Draft #1 – 7-13-12
Draft #2 – 7/26/12
Draft #3 – 8/9/12: *Changes from Draft#1 and Draft #2 incorporated into this version as a starting point*
Draft #4 – 9/5/12: *Changes from Draft #3 incorporated into this version as a starting point*
Draft #5 – *9/12/12: Changes from Draft #4 incorporated into this version as a starting point. Changes based on 9/11/12 Meeting and public comments received.*

MV 2040

NATURAL ENVIRONMENT
DRAFT GOALS AND POLICIES

Related Community Values – Mill Valley Values…

- Open space and natural resource and habitat protection that defines the physical character of our community, promotes active, outdoor recreation and fulfills our responsibilities toward environmental stewardship and climate protection.
- Protecting the community by planning and preparing for the impact of natural and manmade disasters, anticipating and adapting to potential threats to community facilities, systems and resources and promoting a community-wide level of readiness that will insure a timely and effective response.
- Community participation and volunteerism based on open communication, mutual respect, civil discourse, civic responsibility and building local and regional leadership.
- Volunteerism and stewardship to responsibly manage and administer Mill Valley's resources so that they are available for the use and enjoyment of existing and future generations of people, plants, and animals with the goal of leaving resources in a better condition than found based on our actions of stewardship.

Keep these questions in mind as you evaluate the following proposals:
GOAL: Does this create an appropriate and consistent vision of the future of Mill Valley? How does it align with community values?
POLICY: Is it clear? Does it accomplish the desired outcome looking toward 2040?

DRAFT

Draft #1 – 7-13-12
Draft #2 – 7/26/12
Draft #3 – 8/9/12: *Changes from Draft#1 and Draft #2 incorporated into this version as a starting point*
Draft #4 – 9/5/12: *Changes from Draft #3 incorporated into this version as a starting point*
Draft #5 – *9/12/12: Changes from Draft #4 incorporated into this version as a starting point. Changes based on 9/11/12 Meeting and public comments received.*

PROGRAM: Is it realistic and achievable? Is it action-oriented? **Note: program language has not been provided at this point. See 1989 General Plan for examples of typical "program" language.**

DRAFT

Draft #1 – 7-13-12
Draft #2 – 7/26/12
Draft #3 – 8/9/12: *Changes from Draft#1 and Draft #2 incorporated into this version as a starting point*
Draft #4 – 9/5/12: *Changes from Draft #3 incorporated into this version as a starting point*
Draft #5 – *9/12/12: Changes from Draft #4 incorporated into this version as a starting point. Changes based on 9/11/12 Meeting and public comments received.*

Natural Environment Preamble

Nestled between the salt marshes of the San Francisco Bay and the foothills of Mt. Tamalpais, Mill Valley exists where it does because of the desirability of its natural environment. Created by the seismic activities of the planet's San Andreas Fault, and in the future, quite likely by sea level changes, Mill Valley's natural environment continues to evolve as the unique combination of climate, habitat and water into a working, functioning and flourishing Ecosystem. From the earliest settlements of the Coast Miwok Indians in the territory that became known as Eastland through to the present day, the essence of Mill Valley has been the natural environment of its place. Over a century of human settlement has created a different evolution of Ecosystem, but our ability to sustain Mill Valley's community vitality hinges on our ability to sustain the Ecosystem. In the broadest sense, it's what makes Mill Valley what it is. While the Ecosystem supports a vibrant community, it also presents significant hazards to the same community embedded in the Ecosystem.

UNDERSTANDING THE ECOSYSTEM

GOAL 1

Increase the community's knowledge and understanding of ecologically significant and sensitive natural communities, natural processes, and any corresponding hazards that result in the interface between the natural environment and human settlement.

Policies

1.1 **Data and Mapping.** Collaborate with regional, state and federal agencies to continually update and assess information on ecologically sensitive and significant natural communities.

Program Suggestions:

1.1.1 Create baseline inventory. Create a comprehensive "baseline" inventory to identify and map critical habitat, natural amenities, potential natural hazards, and threatened and endangered species.

1.1.2 Review baseline inventory. Review and compare the "baseline" study with updated data and information at least every 5 years to 1) assess potential changes in conditions and 2) to ensure the information stays current so that it remains a valuable resource for the community and decision-makers.

DRAFT

1.1.3 Utilize technology. Utilize "Marin Maps" or other Geographic Information System (GIS) resources to make critical data and mapping accessible and to reinforce the connection between residents and the surrounding natural environment.

1.1.4 Update maps. Identify and continually update mapping data showing areas of the city that are vulnerable to the effects of climate change related hazards, including landslides, sea level rise, flooding, loss of barrier habitats (e.g., wetlands), changing storm cycles and increased rainfall and extended periods of excessive heat.

1.2 Use Best-available Science, Technology and Practices. Use and promote projects to illustrate and educate the greater community on best practices, technology and science.

Program Suggestions:

1.2.1 Highlight best practices. Utilize city website and notification systems to highlight best practices associated with construction.

1.2.2 Training. Continue to train city employees to remain up to date on the latest science and technology associated with the natural environment and ecology.

1.2.3 Update regulations. Update city regulations and requirements based on new science, technology and best practices.

1.2.4 Best practices to restore and rehabilitate the ecosystem. Utilize best practices for restoring and rehabilitating the ecosystem to balance the needs of the community and the ecosystem.

1.3 Community Outreach & Education. Support educational programs for residents and visitors about the uniqueness and value of the ecosystem, natural resources, plants, and wildlife in Mill Valley, and how to appreciate, enjoy and protect those values.

Program Suggestions:

1.3.1 Coordination. Coordinate with the Mill Valley Library, Parks & Recreation Department, and local public and private schools to integrate sustainability into educational and recreation programs.

1.3.2 Notification. Utilize the Mill Valley website to highlight sustainability activities and accomplishments made within the community.

1.3.3 Community challenges. Challenge the community to practice sustainability through engaging and fun activities such as the "Low Carbon Diet" and other programs

DRAFT

Draft #1 – 7-13-12
Draft #2 – 7/26/12
Draft #3 – 8/9/12: *Changes from Draft#1 and Draft #2 incorporated into this version as a starting point*
Draft #4 – 9/5/12: *Changes from Draft #3 incorporated into this version as a starting point*
Draft #5 – *9/12/12: Changes from Draft #4 incorporated into this version as a starting point. Changes based on 9/11/12 Meeting and public comments received.*

1.3.4 Walking tour. Create walking tour maps and programs on various topics and in different parts of the City.

1.3.5 Signage. Create an easy-to-use and readily identifiable system of directional and informational signs along paths, trails and creek side locations.

1.3.6 Reduce litter. Encourage a "pack it out" ethic to reduce litter and promote individual responsibility for helping to maintain natural areas.

1.3.7 Provide information on sustainability, preservation, restoration and conservation. Prepare literature to the community about sustainability, how to care for creeks, removing invasive species, the significance of native plants and why they need to be protected and planted for critical habitat restoration and for fire safety. Utilize various methods of outreach including 1) the use of the City website and notifications; and 2) distributing information and participating in local events and school programs.

1.3.8 Information to new residents. Provide handouts to new residents on local sustainability efforts, surrounding natural environment, potential hazards and emergency preparedness.

SUSTAINING THE ECOSYSTEM

GOAL 2
Preserve, restore or rehabilitate the integrity, function, productivity and long-term viability and resiliency of the ecosystem and its ecologically sensitive and significant natural communities and wildlife habitats.

Policies

2.1 Resource Preservation and Restoration. Utilize a watershed approach (as compared to a parcel-by-parcel approach) to identifying, preserving or rehabilitating natural resources that contribute to the community's native plant and wildlife species value and to its aesthetic character.

Program Suggestions:

2.1.1 Review standards. Modify City standards and regulations to ensure that natural resource areas identified in the "baseline" inventory are preserved and restored as a part of the development review process.

2.1.2 Best Practices. Utilize best practices for restoring and rehabilitating the ecosystem to balance needs of the community and ecosystem

2.1.3 Access. Provide access to designated open space areas along Richardson Bay and creek corridors consistent with preserving habitat and protecting threatened or endangered species.

2.1.4 Plant and habitat corridors. Retain plant and wildlife habitat areas, including where there are known sensitive resources (e.g., sensitive habitats, special-status, threatened, endangered, candidate species, and species of concern) and that are contiguous with other existing natural areas and/or wildlife movement corridors.

2.1.5 Creek Preservation. Preserve the ecological integrity of creek corridors that support riparian resources by preserving or restoring native plants and removing invasive non-native plants. Insure that preservation and restoration efforts are consistent with and mutually support applicable flood control, storm drainage, water quality and public access values.

2.1.6 Wetlands. Preserve and protect wetland resources in compliance with applicable regional, state and federal regulations.

2.1.7 Public vistas. Identify and designate publicly accessible scenic vistas of natural areas, including Richardson Bay, Mount Tamalpais and existing creek corridors.

2.1.8 Trees. Protect populations, stands (groves) and heritage specimens of native tree species and implement regulations and development standards to ensure that native trees are protected from the encroachment of buildings or landscaping, severe pruning or unnecessary removal.

2.1.9 Open space. Continue to collaborate with the Marin Open Space District, property owners and other open space acquisition agencies to identify and acquire additional open space resources for recreation, habitat protection, watershed management and flood control, and to complete identified emergency evacuation routes.

2.1.10 Open space. Review and update the 2002 Site Priority Report and establish an acquisition plan to implement the recommendations.

2.1.11 Volunteerism. Use Mill Valley's commitment to volunteerism and environmental stewardship to help protect and rehabilitate the area's natural resources.

DRAFT

Draft #1 – 7-13-12
Draft #2 – 7/26/12
Draft #3 – 8/9/12: *Changes from Draft#1 and Draft #2 incorporated into this version as a starting point*
Draft #4 – 9/5/12: *Changes from Draft #3 incorporated into this version as a starting point*
Draft #5 – *9/12/12: Changes from Draft #4 incorporated into this version as a starting point. Changes based on 9/11/12 Meeting and public comments received.*

GOAL 3

All planning and decision-making processes should integrate sustainability and resource conservation.

Policies

3.1 **Leadership and Coordination.** Collaborate with local, state and federal agencies and private organizations to initiate and implement sustainable policies and programs. Develop and promote sustainable practices and using an ecosystem and watershed approach to solving resource related issues that goes beyond political boundaries.

Program Suggestions:

3.1.1 Coordination. Continue coordination efforts with Marin County and its jurisdictions to jointly develop, create and implement common sustainability practices.

3.1.2 Purchasing practices. Adopt purchasing practices and standards that support climate action policies and reductions in Greenhouse Gas emissions.

3.1.3 Remove regulatory barriers. Remove barriers in existing City policies and regulations to allow for the application of new technologies that are environmentally beneficial

3.1.3 Review and update regulations. Encourage review of the Municipal Code to update regulations based on best practices and new technology.

3.1.4 Review creek setback requirements. Review and clarify creek setback requirements in zoning code.

GOAL 4

Reduce the community's ecological and carbon footprint.

Policies

4.1 **Conserve Water Resources**. Promote the use of recycled water through rainwater storage and grey water systems for landscape irrigation.

Program Suggestions:

4.1.1 Guidelines. Establish appropriate rainwater storage and greywater system guidelines.

4.1.2 City landscapes and parking lots. Evaluate existing City-owned landscapes and parking lots to consider options to convert reflective and impervious surfaces to pervious landscape, and install or replace vegetation with drought-tolerant, low, maintenance

DRAFT

native species or edible landscaping that can also provide share and reduce heat island effects.

4.1.3 Coordination. Work with Marin Municipal Water District to establish and promote incentives for water conservation.

4.2 Water Quality. Improve the quality and control of urban runoff through storm water protection measures.

Program Suggestions:

4.2.1 NPDES. Continue to comply with and execute the City's National Pollution Discharge Elimination System (NPDES) Permit and watershed-based regional water quality standards and best practices, including the installation of rainwater, rain-garden and bio-retention basins to filter pollutants from stormwater run off from existing parking lots and streets.

4.2.2 Toxic chemicals. Encourage and educate residents and businesses to implement integrated pest management principles, reduce or discontinue the use of pesticides and herbicides, and reduce or discontinue the use of toxic cleaning substances.

4.2.3 Toxic chemicals. Encourage the City, school districts and local businesses within Mill Valley to use green and non-toxic cleaning supplies.

4.3.1 Stormwater. Require all new development to contribute no net increase to stormwater runoff peak flows over existing conditions associated with a 100-year storm event.

4.3.2 Permeable surface area. Establish new development standards that require permeable pavement and reduce lot coverage.

4.3 Water System Supply and Integrity. Expand and diversify water supply.

Program Suggestions:

4.3.1 Coordination. Work with MMWD to optimize storage, transmission and distribution capacities and efficiencies and to minimize water outages due to emergencies or disasters.

4.3.2 Cascade Dam. Refit Cascade Dam in case of drought or emergency

4.3.3 Non-potable water uses. Create an inventory of non-potable water uses within the City that could be served with recycled water.

DRAFT

4.3.4 Wastewater capacity. Develop advanced wastewater treatment capacity for water reuse ("grey water")

4.3.5 Infrastructure. Audit the City's water and wastewater pumps and motors to evaluate equipment efficiency.

4.4 Clean Energy & Energy Efficiency. Support and provide incentives for utilizing and investing in clean energy end energy efficiency solutions.

Program Suggestions:

4.4.1 Design guidelines and standards. Update design guidelines and development standards to encourage solar, water harvesting and other emerging green building technologies.

4.4.2 Low and zero emission vehicles. Promote plug in stations or priority parking for alternative fueled and low emission vehicles.

4.4.3 Green building ordinance. Update the City's Green Building Ordinance and support the highest available standards.

4.4.4 Incentives for development projects. Encourage and provide incentives for development and improvement projects that achieve a greater reduction in energy than otherwise required by state law.

4.4.5 Outdoor lighting standards. Establish outdoor lighting standards that require light levels in all new development, parking lots and street lighting to not exceed state standards.

4.4.6 Energy audits. Require the performance of energy audits for residential and commercial building prior to completion of sale, and that audit results and information about opportunities for energy improvement be presented to potential buyers.

4.4.7 Solar ready. Require that, where feasible, all new buildings be constructed to allow for easy, cost effective installation of solar energy systems in the future using "solar-ready" guidelines such as optimal roof orientation; clear access without obstructions; roof framing and design; installation of electrical conduit to accept solar electric system wiring; installation of plumbing to support solar hot water system and provision of space for solar hot water storage tank.

4.4.8 Marin Energy Authority. Support efforts of the Marin Energy Authority (MEA) to maximize residential and business subscription rates for green energy plans.

4.4.9 City Lighting. Replace incandescent and mercury vapor laps in street and parking lot lighting with energy efficient lamps.

DRAFT

4.4.10 Financing. Participate in assessment district bond financing program to fund installation of renewable energy systems and other efficiency upgrades.

4.5 Recycling and Waste Management. Reduce the volume of the waste stream by encouraging recycling and composting and moving toward Zero Waste objectives.

Program Suggestions:

4.5.1 Coordination. Support on-going green waste recycling and composting opportunities for Mill Valley residents and businesses, and continue to work with the Marin Solid and Hazardous Waste JPA to meet zero waste objectives, including bans on problematic materials.

4.5.2 Recycling and composting requirements for events. Require all events needing a permit from the City to include recycling and/or compostable materials as part of special event permits.

4.5.3 Workshops. Schedule periodic workshops on composting and provide starter kits to interested residents.

4.5.4 Strategic Plan. Adopt a Zero waste goal and develop a Zero Waste strategic plan for Mill Valley.

4.5.5 Update regulations. Revise and update the City's solid waste ordinance and construction and demolition ordinance.

4.6 Carbon Offsets. Offset carbon emissions through carbon credits or allowances.

4.6.1 Outreach and education. Provide educational opportunities and creative incentives for City-sponsored events, community organizations, residents, and businesses to reduce their carbon footprint via validated offset or carbon reduction programs.

4.6.2 Purchasing. Purchase and retire third-party verified emission reductions to offset carbon emissions from municipal and community-wide operations.

4.6.3 Trees. Require tree plantings, where feasible, as carbon offsets for new development projects, increased intensity of use and/or other activities resulting in an increase in greenhouse gas emissions.

DRAFT

Draft #1 – 7-13-12
Draft #2 – 7/26/12
Draft #3 – 8/9/12: *Changes from Draft#1 and Draft #2 incorporated into this version as a starting point*
Draft #4 – 9/5/12: *Changes from Draft #3 incorporated into this version as a starting point*
Draft #5 – *9/12/12: Changes from Draft #4 incorporated into this version as a starting point. Changes based on 9/11/12 Meeting and public comments received.*

CLIMATE CHANGE

GOAL 5
Reduce Mill Valley's vulnerability to the impacts of climate change.

Policies:

5.1 **Monitoring.** Establish a baseline and monitor the City and community's contribution to Green House Gas emissions.

Program Suggestions:

5.1.1 Emission targets. Monitor and update, as necessary, the City Council adopted a GHG emission reduction target of 20% below 2000 levels by 2020 for internal government operations, and 15% below 2000 levels communitywide by 2020.

5.1.2 Emission reduction measures. Collaborate with the community to identify emission reduction measures that will successfully meet adopted emission reduction targets.

5.2 **Sense of Urgency in Adapting to Climate Change.** Ground climate change adaptation strategies in the best-available scientific understanding of hazards, risks, impacts, and vulnerabilities, and make adaptation planning and implementation a City budget and operational priority

Program Suggestions:

5.2.1 Adaptation plans and policies. Develop adaptive plans and policies on a continual basis, and amend as needed (rather than waiting for more complete understanding of climate change and/or data). Adjust plans and actions according to new data and information.

5.2.2 Adaptation planning and funding. Prioritize adaptation planning and funding to help people, places, and infrastructure that are most vulnerable to climate impacts.

5.2.3 City infrastructure. Establish a long-term strategy for adapting critical City infrastructure.

5.2.4 Coordination and education. Promote adaptation across multiple sectors, geographical scales, and levels of government. Build on the existing efforts and knowledge of a wide range of stakeholders who understand local or regional risks and needs.

DRAFT

Draft #1 – 7-13-12
Draft #2 – 7/26/12
Draft #3 – 8/9/12: *Changes from Draft#1 and Draft #2 incorporated into this version as a starting point*
Draft #4 – 9/5/12: *Changes from Draft #3 incorporated into this version as a starting point*
Draft #5 – *9/12/12: Changes from Draft #4 incorporated into this version as a starting point. Changes based on 9/11/12 Meeting and public comments received.*

5.2.5 Hazard mitigation plans. Update community hazard mitigation plans to recognize that the effects of climate change will also affect the type and intensity of potential community hazards and to anticipate impacts and responses. Include planning for extreme heat and storm events, identifying populations and neighborhoods most vulnerable to these events.

COMMUNITY HAZARD RESILIENCE

GOAL 6
Minimize loss of life, property and important elements of the natural ecosystem and maximize Mill Valley's ability to prepare for, respond to and recover from disaster.

Policies:

6.1 Hazard Identification. Identify all hazard that threaten the City as either "Sudden Onset" disasters (earthquakes, wildfire) or "Slow Onset" disasters/phenomenon (climate change

Program Suggestions:

6.1.1 Technology. Utilize Geographical Information Systems and Marin Map to review and update hazards.

6.1.2 All Hazards Plan. Incorporate hazard maps into public education and outreach, All Hazards Plan, and other planning documents.

6.2 Resilient Neighborhoods and Community. Promote and attend neighborhood organizations and community events--allowing opportunities to discuss, educate and prepare for disasters.

Program Suggestions:

6.2.1 Coordination. Support structures for communication and coordination among neighbors and groups of people, including but not limited to neighborhood associations, block parties, get ready events.

6.2.2 Outreach. Educate and provide information at neighborhood organizations and community events.

DRAFT

6.2.3 Education and training. Support education and training programs for staff, citizens, businesses, and neighborhood groups in addressing emergency response, disaster preparedness protocols and procedures, and self-sufficiency and emergency planning to be self-sufficient during an emergency.

6.3 Administrative and Equipment Capacity. Maintain adequate levels of staffing, facilities, materials and equipment to provide a timely disaster response consistent with the needs of a demographically changing community and a challenging natural environment.

Program Suggestions:

6.3.1 Hazard and vulnerability assessments. Conduct hazard and vulnerability assessments as part of the Mill Valley Emergency Operations Plan (EOP). Maintain adequate levels of staffing, facilities, materials and equipment to provide a timely response to demands for public safety services.

6.3.2 All Hazards Plan. Maintain, update and implement the All Hazards Mitigation Plan, which integrates hazard mitigation strategies into the day-to-day activities of the City of Mill Valley, and includes plans to prepare for police fire service, vulnerable populations and sensitive facilities during and following a signification disaster.

6.3.3 Education and training. Create and implement regular educational and training programs for City staff, residents, businesses, schools and neighborhood groups that include emergency response protocols and procedures, disaster risk education, and self–sufficiency.

6.3.4 Training, coordination and contingency planning. Ensure continuity of City services and operations through on-going interdepartmental coordination, contingency planning and periodic exercises in order to provide swift and effective disaster response and recovery

6.3.5 Early warning system(s). Consider new technology and procedures to improve the capability of the early warning system.

6.3.7 Critical facilities and services. Prioritize strategies for protecting critical facilities and services following a major disaster to help prevent problems during post-disaster evacuations, rescues and major clean-up operations.

6.3.8 Coordination and education. Coordinate with EPC to manage public expectations. Educate the public as to what the City will be able to do for themselves versus what they will have to do for themselves during and post-disaster.

6.3.9 Resource database. Establish a database of residents with disaster-related skills.

DRAFT

Draft #1 – 7-13-12
Draft #2 – 7/26/12
Draft #3 – 8/9/12: *Changes from Draft#1 and Draft #2 incorporated into this version as a starting point*
Draft #4 – 9/5/12: *Changes from Draft #3 incorporated into this version as a starting point*
Draft #5 – *9/12/12: Changes from Draft #4 incorporated into this version as a starting point. Changes based on 9/11/12 Meeting and public comments received.*

6.4 Emergency Response and Evacuation Routes. Continue to expand the network of anticipated emergency response routes and regularly exercise evacuation protocols and procedures.

Program Suggestions:

6.4.1 Emergency Operations Plan (EOP). Continue to update the EOP to identify the anticipated emergency response routes and evacuation procedures in the event of a major disaster or hazard requiring evacuation events.

6.4.2 Update data and hazards. Utilize complete and updated data and mapping of hazards. Maintain database of parcels within hazard zones.

6.4.3 Steps, Lanes, Paths. Support measures to designate, create, maintain and enhance those Steps, Lanes, and Paths that also serve as evacuation routes.

6.4.4 Maintenance and signage. Continue to maintain and clearly identify those facilities and networks that serve as emergency response and evacuation routes.

6.5 Prevention and Protection. Reduce injury and damage from hazards.

Program Suggestions:

6.5.1 Critical facilities and services. Prioritize strategies for protecting critical facilities and services following a major disaster to help prevent problems during post-disaster evacuations, rescues and major clean-up operations.

6.5.2 Onset disasters. Identification of short and long term onset disasters in association with data mapping of hazard areas and critical habitat

6.5.3 Fire inspection program. Maintain an ongoing fire inspection program to reduce fire hazards associated with older buildings, critical facilities and public assembly facilities.

6.5.4 Residential building reports. Continue to utilize Residential Building Reports to identify hazards for potential home buyers.

6.5.5 Right of way. Require and maintain setbacks, easements and accesses necessary to ensure that emergency services can readily and efficiently function with available equipment

DRAFT

6.5.6 Fire sprinklers. Encourage owners of non-sprinklered properties in wild land interface areas and fire hazard severity zones to retrofit their building and include internal fire sprinklers.

6.5.7 Building materials. Provide the public with guidance on the specification of building materials that help prevent loss from accidents and disasters.

6.5.8 Vegetation management program. Maintain and fund vegetation management programs and continue to use the development review process to facilitate vegetation management practices.

6.5.9 Grading and site improvements. Ensure that all grading and site improvements and structures minimize geotechnical, seismic and flood hazards.

6.5.10 Building and construction codes. Continue to follow state guidelines that require seismic, geologic and structural considerations and measures to reduce structure risk through building and construction codes.

6.5.11 Emergency access. Ensure that new development provides for emergency vehicle access and fire-flow water supply in accordance with applicable fire safety regulations and on a fair-share basis.

6.5.12 Coordination. Continue to work closely with nearby public safety and emergency management agencies to develop and maintain mutual support plans, programs and coordinate emergency management procedures such mutual aid agreements.

DRAFT