

HUMBOLDT 21st
Century



GENERAL PLAN

**Humboldt County General Plan Update
Revised Draft Environmental Impact Report**

SCH# 2007012089

April 19, 2017

HUMBOLDT COUNTY BOARD OF SUPERVISORS

First District: Rex Bohn
Second District: Estelle Fennell
Third District: Mike Wilson
Fourth District: Virginia Bass
Fifth District: Ryan Sundberg

HUMBOLDT COUNTY PLANNING COMMISSION

First District: Alan Bongio
Second District: Robert Morris
Third District: Noah Levy
Fourth District: Kevin McKenny
Fifth District: Ben Shepherd
At-Large: David Edmonds
At-Large: Brian Mitchell

HUMBOLDT COUNTY PLANNING AND BUILDING DEPARTMENT

John Ford, Planning Director

PROJECT STAFF

Joel Ellingwood County Counsel
Michael Richardson: Supervising Planner
John Miller: Senior Planner
Michael Wheeler: Senior Planner
Lisa Shikany Senior Planner
Jerry von Dohlen: GIS Analyst

Note: The GPU has been years in the making, and there are many former Supervisors, Planning Commissioners and project staff not listed above that also contributed to this EIR.

Table of Contents

Chapter

1. Introduction	
1.1	Purpose of the EIR 1-1
1.1.1	Tiering and Required Approvals..... 1-2
1.2	Evaluating Environmental Significance 1-3
1.3	EIR Review Process..... 1-3
1.3.1	Scoping the Issues to Be Discussed in the EIR..... 1-3
1.3.2	Prepare and Distribute the Draft Program EIR..... 1-4
1.3.3	Receive Comments on the Draft Program EIR..... 1-5
1.3.4	Respond to Comments and Prepare the Final Program EIR..... 1-5
1.3.5	Certify the Final Program EIR, Approve the GPU, and Prepare a "Notice of Determination" 1-5
1.4	Organization of the EIR..... 1-6
2. Project Description	
2.1	Project Location and Setting 2-1
2.2	Purpose, Need 2-9
2.3	Background – Humboldt County General Plan..... 2-10
2.4	The Proposed Plan..... 2-13
2.5	Proposed Plan Estimated Maximum Feasible Development Potential..... 2-23
2.6	Future Plan Review, Updates and Amendments..... 2-26
2.7	Project Approvals Required and Subsequent Actions..... 2-26
3. Environmental Setting and Impacts	
3.0	Baseline Environmental Conditions Assumed in the Revised Draft EIR..... 3.0-1
3.1	Land Use, Housing and Population..... 3.1-1
3.1.1	Environmental and Regulatory Setting..... 3.1-1
3.1.2	Standards of Significance (CEQA required criteria)..... 3.1-6
3.1.3	Impacts and Mitigation Measures..... 3.1-6
3.1.3.1	Divide an Established Community..... 3.1-7
3.1.3.2	Conflict with Other Applicable Land Use Plans 3.1-10
3.1.3.3	Habitat Conservation Plans..... 3.1-19
3.1.3.4	Induce Population Growth..... 3.1-19
3.1.3.5	Displace Existing Housing or People..... 3.1-22
3.2	Agricultural and Timber Resources 3.2-1
3.2.1	Environmental and Regulatory Setting 3.2-1
3.2.2	Standards of Significance (CEQA required criteria) 3.2-18
3.2.3	Impacts and Mitigation Measures 3.2-19
3.2.3.1	Convert Farmland or Forest Land..... 3.2-19
3.2.3.2	Conflict with Agricultural Zoning, Williamson Act contracts, or Timberland Production Zoning 3.2-40
3.3	Utilities and Services..... 3.3-1
3.3.1	Environmental and Regulatory Setting..... 3.3-1
3.3.2	Standards of Significance (CEQA required criteria)..... 3.3-37
3.3.3	Impacts and Mitigation Measures..... 3.3-37
3.3.3.1	Wastewater Services 3.3-37

3.3.3.2	Water Supply.....	3.3-44
3.3.3.3	New Storm Water Drainage Facilities	3.3-56
3.3.3.4	Solid Waste Disposal.....	3.3-59
3.4	Public Services.....	3.4-1
3.4.1	Environmental and Regulatory Setting.....	3.4-1
3.4.2	Standards of Significance (CEQA required criteria)	3.4-12
3.4.3	Impacts and Mitigation Measures	3.4-12
3.4.3.1	Schools.....	3.4-12
3.4.3.2	Fire Protection.....	3.4-17
3.4.3.3	Law Enforcement.....	3.4-22
3.5	Transportation.....	3.5-1
3.5.1	Environmental and Regulatory Setting.....	3.5-1
3.5.2	Standards of Significance (CEQA required criteria)	3.5-13
3.5.3	Impacts and Mitigation Measures	3.5-13
3.5.3.1	Increase in Vehicle Miles Traveled.....	3.5-18
3.5.3.2	Unacceptable LOS on Roadways within the County.....	3.5-21
3.5.3.3	Regional Level of Service Standard	3.5-28
3.5.3.4	Air Traffic.....	3.5-30
3.5.3.5	Road Safety.....	3.5-31
3.5.3.6	Inadequate Emergence Access.....	3.5-33
3.5.3.7	Conflict with Multi-Modal Policies, Plans or Programs.....	3.5-35
3.6	Noise	3.6-1
3.6.1	Environmental and Regulatory Setting.....	3.6-1
3.6.2	Standards of Significance (CEQA required criteria).....	3.6-6
3.6.3	Impacts and Mitigation Measures.....	3.6-7
3.6.3.1	Noise Exposure.....	3.6-7
3.6.3.2	Groundborne Vibration and Construction Noise	3.6-11
3.6.3.3	Airport Noise.....	3.6-14
3.7	Hazards and Hazardous Materials.....	3.7-1
3.7.1	Regulatory Setting.....	3.7-1
3.7.2	Environmental Setting.....	3.7-5
3.7.3	Standards of Significance (CEQA required criteria).....	3.7-20
3.7.4	Impacts and Mitigation Measures	3.7-20
3.7.4.1	Hazardous Materials.....	3.7-20
3.7.4.2	Airport Safety Hazards.....	3.7-25
3.7.4.3	Emergency Response Plan.....	3.7-35
3.7.4.4	Wildland Fire Risk.....	3.7-37
3.8	Geology and Soils.....	3.8-1
3.8.1	Environmental and Regulatory Setting.....	3.8-1
3.8.2	Standards of Significance (CEQA required criteria).....	3.8-12
3.8.3	Impacts and Mitigation Measures	3.8-12
3.8.3.1	Exposure to Seismic-Related Hazards.....	3.8-12
3.8.3.2	Soil Erosion or the Loss of Topsoil.....	3.8-17
3.8.3.3	Soil Stability.....	3.8-19
3.8.3.4	Septic Suitability.....	3.8-20

3.9	Mineral and Energy Resources.....	3.9-1
3.9.1	Environmental and Regulatory Setting.....	3.9-1
3.9.2	Standards of Significance (CEQA required criteria).....	3.9-3
3.9.3	Impacts and Mitigation Measures.....	3.9-3
3.9.3.1	Loss of Known Mineral Resources.....	3.9-3
3.10	Hydrology and Water Quality.....	3.10-1
3.10.1	Environmental and Regulatory Setting.....	3.10-1
3.10.2	Standards of Significance (CEQA required criteria).....	3.10-15
3.10.3	Impacts and Mitigation Measures.....	3.10-16
3.10.3.1	Degrade Water Quality or Exceed Waste Discharge Requirements.....	3.10-16
3.10.3.2	Deplete Groundwater Supplies or Interfere With Groundwater Recharge.....	3.10-24
3.10.3.3	Alter the Existing Drainage Patterns or Exceed the Capacity of Stormwater Drainage Systems.....	3.10-28
3.10.3.4	Housing within a 100-year Flood Hazard Area or Expose People or Structures to Flooding from Levee or Dam Failure, Tsunami or Mudflow.....	3.10-30
3.11	Biological Resources.....	3.11-1
3.11.1	Environmental and Regulatory Setting.....	3.11-1
3.11.2	Standards of Significance (CEQA required criteria).....	3.11-6
3.11.3	Impacts and Mitigation Measures.....	3.11-7
3.11.3.1	Sensitive Species and Sensitive Habitat Areas.....	3.11-7
3.11.3.2	Wetlands.....	3.11-12
3.11.3.3	Wildlife Corridors and Nursery Sites.....	3.11-14
3.11.3.4	Local Policies and Ordinances.....	3.11-16
3.11.3.5	Habitat Conservation Plans.....	3.11-17
3.12	Air Quality.....	3.12-1
3.12.1	Environmental Setting.....	3.12-1
3.12.2	Regulatory Setting.....	3.12-2
3.12.3	Standards of Significance (CEQA required criteria).....	3.12-8
3.12.4	Impacts and Mitigation Measures.....	3.12-8
3.12.4.1	Conflict with Air Quality Plan or Violate an Air Quality Standard.....	3.12-8
3.12.4.2	Sensitive Receptors.....	3.12-12
3.12.4.3	Objectionable Odors.....	3.12-16
3.13	Climate Change and Greenhouse Gas Emissions.....	3.13-1
3.13.1	Environmental Setting.....	3.12-2
3.13.2	Regulatory Setting.....	3.13-3
3.13.3	Standards of Significance (CEQA required criteria).....	3.13-18
3.13.4	Impacts and Mitigation Measures.....	3.13-18
3.13.4.1	Greenhouse Gas Emissions.....	3.13-18
3.14	Cultural Resources.....	3.14-1
3.14.1	Environmental and Regulatory Setting.....	3.14-1
3.14.2	Standards of Significance (CEQA required criteria).....	3.14-4
3.14.3	Impacts and Mitigation Measures.....	3.14-5
3.14.3.1	Historical Resources.....	3.14-5
3.14.3.2	Archaeological and Paleontological Resources.....	3.14-8
3.14.3.3	Human Remains Outside Formal Cemeteries.....	3.14-11

3.15	Parks and Recreation.....	3.15-1
3.15.1	Environmental and Regulatory Setting.....	3.15-1
3.15.2	Standards of Significance (CEQA required criteria).....	3.15-5
3.15.3	Impacts and Mitigation Measures.....	3.15-6
3.15.3.1	Deterioration of Parks and Recreational Facilities.....	3.15-6
3.15.3.2	Construction of New Recreational Facilities.....	3.15-9
3.16	Scenic Resources.....	3.15-1
3.16.1	Environmental and Regulatory Setting.....	3.15-1
3.16.2	Standards of Significance (CEQA required criteria).....	3.15-4
3.16.3	Impacts and Mitigation Measures.....	3.15-5
3.16.3.1	Adverse effect on Scenic Vistas and Scenic Resources.....	3.15-5
3.16.3.2	Visual Quality and Community Character.....	3.15-9
3.16.3.3	Sources of Light and Glare.....	3.15-13
3.17	Energy Consumption and Conservation.....	3.17-1
3.17.1	Environmental Setting.....	3.17-1
3.17.2	Regulatory Setting.....	3.17-8
3.17.3	Standards of Significance.....	3.17-12
3.17.4	Impacts and Mitigation Measures.....	3.17-12
3.17.4.1	Land uses or development patterns cause wasteful, inefficient, or unnecessary consumption of energy.....	3.17-12
3.17.4.2	Land Uses require or result in the construction of new or expanded energy production or transmission facilities, the construction of which could cause significant environmental effects.....	3.17-18
4.	Evaluation of Plan Alternatives	
4.1	Introduction.....	4-1
4.1.1	State Requirements.....	4-1
4.1.2	Project Objectives.....	4-1
4.1.3	Approach to Identifying Alternatives.....	4-2
4.1.4	Alternatives that Were Considered But Rejected.....	4-2
4.2	Description of Alternatives.....	4-4
4.2.1	Summary of Alternatives.....	4-4
4.3	Comparison of Effects under each alternative.....	4-7
5.	Other CEQA Considerations	
5.1	Significant Irreversible Changes.....	5-1
5.2	Cumulative Impacts.....	5-2
5.3	Growth Inducing Impacts.....	5-21
5.3.1	Foster Economic or Population Growth.....	5-22
5.3.2	Remove Obstacles to Growth.....	5-22
5.3.3	Precedent-Setting Actions.....	5-23
5.3.4	Development of or Encroachment upon Open Space.....	5-23
5.4	Long Term Benefits Versus Short Term Gains.....	5-23
5.5	Mandatory Findings of Significance.....	5-24
5.6	List of Organizations and Persons Consulted, Contributors and Preparers of the EIR.....	5-25

Appendices

Note: Appendix documents are available in hardcopy form during regular business hours at the Humboldt County Planning and Building Department at 3015 H Street, Eureka; or online at <http://humboldt.gov/626/Draft-Environmental-Impact-Report-EIR>

- A. Summary of GPU Changes made by the Board of Supervisors June, 2012 - March, 2016
- B. Critical Choices Report, 2001- Identified issues to be addressed in the General Plan Update.
- C. Building Communities Report, February 2002 - Background report on population, housing, employment, land use and services.
- D. Natural Resources and Hazards Report, September 2002 - Preliminary resource assessments for water resources, biological resources, forest resources, agricultural lands, parks and open space, cultural resources, mineral and energy resources, scenic resources, air quality, geologic, seismic and soil hazards, flooding, fire and noise: Volume I. Discussion Paper; Volume II: Detailed Watershed Characteristics and Regulatory Framework
- E. Agricultural Resources Report, October 2003 - Detailed assessment and policy report.
- F. Forest Resources Report, October 2003 - Detailed assessment and policy report.
- G. Moving Goods and People Report, October 2002- Existing conditions, planned improvements and policy options for transportation planning.
- H. Transportation Analysis Supporting Documents
- I. Humboldt County Community Wildfire Protection Plan, 2013
- J. Sketch Plan Alternatives Report, June, 2004 - A discussion paper for community workshops for selecting the preferred plan alternative
- K. SB18 Consultation with Native American Tribes
- L. Local Coastal Plan Issues Report, September 2003.
- P. Water Resources Technical Background Report, November 2007 - Detailed water resources assessment.
- Q. Community Infrastructure & Services Technical Report, July 2008 - Detailed infrastructure and public facility assessment report.
- R. Energy Element Technical Background Report, October 2005 - Provides a framework and background information for the Energy Element.
- S. Notice of Preparation and Responses
- T. Assumptions Used in Development Projections
- U. Forecasts of Unincorporated Area Energy Consumption
- V. Comparison of Alternatives

List of Figures

	PAGE
Figure 2.1-1.	Humboldt County Population Distribution. 2-4
Figure 2-1-4	Humboldt County Employment and Labor Trends, 1990-2015 2-9
Figure 3.2-1.	Grazing Areas, Agricultural Preserves and Prime Soils. 3.2-5
Figure 3.4-A.	Public K-12 and High School Enrollment Projections. 3.4-11
Figure 3.8-1.	Probabilistic Ground Shaking, 10 Percent Probability of Being Exceeded in 50 Years, 2002 Natural Resources and Hazards Report. 3.8-7
Figure 3.10-1.	Humboldt County Planning Watershed Map. 3.10-2
Figure 3.10-2.	Groundwater Basins in Humboldt County. 3.10-9
Figure 3.17-1.	Humboldt County Electric Consumption, 2005- 2015 (GWh) 3.17-2
Figure 3.17-2.	Humboldt County Natural Gas Consumption, 2005 - 2015 (Millions of Therms) 3.17-3

List of Tables

	PAGE	
Table 2.1-1	Historical and Estimated Population in Unincorporated Humboldt County 1970-2016	2-2
Table 2.1-2	Humboldt County Population and Household Demographics	2-3
Table 2.1-3	Population and Housing Units – Unincorporated Area Only	2-3
Table 2.1-4	Humboldt County Changes in Housing Units 1995-2015.	2-5
Table 2.1-5	Table 2.1-5. Humboldt County Population Growth Forecasts	2-6
Table 2.1-6	Historic and Projected Population Growth in Humboldt County, 1980-2040	2-7
Table 2.1-7	General Plan Update Land Use Designations	2-17
Table 2.1-8	General Plan Update Acreage of Land Use Designations, Estimated Maximum Feasible Housing Development Potential and Projected Development 2016 - 2040	2-24
Table 3.1-1.	Zoning Districts.	3.1-5
Table 3.2-1.	Farmland Statistics in Humboldt County.	3.2-11
Table 3.2-2.	Forest Types in Humboldt County.	3.2-13
Table 3.2-3.	Countywide Resource Land.	3.2-21
Table 3.2-4.	South Fork Eel River Planning Watershed Resource Land.	3.2-23
Table 3.2-5.	Lower Eel River Planning Watershed Resource Land.	3.2-24
Table 3.2-6.	Middle Main Eel River Planning Watershed Resource Land.	3.2-25
Table 3.2-7.	Lower Klamath River Planning Watershed Resource Land.	3.2-26
Table 3.2-8.	South Fork Trinity River Planning Watershed Resource Land.	3.2-27
Table 3.2-9.	Lower Trinity River Planning Watershed Resource Land.	3.2-28
Table 3.2-10.	Van Duzen River Planning Watershed Resource Land.	3.2-29
Table 3.2-11.	Redwood Creek Planning Watershed Resource Land.	3.2-30
Table 3.2-12.	Cape Mendocino Planning Watershed Resource Land.	3.2-31
Table 3.2-13.	Trinidad Planning Watershed Resource Land.	3.2-32
Table 3.2-14.	Mad River Planning Watershed Resource Land.	3.2-33
Table 3.2-15.	Eureka Plain Planning Watershed Resource Land.	3.2-34
Table 3.3-1.	Summary of Municipal Water Service Providers.	3.3-2
Table 3.3-2.	Summary of Municipal Wastewater Service Providers.	3.3-5
Table 3.3-3.	South Eureka Sewage Drainage Basin.	3.3-14
Table 3.2-4.	Water Connections by Systems Type.	3.3-27
Table 3.3-5	Private Wells in the Humboldt County.	3.3-27
Table 3.3-6.	Wastewater Service by System Type in Humboldt County.	3.3-30
Table 3.3-7.	Projected New Housing Units in 2028 by Wastewater Service Provider.	3.3-38
Table 3.3-8.	Projected Housing Units (2028) by Water Service Provider.	3.3-44
Table 3.3-9.	Projected Growth (2028) by Type of Water Service.	3.3-50
Table 3.4-1.	Geography of Fire Protection Services Delivery in Humboldt County	3.4-3
Table 3.4-2.	Sheriff's Office Sub-Station Areas Patrolled and Average Response Times.	3.4-8
Table 3.4-3.	School District Enrollment in Humboldt County 1990-2015	3.4-10
Table 3.4-4.	Projected Peak Enrollment within Humboldt County Public School Districts, 2028	3.4-13
Table 3.4-5.	Sheriff's Office Operations Staff - 2007 and Projected (2027).	3.4-22
Table 3.5-1.	Modes of Transportation.	3.5-2
Table 3.5-3.	Airports in Humboldt County.	3.5-9
Table 3.5-4a.	General Plan Land Use Information – 2010 to 2028	3.5-14
Table 3.5-4b.	General Plan Land Use Information – 2010 to 2040	3.5-15

Table 3.5-5.	Comparison of 2010 and 2040 Vehicle Miles Traveled (VMT)	3.5-15
Table 3.5-6.	General Plan Update Circulation System Improvements.	3.5-16
Table 3.5-7.	2010 LOS and Projected Roadway Segments Worse than LOS C in 2028 and 2040	3.5-18
Table 3.6-1.	Existing Traffic Noise Levels in Humboldt County (2016)	3.6-3
Table 3.6-2.	Airport Locations in Humboldt County.	3.6-3
Table 3.6-3.	Existing (2010), Near Term (2028) and Future (2040) Traffic Noise Levels in Humboldt County	3.6-7
Table 3.7-1.	Laws Relating to Hazardous Materials and Waste.	3.7-2
Table 3.7-2.	Humboldt County Large Wildfires, 2015	3.7-13
Table 3.7-3.	Fire Hazard Severity by Planning Watershed.	3.7-14
Table 3.7-4.	Summary of the Humboldt County Risk Assessment.	3.7-16
Table 3.7-5.	Land Planned for Industrial Uses.	3.7-21
Table 3.7-6.	Housing Units Projected within High Fire Hazard Severity Areas	3.7-38
Table 3.8-1.	Tsunamis That Have Affected Humboldt County.	3.8-8
Table 3.10-1.	Humboldt County 2006 303(D) List of Water Quality Limited Segment.	3.10-3
Table 3.10-3.	Humboldt County Ground Water Basins.	3.10-10
Table 3.10-4.	New Housing Units (2028) within Humboldt County Groundwater Basins.	3.10-24
Table 3.10-5.	Projected Additional Housing Units within 100-Year Flood Zone.	3.10-32
Table 3.11-1.	Vegetation Types in Unincorporated Humboldt County.	3.11-2
Table 3.11-2.	Listed Threatened or Endangered Species in Humboldt County.	3.11-4
Table 3.12-1.	Federal/State Ambient Air Quality Standards.	3.12-3
Table 3.12-2.	Criteria Pollutant Concentrations in Humboldt County, 2011-2015	3.12-4
Table 3.12-3.	Annual PM ₁₀ emissions estimated percent contribution by source.	3.12-5
Table 3.12-4.	ARB's Recommendations on Siting New Sensitive Land Uses.	3.12-14
Table 3.13-1.	Community GHG Emissions 1990 - 2006	3.13-13
Table 3.13-2.	Comparison of GHG Report Results for 2005 Emissions (MTCO ₂ e)	3.13-14
Table 3.13-3.	Unincorporated Humboldt County GHG Emissions Inventory for 2005 and BAU Forecasts for 2020, 2028, 2030 and 2040	3.13-15
Table 3.13-4.	Adjusted BAU Forecasts for Unincorporated Humboldt County Accounting for GHG Reductions from State Measures	3.13-16
Table 3.13-5.	Comparison of Effect of Adjustments to 1990 GHG Emissions Inventory Baseline	3.13-18
Table 3.14-1.	National Register of Historic Places within the Unincorporated Area.	3.14-3
Table 3.14-2.	California State Historical Landmarks within the Unincorporated Area.	3.14-3
Table 3.14-3.	Humboldt County Local Register of Historic Landmarks, Unincorporated Area.	3.14-3
Table 3.15-1.	Park Facilities in Unincorporated Humboldt County.	3.15-2
Table 3.15-2.	Neighborhood and Community Parks by Planning Area.	3.15-4
Table 3.15-3.	Needed Acres of Park Land in Areas with Parkland Requirements.	3.15-7
Table 3.16-1.	Wild and Scenic Rivers in Humboldt County.	3.16-3
Table 3.17-1.	Consumption of Local Versus Imported Energy Sources.	3.17-4
Table 3.17-2.	Potential Local Energy Resources for Humboldt County.	3.17-4
Table 3.17-3.	Forecasts of Unincorporated Area Energy Consumption.	3.17-14
Table 4-1.	Table 4-1 Acres and Estimated Maximum Feasible Development Potential Estimates for Land Use Designations By Alternative.	4-10
Table 5-1.	Projected Housing Units by Jurisdiction.	5-3