunications access, reliability, and capacity.

6.2 Relationship to Other Elements

Land Use Element policies govern the siting of telecommunications facilities. Other telecommunications issues are considered in the Economic Development, Circulation, and Community Infrastructure and Services Elements.

6.3 Background

Telecommunication Infrastructure and Services

Telecommunications infrastructure and services are critical to businesses for economic growth and job creation. Residents rely on telecommunications for quality of life, education, research, and access to health care and government services. As a rural area with a dispersed population base, Humboldt County lags in its access to reliable telecommunications services, as compared to urban centers such as the San Francisco Bay Area. In fact, several communities on the Yurok Reservation, including the Jack Norton Elementary School, are still without basic telephone service.

This Element draws from a series of technical reports, including: *Living in a Networked World* (2004), a comprehensive telecommunication assessment that included a supply and demand analysis and recommended actions to improve telecommunications in Humboldt County. The report identified several key telecommunication issues:

- **Planning.** Residents and businesses want more detailed, proactive telecommunications planning, not just general policies. They want the County and cities to take an active role.
- **Access/Coverage.** This is the single biggest issue. The County is not keeping up with the rest of the world, but there is a digital divide within the County as well. Broadband (high-speed) services are not available to half the County's residents, and cellular phone coverage is less than desirable.
- **Competition/Affordability.** There is little competition within the County, and because of that, services are more costly. Most believe there should be universal access to broadband, with a choice of providers.
- **Reliability.** Reliability has a different meaning in each part of the County. Eastern Humboldt residents seek a reliable means of making phone calls. In the area around the bay, residents would like redundancy to the single SBC fiber path. (If

the SBC fiber link goes down, the majority of telecommunications users here would be affected. Redundancy, if correctly implemented, would provide a needed backup.)

- **Applications.** Residents want access to government services, forms, and public meetings (e-government), and better bandwidth to take advantage of advanced applications, such as telemedicine, distance learning, VoIP (Voice over Internet Protocol), transfer of large files, and streaming audio, to name a few.
- **Education/Awareness.** Residents want to be more educated in technology skills and more aware of the potential of telecommunications. This includes training workers in tech skills, training businesses, and increasing awareness among the public and elected officials.
- **Advocacy.** This needs to happen at all levels — locally, statewide, and nationally. Residents want the County to actively advocate for telecommunications with state and national elected officials, the California Public Utilities Commission, and the Federal Communications Commission.

This Element addresses these issues in an effort to improve telecommunications access, reliability, and capacity in Humboldt County.

Cellular Service

Broadening cellular service to rural areas and eventually providing cellular access to broadband video and data is important to the County. Increasing the quality of coverage within urban areas and along major transportation corridors is also important. To accommodate these needs, this Plan provides a framework for adopting clear and reliable regulations for the siting of wireless telecommunication facilities. This Plan also establishes siting parameters to minimize community impacts, including demonstration of compliance with federal safety standards, low-profile facility designs, co-location whenever feasible, and minimum setbacks from residences.

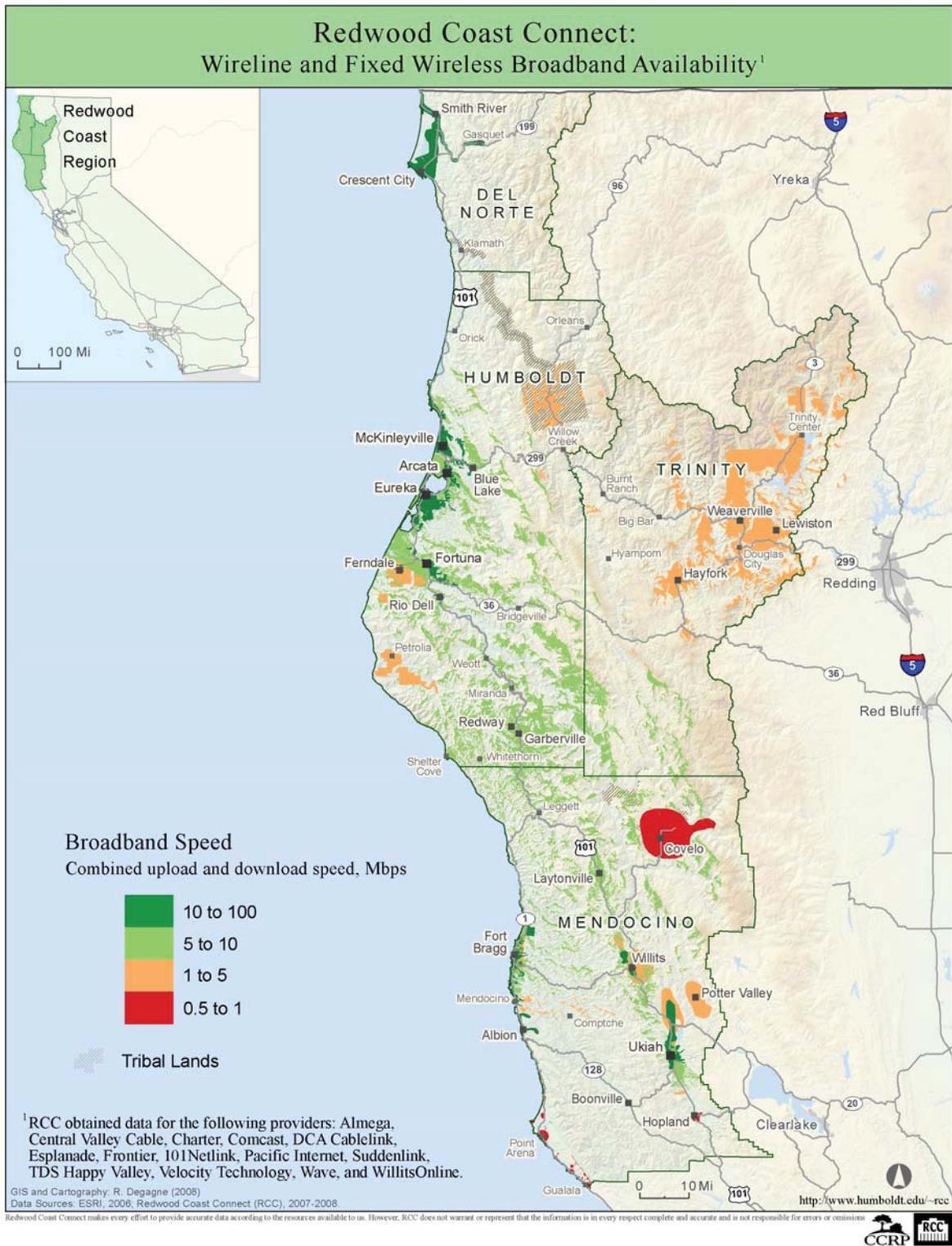
Broadband Communications Benefits and Availability

High-speed internet access, or broadband, is a fundamental aspect of the infrastructure required to educate our youth, create jobs, promote public safety, improve our standard of living, and deliver essential services like health care. According to the California Public Utilities Commission, reasonable broadband service in 2008 is 1 MB upload and 3 MB download (about 20 to 60 times the capacity of a telephone connection).

While some Humboldt County residents have access to broadband, many residents and businesses are underserved in terms of provider choice and speed. Humboldt County is seriously lagging behind the rest of the state in the quality and availability of broadband.

Figure 6-1, "Wireline and Fixed Wireless Broadband Availability," shows the geographic availability of broadband telecommunications in Humboldt County. The figure shows that broadband services are widely available in the greater Humboldt Bay Area. For many other areas of the County, broadband service is not available. Unserved areas include: Briceland, Bridgeville, Crannell, Fort Seward, Holmes, Korbel, Myers Flat, Orick, Orleans, Phillipsville, Redcrest, Richardson Grove, Weott, and the Yurok Reservation communities of Wautec/Johnsons and Pecwan (which do not have basic telephone

Figure 6.1, Wireline and Fixed Wireless Broadband Availability



service). Underserved areas are defined as having a combination of one or more of the following: slow speeds, less than three providers, backhaul issues (availability and/or cost), no wireline coverage, or small provider coverage. These areas include: Bayside, Carlotta, Fieldbrook, Honeydew, Hoopa, Hydesville, Kneeland, Petrolia, Weitchpec, and Willow Creek.

Ubiquitous broadband service availability will help the County accomplish many of its economic development objectives. Broadband will help strengthen and retain existing businesses and organizations. Broadband availability is also essential to creating and recruiting new jobs within identified targeted industry clusters that need reasonably priced advanced telecommunications services in order to compete from a rural location in a world economy. New residential and commercial development projects should include the infrastructure components necessary to support modern communication technologies, such as conduit space within joint utility trenches for future high-speed data equipment and flexibility in conduit placement to allow for easy retrofit for high speed data systems.

Expanding broadband and wireless services to smaller and remote communities will have several additional benefits. Improved telecommunications infrastructure will support public safety and emergency services by improving communications and access to information. Telemedicine, which is the use of communication technology to provide and support health care when distance separates the participants, could help improve healthcare in Humboldt County. Economic development objectives such as improved tourism, industry diversification, job creation, and promoting local businesses will benefit from a stronger on-line presence. Additionally, broadband technology will enable online education opportunities, telecommuting, and reduce the need for other vehicle trips.

A state law adopted in 2008 (SB 1191), authorizes community service districts to construct, own, improve, maintain, and operate broadband facilities and provide broadband services, if a private person or entity is unable or unwilling to deploy broadband service. This Plan supports this approach for the County's unserved smaller communities.

In 2007, the counties of Del Norte, Humboldt, Mendocino, and Trinity began a broadband demand aggregation study, entitled *Redwood Coast Connect*. The intent was to begin to understand and build a robust broadband market by increasing the supply of services (especially to underserved areas and constituencies), while at the same time growing business and home consumer demand in the region. In addition, the project investigated local, regional, and statewide policies that create a favorable environment for building new broadband services and fostering their use.

In 2007, the California Broadband Task Force, composed of industry leaders, public officials, and community representatives, including two representatives from Humboldt County, set three statewide goals:

- California must ensure ubiquitous and affordable broadband infrastructure, made available through a variety of technologies to all Californians.
- California must drive the creation and use of applications that produce the greatest economic, educational, and social benefits for California's economy and communities.
- California must construct next-generation broadband infrastructure, positioning California as the global economic leader in a knowledge-based economy.

This General Plan places a high priority on broadband market development and Humboldt's participation in the statewide diffusion of broadband technology and applications.

6.4 Goals and Policies

Goals

- T-G1. Deployment and Availability.** Communications, including high speed broadband, available to every resident, business, and institution in Humboldt County at a level of service and at a price comparable to urban communities.
- T-G2. Broadband Access.** A broadband internet infrastructure that reliably connects Humboldt to national networks and extends throughout urbanized areas to our most rural communities.
- T-G3. New Construction.** Broadband service capability integrated into new buildings and developments.
- T-G4. Communication Facilities.** Orderly planning and appropriate development of communication facilities within the County to achieve reliable access while protecting public health and safety; minimizing visual blight; and preserving the County's rural character including the protection of scenic, natural, and cultural resources.

Policies

- T-P1. Development of Communications Infrastructure and Services.** Support the development of communications infrastructure and services to facilitate the use of the best available technology for business, households, and government.
- T-P2. Broadband Service Reliability.** Support efforts to increase reliability and continuity of service by broadband media and communications providers through market development, installation of redundant infrastructure, diversification of providers, and system modernization.
- T-P3. Communications Facility Siting.** Design and site all facilities to minimize visibility, visual clutter, and reduce conflicts with surrounding land uses while recognizing that all communities in Humboldt County should have access to communication infrastructure.
- T-P4. e-Government Infrastructure.** Continue to expand the County's website and communications to deliver as many public services as possible online to decrease **vehicle** trips and reduce impacts on the environment. The County shall work towards providing all policies, plans, ordinances, and information about the jurisdiction online.
- T-PX1 PEG Access.** Encourage the expansion of Public, Education and Government (PEG) access media in all communities in the County.

- T-P5. Communications Facilities Within County Rights of Way.** Strongly encourage communications service providers to size underground and overhead facilities to accommodate future expansion, changes in technology, and, where possible, the facilities of other communications providers.
- T-PX2. County Right-Of-Way and Net Neutrality.** In negotiating franchise agreements and the use of County rights-of-way, the County shall strongly encourage providers to serve underserved communities and to adhere to the principal of net neutrality or unfiltered access to internet information.
- T-P6. Telecommuting.** Telecommuting and home-based businesses that use the internet shall be considered principally permitted accessories to residential uses when operated in compliance with cottage industry performance standards.
- T-P7. Broadband Internet.** Promote the provision of broadband infrastructure throughout the County.
- T-PX. Local Government Broadband Communications Services.** Encourage and support the efforts of community based organizations or community services districts to construct, own, improve, maintain, and operate broadband facilities and to provide broadband services within communities where communications service providers are unwilling or unable to so do.
- T-P8. Broadband Internet.** The County shall support the expansion and delivery of redundant, open broadband internet service throughout the County, and support the use of public resources to serve community anchors such as court houses, schools, libraries, civic and media access centers, and public safety and health care facilities.
- T-P9. Workforce Development.** Continue to work with local businesses and educational and other institutions to identify special communications needs, and to ensure that there are a variety of service providers and training opportunities available to address those needs.
- T-P10. Subdivision Improvement Requirements.** New residential and commercial development projects shall include the infrastructure components necessary to support modern communication technologies, such as conduit space within joint utility trenches for future high-speed data equipment and flexible telephone conduit to allow for easy retrofit for high-speed data systems.
- T-P11. Joint Telecom Planning.** Work with local governments, utilities, schools, medical facilities, communications and other service providers, neighboring counties, tribes, state and federal entities to unify and coordinate communication infrastructure planning on a local, regional, and global basis.
- T-P12. E-911.** Ensure that the County's broadcast and broadband media using wireless and wireline communications are capable of providing timely emergency information to facilitate rapid and reliable emergency response.
- T-P13. Cable Franchise Ordinance.** Ensure that the County's cable franchise ordinance is kept up-to-date to deal with the changing nature of federal and state law as well as the changing nature of communications technology so

that the best possible services are available to residents, businesses, community based organizations, educational institutions and other public agencies.

- T-P14. **Free internet Access.** Encourage the installation and availability of free public-use broadband services at every County-owned building and other community anchor facilities.
- T-P15. **Trip Reduction.** Encourage communications infrastructure improvements and expansion as a means to reduce transportation impacts and improve air quality.
- T-P17. **Technology Awareness.** Promote awareness, innovation and utilization of broadband communications technology by businesses and residents, especially for the least served people and places.
- T-P18. **Localism.** Promote development of locally owned networks through deployment and utilization of broadband media and communications services in all communities.

6.5 Standards

- T-S1. **Communications Siting Standard.** Siting of new communications facilities shall comply with standards contained in a Communications Facilities Ordinance that incorporate the following:
 - A. **Tiered Permitting.** Utilize permit processes that vary depending upon the physical characteristics of the facility, its location, and its compliance with specific development and performance standards, and include provisions for expanded noticing.
 - B. **Performance Standards.** Standards for siting design, visibility, construction impacts, noise, on-going operation, and other characteristics that affect the compatibility and environmental and safety impacts of proposed facilities.
 - C. **Site Co-location.** When feasible, communications facilities shall be located adjacent to, on, or incorporated into existing or proposed buildings, towers, or other structures. The County shall require new facilities to accommodate future co-location to the maximum extent feasible.
 - D. **Public Health and Safety.** Applicants shall demonstrate that proposed facilities operate within Federal Communications Commission (FCC) emission regulations and guidelines including initial and ongoing monitoring for compliance with FCC regulations.
 - E. **Location and Siting.**
 - 1. When designing and siting towers, screening should be used, if possible, to minimize visual impacts.
 - 2. Stealth siting methods should be used, if possible, within views of scenic highways, public parks, cultural facilities and coastal scenic

areas.

3. Stealthing and/or setbacks shall be used to ensure community compatibility.
4. An alternatives analysis may be required at the time of application that documents why the proposed project is the best way to accomplish project alternatives while minimizing project impacts.

F. Design and Screening.

1. Support structures shall be designed to minimize **their** visibility with a preference towards each of the following in the order so listed: 1) use of existing structures, 2) stealth designs for concealment, and 3) monopoles.
2. Component parts, equipment cabinets, buildings, and security fencing shall be designed to achieve a minimum profile through painting, screening, landscaping, and architectural compatibility with surrounding structures.
3. Photo simulations or balloon tests with views from various vantage points may be required to show visual impact of the proposed facility.

G. Removal of Un-used Facilities. Require the timely removal of communications towers and equipment when they are no longer needed, as a condition of approval.

H. Independent Review. Applicants may be required to pay the cost of independent review to evaluate siting alternatives, necessity based on adequacy of coverage or evaluation of radio frequency emissions in relation to FCC Maximum Permissible Exposure Limits.

I. Waiver or Modification of Standards. Allow for a waiver or modification to standards and requirements based on specific findings showing non-detriment and necessity or that strict compliance would result in noncompliance with applicable federal or state law.

6.6 Implementation Measures

T-IM1. Communications Facilities Ordinance. Adopt a Communications Facilities Ordinance that ensures compatibility of communications facilities with nearby land uses, is proactive in the design and siting of wireless communications facilities, provides incentives for unobtrusive and compatible wireless antennas, and establishes clear standards for such facilities.

T-IM2. Broadband Deployment. Revise subdivision regulations to require the provision, where feasible, of infrastructure facilities for broadband communications network deployment.

T-IM3. Improvement Specifications within Road Rights-of-Way. Review the Standard Improvement Specifications for Public Improvements to determine if a location for the placement of conduit for communications use can be designated, and to develop safe zones for installing new communications infrastructure.

T-IM4. Communications Infrastructure Inventory. Create and maintain an inventory

of communications infrastructure located within and outside public rights-of-way and all existing and proposed communications facilities and their locations in the County, including all available tall structures that could be used for communications antennas.

- T-IM5. Public Conduit.** Work with other local, state and tribal jurisdictions to develop a standard for installing publicly owned communications conduit as part of capital construction projects.
- T- IM6. Ongoing Communications Planning.** Prepare and periodically update a communications improvement program based on existing local, countywide, and regional communications planning studies that identifies existing conditions, needed improvements, and funding programs, and that establishes criteria for prioritizing projects.
- T- IM7. Pre-Planning Facility Locations.** Establish and utilize wireless and wireline telecommunications siting standards, in coordination with other jurisdictions, to identify areas where future commercial or public communications facilities can be located.
- T- IM8. Communications for Under Served Communities.** Advocate for and seek grant funding to deliver improved communications to outlying rural areas and other under served communities. Provide technical assistance to community service districts, other local government jurisdictions and community based organizations interested in offering broadband communications services for public, education and government purposes.
- T- IM9. Broadband Reliability.** Advocate for and seek grant funding to support broadband service diversity and redundant network capacity to and from the County.
- T- IM10. e-Government.** Continuously improve County government's use of broadband communications and digital technology to educate and provide public services with a focus on internet services, geographic information systems, public safety and emergency communications.
- T-IMX. Remote Deployment Planning.** Seek funding to undertake a study and environmental review to determine appropriate places to deploy wireless communication facilities that would provide reliable coverage to every community within the County. Areas approved in the report should receive expedited and streamlined permitting.
- T-IMX1. Increasing PEG Access.** Work with local, state, tribal and federal government community based organizations and private sector entities to develop, improve, and maintain high quality communications service providing increased community access to affordable, broadband media services for public, education and government purposes.
- T-IMX2. Communication Marketing.** Market the County to the outside world as a tech-aware place to live and work.
- T-IMX3. Live Remote of Public Meetings.** Seek funding and deploy live remote and interactive coverage of public meetings to communities without access to

public, education, and government channels.

- T-IMX4. **Research Possible Monitoring Policy.** Support community workshops to discuss the issue of monitoring radiation outputs from wireless equipment.

Chapter 7. Circulation Element

7.1 Purpose

This chapter describes the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other local transportation facilities. It includes consideration of roads, public transportation, bicycle and pedestrian travel, airports, and marine and rail transportation.

7.2 Relationship to Other Elements

The goals and policies in this Element are directly correlated with that of the Land Use Element and Housing Element so that new and existing development will be adequately served by the transportation system, and will not interfere with existing or planned improvements. Transportation policies in this Element are also closely related to policies in the Energy Element and the Air Quality Element to minimize energy costs and air quality impacts. This Element is also directly related to the Community Infrastructure and Services Element, which contains policies regarding infrastructure financing and level-of-service standards. The Noise Element and Safety Element also include policies and standards to address airport noise and safety issues. The requirements set forth in the Land Use Element and Safety Element also reflect the residential densities allowed near airports.

7.3 Background

Circulation and Land Use

Coordinating land use and circulation decisions is necessary to achieve many of the goals of this Plan. For example, adequate roads and safe bicycle and pedestrian routes within Urban Development Areas are essential to accommodate growth. If circulation problems are fixed and improvements are made as development occurs, growth can be accommodated without creating traffic and traffic safety problems for existing residents. Land use planning must also complement transportation planning by locating uses in areas that can be cost effectively served, and by conditioning projects to mitigate impacts.

Synchronizing the County's efforts with local cities, California Department of Transportation (Caltrans), Native American Tribes, and the ongoing transportation planning of the regional Humboldt County Association of Governments (HCAOG) is a high priority of this Plan. The best results will be achieved through seamless coordination between all the land use and transportation service and planning agencies in the County. The Caltrans, City of Eureka, and County partnership to use the **Greater Eureka Area Humboldt County** Travel Model (**GEAHC**™) as a joint-agency planning and decision-making tool is a good example of interagency coordination. Another good example is the recent grant funding proposal for a \$50 million regional trails system put

together by the Redwood Community Action Agency; Humboldt County; the cities of Eureka, Arcata, Blue Lake, and Rio Dell; Caltrans; and the Hoopa and Karuk Tribes.

Roadway Infrastructure

The roadway network in Humboldt County includes 1,400 miles of County maintained roads and city streets, 378 miles of state highways (including U.S. Highway 101), and numerous roadways on federal lands. These roadways provide for the movement of goods and people on California’s north coast. The Humboldt County–maintained roadway system is primarily made up of two-lane roads that traverse varying degrees of flat, rolling, and mountainous terrain.

Roadway Capacity

As the County’s population grows over the 20-year General Plan period, corresponding increases in vehicle volumes will have impacts on the safety and functionality of County roadways. As described in the Community Infrastructure and Services Technical Report, the GEAHCTM model can be used to assess a roadway’s “level of service” — a qualitative measure of a roadway’s peak hour performance, where a letter grade from “A” to “F” is assigned as a measure of traffic congestion (see text box for additional information). In several cases in the Eureka area, roadways are already operating at or above capacity during peak hours.

Level of Service	
Level of Service (LOS) is a qualitative measure describing operational conditions within a traffic stream and their perception by motorists. The quality of traffic operations is expressed in terms of LOS A (no congestion) through LOS F (extreme congestions). LOS definitions generally describe traffic conditions in terms of speed, travel time, freedom to maneuver, traffic interruption, comfort, and convenience. Typically, level of service D is used as the design standard in urban areas and level of service C is used as the design standard in rural areas.	
<u>LOS</u>	<u>Description</u>
A	Free-flowing conditions with no delay.
B	Free-flowing conditions; however, speed and maneuverability are slightly restricted due to the presence of other vehicles.
C	Stable traffic flow, with less freedom to select speed, change lanes, or pass. Some delay may be experienced.
D	A traffic stream approaching unstable flow, with reduced speed and maneuverability.
E	Unstable traffic flow with rapidly fluctuating speeds and flow rates.
F	Forced traffic flow, where speed and flow may drop to zero with high densities.

The Community Infrastructure and Services Technical Report also identifies other roads currently able to accommodate existing traffic volumes, but that are expected to have segments that reach or exceed capacity as traffic volumes increase over the next 20 years. Addressing these capacity limitations is critical to the implementation of the General Plan. The HCTM was used to evaluate traffic conditions during the General Plan Update planning period. U.S. 101 between 6th Street and S.R. 255; U.S. 101 in Eureka between 6th Street and Herrick Avenue; Main Street Fortuna, between 7th Street and 13th Street; and Kenmar Road in Fortuna, between U.S. 101 and Fortuna Blvd are projected to fall below level of service “C” due to cumulative growth during the General Plan Update planning period.

Roadway capacity is generally less of an issue for rural areas due to the lower population densities, but there are rural roadways where capacity and functionality must be addressed, especially to comply with Fire Safe—State Responsibility Area standards. Rural roadway capacity is usually limited by right-of-way width, lack of secondary

roadway alternatives, roadway conditions, debris slides, and a lack of facilities for other transportation modes, including public transit, bicycles, and walking.

Several map series provide details of the County's road system. Maps showing existing and planned future County roads and multimodal transportation facilities are shown in the Map Book Appendix, existing and future above-capacity road segments are in the Community Infrastructure and Services Technical Report, and maps showing the 2006 average daily traffic and level of service for the state highways in Humboldt County are in the *2006 Regional Transportation Plan* prepared by HCAOG (this mapping was not included in the 2008 RTP or the 2014 Update, which is the current plan).

Impacts of new development on the safety and capacity of the road network are currently assessed on a project-by-project basis. Developments are required to make on-site improvements to the road frontage and to provide safe access to the new development. The County has been unable to fund road construction to support new development and generally has not accepted privately constructed roads into its maintained road system. Instead, new roads constructed to County standards must be maintained by a Home Owner or Road Maintenance Association. Recently the County developed a "Permanent Road Division" Program that allows a private road to be accepted into the County system if the property owners pay an annual fee to cover the long-term maintenance costs of the road.

Funding improvements to solve area-wide capacity problems is one of the most significant Circulation Element implementation challenges. Designing the improvements, estimating costs, and apportioning costs on a fair share basis through fees or assessments will be necessary to address area-wide capacity limitations. If capacity limitations are not addressed, there will not be sufficient capacity to accommodate new development and individual projects will have difficulty gaining approval because of cumulative traffic impacts and neighborhood concerns.

Roadway Maintenance

Roadway maintenance is currently one of the more significant challenges facing the County. At present there is over \$100 million in deferred maintenance on the County's major roadways, which does not include maintenance costs for local streets. Without significant increases in maintenance spending, roadway conditions will continue to decline and the costs of repair will escalate.

In 2000, Humboldt County's arterial and collector roadways were inspected and rated as part of the County's new Pavement Management System (PMS). This system relies on assessments of roadway condition and helps roadway maintenance managers identify thresholds for maintenance measures. The PMS generates pavement distress data for a representative sample of arterial and collector roadways in Humboldt County. This data forms the basis for the creation of an Overall Condition Index (OCI), which rates roadway surfaces on a scale from 0-100 as shown in Table 7-A.

OCI	Condition	Maintenance Typically Required for this Condition	Avg. Cost (\$/ft ²)
70-100	Very Good	Minor (OCI 70-85)—Variable maintenance.	<\$0.4
50-69	Good	Chip Seal - Pavement sprayed with asphalt, covered with aggregate and rolled.	\$0.4
25-49	Poor	Overlay - An increase in the pavement load carrying capacity by adding additional pavement layers.	\$4
<25	Very Poor	Reconstruction - Complete removal and replacement of the existing pavement structure.	\$10

Source: Five Year Road and Bridge Capital Improvement Program, 2003.

The County is updating the ~~five-year~~ *Road and Bridge Capital Improvement Program* (CIP) ~~for the years 2008-2012~~ to help guide the use of the County's transportation budget into the future. The County is also ~~developing~~ ~~maintains~~ a list of road projects from its Pavement Management System ~~that will determine future to~~ ~~prioritizes for the~~ maintenance and rehabilitation of its roadways. The Community Infrastructure and Services Element contains policies to establish transportation system funding sources for both construction and maintenance that are intended to reduce the maintenance deficit over time.

Watershed Protection

In response to the 1997 listing of Coho salmon as a threatened species, Humboldt County joined Del Norte, Mendocino, Trinity, and Siskiyou counties to form the Five Counties Salmonid Conservation Program (see the Water Resources Element for more discussion of the 5Cs program). This program works in a number of ways to protect salmon habitat, including the development of grading and road maintenance protocols.

In 2007, the National Marine Fisheries Service approved the *Five County Water Quality and Stream Habitat Protection Manual for County Road Maintenance*. Road maintenance activities carried out in accordance with the manual are considered to be adequate to protect threatened salmon and steelhead.

Greater emphasis must be placed on reducing sediment contributions from roads throughout the County to comply with the Clean Water Act's Total Maximum Daily Load targets and salmon recovery efforts. In addition, the Grading, Excavation, Erosion, and Sedimentation Control regulations (Title III, Land Use and Development, Division 3) contain requirements to reduce sediment transport off the site through the use of best management practices from sources such as the *State Water Resources Control Board Best Management Practices Construction Handbook*.

U.S. Highway 101 Safety Corridor Project

Arguably the single largest transportation project with the most potential impact on Humboldt County residents during the timeframe of the General Plan is the Caltrans U.S. Highway 101 Safety Corridor Project between Arcata and Eureka. The *2007 Draft Environmental Impact Report* (DEIR) described the alternatives under consideration, and the preferred alternative involves constructing an overpass at the intersection of Indianola Cutoff and U.S. Highway 101.

Policies in this Element reflect the comments made on the DEIR by the Board of Supervisors on September 18, 2007 to request consideration of land use and a strategy that treats all three main roads between Arcata and Eureka as one system. The strategy would develop an overall improvement plan that phases improvements on a prioritized basis between the three roads: U.S. Highway 101, State Route 255, and Old Arcata Road/Myrtle Avenue.

Public Transportation

Providing adequate public transportation to serve the needs of people who prefer or require public transportation for mobility is a priority of the Circulation Element. Increased use of public transportation will reduce air pollution, greenhouse gas emissions, traffic congestion, parking demand, energy consumption and the cost of personal transportation. The 2008 RTP contains a comprehensive description of public transit services of fixed and flexible route providers. The following fixed-route systems serve the County's public transit needs: Redwood Transit System, Eureka Transit System, Southern Humboldt Rural Transit System, Arcata & Mad River Transit System, Klamath/Trinity Non Emergency Transportation (K/T Net), and Blue Lake Rancheria.

Flexible route services are available through Dial-a-Ride/Dial-a-Lift, K/T Net Paraneet, Blue Lake Rancheria Dial-a-Ride, Fortuna Senior Transit, Humboldt Community Access and Resource Center, Bridgeville Community Center Van, Ferndale Senior Resource Transportation Network "Bridging the Gap," Coastline Enterprises, Humboldt County Mental Health, and United Indian Health Services, Inc. Also described in the 2008 RTP are the services of Redwood Coast Transit (linking Crescent City and Humboldt County), Greyhound Bus Lines, AMTRAK, and City Cab.

The 2008 RTP identifies a 1-hour or less weekday service interval as the appropriate level of service for the urban areas of Eureka and Arcata, and an interval of 1.5 hours for the U.S. Highway 101 corridor between Trinidad and Scotia. This Element carries forward these public transit goals, policies, and implementation measures applicable to the unincorporated areas of the County.

Bicycle and Pedestrian Travel

This Plan supports improvements that accommodate bicycles, pedestrians, and the mobility-challenged population. These improvements mostly include sidewalks, crosswalks, trails, and bicycle lanes. While walking or cycling between destinations is a choice for some, it is a necessity for others who do not have access to motorized transport. Development of bicycle and pedestrian facilities can reduce vehicle miles traveled, enhance communities, increase the opportunities for an active and therefore healthy lifestyle, and reduce greenhouse gas emissions.

Most facilities dedicated to bicycles and pedestrians are located in urban areas of the County, for example, the Hammond Trail in McKinleyville. In rural areas, pedestrians and bicyclists typically use County roads that lack sidewalks and bicycle lanes. Cyclists also use Caltrans-maintained state routes. Major new trails are in the planning stages **and under construction include along** the Annie and Mary Rail Line from Arcata to Blue Lake, along U.S. Highway 101 between Arcata and Eureka, and around Humboldt Bay, **and the Hikshari trail and trail through PALCO Marsh and behind the Bayshore mall.** An ambitious new \$50 million grant proposal was recently submitted to the Federal Highway Administration to develop a regional trail system linking together these trails with others to

the north in McKinleyville, to the south in Rio Dell and greater Southern Humboldt, and to the east in Willow Creek, Hoopa Valley and the Klamath Valley.

The need for bicycle and pedestrian transportation facilities is assessed on a project-by-project basis. While the County uses LOS standards for determining impacts of new development to vehicle traffic, assessing needs and the impacts to bicycle and pedestrian facilities has been less standardized.

HCAOG's 2008 Humboldt County Regional Pedestrian Plan and the 2004 Regional Bicycle Transportation Plan Update are the latest assessments of pedestrian and bicycle conditions and needs in the County. Maps and descriptions of existing and proposed future non-motorized transportation facilities are shown in the Map Book Appendix.

The connection between public health and pedestrian and bicycle transportation is receiving increasing attention both locally and nationally as childhood obesity and other health problems related to a more sedentary lifestyle become epidemic in our population. A Health Impact Assessment (2008) of General Plan alternatives generally concludes that reductions in vehicle miles traveled and increases in walking and biking would yield significant public health benefits.

Access conditions for students walking and bicycling to and from County schools is a major concern, especially at the elementary school level. Development of safe student access routes wherever children walk or bicycle to school is critical. "Walkability" audits have been used locally to identify problem areas and solutions. Caltrans administers a "Safe Routes to Schools" funding program, which has helped construct bicycle and pedestrian facilities in Humboldt County and can be a funding source in the future. This Element includes a policy to encourage coordination between school districts and the County on this important issue.

2008 General Plan Update Health Impact Assessment Safe and Healthy Transportation Indicators:

- Average vehicle miles traveled by Humboldt residents per day
- Average minutes traveled to work by zip code
- Proportion of commute trips made by public transit
- Proportion of households with 1/4-mile access to local bus service
- Proportion of average income spent on transportation expenses
- Ratio of miles of bike lanes/ pedestrian facilities to road miles
- Proportion of commute trips and trips to school made by walking or biking
- Number and rate of bicycle/pedestrian injury collisions
- Proportion of population living on residential streets with speed limits greater than 35 mph.
- Percent of population who have access to pedestrian facilities.

Truck Transportation

The primary routes into and out of the County used by commercial trucks are U.S. Highway 101 and State Route 299. These major highways provide many trucks adequate facilities and level of service for their operations. However, narrow, winding sections of these highways legally prevent larger trailers from entering the County, which increases shipping costs for both imported and exported goods.

Proposed improvements to the road alignment of U.S. Highway 101 through Richardson Grove south of Garberville, combined with recent state regulatory reforms, may eliminate the constraint on large truck access. This would reduce costs of shipping and may help local businesses become more profitable. **Future** improvements **underway** to

State Route 299 in the Buckhorn Summit area of Trinity County could provide trucks with larger trailers access from the east.

The benefits **of the above described truck transportation improvements** to existing businesses are significant and large truck access is critical to new business development, especially marine industrial use of Humboldt Bay. The shrinking nationwide fleet of smaller trailers that are legally allowed access to Humboldt County will make these improvements a necessity over time.

Air Transportation

The Arcata-Eureka Airport located in McKinleyville is the County’s sole commercial airport. Maintaining a wide selection of carrier, flight, and destination options is a high priority of this Element. Given the County’s remote location, providing convenient travel connections to urban centers is an important quality of life amenity and is essential to maintaining Humboldt’s connections to the world economy.

With the exception of Shelter Cove and Hoopa, airports in the unincorporated areas are managed by the Aviation and Airport Division of the County Public Works Department and operated according to Airport Master Plans. Airport Land Use Compatibility Plans have been prepared for the County operated Arcata-Eureka, Dinsmore, Garberville, Kneeland, Murray Field, and Rohnerville airport, and include maps that display “Land Use Compatibility Zones.” These zones restrict the allowed uses and residential densities in areas that would impact aircraft operations. The Airport Land Use Compatibility Plan also contains policies and criteria that regulate allowed uses and residential densities around the Hoopa and Shelter Cove airports.

<u>Airport</u>	<u>Runway Length (ft)</u>
California Redwood Coast – Humboldt County Airport (Arcata-Eureka Airport)	5,998 and 4,499
Dinsmore Airport	2,510
Eureka Municipal Airport	2,700
Samoa Field	
Garberville Airport	3,050
Hoopa Airport	2,325
Kneeland Airport	2,270
Murray Field	3,000
Rohnerville Airport	4,005
Shelter Cove Airport	3,400

Marine Transportation

The Port of Humboldt Bay is a key fixture of the local economy. Shipped commodities passing through Humboldt Bay include petroleum products (gasoline and fuel oil), wood chips, logs, lumber, and paper pulp. Forest products remain the highest volume marine shipments passing through Humboldt Bay. The marine export of forest products has fluctuated over the years based on supply and demand and competition with trucking options. Occasionally whole logs are imported through Humboldt Bay as feed stock for local mills.

The marine transport of goods has been affected by changes in the shipping industry. Larger deep-draft vessels are becoming more common for moving cargo along Pacific Ocean shipping lanes. These vessels have higher cargo capacities and require deeper and wider channels and turning basins. In response to this need, the Humboldt Bay Harbor District and the U.S. Army Corps of Engineers completed a project in 2000 to deepen the bar, entrance, North Bay, and Samoa channels and widen the entrance

channel. The bar and entrance channels have been deepened to a depth of 48 feet, and the North Bay and Samoa channels deepened to a depth of 38 feet. In addition, the Harbor District has been working with members of Congress and the U.S. Army Corps of Engineers to develop a companion project that would deepen and widen the Fields Landing channel.

The 2003 Harbor Revitalization Plan, prepared jointly by the Humboldt Bay Harbor District, City of Eureka, and County to encourage the economic development potential of the Port, focuses on improvements to marine facilities, landside access, diversification opportunities and marketing. Significant new opportunities were identified for Humboldt Bay, including marine-dependent industrial projects, niche dry and liquid bulk cargoes, and the potential for tourism and marine science development. Opportunities for expansion or continuation of existing aquaculture and commercial fishing operations were also identified. The growth of Humboldt Bay's marine transport industry is linked to growth in the truck and rail transportation modes. All dock facilities have railroad spurs that connect to the main North Coast Railroad Authority facilities. Due to the current condition of railroad **facilities and** operations, goods loaded on and off of commercial vessels calling on Humboldt Bay are transported to and from the dock facilities by truck.

Rail Transportation

Rail service on the North Coast has a long history. Railroads were introduced to Humboldt County in the late 1800s by timber companies to carry logs from the forest to the mills. Eureka and San Francisco were connected by rail in 1914. Private carriers offered varying degrees of passenger and freight service along the line until the bankruptcy of Eureka Southern in 1986. In 1989 the California Legislature created the North Coast Railroad Authority (NCRA) in an effort to maintain rail service. In 1997, the rail line effectively ceased operation.

In the latter years of operation, it provided freight service to Humboldt County three days a week and occasional excursion passenger service on holidays. The principal freight was lumber transported to the California and Arizona markets. Additional traffic included dairy products, fish products, and aggregates. There was also some inbound traffic of coke and calcified lime used in pulp processing.

Future rail transportation in the County depends on demand for rail service relative to trucking and marine transportation and the availability of capital to rebuild the line and fund the operation. Based on the conclusions of The Long Term Financial and Economic Feasibility of the Northwestern Pacific Railroad (2003), a considerable program of roadbed, track, bridge and tunnel, and station rebuilding would be necessary if operations are to resume. Maintaining the line in an operational condition through the Eel River Canyon also represents a challenge due to geologic instability and environmental concerns. When the Southern Pacific Railroad entered abandonment proceedings for the line in 1982, they estimated that the Northwestern Pacific cost them 2 to 3 times their normalized maintenance costs for all other Southern Pacific railroads across the country. In terms of market potential, the report found the greatest opportunity for growth in rail related shipments in solid waste, aggregate, and port-related marine industrial activities.

A potential use of the northern most portion of the rail line considered in the 2002 Moving Goods and People Report would be to support tourism by developing an excursion train. The Northern Counties Logging Interpretive Association (NCLIA) seeks to create a logging and timber technology museum in Humboldt County, coupled with an operating steam-

powered "Humboldt Bay Scenic Railroad" excursion train. This tourist railroad would operate from South Fork (Dyerville) north to Samoa. The Humboldt Bay Trails Feasibility Study (2007) evaluated several options for using the railroad easement for a pedestrian and bike pathway between Eureka and Arcata.

The NCRA Board of Directors intends to focus on updating and implementing the **ir** adopted business plan and three major areas of future need:

- Executing public policy to protect the railroad as a public transportation asset and to promote its use.
- Overseeing the financial accounting and record keeping system through auditing and monitoring of all systems.
- Pursuing new funding sources and new legislation, as well as continuing management of grant funding from existing local, state, and federal sources to improve railroad infrastructure and operations.

The County has been involved in **preliminary** planning for a **potential** trail **that would to** connect Arcata and Eureka that **could** include the NCRA right-of-way. There are many examples of successful rails with trails projects that are in operation across the United States and the Federal Highway Administration has published a document entitled *Rails with Trails - Lessons Learned*, which includes a wealth of information regarding the safety of bicycle and pedestrian pathways along rail lines around the country. Consideration should be given to the use of rails with trails as a means to preserve the rail corridor between Eureka and Arcata for future rail use.

7.4 Goals and Policies

Goals

C-G1 Circulation System Safety and Functionality. A safe, efficient, accessible and convenient circulation system in and between cities, communities, neighborhoods, hamlets, and adjoining regions taking into consideration the context-specific needs of all users*, consistent with urban, suburban, rural or remote community character.

All users is defined in the Complete Streets **Act/Law to include: motorists, pedestrians, bicyclists, children, persons with disabilities, seniors, movers of commercial goods, and users of public transportation, in a manner that is suitable to the rural, suburban, or urban context of the general plan.*

C-G2. Diverse Transportation Opportunities. A transportation system that provides the availability of options among modes of travel by considering the needs of all users* in a context sensitive manner that is appropriate to urban, suburban, rural or remote community character.

*See above definition

C-G3. Interagency Cooperation. Coordinated planning between **the County,** transportation system service providers and HCAOG for improved system design, development, operations, and maintenance.

- C-GX. Access to Active Transportation.** Improved access to non-motorized modes of transportation, including walking, bicycling, horseback riding and hiking.
- C-GXXX. Movement of Goods.** A circulation system with improved opportunities, reliability, connectivity, and cost-effectiveness for businesses and producers to move goods within, into and out of Humboldt County.

Policies

Circulation and Land Use

- C-P1. Circulation System.** Encourage development of a circulation system that supports:
- A. Access to higher density residential areas, local commercial facilities, neighborhood parks and schools, while maintaining maximum bicycle and pedestrian connectivity.
 - B. Designing access to residential areas to minimize disruptions to the flow of traffic while providing for user safety and connectivity on arterial or collector roads.
 - C. Improving connectivity between interrelated areas such as neighborhoods and common destinations.
 - D. Planning retail, service and industrial facilities, community centers, major recreational facilities, employment centers, and other intensive land uses that consider the location of collectors or arterial roads consistent with the Land Use Element.
- C-P2. Consideration of Land Uses in Transportation Decision Making.** Transportation decisions shall be based on a comprehensive planning approach that considers existing land uses, principally permitted land uses and future land development as proposed in adopted County plans and plans of other governmental agencies.
- C-P3. Consideration of Transportation Impacts in Land Use Decision Making.** Decisions to change or expand the land use of a particular area shall include an analysis of the impacts to existing and proposed transportation facilities and services so as to minimize or avoid significant operational, environmental, economic, and health-related consequences.
- C-P4. Mitigation Measures.** Development with potentially significant circulation impacts as determined by CEQA review shall be conditioned to proportionally mitigate such impacts through payment of impact fees, construction of on- and off-site improvements and dedication of rights-of-way or a combination of impact fees, improvements and dedications.
- C-P5. Level of Service Criteria.** The County shall strive to maintain Level of Service C operation on all roadway segments and intersections, except for U.S. 101, where Level of Service D shall be acceptable. Level of Service improvements for automobiles should not adversely affect Level of Service and/or Quality of Service for other modes of transportation, if possible.

- C-P6. Jurisdictional Coordination and Integration.** Use HCAOG, formal Memorandums of Understanding, and informal project level cooperation to integrate county-wide transportation planning and implementation efforts.
- C-P7. Joint Use of Traffic Models.** The County-Wide Transportation Plan (CWTP) and projects with potentially significant transportation impacts should integrate transportation planning through joint use of area-wide traffic models, including but not limited to the Greater Eureka Area Travel Model (GEATM) or the Humboldt County Traffic Demand Model (HCTDM). Develop travel demand models with methods and inputs that incorporate walking, biking and transit. Support coordination with agencies to maintain the accuracy and utility of such models.
- C-P8. Coordination Between County Agencies.** County Public Works shall coordinate with Community Development Services Planning and Building and consider suggestions from other County departments to encourage uniform implementation of the Circulation Element and County-Wide Transportation Plan.
- C-Px. Circulation Planning for Bicycles, Pedestrians and Transit.** Circulation planning and project review shall include an assessment for bicycle, pedestrian and public transit access.
- C-Px9. Regional Transportation Demand Management Funding.** Encourage HCAOG to seek funding to support transportation demand management planning and to promote strategies that can lower the demands made on the road and highway system, reduce energy consumption, and improve air quality.
- C-Px10. Transportation Demand Management Programs.** Require residential subdivisions and multifamily development that would result in fifteen or more dwelling units, and non-residential development that would employ greater than ten persons, and that require a discretionary permit, to comply with County transportation demand management programs.
- C-Px. Countywide Traffic Impact Fee Program.** In coordination with the cities within the County, shall develop and implement a countywide traffic impact fee program that addresses impacts on major roads resulting from development in cities and unincorporated areas. Adopt this fee within one year of the adoption of the General Plan Update. A traffic impact fee is currently being evaluated for the Greater Eureka Area, encompassing the Eureka urbanized area.

Roadway Infrastructure

- C-P9. Acceptance of Roads into the County Maintained Road System.** Circulation Element roads, as specified by the County-Wide Transportation plan, shall be recommended to the Board of Supervisors for inclusion into the County Maintained Road System. Other roads shall not be recommended for acceptance into the County Maintained Road System unless an exception for public interest is supported by Public Works and adequate funding for the future maintenance of the road and its associated facilities is provided.

- C-P10. Rail Rights-of-Ways.** All contiguous rail rights-of-way currently held by the North Coast Railroad Authority, and those along the former Annie and Mary Railroad rail corridor between Arcata and Blue Lake, shall be planned Railroad in the Land Use Element.
- C-P11. Roadway Functional Classifications.** Adopt and consistently apply roadway design and right-of-way standards as part of a County-Wide Transportation Plan according to functional classifications that consider all modes of travel in the context of road location and applied usage, e.g. urban, suburban, rural or remote.
- C-P13. Prioritization of Investments.** Use objective criteria consistent with this Plan that can be applied uniformly and county-wide to prioritize transportation capital and maintenance expenditures. Work to reduce overall deferred maintenance liability. Subject to state law, maintenance of existing roads shall be a priority.
- C-P17. Highway Improvements.** Encourage state and federal highway improvements that promote safety and connectivity for all users, especially for communities with highway arterials. The County supports a strategy for safety and operational improvements to the U.S. Highway 101 Safety Corridor that is implemented in a manner consistent with the General Plan.
- C-P18. County Feedback to School Districts Regarding Transportation Planning.** The County shall provide feedback to school districts with new school site locations, opening or re-using closed school sites, and significant changes in attendance levels or hours of operation, to give advice on mitigating traffic impacts and promoting multimodal school site access.
- C-P19. Best Management Practices.** The County shall periodically update its grading ordinance to assure it is using best management practices.
- C-P21. State and Federal Consistency.** Road construction and maintenance activities shall be consistent with and support approved state and federal salmon or steelhead recovery plans, Clean Water Act Total Maximum Daily Loads (TMDLs), and the National Pollution Discharge Elimination System Stormwater Program.
- C-Px, U.S. 101/Broadway Corridor.** The County shall participate in joint planning for capacity improvements relating to the U.S. 101/Broadway corridor with HCAOG, Caltrans, and the City of Eureka.

Public Transportation

- C-P22. Public Transit.** The County shall support the implementation of guiding goals, policies, and objectives of the Public Transit and Paratransit Service Element of the Regional Transportation Plan as amended, to the extent they are consistent with the General Plan.
- C-P23. Public Transit Service.** The County shall coordinate and integrate with transportation providers so that a full range of travel patterns and connectivity with other modes of transportation are provided.

- A. Existing and future public transit services should be coordinated so that service from rural areas is effectively integrated with urban service. Schedules should be designed for a smooth transfer between rural and urban buses. Convenience facilities should be made available so that transfer areas are attractive, well lit, protected from the weather and have bus information posted.
- B. Automobile and bicycle transport should be integrated with public transit by developing adequate parking facilities at major bus stops and, where feasible, by transporting bicycles on intercity and regional buses.
- C. Public transportation should support access to social services and mitigate the impacts of service changes to social service clients.

C-Pxx. Long Term Transit Plan. The County shall support HCAOG's long term transit planning with the goal of increasing the percentage of public transit trips compared to automobile trips.

C-PX5. County-Wide Transportation Plan. The County shall maintain a clear plan for development and improvement of multi-modal transportation infrastructure consistent with land use plans, intended community character and community priorities.

Bicycle and Pedestrian Travel

C-P24. Investment in Improvements. The County's Capital Improvement Plan shall be consistent with the County-Wide Transportation Plan. It will prioritize, assess and address existing road conditions consistent with the goal of increasing the safety, **functional** network **functionality** and facility efficiency, and capacity for all modes. The level of service and quality of service for all users shall not be diminished, and where practical, shall be increased when expanding roadway capacity for motorized circulation. Road resurfacing projects should provide improved access and safety for bicycles.

C-P25. Multimodal Level of Service (LOS) and Quality of Service (QOS) Standards. Use objective methods and criteria to formulate Level of Service (LOS) and Quality of Service (QOS) standards, which consider "walkability audits" and "bikeability audits" suitable for the locality, to assess and plan the multi-modal quality and capacity of County roads and intersections.

C-P26. Bicycles and Pedestrian Facilities in New Subdivisions. Bicycle and pedestrian facilities should be encouraged to connect neighborhoods. Standards for urban, suburban, rural and remote contexts shall be developed.

C-P27. Right-of-Way Design Standards. The County shall develop and include in the County-**Wide** Transportation Plan right-of-way design standards incorporating the needs of all users, consistent with urban, suburban, rural or remote community character. The County shall develop incentives for development of multi-modal facilities to offset any potential loss of developable land.

C-P28. Landscape Buffer Strips. The County Wide Transportation Plan shall provide landscape buffer strip standards as part of the road cross-section standards and according to the **context of** urban, suburban, rural and remote **context**.

Landscape buffer strips should be used, where feasible, to segregate pedestrian walkways from arterial and collector roadways.

- C-P29. Removal of Obstacles in Pathways.** Where feasible and consistent with the County-Wide Transportation Plan, new pathways and sidewalks shall be free of obstacles such as utility poles and mailboxes. Where obstacles are unavoidable on existing sidewalks or pathways, pedestrian facilities shall be widened or otherwise designed to provide the least amount of obstruction to users.
- C-P30. On-Street Parking.** Design on-street parking to minimize conflicts with all users consistent with the County-Wide Transportation Plan. Where appropriate, creative on-street parking arrangements such as parking pockets or bays shall be considered to improve design flexibility.
- C-P31. Design Standards for All Pathways.** Design standards appropriate to urban, suburban, rural and remote character shall be used by the County Public Works Department for the design and construction of pedestrian and bicycle facilities.
- C-P32. Traffic Calming.** Use traffic calming measures, where feasible and appropriate, as a means of improving safety for all users. Traffic calming measures may include, but are not limited to, roundabouts, chicanes, curb extensions, and traffic circles.
- C-P33. Protection of Designated Pedestrian and Bicycle Routes.** New development along and adjacent to planned and designated pedestrian and bicycle routes shall consider and incorporate those routes.
- C-P34. Bicycle Facilities.** Encourage the planned placement of secure and/or weather-protected bicycle storage facilities at public buildings and bus stops, where appropriate. Incentivize placement of bicycle parking and storage at businesses, new or modified bus stops and multi-family housing.
- C-P35. Preservation of Railroad Right-of-Ways.** The County shall work to preserve railroad rights-of-way as a contiguous corridor for rail and other public transportation uses.
- C-P36. Develop a Regional Trails System.** Support efforts to establish and connect regional trails, particularly in the greater Humboldt Bay and lower Mad River areas, the Eel River Valley, along the Avenue of the Giants and in the Klamath-Trinity area. The System should include the California Coastal Trail system and consist of multi-use trails where feasible.
- C-P?. Encourage Bicycle and Pedestrian-Friendly Development:** Incentives should be given to developers who provide non-motorized facilities that connect neighborhoods in a design appropriate to the character of those neighborhoods.

Marine Transportation

- C-P38. Channel Maintenance.** Support continued maintenance of harbor channels to provide deep water access to existing and planned port facilities.

- C-P39. Commercial Fishing Facilities.** Support the improvement and modernization of facilities that provide support and access to markets for the commercial fishing industry.
- C-P40. Public Infrastructure Supporting Private Investment.** Support investments in public infrastructure that increase readiness and facilitate private initiatives and investment into port enterprises such as marine-dependent industrial use, boat building and repair facilities, fleet service facilities, tourism, recreation, and fish processing facilities.
- C-P41. Marine Transportation.** Encourage marine transport options and associated facilities.

Rail Transportation

- C-P42. Re-establishing Regional Rail Service.** Support and encourage rail service in and out of the County and connected to other parts of the state and the national rail system. Public investment to re-establish regional rail service should be contingent on a private or public demand for sustained rail service and an analysis of net benefits to the County's economy, transportation systems, and environment.

Air Transportation

- C-P44. Expansion of Airline Service.** The County shall work to sustain and expand commercial passenger airline and freight service to and from the County consistent with the Airport Master Plan and the economic development goals of the County.
- C-P45. Commercial Areas.** Where feasible, commercial projects should be encouraged to develop inter-connecting traffic features with other commercial projects.
- C-P47. Frontage Improvements.** As properties are developed, all road frontages of the property shall be improved to the appropriate standard for the road according to the County-Wide Transportation Plan. Exceptions may be granted by the Planning Commission. Current standards will be used in evaluating frontage improvements until they are superseded by the approved County-Wide Transportation Plan.
- C-P49. Bus Turnouts.** Bus turnouts are preferred over in-lane bus stops. Projects constructing curbs on Collector and Arterial roads shall be coordinated with the local transit authority to determine if bus turnouts are warranted to meet the current and future needs of the transit authority. Additional right-of-way may be required for the turnouts, including areas for sidewalks and bus shelters.
- C-PX7. Highway Improvement:** Encourage state and federal highway improvements that promote safety and connectivity for all users, especially for communities with highway arterials.
- C-PX8. Discretionary Road Funds:** First priority for discretionary road funds shall be used to address deferred maintenance.

7.5 Standards

- C-S1. Functional Classifications.** Roadway functional classifications and standards are shown in Table 7-B (pages 7-20 and 7-21), and further specified in Title III—Land Use and Development Division 2 Subdivision Regulations.
- C-S2. Neighborhood Connectivity.** Local roads shall be planned to allow for orderly development of the community. Standards for neighborhood connectivity shall be those specified in Title III - Land Use and Development Division 2 Subdivision Regulations. Connectivity standards shall govern:
- A. Intersection spacing
 - B. Block sizes
 - C. Cul-de-sacs and dead-end roads
 - D. Secondary access requirements
 - E. Gated communities and other restricted access roads
 - F. Access connections between local, connector and arterial roads
 - G. Pedestrian and cycling connections
 - H. Construction and connection of street “stubs,” to adjacent parcels
- The Department of Public Works shall approve all road alignments.
- C-S3. Traffic Thresholds of Significance.** Apply objective measures, such as roadway capacity and level of service from the Transportation Research Board Highway Capacity Manual or its equivalent, to make determinations on the significance of traffic impacts for CEQA purposes.
- C-S4. Pavement Management Criteria.** Strive to maintain the Pavement Condition Index (PCI) of 68th percentile or above.
- C-S5. Prioritizing Transportation Capital Expenditures.** Objective criteria shall be used to prioritize transportation capital expenditures. Criteria shall be developed to reflect consideration of:
- A. Accident data and multi-modal traffic engineering safety analysis for safety projects.
 - B. System preservation.
 - C. Multi-modal LOS and Quality of Service (QOS) measures for congestion relief projects.
 - D. Analysis of future development potential based on the Housing Element land inventory for growth accommodating projects.
 - E. Reductions in roadway system maintenance costs.
 - F. Community demand and public interest.
- C-S6. Prioritizing Road Maintenance Projects.** Use and refine the PCI rating system to prioritize road maintenance projects for roads that have been assessed under this system.

- C-S7. Transit, Bicycle, and Pedestrian Quality/Level of Service Standards.** Bicycle and pedestrian Quality of Service and Level of Service Standards shall be specified in County code land use planning purposes. The County shall reference Transit Level of Service standards specified in the Public Transit Service Element of the Regional Transportation Plan as amended.
- C-S8. Pedestrian and Bicycle System.** A Board adopted Pedestrian and Bicycle System Plan consistent with the Regional Transportation Plan shall identify trails and routes considered a part of the County maintained circulation system. Development projects proposed on lands that include a County maintained trail or route may be required to dedicate easements or make improvements if an individualized determination is made that the dedication is related both in nature and extent and is roughly proportional to the impact of the proposed development, consistent with standards specified in Title III - Land Use and Development Division 2 Subdivision Regulations. The Pedestrian and Bicycle System Plan should be coordinated with a Long-term Transit Plan, and the as CWTP.
- C-S9. Prioritization of Pedestrian and Bicycle Facilities and Routes.** Objective criteria shall be used to prioritize construction of pedestrian and bicycle facilities and routes. Criteria shall be developed to reflect consideration of:
- A. Providing safe and continuous connections between:
 - 1. Neighborhoods and public schools; **and**
 - 2. Residential areas and workplaces, shopping districts, daily retail and social services; **and**
 - 3. Transit stops and public facilities; **and**
 - 4. Adjacent open spaces or recreation areas.
 - B. Reductions in motorized vehicle miles traveled.
 - C. Community demand and public interest.
- C-S10. Equestrian Trails.** The Federal Highway Administration "Equestrian Design Guidebook for Trails," or its equivalent, shall be used as a guide for the analysis and design of equestrian trails.
- C-SX. Developer's Preference.** Developer's preference shall be considered by the Planning Commission or the Board of Supervisors in determining whether developers mitigate impacts on the circulation system by installing the required improvements or paying a development fee that will result in construction of the required improvements.

7.6 Implementation Measures

- C-IM1. County-Wide Transportation Plan.** The County shall adopt a clear plan for development and improvement of multi-modal transportation infrastructure consistent with land use plans, intended community character and community priorities in unincorporated Humboldt County. The plan will include a review and update of roadway, pedestrian, and bicycling facility standards in the Humboldt County Roadway Design Standards Manual, Title

III—Land Use and Development Division 2 Subdivision Regulations, and other appropriate ordinances. The plan shall be reviewed and updated as needed.

- C-IM2. Tracking Road Improvement Requirements.** Develop, maintain, and publish an inventory of road segments and intersections that do not meet LOS or road classification standards given existing traffic levels or number of currently developed parcels. The inventory shall also include needed multimodal transportation improvements, including bicycle and pedestrian Class I multi-use paths, using multi-modal quality of service (QOS) measures.
- C-IM3. Road Abandonment.** Proposals to vacate or abandon ownership or maintenance of County roads shall include a General Plan consistency review and analysis.
- C-IM4. Regional Coordination.** Support and participate in joint circulation system and land use planning with HCAOG, affected cities, Caltrans, and other transportation agencies and providers.
- C-IM5. Roadway System Construction.** Develop funding mechanisms to complete construction of critical segments of the roadway system designated in the Circulation Element and identified in the Capital Improvement Plan. Include bicycle and pedestrian infrastructure funding in all appropriate requests.
- C-IM7. Transit Infrastructure.** Work with regional transit providers to situate transit stops and hubs at locations that are convenient for transit users, and promote increased transit usage through the provision of shelters, benches, and other amenities.
- C-IM8. Park and Ride Facilities.** Support Caltrans' efforts to add park-and-ride lots at locations as appropriate.
- C-IM9. Adoption of Water Quality and Stream Habitat Protection Measures.** Formally adopt and maintain the Five County "Water Quality and Stream Habitat Protections Manual for County Road Maintenance", or its equivalent, to guide the following activities:
- A. Routine and emergency road repair
 - B. Maintenance of County roads and related facilities, including actions taken to prevent erosion and/or the deterioration of a roadway, such as activities affecting the cutbank, road surface, fillslope, and all drainage structure
 - C. Maintenance and replacement of bridges and culverts
 - D. Activities on County-owned maintenance yards
 - E. Measures to protect the traveling public, such as snow and ice removal
- C- IM11. Transit Service to East, South and North County.** Pursue funding and partnerships with the Humboldt Transit Authority, Native American tribes, and non-profit transportation organizations to establish and sustain transit services to rural communities.

- C-IM12. Pedestrian and Bicycle System Plan.** Prepare a Pedestrian and Bicycle System Plan consistent with the Regional Transportation Plan and incorporate appropriate implementation standards in Title III – Land Use and Development Division 2 Subdivision Regulations. The Pedestrian and Bicycle System Plan should be coordinated with a Long-term Transit Plan and the CWTP.
- C-IMX. Joint Use of Traffic Models.** The County-Wide Transportation Plan (CWTP) should integrate joint use of area-wide traffic models, including but not limited to the Greater Eureka Area Travel Model (GEATM) or the Humboldt County Traffic Demand Model (HCTDM). Develop travel demand models with methods and inputs that consider all users. Support coordination with agencies to maintain the accuracy and utility of such models. Applicants may use studies and reports done by others, including the County, to develop mitigation for their proposed projects for reasons including, but not limited to, reducing costs and making projects affordable.
- C-IMX1. Humboldt County Greater Eureka Area Transportation Travel Model.** Maintain, update, and validate the Humboldt County Greater Eureka Area Transportation Travel Model or its equivalent on a regular basis, and use the model to evaluate development-related multi-modal transportation impacts on the existing and proposed circulation system.
- C-IMX2. Safe Routes To School.** The County shall seek funding through Safe Routes to Schools Programs, grants and other non-fee based funds to make non-motorized improvements around schools.
- C-IMX3. Municipal Advisory Committee Review.** The County shall utilize the municipal advisory committees in those areas where they exist when updating community plan circulation components.
- C-IMX4. Direct Driveway Access:** Avoid, where feasible, direct residential driveway access off of arterials and collectors.
- C-IMX5. Mapping of Rail Rights-of-Way as Railroad.** All contiguous rail rights-of-way currently held by the North Coast Railroad Authority, and those along the former Annie and Mary Railroad rail corridor between Arcata and Blue Lake, shall be designated Railroad in the Land Use Element and shown as a line symbol on the land use maps. A combining zone shall be applied to these properties to protect the rail rights-of-way from development that may interfere with the use of the rights-of-way for transportation purposes.
- C-IMX6. Transportation Demand Management.** Amend the Zoning Regulations to include criteria for the development and implementation of transportation demand management programs as required by this Plan.
- C-IMX7. Congestion Relief Planning and Implementation Program.** The County shall utilize the best available traffic information, including the Humboldt County Travel Demand Model, other models and plans, and transportation impact analyses to identify roads that are currently capacity constrained or projected to become capacity constrained at some point as a result of General Plan implementation, and shall work cooperatively with HCAOG, Caltrans, applicable cities, HTA, or other agencies to implement a coordinated traffic management strategy to plan and prioritize transportation

demand measures and roadway improvements to reduce roadway congestion along such roadways.

The County shall use state and federal transportation improvement funds available directly to the County or through HCAOG, other grant funds, project related exactions, other available County funds, and impact fees to fund congestion relief improvements.

The following steps shall be taken to address specific capacity limitations:

- A. Monitor vehicle trips and other modes of travel at regular intervals.
- B. Solicit public involvement in transportation improvement planning prior to implementing any improvements.
- C. Identify transportation demand management measures that could be applied to the areas served by the specific roadway(s) to reduce peak-hour vehicle trips and congestion, such as:
 1. Coordinate with school districts to expand school bus operations, create a "walking school bus" program, create programs for shared rides to school, or other programs to reduce school-related vehicle trips;
 2. Coordinate with transit providers to identify strategies to improve and expand bus service and encourage ridership;
 3. Coordinate with businesses served by the roadway(s) and encourage the use of appropriate transportation demand measures to reduce employee-related vehicle trips;
 4. Identify bicycle and pedestrian enhancements that improve the ability of motorists to shift short trips to non-motorized modes.
- D. Use the following roadway and intersection improvements, as appropriate, in combination with "E" below, to accommodate additional traffic volumes while providing a safe multi-modal circulation system:
 1. Public education
 2. Signage
 3. Stop signs
 4. Traffic signals or roundabouts
 5. Traffic signal timing changes and signal coordination
 6. Striped turn-lanes
 7. Turn movement prohibitions
 8. Bulb-outs and chicanes
 9. Change stop sign location of two-way stop signs at four-way intersections to reduce unwarranted stops on parallel alternative routes
 10. Develop parallel routes or make parallel routes into couplets
- E. Implement the following measures in a stepwise manner to provide additional vehicle capacity on existing two-lane roads:
 1. Within the existing curbs, provide a two-way left turn lane (2WLTL), two travel lanes, and up to two parking lanes when space permits – provides a capacity of up to 16,000 vehicles per day.
 2. Provide 2WLTL, two travel lanes, two bike lanes, and up to two parking lanes when space permits (usually a parking lane needs to be removed to add bike lanes) - provides a capacity of up to 16,000 vpd.
 3. Identify parallel alternate routes with available traffic capacity to which some of the excess traffic can be diverted and utilize

intersection improvements listed in "D" above to encourage drivers to divert to identified alternate routes.

- F. If transportation demand management measures and capacity improvements located within the existing two-lane cross-section have been demonstrated to be inadequate:
1. Consider accepting a lower level of service;
 2. Within the existing curbs, provide four lanes consisting of two travel lanes and no parking - provides a capacity of up to 20,000 vpd. Note: Although a four-lane undivided roadway section provides more capacity than two lanes and one 2WLTl, the section with a 2WLTl is considered safer.
 - a. Within the existing curbs, same as above but with a.m. and p.m. peak hour left turn prohibitions into driveways and side streets - provides a capacity of up to 22,000 vpd.
 - b. Within the existing curbs, same as above but with a.m. and p.m. peak hour left turn prohibitions into driveways and side streets; widen curbs to provide left turn pockets at key intersections - provides a capacity of 24,500.
 3. Consider widening the curbs to provide additional travel lanes, bike lanes, 2WLTl, medians, parking lanes, and sidewalks, all as needed to meet demands.

Table 7-B. Right of Way Requirements for Roads - Urban

Functional Classification	Recmnd. ROW	Min. ROW	Sum =>	Sidewalk	Landscape Strip	Parking Lane	Travel Lanes				Median / CLT	Travel Lanes				Parking Lane	Landscape Strip	Sidewalk
							Bike	No. 3	No. 2	No. 1		No. 1	No. 2	No. 3	Bike			
Urban ³ Arterial - Other Principal (6 lane + Median/CLT)	129 ¹	129	129	6	10		5	12	12	12	15	12	12	12	5		10	6
Urban ³ Arterial - Minor (4 lane + Median/CLT)	105 ¹	105	105	6	10		5		12	12	15	12	12		5		10	6
Urban ³ Arterial - Minor (2 lane + Median/CLT)	81 ¹	81	81	6	10		5			12	15	12			5		10	6
Urban ³ Collector (4 lane + Median/CLT)	97 ¹	97	97	6	6		5		12	12	15	12	12		5		6	6
Urban ³ Collector (2 lane + Median/CLT)	86 ¹	86	86	6	6	8	5			12	12	12			5	8	6	6
Urban ³ Local	62 ²	62	62	5	6	8				12		12				8	6	5
Urban ³ Local up to 400 parcels	62 ²	60	60	5	6	8				11		11				8	6	5
Urban ³ Local up to 300 parcels	62 ²	58	58	5	6	8				10		10				8	6	5
Urban ³ Local up to 80 parcels	62 ²	56	56	5	6	8				9		9				8	6	5
Urban Local (non-SRA) up to 12 parcels	62 ²	54	54	5	6	8				8		8				8	6	5
Urban Local (non-SRA) up to 6 parcels	62 ²	50	50	5	6	8				6		6				8	6	5
Urban ³ Alley	20	20	20							10		10						

¹Additional right of way for Arterial Roads and Collector Roads will be needed at intersections for dedicated right turn lanes and bus stops.
²Recommended Right of Way should always be used. Minimum Right of Way may be used when it is demonstrated that a road will never be able to serve more than the parcels shown.
³Meets County Fire Safe Regulation Ordinance regarding minimum roadway width.
⁴Rural roads assume that all parking will be provided on-site (no on street parking is permitted). If on street parking is expected, then an urban road should be built.

Table 7-B. Right of Way Requirements for Roads - Rural

Functional Classification		Recmnd. ROW*	Min. ROW	Sum =>			Shoulder	Travel Lanes				Median / CLT	Travel Lanes				Shoulder
								Bike	No. 3	No. 2	No. 1		No. 1	No. 2	No. 3	Bike	
Rural ^{3,4}	Arterial - Other Principal (6 lane + Median/CLT)	129 ¹	129	113			8	5	12	12	12	15	12	12	12	5	8
Rural ^{3,4}	Arterial - Minor (4 lane + Median/CLT)	105 ¹	105	89			8	5		12	12	15	12	12		5	8
Rural ^{3,4)}	Arterial - Minor (2 lane + Median/CLT)	81 ¹	81	65			8	5			12	15	12			5	8
Rural ^{3,4}	Collector - Major (4 lane + Median/CLT)	97 ¹	97	81			4	5		12	12	15	12	12		5	4
Rural ^{3,4}	Collector - Minor (2 lane + Median/CLT)	86 ¹	86	54			4	5			12	12	12			5	4
Rural ^{3,4}	Local	62 ²	62	40			8				12		12				8
Rural ^{3,4}	Local up to 400 parcels	62 ²	60	34			6				11		11				6
Rural ^{3,4}	Local up to 300 parcels	62 ²	58	30			5				10		10				5
Rural ^{3,4}	Local up to 80 parcels	62 ²	56	26			4				9		9				4

¹Additional right of way for Arterial Roads and Collector Roads will be needed at intersections for dedicated right turn lanes and bus stops.
²Recommended Right of Way should always be used. Minimum Right of Way may be used when it is demonstrated that a road will never be able to serve more than the parcels shown.
³Meets County Fire Safe Regulation Ordinance regarding minimum roadway width.
⁴Rural roads assume that all parking will be provided on-site (no on street parking is permitted). If on street parking is expected, then an urban road should be built.

Chapter 8 Housing Element

The Housing Element was adopted in May, 2014, and will be incorporated into the General Plan at the time of publication.

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Chapter 9. Economic Development Element

9.1 Purpose

This Element provides an overview of the economy, characterizing the trends, land, and infrastructure needs that will shape the future. A set of goals, policies, and implementation measures are included to promote and sustain economic prosperity.

9.2 Relationship to Other Elements

The Economic Development Element was prepared to ensure the General Plan considered the needs of the economy. General Plan policies can have significant effects on economic well-being and the sustainability of economic activity. For example, the Governance Chapter establishes regulatory and permit processing policies, which affect the cost of gaining regulatory approvals. The Land Use Element plays a central role in economic activity and growth by establishing rules for the location and manner of development. Housing Element policies affect the supply of housing and, therefore, housing cost. The policies of the General Plan, and this Element specifically, are intended to achieve a balance between the need to sustain and promote Humboldt County's economy and the need to protect and advance the community's collective interests.

The Economic Element also achieves consistency between the General Plan and the County's economic development strategy. In this light, the policies of every element and chapter of the General Plan should support the County's economic development strategy in the same way the policies should support the County's health, safety, welfare, and environmental protection strategies.

9.3 Background

During the last 40 years, Humboldt County has experienced a dramatic restructuring and diversification of its economy. Historically, the local economy was built on natural resources that supported timber production and manufacturing, dairy farming, cattle ranching, and fishing. These industries served as the county's export base, importing capital that helped grow the rest of the economy.

While this historic economic base has diminished and no one industry dominates the local economy today, these industries still contribute substantially to the County's economy. New local industries have emerged that export more knowledge-based, specialty, and technology-driven products and services. In fact, our traditional industries have provided the basis for many of these emerging businesses. Habitat restoration, sustainable forest management, organic milk production, and computer network services are all examples of innovative local products and services that the world needs and wants to buy. These new industries have joined traditional natural resource and agricultural industries to diversify and integrate the County into the global economy.

Diverse Economy

A diversified local economy is desirable because it is stable. A stable local economy sees slower, steadier economic growth and less volatility. In the early 1980s, Humboldt County's unemployment rate was around 12%. During the Great Recession in the US (2008-2012), Humboldt County's unemployment rate tracked at or below California's rate. From 2000-2007, our lowest rate was 5.5% and the state's was 4.9%. During the recession, after the economic peak in 2007, Humboldt's unemployment rate reached a high of 11%, but just below the state average of 11.4%. The recession of 2008-2010 affected the sectors related to financial services, housing construction and retail, the same as the national economy. In the Framework General Plan of 1984, the economic development element reflected the realities of the downturn in the timber and fishing industries. The contraction of these sectors has leveled off in the last decade. The fishing industry has shrunk by two-thirds. Though hit hard by the recent national recession, the forest products industry provides approximately 11% of the direct payroll in the County today, about equal to the education, and research and health care industries.

Though the traditional natural resource industries have declined, they still play a vital role in the local economy. Their contributions are substantial and can remain so for many decades to come. Therefore, it is vital that the County retain an essential quantity, or "critical mass," of land and infrastructure to allow the forest products, agriculture, and fishing industries to remain viable.

Comprehensive Economic Development Strategy

In 2012, the County engaged the public and business community in an extensive economic development process, called *Prosperity 2012*, to update the County's *Comprehensive Economic Development Strategy* (CEDS). CEDS guide local economic development investments, including those from the U.S. Economic Development Administration, Community Development Block Grants and Rural Development. The CEDS lays out a strategy that prioritizes the needs of eight target industries—those that have demonstrated growth in jobs, firms, wages and/or substantial export of products and services to customers outside the region. This strategy applies the leading economic theory and research on how economies function and grow, as well as the knowledge and priorities of local industry, business and community leaders. The county's target industries include:

- Diversified Health Care
- Building & Systems Construction
- Specialty Food, Flowers & Beverages
- Investment Support Services
- Management & Innovation Services
- Niche Manufacturing
- Forest products
- Tourism

The first six industries were based on their fast growth in new jobs, firms, wages and concentration (an indicator of export). The *Redwood Coast Targets of Opportunity Report 2012* (Part V of the CEDS) provides the economic performance data for the CEDS and profiles each of the eight industries in detail. The Redwood Coast region includes Humboldt, Del Norte, Trinity, Siskiyou and Mendocino counties. From 1995-2009, the top six Target of Opportunity industries combined grew new jobs at 14%, versus the region which lost jobs at -6.1%. They also grew wages at an average of 36%. The region lost

firms at -15.5%, while firms in the Target of Opportunities closed at half that rate (-8.8%). These industries now provide 42% of the region's private sector jobs.

Additionally, Forest Products and Tourism are identified as important target industries. Each utilizes Humboldt County's natural resource assets, exporting lumber and attracting tourists. Six of the eight total target industries pay (29% to 47%) above the regional average annual wages. All the target industries demonstrate competitive advantage in national and international markets, and provide opportunity for living wage careers, entrepreneurship, and future growth.

Industry leaders throughout the CEDS planning process identified entrepreneurship, innovation, and quality of life as critical requirements of the new economy. They emphasized that the County's economic competitiveness depends a great deal on its beautiful natural setting, small-town character, and vibrant creative culture. On March 26, 2013, the Humboldt County Board of Supervisors adopted Prosperity 2012 Parts I-V as Humboldt County's Comprehensive Economic Development Strategy, and it was accepted by the US Economic Development Administration.

Regional Role

Economies form around natural geographic boundaries, clusters of similar industries, natural resource assets, infrastructure, and a common culture or history. These pieces work together to define a regional economy, which often includes and crosses several jurisdictional boundaries of cities and counties. Nationally, economists and the federal government emphasize the value of aligning strategies and resources with the needs of regional economies.

Humboldt County is part of a regional economy that includes the neighboring counties of Del Norte, Mendocino, western Trinity and Siskiyou counties, and the cities within those boundaries, as indicated in the *Redwood Coast Targets of Opportunity Report 2012*. The export industries of the County span the region with many companies operating both here and in neighboring counties. Many economic assets, such as productive timber and agricultural lands, microclimates that provide long growing seasons, recreational opportunities, a desirable quality of life, and high levels of innovation and entrepreneurship are shared across the region. Obstacles such as lack of interstate truck access, widespread and redundant broadband Internet service, a serviceable railroad, and deteriorating infrastructure and geographic isolation are also shared with our neighboring counties. These shared assets and obstacles provide good reason to coordinate economic development strategies and investments.

Economic Trends

The General Plan must consider local, state, national, and international trends to maximize and sustain traditional natural resource industries and support growth in emerging industries. Land use policies and infrastructure investments must both protect and enhance the ability of traditional industries to compete and allow emerging industries to thrive.

State, national, and international trends have a significant impact on the local economy. Though market forces are beyond the control of local governments, Humboldt County can implement measures to protect and enhance the region's competitive advantages.

Quality of Life

Quality of life is one of Humboldt County's most important assets for economic development. "Quality of life" can relate to almost every aspect of our lives, from public safety to natural beauty, and may be defined differently for different people. This Element does not attempt to define quality of life in every aspect, but rather to focus on the economic implications of quality-of-life factors. In economic terms, quality of life is primarily and inextricably linked to the workforce. It is about the value inherent in the natural, the built, and the cultural environments that attract creative, entrepreneurial talent. Research on rural economies consistently shows that rivers, beaches, forests, mountains, and a community "sense of place" are highly attractive to talented, innovative, creative people who are deciding where to live and start a business. In short, communities that emphasize social and cultural amenities are attractive to talented workers and entrepreneurial businesses.

The built environment of talent-attractive communities is typically "human scale." Hallmarks of human-scale communities include mixed commercial and housing uses, allowing people to work close to home; the use of multiple modes of transportation, including walking and biking; access to childcare, recreation, and commercial services during business hours; and conduct business in cafes and other small meeting spaces.

As the global economy increasingly values knowledge-based workers to provide innovations and solutions, businesses and industry have increasingly sought to employ these creative, technologically savvy workers, the so-called "creative class." Businesses follow this talent base wherever it exists, knowing it provides them with a competitive advantage. The "creative class," in turn, is mobile, willing, and able to locate where the amenities and community appreciate and stimulate their creativity.

Workforce and Targets of Opportunity

Prior to the recession of 2008-2010, the United States was anticipating a massive labor shortage, particularly at middle to upper management levels, from the retirement of the Baby Boom Generation. While large-scale retirements did not occur due to the dramatic drop in stock market values during the recent Great Recession, as retirement funds rebound, it is likely that people will retire and open up many positions. Prior to the recession, local employers in many sectors struggled to fill entry-level and advanced positions, a situation only blunted for a few years by the recession. Labor shortages at all levels will affect local industries and will likely be exacerbated by the national shortage over the next ten years or more.

In the Targets of Opportunity industry study of 2007, which first identified the Target of Opportunity industries, they demonstrated fast growth: employment grew by 37%, firms by 23%, and wages by up to 26% in the 15 years studied (1990-2004), compared to 4% job growth, 1.5% firm growth, and 6% wage growth for the overall regional economy. The 2012 report covers an overlapping period 1995-2009 ending with the recession, which clearly muted the Target industry growth. Still these industries far outperformed the region as a whole, as noted earlier.

While these growth industries offer real opportunities for prosperity, they are not an absolute guarantee of success. In focus groups for the study, employers universally identified the chronic need for workers as constraining their growth. Our region has workforce in transition from one shrinking industry, like forest products, and into multiple emerging industries, like management & innovation services. This workforce needs re-

training to find meaningful careers and meet employer needs. Nationally, four groups in particular are expected to continue to suffer a shortage of employees: (1) health care, (2) manufacturing, (3) energy, and (4) public sector. In addition to future anticipated losses due to retirements, skilled workforce shortages already exist (and will continue) in decision sciences (e.g., finance, accounting, marketing, etc.), hard sciences, and engineering.

Education and training, both professional and vocational, determine an individual's ability to earn a living wage and provide value to business. While Humboldt County has a high proportion of people with a bachelor's degree or higher, it has low high school graduation and continuation to college rates. Only 48% of the county's high school graduates go on to college or vocational school, compared to 56% statewide.

The County must continue to invest in workforce-training services to ensure that workers have the ability to acquire skills and advance throughout their careers. In addition, protecting and enhancing quality-of-life assets is the best way to attract and retain skilled workers.

Regulatory Policy

Federal, state, and local regulatory policies and codes have a significant effect on the economy. Efforts to mitigate the environmental effects of timber harvesting have resulted in compliance costs that threaten the economic viability of the industry. Fisheries management efforts control harvest levels and the size of the fishing industry. Ranching and dairy industries are under increasing regulatory scrutiny. The building industry feels mounting pressure from increasing fees and mitigation requirements, cumbersome permit processes, and complaints from project neighbors. Small businesses and microenterprises are often discouraged from legitimizing their businesses because of the high costs and complexity of regulatory permitting.

Regulations may have unintended economic consequences. For example, conversion of forest and rangeland to residential uses is being accelerated by the rising costs of timber harvesting. Permit timeframes for land development are out of step with the pace of business, which can stifle investment and put Humboldt County at a competitive disadvantage. Excessive small business compliance costs promote an underground economy that marginalizes economic benefits.

Many disagree on the cost and benefits of regulations, but there is widespread agreement and support for regulatory systems that are simple, transparent, and efficient.

Microenterprises and Home-based Businesses

Microenterprises and home-based businesses with five or fewer employees provide an important source of family income, and they often grow with time and investment. From 1997 to 2001, microenterprises accounted for 22% of the job growth, and provided 18% of employment in California. Microenterprises can double household income and help keep families above the poverty line. Typically, microenterprises account for a higher proportion of the jobs in rural counties. Humboldt County's high rate of new firm creation underscores the importance of microenterprises.

Energy

Energy costs affect all levels of production and distribution of goods and services. Energy costs are expected to continue to increase and impact business operations. This trend

will impact the goods distribution sector the most. Rising energy costs are another reason Humboldt County should focus on knowledge-based industries that utilize broadband Internet. Providing broadband services to all communities will also help residents and visitors rely less on cars and reduce the number of vehicle trips required for work and necessities. Energy strategies that move the county from an energy importer to an energy exporter could build significant economic wealth. Policies supporting this transition are included in the Energy Element.

Global Warming

Global warming and climate change has the potential to directly impact Humboldt County. The potential for more intense storms could result in more frequent disruptions and damage to critical infrastructure such as energy, Internet, and road systems. The County should plan for and invest in emergency management systems to minimize damage and reduce the risk of a catastrophic disruption. The health of our forests may be affected through increased susceptibility to disease or forest fires. Climate change initiatives, such as carbon cap and trade schemes, may represent an economic opportunity for the county because of the sequestration value of our forests and the export potential of our energy efficiency and alternative energy expertise.

Workforce Housing

Like most of California, Humboldt County struggles with providing opportunities for first-time homebuyers as well as multi-family housing options. In the past, investment in real estate has increased equity and property values but exacerbated constraints on housing for the poor, elderly, and working families. Though still lower than much of California, the county's housing prices have risen to a level where it can no longer market low-cost housing to attract businesses and a workforce. In order to provide housing for the workforce of emerging industries, the County must produce new types of housing in a mix of affordable ranges and work with cities to provide more mixed-use and multi-family housing developments. The County should also provide affordable housing opportunities in the urban unincorporated areas.

Childcare

Childcare enables parents to work productively and is an essential support service industry for a functioning economy. Unscheduled absences result in significant costs to both small businesses and large companies. In Humboldt County, one in five workers have children under age 18 and live in a household where both parents work. The need for childcare in the County is expected to grow as the demand for labor increases. There is a need for subsidized care for parents working in lower paying service and retail trade sectors, as well as a need for affordable care for middle-income working parents.

Aging Population

While census data does not indicate that Humboldt County is acquiring a disproportionately large population of retirees, the national trend of an aging Baby Boomer population is happening here. The percentage of retirement age persons is just 1.8% above the state. The median age is 35.7 years, the lowest in the region, and only 1.3 years older than the state average age. The economic consequences of an aging population include a shift in the demand for local goods and services. The main demands are expected to be health and aged care, home support services, subsidy of

medical services, community transport, and a range of cultural and recreation services. Providing these services presents an opportunity to serve the local population and attract seniors seeking desirable retirement communities.

Cannabis

The production and sale of medicinal and illicit cannabis contribute significantly to Humboldt County's economy. The impact is difficult to measure but its effects are unmistakable. For example, the size of the retail and restaurant sector is out of proportion to official income levels. While the production and sale of medicinal cannabis is legal and local jurisdictions are collecting data that can be used to measure the size of this industry, the size of the illegal industry cannot be measured directly. Many assume it is the largest single industry in Humboldt County.

While cash circulating is undisputedly good for the local economy, the industry's use of residential, agricultural and timberlands can result in environmental impacts land use conflicts. The competition for labor can also be problematic, for example there is a strong appeal to local youth to enter the cannabis trade instead of preparing themselves for a legal career.

If statewide efforts to legalize cannabis are successful, the County may enjoy a legal and economically viable industry based on the expertise, quality and market reputation that Humboldt County gained in the production of illicit cannabis. While there are practical and legal limitations on the County's ability to support illicit cultivation, support for legal cultivation should be a part of the County's overall economic policy.

Large Format Retail

The transition from small-scale decentralized locally owned businesses to large-format, chain-operated businesses is driven by economic factors beyond the control of Humboldt County. These factors include, but are not limited to, corporate globalization and how the state allocates property tax revenue. So-called "big box" developments can occupy more than 50,000 square feet, with typical ranges between 90,000 and 200,000 square feet depending on the product line of the retailer. Business operations derive profits from high sales volumes rather than price mark up.

Big box development can have profound impacts on the character of a community. Hallmarks of big box development include large windowless, single-story buildings; standardized facades; reliance on automobile-based shopping; significant acreage dedicated to parking; minimal site development lacking community or pedestrian amenities; and difficulty in marketing sites if an operation shuts down.

Big box developments can provide low prices and convenience to local consumers as well as sales tax revenue to local governments. They can also recapture sales made to big box stores by local residents outside the local area. Whether these benefits outweigh the social, community, economic, and environmental impacts of big box development is highly disputed. For example, reliance on the automobile for these developments can have a tremendous impact on the capacity of transportation facilities and contribute to air pollution. Large format retailers that focus on one product line can become "category killers" for existing decentralized small businesses. Local capital spent on purchases at big box stores leaves the region prematurely, without circulating amongst support and secondary businesses. Permit processes for big box retail should consider impacts on the existing retail economy, as well as design, location, and economic standards to mitigate the potential impacts.

Infrastructure

The efficient and reliable movement of goods, people, and ideas is essential to all industries. Transportation and freight facilities, highways and roads, Internet and utilities, and water and wastewater facilities are all examples of critical economic infrastructure.

Broadband Internet

The Internet is the backbone of business today. Through broadband Internet connectivity, small and large companies can have employees and consultants distributed around the world. The location of a company's headquarters is no longer determined by access to raw materials, but driven by a range of considerations, including access to talent, customers, industry networks, and quality of life for the principal owner and key talent of the company.

With quality of life as a competitive advantage, Humboldt County is positioned to attract and grow entrepreneurs and businesses with products and services marketed through the Internet. Already, the county is home to numerous companies organized this way, with employees and consultants who telecommute.

To take full advantage of the broadband internet trend, the county must invest in telecommunications, including construction of a second fiber optic line to the county and internet access for outlying communities.

Water and Wastewater

Many water and wastewater systems for cities and unincorporated communities have either reached the limit of their planned capacity or are failing. The situation is resulting in pollution concerns, where residents are being exposed to health hazards in some communities, while imposing limits on new housing and business development in others. Lack of adequate and expandable water and wastewater infrastructure severely inhibits communities' ability to maintain or enhance quality of life, or provide space for businesses to locate. The upgrading, expansion, and construction of new water and wastewater facilities is necessary to build affordable housing and livable communities, as well as to expand opportunities for business to locate and to grow.

Highways

Because of its rural and remote location on the North Coast of California, Humboldt County is at a disadvantage in the transportation of freight, particularly by truck. Standard-size interstate trucks are not allowed to pass through several tight turns on highways 101 and 299, making the import and export of equipment, products, and cattle more expensive, time consuming, or impossible in some cases. Highway restrictions are reported as a concern by every industry in the region and are a substantial and serious constraint to economic growth and sustainability. Caltrans has completed improvements to allow interstate trucks along the entire length of highway 299 from Redding to Arcata.

Facilities construction and other solutions are planned for sections on both highways, but not all are funded at this time. The bypass of Confusion Hill on U.S. 101 is scheduled for was completed by in October 2009. While it will address the issue of frequent landslides and reduced d one area of constraint for interstate trucks, the bypass will did not relieve the restriction on interstate trucks completely. As obtaining state highway funding is a highly competitive process and lobbying by metropolitan areas often diverts funding

away from North Coast priority projects, the need for regional transportation solutions and advocacy is urgent.

Rail

The only rail line into Humboldt County has been closed since 1990 due to storm damage in the Eel River canyon. The North Coast Railroad Authority (NCRA) estimates the cost of re-opening the complete line to Arcata/Samoa to range between \$151 and \$500 million, depending on the standard to which the line is prepared. Despite sustained efforts, the funds for all phases are not committed at this time.

The funding and demand for rail transportation appears to change in cycles as a result of national and international factors. Currently, national policy focuses on funding for highways and truck transportation. Should national (and state) policies change to favor rail infrastructure, perhaps as a result of energy costs, the prospects for funding the re-opening of the line to the County could improve.

Rail is typically a cost-effective and environmentally preferable mode of transportation for both goods and people. In order to take advantage of opportunities as cycles change, County policy should be to maintain the railroad right-of-way and remain supportive of re-opening the line when it can be economically justified. At the same time, the County must pursue improvements in other transportation modes. (For additional discussion of the use of county railways see the Circulation Element, Chapter 7.)

Port and Bay of Humboldt

Humboldt Bay is the only deep-water port on California's North Coast, and as the second largest natural bay in the state, it is an economic asset that supports commerce, conservation, and valuable cultural and recreational amenities.

For commerce, the Port of Humboldt Bay provides essential infrastructure to the forest products industry (for exporting and importing raw logs to local mills), and to the fishing and aquaculture industry (for fishing boat facilities, fish processing, and growing shellfish). Humboldt Bay's capacity to be a major import or export facility for container ships is limited by other transportation infrastructure. As mentioned previously, there is currently no railroad to carry goods into or out of Humboldt Bay, and the restriction on interstate trucks makes exporting goods by truck inefficient.

Continuing and enhancing the existing commercial value of the port requires substantial maintenance investment, such as periodic dredging, dock repairs, and development of appropriate facilities. Ready-to-build land, capable of supporting marine-dependent coastal industries, is also a critical constraint. The infrastructure for the fishing industry (docks, fueling stations, and ice supply) has deteriorated to a critical state. Maintaining and enhancing the port infrastructure is critical to the continuation and recovery of these industries.

Mariculture (shellfish farming) has particularly strong potential in Humboldt Bay. These operations depend on protecting the water quality of the bay. Expansion of this industry should be supported with permit coordination and streamlining, improved dock and processing facilities, and public education.

Rural regions with more access to natural water amenities (bays, rivers, and oceans) tend to attract higher paying, knowledge-based jobs and companies. Accessing Humboldt

Bay for recreational activities, such as kayaking, bird watching, walking, cycling, and fishing, supports all local industries in their efforts to attract and retain talent, customers, and innovate, new products and services. Combined with the historical and cultural sites currently being developed, Humboldt Bay could become an anchor attraction for local residents, workforce talent, and tourists.

Commercial usage and recreational access should be carefully planned to allow maximum access for both purposes and avoid use conflicts. Development of bicycle and pedestrian trails, docks, and other access points, in coordination with the railroad and other rights-of-way, should be supported and facilitated in order to maximize Humboldt Bay as a quality-of-life and tourism asset. (For additional discussion see the Circulation Element, Chapter 7.)

Airport

The Arcata/Eureka Airport serves the entire North Coast region. One commercial air carriers, United Express and consistently provide direct scheduled service to Portland, Los Angeles, Sacramento, and San Francisco (with other carriers intermittently serving additional flights to Salt Lake City). The airport is a critical economic asset, allowing the movement of people who do business with customers and partners outside the region.

The U.S. Department of Agriculture reports that airports are key components of a transportation infrastructure that can substantially improve the economic potential of a rural region. Access to an airport both increases businesses' ability to market their products and services to global customers and makes air commuting possible for those who depend on urban centers but seek a rural lifestyle and its amenities. While 98.2% of Humboldt County's residents live and work inside Humboldt County, the 300–400 people who live here and work elsewhere commute to distant cities like Los Angeles and Sacramento, likely via airline.

Additionally, five general aviation airports in Garberville, Murray Field (Eureka), Rohnerville, Kneeland, and Dinsmore provide important services for air couriers, air ambulance, air charter, law enforcement, and private pilots. Each airport is critical to the community it serves during natural disasters due to the rural nature of the county. The County must actively work to protect and enhance our airports' service capacity so that more flight destinations become available, weather-related delays are minimized, adjacent land use conflicts are avoided, and overall reliability and safety increases. (For additional discussion see the Circulation Element, Chapter 8.)

Lands

The approach to determining industrial and other employment land needs involves inventorying current land supply, projecting future demand, and then comparing the current supply with anticipated demand.

Supply and Demand of Land for Employment

The February 2002 *Building Communities* report—prepared for the General Plan Update—projects a net increase in the number of jobs in Humboldt County for the next 25 years. This trend will be accompanied by an increased demand for land for industrial and other employment-related uses.

The report found that, in unincorporated areas of the county, a total of 244 acres would be required to meet anticipated future development. Of this total acreage, 15 acres

would be required to meet the demand for retail space, 181 acres needed for office/business park space, and 48 acres needed for industrial purposes.

Ensuring that land is available where job and retail growth is likely to occur, and that the size and configuration of lots is suitable for the likely uses, is critical. The supply of industrial and other employment sites is described in the Commercial and Industrial Sites Database, an online searchable inventory of all the commercial and industrial sites maintained by the County. To ensure an adequate land base for commercial and industrial demands, the inventory should be maintained to support suitability analyses of individual lots and supply and demand evaluations of the entire inventory. Plan and zone changes of individual properties should be conducted to maintain a 20-year supply of industrial commercial properties.

Conversion of Prime Employment Lands

The conversion of prime employment lands to other uses is an issue facing many jurisdictions along the West Coast. Prime employment lands are the most economically productive. These lands possess unique characteristics, such as location, soils, access to infrastructure, or other factors that make them difficult to replace within a planning area or region if converted. Prime employment lands include, but are not limited to, large industrial sites; productive agricultural, timber, and mineral resource lands; and coastal dependent lands.

The conversion of land through the changing of a general plan or zoning designation is *not* always undesirable. In some cases up-zoning a property with brownfield issues (discussed below) can enable cleanup and redevelopment. In other cases, changing a designation represents flexibility in the land use system to respond to changes in the market over time. The conversion of productive and suitable employment lands, however, should not reduce the available quantity below a minimum critical landmass for industries. Conversions should also avoid creating deficits in certain land categories, leaving the County poorly positioned for business recruitment, expansion, and retention.

In addition to the threat of conversion, prime employment lands must also be protected from the encroachment of incompatible uses. Residential uses can conflict with industry and agriculture if effective buffers or transition areas are not adequately planned. Protecting these lands from conversion and encroachment is an important strategy for maintaining economic productivity.

Brownfields

A "brownfield" is real property for which reuse is complicated by the presence or perception of contamination. Brownfields can, but do not always, pose risks to human and environmental health. Cleaning up and redeveloping brownfields takes development pressure off of resources lands, reuses existing infrastructure, protects the environment, and can address environmental justice concerns.

Humboldt County has approximately 2,000 acres of brownfields. Most are artifacts of the timber industry. As that industry has diminished, certain sites, typically zoned heavy industrial, have become underutilized. Some of these sites should remain in industrial designations, while others may be appropriate for conversion to other uses. The competition for land in the county will continue to intensify over time. Therefore, the cleanup and redevelopment of brownfields is a strategic and necessary component of the County's land management policies.

9.4 Goals and Policies

Goals

- ED-G1. Stable Economy.** A diverse, stable, and growing local economy.
- ED-G2. Natural Resource Assets.** Long term economically viable and environmentally sustainable, utilization and enjoyment of natural resources.
- ED-G3. Strategic Planning.** A comprehensive economic development strategy that guides progress on economic development goals and informs the public on emerging markets, innovations, and opportunities for entrepreneurship that benefit the region's economic prosperity.
- ED-G4. Cooperation and Collaboration.** Productive partnerships with cities, neighboring counties, and the private sector that build and enhance common assets and resolve common obstacles.
- ED-G5. Economic Development Assistance Programs.** Financial and technical assistance programs that support wage growth, full employment, and businesses inclusive of disadvantaged communities.
- ED-G6. Competitive Quality of Life.** Maintained and enhanced natural resources, recreational opportunities, quality education, vibrant town centers, access to employment, housing, retail, health care, childcare, safety, multimodal transportation, advanced telecommunications, and cultural and natural amenities.
- ED-G7. Skilled and Ready Workforce.** Proactive development of the workforce through access to early and higher education, vocational training and retraining.
- ED-G8. Regulatory and Permit Streamlining.** Stated and clear permitting and licensing processes which engage with businesses, (including micro-enterprise and home-based startups) in a timely, effective and proactive manner.
- ED-G9. Telecommunications.** Reliable, redundant and modern telecommunications infrastructure and services that can attract and retain businesses.
- ED-G10. Public Water and Wastewater.** Adequate public water and wastewater facilities to accommodate the needs of the community. Utilize available industrial water resources to provide jobs, revenue, economic resources, and economic enhancement to the county.
- ED-G11. Transportation Networks.** Transportation facilities and services that allow competitive connectivity for freight and people to metropolitan areas and worldwide markets.

- ED-G12. Land Inventory.** A sufficient land inventory ready to meet the current and future demand for high value uses such as commercial and industrial expansion and natural resource production.
- ED-G13. Brownfields.** A successful recycling program converting underutilized brownfields into valuable land uses.

Policies

- ED-P1X. Economic Stability and Diversity.** Promote economic stability, growth and diversity by emphasizing development of industries identified as priorities in the County's Comprehensive Economic Development Strategy (without excluding other industries) and encouraging innovation, entrepreneurship, and global competition.
- ED-P1. Financial Resources.** The County shall acquire state, federal, and private grants for workforce training, economic research, infrastructure, and local business development consistent with the County Economic Development Strategy.
- ED-P2. Job Growth and Workforce.** Collaborate with economic development entities in the region to promote job growth, and entrepreneurship in industries identified as priorities in the County's Comprehensive Economic Development Strategy (without excluding other industries). Work with the education and private sectors to promote education, vocational training, professional development, and lifelong learning in the workforce.
- ED-P3. Affordable Housing.** Promote housing at a price commensurate with income levels as reflected in the County Regional Housing Needs Allocation, and a transportation system to provide efficient connectivity between housing and places of employment to minimize commute travel times and distances.
- ED-P4. Childcare.** Promote the provision of childcare facilities within business, commercial and industrial centers, and housing developments. Streamline the permitting requirements for new childcare facilities. Foster private/public partnerships with childcare service and information providers.
- ED-P5. Aging Population.** Plan for and respond to the increasing transportation, service, and housing needs of the county's aging population.
- ED-P7. Broadband Internet.** Support broadband improvements necessary to maintain the County's business competitiveness and serve remote communities.
- ED-P8. Public Infrastructure.** Assist local service providers in the pursuit of state and federal funding and development of land use assessment, rates and connection fee programs to upgrade and enhance infrastructure, including water, wastewater and recreational facilities.
- ED-P9. Freight Mobility.** Support pursuit of financial and technical solutions to improve interstate truck and rail access.

- ED-P10. Rail.** Support protection for the NCRA right-of-way and assets to preserve the ability to re-open the line in response to a demand for rail service.
- ED-P11. Port Development.** Support efforts to maintain and develop the port for shipping, the fishing industry, aquaculture, renewable energy, coastal-dependent and-associated industries.
- ED-P12. Airport Service Expansion.** Support expansion of airport services to include reliable service to multiple major airport hubs, carriers and expanded flight schedules.
- ED-P12A. Airport-Related Business Development.** Support efforts to maintain and develop airports to accommodate air service-dependent and -associated industries, including air freight.
- ED-P13. Prime Employment Land Protection.** Plan and zone sufficient land to maintain a 20 year supply of industrial and commercial properties and protect prime employment land.
- ED-P14. Industrial and Business Parks.** Promote development of planned and designed industrial and business parks with special consideration for ports, airports, value-added manufacturing and industries identified as priorities in the current County Economic Development Strategy. Encourage master environmental assessments and pre-permitting for industrial and business parks in order to streamline the subsequent development process.
- ED-P15. Revitalization.** Promote strategies such as infrastructure and/or economic development to revitalize disadvantaged communities.
- ED-P16. Brownfields.** Pursue and distribute funding and technical assistance to assess, clean up, and reuse Brownfields. Streamline the County's review process for proposed development in commercial and industrial zoned Brownfields.
- ED-P18. Higher Education.** Support College of the Redwoods and Humboldt State University education and training programs that provide residents with the skills and knowledge to qualify for living wage careers and enhance the competitive edge of the industries in our region. Support K-12 educational programs that prepare students for careers in regional industries.
- ED-P2X. Local Vendor Preference.** Support and assist with the Development and implementation of procurement policies and procedures that increase access for locally-owned companies to bidding process, and that considers local economic impact in selection process.
- ED-P3X: Value Added Manufacturing.** Support opportunities to remove barriers to and facilitate expansion of value-added manufacturing.
- ED-P4X: Tribal Government Partnership.** Pursue and support economic and infrastructure partnerships with Tribal Governments.
- ED-P5X. Telecommuting and Workforce Development.** Promote and seek resources to ensure that the county has a broadband infrastructure that encourages economic and workforce development and promotes telecommuting.

9.5 Standards

- ED-S1. Childcare.** The County shall consider childcare facilities within commercial and industrial zones as a principally permitted accessory use when supporting that business or industrial use. Develop a tiered permitting system ranging from principally permitted to conditionally permitted, according to size and location when in commercial or industrial zones but not directly supporting the business or industrial use and within residential zones.
- ED-S3. Disadvantaged Communities.** Communities shall be considered disadvantaged based on one or more of the following factors: disproportionately lower median incomes, higher unemployment rates, deteriorated housing conditions, or high commercial and industrial land vacancy rates.

9.6 Implementation Measures

- ED-IM1. Economic Development Strategy.** Maintain the County's Comprehensive Economic Development Strategy in collaboration with local jurisdictions, businesses, economic development organizations and the public. Conduct and disseminate economic research relating to emerging markets, innovations, and opportunities in which the region may have competitive advantages.
- ED-IM2 Economic Development Programs.** Operate economic development programs that promote workforce development for industry needs and provide technical and financial assistance. Provide incentives including but not limited to delivering capital, technical expertise, and training to businesses starting up and expanding. Seek funding to support programs, particularly US Small Business Administration and Community Development Block Grants for micro-enterprise.
- ED-IM3. Disadvantaged Community Assistance Programs.** Operate economic development programs that promote and seek funding for development assistance to disadvantaged communities.
- ED-IM4. Permit Streamlining for Business Growth.** Update ordinances and permit processes to increase efficiency and reduce permit-processing times addressing constraints to business growth including micro enterprises and home-based businesses.
- ED-IMX Regulatory Incentives for Emerging Industries.** Provide regulatory incentives for base and emerging industries proposing to expand their business operations and workforce.
- ED-IM5. Commercial and Industrial Sites.** Maintain and update the commercial and industrial sites database, including identification of prime employment sites, on a six month cycle and provide current online maps of vacant industrial

and commercial properties using the County's Geographic Information System.

- ED-IM6. Childcare.** Modify land use ordinances to reduce permitting requirements for childcare facilities and support development of funding sources.
- ED-IM7. Large Format Retail.** Develop guidelines for conducting economic and workforce impact analysis for "big box" commercial uses.
- ED-IM8. Transportation and Infrastructure.** Operate economic development programs that promote and seek funding for transportation and infrastructure development critical to economic growth, including telecommunications, regional highway improvements, port development, airport expansion, and water and wastewater systems.
- ED-IM9. Special Economic Development Zones.** Support promotion of benefits and usage of special economic development zones to the business community.
- ED-IM10. Brownfields.** Develop zoning standards to provide increased flexibility for interim land uses and continuation of legal non-conforming uses to encourage cleanup and reuse of underutilized commercial and industrial zoned brownfields.
- ED-IM1X: Support Entrepreneurial Business Systems Efficiency.** Encourage local economic development entities to provide support and information resources for entrepreneurial business systems efficiency and management, particularly as the marketplace evolves (e.g. licensed Point of Sale systems).
- ED-IM4X. Economic Data Sharing.** Publish economic data showing how the county, the region and the target industries are performing at least annually. Compare Humboldt to other rural counties in the region, the state and the nation.
- ED-IM11X. Material Reuse.** Identify under-utilized and discarded materials and the waste byproducts of local industry (especially manufacturing, forest products and agriculture/food production). Work with other entities to encourage "highest and best use" opportunities for waste reduction and end-use markets with in the local economy such as reuse or as feedstock for local manufacturers.

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