




Matrix of the multi-layered ecosystem services assessment for Saulkrasti pilot area, with established Nature Design Park

<div><div><div></div><div></div><div></div></div><div>Latvijas vides aizsardzības fonds</div><div><small>The material is produced with financial support of EU LIFE+ programme and Latvian Environmental Protection Fund. In the frame of the project Nr.LIFE13 ENV/LV/000839 „Assessment of ecosystems and their services for nature biodiversity conservation and management” (LIFE EcosystemServices).</small></div></div>					Sandy Beach	Dunes		Forests				Rivers		Ruderal grasslands	Built-up areas				Nature design park				
Embryonic dunes	White dunes	Wooded dunes		Wooded dunes including natural old pine forests		small, rapid flow	middle size, rapid flow	Individual residential housing areas	Multi-story residential housing areas	Public housing with areas	Transport infrastructure	Sandy Beach	Wooded dunes		Transport infrastructure								
		middle age and pre-mature stands	mature and over-mature stands	middle age and pre-mature stands									mature and over-mature stands			middle age and pre-mature stands	mature and over-mature stands						
Section	Division	Group	Class	Indicators																			
Provisioning	Nutrition	Biomass	Wild plants and their outputs	Yield of wild berries	0	0	0	1	3	1	3	0	0	0	0	0	0	0	0	1	3	0	
			Wild animals and their outputs	Number of traps for the river lamprey	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
	Materials	Biomass	Fibres and other materials from plants for direct use or processing	Potentially harvestable timber volume	0	0	0	1	2	0	0	0	0	0	0	0	0	0	1	2	0		
			Fibres and other materials from plants for direct use or processing	Herbs	0	0	0	1	1	2	2	0	0	0	0	0	0	0	1	1	0		
	Energy	Biomass-based energy sources	Plant-based resources	Potentially harvestable timber volume for bioenergy	0	0	0	1	2	0	0	0	0	0	0	0	0	0	1	2	0		
Regulation & Maintenance	Mediation of waste, toxics and other nuisances	Mediation by ecosystems	Sequestration and accumulation by ecosystems	Soil capacity to sequesterate and accumulate of nutrients	1	1	1	2	2	2	2	0	0	1	0	0	0	0	1	2	2	0	
			Dilution by freshwater ecosystems	Dilution capacity of pollution by rivers	0	0	0	0	0	0	0	2	4	0	0	0	0	0	0	0	0	0	
			Mediation of smell/noise/visual impacts	Stand density	0	0	0	4	3	4	3	0	0	0	0	0	0	0	4	3	0		
	Mediation of flows	Mass flows	Mass stabilisation and control of erosion rates	Sediment volume in aeolian accumulating relief	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
			Buffering and attenuation of mass flows	Sediment volume in sandy beach	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	
		Liquid flows	Hydrological cycle and water flow maintenance	water retention potential index by forests	0	0	0	3	3	3	3	0	0	0	0	0	0	0	0	3	3	0	
			Flood protection	Sediment volume in aeolian accumulating relief	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Gaseous / air flows	Storm protection	Vegetation type	1	1	1	2	1	2	1	0	0	0	0	0	0	0	1	2	1	0	
	Maintenance of physical, chemical, biological conditions	Lifecycle maintenance, habitat and gene pool protection	Pollination and seed dispersal	Diversity and occurrence of insects pollinators	1	0	1	2	3	2	3	3	3	3	0	3	1	3	0	1	2	3	0
			Soil formation and composition	Decomposition and fixing processes	Number of necrophagous and coprophagous insects	2	2	2	3	3	3	3	0	1	0	2	0	1	0	2	3	3	0
		Water conditions	Chemical condition of freshwaters	Water quality	0	0	0	0	0	0	0	2	4	0	0	0	0	0	0	0	0	0	
		Atmospheric composition and climate regulation	Micro and regional climate regulation	Air quality	0	0	0	4	3	4	3	0	0	0	0	0	0	0	0	4	3	0	
			Global climate regulation by reduction of greenhouse gas concentrations	Carbon sequestration potential index	0	0	0	3	1	3	1	0	0	0	0	0	0	0	0	3	1	0	
	Cultural	Physical and intellectual interactions with biota, ecosystems, and land-/seascapes [environmental settings]	Physical and experiential interactions	Experiential use of plants, animals and land-/seascapes in different environmental settings	Birding potential	3	3	3	2	3	3	3	3	3	1	1	1	1	1	3	2	3	1
Physical use of land-/seascapes in different environmental settings				Leisure (active and passive) potential	4	4	4	4	4	4	4	3	3	2	2	2	3	2	4	4	4	2	
Intellectual and representative interactions			Educational	Environmental educational potential	5	5	5	5	5	5	5	4	4	2	0	0	0	0	5	5	5	0	
			Heritage, cultural	Interaction potential with cultural heritage	2	0	0	1	0	1	0	3	3	0	2	0	2	0	2	2	1	0	0
			Aesthetic	Landscape visual identity	2	3	2	3	3	3	3	2	2	1	2	0	1	0	2	3	3	0	