

CHAPTER 10 - ENVIRONMENT					
#	Page	Section/Policy	Proposed Amendment	Sponsor	Meeting
1	10-1	Introduction	<p>Introduction</p> <p>Each person in Whatcom County has a fundamental right to a healthyful and safe environment in which to live and grow. In addition, the Nooksack Tribe and Lummi Nation have treaty rights that include taking fish, and hunting and gathering, at usual and accustomed grounds. With these rights comes a responsibility to contribute to the protection, conservation, and enhancement of our natural environment. Consequently, an important goal of the Whatcom County Comprehensive Plan is to protect or enhance the county's environmental quality. This means that, individually and collectively, we have the obligation to protect these resources for <u>future generations</u> our children and their children. Essential to this is the <u>establishing</u> ment of safe development practices and patterns that do not <u>diminish the functions and values of existing critical areas and</u> significantly disrupt ecosystems and that ensure the continuation of ample amounts of clean water, natural areas, farmlands, forest lands, and fish and wildlife habitat. <u>Development practices and patterns should also allow for mitigated development and encourage voluntary actions that promote active restoration of ecological function and net ecological gain. It is also important to plan for sea level rise, changing ocean conditions, storm surges, and floods by preparing for impacts to coastal residential communities, marine fisheries, shellfish beds, coastal infrastructure, and recreation areas.</u></p>	Galloway	
2	10-1	Purpose	<p>Purpose</p> <p>Whatcom County's natural environment, with its <u>seasonally</u> abundant supply of water, timber, minerals, fish and wildlife, its beauty, and its other natural resources, has attracted people to our community for millennia. This setting is important to our sense of well-being, to our health, to our economic well-being, and to our future. Sustaining these assets in the face of increasingly intense human activity becomes more difficult each year. As resource-scarce and climate impacted regions within our county, state and nation face growing challenges, we must plan for increased pressures to sustain our natural assets and balance growth and resource use responsibly. The challenge of protecting <u>and restoring</u> the environment while accommodating growth requires maintaining guidelines for development so that growth does not ultimately overrun the very natural <u>assets</u> that brought most of us here. The purpose of this chapter is to create such <u>balance and</u> guidelines.</p>	Galloway	

3	10-2	GMA Goals and Countywide Planning Policies	<p>Relative to environmental protection, Whatcom County's Countywide Planning Policies (CWPP) give the most attention to water issues. They state, "<u>Jurisdictions shall cooperate to protect and restore water resources and fish habitat within UGAs and across jurisdictional boundaries to maintain quality of life, economic health, and protect treaty natural resources in Whatcom County</u>The quality of life and economic health of Whatcom County communities depend on the maintenance of a safe and reliable water supply. All jurisdictions and water purveyors should cooperate to ensure the protection and quality of the area's water resources." Specific policies address water, promoting inter-jurisdictional cooperation in conserving, protecting, and managing water resources, and in reducing water pollution (CWPP Policies N.1 – 6). The CWPPs also support protecting wildlife habitat and corridors, natural drainage features, and "other environmental, cultural and scenic resources."</p>	Galloway	
4	10-6	Issues, Goals, and Policies	<p>Issues, Goals, and Policies</p> <p>There are designated lands in Whatcom County that can still accommodate development. Whatcom County also has areas that are sensitive to human activity, including wetlands, streams, lakes, and marine shorelines, and lands that can pose a hazard to the community, including floodplains, unstable slopes, naturally occurring asbestos and alluvial fans. In these areas development must be carefully planned or limited to maintain environmental quality and public safety. This can be done through the creation and implementation of goals and <u>identify</u> policies that seek to reduce hazards and prevent adverse environmental impacts.</p>	Galloway	
5	10-6	Community and Environmental Protection	<p>Community and Environmental Protection</p> <p>...</p> <p>Some of these same resources result in serious environmental constraints or pose a hazard to development and a danger to the community. <u>Flooding in the Nooksack River and along the County's marine coastlines is frequently floods, and impacts</u> much of the valley floor, <u>so too is much of county's marine coastline</u>. There are numerous wetlands and hydric soils throughout the lowlands that provide critical wetland functions and are generally unsuitable for development. The steep gradient and geologic structure of the mountain ranges in conjunction with heavy annual precipitation can contribute to slope instability (i.e. landslides), sediment-laden flood events on alluvial fans, and flooding of streams and the floodplains of the Nooksack and Sumas Rivers.</p> <p>Much of the environmental degradation and destruction to property occurs as a result of a lack of information or understanding rather than willful action. Ecosystems are subtle and complex. Too often both their benefits and hazards are not readily apparent to the community. Additionally, baseline information is not always available to help identify the real costs or hazards of building in Whatcom County. There is a need for further research, <u>and</u></p>	Galloway	

			education, <u>and disclosure</u> to enhance the public understanding of the natural <u>and climate</u> hazards present and the risks they pose.		
6	10-7	Policy 10A-2	Protect the environment through a comprehensive program that includes voluntary activity, education, incentives, regulation, enforcement, restoration, monitoring, acquisition, mitigation, and intergovernmental coordination. <u>Ensure sustain funding and staffing resources to support the successful implementation of these strategies.</u>	Galloway	
7	10-7	Policy 10A-8	Lead and/or coordinate efforts with property owners, <u>citizen-community</u> groups, businesses and <u>local, state, federal, and tribal</u> governments, sal (local, state, tribal, and federal), , including tribal, and non-governmental agencies in furthering Whatcom County's environmental goals and policies.	Galloway	
8	10-7	Policy 10A-11	Define and adopt criteria for the Conservation Futures Fund and other county programs that will support <u>actively pursuing opportunities for</u> acquisition, conservation easements, open space, and other such programs to protect and provide restoration opportunities to high-value natural areas as identified through the GMA planning process, the Natural Heritage Plan, the state Priority Habitats and Species (PHS) program, the Lake Whatcom Management Program, WRIA 1 Salmon Recovery Plan, and other sources.	Galloway	
9	10-8	Administration and Regulation	Administration and Regulation There are currently a multitude of regulations and administrative processes at the federal, state and local level that, together, have become <u>excessive and/or</u> difficult to understand <u>and implement</u> . Conflicting regulations and complicated administrative processes can create undue hardship on community members and result in reduced levels of environmental protection.	Galloway	
10	10-8	NEW Policy 10B-7	<u>Policy 10B-7: Establish a regulatory backstop to support and incentivize voluntary stewardship, conservation, and restoration and to ensure compliance in an effort to avoid regulatory consequences. Such a regulatory approach would come into effect if voluntary programs are not achieving environmental and restoration goals.</u> * Re-number subsequent policies	Galloway	
11	10-9	Policy 10B-10 (renumbered to 10B-11)	Encourage net ecological gain through <u>public and privately non-taxpayer</u> funded incentives <u>and policy options</u> such as regulatory flexibility provided in proportion to the degree the project exceeds the minimum protective or mitigation requirements of the WCC.	Galloway	

12	10-9	NEW Policy 10B-11 (renumbered to 10B-12)	<u>Policy 10B-11: Ensure sustain funding and staffing resources to support the successful implementation and enforcement of regulatory policies.</u>	Galloway	
13	10-9	The Environment and Property Rights	<p>The Environment and Property Rights</p> <p>Prior to the 1970s, growth in Whatcom County was relatively slow and received little management. As a result, private property owners were left to their own resources as they determined how best to use their land. However, as increasing numbers of people moved to this area and settled, a greater demand was placed on Whatcom County's natural resources.</p> <p>The problems that arise from this situation have caused many to realize what one person <u>may or may not</u> does with <u>his/her their</u> property may have an impact on the larger environmental system that sustains us as a community and on the rights of other property owners.</p> <p>Land use decisions can no <u>longer</u> be considered exclusively private matters. We are aware <u>Public actions inevitably</u> impact every private citizen resident in Whatcom County and private actions may have public consequences as well. To that end, the law must protect the public good from detrimental private actions. Nevertheless, the right of the individual to use <u>his or her their</u> property, within the bounds permitted by law, is a value supported by law and the community and must be recognized when making land use decisions.</p>	Galloway	
14	10-9	Goal 10C	In implementing environmental policies, provide for protection of <u>consider possible impact to</u> private property rights, incorporate environmental justice, economic opportunities, and plan appropriately for growth.	Galloway	
15	10-9	Policy 10C-2	When adopting new environmental protection programs, consider multiple economic parameters including development objectives (particularly the critical need for housing) , impacts, and the economic benefits of the natural environment as a resource, an amenity, and a Treaty protected resource	Galloway	
16	10-10	Policy 10C-6	Ensure that environmental permitting and development regulations by the County are <u>rigorous enough to minimize and mitigate against impact on natural environments while being</u> applied in a manner that facilitates housing construction consistent with RCW 36.70A.020(4). <i>"To plan for and accommodate housing affordable to all economic segments of the population of this state, promote a variety of residential densities and housing types, and encourage preservation of existing housing stock."</i>	Galloway	
17	10-10	NEW Policy 10C-7	<u>Policy 10C-7: Support the blue-green, marine, and maritime economy, such as fisheries, boat building, and maritime technology industries, while balancing protection of the marine environment and resources such industry depends upon. Support a sustainable working</u>	Galloway MRC	

			<u>waterfront in collaboration with the Port of Bellingham, Working Waterfront Coalition, and other relevant stakeholders. Address and mitigate against any potential ecological risks associated with industrial activities.</u>		
18	10-13	Natural Hazards	<p>Natural <u>and Climate</u> Hazards</p> <p>Introduction</p> <p>The location, climate, and geology of Whatcom County combine to create many natural <u>and climate</u> hazards to people and their <u>property developments</u>. Earthquakes, volcanoes, landslides, <u>and</u>-flooding, <u>sea level rise, droughts, and wildfires</u> are some of the major natural <u>and climate</u> hazards found in our region. Additionally, old mines are scattered around the county that could be dangerous to the community. Natural <u>and climate</u> Hazards goals and policies are intended to provide guidance to county government as it assists its <u>citizens residents</u> in effectively managing risks from natural <u>and climate</u> hazards in a manner that minimizes the danger to each member of this community, while continuing to provide for economic opportunities.</p>	Galloway	
19	10-19	Issues, Goals, and Policies	<p>Wildland Fire Hazards – Should a large wildland or wildland-urban interface fire occur in Whatcom County, the effects of such an event would not be limited to loss of property, valuable timber, wildlife and habitat, or recreational areas. The loss of large amounts of timber on steep slopes would increase the risk of landslides and mudslides during the winter months and the depositing of large amounts of mud and debris in streams and river channels could threaten valuable fish habitat for many years. In addition, the loss of timber would severely impact the watershed of the Nooksack River and could drastically increase the vulnerability to flooding for many years. <u>A fire in the Lake Whatcom watershed could also threaten the drinking water source for over 120,000 residents in Whatcom County.</u></p>	Galloway	
20	10-20	Goal 10E	<p>Minimize potential loss of life, damage to property, the expenditure of public funds, and degradation of ecosystems resulting from development in hazardous areas <u>prone to such as floodingplains, sea level rise, landslides-prone areas, wildfires, seismic hazards-areas, volcanic impacts -areas, as well as</u> abandoned mine and exploratory gas well locations, potentially dangerous alluvial fans, and other known natural hazards by advocating the use of land acquisition, open space taxation, conservation easements, growth planning, regulations, and other options to discourage or minimize development, or prohibit inappropriate development in such areas.</p>	Galloway	
21	10-20	Policy 10E-1	<p>Avoid or minimize public investments for future infrastructure development on known natural <u>and climate</u> hazard areas. <u>Identify opportunities and further develop capacity to encourage strategies such as</u> relocation of existing <u>development and</u> infrastructure outside of known</p>	Galloway	

			hazards areas, and restrict future development on <u>known current and future natural and climate</u> hazard areas.		
22	10-20	Policy 10E-2	Use Best Available Science to research and investigate the nature and extent of known natural <u>and climate</u> hazards in the county and make this information available to the general public and policy makers in an accessible and understandable form.	Galloway	
23	10-20	Policy 10E-3	Broadly inform the people of Whatcom County of the locations of known natural <u>and climate</u> hazards and the potential for adverse impacts of such hazards to the health, safety, and welfare of people and their properties.	Galloway	
24	10-21	Policy 10E-8	Use land use and zoning designations and purchase or transfer of development rights to direct development away from <u>locations at risk of current and future natural and climate hazards such as floodplains, sea level rise, wildfire, unstable slopes, etc.</u>	Galloway	
25	10-22	NEW Policy 10E-16	<u>Adopt National Fire Protection Association wildfire safety construction standards for new construction in forested and wildfire hazard areas to reduce risk to current and future development and loss of life and property.</u>	Galloway	
26	10-22	NEW Policy 10E-17	<u>Support increasing capacity of programs like Firewise to facilitate voluntary retrofitting and hardening of existing homes, businesses, and other infrastructure consistent with best practices for Western Washington conditions.</u>	Galloway	
27	10-24	NEW Section	<p>After Background and before Whatcom County Water Resource Programs</p> <p><u>Water Quality and Quantity</u></p> <p><u>Water is essential to every aspect of life and thus is managed carefully. Whatcom County, in the past 25 years, has made tremendous progress towards improvement of water quality and in the protection and recovery of aquatic resources. In 2009, the Lighthouse Point Water Reclamation Facility in Blaine significantly reduced wastewater loading to Drayton Harbor. Agricultural runoff has been significantly reduced by ongoing outreach efforts to assist the agricultural community in implementing best practices to control nutrient runoff and protect riparian habitat. Improvements in stormwater infrastructure and enforcement have also reduced the impacts of nonpoint pollution. Extensive water quality monitoring of freshwater and marine water bodies in the county has shown this improvement, and has highlighted where additional efforts need to be focused. All of these efforts have been expended at great cost. Unfortunately, recent trends in monitoring show that these improvements of the past may be at risk. All the efforts to protect and restore water quality and aquatic resources could be undone by the threats of aging or inadequate sewer and stormwater infrastructure,</u></p>	Galloway MRC	

			<u>population growth in environmentally sensitive areas, and the effects of climate change on precipitation, flooding, elevated water temperature, and coastal sea level rise.</u>		
28	10-24	WRIA 1 Watershed Management Project	<p>WRIA 1 Watershed Management Project</p> <p>Watershed planning was formally initiated in Whatcom County when the Water Resource Inventory Area (WRIA 1) Watershed Management Project was developed under the 1998 Washington State Watershed Management Act. The goal of the project was to address water quantity, water quality, instream flows, and fish habitat to meet human needs, restore fish populations, and improve habitat through the development of a watershed management plan. The WRIA 1 Watershed Management Project brought together <u>citizens community members</u>, local governments, tribes, and state and federal agencies, <u>and other stakeholders</u> to address these issues.</p>	Galloway	
29	10-32	Lake Whatcom Watershed Management	<p>Lake Whatcom Watershed Management</p> <p>...In 2013 <u>The Department of Ecology published</u> "Lake Whatcom Watershed Total Phosphorus and Bacteria Total Maximum Daily Loads: Volume 2, Water Quality Improvement Report and Implementation Strategy." This report identifies how much phosphorus can be discharged to the Lake and identifies how the bacteria load should be allocated between the County and City of Bellingham in order to meet water quality standards. The U.S. Environmental Protection Agency adopted the Lake Whatcom TMDL in 2016.</p> <p>A significant cause of declining oxygen levels has been from residential development, <u>forest management, and recreation</u> in the watershed. Past development has led to increased phosphorus loading into the lake, which stimulates algae growth. Bacteria that consume the dying algae deplete the dissolved oxygen, leading to lower oxygen levels. Past forest practices may have <u>also</u> led to significant increases in phosphorus loading to the lake.</p> <p>Whatcom County has taken a number of actions to reduce phosphorus and otherwise address Lake Whatcom water quality <u>through the Lake Whatcom Management Program</u>. These include rezoning land to allow less development in the watershed, adoption of the Lake Whatcom Comprehensive Stormwater Management Plan, revising stormwater management standards for private development to significantly reduce potential phosphorus runoff, construction of stormwater capital improvement projects and adoption of regulations that restrict the application of commercial fertilizers.</p> <p><u>In 2004, the Department of Natural Resources' (DNR) Board of Natural Resources adopted the Lake Whatcom Landscape Plan. This plan provides additional protections on remaining state managed lands within the Lake Whatcom watershed. The plan provides additional protections on streams and potentially unstable slopes not normally included in forest practices in</u></p>	Galloway	

			<u>Washington State. While still in effect, the Landscape Plan has not been updated since its initial drafting and would benefit from an update using best available science and integration of climate change impacts.</u>		
30	10-38	Stormwater Management	Stormwater runoff occurs when precipitation from rain or snowmelt flows over the land surface. The addition of roads, driveways, parking lots, rooftops, and other surfaces that prevent water from soaking into the ground greatly increases the runoff volume created during storms. This runoff is swiftly carried to our local streams, lakes, wetlands and rivers and can cause flooding and erosion. Stormwater runoff also picks up and carries with it many different pollutants that are found on paved surfaces, such as sediment, nitrogen, phosphorus, bacteria, oil and grease, microplastics, tire dust including 6PPD-quinone, trash, pesticides, and metals. <u>Pollutants from road runoff, especially in urban and high traffic areas, such as tire wear particles including 6PPD-q are toxic and lethal to salmon and other aquatic species and should be managed and mitigated appropriately.</u>	Galloway MRC	
31	10-43	Policy 10F-5	Support and facilitate the management of water resources for multiple instream and out-of-stream beneficial uses by coordinating with state and local agencies, tribal governments, and water management entities. While not serving as a direct water manager, Whatcom County will actively support water management efforts by providing regulatory oversight, facilitating stakeholder collaboration, and contributing technical and financial resources where appropriate. Implementation will include organizing regular coordination meetings, developing frameworks for information-sharing across agencies, and ensuring that county land-use and environmental policies align with regional water conservation <u>and development goals. while supporting the construction of new housing throughout the County.</u>	Galloway	
32	10-43	NEW Policy 10F-6	<u>Policy 10F-6: Require the use of low-impact sustainable development strategies to ensure water quality and quantity. Strategies may include installing water catchment systems.</u> * Re-number subsequent policies	Galloway MRC	
33	10-46	Policy 10G-8	Monitor, prevent, and reduce the establishment of invasive species in Whatcom County waterbodies. <u>Work across jurisdictions to implement the Aquatic Invasive Species program and enforce and penalize noncompliance.</u>	Galloway	
34	10-46	Policy 10G-9	Maintain a publicly available inventory of wellhead protection areas and Critical Aquifer Recharge Areas and protect them through the Critical Areas <u>regulations.</u>	Galloway	
35	10-46	Policy 10H-2	Maintain or enhance, when appropriate, natural drainage systems and natural water storage sites in order to better protect water quality, moderate water quantity, minimize environmental degradation, and reduce public costs. <u>Utilize bioengineered stormwater</u>	Galloway MRC	

			<u>solutions and vegetative buffers, update obsolete infrastructure, and implement overflow stormwater catchments county-wide.</u>		
36	10-46	Policy 10H-8	<u>Create incentives for Require</u> the use of low-impact <u>sustainable</u> development strategies <u>to ensure increased development does not lead to increased impermeable services and increased stormwater runoff.</u> Minimize the amount of impervious surface whenever <u>practicable</u> by using natural engineering design methods such as the use of open, grassed, street swales and rain gardens instead of curbs and gutters <u>and vegetative buffers to reduce harmful stormwater runoff.</u> Where feasible, encourage alternate surfacing options and other techniques associated with Low Impact Development.	Galloway MRC	
37	10-47	Policy 10H-10	Continue to administer the critical areas regulations and incentives to <u>encourage achieve a net gain no net loss</u> of ecological functions and values of regulated wetlands and fish and wildlife habitats. Restoration efforts and proactive enhancements will be prioritized to support water quality improvements, habitat connectivity, and resilience against climate impacts.	Galloway	
38	10-48	Policy 10H-12	Continue to develop and implement comprehensive stormwater management programs and strategies designed to address runoff from all private and public developments and facilities within regulated and sensitive watersheds. ... 5. Focus on the Lake Whatcom watershed as a high priority in developing a stormwater management program, <u>including inspections of private stormwater systems.</u> Develop a stormwater management plan that achieves a uniform level of protection throughout the Lake Whatcom watershed. Ensure coordination and communication with the public and affected jurisdictions, such as the Lake Whatcom Water and Sewer District, the Sudden Valley Community Association, and the City of Bellingham.	Galloway	
39	10-46	NEW Policy 10H-13	<u>Policy 10H-13: Develop cooperative relationships with institutions with technical experience in toxics monitoring such as the NW Indian College, WWU, and non-governmental organizations to help monitor surface water and other possible sources of toxic pollution. Monitor stormwater discharge and septic systems along marine shorelines and within watersheds to prevent declines in water quality.</u> * Re-number subsequent policies	Galloway MRC	
40	10-49	Policy 10I-5	Policy 10I-5: <u>Require water users and purveyors to quantify water use and make the data publicly available to promote conservation.</u>	Galloway	

41	10-50	NEW Policy 10J-9	<u>Policy 10J-9: Update County phosphorus neutral development code in the Lake Whatcom watershed, with a goal of meeting or exceeding the standards set by the corresponding City of Bellingham policies.</u>	Galloway	
42	10-50	NEW Policy 10J-10	<u>Policy 10J-10: Ensure efficacy of BMPs designed to minimize development impacts within the Lake Whatcom watershed through regular monitoring and inspections of public and private stormwater systems.</u> * Re-number subsequent policies	Galloway	
43	10-50	Policy 10J-9 (renumbered to 10J-11)	<u>Support acquisition and retention of Work to keep publicly-owned forest lands within the Lake Whatcom watershed in public ownership, and support managing forestry on these lands consistent with the Lake Whatcom Forest Management Plan and</u> in a manner that minimizes sediment and phosphorus yields from streams, and is consistent with Best Available Science (BAS) data, in order to protect and enhance water quality.	Galloway	
44	10-52/53	Salmon Recovery Program	In the Nooksack basin, several salmonid stocks have diminished substantially from historical levels. The declines in local salmonid stocks, especially Chinook salmon, have had profound economic, cultural, and social impacts on the greater WRIA 1 community. Direct impacts include reduced jobs and income for commercial fisherman, elimination or severe curtailment of tribal and subsistence catch, and loss of recreational fishing opportunity for the community and visitors alike. In addition, ESA listings impose constraints on the activities of local and tribal governments, businesses, the agricultural community, and <u>the public, all of whom</u> must seek to avoid or minimize <u>the</u> take of listed species as well as limiting fishing opportunities as far away as southeast Alaska <u>in order</u> to protect these weak stocks. Nonetheless, salmon remain an integral part of the natural, cultural and social landscape of Whatcom County and the Nooksack River Watershed. <u>W</u> atershed recovery planning and restoration efforts by federal, state, local, and tribal governments, non-profit organizations, businesses, and private citizens <u>individuals</u> demonstrate a commitment to salmon recovery in WRIA 1. The WRIA 1 Salmon Recovery Program <u>is</u> coordinated through the WRIA 1 Watershed Management Board with a WRIA-wide scope to address salmon recovery and protection of ESA and non-ESA listed salmonids.	Galloway	
45	10-54	WRIA 1 Watershed Management Board (WMB)	The WRIA 1 Salmonid Recovery Plan (2005), a chapter of the Puget Sound Salmon Recovery Plan, guides restoration in the Nooksack River and adjacent watersheds. This plan was developed in partnership with Nooksack Tribe, Lummi Nation, Washington Department of Fish and Wildlife, Bellingham, Whatcom County Government, the small cities of Whatcom County, and a <u>citizen-community</u> advisory committee. Chinook salmon populations (listed as threatened with extinction under the Federal Endangered Species Act) are prioritized, yet the plan also provides the template for recovery of threatened steelhead and bull trout and the	Galloway	

			<p>other salmon and trout populations native to Whatcom County. Data collection and updates to plan sections are ongoing since initial plan adoption and guide adaptive management of restoration project identification, implementation and effectiveness monitoring. The 2005 plan is being updated and will be completed in 2025 along with an updated 10-year implementation strategy.</p> <p>Salmon habitat is intricately linked to watershed management; salmon recovery will be most successful when fish habitat objectives are carefully coordinated with watershed management objectives. Whatcom County's responsibilities in implementing the salmon recovery plan are focused in 3 primary areas: integrated floodplain management (integrate salmon recovery into flood hazard management) through the FLIP planning process, restoring fish passage under County roads consistent with the Whatcom County Culvert MOA, and managing land use through regulations and planning. Monitoring and adaptively managing work in these areas, in coordination with the WRIA 1 Watershed Management Board, is important to ensure effectiveness.</p>		
46	10-55	Shellfish Recovery	<p>Each shellfish protection district has a citizencommunity advisory committee who provides recommendations to County Council on actions and operations relating to the restoration of water quality in their respective watersheds. Shellfish Recovery Plans for each district outline the primary sources of bacteria and recommended actions to improve water quality.</p>	Galloway	
47	10-57	<p>Issues, Goals, and Policies</p> <p>General – Ecosystems</p>	<p>Many stream systems in Whatcom County have been altered by agriculture, forestry, development, and flood control practices, contributing to low stream flows, fisheries loss, water pollution, sedimentation and other problems. These impacts can directly affect the fish resources by depositing silt and debris into spawning beds by removing trees that shade and cool the water, loss of native bank cover through bank armoring that in turn interferes with the recruitment and establishment of large instreamwoody debris (LWD) instream, obstructing fish passage with culverts, roads and levees, altering natural channels through filling, bank hardening, and channelizing. In addition, the physical processes that create functional habitats for fish life stages are altered by increasing flows through stormwater runoff or consuming water volume for out-of-stream uses.</p>	Galloway	
48	10-58	Policy 10K-6	<p>ConsiderPrioritize sensitive fish, shellfish, and wildlife species and their habitats when establishing zoning densities and patterns.</p>	Galloway MRC	
49	10-58	Policy 10K-8	<p>Discourage development within and adjacent to critical areas <u>and along shorelines that support feeder bluffs or impact shoreline processes. Give careful consideration to the siting of industrial, commercial, residential, and other land use designations when located near important marine, terrestrial, or other critical habitats. Ensure development does not degrade</u></p>	Galloway MRC	

			<u>water quality and aquatic resources, while also considering the cumulative impacts of development.</u>		
50	10-58	NEW Policy 10K-9	<u>Policy 10K-9: Reevaluate and strengthen the SEPA cumulative impacts analysis, especially when considering the impacts of multiple developments along the same shoreline.</u> * Re-number subsequent policies	Galloway MRC	
51	10-58	Policy 10K-12 (renumbered to 10K-13)	Ensure the design and development of land avoids or minimizes disturbance to <u>marine shorelines</u> , rivers, streams, floodplains, and functioning riparian areas <u>to preserve their natural function, processes, and ecosystem benefits.</u>	Galloway MRC	
52	10-59	Goal 10L:	Protect and enhance ecosystems that support native fish and wildlife populations and habitat. <u>Provide sufficient funding and support to be successful.</u>	Galloway MRC	
53	10-59	Policy 10L-2	Support the protection and enhancement of significant fish spawning and rearing habitat, food resources, refugia (shelter), and longitudinal and lateral connectivity of habitats in riverine, estuary nearshore environments, <u>fish migratory corridors along marine shorelines, and eelgrass and kelp beds.</u>	Galloway MRC	
54	10-60	Policy 10L-5	Native vegetation and soils on streambanks and shorelines should <u>not</u> be disturbed <u>as little as possible</u> . In situations where re-vegetation is necessary to <u>mitigate and</u> restore streambank or shoreline stability and provide shading, site-specific native plants should be used. Retention of vegetated riparian areas on all lake and marine shorelines shall also be required.	Galloway MRC	
55	10-60	Policy 10L-6	Shoreline armoring falls under the Shoreline Management Program and is only allowed in very limited circumstances. <u>Restrict new hard armoring and require soft shore techniques or other less impactful solutions for new development and when armor is degraded and in need of replacement.</u> Use resources such as the Shore Friendly Program (shorefriendly.org) that provide guidance on options for protection shoreline properties while promoting healthy shorelines along with requiring setbacks from the shoreline and natural or bio-engineering solutions such as planting native vegetation, engineered log jams/LWD, wing dams, and beach nourishment along eroding banks to address stream and shoreline bank erosion problems. Riparian buffers should be replanted with suitable native vegetation as a part of all bank stabilization projects.	Galloway MRC	
56	10-60	NEW Policy 10L-7	<u>Policy 10L-7: Update mapping of shoreline armoring and create a formal process for determining permit compliance.</u>	Galloway MRC	

57	10-60	NEW Policy 10L-8	<p><u>Policy 10L-8: Ensure that amendments to the Shoreline Master Program and Critical Areas Ordinances protect marine shorelines. Reduce existing shoreline armoring, prevent expansion that would impact forage fish spawning and salmonid migratory pathways, and seek ways to re-establish or widen intertidal corridors for migrating juvenile salmon that have been lost due to shoreline armoring.</u></p> <p>* Re-number subsequent policies</p>	Galloway MRC	
58	10-60/61	Policy 10L-11 (renumbered to 10L-13)	<p>Subject to adequate funding and staffing resources, formulate, implement and <u>maintain</u> a comprehensive, landscape-based, environmental management program to protect fish and wildlife. The program should include the following:</p> <ol style="list-style-type: none"> 1. Formulate an administrative approach to the review of development and planning proposals that consider natural system policies; 2. Investigate, develop, and seek funding for the acquisition and restoration of important fish and wildlife habitat areas; 3. Develop and enter into cooperative agreements with <u>cities, State, and Federal, and Tribal</u> agencies and neighboring jurisdictions, <u>including jurisdictions in British Columbia</u>, to identify and protect ecosystems; 4. Identify and map important habitat corridors and connectivity throughout the county; and, 5. Support the development of educational materials list, describe, and characterize the appropriate use of native vegetation to enhance ecosystem functions in Whatcom County. 	Galloway	
59	10-61	Policy 10L-12 (renumbered to 10L-14)	<p>In coordination with FLIP, consider establishing formal channel migration zones for the Nooksack River, precluding additional development within these zones, actively pursue voluntary acquisitions to promote flood risk reduction and riverine and marine shoreline restoration. <u>Ensure any levee setbacks provide more flood storage and improve natural river processes and meandering, riparian buffers, and salmon habitat.</u></p>	Galloway MRC	
60	10-61	NEW Policy 10L-15	<p><u>Policy 10L-15: During and after emergency flood repairs, ensure that any repair is fully mitigated to reduce impacts to salmon habitat.</u></p> <p>* Re-number subsequent policies</p>	Galloway MRC	
61	10-62	Wetlands	<p>Wetlands</p> <p>Wetlands are crucial environmental features in Whatcom County. Wetlands provide invaluable functions in aquifer recharge, groundwater storage, floodwater detention,</p>	Galloway	

			<p>pollutant removal and purification of water supplies, as well as provision of fish and wildlife habitat. Loss of wetlands has been due to many factors, including urbanization, agricultural development, and drainage projects.</p> <p>A plethora of complex and often confusing laws govern the definition, delineation, and protection of wetlands. These laws originate at national, state, and county levels. Land managers and private citizens<u>community members</u> often experience difficulty in interpreting, synthesizing, and applying wetland regulations. In general, however, state regulations must comply with federal standards and local regulations must comply with both federal and state standards.</p>		
62	10-62	Policy 10M-3	Biological functions of wetlands are complex and interwoven. In making land use decisions that impact wetlands, <u>evaluate</u> the full range of potential and immediate economic -impacts including fisheries, wildlife, recreation, farmlands, sustainable resources, air and water quality, flood hazard management, real estate, cultural attributes, and other uses.	Galloway	
63	10-63	Policy 10M-8	Create county owned wetland <u>mitigation</u> banks that sells credits to both private and public entities, with enough credit capacity for the 20-year planning period. <u>Support effective mitigation banking to assist in habitat mitigation for wetland, riparian, and nearshore habitats throughout Whatcom County. Ensure mitigation is conservative, effective, and monitored.</u>	Galloway MRC	
64	10-57	Goal 10N	Protect and enhance marine ecosystems and resources in Whatcom County. <u>Provide sufficient funding and support to be successful.</u>	Galloway	
65	10-64	NEW Policy 10N-2	<p><u>Policy 10N-2: Incorporate Whatcom County Marine Resources Committee’s projects and data collection in county planning processes. Projects and data include: kelp and eelgrass monitoring, forage fish monitoring, Olympia oyster restoration, water quality monitoring, harmful algal bloom monitoring, beach cleanups, mussel watch, and European green crab monitoring.</u></p> <p>* Re-number subsequent policy</p>	Galloway MRC	
66	10-64	NEW Policy 10N-4	<u>Policy 10N-4: Conserve kelp and eelgrass as critical marine resources, recognizing their importance in providing diverse and productive ecosystems, contribute to carbon and nutrient sequestration, and help protect and stabilize coastal environments. Ensure any potential commercial opportunities are pursued responsibly.</u>	Galloway MRC	
67	10-64	NEW Policy 10N-5	<u>Policy 10N-5: Prioritize mapping Whatcom County eelgrass and kelp beds to establish a baseline dataset, and add this data to statewide maps used in planning and development.</u>	Galloway MRC	

68	10-64	NEW Policy 10N-6	<u>Policy 10N-6: Protect shoreline access points so that recreational access does not negatively impact marine resources, with special considerations for eelgrass and kelp beds.</u>	Galloway MRC	
69	10-64	NEW Policy 10N-7	<u>Policy 10N-7: Monitor current trends for population growth, aging infrastructure, decreasing water quality, and climate change, and how these factors impact the state of marine resources and reduced populations of salmon, forage fish, kelp, and eelgrass, Measure county progress towards restoration.</u>	Galloway MRC	
70	10-64	NEW Policy 10N-8	<u>Policy 10N-8: Address the issue of derelict vessels and change the current language in code to hold owners more accountable. Ensure that resources are available to fund established policies designed to address this issue.</u>	Galloway MRC	
71	10-64	NEW Policy 10N-9	<u>Policy 10N-9: Provide adequate toxicity testing of crab and bottomfish that dwell in areas of contaminated sediments to demonstrate that public health is protected. Determine mercury levels in edible tissues of juvenile Dungeness crab collected from Whatcom Waterway and create realistic models of consumption for populations and age groups most at risk.</u>	Galloway MRC	
72	10-65	Policy 10P-11	Work within the structure of local programs such as the WRIA 1 Watershed Management Planning process to achieve improvements in land use Best Management Practices <u>and using best available science</u> that will positively affect change in marine water quality.	Galloway	
73	10-65/66	Other Marine and Marine Dependent Organisms and Systems	Retain, amend, and move to the end of the chapter (to keep all the 10P policies together) Other Marine and Marine Dependent Organisms and Systems Our Marine system supports not only local, critical, and global fisheries resources, but also a myriad of <u>important</u> interdependent organisms, the importance of which we lack the capacity to fully grasp . The Marine ecosystem is a complex web of life that is increasingly affected by anthropogenic impacts. Toxics, hormones, heavy metals, and other harmful substances flushed into nearshore and marine environments with stormwater have been shown to have deleterious cumulative impacts on a range of aquatic and marine dependent organisms. Whatcom County will not take steps to halt the practice of treating its streams and rivers as a storm sewer and the marine system as a water treatment facility.	Galloway	
74	10-18	Naturally Occurring Asbestos	Naturally occurring asbestos (NOA) is the common name for a group of fibrous silicate minerals that occur naturally in some rocks. It has been documented in some areas of Whatcom County. The most well-known location is the Sumas Mountain landslide zone in the Swift Creek watershed. Asbestos fibers can cause health problems if inhaled, including lung disease <u>and various cancers; especially at risk are children, the elderly, and tobacco smokers</u> . If rock containing naturally occurring asbestos is left intact and undisturbed, risk of	Galloway	

			human exposure is low. However, NOA fibers can be released to the environment if the rock that contains it is broken or crushed. When NOA is disturbed, the risk of human exposure to asbestos fibers increases.		
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