

Environmentally Sensitive Areas Development Permit Area



2. Environmentally Sensitive Areas (ESA DPA)

7. PURPOSE

The Environmentally Sensitive Areas Development Permit Area (ESA DPA) is designated under Section 488(1)(a) of the Local Government Act for the protection of the natural environment, its ecosystems, features, and biological diversity.

8. AREA

The Environmentally Sensitive Areas Development Permit Area is shown on *Map C-2*. There are three applicable areas in this DPA: Freshwater and Riparian Areas, Marine Shoreline and Eelgrass Beds, and Terrestrial Ecosystems.

9. JUSTIFICATION

The Town of Gibsons is situated within the UNESCO-designated Átl'ka7tsem/Howe Sound Biosphere Region, which is rich in both geographic and biological diversity. The ecosystems in Gibsons are interconnected, providing habitat, water, and food resources that support healthy communities of plants and wildlife. The purpose of the Development Permit Area designation is to safeguard these environmentally sensitive areas from land development. The three Environmentally Sensitive Areas (ESAs) that make up this Development Permit Area are classified into the following categories.

- Freshwater and Riparian Areas
- Marine Shoreline and Eelgrass Beds
- Terrestrial Ecosystems

The objectives of each ESA category in this Development Permit Area is:

- **Freshwater and Riparian Areas:** to provide shade to watercourses, stabilize watercourse banks to prevent erosion, support nutrient inputs into the watercourse to support riparian habitat
- **Marine Shoreline and Eelgrass Beds:** to protect the diverse ecosystems in this area, which include rock outcrops, coastal bluffs, intertidal marshes, estuaries, and eelgrass beds.
- **Terrestrial Ecosystems:** to protect environmentally sensitive areas in the dry upland forests, moist and rich ravines, and rocky outcrops.

3.1 Freshwater & Riparian Areas

The freshwater and riparian areas ESA is measured as 30 metres back from the stream's top of bank or the stream's high water mark, if no top of bank exists.

Riparian areas are terrestrial ecosystems that are directly adjacent to streams, lakes, and wetlands. They are a zone of transition between aquatic and terrestrial habitats that are moist and rich, supporting a high diversity of trees, ground vegetation, and animals. Riparian areas, including Charman Creek, Chaster

Creek, Gibson Creek, and Goosebird Creek, among others, play a crucial role in contributing to the health of watercourses. A healthy riparian area provides shade to watercourses which is critical for maintaining water at a cool and livable temperature for aquatic life. As trees grow, their roots help stabilize watercourse banks and reduce erosion while also intercepting and cleaning water before it enters the stream. Deciduous trees lose their leaves every fall, which provide nutrient inputs to the watercourse and soils in these riparian areas. As trees age, they fall into the watercourses, creating instream complexity and habitat cover for fish. Riparian areas provide a buffer between developments and streams, helping to prevent erosion and mitigate the impacts of flooding. They also serve as valuable corridors for species to access water and move safely through the urban landscape.

Stream is defined as: A connected or disconnected watercourse or body of water as defined by either the Riparian Areas Protection Regulation (RAPR) and the *Water Sustainability Act* (WSA). In addition, if a stream is rerouted through a constructed channel, it is considered a stream for the purposes of this DPA.

Ditch is defined as: A constructed channel designed for the purpose of draining water from an area. They are characterized as being straight, lacking headwaters or groundwater influence, and are not part of a natural or historic drainage pattern. Ditches are exempt from this DPA.

The Town of Gibsons’ ditch network has been excluded from DPA2 through the definition of a ditch; however, some ditches may still be protected under other regulations, such as RAPR and the WSA.

3.2 Marine Shoreline & Eelgrass Beds

The marine shoreline and eelgrass beds ESA is measured as 50 metres inland from the high tide line. Where the ESA extends beyond a major roadway (such as Marine Drive), it has been shortened to the road edge. All areas below the high tide line are also included in the ESA.

Marine shorelines include the terrestrial area that interfaces with the marine environment. This includes the areas above the high tide line and the intertidal area that is periodically exposed to changes in the tides. Marine shorelines are diverse ecosystems that include rock outcrops (such as the Gospel Rock outcrop), coastal bluffs (such as the bluffs near the Shoal Lookout and Arbutus Reach areas), intertidal marshes, estuaries (such as the Goosebird Creek estuary in the Harbour), and eelgrass beds (located along the coast between Ch’kw’elhp to the end of Franklin Road). These ecosystems exhibit significant variability, ranging from sparsely vegetated bedrock to sandy beaches and intertidal wetlands. These marine interface areas are among the most sensitive ecosystems that have been impacted by industrial and development activities.

The Town of Gibsons holds a recreational water lease along the shoreline. This lease provides Gibsons with more jurisdiction over this area than is typical for most oceanside municipalities. Managing development in this area usually falls under the jurisdiction of various provincial government agencies, primarily the Ministry of Forests and the Ministry of Environment and Climate Change Strategy. Ocean-dwelling fish and their habitat fall under the federal jurisdiction of Canada’s Department of Fisheries and Oceans (DFO).

3.3 Terrestrial Ecosystems

The Terrestrial Ecosystems ESA is mapped on Schedule D and includes a mix of dry upland forests, moist and rich ravines, and rocky outcrops.

The remaining forested areas in Gibsons are Terrestrial ESAs, which are larger natural areas with relatively intact forest ecosystems. These areas include a diversity of ecosystem types ranging from dry upland forests (in the Gospel Rock area) to moist and rich ravines (along the Charman Creek and Gibson Creek ravines) and rocky outcrops that are sparsely vegetated (in the bluff area of Lower Gibsons). They provide valuable habitat for a range of wildlife species, including species at risk. These areas also provide refuge for wildlife that are less tolerant of urban development. They also play a regionally important role in wildlife movement and habitat connectivity. Many of these Terrestrial ESAs overlap with the freshwater and riparian areas ESA areas.

10. ESA DEVELOPMENT PERMITTING PROCESS

A development permit is required for all lands within the three Environmentally Sensitive Areas (freshwater and riparian areas, marine shoreline and eelgrass beds and terrestrial ecosystems), unless specifically exempted.

The development permitting process in Gibsons requires applicants to apply for an Environmentally Sensitive Areas (ESA) Development Permit (DP). The purpose of this development permit is not to halt development, but to provide the Town with an opportunity to review development plans and activities, and to require modifications that minimize impacts on natural, environmentally sensitive areas. The following is a summary of the ESA development permit application and review process:

1. Town staff confirm the project location, ESA designation, and environmental sensitivities. They determine if the planned activities trigger the requirement to obtain a development permit or if they are exempt.
2. If the project requires a development permit, the applicant must submit a professional report prepared by Qualified Environmental Professionals (QEPs). An Environmental Assessment report is required for development on lots with an ESA designation unless exempted by the Town. Additional reports, such as geotechnical studies, arborist reports, windfirm boundary assessments, riparian protection area assessments, monitoring plans, and restoration plans, may also be necessary.
3. The Town reviews the application and may approve the proposed activity, request additional information or modifications, or reject the application based on the findings of the review.
4. The development permit review and approval process may require permitting requirements from the Town and other regulatory agencies. These requirements may include restoration and enhancement, monitoring and maintenance, implementation of specific mitigation measures, conveyance of the ESA or a restrictive covenant, and provision of security or bonding.

The development permit process fosters collaboration among the Town of Gibsons, developers, and Qualified Environmental Professionals (QEPs). QEP reports are essential to identify the potential impacts of the proposed development on the ESA. QEP expertise and experience are required to verify the location and condition of the ESA and to recommend detailed protection and restoration options that align with the objectives and guidelines of the DP policy.

4.1 DP Application Submission Requirements

In addition to a completed Development Permit Application form, the following items and reports may be required by the Town of Gibsons. These must be prepared by a Qualified Environmental Professional (QEP). This refers to an individual who is a member of a professional body and has proven knowledge and expertise in sensitive environments, ecosystems, and/or riparian management.

1. **A QEP Report** must be submitted containing the following information:
 - a. Name(s) and qualifications of the Qualified Environmental Professional (e.g., RPBio, RPF, PEng, etc.);
 - b. Summary of current site conditions;
 - c. Maps of the location of ESAs, natural features, nests, invasive plant species and any other site characteristics relevant to the ESAs;
 - d. Mapped locations of watercourses, top of bank, and the riparian protected area as defined under the DP;
 - e. Summary of the planned development concept;
 - f. Recommendations to ensure that ESAs are protected throughout the development process;
 - g. Location and type of any environmental degradation and opportunities for restoration;
2. **A Restoration Plan** must be developed or approved by a QEP and contain the following information:
 - a. Location and description of environmental degradation such as encroachment, invasive species infestation or clearing;
 - b. Description of actions required to restore the area to a natural and healthy plant community.
 - c. Maintenance and monitoring requirements for a 3-year period, to ensure at least 80% plant survival.
 - d. A cost estimate of the proposed the restoration works for bonding purposes.
3. **A Completed ESA DPA Application Checklist** is available on the Town's website: www.gibsons.ca.

11. EXEMPTIONS

The following activities may occur within an Environmentally Sensitive DPA (DPA2) without engaging in the development permit application process.

*An x indicates the exemptions are applicable to the subject ESA category.

Development Exemption	Terrestrial Ecosystem ESA *	Freshwater & Riparian ESA *	Marine & Eelgrass Beds ESA *
<p>Emergency Management: Actions to prevent, control or reduce hazards such as flooding, erosion, or immediate threats to life, public or private property are temporarily exempt from the requirement to obtain a development permit. This is intended for imminent/immediate hazards, and not potential future hazards. After the emergency, the Town of Gibsons may, at its discretion, require a retroactive development permit, especially if there are lasting alterations or ongoing impacts to the site.</p> <p>Examples of emergencies include procedures required to prevent, control, or reduce the immediate threat of flooding, erosion, and wildfires such as:</p> <ul style="list-style-type: none"> - clearing an obstruction from a bridge, culvert, or drainage path, - repairs to bridges or safety fences; and - removal of hazardous trees that present an immediate danger to people or public or private property, as determined by a TRAQ-certified arborist. Authorization from the Town of Gibsons in the form of a Tree Removal Permit for the removal of hazardous trees is required. Efforts should be made to mitigate potential hazards and utilize the trees for wildlife habitat values. 	x	x	x
<p>Public utilities and operational works, including:</p> <ul style="list-style-type: none"> - Construction, repair, or maintenance of public works undertaken by the Town or its authorized agents and contractors, provided that these works follow best management practices and meet or exceed the intent of the DPA. 	x	x	x

Development Exemption	Terrestrial Ecosystem ESA *	Freshwater & Riparian ESA *	Marine & Eelgrass Beds ESA *
Property works including: <ul style="list-style-type: none"> - Minor repair of existing structures, where vegetation removal or disturbance is not required, including interior renovations or replacement of a roof or exterior siding. - Maintenance of existing gardens and landscaping, such as mowing, planting vegetation, and minor soil disturbances, not altering the general contours of the land. - Activities permitted to existing agreements with senior government agencies or covenant terms. 	x	x	x
Ecological Restoration including: <ul style="list-style-type: none"> - Planting native vegetation, removing non-native or invasive vegetation and/or garbage using small hand tools. A plan which considers proper disposal methods, planting, safety and erosion and sediment control may be required to the satisfaction of the Town. The use of heavy machinery for ecological restoration must follow the requirements of a Restoration Plan developed by a QEP and to the satisfaction of the Town. 	x	x	x
Construction of private access trails and staircases provided: <ul style="list-style-type: none"> - The trail is under 1.0 m in width, no trees are removed, and the trail surface remains pervious. - Landscape staircases with a maximum width of 1.5 m, no trees are removed, and the surface remains pervious where possible. 	x		x
Development, where the Town is provided with a written statement from a QEP confirming the absence of sensitive ecosystems as described in the DPAs and to the satisfaction of the Town.	x	x	x

12. ESA DEVELOPMENT GUIDELINES

Development permit guidelines provide measures necessary to protect and manage ESAs during development. Guidelines vary depending on the ESAs present on a property. On some properties, multiple ESA categories may overlap.

*An x indicates the measures are applicable to the subject ESA category.

Development Guideline	Measures	Terrestrial Ecosystem ESA*	Freshwater & Riparian ESA*	Marine Eelgrass Beds ESA*
<p>Move Development Away from ESAs and Reduce their Footprint</p> <p>Locate development and infrastructure as far away as possible from ESAs.</p>	<p>Locate development footprints and infrastructure as far away as possible from ESAs. If development must be located within an ESA, minimize its footprint and size to reduce impacts to the ESA.</p> <p>For Terrestrial Ecosystem ESAs, if development is within an ESA, an environmental assessment by a QEP is required to outline mitigation measures to minimize the impact of development.</p> <p>For Freshwater and Riparian ESAs, if development is less than 30 m from the Top of Bank, riparian setbacks must meet or exceed the minimum setbacks required by the <i>Riparian Areas Protection Regulation</i> (or future versions of this regulation) and be determined by a QEP.</p> <p>For Marine & Eelgrass ESAs, if development is within the ESA, marine setbacks must meet or exceed a minimum setback of 15 from the highest high tide line and be determined by a QEP. If the required setback results in the sterilization of a lot, the minimum setback must be determined by a QEP in discussion with the Town of Gibsons. A project review from the Department of Fisheries and Oceans may be required. Marine developments cannot impact known eelgrass beds.</p>	x	x	x

Development Guideline		Measures			Terrestrial Ecosystem ESA *	Freshwater & Riparian ESA *	Marine Eelgrass Beds ESA *
Establish a transition area between ESAs and development.	Provide a transition area between the ESA and structures, infrastructure, and impervious surfaces. The width and recommendations for implementing this transition area must be provided by a QEP. No impervious surfaces are allowed in this area. Tree retention or planting, stormwater management, nature- scaping, and trails in these areas are encouraged. A landscape plan may be required at the discretion of the town.	x	x				x
Locate and design new developments to avoid requirements for shoreline erosion protection.	When erosion protection is required, implement natural measures and engineered approaches to restore natural processes. New shoreline stabilization and protection structures are not permitted for the purpose of extending available space for new development (including buildings, lawns, gardens, additions to existing structures etc.)						x
Where permitted by the province, locate docks, private floats, and wharves in areas that would prevent impacts to shoreline habitat.	When permitted, locate structures in previously disturbed areas. Avoid disrupting native vegetation, slopes, and shoreline habitat. Marine developments cannot impact known eelgrass beds.						x
Design to Minimize Impacts to ESAs							
Protect trees in ESAs.	Provide an arborist report to ensure trees in the ESA are protected. The arborist report must identify trees that will be removed or retained, protection measures and a replanting plan. Construct tree protection barriers for all trees in the ESA. Tree protection barriers must follow standards outlined in the Tree Preservation Bylaw (Bylaw No. 1282). Retain and protect dead-standing wildlife trees that do not pose a risk to people or property. Only trees that are identified as posing a high risk by a certified Tree Risk Assessor can be removed or modified in the ESA. Retain and protect established trees and understory vegetation outside of the ESA, where possible, to create continuous vegetated corridors.	x	x		x	x	x

Development Guideline		Measures			Terrestrial Ecosystem ESA *			Freshwater & Riparian ESA *		Marine & Eelgrass Beds ESA *	
Preserve vegetation in retained ESAs.	Protect all native understory vegetation in the retained ESA				X			X			X
Protect habitat for species and ecosystems at risk.	Protect and enhance identified critical habitat for federally and provincially listed species at risk found on site.				X			X			X
Move Development Away from ESAs and Reduce their Footprint											
Protect raptor and other protected nests.	Conduct raptor and heron nest surveys within 100 m of the property. If any raptors nests or otherwise protected nests are identified, they must be protected following the provincial "Guidelines for Raptor Conservation during Urban and Rural Land Development in British Columbia (2013)" or future versions if one is released. Protected nests, as outlined by the federal <i>Migratory Birds Regulation</i> , must also be protected according to guidelines.				X			X			X
Minimize light and window impacts on ESAs.	Consider the use of light reduction techniques such as directing light away from the ESA and reducing spill lighting. Building design should consider reducing glass and transparent surfaces to reduce the potential for bird collisions or implementing measures to reduce bird collisions.				X			X			X
Implement design standards for safe wildlife crossings where new roads are required through an ESA.	Considerations may include culverts under roadways, bump outs, speed control measures, educational signage, fencing, and naturalization of medians.				X			X			X
Minimize the crossing of watercourses and their riparian areas.	Minimize road, utility, and other crossings of watercourses and riparian ecosystems. Where crossings are necessary, design them to be narrow and perpendicular to riparian areas.							X			X

Development Guideline		Measures		Terrestrial Ecosystem ESA *		Freshwater & Marine & Riparian ESA *		Eelgrass Beds ESA *	
Improve or maintain fish habitat and access.	Design all culverts and bridges over fish-bearing and seasonally fish-bearing watercourses to be fish-passable. This includes those crossing Charman Creek, Goosebird Creek, Gibson Creek and Chaster Creek and their associated tributaries.								
	Use clear-span bridges or open-bottomed stream crossings whenever feasible.								
	Incorporate fish baffles or other best management practices to support fish passage in enclosed crossings.								
Minimize impervious surfaces and promote natural filtration.	Incorporate absorbent landscaping and encourage the permeability of landscaped areas adjacent to ESAs by protecting and re-using native topsoil, preventing compaction during construction, and aerating or loosening compacted soils.								
	Avoid paved features in ESAs, such as parking lots and paved trails. Use permeable materials where feasible.								

Development Guideline		Measures	Terrestrial Ecosystem ESA*	Freshwater & Riparian ESA*	Marine & Eelgrass Beds ESA*
Move Development Away from ESAs and Reduce their Footprint					
	Ensure maintenance vehicles are able to access stormwater infrastructure such as ditches, culverts, and creeks while maintaining the integrity of the ESA.		X	X	X
	Direct rainwater and surface runoff towards green stormwater management infrastructure.	Incorporate green infrastructure wherever appropriate, such as bioswales, rain gardens, or stormwater ponds, as part of site stormwater management.	X	X	X
	Minimize altering natural grades. Reduce the impacts associated with the deposition of fill or removal of soils.	Maintain the natural grade of the land unless the area is subject to flooding. Ensure any unavoidable grading and soil movement does not negatively alter the hydrology of ESAs. Protect existing habitat from unstable slopes associated with current or historic development activity.	X	X	X
	Protect ESAs from unstable slopes.	Protect ESAs from unstable slopes associated with current or historic developments. If there are steep or unstable slopes adjacent to or near the site, a geotechnical assessment may be required (see guidelines for the Geohazard DPA).	X	X	X
Protect, Restore and Enhance ESAs					
	Ensure the long-term integrity of retained ESAs.	Dedicate ESAs for natural watercourses.	X	X	X
	Restore disturbed and degraded lands within ESAs.	Develop a restoration and enhancement plan for the ESA. This plan must include monitoring and maintenance for a minimum of 3 years. In shorelines and riparian areas, remove non-native fill, structures, and materials.	X	X	X
	Preserve and restore natural drainage patterns.	Avoid or mitigate changes to natural drainage patterns, including surface and groundwater volumes and flows and rates of infiltration and recharge. Locate development away from recharge/discharge areas, including wetlands.	X	X	X

Development Guideline		Measures		Terrestrial Ecosystem ESA*	Freshwater & Riparian ESA*	Marine Eelgrass Beds ESA*
Move Development Away from ESAs and Reduce their Footprint						
	Maintain or enhance base flows to nearby watercourses by using permeable surfacing when possible.			X	X	X
	Maintain and enhance ditches.		Avoid or minimize culverting for driveway crossings.	X	X	
	Assess options to restore degraded watercourse channels and/or daylight culverts that connect to natural streams.		If ditches with no headwater or groundwater inputs require removal, they should be replaced with green infrastructure.	X	X	X
			Consider the feasibility of daylighting or restoring any sections of a stream that is currently channelized or run through a culvert. Prioritize connected watercourses with the potential to expand fish habitat.		X	
Minimize Impacts to ESAs During Construction						
	Schedule development activities to minimize risks to ESAs and restrict construction work during sensitive timing windows.		Bird nests are protected in accordance with the <i>BC Wildlife Act</i> , and <i>Migratory Birds Convention Act</i> . The nests of raptors such as bald eagle, peregrine falcon, osprey, and various owls are protected year-round. Active nests of all other birds cannot be removed or disturbed during the nesting season, March 1 to August 31. If tree or vegetation removal occurs within the nesting season, a bird nesting survey must be completed prior to any activity which may disturb nesting birds.	X	X	X
			Any work within a fish-bearing watercourse must be completed during the regional instream window as determined by the province.		X	
			Focus construction activities adjacent to aquatic habitat during favourable weather and low water conditions to avoid sedimentation.		X	X
	Avoid the introduction of invasive plant species to ESAs and eradicate any existing invasive plant species.		All invasive plant species identified on-site must be eradicated. Care must be taken to ensure they are not spread into the ESA. Follow BMIPs to manage any invasive species found on site.	X	X	X
			Monitor for and do not dump green waste into ESAs.	X	X	X
			An invasive species management plan may be required to ensure construction does not facilitate the spread of invasives.	X	X	X
			Dispose of all invasive plant material at an appropriate facility.	X	X	X

Development Guideline		Measures	Terrestrial Ecosystem ESA*	Freshwater & Riparian ESA*	Marine Eelgrass Beds ESA*
Move Development Away from ESAs and Reduce their Footprint					
	Avoid the introduction of new invasive plants on site by cleaning equipment before they arrive on site and ensuring any soil deposits are free of invasive plant fragments and seeds.		x	x	x
Monitor activities during construction to avoid impacts and encroachment to ESAs.	Develop and implement a construction environmental management plan (CEMP). Complete monitoring reports at intervals identified in the CEMP and submit them to the Town. Monitoring intervals identified through consultation with staff.		x	x	x
Protect freshwater fish and their habitat.	All work in and around a stream must meet the requirements of the Water Sustainability Act and the Riparian Areas Protection Regulation. Instream work requires either a notification or change approval application to be submitted by a QEP under section 11 of the <i>Water Sustainability Act</i> and approved by the Ministry of Forests.			x	
Protect marine fish and fish habitat.	All work in and around the shoreline must avoid impacts on marine fish and fish habitat. Follow the Codes of Practice for projects near water to avoid impacting fish and fish habitat. If there is potential for the works to impact fish habitat, request a project review from the Department of Fisheries and Oceans (DFO) if required.				x
Install protection fencing around the ESA.	Install temporary protection fencing around the retained ESA for the entirety of construction. This fencing may be combined with Tree Protection Fencing, provided it follows standards outlined in the Tree Preservation Bylaw (Bylaw No. 1282).		x	x	x
	Install permanent fencing and signage following construction to avoid future impacts to the ESA. Ensure permanent fencing does not impede wildlife movement.		x	x	x
Prevent the release of sediment-laden water and pollutants into ESAs.	Incorporate erosion and sediment control best management practices to prevent sediment from entering nearby watercourses and ESAs. An ESC plan may be required at the discretion of the Town.		x	x	x
	Incorporate stormwater infrastructure to minimize the long-term pollution impacts from surface runoff to ESAs associated with the development.		x	x	x