Willits in Transition—

Building a Sustainable Tomorrow, Today!

A vision without a task is but a dream, a task without vision is drudgery, a vision with a task is the hope of the world. —Inscription on a church in Sussex, England, 1730

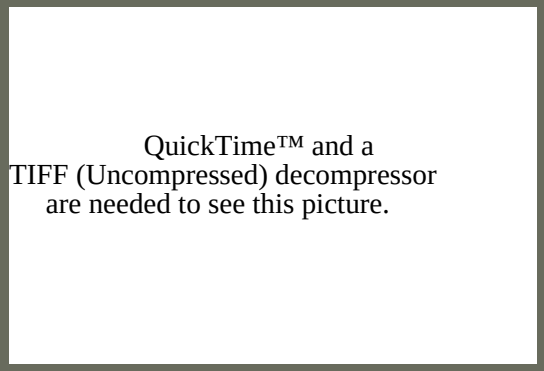
Workshop Schedule

- 9:00 to 10:00 Willits in its Bioregion
- 10:00 to 11:30 Ecocity Willits
- 11:30 to 12:30 LUNCH BREAK
- 12:30 to 1:30 Spotlight on Downtown
- 1:30 to 2:30 Breakout Sessions
- 2:30 to 3:00 Report Back from Breakout Sessions
- 3:00 to 4:00 Discussion of Next Steps/Wrap Up

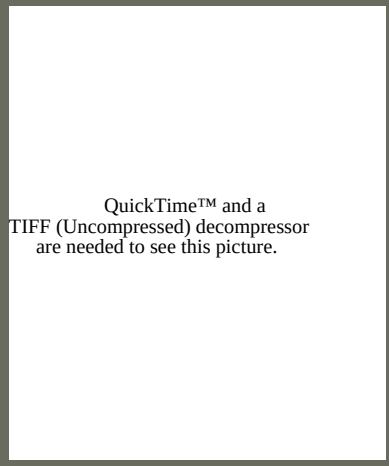
Workshop #1 Willits in its Bioregion

- **Where is Willits headed as a region? Are regional goals and priorities in line with Willits' vision for a sustainable community? What kinds of regional policies and priorities would help create a healthier regional environment, now and into the future?**

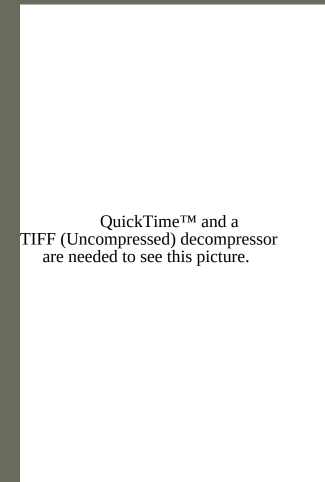
The Klamath/North Coast Bioregion

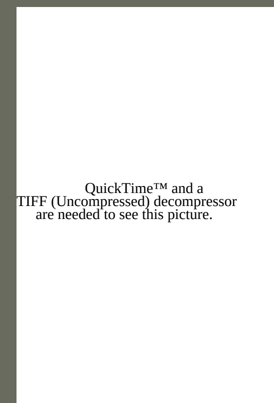


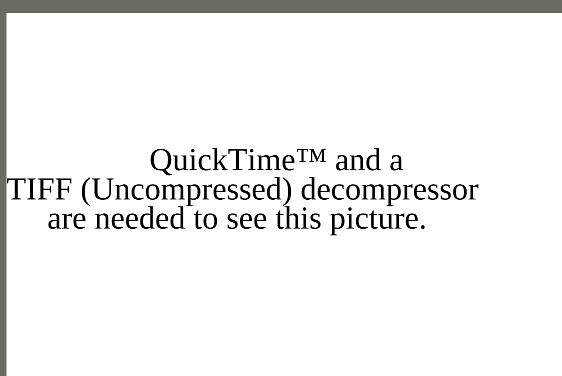
The Klamath/North Coast Bioregion extends roughly one-quarter of the way down the 1,100-mile coast and east across the Coastal Range and into the Cascades. This bioregion is famous for its rocky coastline, salmon fishing, and lush mountain forests of ancient redwoods and Douglas fir. Redwood National Park and numerous state parks, rivers, wilderness areas, and four national forests are in this bioregion.

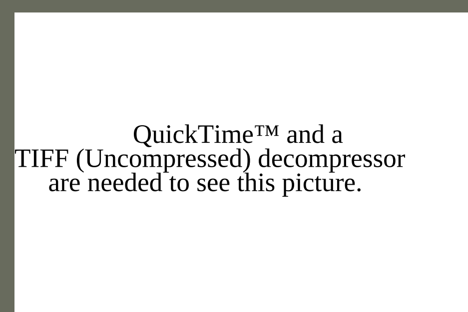


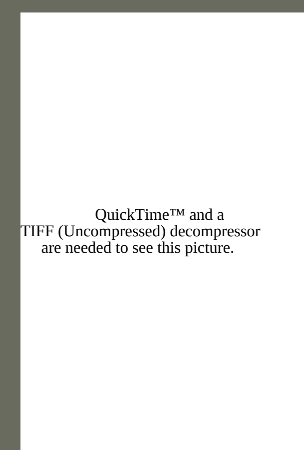
- Ten counties make up the Klamath/North Coast Bioregion: Del Norte, most of Siskiyou, Humboldt, Trinity, Mendocino, Lake and the northwestern portions of Shasta, Tehama, Colusa, and Glenn.



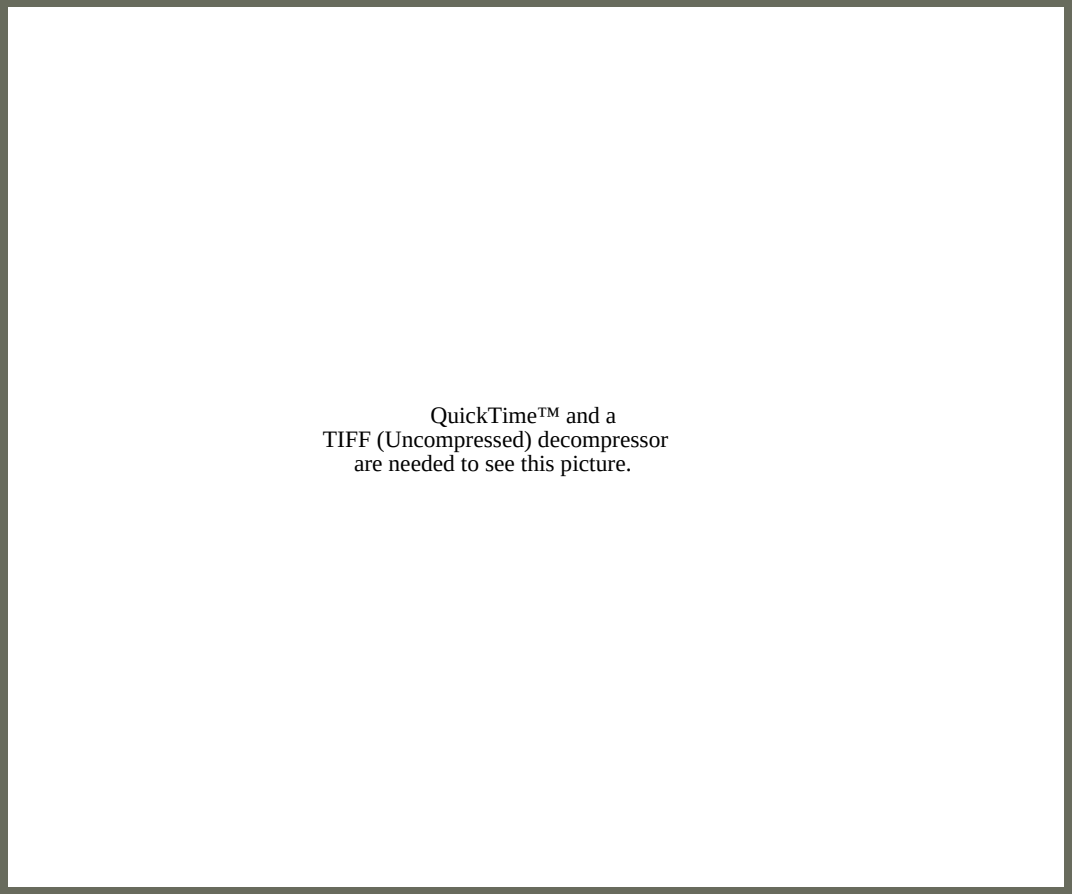








Mendocino County contains 3,510 square miles within its boundaries.



- It is naturally bounded on the west by the Pacific Ocean and on the east mainly by the mountainous divide between the North Coastal Basin and the Sacramento River Basin, with the width varying from 35 to 60 miles. The county extends approximately 80 miles north to south.

Mendocino County can be broadly divided into three major drainage basins: Eel, Russian and Coastal.

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Little Lake Valley

Joint Statement towards a Sustainable, Healthy Willits

“A focus on localizing food and energy production will be an excellent start. The solutions are in returning to small, local community enterprises.”

—City of Willits, WELL, REDI, North Coast Opportunities, Inc., WAG, Mondocino County Youth Project, Workfoce Investment Board, WEST CO, 2005

Annual food needs of the population
Size of population: 13,500 for 95490 zip code of greater Willits

Total annual requirements:

13,500 people x 513 lbs per year/person = 6,925,500 lbs of dry grains and beans

Total for grains and beans in terms of bushels:

6,925,500 lbs/55 lbs* per bushel = ca.125,918 bushels

*a bushel is a volumetric measure and varies in weight among crops, 55 lbs is used as an average.

Total annual needs in terms of calories:

13,500 people x 2500 calories per day x 365 days per year = 12,319,000,000 calories per year (over 12 billion calories)

—Willits Economic Localization (WELL) Food Security Report

Total acres needed to support existing population of Willits area (from Food Security Report worksheets)

- If we take an average of 2 people per acre supported by grains, and 9.5 supported by potatoes (Worksheet 5), then the following equation gives the overall number of people supported per acre with the 5:1 ratio rule.

- 2 people per acre X 0.83 + 9.5 people per acre X 0.17 = 3.28 people per acre.

- 13,500 people/3.28 people per acre = **4116 acres for basic calorie crops.**

—Willits Economic Localization (WELL) Food Security Report

So how many acres of prime ag land are in the area?

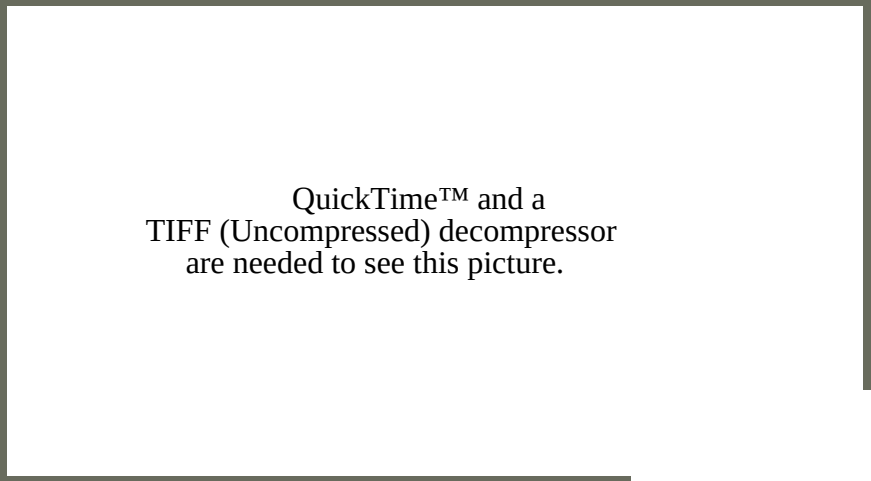
- The 95490 zip code encompasses about 322 square miles. The largest area with high agricultural potential is Little Lake Valley. Smaller areas include Ridgewood Ranch, with probably a few hundred acres of prime ag land, as well as Sherwood Valley and small pockets along area rivers such as near Hearst.

- The main area of Little Lake Valley is about 2.5 miles wide and 5 miles long, with extensions on either side of Hilltop as well. The total area of valley fill is about 18 square miles, or ca. 12,000 acres. I estimate about a quarter of this area is wetland habitat, mostly in the northern section, another quarter is housing and roads, mostly to the west, and another couple thousand acres is forested, riparian zone, or non-prime ag land due to soil texture. **This gives about 4,000 acres of potential prime ag land in Little Lake valley.**

—Willits Economic Localization (WELL) Food Security Report

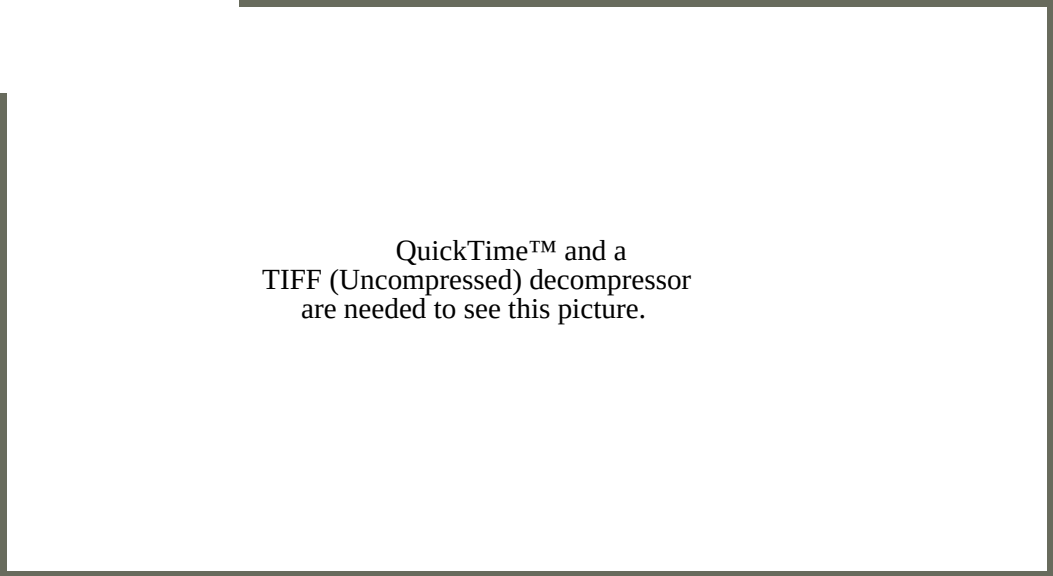
Willits' Farmland: For food or for scattered development?

Community Supported Agriculture

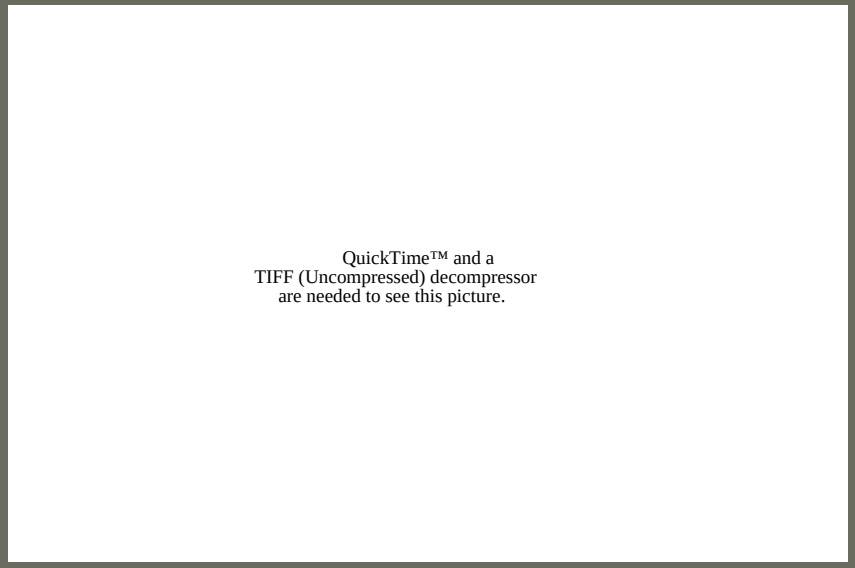


The CSA concept reconnects producers with consumers and empowers members to "vote with their dollars" for ecologically sound, local agriculture.

Currently, there are perhaps 1,700 CSA farms feeding hundreds of thousands of people throughout North America.



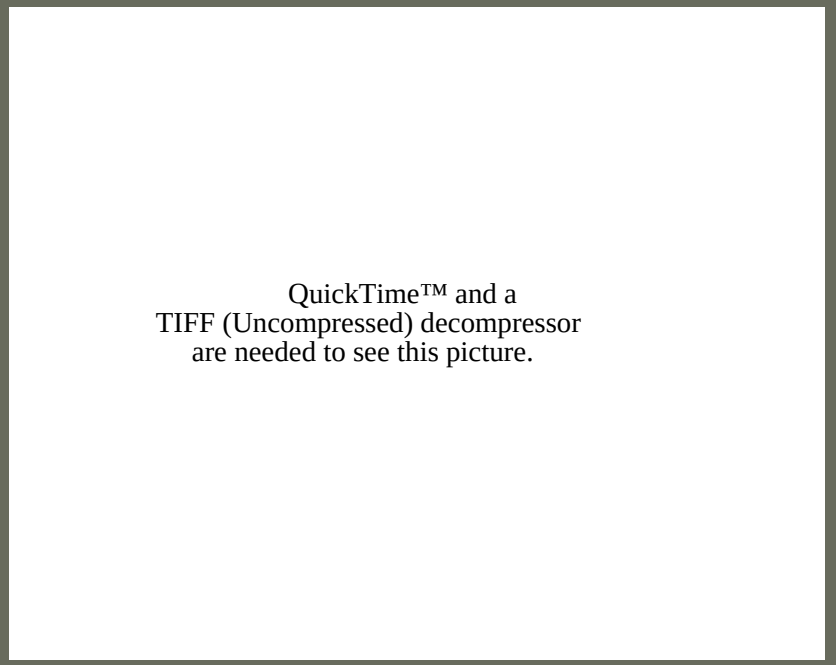
Full Belly Farm, 200 acre certified organic farm in Capay Valley, Northern CA



One of Fully Belley’s 35 paid employees

35 full-time workers, 15 retail accounts, 15 wholesale accounts, 650 member CSA and three farmers’ markets almost year ‘round

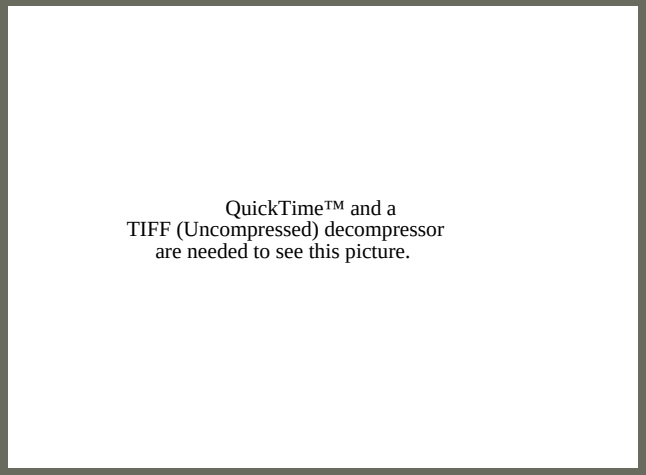
Tools for Protecting Valuable Farmland and other Natural Resources



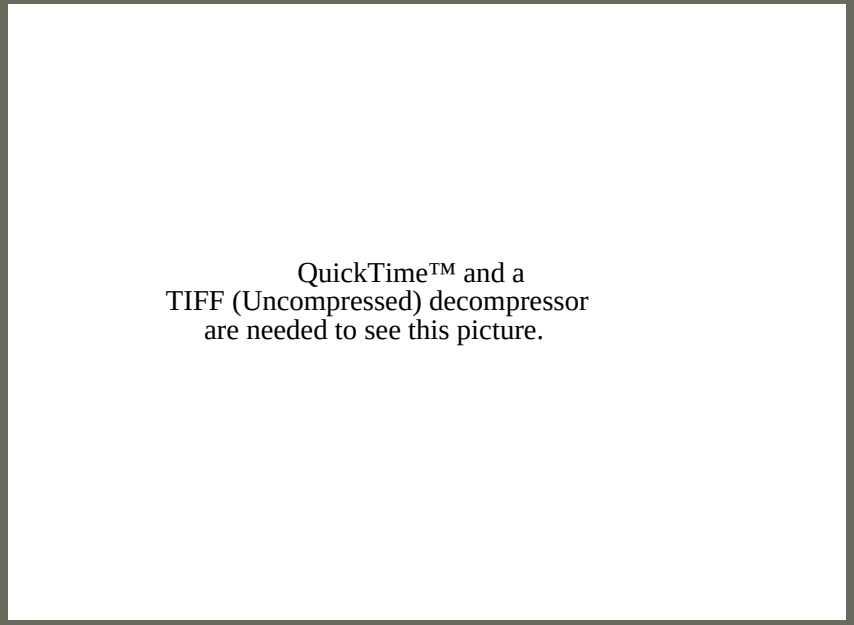
- Transfer of development rights (TDR) is a market based technique that encourages the voluntary transfer of growth from places where a community would like to see *less* development (called sending areas) to places where a community would like to see *more* development (called receiving areas).

Transfer of development rights programs

- Resource: Saved By Development: Preserving Environmental Areas, Farmland and Historic Landmarks With Transfer Of Development Rights, by Rick Pruetz



- The sending areas can be environmentally-sensitive properties, open space, agricultural land, wildlife habitat, historic landmarks or any other places that are important to a community.



- The receiving areas should be places that the general public has agreed are appropriate for extra development because they are close to jobs, shopping, schools, transportation and other urban services.

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A few of the many places TDR has been used successfully

- Calvert County, MD—saved 5,000 acres of farmland through TDR and the creation of an Agricultural Preservation District
- Montgomery County, MD—saved 29,000 acres of farmland using TDR
- New Jersey Pinelands, NJ—saved 15,768 acres
- South Lake Tahoe, CA and Nevada removed 140 houses that where shedding dirty water in to the lake

From: Status Reports on Programs in Saved by Development

What is the current regional vision for the county?

2005 Regional Transportation Plan

- The vision for the future will be determined by the interregional impacts related to growth and development just as much, if not more, than the internal economic forces within Mendocino County.

- The effects of jobs-housing imbalances across regional boundaries, the search for ever cheaper land for light industrial, viticulture and residential land uses, and the growth in tourism/recreational activities will have major impacts on defining the regional transportation system.

- These impacts may worsen existing problems and constraints, but may also bring increased resources and opportunities for improving transportation system elements.

—2005 Regional Transportation Plan Vision for the Future

Regional Transportation Goals

- **"The role of Highway US-101 is critically important to Mendocino County for economic and primary access needs. Indeed, this route is the very lifeline for the entire North Coast, from the San Francisco Bay Area to the Oregon border. Completing the gaps in the four-lane expressway/freeway designation identified in the Caltrans Concept Plan for the US-101 Corridor is the top priority of MCOG's transportation improvement program".**

- **"Two key sections of the US-101 Corridor will be the primary focus of the 20-year time horizon of the RTP: the Willits bypass and the Hopland bypass. Both of these improvement projects will eliminate critical bottlenecks on the route and upgrade the existing two-lane highway to a four lane facility."**

—2005 Regional Transportation Plan Vision for the Future

State Transportation Improvement Program (STIP)

- The STIP is the source of the majority of transportation related funding within the Mendocino County region.
  - At the State level, these funds are divided into two programs—the Regional Improvement Program (RIP) funded from 75% of new funding, and the Interregional Improvement Program (IIP), funded from 25% of new STIP funding.

Where the $ is coming from…

#1 Regional Improvement Program funding priority: highway improvements

- **"While RIP funds can be used for projects on local roads, as well as transit, bicycle, and pedestrian projects, in order to implement desired improvements to the State highway system, RIP funds must also be used for State highway improvement. In light of the current statewide fiscal crisis, it is unknown if the region will receive any new RIP funding over the next several years. However, if additional funds are received, completing funding for the high priority** highway improvements should be the top priority."

—2005 Regional Transportation Plan Vision for the Future

Willits Bypass: Region's Top Funding Priority

Men-101 (43.7/54.8) – Willits Bypass

- Currently, $116 million has been approved by the CTC for construction of the bypass through a combination of State and regional State Transportation Improvement Program funds. Federal funding is pending in the reauthorization process. Current construction estimates exceed this cost by tens of millions of dollars. Design and cost estimate alternatives are being pursued by Caltrans. This transportation investment will provide immediate relief to congestion on the corridor segment through Willits and provide opportunities to enhance economic development in conjunction with other transportation investments in downtown Willits.

- The region's highest priority project, the Willits bypass, has been delayed to 2011.

Willits Traffic Facts

(presented at the Dan Burden One Town/One Vision workshop)

- Local traffic = 20,000 vehicles/day which is 70% of total traffic in Willits.
- Regional traffic = 8,000 vehicles/day, (which would mean 30% of total traffic in Willits if the total is 28,000.)

Willits bypass EIR

- **6.2.5 Prime Farmland**
- **The** cumulative analysis for farmland is for the entire county of Mendocino, because of the rapid rate of loss of this important resource. The State Department of Conservation's Farmland Mapping and Monitoring program has not mapped Mendocino County yet, so exact farmland conversion and other pertinent information,are not available; however, close estimates were provided by the Mendocino County Agricultural Commissioner.Out of 2,246,400 acres of land in Mendocino County, 94,039 acres or 4.19 percent is considered prime agricultural soils (NRCS-USDA figures). Of that amount, much is unavailable and covered by roads, highways, cities, parks, and other land uses. While growth is very slow in Mendocino County, settlement patterns have tended to be occurring in areas dominated by prime soils. Only one-third, or approximately 35,000 acres, of prime farmland remain available for agricultural use. Besides the unavailability of prime farmland, changes in hydrology as a result of agricultural and other human uses have affected the quality and use of prime farmland

CA Department of Transportation

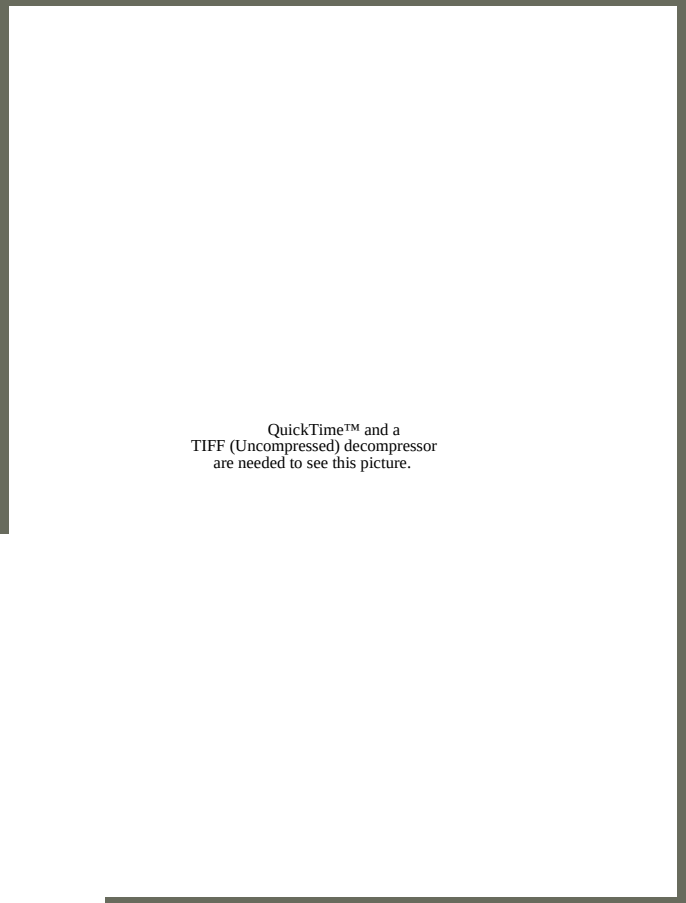
http://www.dot.ca.gov/dist1/d1projects/willits/chapter6_10.pd

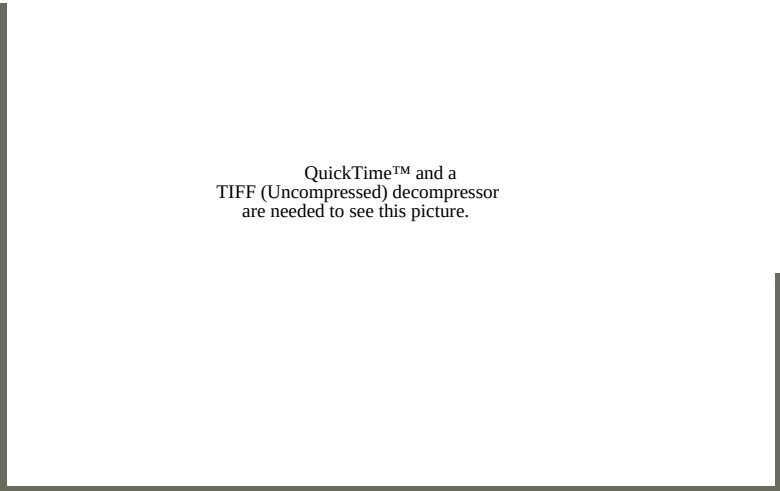
- “The build alternatives for the Willits bypass project either approach or exceed the1984 Farmland Protection and Policy Act 160-point threshold in their conversion of prime and unique farmland to other uses. Biological conservation easements that would be implemented for construction of the build alternatives would help to mitigate for impacts to farmlands in the project area. This proposed mitigation would reduce the project’s incremental contribution to cumulative farmland impacts.”

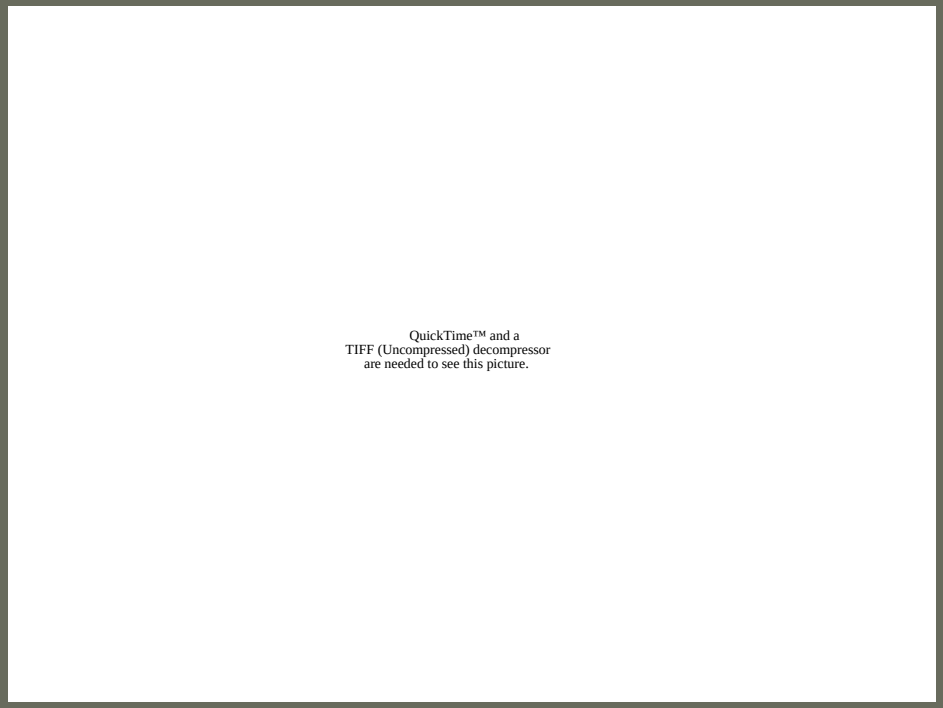
http://www.dot.ca.gov/dist1/d1projects/willits/chapter6_10.pd

What do you think should be Willits' top priority: building highways and encouraging sprawl development, or preserving important local natural resources (prime agricultural lands) and shifting funds to more sustainable forms of transportation and access by proximity?

Willits and rail: a better way to link to the region?







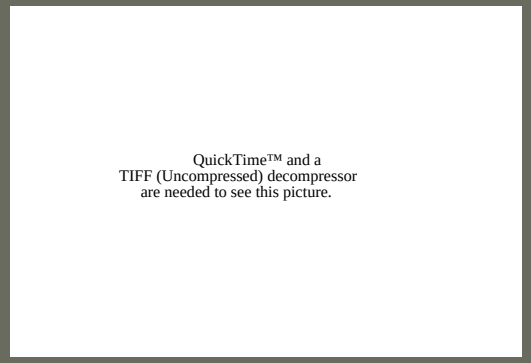
What the Regional Transportation Plan says about Rail Transportation

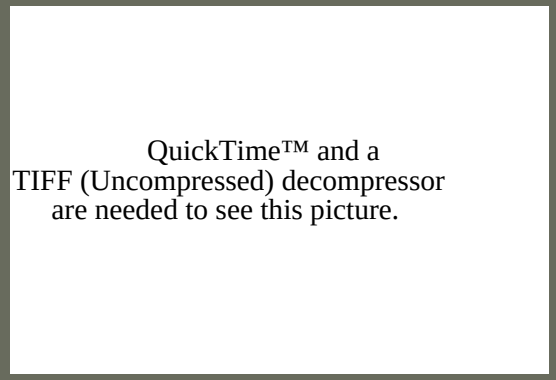
2005 Regional Transportation Plan Public Transit Service Element

"Rail transportation is sometimes mentioned by the general public as a desired and/or necessary addition to the Mendocino County public transportation system. The North Coast Railroad Authority (NCRA) will be the responsible entity for rail passenger service implementation north of Sonoma County along this line. Regularly scheduled passenger rail service has not yet been programmed, and will depend on demonstrated demand and available implementation funding."

The following policy statements are a subset of the Goal and Policy statements from the Rail Transportation System Element of the RTP:

Goal :Create a viable and financially sound rail passenger service connecting Mendocino County to the Bay Area and Humboldt County for regional and inter-regional passenger movement.





More from the Regional Transportation Plan

Policies

- Encourage the North Coast Railroad Authority to implement passenger rail service connecting to Willits and interfacing with the Skunk Train to provide inter-city, excursion and possible commuter service to the Bay Area.
- Encourage the use of local passenger rail service (when implemented) for access to the nationwide railroak network for long distance travel.
- Support and encourage coordination between the tourist industry and scheduled excursion rail service, creating economic opportunities for both the railroads and the tourist destination.
- Encourage and support land use planning and zoning policies that support rail system use, protect rail right-of-way; and create innovative use of rail corridors and air space over rail system right-of-way.

* “Encourage” and “support” usually mean that there is no money for these policies. Basically, it says that NCRA is responsible. “Fund” and “implement” mean action.

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Rail is taken more seriously in other countries, not the USA.

Can Willits help change that?

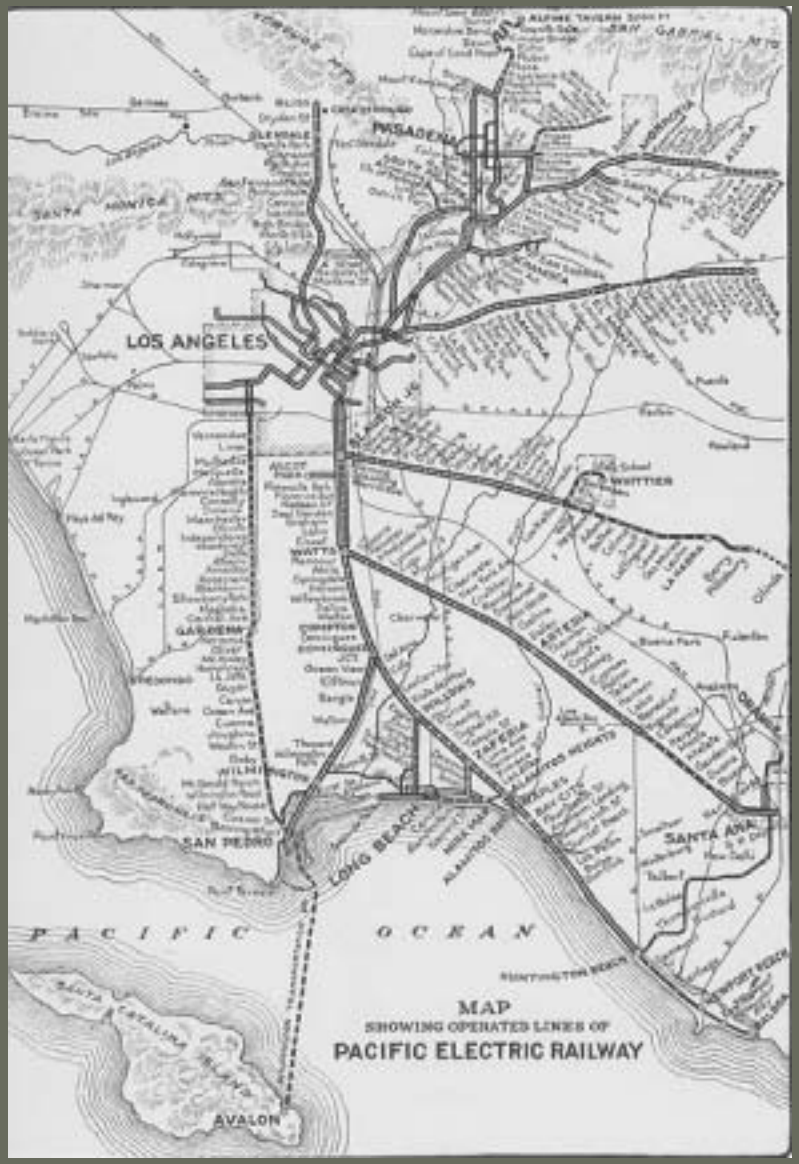
Windhoff CargoSprinter: This new form of intermodal and freight transport rail-vehicle is based on a bi-directional train allowing two-way continuous traffic without interruption.

http://www.windhoff.de

Combination fire fighting and rescue train in Germany

California used to have a robust rail transportation network

At its peak, the Pacific Electric Railway was huge: 1,150 miles of track covering four counties and 900 cars. 1944 marked the highest ridership: over 109 million passengers.



Workshop #2 Ecocity Willits

- Where is Willits headed as a city? Are local plans and policies helping Willits create a healthy, sustainable and self-sufficient community? What policies and planning tools would enable the community to build the foundation for a truly sustainable Willits?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What are ecocities?

An ecocity is a human settlement that enables its residents to live a good quality of life while using minimal natural resources and while assisting in the regeneration of

Its buildings make best use of sun, wind and rainfall to help supply the energy and water needs of occupants.

Generally multistory to maximize the land available for green space.

It is threaded with natural habitat corridors, to foster biodiversity and to give residents access to nature for recreation

Its food and other goods are sourced from within its borders or from nearby, in order to cut down on transport costs.

The majority of its residents live within walking or cycling distance of their workplace, to minimize the need for motorized transport.

Frequent public transport connects local centers for people who need





The goods it produces are designed for reuse, remanufacture, and recycling.

The industrial processes its uses involve reuse of by-products, and minimize the movement of goods.

It has a labor intensive rather than a material, energy, and water intensive economy, to maintain full employment and minimize material throughput.

Different kinds of housing patterns and their impacts on resources

3 Hh/Res Acre **(Courtesy City of Portland)**

Three households per residential acre

Information provided
By the Sierra Club's
Healthy Growth Calculator

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8 Hh/Res Acre (Austin, TX)

Providence Wide-
Shallow “row homes”

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16 Hh/Res Acre, Pittsburgh, PA

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17 Hh/Res Acre (Dorchester MA)

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18 Hh/Res Acre (Palo Alto, CA)

8-18 households/residential acre

Approximately 100 Hh/Res Acre

Backyard, No parking

Approximately 500 Hh/Res Acre (San Francisco)

Comparisons of different kinds of development

Land Used - Acres per 100 Households

- **333 acres**

- **100**

(savings of 233 acres)

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- **10**

(savings of 323 acres)

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Comparison: Households per Residential Acre **3 vs 10 vs 100**

Sierra Club, Healthy Growth Calculator

Roads & Sidewalks - Square Yards per 1000 Households

- **233,333**

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- **70,000 (163,333 fewer square yards of roads and sidewalk)**

- **7,000 (226,333 fewer square yards of roads and sidewalk)**

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Concrete or asphalt in roads and sidewalks. Paved surfaces create water pollution and require drilling, mining and transporting of gravel, cement and asphalt. Forty single family dwellings require 40 times as much concrete in roads and sidewalks as a 40-unit apartment building on a single lot. Water, sewer, electrical, phone, cable and other services lie under the street and branch off into each lot, so sprawl housing uses much more of these materials.

Households per Residential Acre 3 vs 10 vs 100

Water Use - Gallons per household each day

- 1,032

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- 422 (610 fewer gallons per household each day)

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- 192 (840 fewer gallons per household each day)

Water Used. Water provision requires damming, transporting and loss of stream flow to fish and farms. In sprawl, most water is used on lawns and in washing cars, and it washes fertilizers, herbicides and pesticides off the lawns into streams, lakes and bays.

Households per Residential Acre 3 vs 10 vs 100

Local shopping - Service & Retail Employees per acre

- **1.6**

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- **5.0 (3.40 more employees per acre)**

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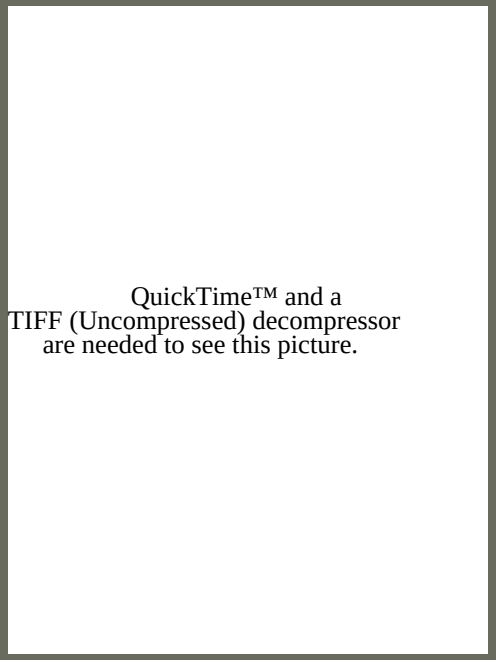
- **48.3 (46.7 more employees per acre)**

Shopping Opportunities. Neighborhood shopping enhances convenience, shortens trips, and reduces driving and traffic. Nearby work, shopping, education and recreation destinations shorten trips.

Households per Residential Acre **3 vs 10 vs 100**

Transit Service

Increasing housing density and neighborhood convenience shortens trips… Public transit use increases fourfold as density increases from 7 to 30 hh(households)/res acre.



Information provided
By the Sierra Club's Healthy Growth Calculator

Astoria, Oregon

Parking Spaces - per household

- 14.2

- 11.1

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- 5.0

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More land for parking, less for nature. Each vehicle demands many parking places -- home, curbside, work, shopping, recreation. Most estimates range from 5 to 9 spaces per car.

Households per Residential Acre 3 vs 10 vs 100

Mileage - Average vehicle miles traveled per household each year

- 22,844

- 15,622 **(7,222 fewer vehicle miles per HH per/yr)**

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- **7,609 (15,235 fewer vehicle miles per HH per/yr)**

Traffic brings congestion, frustration and pollution. Convenient neighborhoods reduce vehicle miles traveled (VMT), give alternatives to driving (walking, biking, public transit) and shorten many driving trips.

Households per Residential Acre **3 vs 10 vs 100**

Gasoline - Average gallons used per household each year

- 1,142

- **783 (359 fewer gallons per HH per/year)**

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•380 (762 fewer gallons per HH per/year)

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Gasoline… use requires drilling, refining, transporting and distributing. Increasing traffic and vehicle miles traveled increases gasoline consumption.

Households per Residential Acre 3 vs 10 vs 100

Auto Costs

Owning and driving vehicles is the second highest household expense, just behind the mortgage.

Costs are now an average of $9,622 per car per year.
— Runzheimer International

Energy Cost Comparison

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A comparison of the energy cost of various forms of transportation shows that the bicycle is most energy-efficient

Community Transformation Photos/Computer Images

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El Cerrito, CA images courtesy Steve Price


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Denver, Colorado

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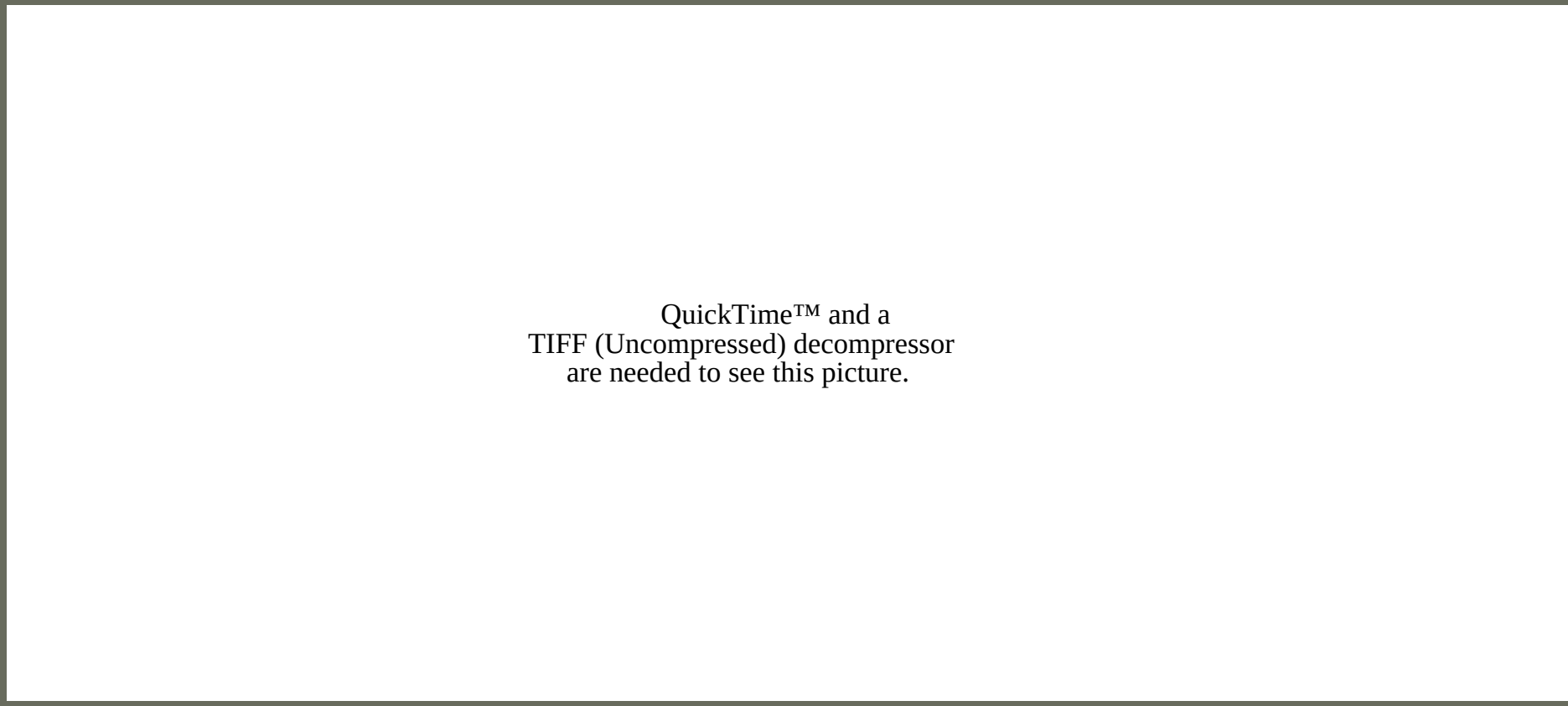

Oakland, California


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Willits General Plan Goals

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Focus on Housing

- It is the goal of the City of Willits to encourage the preservation of existing housing and the construction of new housing at a range of costs and in quantities to meet the needs of all income groups.

- Willits needs to add 436 units to meet its share of regional housing

City of Willits, 2003-2008 Housing Element

Action Items:

- HE-2.A Identify adequate sites which will be made available with appropriate zoning and development standards that will have the public services and facilities needed to facilitate and encourage the development of a variety of types of housing

- HE 2.B Encourage infill development to maximize use of available land and infrastructure and also to eliminate unsightly and unsafe conditions on unused lots

- HE 2.C Encourage the production of second units in all residential zones, as appropriate.

City of Willits, 2003-2008 Housing Element

Measure HE:2.B: Multi-Family Sites Preservation Program

- The City has a limited supply of land zoned for R-3, which allows for multi-family residential uses. While multi-family residential development is permitted in this zone so is single family and two family development. In order to preserve existing and future R-3 zoned sites for multi-family development, the City will revise its zoning ordinace to only allow higher density development in the R3 zone.

City of Willits, 2003-2008 Housing Element

- Specific Action Required: In order to preserve existing and future R3 zoned sites for multi-family development, the Community Development Department will revise the Zoning Ordinance to establish a minimum allowed density of 14.5 dwelling units per acre in the R3 zoning district.

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Gold Dust Apartments, Missoula, Montana
DENSITY: 40 units per acre

Summary of some existing policies that go hand in hand with “green city” planning

- Infill development
- Lot consolidation
- Flexibility in Development Standards to encourage affordable housing (exceptions to setbacks, clustering of units and lots, lot size, coverage, reduced parking standards)
- Second unit incentives
- Mixed Use Development (allow residential above commercial in commercial zones and waive parking)
- Density bonus for affordable housing (mandated by the State of California)

Measure HE-2.1
Planned Unit Development

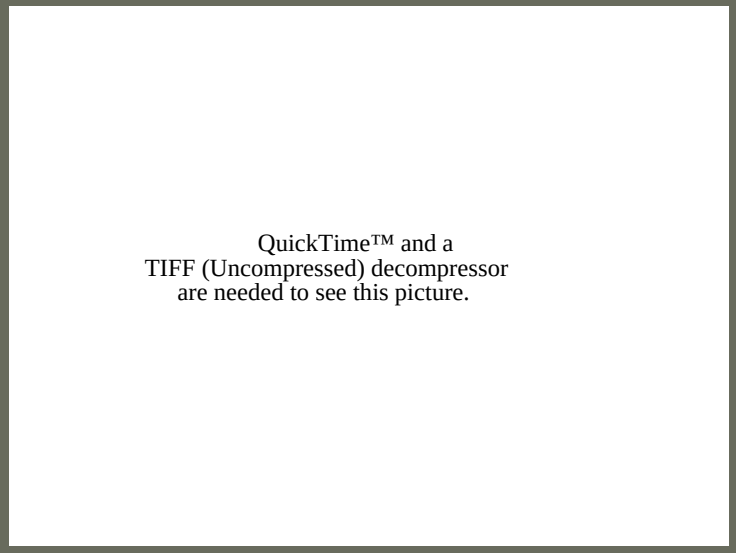
- The City shall encourage Planned Unit Developments (PUD). The City has PUD districts, which allow for flexibility in the use and design of land and structures. This flexibility may include the alteration of setback requiements, height limits, sign requirements, building coverage limits, off-street parking, density and intensity limits, ect. These districts are excellent areas for the development of a mix of different housing types, such as condominiums, apartments and single-family dwellings.

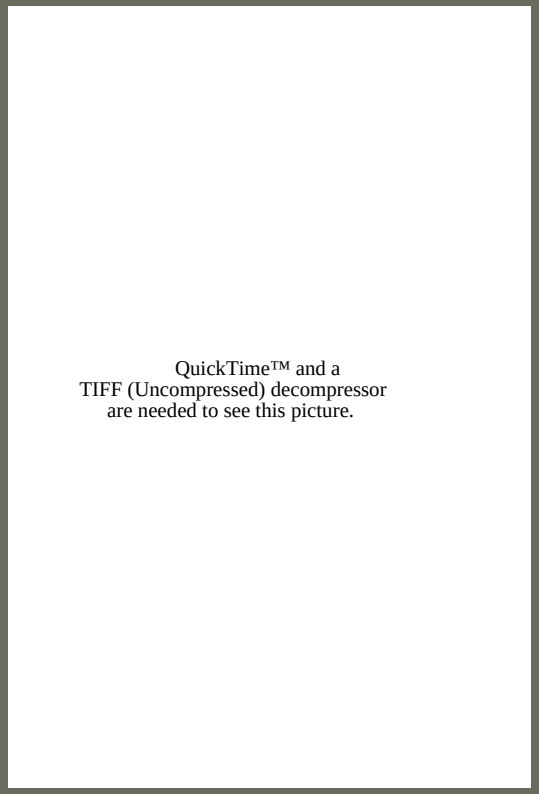
— City of Willits, 2003-2008 Housing Element

A PUD could launch one or more sustainable centers in Willits!

One Town, One Vision
Towards a Walkable Community

Walkable community photos by Dan Burden





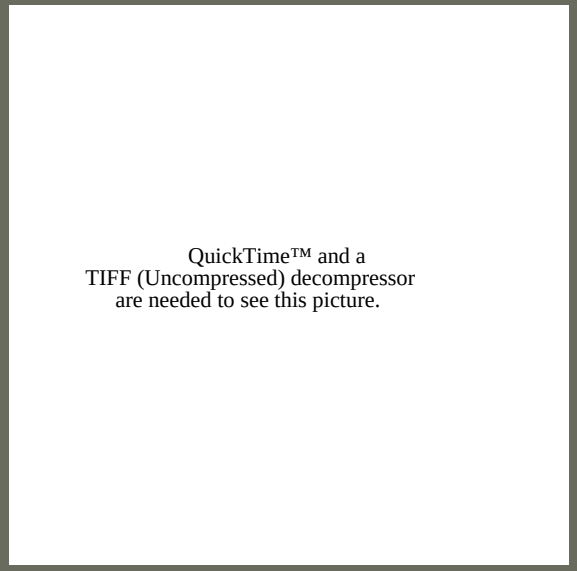
Citizens have expressed a desire for a more walkable town

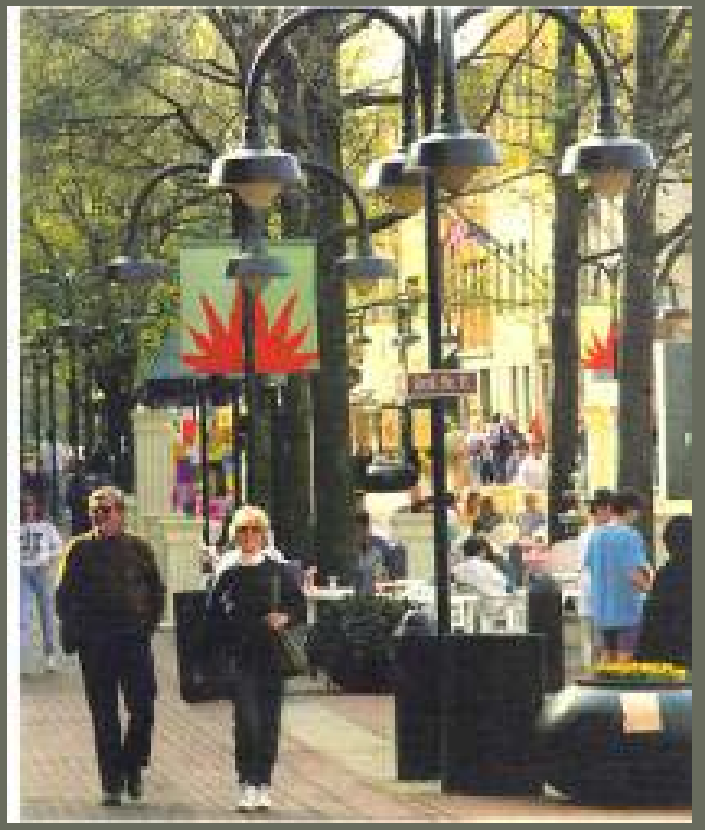
Some Economic Benefits of Walkable Communities

- **Housing Values are Higher where its Walkable**
- **Walkable Communities Attract "New Economy" Workers**
- **Walkable Communities are becoming a Business Relocation Alternative**
- **Walkable Communities Reduce Commuting Cost**
- **Walkable Communities Cost the Taxpayer Less**
  - **The federal Office of Technology Assessment estimates that a single house built on the urban fringe requires $10,000 more in public services than one built in the urban core.**
- **Walkability Attracts Tourists**
- **Walkable Communities Can Capture an Emerging "Lifestyle" Retail Market**
- Sources: Indicators Of Livable Communities prepared by the Maine Development Foundation. http://www.mdf.org/ The Economic Benefits of Walkable Communities, Focus on Livable Communities prepared by the Local Government Commission. http://www.lgc.org/about/index.html How Can I Find and Help Build a Walkable Community prepared by Walkable Communities, Inc. http://www.walkable.org/article1.htm

One Town, One Vision Mission:

To work together in a cooperative, coordinated manner to revitalize our town, to resolve transportation problems and enhance community well being.





Charlottesville, Virginia

How to get there from here—"Green City" Mapping

- An "Ecocity" Overlay Map can utilize state-of-the-art Geographic Information (GI) Science
  - GIS technology will enable users to evaluate projects and policies against a sophisticated database that will evolve along with the city as it changes over time.

Green City Mapping

An ecocity map can be an evolving tool useful for a variety of purposes, including evaluating

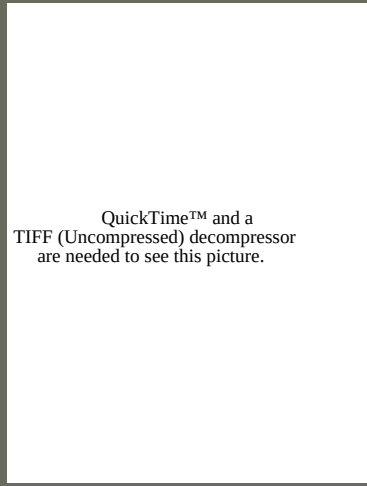
- Small and large development proposals
- Transit planning
- Renewable energy efficiency planning
- Open space improvements
- Community garden expansions
- Creek/watershed restoration
- Neighborhood commercial centers
- Disaster planning
- Urban growth boundaries

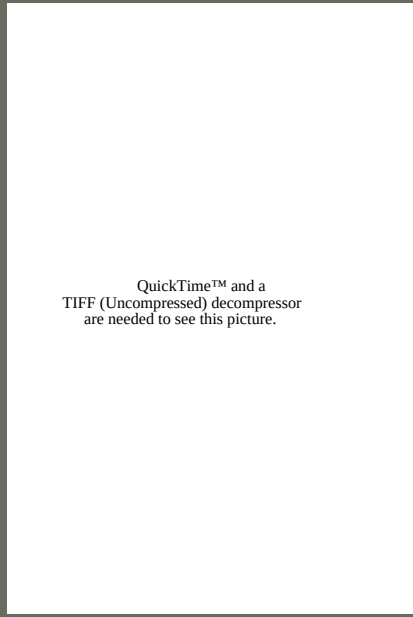
Mapping criteria: Physiographic Elements

- Prioritize zones of increasing density and diversity for present and potential pedestrian/transit centers (urban villages)
- Identify areas for potential restoration of natural and agricultural land

Natural Values

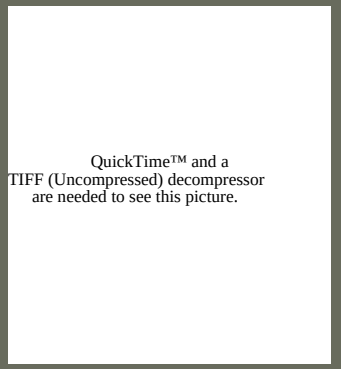
- Watershed
- Forest
- Wildlife
- Urban agriculture

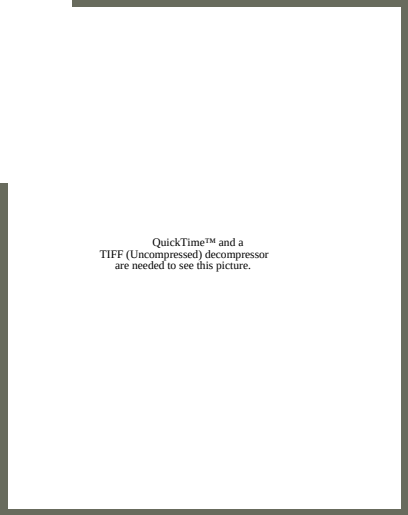




Social values

- Cultural
- Economic
- Historic
- Scenic
- Recreational
- Residential
- Institutional



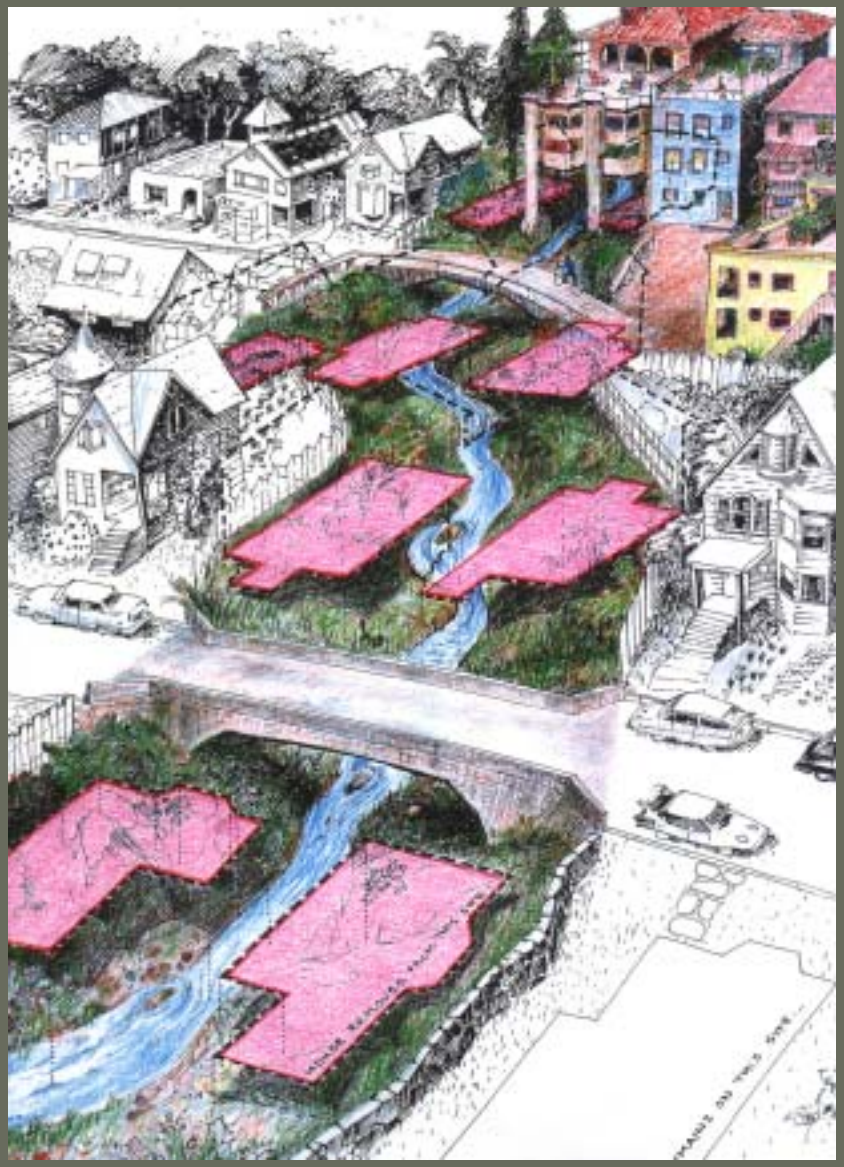


Car Free by Contract Housing

Gold Dust Apartments, Missoula Montana

Small percent of budget for art elements

Rooftop gardens and gathering places



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Benefits of a TDR program may involve the following:

•Prime agricultural land is kept undeveloped.

•The farmland is permanently protected through a recorded conservation easement.

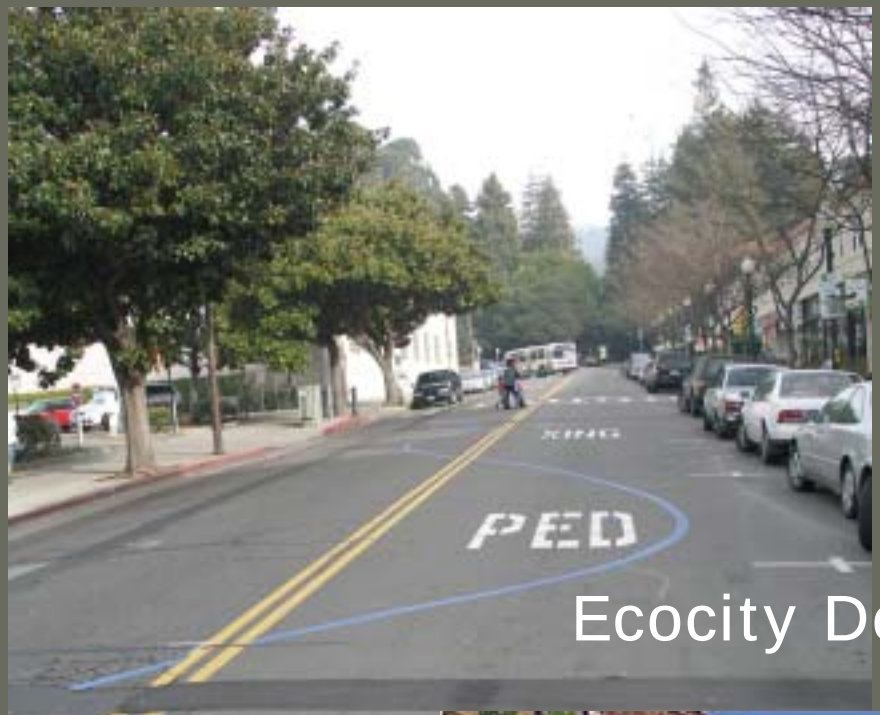
•The program is voluntary.

•The private market drives the system and the expenditure of public funds is minimal.

•Orderly and controlled growth is promoted. Development is guided into those locations— the receiving areas— where it may be reasonably accommodated.

Transfer of development rights (TDR)

Creek “daylighting”

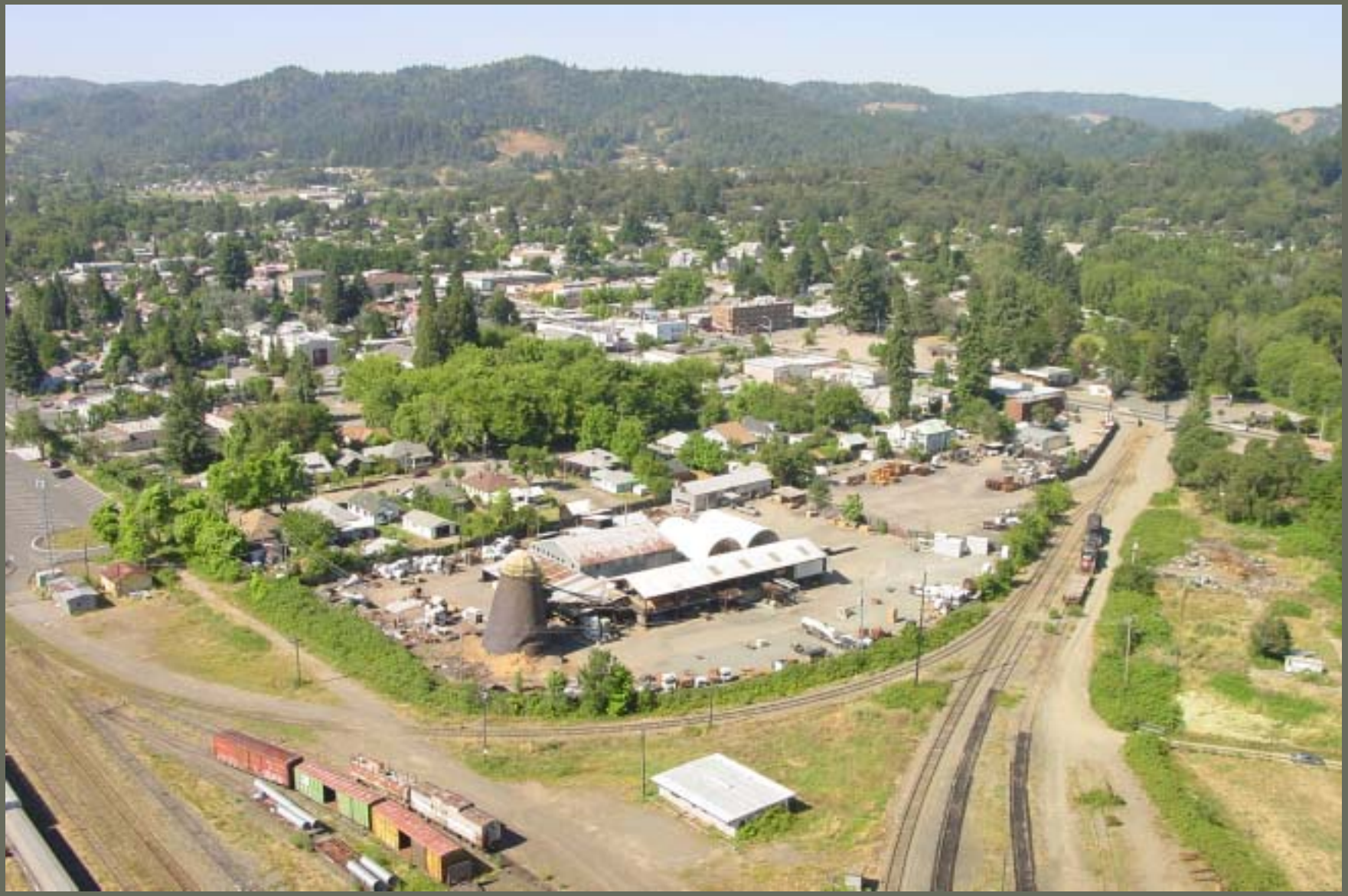


Ecocity Demonstration Projects

Collaboration with the business community

Workshop #3 Spotlight on Downtown

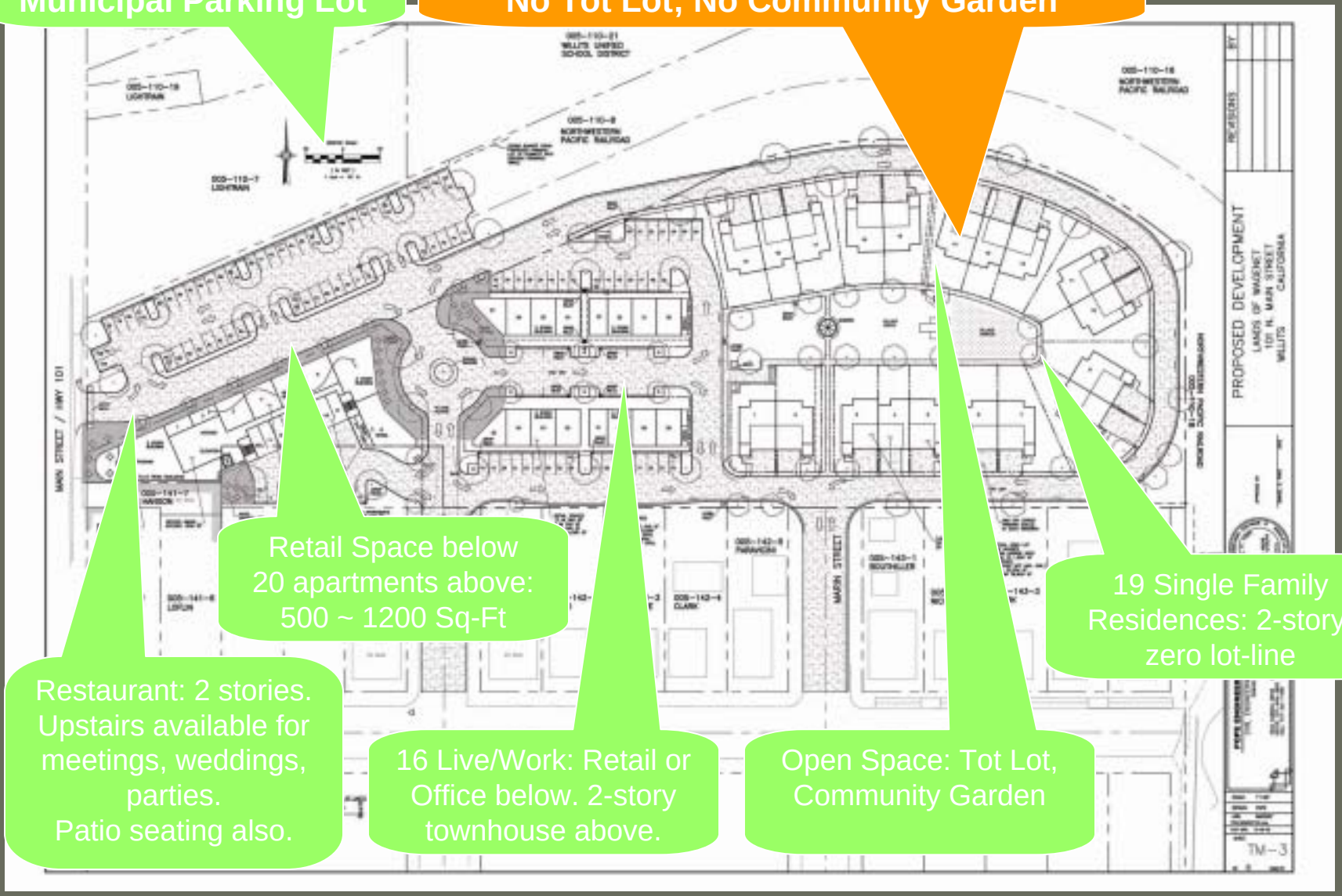
- How do current city plans for growth and economic development measure up against the community's sustainability goals and the ecocity vision? What specific policies and planning tools would enable the citizens of Willits to shape individual development proposals for long-term health and sustainability?




MAIN STREET
HUBBARD STREET
MAIN STREET
STATE STREET
CITY PARK
John F. Cossa Architect

Suggested City Municipal Parking Lot

Alternate location for Parking Lot
No Tot Lot; No Community Garden



Retail Space below
20 apartments above:
500 ~ 1200 Sq-Ft

Restaurant: 2 stories.
Upstairs available for
meetings, weddings,
parties.
Patio seating also.

16 Live/Work: Retail or
Office below. 2-story
townhouse above.

Open Space: Tot Lot,
Community Garden

19 Single Family
Residences: 2-story;
zero lot-line


Downtown Grill
8501


White Bird Village

A Good Pedestrian Oriented Housing Project Should:

1. integrate frequent public transit service (best as rail)
2. include basic shopping and services, or be located within easy walking distance from them
3. be connected to a good cycling network
4. be sheltered from traffic noise and pollution
5. include open space safe enough for kids to play outdoors without supervision and pleasant enough for adults to spontaneously congregate and use as a natural extension to the private dwelling

Amsterdam-GWL terrain. 600 units

Edinburgh, Slateford Green. 120 units





Hamburg, Stadthaus Schlump. 45 units in old hotel

Autofreie Mustersiedlung Floridsdorf, Vienna

Freiburg, Vauban, Germany

Freiburg, Vauban. Social life in the new district.

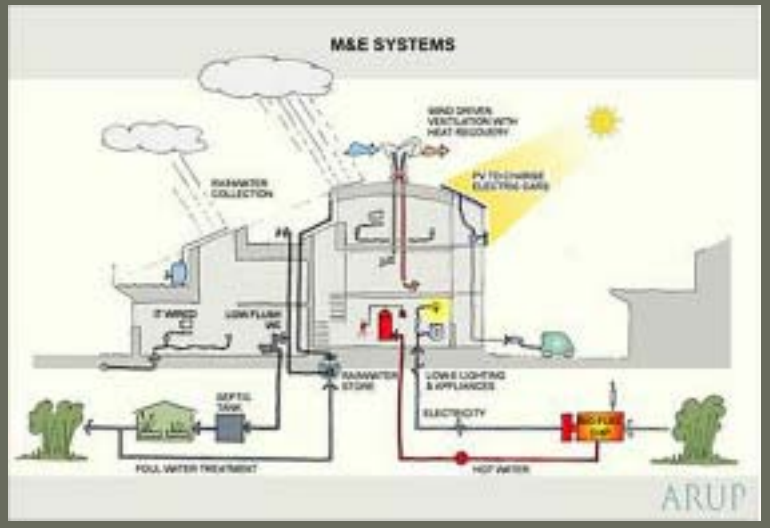
Project GO!—Green Oakland Demonstration Project

- Taking a giant step towards Oakland's sustainable future, the Project GO! initiative seeks to demonstrate how Oakland residents can live a high quality of life that is truly sustainable—a proposed mixed use development project that operates within a fair share amount of the earth's resources.

England's BedZed

Project GO!
11 Sustainable Living Principles

1. Location of project relative to Green City Map
2. Zero carbon (phased over a given period)
3. Zero waste (phased over a given period)
4. Sustainable transport (car free housing)
5. Sustainable construction materials
6. Local and sustainable food
7. Sustainable water
8. Natural habitats and wildlife
9. Culture and heritage
10. Sustainable industry/jobs
11. Health and well being


M&E SYSTEMS
WIND DRIVEN VENTILATION WITH HEAT RECOVERY
RAINWATER COLLECTION
PV TO CHARGE ELECTRIC CARS
LOW FLUSH WC
RAINWATER STORE
LOW E LIGHTING & APPLIANCES
ELECTRICITY
SEPTIC TANK
FOUL WATER TREATMENT
HOT WATER
ARUP

The Environmental Cost of One Car

- **Extracting Raw Materials:** 26.5 tons of waste 922 cubic meters of polluted air
- **Transporting Raw Materials:** 12 liters of crude oil in the ocean 425 million cubic meters of polluted air
- **Producing the Car:** 1.5 tons of waste 74 million cubic meters of polluted air
- **Driving the Car:** 18.4 kilos of abrasive waste 1,016 million cubic meters of polluted air
- **Disposing of the Car:** 102 million cubic meters of polluted air

A car causes more pollution before it's ever driven than in its entire lifetime of driving.

Source: *Cradle to the Grave*, Umweltund Prognose-Institute Heidelberg

Some Ecocity Builders Recommendations

1. Adopt a **"Green City Leadership" theme** for the city's economic prosperity, health and education
2. Create a **"green city" overlay map** for Willits to inform land use planning
3. Identify and build **walkable town centers** linked by transit and greenways, powered by renewable energy and aiding natural restoration
4. Build and expand one or more **car-free areas** with car-free streets.
5. Utilize **transfer of development rights** programs, community land trusts, incentives and other policies to shape a healthy physical footprint
6. **Allow for increased height and density**
   - Supporting ecological TDRs
   - Balancing development imbalances
   - Ecological building features, including solar greenhouses, terraces, elevated public access, rooftop gardens
   - Shifting ever more citizens into car-free infrastructure and life styles
7. Create a **community development program** that involves local businesses with sustainable development and local employment goals.
8. Focus on development of **local farms and local energy**, **ecologically healthy technology and education for ecological development.**
9. Develop classes at the college extension and/or attract a campus of a larger college to train people in the services and professions that Willits needs to be largely self-sufficient; become a major **center of sustainable economy research and education**.
10. Take **regional transportation leadership** with other small cities in shifting Caltrans and federal policies from roads to rails.

One creative idea for Willits

- Set up a Transfer of Development Rights program to preserve farmland while adding an appropriate amount of sustainable development in town, close to services
- Set up a transitional economic plan: while food is still inexpensive, instead grow a mixture of organic produce through farms with CSA programs, but use other land to grow hops for beer.
- Encourage the location of a brewery in Willits to create a signature brew in town.
- Hire locally, some might live in sustainably planned developments.
- Locate the brewery next to one of these sustainable mixed use projects, and use the waste heat from the brewery to provide heat and power to the residential development.

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