

**GP DEIR Comments**

Brian Corzilius

bcorzilius@corzilius.org

707.894.4634

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**1. Concerns Regarding the Draft General Plan ‘Update’**

My understanding, as well as the understanding of others I have worked with, is that a GP policy is based upon a ‘finding’. *The findings that precipitated the policies within the General Plan Update (GPU) are absent.* This also results in some difficulty in evaluating the DEIR since the full intent (i.e., basis) of the policy is unknown.

Secondly, the citizenry of the County, not to mention outside agencies, have all been told this is ‘only’ an update. On the contrary, *the GPU is a major re-write* that has cost us over a million dollars, taken over 8 years, and has largely been the product of non-resident consultants. The Plan should be treated as such and carefully scrutinized by the citizenry, regardless that our input has been largely ignored as it was being developed, as this will influence the character of our environment for years to come.

**2. General Comments Regarding the Overall GP DEIR Document**

Section 3.0

Table 3.0-1, -2 refer to ‘Area’ numbers. Figure 3.0-4 should make it clear that the area details therein refer to those areas referenced in the aforementioned table.

Section 4.0

Table 4.0-1, Ukiah Valley Area Plan segment: This contains reference to Masonite as ‘mixed-use’ zoning. Although this may be outside of the scope of the DEIR comments, the *re-zoning of this (industrial) site has not been approved* and is heavily opposed by the

County citizenry. By its inclusion here, the county is making assumptions that are unwarranted.

Figure 4.6-5's legend is incomplete (#s 24-28 are missing)

### Section 6.0

*Inconsistent regions for comparison:* Figure 3.0-4, the area in the Ukiah region in white (denoted as 'Ukiah Valley Area Plan'), and that under Figures 6.0-1, -2 are different. Developing a comparison of the proposed (GPU) and the alternatives (1-3) when a large swath of high impact area is omitted under the GPU is problematic. This is especially relevant considering the zoning changes and potentially large development efforts that will be concentrated there IAW BOS discussions and their associated impacts (omitted here).

*Inadequate development of alternatives:* The alternatives discussed in this section, provided to compare the GPU's impact, are fairly lame. Each alternative uses continued growth and all are based on the current paradigm (that of a high level of non-renewable resource use). A preferred alternative would be one that truly addresses the significant environmental (and especially 'Significant and Unavoidable') impacts denoted by the DEIR. Specifically, an alternative that fully addresses in-fill development, increased restrictions on rural growth (except for agricultural purposes), renewable energy policies, increased (and focused) mass transit, 'green' building practices, full waste stream recycling / diversion, energy reclamation, etc.. -- more concisely, an alternative that constrains growth against actual resources available. Only by giving a realistic alternative (with respect to an established future of decreasing resources and the impact of climate change), can a fair assessment of the impact of the proposed GPU be determined.<sup>1</sup>

*Missing projections of Green House Gas (GHG) emissions, energy, water and related resource usage.* Our County's future will be dictated by the impacts of Climate Change as well as the availability of resources. Any consideration of alternative plans, not to mention the primary, should include projections of such policies on GHG and resource depletion. Here, you mainly state they will increase. By how much and why? One cannot compare (let alone prepare) policies without hard figures. Let's see tables comparing the different alternatives with actual resource and emission figures.

## **3. Focused Comments**

### Section 5.0 Cumulative Impacts

This section represents a summary of the significant impacts noted in section 4.

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<sup>1</sup> State CEQA Guidelines Section 15126.6 requires that an EIR describe a range of reasonable alternatives to the project which could feasibly attain the basic objectives of the project and avoid and/or lessen any significant environmental effects of the project. This alternative analysis provides a comparative analysis between the merits of the project and the selected alternatives.

Impact 5.0.1; Aesthetics/Light and Glare (specifically night lighting). From section 4.1: “Light pollution is a problem most typically associated with urban areas. As Mendocino County is predominantly rural, light pollution is not a problem in many county areas.” The issue not addressed is that of the *impact of night lighting on wildlife activities, especially migratory patterns*. Policy DE-87 refers to reduction of excessive lighting and RM-130 refers to reflectors to reduce skyward illumination. Stronger wording needs to be placed to not relegate the problem solely to urban areas and to address wildlife impacts. Otherwise this is a Cumulatively Considerable impact. [see also 4.1.2]

Impact 5.0.3; Air Quality. From the Energy Working Group’s research, less than 1% of the (remote) rural population -- those not connected to the electrical grid – are independent of generators. While wood burning is basically carbon neutral, the burning of fossil fuels is not. To allow *continued allocation of (remote) rural zoning, and to not provide mitigation measures for rural electrification* (or renewable energy incentives), generator usage will continue to be prevalent. The cumulative impacts are considerable when one considers the potential of fuel and oil spillage, the GHG and particulate emissions, the impact on local water resources, etc.

Impact 5.0.4; Green House Gas (GHG) Emissions. Regardless of where a product is produced, if there is a demand within our County, the GHG emissions are our responsibility. *Several sources were omitted* in the DEIR discussions, including farm animals, waste treatment, old landfills, and wine production to name a few<sup>2</sup>. The Energy Working Group identified several recommendations based on their findings resulting from the GHG emissions both directly and indirectly related to County activities. These included 1) mandating minimum percentage of pozzolonic materials (e.g. flyash) in cement employed locally, the capture of fermentation by-products, etc. In addition, since the county is the largest employer, and that a large percentage of those employees live in Brooktrails (a round-trip of over 70 miles), the county should set an example by strongly encouraging the use of mass transit for its workers. Local (renewable) energy production, through locally-owned utilities, was another recommendation. In short, there will continue to be considerable cumulative impacts unless the policies reflect not only all sources of GHG but also all feasible remediations. [also see 5.0.3]

Impact 5.0.11; Hazards / Hazardous Materials. Airborne, soil and water contamination by releases of PCBs, chromium compounds, etc. have all occurred here in this county. A recent issue regarding zoning changes – that of the proposed asphalt plant and the rezoning to a mineral processing area (Ridgewood Crest Quarry, south of Willits in a scenic and sensitive area) is another example in which there is a high potential of the release of volatile hydrocarbons and associated contaminants to air, soil and water. *Policies that constrain chemical use/processing to industrial zoned properties and ensure air quality and ground water monitoring of these properties come to mind but I see nothing here*. Based on current policy (and zoning) management here in the county, I would state the impact as more likely Cumulative and Considerable. Vanadium

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<sup>2</sup> The EWG’s GHG inventory identified 1.08MMT of GHG emissions for 2002. To project an increase to only 1.54MMT by 2030 (as the DEIR does) is obfuscating reality. For more information regarding the EWG, see the attached appendices.

Impact 5.0.13; Cumulative Groundwater Decline and Recharge Impacts. Quote from DEIR: “Due to the lack of current knowledge regarding groundwater availability and sustainability of important aquifers, the possibility exists that the hydrologic balance between groundwater levels and recharge in the North Coast Basin would be adversely affected after subsequent land use activities occur after implementation of the proposed General Plan Update. Therefore, impacts would remain ‘cumulatively considerable’ and ‘significant and unavoidable’.” This is irrational. The fundamental policy should be (and is missing here) that *no further development should occur until a complete inventory is performed on the County (ground and reservoir) watersheds, including drawdown and recharge as well as consecutive drought year impacts, and the resultant figures are applied to the existing uses, worst case.* Only then should additional development be planned for. This is not ‘unavoidable’ with proper planning and policy formulation (although it would still be cumulative and considerable).

Impact 5.0.25; Cumulative Increases in Solid Waste Generation. Quote from DEIR: “All landfills serving Mendocino County have remaining capacity available.” This is a misconception. Specifically, there are no active landfills in Mendocino County, nor in Sonoma County; and based on news reports (Press Democrat) over the last several years, the out-of county landfills that still accept waste are getting further and further away. Hauling trash is a non-renewable fuel-intensive and GHG-generating prospect. A program of policies reducing growth, reducing the waste stream and creating a local (in-county) landfill is the only practical solution. Such a program has several advantages, including 1) clearly illuminating the amount of waste generated where it can be mitigated by waste stream diversion (recycling, local re-use, etc.), 2) reducing the cost of transport (in terms of fuels, vehicle wear and emissions), and 3) the landfill can be ‘mined’ for methane production to augment local energy usage. Eventually all landfills will become the ‘mines’ of the future providing local resources for re-manufacturing. Furthermore, the impact is labeled as “less than cumulatively considerable” which is erroneous since any increase in waste generation requires energy and impacts GHG emissions. *The proper impact designation should be ‘cumulative and considerable’.*

## **A. Background Materials**

In late 2006, a group of energy professionals from across the County were brought together, under the request of the Board of Supervisors (BOS), to provide guidance for the General Plan Update (GPU). The group became known as the Energy Working Group (EWG).

The group researched County energy usage as well as the contributions to Climate Change via Green House Gas (GHG) emissions. The *findings* developed from this research enabled the group to develop the recommendations that were presented to the BOS in late spring / early summer of 2007.

*On the following pages* I have included the EWG recommendations made and the summary graphs / tables for County energy usage and GHG sources. While some recommendations were accepted initially, roughly 2/3 were not; and of those that were accepted, several were altered in their meaning. One may note that many of these recommendations mirror the comments put forth by the agencies and municipalities reviewing the DEIR (ref. the DEIR Technical Appendices).

The complete report and inventories (energy and GHG) can be found online:

[http://www.greentransitions.org/Papers/EWG2007\\_FReport.pdf](http://www.greentransitions.org/Papers/EWG2007_FReport.pdf)

<http://www.greentransitions.org/Papers/MendoCo ETF Inventory CollectedData.xls>

*Also included is a memo from the Planning Team* (Phil Gorny), co-written with one of the PMC consultants (Eric Norris), regarding the EWG recommendations. *Of special note are the selection guidelines outlined therein* – criteria that appears indicative of the methodology used in the filtering of much of the general citizenry input over the previous 2 years.

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### **A.1. EWG Recommendations**

The recommendations presented herein are placed within the format of the original GPU framework. All section headers are from that framework...

GP Section 2: Comprehensive Growth Strategy

#### ***2-1 Planning Principles***

Use the Precautionary Principle and greenhouse gas reduction goals adopted by the Board of Supervisors as a guide in all planning decisions.

A database will be developed that includes: energy resources, hydrology, geology, soils, slope, water table, vegetation, wildlife, solar access, average wind speed, historic sites,

etc. This database which can be overlaid to create suitability maps for agriculture, building, urban development, recreation, conservation, etc. will be used as a basis for all land use decisions.

*2-1a & b:* Include protection of air and water quality.

*2-1c: Emphasize compatibility between human activity and environmental resources and processes at all levels from regional planning to site design*

- Require commercial developments and major renovations to be based on the Green Building Council standards, to reach or exceed a specific LEED score<sup>3</sup>.
- For all building permits, adopt a tiered permit fee structure emphasizing energy / green measures.<sup>4</sup>
- Mandate a minimum content of 20-25% pozzolanic flyash in local concrete mixes to reduce the county's contributions to the energy expended in cement production and, most importantly, climate change.<sup>5</sup>

## ***2-2 Economic Development and Jobs/Housing Principles***

*2-2a: Emphasize long-term and sustainable economic and community objectives over short-term gains.*

- Support the creation and continued existence of an independent energy authority to guide and assist municipal, county, private and commercial interests.<sup>6</sup>
- Implement a county-wide carbon tax to promote energy and emissions awareness while providing funds to finance programs to shift us towards a reduced or carbon-neutral county.

*2-2d: Employment and housing opportunities should be balanced within each region to maintain reasonable commute times, worker productivity and a sense of community.*

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<sup>3</sup> The US Green Building Council uses the LEED rating system to determine compliance (and may also be used to rate existing developments). This provides a readily accessed system for the building department to adopt.

<sup>4</sup> From Sebastopol; Basically the building department knows the minimum fee they must collect, but sets the published fee higher. During the permitting process, an energy or green checklist is consulted and the fee is reduced (towards the minimum fee) based on the features of the project.

<sup>5</sup> One of the significant county contributors to greenhouse gases (specifically CO<sub>2</sub>) is Portland Cement. Roughly 1 ton of CO<sub>2</sub> is released for every ton of Portland cement produced. Pozzolan (qualified fly ash, a coal-fired power plant waste product) can effectively replace up to 40-60% of the Portland cement, thereby reducing an equivalent percentage of CO<sub>2</sub> from being released. The resulting concrete takes slightly longer to set but is stronger than Portland and has some self healing capabilities. Currently most redimix facilities are using between 7 and 15% pozzolan in their batches.

<sup>6</sup> An example is Humboldt County's Redwood Coast Energy Authority ([www.redwoodenergy.org](http://www.redwoodenergy.org)) funded by grants from CPUC and DOE. They focus on energy conservation, efficiency measures / upgrades and renewable energy advisement, regardless of income level or ability. The intent is to ensure resources are available for county residences to understand energy conservation measures.

- The county should ensure mass transit is available to its employees and encourage its use, serving as an example to the rest of the population (a substantial percentage of county workers working in Ukiah live in Brooktrails).
  - Encourage the development of a rail-based commuter system to augment MTA's bus service along the highway 101 and 20W corridors.<sup>7</sup>

2-2e: [new] By 2010 only use economic development dollars to attract industries that are primarily involved with regional renewable resources.

- County funds should only be used to attract companies that use or manufacture clean renewable energy.

### ***2-3 Coordination, Partnerships and Funding***

2-3f: [new] Achieving CO<sub>2</sub> emission reduction goals will require coordination between community, city, regional and state organizations.

- By 2010 the county government officials and staff will host and attend ongoing monthly meetings, at rotating locations, where public and community organizations can present ideas on changes to the general plan that could help mitigate the effects of declining fossil resources and climate change.
- By 2010 the county will set timelines for integrating suggestions that will reduce hazardous emissions into the general plan.

## GP Section 3: Development Element

### ***3-1 Land Use Classification***

By 2010 a database will be developed that includes: energy resources, hydrology, geology, soils, slope, water table, vegetation, wildlife, historic sites, etc. This database which can be overlaid to create suitability maps for agriculture, building suitability, urban development, recreation, conservation, etc. will be used as a basis for all land use classifications.

#### *3-1-1 through 4 (All):*

Mandate tree-lined streets in new (and existing) residential and commercial developments. Encourage 'green roofs' where applicable.<sup>8</sup>

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<sup>7</sup> A rail-based trolley, coupled with bus-based services at both ends would handle a decent size of this commute. MTA could negotiate for time-based access rights to NCRA's rail right-of-way, with the cost of leasing or purchasing a rail-based trolley roughly 10-20% above the cost of a conventional bus.

<sup>8</sup> Tree lined streets and preserved green space reduce air conditioning needs thus reducing peak electricity usage. Green roofs provide storm runoff mitigation (see the City of Chicago's 'green roof program').

*3-1-1 through 13 (All):*

All land use classifications will include a requirement that a minimum of 25% of the estimated energy usage will be provided by onsite renewable energy. Phase this in stages as follows:

Electricity	2008
Heating and cooling	2009
Transportation	2010

*3-1-1 through 13 (All):*

For all developer-created developments, for each residential unit, a requirement that 400 square feet of garden space is set aside with access to enough water for growing fruit and vegetables. Encourage this as green buffers or commons. Implemented by 2008.

*3-1-1 through 13 (All):*

By 2008 all land use classifications will include a requirement that a water supply plan is approved for all new developments that assures that stream flows and water table levels will not be negatively impacted by the needs of the development.

*3-1-1 through 13 (All):*

By 2008 all land use classifications will include a requirement that new housing developments will provide safe and reasonable pedestrian and/or bicycle access to schools, services and employment.

*3-1-7 Agricultural lands:*

*Minimum Parcel Size:*

Reduce the minimum agricultural parcel size to 5 acres on the valley floors, 20 acres in the hills to encourage small scale farming, supporting local food production. This should be augmented by (or be adjunct to) greenbelt considerations to prevent islanding of agricultural lands.<sup>9</sup>

Agricultural land *cannot* be taken out of that designation unless replaced by comparable land elsewhere (i.e. protect all agricultural lands regardless of parcel size).

*3-1-7 Agricultural lands:*

*Maximum Dwelling density:*

Encourage, with appropriate agricultural commitments, multiple workers (and their families) living on and working the same property. In cases where more than one dwelling is requested and permitted, restrict such to clustered commons to preserve the primary focus of agricultural activity.

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<sup>9</sup> There is an ever increasing value of land in general making it difficult for (small-scale/organic) farmers to raise local food crops. The current agricultural zoning designations need to be carefully examined to preserve what arable flat land has not been developed while encouraging the proliferation of small agricultural plots in the traditional cattle ranch areas (the 'highlands'). The intent here is to encourage the development of small, organic farms (which tend to be minimal consumers of fossil fuels); and to provide a method of ensuring land developed into agricultural potential remains as county agricultural reserves for future generations. A secondary impact is to ensure sprawling suburbs do not encroach upon viable agricultural lands which inevitably reduces infrastructure (road, sewer, water) needs in new developments.

### ***3-2 Land Use, Density and Intensity***

### ***3-3 Community and Growth Area Boundaries***

3-3b: Allow “mixed use” development (i.e. residences above businesses, etc.).

3-3c: Remove “premature” (agricultural, timber and open space lands should *never* be converted to urban uses).

3-3d: Integrate suburban and urban land use patterns to create walkable mixed use communities that are defined by agricultural, timber and open space ‘greenbelts.’

3-3d:

Change the 4th bullet to: “Prohibit” commercial strip development along.....

### ***3-4 Community Areas and Urban Spaces***

### ***3-5 Commercial and Mixed Use Development***

### ***3-X Agricultural Development*** [new section]

3-Xa: Encourage wineries to develop methods to capture the CO<sub>2</sub> emitted from fermentation and to sequester that which is captured.<sup>10</sup>

### ***3-6 Industrial Development***

3-6b: add “prime agricultural soils” after natural resources:

Locate and design industrial sites and uses in a manner that protects natural resources, *prime agricultural soils* and minimizes environmental degradation and risk from natural or manmade hazards.

3-6i: *\*Promote and encourage environmentally sound industries and practices that achieve or promote General Plan objectives.*

- Encourage the development of coherent business and industrial parks such that co-location (the use of one business’s waste as feedstock for another) and co-generation (the shared use of process-generated heat) can readily be effected.

3-6j: [new] Strive to create industrial and commercial ‘parks’ near population centers throughout the county in order to be able to attract potential employers to the population centers.<sup>11</sup>

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<sup>10</sup> A secondary greenhouse gas (CO<sub>2</sub>) contributor, growing in status in our county is the wine industry. For every 1000 gallons of wine produced, the fermentation produces roughly 980lbs of CO<sub>2</sub>. Many wineries passively collect this, piping it to other vats to use as a fermentation moderator (to slow fermentation). However, no one captures it completely so it is inevitably released.

3-6k: [new] Under new Commercial or Industrial Development, consider requiring a waste disposal and energy use plan as part of the building application process to ensure such items are addressed early on.<sup>12</sup>

3-6l: [new] Promote and encourage cottage scale industry for the production of essential products produced from in-county resources for in-county markets.

**3-7 Community Health** [make this the section title]

**3-7 Noise -> 3-7a Noise** [and change sub-headings to reflect]

**3-7b Light** [new section]

Light pollution is becoming more and more of a recognized serious problem with impacts reaching into animal migration patterns, astronomy (tourist & research potential), human sleep and learning, to most importantly (in our case), energy issues. Inevitably, by reducing the impact of light pollution, the wattage of exterior lighting will be reduced as will the energy consumed.

- Mandate reflectors on lights and effect a policy governing the percentage of stray light emitted away from the ground by a light installation, commercial, public or private.

**3-8 Infrastructure Overview**

Include “develop and encourage distributed renewable power generation” in Infrastructure Overview.

**Include a level 3 sub-section on County Facilities (or as another level 2 section?)**

3-8e: [new] All county and municipal facilities shall undergo an energy audit and that funds be made available to implement the recommendations. The energy audits should be re-occurring every 5-10 years.<sup>13</sup>

3-8f: [new] As streetlights and other municipal/county outdoor lighting are replaced, LED or other ultra-high efficiency lighting will be the primary consideration.<sup>14</sup>

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<sup>11</sup> Intent: To ensure jobs are created while minimizing the sprawl of infrastructure to support the same. The more employment we can create locally to the population centers, the less energy (and time) is wasted on commuting to jobs in other areas and more income stays in our local economy.

<sup>12</sup> Intent: To provide information to planners that will help them better determine a new development’s impact on existing infrastructure while encouraging developers to design in energy and waste considerations early on.

<sup>13</sup> Intent: To ensure the county and municipality facilities lead the way in energy reductions, reducing taxpayer burden. Since new, higher efficiency devices (and practices) are becoming available constantly, this should be a periodic (not one-time) audit. The cost savings developed by the implementation will make this program self-supporting.

<sup>14</sup> LEDs are many times more efficient than traditional lighting and typically last for 100,000 hours.

3-8g: [new] As municipal and county buildings are renovated, solar and other renewable energy generation facilities will be incorporated directly into the building.

3-8h: [new] As county and municipal waste treatment facilities are renovated (e.g. sewage, landfill), methane capture will be obligatory, with its primary use in offsetting the facility's energy costs.

### ***3-9 Education***

### ***3-10 Cultural Resources***

### ***3-11 Parks and Recreation***

### ***3-12 Hazard Reduction and Emergency Response***

3-12b: *Locate and design critical infrastructure to withstand and operate during hazard events and subsequent recovery phases.*

- Initiate the upgrade of critical services, including water treatment facilities, to employ on-site renewable energy systems to provide rudimentary operation in times of crisis.

3-12g: [new] Retrofit all county schools with stand alone renewable energy systems to support essential loads (i.e. water pumping, food storage... etc.) so they can serve as long-term emergency shelters.

### ***3-13 Fire Protection Services***

### ***3-14 Law Enforcement***

### ***3-15 Transportation Systems Overview***

Transportation planning will address the realities of declining fossil resources and climate change within the time frame of the General Plan (the next 20 years) and clearly state a path to reduce oil dependence and greenhouse gas emissions.

3-15f: [new] Create an enforceable timetable for transitioning the county's transportation system to be fueled by non-polluting renewable energy (i.e. electric vehicles charged from solar, wind, etc.).

### ***3-16 Road Systems***

3-16b: *Maximize the use of existing road systems and reduce environmental and community disruption through compatible land use planning.*

- Support the designation of Neighborhood Electric Vehicle (NEV) routes to reduce conventional fossil fuel vehicle in communities.

3-16c: [replacement text] Freeway construction encourages continued reliance on cars as the primary mode of transportation and is not compatible with sustainability and conservation of resources.

- [delete Hopland, Willits bypass text]
- Support the construction of neighborhood vehicle routes to relieve congestion on major arterials.

3-16d: *Maintain and rehabilitate County roads, bridges and related drainage systems, consistent with Pavement Management System standards and environmental objectives.*

- Include bicycle and pedestrian routes in the maintaining and rehabilitation of county roads and bridges.

### **3-17 Pedestrian and Bicycle Systems**

3-17a: [change to read] All land divisions and other discretionary projects shall provide for pedestrian and bicycle routes along public roadways. And all new developments must ensure that there is safe bicycle and pedestrian access to schools and services.

### **3-18 Transit Systems**

3-18b: *Work with transit providers to coordinate transit routes, services and facilities with development.*

- The county should ensure mass transit is available to its employees and encourage its use, serving as an example to the rest of the population (a substantial percentage of county workers working in Ukiah live in Brooktrails).

### **3-19 Rail**

*Add to summary:* Rail transport of heavy goods is several times more efficient than current truck-based transport. The use of rail for public transit must be considered to provide a route towards reducing conventional transportation energy usage and emissions.

3-19c: [new] Support the re-opening of the rail lines for heavy freight transportation through this county.

3-19d: [new] Encourage the Mendocino Transit Authority (MTA) to negotiate access rights and use of existing rail corridors for fast, energy-efficient, rail-based commuter transit (highway 101 and 20).

3-19d: [new] Adopt a plan to secure right-of-way for a rail-based transit system on the coastal corridor (along Hwy 1).

### **3-20 Airports**

### **3-21 Harbors**

3-21c: [new] Development plans for harbors and waterways should acknowledge that moving freight by barge or ship is an order of magnitude more energy efficient than moving freight by truck and appropriate handling facilities shall be encouraged.

### ***3-22 Water Supply and Sewer (Wastewater Treatment) Services***

3-22i: [new] Initiate the upgrade of critical services, including water treatment facilities, to employ on-site renewable energy systems to provide rudimentary operation in times of crisis.

3-22j: [new] As wastewater treatment facilities are renovated, methane capture will be obligatory, with its primary use in offsetting the facility's energy costs.

### ***3-23 Drainage Systems***

### ***3-24 Other Utility Systems***

3-24c: [new] Support and encourage the creation of a community choice aggregation (CCA) or a community-owned utility at the county level. This would enable the county citizenry to purchase utilities at a block rate and specify the energy mix they desired (i.e. the percentage of renewable energy).<sup>15</sup>

- Under a county-owned utility, allow a small county tax to be added to each kilowatt hour sold to finance energy conservation and renewable energy programs for those that cannot afford it (fixed and low income).

### ***3-25 Solid Waste and Hazardous Waste and Materials Management***

3-25b: *Promote materials recovery programs and facilities, focusing on wastes generated in the Mendocino County region*

- On-site recycling facilities will be developed such that viable building materials and similar items are removed from the waste stream and made available for public purchase at a nominal cost.<sup>16</sup>

3-25d: [new] As landfill facilities are renovated methane capture will be obligatory, with its primary use in offsetting the facility's (and county's) energy costs.

3-25e: [new] The development of a new in-county landfill facility will be considered a priority. The landfill will reduce county resident's solid waste costs (through reduced

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<sup>15</sup> Membership in the Northern California Power Authority (NCPA) would also create access to funding to help develop local renewable energy production within the county, as well as the sale of excess 'green' energy as might come available.

<sup>16</sup> See Sonoma County's recycling efforts at their transfer stations. A small office is setup, items are removed from the waste stream and offered to the public, with proceeds from the sales used to pay the attendant's salaries.

processing and shipping costs) while providing a local energy resource from the methane capture.

#### GP Section 4: Resource Management Element

##### ***4-1 Ecosystems and Resources Overview***

##### ***4-2 Air Quality***

Note: The passage of AB 32 adds a whole new category of pollutants to California’s air quality laws and calls for dramatic reductions in greenhouse gas (GHG) emissions. Meeting the targets set by the state and the climate change resolution passed by the Board of Supervisors will require a whole new set of policies that do not yet appear in the general plan. Because internal combustion vehicles are responsible for nearly 60% of all CO<sub>2</sub> emissions in the county the 3 bullets already included in 4-2g could be re-stated after policy updates (with respect to AB32). Additional policies addressing the GHG emissions from Power Generation, Land Fills, Agriculture and Industry should also be included.

4-2k: [new] Adopt a plan and timeline to eliminate emissions from the transportation sector by replacing internal combustion vehicles with zero emission vehicles (ZEV) to maintain county compliance with AB 32.

- Implement a county motor pool Zero Emissions Vehicle (ZEV) buy-in program
- As new developments are approved, ensure electric vehicle charging stations are in place.
- Focus new development within and around community areas to reduce vehicle travel.
- Implement transit-and pedestrian –oriented land use and site design strategies.
- Encourage the use of alternative fuels, energy sources and advanced technology.

4-2l: [new] Adopt a plan and timeline for transitioning from fossil fueled power generation to distributed renewable generation to reduce GreenHouse Gas (GHG) emissions.

4-2m: [new] Improve building efficiency standards to reduce need for heating fuels.

4-2n: [new] Capture or mitigate GHG emissions from landfills and sewage treatment facilities.

4-2o: [new] Capture or mitigate GHG emissions from farm, ranch, and vineyard operations.

4-2p: [new] Capture or mitigate GHG emissions from industrial sources while encouraging co-generation (recycling of waste heat, etc.).

4-2q: [new] By 2010 insure that all cities in the county qualify for the U.S. Department of Energy's Clean Cities program and seek out federal, state and local grant funds to assist county fleet operators in the purchase of zero emission vehicles and needed infrastructure.

### **4-3 Energy Resources**

4-3a: Add "map" after "Identify".

4-3b: *Encourage research ~~and~~, development and installation of renewable energy sources to meet current and increasing energy demands.*

[note change in existing text above]

- Inventory and map solar, wind, and tidal energy resources.
- Encourage investment in identified renewable resources, either through tax breaks and similar incentives normally offered commercial developers; and/or under the community-owned utility program<sup>17</sup>.
- Use the California Solar Rights Act to ensure that new building projects do not disrupt solar access.
- Review all laws that restrict the placement of local distributed energy generating devices such as: wind turbines, solar arrays, wave energy devices, etc.; and eliminate those restrictions that are based on *aesthetic* preference.
- Ensure the Assessor's Office follows California Tax Code, section 73 that *excludes solar energy systems in property tax calculations*. This exemption should be properly interpreted to *include the supporting structure and inverter/battery enclosure*, as long as it is not part of a structure used for living or business.
- Create an ordinance to protect renewable installations (solar, wind, etc.) from vandalism and/or theft (regardless of government, commercial or private ownership).<sup>18</sup>

4-3e: *Energy efficiency shall be a ~~major consideration in~~ requirement in all land use and transportation planning decisions.*

[note change in existing text above]

- Make use of passive solar design a requirement in all new building projects.
- Encourage the use of bio-mass and landfill gas for projects that can take advantage of the co-generation of heat and electricity.

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<sup>17</sup> Membership in the Northern California Power Authority (NCPA) would also create access to funding to help develop local renewable energy production within the county, as well as the sale of excess 'green' energy as might come available.

<sup>18</sup> The intent here is to provide the same protection that utilities enjoy under the laws that protect against theft or vandalism of utility services.

4-3h: [new] All new development projects will require a minimum of 25% of the estimated energy usage to be provided by onsite renewable energy. Phase this in stages as follows:

Electricity	2008
Heating and cooling	2009
Transportation	2010

***4-4 Geological Resources***

***4-5 Soil Resources***

***4-6 Seismicity***

***4-7 Mineral Resources***

***4-8 Watersheds***

***4-9 Water Supply***

***4-10 Water Quality***

***4-11 Flooding and Inundation***

***4-12 Biological Resources Overview***

***4-13 Terrestrial Resources***

***4-14 Freshwater and Marine Resources***

***4-15 Agricultural Resources***

Add to summary:

It currently takes a minimum of 10 units of fossil energy to put 1 unit of food energy on American tables (our food travels an average of 1500 miles to reach our plates). This is not sustainable as we approach the limits of finite fossil energy supplies. As a result, all policies in the General Plan should recognize and encourage the need to transition towards smaller more labor intensive farms that are in close proximity to markets. Mendocino County led the way in banning Genetically Modified Organisms (GMOs) and we need to do the same in encouraging local food production.

*4-15c: \*Support the diversification and expansion of the agricultural economic base.*

- Reduce the minimum agricultural parcel size to 5 acres on the valley floors, 20 acres in the hills to encourage small scale farming, supporting local food production. This should be augmented by (or be adjunct to) greenbelt considerations to prevent islanding of agricultural lands.
- Encourage, with appropriate agricultural commitments, multiple workers (and their families) living on and working the same property. In cases where more than one dwelling is requested and permitted, restrict such to clustered commons to preserve the primary focus of agricultural activity.

*4-15e: Land shall not be converted from the Agricultural Lands or Range Lands classifications to non-agricultural classifications unless all of the following criteria are substantiated:*

- [new] Agricultural land *cannot* be taken out of that designation unless replaced by comparable land elsewhere (i.e. protect all agricultural lands regardless of parcel size).

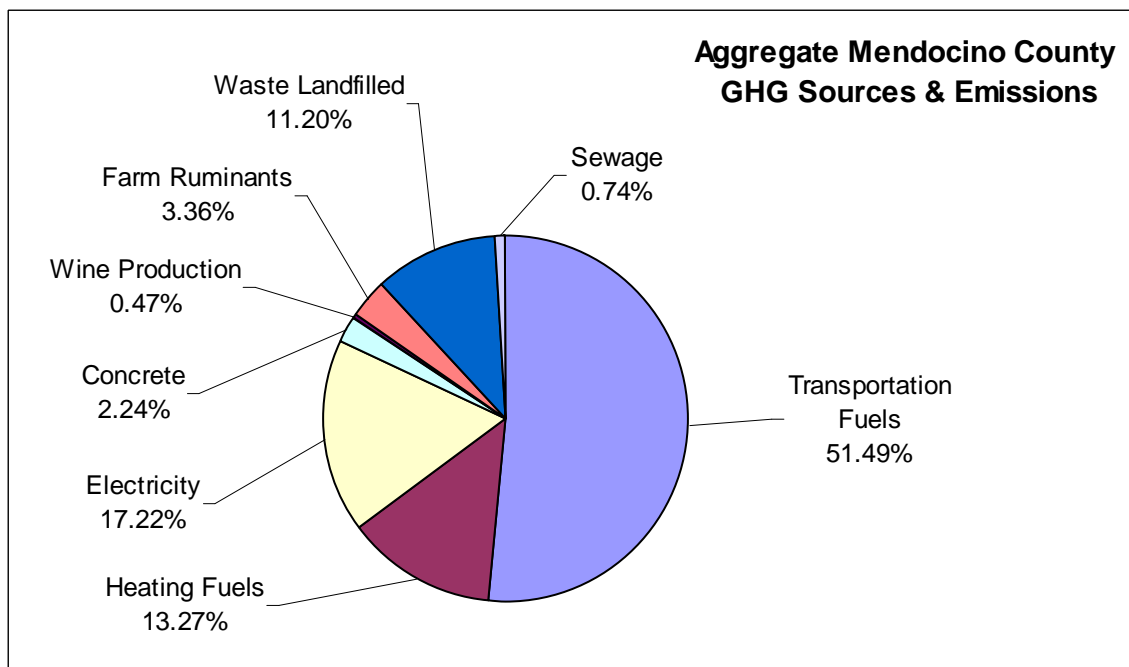
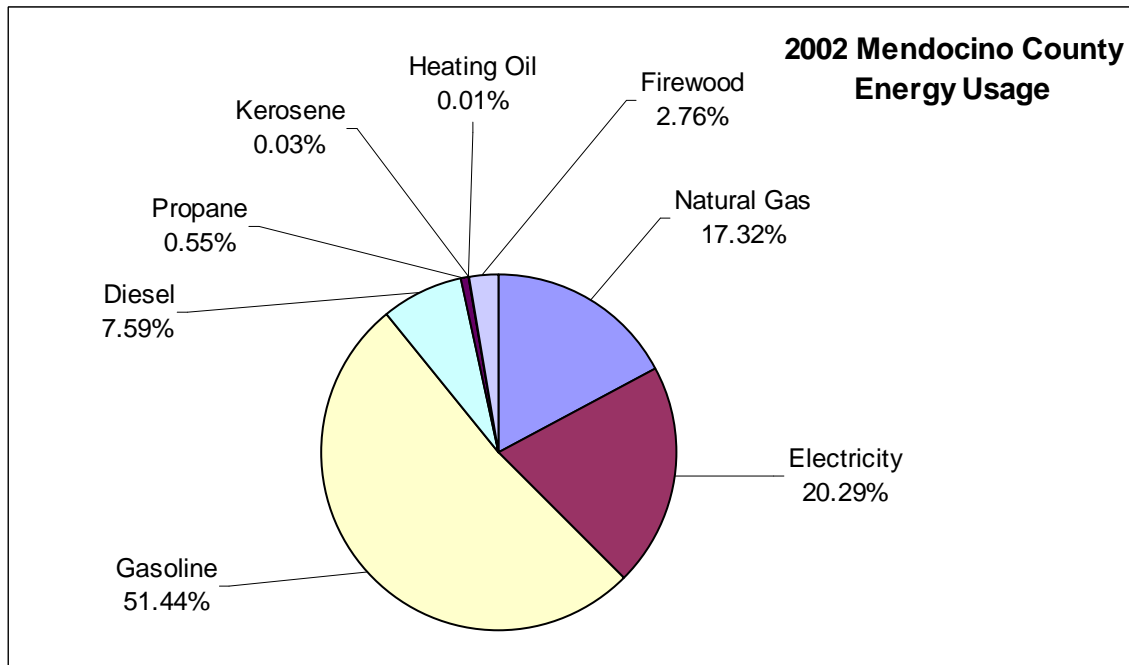
Add as 4-15x (e.g. under ‘Development Compatibility’):

*4-15x* For all new developments; for each residential unit, a requirement that 400 square feet of garden space is set aside with access to enough water for growing fruit and vegetables. Encourage this as green buffers or commons. Implemented by 2008.

***4-16 Forest Resources***

***4-17 Open Spaces, Rural Landscapes, and Scenic Resources***

## A.2. EWG Summary Graphs and Tables



2002 Mendocino County Energy Costs, Usage & CO2 Emissions												
Fuel	Annual Residential	Annual Non-Residential	Total (annual)	Units	Unit Cost	Annual Value	Total (daily), Therms	Total Daily MegaWattHrs (MWhr)	Average Daily per Person (KWhr)	CO2 Emission Factor	Total CO2 Emissions (tons)	
Natural Gas	6.3	11.6	17.9	MT	\$521,000	\$9,300,892	48,909.6	1,433.1	16.5	5,667.0	101,167.1	
Electricity	260.8	351.6	612.3	MKWhr	\$125,201	\$76,664,451	57,279.1	1,678.3	19.3	305.0	186,761.6	
Gasoline			47,754.9	KGallons	\$1,242	\$59,315,930	145,227.3	4,255.2	48.9	9.9	472,773.9	
Diesel			8,318.2	KGallons	\$870	\$7,232,700	21,422.3	627.7	7.2	9.9	82,350.5	
Propane			1,899.0	KGallons	\$416	\$789,033	1,560.8	45.7	0.5	6.3	12,030.1	
Kerosene			33.3	KGallons	\$900	\$30,005	88.9	2.6	0.0	9.9	330.1	
Heating Oil			16.1	KGallons	\$543	\$8,724	41.4	1.2	0.0	11.2	179.7	
Firewood			20.3	KCords	\$160,000	\$3,248,247	7,786.9	228.2	2.6	1,250.0	25,376.9	
<b>Total Daily Consumption:</b>							<b>282,316</b>	<b>8,272</b>	<b>95</b>			
<b>Total Annual Value of Consumed energy:</b>						<b>\$156,589,982</b>						
<b>2002 Cost [per Person], [per Household] of Total Fuels Consumed:</b>						<b>\$1,799</b>	<b>\$4,573</b>					
<b>Percentage of Median After-tax Household Income Expended on Energy, 2002:</b>							<b>19%</b>	(tax liability estimated at 30%)				
<b>Total 2002 CO2 Emissions for Consumed Energy (tons):</b>											<b>880,970</b>	
<b>2002 CO2 Emissions [per Person], [per Household] in tons from above-noted fuels:</b>											<b>10</b>	<b>26</b>

**County GHG Sources & Emissions**

CO2 (carbon dioxide), CH4 (methane) considered; NOx, etc. not included due to data availability

Source	CO2 (tons/year)	CH4 (tons/year)	Total, CO2 Equivalent (tons/year)	% Total
Transportation fuels (1)	555,124.3	157.1	558,422.9	51.49%
Heating fuels (2)	139,083.9	230.9	143,932.4	13.27%
Electricity	186,761.6	2.1	186,804.7	17.22%
Concrete (3)	24,279.5	N/A	24,279.5	2.24%
Wine production (4)	5,145.0	N/A	5,145.0	0.47%
Farm Ruminants (5)	N/A	1,734.9	36,432.0	3.36%
Waste landfilled (6)	14,068.2	5,115.7	121,498.4	11.20%
Sewage	N/A	383.7	8,058.6	0.74%
<b>Total Est. Emissions (tons/year):</b>	<b>924,462.6</b>	<b>7,624.3</b>	<b>1,084,573.7</b>	

**Notes:**

1. Gasoline, diesel
2. NatGas, Wood, Heating oil, propane, kerosene
3. Portland cement
4. From fermentation only
5. Cattle, sheep (direct emissions only)
6. Inclusive only of waste bound for landfills (no recycled, etc.)

### A.3. Planning Team Memo Regarding EWG Recommendations

## MENDOCINO COUNTY MEMORANDUM

**To: Planning Commission**

**From: Phil Gorny, Planning Team  
Eric Norris, General Plan Consultant**

**Subject: Recommended Energy Policies; Next Steps in the General Plan Update Process**

**Date: August 2, 2007**

### **BACKGROUND**

As the Commission is aware, a detailed report on energy use and suggested energy policies was released by the Energy Working Group in late June. Following the release of the Working Group's report, the document was extensively reviewed by Planning staff and the General Plan consultant. Several discussions were held, including a meeting of the Planning Team on July 20, resulting in the recommendations in Attachments 1 and 2 to this staff report.

### **RECOMMENDED ENERGY POLICIES**

Attachment 1 contains staff's specific recommendations to the Commission for inclusion in the General Plan Update. Attachment 2 is a detailed response to each of the Energy Working Group's recommended policies. As described to the Commission on July 19, the following **guidelines** were followed when reviewing the policies:

- The policy should fit within the general mandate to avoid sweeping changes in policy as part of the General Plan Update.
- The recommended policy should minimize new regulations which impose limitations on the use of property.
- The policy should rely primarily on market-based solutions rather than County-imposed mandates.
- The policy should minimize the number and cost of implementation measures, and should avoid committing the County to investing time and/or resources which are not reasonably foreseeable at this time.

- The policy should conform with other parts of the General Plan and with basic sound planning principles.
- The policy should be consistent with direction already provided by the Planning Commission and/or Board of Supervisors (e.g., reducing minimum lot sizes in the AG designation).

As noted in the July 19 staff report, a number of the recommended policies in the Working Group’s report were found to be in keeping with these guidelines. These policies, which are in many cases imaginative and forward-thinking, are recommended to be included in the General Plan Update.

A number, however, were found by staff and the General Plan consultant to be contrary to prior direction from the Planning Commission and Board of Supervisors, too detailed for inclusion in the General Plan, or unworkable for a variety of reasons. These are not recommended for inclusion in the General Plan.

Staff is prepared to discuss any and all suggested policies. Public input is welcome and the Commission should note that there will be further opportunities for comment as the General Plan Update progresses through hearings.

## **RECOMMENDATION / NEXT STEPS**

As the Commission is aware, staff and the General Plan consultant have been working to meet an ambitious schedule imposed by the Board of Supervisors. The following key items need to be completed in the near future in order to meet this schedule:

- Conduct Review of Energy Policies for Inclusion in the Public Review Draft General Plan Update—This is the task before the Planning Commission today.
- Review of General Plan Update and Direction by the Board of Supervisors—This is tentatively scheduled to occur in August. This review—and direction from the Board to continue refining the General Plan Update into a public review draft later this year—will also mark the start of a 60-day deadline for submission of land use designation changes by property owners. Because the environmental review of the General Plan Update cannot be completed until details regarding proposed land use changes are known, starting the 60-day “clock” is critical to the timely completion of the Update.
- Water Policies—Work is continuing at a staff level on proposed new Water policies. In order to maintain the Update schedule, staff proposes to review the draft policies being prepared by the County Water Agency and insert new policies (based on the Commission’s prior discussions on this issue) in the Public Review Draft General Plan Update. The Commission will be provided

with additional opportunities to review these policies before sending the Update to the Board of Supervisors for adoption.

- Timber Conversion Policies—The Commission has reviewed policies related to timber conversion, but is awaiting input from Commissioner Bailey on this issue.

**ATTACHMENT 1** – Specific Recommendations to Modify the Draft General Plan in Regard to Energy

**ATTACHMENT 2** – Formal Response to the Energy Working Group Recommendations for the Draft General Plan in Regard to Energy