

Section 3.12 – Air Quality Environmental Setting

Impact Categories

- **Particulate Matter (PM10)**
- **Toxic Air Contaminants**
- **Odors**
- **Sensitive Receptors**
- **GHG Emissions**

Section 3.12 – Air Quality Environmental Setting

- **Particulate Matter (PM10)**
- NCUAQMD is considered in “attainment” for the criteria pollutants of ozone and PM2.5, attainment for the federal PM10 standard, and in “nonattainment” for the State 24-hour particulate (PM10) standard.

Section 3.12 – Air Quality Environmental Setting

■ **Toxic Air Contaminants**

- Toxic air contaminants are air pollutants with short-term (acute) and/or long-term (chronic) adverse human health effects, for which no ambient air quality standards have been established.
- CARB regulates TACs from stationary sources through their permit process. Mobile sources of TACs are regulated indirectly through vehicle emissions standards

Section 3.12 – Air Quality

Environmental Setting

■ **Odors**

- Odors are generally regarded as a nuisance or annoyance rather than a health hazard.
- Land uses in Humboldt County that could represent odor sources include, but are not limited to, agricultural land uses, releases of anaerobic gases from wastewater treatment facilities, smoke-borne odors from open-burning, commercial food process-related odors, and the (historically) pulp mills.

Section 3.12 – Air Quality

Environmental Setting

- **Sensitive Receptors**
- Sensitive land uses, or sensitive receptors, are people or facilities that generally house people that may experience adverse effects from unhealthful concentrations of air pollutants or odors.
- People who are most likely to be affected by air pollution include children under 14, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases.

Section 3.12 – Air Quality

General Plan Response

Impact 3.12.5.1. Conflict with Air Quality Plan or Violate an Air Quality

- Following policies in the General Plan Update Air Quality Chapter address impact:
- **AQ-P1. *Reduce Length and Frequency of Vehicle Trips.***
- **AQ-P2. *Reduce Localized Concentrated Air Pollution.***
- **AQ-P3. *Fireplace and Woodstove PM10 Emissions.***
- **AQ-P4. *Construction and Grading Dust Control.***
- **AQ-P5. *Air Quality Impacts from New Development.***
- **AQ-P6. *Buffering Land Uses.***
- **AQ-P7. *Interagency Coordination.***

Section 3.12 – Air Quality

General Plan Response

- ***Mitigation Measure 3.12.5.1.b***

- Adopt Standard AQ-S1 in the General Plan Update Air Quality Chapter:

- ***AQ-S1. Construction and Grading Dust Control.***

- ***Mitigation Measure 3.12.5.1c.***

- Encourage implementation of Best Management Practices to reduce emissions and control dust during construction activities.
 - • Water all active construction areas at least twice daily.
 - • Haul trucks shall maintain at least two feet of freeboard.
 - • Cover all trucks hauling soil, sand, and other loose materials.
 - • Apply non-toxic binders (e.g., latex acrylic copolymer) to exposed areas after cut-and-fill operations and hydroseed area.

Section 3.12 – Air Quality

General Plan Response

■ ***Conclusion***

- Because the County is in non-attainment status for PM10, increases in PM10 emissions that could increase exceedences are significant.
- Applying the above mitigation measures will reduce impacts, but **impacts will remain significant and unavoidable.**

Section 3.12 – Air Quality

General Plan Response

■ **Impact 3.12.5.2. Sensitive Receptors**

- Proposed stationary sources of TACs subject to NCUAQMD rules and regulations.
- NCUAQMD analyzes such sources (e.g., health risk assessment) based on their potential to emit TACs.
- For TACs in excess of the applicable significance threshold, controls would be required to reduce emissions.
- The CARB handbook recommends separations of these sources when finding new locations for "sensitive" land uses : (residentially designated land uses, hospitals and nursing/convalescent homes, hotels and lodging, schools and day care centers, and neighborhood parks).

Section 3.12 – Air Quality

General Plan Response

- **Impact 3.12.5.2. Sensitive Receptors**
- ***Mitigation Measure 3.12.5.2a:*** Add Implementation Measure AQ-IM7 to the Draft General Plan as follows:
- **AQ-IM7.** Regulate the location and operation of land uses to avoid or mitigate harmful or nuisance levels of air emissions to the following sensitive receptors. New development shall follow the recommendations for siting new sensitive land uses consistent with the CARB's recommendation as shown in Table 3.12-3.

Section 3.12 – Air Quality

General Plan Response

- **Impact 3.12.5.2. Sensitive Receptors**
- With the additional of Mitigation Measure 3.12.5.2a, General Plan Update policies and standards as well as the regulatory authority of the NCUAQMD would limit the exposure of sensitive receptors to new sources of TACs to a **less than significant level.**

Section 3.12 – Air Quality

General Plan Response

- **Impact 3.12.5.3. Objectionable Odors**
- GPU policies, programs, and standards described in Impact 3.12.5.1 would lessen the affects of objectionable odors on sensitive receptors.
- Policy AQ-P6, Buffering Land Uses, and Standard AQ-S3, requires that the CARB *Air Quality and Land Use Handbook* be utilized when considering buffers between new commercial and industrial sources of emissions and sensitive receptors.
- The *Air Quality and Land Use Handbook* contains specific guidance relating to potential sources of odor and dust complaints.

Section 3.12 – Air Quality

General Plan Response

- **Impact 3.12.5.3. Objectionable Odors Conclusion**
- Policies, programs, standards and other requirements described in the Air Quality Element reduce the impacts of the project related to objectionable odors to **less than significant levels.**

Section 3.12 – Air Quality

Impact 3.12.5.4. Greenhouse Gas Emissions

Humboldt County Households Projections						
Year	Projected Population	Portion of Population in Unincorporated County (53%)	Estimated Households (at 2.39 persons per household)	Number of Households Increased Over Baseline (Unincorp. Co.)	Projected Increase in CO ₂ e emissions in 1,000s of tons	
2007	132,760	70,362	29,440	CEQA baseline	-	
2010	134,785	71,436	29,890	450	1.94	
2015	138,681	73,501	30,754	1,314	56.7	
2020	142,167	75,348	31,526	2,086	90.0	
2025	145,004	76,852	32,156	2,716	117.2	

arios described in the Land Use section (i.e., Existing, Estimated Development and Maximum Development scenarios.). **Disagree: This table is consider**

Section 3.12 – Air Quality

Impact 3.12.5.4. Greenhouse Gas Emissions

- Incremental increases in GHG emissions associated with traffic increases, residential space heating, and increased energy demand contribute to global increases in GHG emissions .
- The 2006 level of GHG emission is approximately 511,539 metric tons less than 1990 levels.
- The projected increase:
 - 117,200 tons of CO₂e emissions from residential
 - 137,100 tons of CO₂e emissions from commercial
 - 285,900 tons of CO₂e emissions from industrial
- Total increased CO₂e emissions of 540,268 metric tons.
- This results in a target reduction of 28,720 metric tons of CO₂e to be met under AB 32.

Section 3.12 – Air Quality

Impact 3.12.5.4. Greenhouse Gas Emissions

- **Mitigation**

- **Mitigation Measure 3.12.5.4e.** The County of Humboldt will undertake the “Cities for Climate Protection Campaign's” five milestones to reduce both greenhouse gas and air pollution emissions throughout the community :

- 1) conduct a GHG emission inventory and forecast to determine the sources and quantity of GHG emissions in the County;
- 2) establish a CO₂ or GHG emissions reduction target;
- 3) develop an action plan with both existing and future actions that will help meet the local GHG reduction target;
- 4) implement the action plan; and
- 5) monitor and report progress.

DRAFT Climate Action Plan included as Appendix to DEIR
1, 2, and 3 are Done.

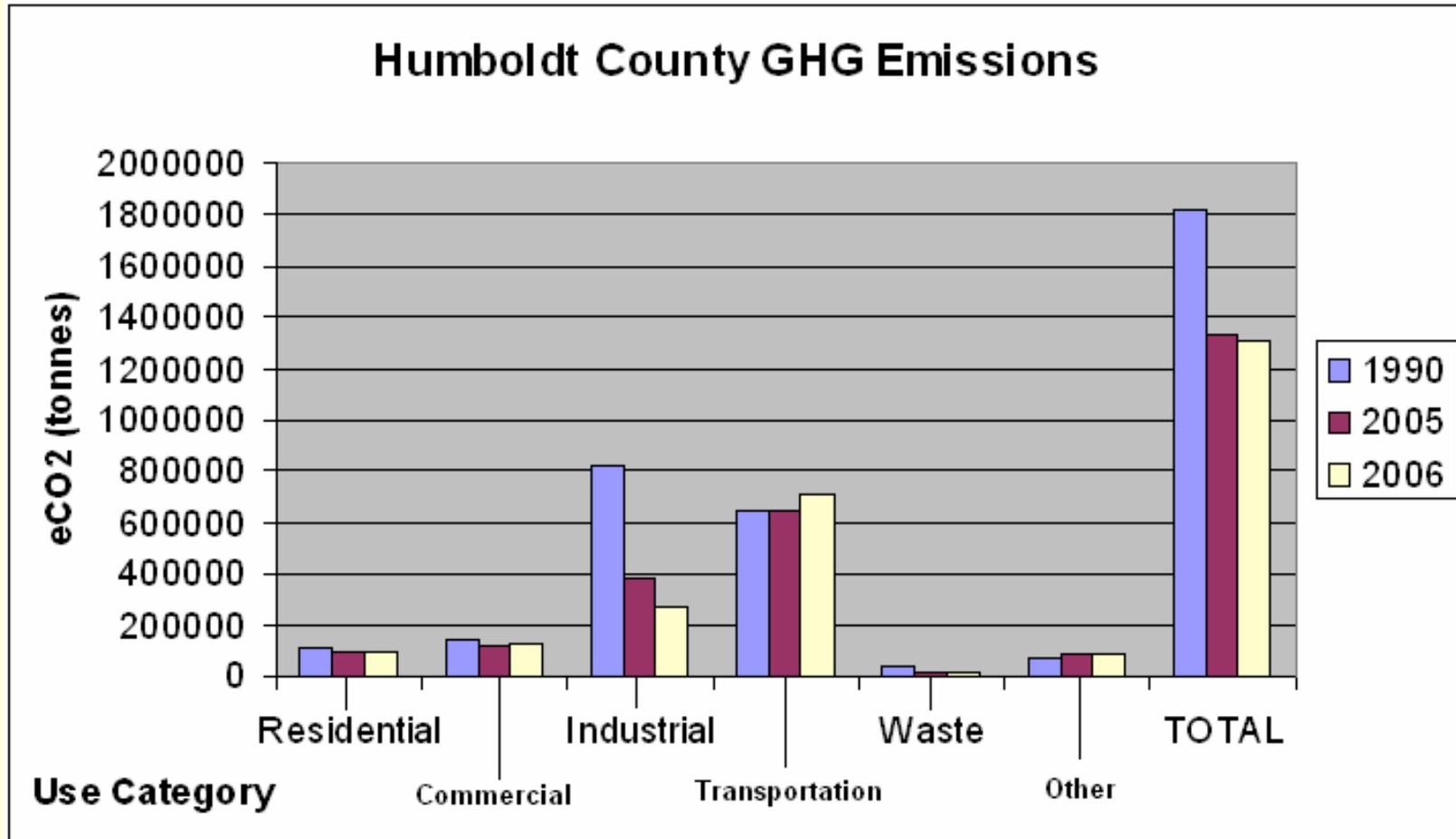
Draft Climate Action Plan

Part I. GHG Emissions Inventory

- A. Assessment – 1990 Baseline and Existing Conditions
- B. Projection: Humboldt County General Plan Update Contributions to GHG Emissions

Draft Climate Action Plan

Part I. GHG Emissions Inventory



Draft Climate Action Plan

Part II. Establish a GHG Emission Reduction Target

- Limit equivalent GHG emissions to 1990 levels levels by 2020 in unincorporated Humboldt County.
- This target can be reached by adoption of measures that would reduce CO₂ emissions by 28,720 metric tons of CO₂e by 2020.
- It is estimated that between 56,800 and 123,596 tons of CO₂ emissions (depending on the Plan Alternative selected) will be avoided as a consequence of more compact, higher-density community development related reductions in vehicle miles traveled

Draft Climate Action Plan

Part III. Develop An Action Plan That, When Implemented, Will Help Meet The Local Greenhouse Gas Reduction Target

- **General Plan Land Use Planning and Policies Designed to Reduce GHG Emissions**
- Policies that are responsive to the GHG emission reduction are contained in almost every element of the GPU.
- In this sense, the Unincorporated Humboldt County Climate Action Plan is essentially built in to the GPU itself.
- The Climate Action Plan identifies all of the GPU policies related to climate change and provides a list of implementation measures that can be evaluated in time through monitoring.

Draft Climate Action Plan

General Plan Elements GHG Reduction Strategies

Land Use Element

In drafting the Humboldt County GPU, the following GHG reduction strategies were incorporated into the land use element:

- Foster land use intensity near retail and employment centers and services to reduce vehicle miles traveled (VMT)
- Improve the local jobs/housing balance to reduce VMT.
- Zone for appropriate mixed use development to encourage walking and bicycling for short trips, rather than vehicles.
- Identify existing and potential future urban growth boundaries to limit sprawling development patterns and to foster more compact urban forms.

Draft Climate Action Plan

General Plan Elements GHG Reduction Strategies

Community Design

(Land Use Element – Urban Lands)

- Incorporate urban design principles that promote higher residential densities.
- Use urban design standards to facilitate clustered, higher-density, mixed use communities with greater potential for transit ridership, alternatives to vehicle travel, and shorter vehicle trips.
- Promote water-efficient and energy efficient housing and commercial areas.

Draft Climate Action Plan

General Plan Elements GHG Reduction Strategies

Agriculture and Forest Resources (Land Use – Rural Lands)

- Establish minimum parcel sizes for resource lands and restrictions on non-resource related development and uses.
- Develop polices and incentives (e.g. carbon credit programs) to promote preservation of resource lands for carbon sinks.
- Support for ag industries that reduce the need to move products long distances for processing and packaging.
- Adopt policies/programs that facilitate local farmers markets and farmer co-ops.

Draft Climate Action Plan

General Plan Elements GHG Reduction Strategies

Conservation and Open Space Elements

- Conserve natural lands for carbon sequestration.
- Identify lands suitable for wind power generation (see also Energy Element).
- Conserve water to promote energy efficiency (see also Water Resources Element).
- Promote recycling and waste recovery (Waste Management Section).
- Promote forestry and reforestation as feasible (see also Forest Resources section).

Draft Climate Action Plan

General Plan Elements GHG Reduction Strategies

Telecommunications Element

- Telecommuting and home-based businesses that use internet shall be considered principally permitted accessories to residential uses.
- Encourage telecommunications infrastructure improvements as a means to reduce transportation
- Promote the provision of broadband infrastructure in all communities.

Draft Climate Action Plan

General Plan Elements GHG Reduction Strategies

Circulation Element

- Promote linkages between development locations and transportation facilities.
- Identify and prioritize infrastructure improvements needed to support reductions in VMT.
- Support public transit service.

Draft Climate Action Plan

General Plan Elements GHG Reduction Strategies

Housing Element

- Identify sites for higher density housing closer to employment centers, retail and services, and transit facilities.
- Identify sites for affordable housing for workers close to employment centers.

Draft Climate Action Plan

General Plan Elements GHG Reduction Strategies

Energy Element

- Decrease energy consumption through increased energy conservation and efficiency
- Support revitalization and infilling of Urban Development Areas to reduce long-term VMT.
- Favor rehabilitation and revitalization of older existing buildings over replacement .
- Provide incentives for discretionary development incorporating renewable energy sources.

Draft Climate Action Plan

General Plan Elements GHG Reduction Strategies

Water Resources Element

- Promote use of water conservation and re-use as a strategy to lower cost, minimize energy consumption.
- Encourage small hydroelectric development when impacts to surface water flows and habitat are in conformance with state and federal standards.
- Ensure that land use decisions conserve, enhance, and manage water resources on a sustainable basis.

Draft Climate Action Plan

Part IV. Implementation of the Action Plan

- **General Plan Update Implementation Measures related to GHG reductions are listed in the Climate Action Plan.**

Draft Climate Action Plan

Part V. Monitor And Report Progress

A. Monitoring of GP Implementation Measures

- Board of Supervisors to fund one Climate Change specialist to update the existing assessment effort at least annually.
- Board of Supervisors to fund full time Energy Coordinator position to coordinate the implementation and monitoring of the Comprehensive Action Plan for Energy.

Draft Climate Action Plan

Part V. Monitor And Report Progress

- **B. GHG Emissions Assessments**
- The County to develop GHG emissions inventories utilizing the Clean Air and Climate Protection (CACCP) Software or similar and will update inventories every 5 years to incorporate improved methods, better data, and more accurate tools and methods to assess progress.

Chapter 4 – Evaluation of Plan Alternatives

**Presenter - Michael Richardson, Senior
Planner**