

APPROVED  
by decree No. 702 of 6 June 2012 of the  
Government of the Republic of Lithuania

## **MANAGEMENT PLAN FOR THE CURONIAN SPIT NATIONAL PARK**

### **I. GENERAL PROVISIONS**

1. The following are the principal provisions for the concept of the management of the Curonian Spit National Park (hereinafter — national park) complying with the ideology of sustainable development:

1.1. to ensure protection of the world culture and nature heritage site by prioritising preservation of the natural and cultural heritage;

1.2. to ensure continuation of the national park planning experience and continuation as well as development of progressive ideas acceptable to the Curonian Spit.

2. Special provisions for landscape management of the national park are used to align the interests of both cultural landscape heritage protection and residents and visitors of the Curonian Spit, in all cases seeking not to damage the valuable properties of protected cultural heritage sites and areas listed in the Register of Cultural Property or natural heritage values:

2.1. to pay particular attention to the Great Curonian Dune Ridge and protective coastal dune ridge, sand plain (sea and lagoon) (*palvė*), natural complexes of hummocks (*kupstynė*), and culturally valuable sites and objects for the purpose of their protection and rational management and preservation of the individuality and outstanding universal value of the Curonian Spit;

2.2. to restore the natural landscape of hummocks, ripples (*rumbės*), and sand plain of the lagoon;

2.3. to differentiate management of prioritised zones of natural and cultural heritage protection — priority is given to the preservation and proper use of the heritage values; to improve the quality of the residential and recreational environment;

2.4. to prioritise development of the educational tourism infrastructure and recreational forests (forest parks);

2.5. to use management measures to highlight the coexistence between man and nature expressed in the overall spatial structure of the cultural landscape and the unique expressive vistas and shapes on the lagoon side. Special management requirements for protected areas — cultural reserves are stipulated in the special plan for cultural heritage protection.

3. The main characteristics of the functional use of the Curonian Spit is a system of small residential settlements (Nida, Preila, Pervalka, Juodkrantė, Alksnynė, and Smiltynė) separated by extensive natural (or semi-natural) landscape zones connected by a single road transport route and a waterway.

4. The following general landscape protection and management principles of the national park are applied by integrating the needs to protect the Baltic Sea and the Curonian Lagoon coastal zone (beach, dune ridge, sand plain, and the underwater slope):

4.1. The heritage created by the Baltic Curonian tribe (*kuršiai*) and natural heritage are respected and protected on the Curonian Spit; the characteristics of the old fishermen's settlements of the Curonian Spit — regularly arranged houses along the Curonian Lagoon with decorative roof and window elements, porches, original wall and roof structures, outbuildings, gardens, and fences — which have outstanding universal value, are protected, and when planning activities it is mandatory to take into account this outstanding universal value of the Curonian Spit, the inherited environment, and the uniqueness and authenticity of the area. The aim is to maintain the continuity of the architectural tradition; it is mandatory to take into account the traditional architecture, materials, colour palette, and decorative elements of the buildings (fishermen's homesteads and old villas), only architectural forms of expression appropriate to the Curonian Spit environment can be used. The identity, uniqueness, integrity and harmony with nature of the Curonian Spit must be preserved;

4.2. Characteristic old fishermen's settlements with recognised outstanding universal value and valuable qualities in the part of residential areas of the Curonian Spit (cultural heritage areas) such as Nida (unique code in the Register of Cultural Property [hereinafter — unique code] — 17098), Preila (unique code 2069), Pervalka (unique code 2068), Juodkrantė (unique code 2667), and Alksnynė (unique code 2070) that have the status of cultural reserves (pursuant to decree No. XI-1248 of 22 December 2010 of the Lithuanian Parliament [*Valstybės Žinios (Official Gazette)*, 2010, No. [153-7802](#)]), as well as other valuable properties of these settlements, are preserved;

4.3. In protected localities, cultural reserves, maintaining cultural heritage sites and repairing buildings are allowed if the corresponding materials and specific decorative elements have been retained and reconstructing buildings of the Soviet period without increasing either the density or height of the buildings is allowed. At the sites of dilapidated historical buildings, former structures must be recreated and where there is insufficient historical data, new buildings can be built if the prevailing building type, layout, density, proportions between residential buildings and outbuildings, sizes, materials, and specific decorative elements must be retained. Priority is given to preservation or restoration of historical holdings (possessions) by forming old fishermen's homesteads or other holdings consistent with the boundaries of the historical holdings. Reconstruction of the buildings of the Soviet period is carried out in cultural reserves by dividing them into smaller units;

4.4. In recreational urbanised areas outside the boundaries of cultural reserves, construction is allowed according to the building types of old villas or fishermen's homesteads, similar buildings, and interpretations of such buildings using the appropriate materials and decorative elements. Replacing Soviet period architecture or other buildings not typical to the area and constructing new buildings, when the construction of a new building would emphasise and increase the uniqueness of the former built up area, is allowed if this is

set out in the detailed plan of the complex (not of a single land parcel), which stipulates regulations for the spatial structure and architectural guidelines of the area. When preparing detailed plans, the actual locations of the new buildings need not coincide with those of former buildings, but in all cases the valuable properties and elements of the landscape of the area must not be infringed. Buildings in locations other than those of former buildings can be planned (built) if the former positioning of the building cannot be retained due to engineering services or changed natural conditions (plantations, changes in the lagoon shoreline or the line of the top of the slope);

4.5. Forest and plantations in the cultural heritage sites and protected areas (cultural reserves) are managed in accordance with heritage protection requirements.

## II. MANAGEMENT ZONES OF THE AREA

5. The standard system for landscape management zones and their regulations is adapted to the landscape of the Curonian Spit (the drawing), taking into account the uniqueness and specific use of the Curonian Spit.

6. Landscape management zones of land for conservational purpose.

6.1. Forests in strict reserves — natural complexes of particular value: forest biocenoses and habitats of the Curonian Spit landscape. They are allocated to the strict landscape protection management zone (KMn) and the regulated landscape protection management zone (KMr);

6.2. Sandy areas-forest complexes in strict reserves — natural complexes of particular value: the Great Curonian Dune Ridge and lagoon horn (*ragas*) landscape biocenoses and habitats. They are allocated to the strict landscape protection management zone (KMSn), subject to strict protection regulations to ensure protection of natural processes, and the regulated landscape protection management zone (KMSr);

6.3. Sandy areas in strict reserves — specific natural complexes: natural beaches, protective coastal dune ridge, *hummocks*, and the Great Curonian Dune Ridge landscape with sand biocenoses and habitats located in the Curonian Spit nature reserves. They are allocated to the landscape management zone of strict protection (KS<sub>n</sub>) and the landscape management zone of regulated protection (KS<sub>r</sub>). The KS<sub>n</sub> zone is subject to strict protection regulations. The KS<sub>r</sub> zone is subject to regulated protection rules; formation, restoration or maintenance measures for natural sandy areas, primarily the protective coastal dune ridge and ecosystems, provided for in the management and nature management plans are carried out;

6.4. Territories of nature and culture heritage objects:

6.4.1. Nature heritage objects zone of strict protection in forests and sandy areas KO(MS)<sub>n</sub> and in the sandy areas — (KO(S)<sub>n</sub>). These include unspoilt nature complexes — the Curonian Spit lagoon horn landscape biocenoses and habitats. It is subject to strict protection regulation; research and observation, monitoring, management, and access for

educational and cultural purposes are allowed; economic activities are prohibited. Conditions are provided to exhibit sites of natural heritage;

6.4.2. Nature heritage objects zone of regulated protection (in forests, sandy areas, and water) — KO(M)r, KO(S)r and KO(V)r. Cultural heritage sites in this zone — the gliding school site (unique code 12145) and the ship wreckage site (unique code 30316) — are subject to regulated protection rules for cultural and natural heritage sites, and conditions are provided to exhibit the sites. Activities in the settlement of Nida, called the settlement of five hills (unique code 26019), related to restructuring and exhibiting of the site, are planned only after archaeological investigations have been conducted. Characteristic grassland and tree groups and complexes are formed and retained in the forests and sandy areas;

6.4.3. Culture heritage objects zone of regulated protection — KO(G)r and KOr. Protected cultural heritage sites in the KO(G)r zone — the Alksnynė single homestead (unique code 2070), the house on Nida-Smiltynė Road 10 (a unique code 16012), and the Neringa fortification, called the Kopgalis Fort (unique number 10738) and currently housing the Maritime Museum — are subject to protection regulation, and conditions are provided to exhibit the sites and to adapt them to visitors' needs. The KOr zone is an old cemetery subject to regulated protection rules. Research and observation, monitoring, management, and access for educational and cultural purposes are allowed; economic activities are prohibited.

## 7. Landscape management zones for forestry purpose:

7.1. Forests for ecosystem's protection — forests of landscape reserves of the Curonian Spit with valuable biocenoses and rare plant, animal and fungi species. Requirements of legal acts governing the use of the IIA group of forests apply to the forests with protected ecosystems. They cover the following landscape management zones:

7.1.1. Landscape management zone for ecosystems' conservation — MEk. Regulations for preservation policy farming protecting ecosystems are applied; forest management measures specific to the Curonian Spit are applied related to forming stands of mountain pines and *Pinus sylvestris*: replacement of mountain pines with *Pinus sylvestris*, reconstruction of the stands of mountain pines, and replacement of *Pinus sylvestris* with mountain pines;

7.1.2. Landscape management zone for ecosystems recuperation — MEr. This zone is allocated in order to use measures for the formation of spatial structure for restoration of natural landscape types characteristic to the Curonian Spit. Degraded or extinct biocenoses and characteristic grassland or trees groups and complexes are restored and maintained according to forest management and/or nature management plans and projects; rehabilitation policy farming landscape management regulation is applied.

7.2. Sandy areas for ecosystems' protection — seashore<sup>1</sup> and protective sections of the coastal dune ridge located in the landscape reserves of the Curonian Spit. The following landscape management zones are included in these areas:

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<sup>1</sup> Seashore – the area of the coast subject to flooding.

7.2.1. Landscape management zone for ecosystems conservation — M(S)Ek. Regulations for preservation policy agriculture protecting ecosystems are applied. It is allowed to collect non-timber forest resources according to the requirements for protection of ecosystems; it is encouraged not to use pesticides or fertilisers, and it is prohibited to construct buildings and excavate mineral resources;

7.2.2. Landscape management zone for ecosystems' recuperation — M(S)Er. This zone is allocated in order to use measures for the formation of spatial structure for restoration of natural landscape types characteristic to the Curonian Spit and degraded or extinct biocenoses restored and maintained according to forest management and/or nature management plans and projects. Regulations for rehabilitation policy farming protecting ecosystems are applied; characteristic grassland and tree groups and complexes are restored and maintained;

7.3. Recreational forests are forests whose main function is to satisfy the recreational needs of people and to provide conditions for recreation. The requirements of legal acts governing the use of the IIB group of forests apply to recreational forests. The following zones of recreational forests are included: extensive use (forest parks) landscape management zone — MRe, intensive use (recreation parks) landscape management zone — MRi, and intensive use (dune parks) forest and sandy landscape management zones — M(S)Ri. In the M(S)Ri zone, conditions are provided for sunbathing and shelters from wind are erected.

#### 8. Landscape management zones of waters:

8.1. Water bodies for ecosystems protection — the Baltic Sea basin *thalassology* (sea) reserve with valuable biocenoses, rare plant and animal species, and species and habitats of European importance. It contains a landscape management zone for ecosystem conservation — VEK. Regulations for preservation policy farming protecting aquatic ecosystems are applied; regulatory measures for fishing in the Baltic Sea and anti-pollution measures are in place;

8.2. Water bodies for common use (preservation) — this is the national park basin that does not require special protective/use measures. The following management zones are included in the group of water bodies for common use:

8.2.1. Landscape management zone of extensive use — VAe. This includes the Curonian Lagoon water areas at Grobštas and Nagliai nature reserves and is subject to regulations for extensive protective farming; regulatory measures for fishing in the Curonian Lagoon and anti-pollution measures are in place;

8.2.2. Landscape management zone of intensive use — VAi. This includes the other part of the Curonian Lagoon water areas allocated to the national park and is subject to regulations for intensive protective policy farming; regulatory measures for fishing in the Curonian Lagoon and anti-pollution measures are in place.

8.3. Water bodies for recreation — parts of water bodies used exclusively for recreation. The following landscape management zones are included:

8.3.1. Landscape management zone of extensive recreational use — VRe. Subject to regulations for extensive recreational farming; anti-pollution measures in the Baltic Sea and coastal protection measures are in place;

8.3.2. Landscape management zone of intensive recreational use — VRi. They include port water areas and are adapted for particularly intensive use; facilities for intensive recreation may be developed in coastal areas.

9. Landscape management zones of other purposes:

9.1. Settlements for residential purposes — built-up areas of the settlements of the Curonian Spit (old fishing villages) in which historically formed cultural landscape, valuable urban and architectural elements, and traditional architectural forms and scale are sought to be preserved;

9.2. According to urban and architectural characteristics, the following residential and public land landscape management zones are included:

9.2.1. Landscape management zone of protection – GEk identified in certain parts of urban reserves. This zone is managed by conservation, restoration, reconstruction and adaptation measures in order to maintain the authentic structure and appearance of buildings. In this zone:

9.2.1.1. the historically formed network of streets and paths, relief, urban structure and character of buildings, architectural expression of valuable buildings, and other valuable properties of cultural heritage sites and protected areas are preserved;

9.2.1.2. the boundaries of historical holdings (possessions) are preserved; restoring formerly valuable buildings is allowed, but changing the system of streets and paths, terrain, building density and height of buildings is prohibited; unless the special plan for cultural heritage protection provides otherwise, constructing buildings not characteristic to the area or modifying their spatial composition, vistas and shapes is prohibited; it is sought to preserve the dune background covered with forests unchanged, unless the height of buildings is reduced in order to eliminate the damage caused to the cultural landscape or natural and cultural heritage by construction;

9.2.1.3. the following management work is allowed: research (applied), repair, elimination of threats caused by an emergency, conservation, restoration, adaptation, recreation, and planning and design of these operations. The management of cultural heritage is carried out according to the regulations for management of heritage approved by the Minister of Culture, which establishes requirements for specific management activities;

9.2.1.4. it is prohibited to change the structure (building layout) of homesteads, construct buildings not characteristic to the area or small architectural structures (glazed gazebos, sheds for firewood, etc.), and reduce green areas (including nurseries and flower beds) near homes. Yards must not be covered with bitumen or paved; pathways in the yards and parking areas can be covered using non-continuous cover (grass paving grids, etc.);

9.2.1.5. on the territory at L. Rēza Street 26 and 26A (Juodkrantė), a traditional fisherman's homestead has been built: one residential home and one auxiliary structure. The

buildings on L. Rėza Street 26A must have the traditional appearance of a fisherman's homestead. Buildings cannot be semidetached, elements not characteristic to fishermen homesteads must not be used, and there must be no connecting structure between the residential building and the auxiliary structure. Entrance from Ievos Kalno Street is not planned. Specific requirements will be identified in the special heritage protection plan for the protected area/cultural reserve;

9.2.1.6. the requirements for the use of the area at Preilos Street 53-61 (Preila) will be identified in the special heritage protection plan for the protected area/cultural reserve;

9.2.1.7. on the parcel of land at Lotmiškio Street 1 (Nida), the bulk of the residential home and the auxiliary structure must be restored to those that were prior to 21 January 2003. The consequences of the construction that was carried out according to illegally issued permits, that undermine the valuable properties of the area, and that have a negative effect on the volumetric spatial composition of the area must be removed, including the glass annex (veranda) and the first floor of the timber veranda of the restaurant; the pitched roof must be restored, and the ground floor of the timber veranda must be reduced by half; the connecting structure between the buildings must be demolished;

9.2.1.8. on the parcel of land at Naglių Street 17 (Nida), the existing building density and height must be retained. During reconstruction of the buildings, their bulk and density must be reduced; no connecting structures that are uncharacteristic to the Curonian Spit must be planned between the auxiliary structures on adjacent parcels of land; homestead plantings typical to the old part of Nida must be formed;

9.2.2. Landscape management zone of renovation — GEr. This is identified in the parts of the residential areas of the Curonian Spit that have general landscape value and in parts of historical and urban reserves. These areas are managed by way of renewal and copying consistent with the sustainable mode of use provided for in the Law on Protection of Immovable Cultural Heritage of the Republic of Lithuania (*Official Gazette*, 1995, No. [3-37](#); 2004, No. [153-5571](#)). In this zone:

9.2.2.1. the historically formed system of streets and paths and the urban structure must be preserved;

9.2.2.2. in order to maintain the dunes covered with the forest in the background, not blocked by buildings, changing valuable landscape features such as spatial composition, vistas, and shapes is prohibited;

9.2.2.3. the following management work is allowed: research (applied), repair, elimination of threats caused by an emergency, conservation, adaptation, restoration, recreation, and planning and design of these operations. Repair and reconstruction of the buildings of the Soviet period and other buildings are possible unless the special plan for cultural heritage protection or the regulation for the protection of the Curonian Spit National Park provides otherwise;

9.2.2.4. other use of the land of the residential area is planned for the land parcel at Pamario Street 28 (Nida). Constructing new buildings or increasing the density or height of existing buildings on the parcel of land is not allowed; repairs are allowed;

9.2.2.5. on the parcel of land at Purvynės Street 9 (Nida), the existing building density and height must be retained. During reconstruction of the buildings, their size and density must be reduced according to the requirements of the special plan for cultural heritage protection of the protected area/cultural reserve;

9.2.2.6. other use of the land of the recreational area is planned for the land parcel at Skruzdynės Street 1 (Nida); the use of the buildings — recreational; the existing building density and height must be retained;

9.2.2.7. on the parcel of land at Skruzdynės Street 24 (Nida), the existing building density and height must be retained; standard repairs may be carried out to preserve the seascape spaces for viewing opening vistas on the lagoon coast and the lagoon. The parcel of land must not be enclosed with fences, and extensive planting is not allowed;

9.2.2.8. on the parcel of land at Purvynės Street 1 (Nida), the existing building density and height must be retained;

9.2.2.9. on the parcel of land at Pervalkos Street 44 (Pervalka), buildings must be reconstructed in accordance with the requirements of the special plan for protecting the cultural heritage of the protected area/cultural reserve;

9.2.2.10. on the parcels of land at Preilos Street 3 and 3A (Preila), the existing building density and height must be retained; no auxiliary structures may be built;

9.2.2.11. when the buildings on the parcels of land at Pervalkos Street 6, 6A, 6B and 6C (Pervalka) are reconstructed, the existing building density and height must be retained. Buildings must be reconstructed in accordance with the requirements of the special plan for protecting the cultural heritage of the protected area/cultural reserve;

9.2.2.12. when the buildings on the parcels of land of the current and/or former recreation homes at Pervalkos Street 19 and 21 (Pervalka) are reconstructed, the existing building density and height must be retained. The parcel of land must be managed and the buildings must be reconstructed in accordance with the requirements of the special plan for protecting the cultural heritage of the protected area/cultural reserve;

9.2.2.13. on the parcel of land at L. Rėzos Street 31 (Juodkrantė), the warehouse for fishermen's needs or fishing exhibits may be restored, leaving the parts of the land used for drying fishing nets free of buildings. If the warehouse for fishermen's needs or fishing exhibits is not wanted, it need not be restored; it is prohibited to build any other buildings on this parcel of land;

9.2.2.14. when the buildings on the parcels of land at Pervalkos Street 3 and 5 (Pervalka) are reconstructed, the existing building density and height must be retained;

9.2.2.15. on the parcels of land at Kalno Street 12 and 12B (Juodkrantė), reconstruction of the buildings of the Soviet period must not alter the existing building density or height. Their architectural appearance must be oriented to that of the adjacent villas, hotels



and guesthouses; proportions and heights typical of old villas must be retained. The height of the building to be constructed instead of the former canteen must be no more than a single storey with a loft. The parcels of land must be managed, new buildings must be built, and old buildings must be reconstructed in accordance with the requirements of the special plan for protecting the cultural heritage of the protected area/cultural reserve;

9.2.2.16. the buildings located in the area between Miško and Kalno streets (Juodkrantė), covering the territory approved in the detailed plan dated 5 September 2001, can be repaired and heritage protection works may be carried out. Villa Lile must be restored according to historical documents, observing the proportions and style of the pre-war buildings;

9.2.2.17. there are no plans for the construction of new recreation or service buildings in the areas in the central part of Preila (parcels of land at Preilos Street 69, 71, 73, 73a, 73b, 73c, and 75, and areas in between where parcels of land have not yet been formed); the shop building in the style not characteristic to the area must be reconstructed according to the requirements for the traditional architecture of the Curonian Spit;

9.2.3. Landscape management zone of transformation — GEp. This zone is allocated in the parts of the urban reserve of the Curonian Spit that contain valuable elements of the planned structure but have lost architectural and built-up area value. The zones are managed by applying transformation/renovation measures according to the regulation for reorganising management; protection of the planned structure and its elements must be ensured:

9.2.3.1. architectural forms corresponding with local conditions are allowed: preparing a detailed concept plan for the central part of Nida that has been allocated to the GEp zone is required. The aim of the plan is to provide materiality to the centre of the town, to restore the lost functional and visual relationship with the environment, to eliminate architectural objects not characteristic to the environment of Nida, and to restore the spaces typical to the historic structure of Nida. The property in the central part must be predominantly for public use. Buildings of the Soviet period that fall within this zone must be reconstructed or demolished according to the law; flat roof buildings must be reconstructed by dividing them and installing pitched tiled roofs. The conversion (reorganisation) of the fish production area is required and consists of changing the appearance of the buildings to that closer to the protected environment; in the centre, near the port, conditions must be provided for the sale of fish in the port area, and in the port a temporary location (venue) for festivals must be installed;

9.2.3.2. when the existing recreational homes on the parcels of land at Naglių Street 20 (Nida) are reconstructed or new buildings are built instead of them, the appearance of the buildings must be changed to that closer to the protected environment; the density and height of the buildings must be retained, and the buildings must be divided into parts to correspond with the architecture and materials typical to the Curonian Spit. The consequences of the construction that was carried out according to illegally issued permits, that undermine the valuable properties of the area, and that have a negative effect on the volumetric spatial composition of the area must be removed, including the glass annex added to the building

according to the detailed plan dated 22 September 2004 and the gazebo with the thatched roof near Naglių Street, which must be demolished according to the procedure provided for in the law;

9.2.3.3. in the area allocated to zone GEp in Juodkrantė, no new buildings are planned, except for the service building(s) (without a permit to use it (them) for accommodation) in the marina and a single storey auxiliary building with an attic for the needs of the stadium located in the southern part of Juodkrantė (for dressing rooms, showers, etc.);

9.2.3.4. in the area allocated to zone GEp in Preila, it must be ensured that there is a pedestrian path from the junction toward the lagoon and the marina; reconstruction of the existing recreational buildings is possible by dividing them and designing them similar to the sizes of a fishermen's homestead, using traditional colours and materials; maximum height is one storey buildings with an attic (8.5 m). This height restriction does not apply to the reconstruction of existing buildings according to permits issued according to the law prior to the approval of this Plan;

9.2.3.5. in the area by the lagoon in Juodkrantė, including the parcel of land at L. Rėza Street 1A, the line of building layout formed prior to the year 2000 must be restored pursuant to the binding court order; buildings that distort the historical building layout, image or uniqueness of the area must be demolished. No additional buildings are allowed. Instead of three buildings (hotels for yachtsmen), one former building that was here prior to 2000 can be restored in the preserving landscape management zone (GEk). In order to isolate the size of the Ažuolynas recreational home within the vistas of Juodkrantė from the side of the lagoon, plantings typical to Juodkrantė are recommended in the territory. The density and height of the buildings must be retained, except for the restoration of the aforementioned building;

9.2.3.6. preparing a detailed concept plan for the Amber Bay (*Gintaro Jlanka*) and its environment according to the requirements of the special plan for cultural heritage protection of the protected area/cultural reserve is required. This may be a venue for events, educational and commercial services demonstrating the production of amber, or an amber exhibition hall. The Management Plan for the Curonian Spit National Park (hereinafter — Plan) provides for the possibility to relocate the salt warehouse (a unit for servicing road infrastructure) from Amber Bay in Juodkrantė to the landscape management zone NFu (Nida-Smiltynė Road 12, Neringa) which has a site for bulk waste collection and composting. If in light of the costs that would be required to plan, design and construct the new salt warehouse the choice of the site proves unsuitable, other alternatives will be considered. If the salt warehouse is relocated, the existing salt warehouse in the northern part of Amber Bay in Juodkrantė will, according to the law, be demolished and the area will be rehabilitated. Buildings of low value and fences in Amber Bay will be demolished to prepare an open public space. Both construction and demolition works will be carried out according to the procedure prescribed by the law;

9.2.3.7. A national park visitor and administrative centre will be opened in the southern part of Amber Bay;

9.3. Recreational settlements for residential purposes of the Curonian Spit managed according to the regulation which prioritises recreational interests; the main objective for landscape management is therefore to ensure the quality of the recreational environment. Landscape management in these zones is subdivided according to the following recreational residential zones:

9.3.1. Landscape management zone with extensive program — GRe. This zone includes the current or prospective recreational priority residential areas of Nida, Preila, Pervalka, Juodkrantė and Smiltynė that do not have valuable architectural or urban characteristics. The extensive landscape management regulation is applied; the traditional urban landscape of the Curonian Spit is maintained with architectural forms typical of the old fishermen's houses or villas. To the south of the Amber Bay in Juodkrantė, a possible cadet school with the required infrastructure is planned (practical training facilities, laboratories, pre-vocational training centre, library, reading room, dormitory, dining room, stadium, etc. as required). Homestead-type (building height up to 8.5 m) or old villa-type (building height up to 10 m) architectural solutions are required. This provision does not apply to existing buildings, including buildings with building permits issued according to the law prior to the approval of this Plan;

9.3.2. Landscape management zone with intensive program — GRi. This zone includes the current recreational priority residential areas of Nida and Juodkrantė that do not have valuable architectural or urban characteristics and predominantly feature apartment buildings. The intensive landscape management regulation is applied; principal consistency of architectural bulk and form with the spatial structure and architecture of the recreational residential areas of the Curonian Spit must be ensured; panoramic vistas and shapes from the side of the Curonian lagoon must not be obstructed:

9.3.2.1. on the parcels of land at Taikos Street 4A and 4C (Nida), the existing building density and height must be retained. The flat roofed garages can be reconstructed as per the general project without increasing the existing building bulk;

9.3.2.2. according to the current use of recreational buildings, for the parcels of land at G. D. Kuverto Street 7 (Nida) other use of the land for recreation is planned; the existing building density and height must be retained;

9.3.2.3. on the parcels of land at Ievos Kalno Street 8, 10 and 12 (Juodkrantė) the existing building density and height must be retained (no increase in density and height is allowed). Constructing terraces, gazebos, additional staircases or fences or otherwise mechanically affecting the adjacent expressive dune slopes is prohibited. Dune slopes damaged by illegal human activities must be rehabilitated: terraces, gazebos, additional staircases, fences, other structures and equipment, etc. must be removed according to the procedure prescribed in the law. The non-operating oil-fuel boiler can be reconstructed if the existing building density and bulk is retained; no slopes can be moved and no conversion to residential use is allowed;

9.3.2.4. in the area that includes the Undinė recreational home, a public toilet, and Juodkrantė Culture Centre and in the area adjacent to the western part of L. Rėza Street, as well as in the case of any construction work in the territory of the current/former Ažuolynas recreational home, building density and height must be retained. During reconstruction of the buildings, external appearance and external elements must be replaced with the traditional appearance characteristic to the old villas of Juodkrantė;

9.4. Landscape management zones of recreational purposes selected for intensive development of recreational facilities. All work in these zones is conducted according to special and/or detailed plans; the recreational environment must ensure the required quality, safety of visitors, and proper implementation of activities planned in the zone. The following landscape management zones are included:

9.4.1. Landscape management zone with non-urbanized environment — NRn. These zones are found in the existing and planned sea and lagoon coast beaches or their environs. The regulation for forming a semi-natural recreational environment is applied. Construction of only simple, small architectural landscape elements is allowed and their consistency with the landscape of the Curonian Spit must be maintained, using typical decorative elements of fishermen's homesteads and old villas:

9.4.1.1. NRn<sup>1</sup> — a recreational area on the coast of the lagoon in the south of Nida. This may be an area for mini golf infrastructure, and off the lagoon coast may be an area for sailing infrastructure; the natural environment and landscape must be retained. No construction of any new buildings in this most visually valuable part of the urban reserve and the environs of the Great Dune Ridge is allowed;

9.4.1.2. NRn<sup>2</sup> and NRn<sup>4</sup> — areas designated for sports grounds and playgrounds with minimal infrastructure (including locker rooms);

9.4.1.3. NRn<sup>3</sup> — the seashore area in Nida; NRn<sup>5</sup> — the seashore area in Preila; NRn<sup>6</sup> — the seashore area in Pervalka; NRn<sup>7</sup> — the seashore area in Juodkrantė; NRn<sup>8</sup> — the seashore area in Alksnynė; and NRn<sup>9</sup> — the seashore area in Smiltynė. Only the construction of seashore equipment is allowed and it must be unique and decorative, consistent with the architectural features and forms of the Curonian Spit; natural materials must be used. Temporary (seasonal) trade is carried out in these areas and other services are provided that do not disturb the recreation of holidaymakers;

9.4.1.4. NRn<sup>10</sup> — an area in Smiltynė to the south of the new (second) ferry. This is an area for possible recreational facilities: places of respite, recreational zones, sports grounds, and playgrounds;

9.4.2. Landscape management zone of urbanised recreational environment — NRu. This zone is allocated to the existing and proposed areas of stationary recreational building complexes. The regulation for forming an urbanised recreational environment is applied. Principal consistency of architectural bulk and form with the spatial structure and architecture of the recreational residential areas of the Curonian Spit must be ensured:

9.4.2.1. NRu<sup>1</sup> — an area behind the dunes on the seacoast of Nida near the central path to the beach. Construction of a distinctive sea therapy centre with no accommodation services is planned in this area. It will be designated for special treatment and disease prevention needs and wellness services using the unique local natural resources: distinctive sea air (microclimate of oceanic climate, mature pines and junipers), local fossil sapropel, geothermal brines, etc. The architectural solutions of the sea therapy centre must be thoroughly examined, considered, and publicly discussed. In order to ensure aesthetic integrity, a detailed landscaping plan of the zone will be required. Buildings must be consistent with the character of old villas; swimming pools with seawater, brine, etc. may be installed for special treatment, disease prevention, and wellness services. Buildings may be of a different height, and maximum height is up to 9 m (technological and aesthetic elements of the sea therapy centre may not be higher than 11 m). This area consists of two regulatory zones: A (a sea therapy centre) and B (sports grounds). The allowed building density is up to 20 % in area A and up to 1 % in area B (for the buildings directly related to the operation of the sports grounds);

9.4.2.2. NRu<sup>2</sup> — an area behind the dunes on the seacoast of Nida near the central path to the beach. The area is designated for a beach service centre. Architectural forms and elements characteristic to the Curonian Spit should be used for the existing 1-storey building with an attic on the parcel of land at Nida-Smiltynė Road 7. The food service function of the building is retained;

9.4.2.3. NRu<sup>3</sup> — the area of the Litorina recreational home and the adjacent area on the seacoast in Nida. The existing building density, intensity and height must be retained;

9.4.2.4. NRu<sup>4</sup> — a reserved area for representational needs of the state. A detailed plan of the area must be prepared;

9.4.2.5. NRu<sup>5</sup> — flat roof buildings must be covered with red tile pitched roofs, giving these buildings the architectural style of old villas or elements of old villas must be used. The height of reconstructed garages — up to 7.5 m. Building density on Urbas Hill must be retained. The buildings of this area must be predominantly for recreational use; the land under the residential buildings (existing and planned in the detailed plans) can be for other use in the residential area. At the bottom of the car park at G. D. Kuverto Street 13, a new building(s) for recreational use can be built instead of the buildings currently on the site; building density — up to 10 % and height — up to 8 m. Half of the car park area must be converted to a green zone;

9.4.2.6. NRu<sup>6</sup> — Medikas recreational home. Building height must be retained. Repairing and reconstructing the buildings are allowed; maximum allowed increase in building bulk — up to 10 %;

9.4.2.7. NRu<sup>7</sup> — a parcel of land including the Neringa Sports School and Lifeguard Station on the coast of the lagoon in Nida. Repairing and reconstructing the buildings are allowed; maximum allowed increase in building intensity — up to 10 %;

9.4.2.8. NRu<sup>8</sup> and NRu<sup>9</sup> — recreational zones with cafes in the urbanised environment. During reconstruction of existing cafe buildings, red tile pitched roofs can be installed. Building height — 1 storey with an attic;

9.4.2.9. NRu<sup>10</sup> — part of the current southern utility zone will be transformed to a recreational urbanised area. The existing building density and height must be retained. This area consists of two regulatory zones: A (an existing camping area) and B (a zone that includes an existing homestead and a workshop [artists' colony]). During the reconstruction of the utility building in zone B, its size must be reduced;

9.4.2.10. NRu<sup>11</sup> — an urbanised zone that includes buildings for recreation. During the reconstruction of the buildings, the existing building density and height must be retained. During the reconstruction of the buildings on the parcels of land at Purvynēs Street 15, 15A, 15B, and 15C (Nida), the recreational home building bulk, density and intensity must be reduced and the bulk must be architecturally divided into smaller parts. Erecting fences on the slopes or otherwise mechanically affecting the dunes is prohibited. Dune slopes damaged by illegal human activities must be rehabilitated: terraces, gazebos, additional staircases, fences, other structures and equipment, etc. must be removed according to the procedure prescribed in the law. It is purposeful to use the buildings for recreation and allocate the respective use for the land;

9.4.2.11. NRu<sup>12</sup> — the northern former utility zone will be transformed to a recreational urbanised area. Given the current use of the buildings and municipal housing needs, this may be an area for residential and commercial use. During building work, pitched tiled roofs must be installed and the current building bulk must be divided into sizes typical to the Curonian Spit; materials typical to the Curonian Spit must be used. Maximum allowed increase in building density is up to 5 % and maximum allowed height of the building is 10 m; the building bulk near the slopes of the dunes must not be increased. This area could be used for the construction of covered tennis courts. A detailed zone plan must be prepared and must include solutions of the valid master plans. This detailed plan must specify the layout of the buildings, grounds, access points, and engineering infrastructure. Making plans or building any structures outside the outer perimeter of the built-up area of the zone that was formed prior to 1994 is prohibited. Increasing the building bulk at Purvynēs Street 59C near the slope of the dunes to that of the former building that was there until 13 July 2000 (current smoking chamber) or constructing any new buildings on or near the slopes of the dunes is prohibited. On the parcel of land at Purvynēs Street 69, increasing the building density and height beyond that which was prior to 19 July 2002 is prohibited; the utility building must be demolished according to the procedure provided for in the law;

9.4.2.12. NRu<sup>13</sup> — an urbanised environment zone in Preila with an existing cafe. Reconstruction of the building is allowed;

9.4.2.13. NRu<sup>14</sup> — an urbanised environment zone in Preila for the main beach service centre. Possible functions of this centre: food service, wellness, small trade, and rental of items, including bicycles;

9.4.2.14. NRu<sup>15</sup> — an urbanised recreational area on the lagoon in the southern part of Preila directly related to the planned small fishing port/marina. It is designated for short-term accommodation of visitors who come by boat. The small fishing port/marina and the buildings for accommodation that serve the needs of visitors who come by boat and are allocated to the NFu and NRu landscape management zones constitute a single complex. A single parcel of land is therefore formed. To ensure seamless operation and use of the complex for public needs for incoming boats, the right to the complex as a single object may be assigned without changing its use. According to the special area development programme, a detailed plan of the complex and its environment in the southern part of the Preila Bay will be prepared. The built-up area in the NRu<sup>15</sup> zone is not increased. The following are the requirements for the architectural solution: 1-storey buildings (maximum height 8.5 m) for accommodation; their architectural style, materials, and colours must be similar to traditional fishermen's homes. From the lagoon side, the buildings must be screened with plantings;

9.4.2.16. NRu<sup>17</sup> — a built-up seacoast zone in Juodkrantė. The possible function of the buildings in this zone is recreational and treatment; the maximum height of the buildings is 9 m;

9.4.2.17. NRu<sup>18</sup> — a reserved zone in Juodkrantė. This area is reserved to compensate any loss to the owners of the buildings to be demolished for environmental reasons, ensuring the public interest and providing conditions for restoration of the damaged areas;

9.4.2.18. NRu<sup>19</sup> — an urbanised zone for the main beach service centre in Juodkrantė. The height of the buildings in this zone must be one storey with an attic (maximum 7.5 m); building density and intensity and other regulations are specified in the detailed plan;

9.4.2.19. NRu<sup>20</sup> — an urbanised zone in Juodkrantė. Buildings for the zone must be designed on the basis of the architectural style of the former postal station; the possible use of the building is food service and accommodation. The height of the buildings in the zone must be one storey with an attic; building density and intensity and other regulations are specified in the detailed plan;

9.4.2.20. NRu<sup>21</sup> — the proposed main beach service centre in Smiltynė and an eco campsite. The beach service centre will be built instead of the old Soviet building. The large building bulk must be both physically or visually divided, max height must be 9 m; building density and intensity and other regulations are specified in the detailed plan. Given that the Smiltynė area is designated for intensive recreational use and visiting, accommodation services could be provided in this centre, but services for visitors to the beach (commercial, rental, food service, recreation, treatment, etc.) must dominate, i.e. constructing a building designated only for accommodation is prohibited. Minimal infrastructure servicing the eco campsite may be provided; simple buildings (maximum 6 m in height) are allowed. Building density and intensity and other regulations are specified in the detailed plan. This object is designated for visitors who come on bicycles or water transport or on foot, but not for travellers with caravans or cars. This campsite is at the end of the Nida-Klaipėda section of the EuroVelo 10 route;

9.4.2.21. NRu<sup>22</sup> — the main beach service centre in Smiltynė (without accommodation) with all services for beach visitors; the building must be one storey with an attic;

9.4.2.22. NRu<sup>23</sup> — an urbanised recreational zone: a marina;

9.4.2.23. NRu<sup>24</sup> — an urbanised recreational zone next to the Dolphinarium; visually exposed to the cultural heritage object (Fort Kopgalis);

9.4.2.24. NRu<sup>25</sup> — an urbanised recreational zone in Preila. During the reconstruction of the buildings on the parcels of land at Preila Street 4, 4B, 4C and 4D, no residential use of the zone can be allowed; building density must be retained. The existing garages (4B, 4C, 4D) must, as per the general reconstruction project, be covered with pitched (30–40 degrees) red tile roofs; maximum height is 7.5 m. During the reconstruction of the garage at Preila Street 4, building density must be retained; the building bulk must be divided into smaller parts and covered with pitched red tile roofs; maximum height is 7.5 m. Skylights can cover a maximum of 20 % of the roof area. During the reconstruction of the sauna at Preila Street 6, a maximum of 10 % building density increase is allowed;

9.4.2.25. NRu<sup>26</sup> — an urban recreational zone at Jonas Hill; no residential use of the zone can be allowed. The existing garages must, as per the general reconstruction project, be covered with pitched roofs. Erecting terraces, gazebos, additional staircases, or fences or otherwise mechanically affecting the adjacent expressive dune slopes is prohibited. Dune slopes damaged by illegal human activities must be rehabilitated: terraces, gazebos, additional staircases, fences, other structures and equipment, etc. must be removed according to the procedure prescribed in the law;

9.5. Landscape management zones of extraction purpose — these include the main water supply sources of the Curonian Spit. NLn — landscape management zone of watering place managed according to the requirements for protection of groundwater extraction technology and watering places;

9.6. Utility purpose — sites containing the public utility infrastructure of the Curonian Spit. The following management zones are included:

9.6.1. Landscape management zone of utility areas with extensive technogenized environment — NFn. This is managed according to the requirements for technological functions and the infrastructure of the facilities aiming at minimising the technogenic and visual impact of facilities on the landscape of the Curonian Spit. Good ecological conditions must be ensured;

9.6.2. Landscape management zone of utility areas with intensive technogenized environment — NFu. This includes zones with infrastructure facilities for the marina, local services and public utilities, and road maintenance, as well as other areas designated for this function. The zone is managed according to the requirements for technological functions and the infrastructure of the facilities; direct functional use in the proposed architectural solution must be maximally adjusted to the landscape of the Curonian Spit. Good ecological conditions must be ensured. Special provisions:



9.6.2.1. part of the southern utility and services area of Nida containing various utility, industrial and storage facilities. The existing building density and height must be retained. When reconstructing the buildings or constructing new buildings, the large storage (and other use) building must be reduced and divided and buildings with smaller bulk must be put in place instead;

9.6.2.2. the small fishing port/marina zone in Preila must be managed according to the requirements for pier/port facilities. A building for port services could be built for fishermen's needs and for visitors coming by boats; structures and equipment for fishermen's needs could be provided;

9.6.2.3. the marina in Smiltynė must be managed according to the requirements for pier/port facilities. Minimal infrastructure required for the marina, buildings and structures are to be provided in the detailed plan. A building for port services could be built for visitors coming by boat and for the needs of the maritime heritage park;

9.7. The landscape management zone for communication-engineering purpose. This includes larger transport infrastructure sites of the Curonian Spit. The following landscape management zones are included:

9.7.1. Landscape management zone of communication-engineering areas with extensive technogenized environment — NTn. This zone is managed according to the requirements for the technological functions and infrastructure of the facilities, aiming at minimising the technogenic impact of the facilities. This zone includes the roadside section of the Smiltynė-Nida road, parking areas, and the airfield. Forests located in the roadside section are managed according to the Law on Forests of the Republic of Lithuania (*Official Gazette*, 1994, No. [96-1872](#)). Any trees or shrubs that pose a safety hazard must be pruned and cut as agreed with the administration of the Curonian Spit National Park. Clear cutting is prohibited in the roadside section. Special provisions:

9.7.1.1. the existing car park at Kuršių Street 2 (Nida) must be used for car parking or demolished and rehabilitated;

9.7.1.2. the existing car park at the southern entrance to Nida must be separated from Taikos Street with a strip of plantings;

9.7.1.3. No buildings were planned in the master plan or are planned in this Plan in the former car park in Preila. The car park must be used for parking. If the car park becomes non-functional, it must be demolished and rehabilitated;

9.7.2. Landscape management zone of communication-engineering areas with intensive technogenized environment — NTu. The zone is managed according to the requirements for technological functions and infrastructure of the facilities; the facilities must be maximally adjusted to the landscape of the Curonian Spit. The Smiltynė ferry pier and a coach parking lot with commercial buildings for visitor services in the southern part of Nida are assigned to this zone;

9.8. Landscape management zone for educational purpose — zones allocated for current or planned museum exhibits on the Curonian Spit and educational use. The following landscape management zones are allocated:

9.8.1. Landscape management zone of educational areas with non-urbanized environment — NDn. This zone is for the exhibits of the Lithuanian Maritime Museum in Kopgalis. It is managed according to scientific and educational requirements to ensure its use for educational needs;

9.8.2. Landscape management zone of educational areas with urbanized environment — Ndu. This zone includes: the area of the former village of Kopgalis in Smiltynė, planned open air *kuršiai* ethnographic museum in the southern part of Pervalka, and the air force base (Žaliasis Road 1). It is proposed to recreate a small village typical of the *kuršiai* ethnographic group in the mid 20<sup>th</sup> century to exhibit the typical layout of the buildings and yards, tools, fishing net drying methods, the pier with old boats, etc. It must be managed according to scientific and educational requirements to ensure its use for educational needs;

9.9. Landscape management zones for defensive (military) purpose are the zones for defence and border guard infrastructure. Landscape management zone of defensive (military) areas with urbanized environment — Nhu. This zone is managed according to the requirements of the provided technological functions and creation of necessary infrastructure.

### III. DIRECTIONS AND MEASURES FOR THE PROTECTION OF NATURE

10. The main directions for the protection of nature in the national park are determined by the following key aims:

10.1. to preserve valuable natural complexes and objects;

10.2. to maintain the stability of the natural ecosystem;

10.3. to restore damaged or modified natural landscape complexes and objects.

11. In order to preserve valuable natural complexes and objects:

11.1. Granting the status of natural monuments to the following is proposed:

11.1.1. the status of geomorphological natural monument: to Giedružė Dune, Parnidis Dune and Avinkalnis Horn; the status of the hydrographic natural monument: to Ožkos Horn Lake;

11.1.2. the status of the botanical nature monument: to habitats in Eglės Valley, Daininkai Valley, and Griekynė Wash;

11.2. Mechanical means are recommended to strengthen the protection of natural heritage sites and monuments — fencing with wooden or wire structures that would not diminish the aesthetic value of the sites. These means are required at Parnidis Dune to prevent access to possible places of descent from the dune, to prevent access to Grobštas Nature Reserve, and to regulate the traffic of visitors in Nagliai Nature Reserve;

11.3. no new structures must be built on the Great Dune Ridge;

11.4. only a lifeguard station can be built on the protective dune ridge.

12. The stability of the natural ecosystem of the national park must be retained:

12.1. The national park is part of the Lithuanian natural framework, an integral part of the Baltic Sea coast geoecological watershed of great international importance. Its main parts are the Baltic Sea basin and nature reserves as well as landscape and geomorphological reserves of the national park located inland. The following is planned to strengthen the natural framework of the national park:

12.1.1. to enhance the protective functions of ecosystems in the forests — to increase their biological diversity and to develop more mixed stands;

12.1.2. to stop building in the natural sites of the national park; not to plan any design or build any residential, recreational, service or utility, or other buildings in the valuable natural sites;

12.1.3. when designing and constructing new buildings adjacent to the Great Dune Ridge, to maintain a minimum distance of 50 m from the bottom edge of the slope;

12.2. The following is proposed to maintain and improve environmental quality:

12.2.1. to maintain the hygienic quality of water areas;

12.2.2. to develop the infrastructure of waste collection and removal from the national park (this is provided in the master plans);

12.2.3. to enforce environmental quality monitoring;

12.3. When activities in the reserves are planned, the priority of the preservation of nature according to the landscape management zoning of the national park must be taken into account;

12.4. Conducting exploration for oil, gas or other mineral resources or exploiting deposits either on the inland or aquatic sites of the national park is prohibited. Exploiting minerals, except for the regulated extraction of amber, ground water, geothermal brine and fossil sapropel, is prohibited. Extraction sites must be selected outside the boundaries of reserves after all the necessary environmental impact assessment procedures have been conducted.

13. Carrying out the following work for the restoration of the natural landscape characteristic to the national park is recommended:

13.1. to restore the natural complex of grasslands and trees of the sand plain at the sea coast at Karvaičiai Landscape Reserve and the horns of Bulvikis, Great Preila, Pervalka and Birštvynas;

13.2. to rehabilitate the dune hummock and ripple landscape in the sections near Giedružė, Vecekrugas, Preila, Karvaičiai and Skirpstas dunes; near Karvaičiai Landscape Reserve; and in the protective regulated zones of Nagliai and Grobštas nature reserves;

13.3. to maintain the sand dune landscape in the protective regulated zones of Nagliai and Grobštas nature reserves by preventing the growth of shrubs and trees;

13.4. to open windows for panoramic views to Grey Dunes by carrying out pruning/cutting at Nagliai and Grobštas nature reserves.

#### **IV. DIRECTIONS AND MEASURES FOR THE PROTECTION OF CULTURAL HERITAGE**

14. Today there are 150 immovable cultural heritage sites listed on the Register of Cultural Property in the national park. According to order No. ĮV-190 of 29 April 2005 of the Minister of Culture of the Republic of Lithuania (*Official Gazette*, 2005, No. [58-2034](#)), six urban areas — Smiltynė, Alksnynė, Juodkrantė, Pervalka, Nida, and Preila — have been recognised as culturally valuable objects protected for public use. The areas of these culturally valuable objects coincide with the boundaries of cultural urban/architectural reserves.

15. The following main elements of cultural heritage are specified in the documents for the nomination of the Curonian Spit for inscription on the list of the UNESCO World Cultural and Natural Heritage:

15.1. areas (fishing villages) where works of man and nature are of outstanding universal value from the ethno-cultural, historical and aesthetic viewpoint;

15.2. monuments: architectural works, protective structures unique in their scale that are of outstanding universal value from a historical, artistic and aesthetic viewpoint;

15.3. archaeological sites, primarily buried villages.

16. According to the provisions of the Law on the Protection of Immovable Cultural Heritage of the Republic of Lithuania and international documents that govern cultural heritage protection, the main areas for protection of cultural heritage of the national park are as follows: recording, announcement of a protected object, protection (management and use), knowledge of the object, dissemination of information, and revival:

16.1. Recording — identifying new sites, taking inventory, and including the sites on the Register of Cultural Property. The aim is to record buildings, places of various events, cemeteries, and other objects and also to identify old villages that have been buried or vanished. To this end, special research is carried out, of which archaeological research is the most important. It is recommended to investigate, and after their valuable characteristics are identified, to include the following sites on the Register of Cultural Property:

16.1.1. Karvaičiai Hill;

16.1.2. the location of the village of Naujieji Nagliai;

16.1.3. the location of the village of Senieji Nagliai;

16.1.4. old cemetery (to the west from Nida);

16.1.5. the location of old cemetery (to the south from the location of Naujieji Nagliai village);

16.1.6. Jonas Hill;

16.1.7. Nuodėmių Hill and Griekai Ravine;

16.1.8. Old sites of Karvaičiai village;

16.2. Announcement of a protected object. In addition to the list of objects protected by the state, there could be a list of objects protected by local authorities. The aim is to

announce important protected objects of cultural heritage, focusing on the preservation of historical landmarks in this area;

16.3. Protection (management and use). The aim is to preserve the authentic expression, material, and other properties of a cultural property. This is achieved by regulating management and use. According to the structure and significance that determine its valuable properties, cultural heritage in the national park is heterogeneous. Preservation of single and complex heritage objects is governed by the Law on Protection of Immovable Cultural Heritage of the Republic of Lithuania. Management of these objects is carried out according to heritage requirements for the specific object after assessing valuable properties of the object, recording them, and identifying the aims for the protection of the object;

16.4. Knowledge of the object and dissemination of information. The aim is to provide conditions to know, understand and disseminate information about the object. The measures to be used include development of infrastructure for cultural and educational tourism and hosting events at the heritage site and other locations that would make the cultural heritage known, placing informational boards, etc. It is appropriate to create a museum exhibition of the Alksnynė wartime legacy — surviving fortifications and equipment of WWII — by restoring them properly and preparing to showcase them. In addition, it is appropriate to exhibit the remaining fortifications of WWII in Smiltynė;

16.5. Revival. This direction is not particularly important for the national park, because there is hardly any endangered or abandoned cultural site. These include military heritage objects identified and inscribed on the List of Cultural Property recently and newly identified sites of archaeological heritage. Revival of cultural heritage includes not only material recreation of an object, but also revival of past traditions to highlight the uniqueness of the national park. Revival and promotion of the oldest Curonian (Baltic) historical archetypes and traditions is particularly encouraged. Examples of timber construction must be in particular focus because they are least resistant to the impact of time and availability of new building materials;

16.6. Restoration of dilapidated or destroyed cultural heritage property. This kind of work can be carried out only in exceptional cases, when the dilapidated valuable properties are identified. These are objects that may have a particular educational or conceptual importance, and heritage protection work, construction, and landscape management are carried out based on research. It is appropriate to restore the old inn (Smėlio Karčiama) in Smiltynė according to historical data and to consider the possibility to restore the villa, Smiltynė Beach Hall (Strandhalle) according to historical data.

17. The differentiation between an urban area and an urban reserve is determined by allocated landscape management zones that provide guidelines for regulating the protection and management of these zones.

18. Management of and operations on the cultural heritage sites of the national park, depending on their valuable characteristics, specified in a certificate for the site, and their

protection aims, are identified in the Law on Protection of Immovable Cultural Heritage of the Republic of Lithuania.

19. Protection, management and use of protected sites or cultural reserves are governed by the rules for cultural reserves, protection regulations, and the special planning documents for immovable cultural heritage protection prepared according to the provisions of the Law on Protection of Immovable Cultural Heritage of the Republic of Lithuania and the requirements of the “Rules for preparation of special planning documents for immovable cultural heritage protection” approved by order No. IV-261/D1-322 of 23 June 2005 of the Minister of Culture and the Minister of the Environment (*Official Gazette*, 2005, No. [81-2973](#)).

## **V. DIRECTIONS AND MEASURES FOR DEVELOPMENT OF RECREATION**

20. During development of the system for recreational use of the national park, priority is given to qualitative rather than quantitative development of recreation. The following directions for the development of recreation in the national park are proposed:

20.1. to encourage educational visits to the National Park: to regulate visitor flows, to highlight the uniqueness of the Curonian Spit, and to promote outdoor recreation and educational tourism, as well as the effect of natural (resort) resources on health;

20.2. to provide conditions for visiting the national park all year round;

20.3. to improve the service and comfort level of the existing accommodation and recreational facilities;

20.4. to form forest parks specified in this Plan and install the necessary recreational infrastructure;

20.5. to develop infrastructure in all beaches of the national park in line with the Blue Flag requirements;

20.6. to update and improve public infrastructure of residential and recreational areas;

20.7. to develop a network of bicycle and pedestrian paths and to implement programmes for adaptation of the recreational environment of the national park for the disabled;

20.8. to develop tourist links between the national park and the eastern coast of the Curonian Lagoon — to revive and build marinas in Smiltynė, Juodkrantė, Pervalka and Preila;

20.9. to link the system of cycling and water (Curonian Lagoon) tourism trails with the tourist trails in the Kaliningrad Oblast.

21. Recreational function of the national park: quiet outdoor recreation, swimming, sightseeing, hiking, biking, amateur fishing, sailing, water tourism, etc. Recreational activities are usually concentrated in residential areas, their immediate environment, and the beaches.

22. The following beach management provisions apply in the national park:

22.1. The use of the beaches on the Curonian Spit is based on scientifically supported limits for intensity of use;

22.2. The established use of the beaches on the Curonian Spit basically remains unchanged. Beach facilities and management depend on the number of visitors; beaches near the larger residential areas — Nida, Juodkrantė and Smiltynė — therefore differ from those in Preila and Pervalka. The former ones have more developed infrastructure while the latter ones contain minimal infrastructure. As a result, there are two types of beaches on the Curonian Spit:

22.2.1. with developed infrastructure;

22.2.2. with minimal infrastructure;

22.3. Both types are managed according to the general land management rule: the coastal zone landscape must be retained natural as much as possible. Only essential facilities are installed: lifeguard stations. Temporary pavilions can be erected for seasonal visitor services. All buildings designated for visitor services and hygiene needs must be built behind the protective coastal dune. They must not be visible from the sea. Unique and original beach infrastructure that would maintain architectural elements characteristic to the Curonian Spit — small architectural objects (changing cabins, litter bins, benches, etc.) — is created;

22.4. Beaches consist of zones that go parallel to the shoreline and are allocated to different use and management regimes:

22.4.1. swimming zone — the sandbar and the wet part of the beach;

22.4.2. walking zone along the shoreline — the wet part of the beach;

22.4.3. sunbathing zone — the dry part of the beach;

22.4.4. protective coastal dune ridge which has sandy areas (solariums) surrounded by interlaced fencing made from natural materials;

22.4.5. the area behind the dunes — plantings with clear areas for sunbathing in windy weather;

22.4.6. service zone, including small traders and food service facilities along the path (that runs parallel to the seashore) behind the dunes with car parking and play areas.

23. Both types of beaches have the same use and management zones that go parallel to the shoreline and the zones that run perpendicular to the shore. The lengths of the zones, number of access points to the beach, and number of parking places differ in each location. At the beaches with minimal infrastructure, a single beach access point is sufficient. Beaches that have fewer visitors require fewer visitor services.

24. The locations and sizes of services and commercial buildings, as well as their architectural style, are specified in the beach management projects. General requirements for architecture of the buildings and structures in the national park and for management of the environment apply to commercial buildings and leisure facilities in the national park: the motifs of fishing homesteads, old villas, and/or recreational coastal environment that reflect the unique architecture of the national park must be used in buildings and structures.

25. It is planned to prepare a beach for visitors in Alksnynė and expand the beach in Juodkrantė to the south. Beach management projects must be prepared for this purpose.

26. The beaches of each settlement have a main beach service centre and/or other beach service centres. They provide food, commercial (small trade), rental, and recreational services, and conditions are provided to satisfy hygiene needs. The scope of services provided on the main beach and other service centres differ.

27. Educational tourism in the national park consists of tourists arriving by cars, bicycles, and water transport and hikers.

28. The main tourist transport route is the Smiltynė-Nida Road. Management of the road varies according to the requirements for functional priority zones of the national park. The following functional priorities have been identified:

28.1. aesthetic environment priority in the landscape preservation and recreational zones;

28.2. natural value priority in nature reserves:

28.2.1. trees and shrubs that pose a hazard to traffic safety are felled, pruned, labelled with reflectors, or enclosed with guard rails;

28.2.2. the shapes of natural relief must not be destroyed or removed by excavating;

28.2.3. a speed limit is imposed in the national park more often than in other parts of the Curonian Spit.

29. For the needs of motorised tourists, a campsite is provided in the recreational area of Nida.

30. Cycle paths and their environment. A cycle path system is being developed. It consists of cycle paths for different purposes, with different technical equipment intended for tourists, holidaymakers and local residents. Major cycle paths are marked on the drawing of this Plan. If necessary, other cycle paths can be built. Two new eco-campsites are planned in recreational zones of Pervalka and Smiltynė exclusively for visitors arriving by bicycle, by water transport, and on foot. Parking of caravans is not allowed in eco-campsites. The facilities available in the campsites and the capacity of the site must be determined in the detailed plans for this area. The bulk and shapes of buildings must be compatible with the general requirements applicable to the architecture of residential areas of the Curonian Spit. Completion of the following paths is recommended:

30.1. according to the type of route:

30.1.1. linear transit trail across the entire national park — the Neringa Band (now EuroVelo 10);

30.1.2. ring-shaped picnic paths — paths around residential areas;

30.1.3. local functional paths connecting residential areas and popular sites or places of work;

30.2. by function:

30.2.1. for tourists travelling along the Neringa Band across the entire Curonian Spit and visiting all sightseeing attractions;



30.2.2. holidaymakers travelling to residential areas (Nida, Juodkrantė, Smiltynė, Preila and Pervalka) for educational, entertainment and sports purposes;

30.2.3. holidaymakers cycling from their accommodation to the beaches;

30.2.4. local residents going to work in a residential area or between them;

30.3. When designing the paths, the needs of the path users and environmental requirements must be taken into account:

30.3.1. It is very important for travellers on the Curonian Spit that the route is informative. Except for functional routes, travellers along these paths must be provided with the opportunity to visit as many sightseeing attractions as possible;

30.3.2. Environmental requirements for the paths depend on the landscape management zone that the particular section of the path crosses;

30.4. An extension of the Neringa Band (EuroVelo 10) cycle path from Nida to the state border and an alternative cycle path along the Curonian Lagoon from Alksnynė to Smiltynė are planned.

31. In the area of hiking tourism on the Curonian Spit, educational pedestrian paths have priority:

31.1. educational paths in the Parnidis Landscape Reserve and Nagliai Nature Reserve and the Dendrological Trail are maintained;

31.2. the following new hiking paths are planned:

31.2.1. a route connecting the Juodkrantė promenade paths with the Avinkalnis observation platform;

31.2.2. educational trail on Vecekrug dunes;

31.2.3. extension of the path on Parnidis Dune in Nida to the gliding school.

32. Quite a dense network of paths and roads is available in Juodkrantė Forest Park. Pedestrian paths with gazebos and observation platforms were here at the beginning of the 20<sup>th</sup> century. It is proposed to restore the network of pedestrian paths based on historical documents.

33. Pedestrians are allowed to walk along the entire coastline (seashore) of the Curonian Spit.

34. The following recreational sites are managed and maintained: Pajūris (recreational zone of Nida); Bulvikis, Rožių Krūmas and Medžiotojų (Karvaičiai Landscape Reserve); Avinkalnis (Gariai Hill Landscape Reserve), Prie Šulinio (Smiltynė recreational area), Baravykynė (Alksnynė Landscape Reserve), Pajūrio Palvė (Pervalka recreational zone), and Sengirė (Juodkrantė recreational zone). A recreation site is planned at the 12<sup>th</sup> kilometre of the Smiltynė-Nida Road near the existing car park at the lagoon.

35. The following observation platforms are managed: Parnidis Dune and Urbas Hill (the geomorphologic reserve in the Nida dunes) Nagliai Dune (Nagliai Nature Reserve), Avinkalnis (Avinkalnis Landscape Reserve), stork and cormorant breeding sites and Jonas (Ragana) Hill (Garniai Hill Landscape Reserve), and Bear's Head Dune (Alksnynė Landscape Reserve).

36. Locations for the following new observation platforms are shown in the drawing of this Plan: Vecekrug Hill, Preila Dune, and Skirpstas Dune (Karvaičiai Landscape Reserve); Ragana Hill (Ragana Hill Landscape Reserve); and Hagen Hill (Hagen Ridge Geomorphologic Reserve).

37. Water tourism is the use of the characteristic feature of the Curonian Spit, the surrounding waters, for the development of water transport and tourism. Land tourism in the national park is reoriented to water tourism and water tourism should become a priority form of recreation. The following are the main directions for the organisation of water tourism in Curonian Spit:

37.1. promotion of visitor travel by water transport to the Curonian Spit — development and improvement of marinas and piers;

37.2. regulation and reduction of car traffic;

37.3. promotion and support of excursions by water transport, preparation of water routes for viewing the Curonian Spit from the lagoon, and construction or adaptation of piers for tourist ships near sightseeing attractions other than nature reserves (it is strictly prohibited to disembark from ships in nature reserves);

37.4. promotion and support of recreational activities in the lagoon and the sea (recreational boating, sailing, sport fishing, etc.);

37.5. restoration of traditional historical shipping and fleet, promotion and support of the construction and use of ethnographic ships (called *kurėnai*) for recreation, and construction of marinas (for *kurėnai* ships too) in Preila and Pervalka.

38. Horse riding on the Curonian Spit cannot be developed since it is not characteristic to the place. In addition, the surface of the Curonian Spit is sensitive continual intensive trampling. If necessary, an opportunity to revive and use the old post road could be examined.

39. The control of visitor traffic is an important condition for the existence of the national park. The following are the aims of the visitor traffic control on the Curonian Spit:

39.1. to use the Curonian Spit according to the requirements of the provisions of the Law on Protected Areas (*Official Gazette*, 1993, No. [63-1188](#)), the Rules for the Curonian Spit National Park, approved by decree No. 308 of 19 March 1999 of the Government of the Republic of Lithuania (*Official Gazette*, 1999, No. [27-766](#), 2004, No. [96-3539](#)), this Plan, and the requirements for world cultural and natural heritage sites. Visitors must be channelled to the sites designated for visitors and must not be allowed in prohibited areas;

39.2. to ensure adaptation of natural and cultural heritage sites for visitors;

39.3. to maintain adequate conditions for recreation on the beaches: the total number, distribution, and activities of beach visitors must be controlled. To prohibit activities that make conditions for the recreation of other beach visitors worse, harm the environment, and are incompatible with the operation of the national park and a world cultural and natural heritage site.

40. Groups of measures for the control of visitor traffic on the Curonian Spit:

40.1. Development of recreational infrastructure. Since the concentration of visitors should be in the places where there are the most interesting objects (service, sales), their layout and positioning must be consistent with the requirements for the protection of natural and cultural heritage;

40.2. Control using economic and financial instruments. Generally, visiting is not prohibited, but through tolls, charges, and other measures the number of visitors is restricted. In addition to the admission fee to the Curonian Spit, a charge for visiting certain areas and sites and other measures could be imposed;

40.3. Installation of physical restrictions for moving around the area: gates, fences, barriers, etc. on forest roads and sandy areas;

40.4. Administrative control of visitors, prohibitions, and their enforcement: installation of informational signs, arrows, stands, and other measures.

41. An open-air *kuršiai* Baltic tribe ethnographic museum dedicated to showcase both the lifestyle of the *kuršiai* and Baltic mythology is planned on the real Raganos Hill in Raganos Hill Landscape Reserve.

## VI. FOREST MANAGEMENT

42. The following are the directions for the management of forests in the national park:

42.1. optimisation of the layout of forests in various zones;

42.2. differentiation of forest management in the zones;

42.3. protection and strengthening of the overall biodiversity and application of measures that increase biodiversity;

42.4. formation of stands of a variety of species and ages, optimisation of the felling system, and improvement of the sanitary condition of stands;

42.5. development of forest parks with recreational infrastructure;

42.6. reduction and gradual elimination of non-native plant species in the national park.

43. Optimisation of the layout of forests in various zones is associated with the stabilisation of the forest and building zone boundaries within the area stipulated in this Plan.

44. Differentiation of forest management according to the requirements for functional priority zones (conservation, recreation, etc.), needs for conservation and use, and landscaping management zones and their regulations.

45. The following is required to protect and strengthen overall biodiversity:

45.1. to carry out planting in the forest according to the type of stand and characteristics of the site, to combine artificial planting with natural regeneration, and apply the latter more widely under certain conditions;

45.2. to preserve small forest areas, grassland and swamps;

45.3. to use measures to increase biodiversity (retain deadwood and snags, protect hollows and nests, anthills, etc.);

45.4. to preserve and maintain protected species and habitats in good condition;

45.5. look for ways to stop spreading of *Robinia pseudoacacia* and other non-native plants

46. Formation of stands of a variety of species and ages involves an increase in biodiversity, felling (selective, sanitation and special) tailored to landscape management zones, and continuous improvement of the sanitary condition of forest stands. In the Curonian Spit, it is necessary:

46.1. to replace mountain pine stands marked in the drawing of this Plan by coupe felling regardless of the age or condition of the trees; to plant *Pinus sylvestris* forests or mixed forests with deciduous trees or leave small areas deforested, thus revitalising the spatial structure of forest parks. Groups of mountain pines or small forests can be left as natural biocenoses stands or demonstration objects and ornamental accents near educational paths and sightseeing attractions;

46.2. to carry out reforestation of the ancient wood (the pine forests of the area) that have reached and passed their natural maturity of 220 and more years in the landscape reserves of Garniai Hill and Ragnos Hill and forest parks of Juodkrantė and Nida. The work must be carried out consistently by applying natural regeneration measures to ensure that new self-planted stands with plants of various ages will form in the future;

46.3. to carry out sanitary felling according to the prescribed procedures. Felling must be carried out annually in locations with intensive visitor traffic;

46.4. to carry out selective felling regularly. Trees and shrubs must be felled if it is not worth growing them economically, biologically, for protection purposes, or recreational needs. Selective felling of local trees and shrubs should be carried out;

46.5. to carry out felling to maintain biodiversity and provide optimal conditions for the growth of rare and protected plants according to the recommendations of botanists; to implement nature management measures stipulated in nature management plans;

46.6. to carry out felling for landscape formation mainly in forests for recreation and landscape reserves in order to build observation platforms.

47. Forest reserves must be recreated and *Pinus sylvestris* stands must be maintained on the sand plains at the shoreline and the Great Dune Ridge in Nida.

48. In Juodkrantė, naturally growing ancient pine woods must be retained. The Great Dune Ridge in Alksnynė Landscape Reserve must be split into different zones for target formation:

48.1. the northern section (from Kopgalis to the remains of the fort) affected by the recreational needs of Klaipėda: the mountain pine will not be retained and the same forest management policy must be applied as for Hagen Ridge Geomorphological Reserve. This part of the dune ridge is allocated for *Pinus sylvestris* stands, which have a greater recreational capacity and are relatively less prone to fires;

48.2. the middle section (Alksnynė): in the surface fire area, an open landscape of the Great Dune Ridge will be formed. The great surface fire area must be managed according to the following principal guidelines:

48.2.1. the south-western section of the burnt out forest on the hill (the clearfell must not be afforested) on the Great Dune Ridge will be transformed into a landscape of sandy grassland (open spaces where regeneration will be prevented) with small patches of natural forest plantations (especially in the low-lying areas where they do not detract from the scenic value of the landscape), but without restoring the stands. This regenerated section of the Great Dune Ridge could in the future reduce the visitor traffic on the dunes of Nagliai Nature Reserve;

48.2.2. the area at the car park will be left to showcase the surface fire area and the consequences of fires in the stands of mountain pines;

48.2.3. in the regenerated stand, selective felling will be carried out in order to form a mixed stand attractive for visitors;

48.2.4. non-native invasive species (e.g., *Robinia pseudoacacia*) must be regularly eliminated throughout the entire surface fire area;

48.2.5. according to the research (monitoring) programme developed by scientists, a network of permanent observation plots must be installed to research management of surface fire areas, their restoration techniques, typical development patterns of pine forests (e.g., natural stability and possible successions of stands of mountain pines), and recreational impact on sandy ecosystems;

48.3. the southern section: the area covered with stands of mountain pines with a single patch of *Pinus sylvestris* that is recommended to be restored.

49. Open grassland perimeter buffer strips in the mountain pine forest should be formed and maintained in Alksnynė and Karvaičiai landscape reserves where the stands border built-up areas or are crossed by roads or cycling and pedestrian paths. Buffer strips are formed by clearing mountain pines. The minimum width of a buffer strip is 20 m. The purpose of a buffer strip:

49.1. to reduce the risk of quickly spreading wildfires affecting local residents, their property, and visitors to the Curonian Spit;

49.2. to reduce the risk of fire spreading in stands of mountain pines;

49.3. to reduce the likelihood of fire in the mountain pine forest.

50. The future direction of forest management on the Curonian Spit is a targeted (without interference of fires) formation of open spaces on the Great Dune Ridge. This would replace reforestation with mountain pine stands when this process becomes impossible due to biological or environmental factors and would help to avoid the spread of *Pinus sylvestris*, which is unacceptable from the point of view of landscape architecture, to the landscape of the Great Dune Ridge. To pursue this prospective direction, felling stands of mountain pines that have degraded due to biological, anthropogenic, or other causes or reached their maturity in the Alksnynė and Karvaičiai landscape reserves is proposed. In the cutovers that will not be

afforested, an open grassland landscape should be maintained with the purpose of forming new observation sites, reducing visitor traffic to the dunes of the Parnidis and Nagliai nature reserves, increasing habitat diversity in the national park, and restoring and maintaining the following prioritised dune habitat types according to the EU Habitats Directive: 2130 grey dunes and 2140 dune heaths.

51. Reforestation of the mountain pine forests in the southern part of Karvaičiai Landscape Reserve must be carried out only on the dune located near Vecekrug and in Giedružė Dune, which is currently forested with both mountain pine and *Pinus sylvestris* stands.

52. It is recommended to divide pine forest, which is prone to fires, into smaller sections using the borders of existing network of quarters.

53. Natural complexes of grassland and tree groups typical to the Curonian Spit will be gradually restored in the sections of the sand plain of the lagoon horns, dune hummocks, and ripples.

54. Management of the forests in the nature reserve zones with a regulated regime is related to the maintenance and display of open sandy ecosystems, preventing them from natural regeneration.

55. The following are the key objectives for the formation of recreational forests:

55.1. to increase the recreational potential, ability to tolerate large numbers of visitors, and uniqueness of the landscape of the Curonian Spit;

55.2. to prepare and implement models for management of individual recreational forests — forest parks, recreation parks and dune parks — based on forestry, landscape ecology, and architectural approaches;

55.3. Forest park management is differentiated according to the following subzones:

55.3.1. central – covering the part of the Curonian Spit between the residential area and the beach (which is predominantly the Great Dune Ridge). This applies to Smiltynė Forest Park, which becomes a recreational park on the lagoon side. In the parks of this subzone on the Curonian Spit, the following recreation and activities are allowed: quiet strolls, observation of panoramic vistas, picnics, outdoor games, educational visits, sports walks or sports training, orientation sports, cycling on designated paths, sightseeing (visiting ethnic cultural heritage and natural monument sites, recreational facilities, and other facilities), quiet recreation, mushroom and berry picking, and skiing (in winter);

55.3.2. coastal — sea coast beaches and dune parks in Nida, Preila, Pervalka Juodkrantė, and Alksnynė. In this subzone, a quiet stroll, sunbathing, picnics, quiet recreation, and mushroom and berry picking are allowed;

55.3.3. lagoon — narrow forest strips near Preila, Pervalka and Alksnynė. In this subzone, a quiet stroll, sunbathing, picnics, and outdoor games are allowed.

56. In terms of architecture, forest parks and recreation parks of the Curonian Spit should be a closed-type landscape because there are many other naturally formed large open spaces such as the sea, lagoon, or deforested dunes.

57. The spatial structure of the forest and recreation parks in Nida and Smiltynė is determined in the projects for these parks because they bear the largest recreational load. Radical optimisation of both the spatial structure and the composition of species in the forest in Smiltynė is required because the forest contains the largest mountain pine areas, which are not conducive to recreation and must be substantially reconstructed. The spatial structure of Juodkrantė forest park must be formed through reforestation according to the historical material available on the forest park.

58. The natural type of forest parks on the Curonian Spit is retained and the required equipment and structures (gazebos, benches, directional arrows, information boards, wellness equipment) are planned in the most frequently visited areas: near paths, clearances, wellness trails, and exhibits. Recreational equipment must be placed to direct the visitor traffic in the desired direction, thus protecting landscape objects sensitive to visitor traffic. A much denser network of recreational facilities designated for intensive visitor traffic is planned in Smiltynė recreation park.

59. Recreational forests of the Curonian Spit must be formed according to their functions and location: forests near roadsides, near yards of residential areas, and in the zones of most and least intensive visitor traffic.

60. The following guidelines are applied to the formation of protective planting: protective planting near roads must improve the conditions for the use of the road and durability of engineering facilities, as well as protect adjacent areas from the harmful effects of road traffic. Roadside planting must be consistent with the type of planting typical to the Curonian Spit. The purpose of plantings in the forest parks is to suppress noise.

61. The following are the main guidelines for the formation of scenic stands:

61.1. they must contain a variety of types of spatial arrangement (in various combinations, closed, semi-open and open forest types);

61.2. the species of plants in the stands have a great effect on the recreational value of the stand: dry pine and birch forests are most suitable. According to age, mature, nearly mature, and middle-aged stands are most suitable. Exemplary specimens of attractive stands are the old stands in Juodkrantė and Nida.

62. The following are the main guidelines for the formation of semi-open type stands:

62.1. reconstruction of the spatial structure of the forest is carried out; more open and semi-open spaces are formed. Felling to form the landscape is performed. In order to reduce spaces, divide them, or define their contours (without expanding the space), planting is performed;

62.2. forming of clearances and sparse plantings highlights the terrain. Areas of forest could be cleared to provide for viewing clearances from above the stands lying beneath. Spatial reconstruction is mostly required in low value or damaged stands. The exemplary specimen of this type of stand is at the foot of Avinkalnis hill at the lagoon.

63. The following are the main guidelines for the formation of ornamental edges of the forests:

63.1. plantations must not be formed in straight lines;

63.2. contrasting types of parcels of land must not change more frequently than once every 200 m, and along the roads this should be no more than once every 500–600 m;

63.3. measures for the formation of expressive edges of the forests: thinning of dense stands at the edges, opening of scenic clearances, emphasising different layers of the forest, group compositions, and ornamental plantings.

64. Natural biocenoses stands are usually formed outside the forest parks, closer to the roads. Individual forest areas must be left unchanged. Only minimum facilities are installed.

65. Recreational infrastructure of the forest and recreational and dune parks consists of rest areas, places of respite, shelters, game and picnic grounds, observation platforms, visual artistic highlights (sculptures, monuments, ornamental accents, objects with historical value), paths, and other equipment and information signs required by visitors. Places of respite and observation platforms should be designed near the routes with heavy visitor traffic, while shelters and picnic grounds should be farther away from them.

66. Felling to form the landscape must dominate in recreational forests and must be applicable to the stands of any age, structure or size.

67. Most felling to form scenic sights should be performed in low quality recreational forest sites in order to develop overgrown pine forests. Selective felling should reveal more interesting trees and scenic views of the old Juodkrantė forest and spice up the monotony of the roadside forest by opening forest clearances, juniper shrubs and groups of juniper shrubs, black alder, and other stands hidden by the shrubs.

68. Development of dense 20–40 year old conifer and older birch tree forests in the subzone of intensive recreational use is recommended. Due to the risk of storms and the agro-reclamation value of forests for sandy areas, conspicuous, fairly attractive stands or dense dwarf pine forests on the dune slopes must be retained.

69. It is recommended to use partial reforestation techniques, including reforestation before harvesting. Continuous regeneration must be applied to the reconstructed mountain pine stands, especially in the forest parks of Nida and Smiltynė.

70. Afforestation on the Curonian Spit is restricted in order not to plant in the forest clearances and avoid overly dense growth in forest and recreational parks. Any planting must be carried out using only the seedlings of native tree species. Mountain pine planting traditions are maintained in specially designated areas.

71. The following preventive measures are applied to improve the health of the forest and recreational parks on the Curonian Spit: timely sanitary felling, reduction of the negative effects of recreation by controlling visitor traffic, forming of a favourable spatial structure and species of vegetation, and improvement of recreational facilities. The use of biotechnical means provides favourable conditions for beneficial forest fauna, which limits reproduction and spread of pests. It is necessary to protect anthills, create artificial nesting places for insect-eating birds, and plant more seed- and nectar-producing trees and shrubs. It is recommended to cut tree stumps as low as possible in the forests with heavy visitor traffic.



## VII. COASTAL MANGEMENT

72. In view of the specific use and protection of the national park, it is appropriate to apply a selective coastal management policy based on the priority of protecting the environmental and natural coastal processes, i.e. protecting from erosion those coastal zones that are important for conservation or management purposes and where relocation of important objects (residential areas, infrastructure complexes, and natural and cultural monuments) from the zone is not possible.

73. Coastal management in the national park should be based on a complex coastal management ideology and should be carried out as an aggregate of coastal management measures for ensuring sustainable coastal zone management and protection by taking the dynamic integrity of coastal processes and natural coastal development trends into account.

74. Human interference in natural coastal processes is permissible only when there is a direct risk of natural disasters affecting residents and there are no other means to prevent these disasters. Natural coastal processes are recognised as protected natural value. These coastal dynamics are provided for by Helsinki Commission recommendations (HELCOM, 1996).

75. It is prohibited to implement ineffective systems of measures in the national park by using scrap reinforced concrete and other building debris that would spoil the landscape, give rise to the formation of sources of pollution, interfere with natural processes, and promote destruction of adjacent sections of the coast. Priority is given to restoration of the protective coastal dune ridge, beaches, and shallow near-shore zones and creation of new geoforms.

76. It is planned to apply the following coastal management measures in the national park:

76.1. to fortify the western slope of the protective seacoast dune ridge in the sections of Smiltynė, Eumas Dunes, Amber Bay, Juodkrantė, Preila and Nida by using layers of tree branches or layers of tree branches combined with interlaced fencing made of natural materials;

76.2. to fortify the protective seacoast dune ridge with layers of tree branches or interlaced fencing made from natural materials throughout the entire coastal zone, particularly in the strongly eroded (more than 5 % of the area) dune ridge sections located near Nida, Preila, Pervalka, Juodkrantė and Smiltynė;

76.3. to regenerate natural beaches and the protective sea coast dune ridge in heavily damaged sections of the ridge or coast between Giedružė and Vecekrug dunes, near Little Preila Bay, between Jonas and Ieva hills, and near Kopgalis where there are badly damaged sections of the coast and large eroded washes;

76.4. to install timber paths and stairs to access the sea in the dune parks with the most intensive visitor traffic near Nida, Preila, Pervalka Juodkrantė, Alksnynė and Smiltynė where

it is necessary to neutralise the negative influence of visitors on the protective coastal dune ridge;

76.5. to fortify the coast near Kopgalis using geotechnical means (morphoforms), particularly where the coast and the littoral zone of the coast are strongly eroded.

77. Implementing the following additional management measures for the seacoast zone is recommended:

77.1. restoring information signs for the forest quarters on the coast;

77.2. eliminating objects that aggravate the condition of the coast: various remaining structures or accumulations of trash;

77.3. controlling the flow of visitor traffic: closing paths and clearances leading to the sea (by installing guard rails or using other measures) to reduce visiting prohibited sites, particularly those located in nature reserves.

78. The following is planned in terms of coastal management of the lagoon coast of the national park:

78.1. to protect (natural coastal) processes: it is prohibited to interfere with natural coastal processes, i.e. to carry out fortification or reconstruction of the coast in any section of the nature and landscape reserves of the Curonian Lagoon coast;

78.2. to use biological means of coastal protection: to apply biotechnical coastal stabilisation techniques to artificially establish reeds or beds of other macrophytes that attenuate the waves and to strengthen coastal plantations (willows and others) in the southern part of Bulvikis Horn and the northern part of Lybis Bay at Eumas Hill;

78.3. to use stone groins to strengthen the coast near the southern edges of the residential areas of Preila and Pervalka;

78.4. to fortify the coast using geotechnical measures: to establish artificial coastal morphoforms in the southern part of Bulvikis Horn, near extractive and communications infrastructure zones where both the coast and the littoral zone are badly eroded and also near the northern edges of the residential areas of Preila, Pervalka and Juodkrantė;

78.5. to reconstruct the embankments of Preila and Pervalka that are in poor condition.

79. Implementing the following additional management measures for the lagoon coast zone is recommended:

79.1. eliminating objects that aggravate the condition of the coast: various remaining structures or accumulations of reinforced concrete scrap or household waste (garbage), particularly at Bulvikis and Lybis horns and in Smiltynė;

79.2. controlling the flow of visitor traffic: closing paths and clearances leading to the lagoon (by installing guard rails or using other measures) to reduce visiting prohibited sites, particularly those located in nature reserves.

## **VIII. DIRECTIONS FOR THE DEVELOPMENT OF RESIDENTIAL AREAS AND INFRASTRUCTURE**

80. The development policy of residential areas and infrastructure is based on the aims and objectives of both the national park and the world cultural and natural heritage site, taking into account social and cultural needs and economic development within the framework of sustainability.

81. The following are the main guidelines for the development policy of residential areas and infrastructure on the Curonian Spit:

81.1. Preservation and use of historic urban structures and their elements (houses; road and path systems or their elements; individual homesteads; residential, public and utility buildings; etc.) of cultural heritage significance;

81.2. Satisfaction of the social, cultural and economic needs of local residents and visitors to the national park: management of residential areas, housing improvement, development and adaptation of infrastructure to modern needs if they are consistent with the aims of the national park;

81.3. Restriction of the development of urbanised (built-up areas, areas with services, roads, squares, etc.) in the national park zones primarily valuable for their natural or cultural assets.

82. The cultural, historical, urban, architectural and landscape value of residential areas or parts of residential areas in the national park varies, and therefore management objectives differ. Management of residential areas is divided according to landscape management zones, to which different management regulations apply as specified in Item 9.

83. The strictest regulation regime is applied in the preserving landscape management zone (GEk), the areas of Nida, Preila, Juodkrantė and Smiltynė where the most traditional Curonian ethnological architecture and historical recreational (old villa) architecture have been preserved. Parts of these residential areas are managed according to the requirements set out in Items 9.2.1–9.2.1.8.

84. A medium regulation regime is applied in renewable landscape management zone (GEr), parts of residential areas in Nida, Preila, Juodkrantė and Smiltynė, and also in Pervalka. The main management objective is to maintain the overall architectural image of these parts of residential areas and the spatial relationships of their landscape. These parts of residential areas are managed according to the requirements set out in Items 9.2.2–9.2.2.17.

85. The reorganising landscape management regulation (GEp) is applied in significantly modified parts of residential areas of Nida, Preila, Juodkrantė and Smiltynė that have in principle lost their architectural value as built-up areas but are important in the context of general historical urban development and have valuable elements of planned urban structure. These parts of residential areas are managed according to the requirements set out in Items 9.2.3–9.2.3.7.

86. Intensive (GRi) or extensive (GRe) landscape management zones are allocated to recreational parts of residential settlements of the Curonian Spit developed in the Soviet period. In intensive management zones, it is necessary to improve the quality of the residential and recreational environment, to eliminate or neutralise the existing general violations of urban landscape of the Curonian Spit, and not to increase building density or bulk. The particularly important work of restructuring and harmonising the environment should be carried out in the former auxiliary services area spontaneously formed without any functional or architectural integrity in the recreational area in the northern part of Nida.

87. Areas for new residential property development in Pervalka, Preila and Nida are allocated to the extensive management zones (GRe). Newly developed properties must retain traditional urban type of development, scale, proportions, architectural integrity, and harmony with the natural environment (water, forests and dunes) characteristic to the Curonian Spit. One part of the former Nida pioneer camp falls into the urban zone while the other (northern) part is allocated to the forest park in which a natural recreational environment will be restored and maintained.

88. In order to preserve world cultural and natural heritage sites, any objects that are alien to the Curonian Spit must be eliminated and the historical developed structure and borders must be restored.

89. A particularly valuable, minimally urbanised landscape complex that has retained its general natural character (forest–sand–water basin) is preserved in the national park. No new construction is planned. No reserve allocated for residential, public and economic construction outside the boundaries of the landscape management zones provided in the plan is available, and therefore further development of residential areas of the Curonian Spit must be directed to proper management and use of existing built-up areas, retaining density and height, i.e. it must be oriented to qualitative development. Recreational structures (recreational infrastructure facilities, service facilities, camp sites, etc.) can be built only in designated recreational priority zones.

90. Plantings of residential areas and homesteads on the Curonian Spit are developed according to local historical traditions, using well-adapted types of local trees and shrubs. Protective plantings consisting of groups of large trees are formed and medium-sized plantings and shrubs are used for creating complete spaces. Connection between built-up areas and forest parks is formed by the use of decorative edges of forests.

91. Protective planting strips are recreated on the lagoon coast. First, the existing plantings are managed, the embankment is cleared, the area is rehabilitated, paths are built, and, depending on the areas with possible accumulation of drift ice, areas for plantings are allocated. For planting on the coast, willow species well adapted to the local environment must be used. Decorative elements typical to the Curonian Spit must be used. It is recommended to restore former groups of plantings in the lagoon coastal zone (e.g. Juodkrantė lagoon waterfront) to protect residential areas against the wind, retaining plant species typical to the area.

92. The focus should be on improving and updating technologies and completing the work. New areas (only the smallest) can be allocated to technical infrastructure only in the most urgent cases, provided detailed justification of the need is provided. Locations of equipment or temporary structures are not in the focus of this plan.

93. Since the existing road network in the national park is sufficiently developed, there is no need to restructure it. It is proposed to improve the surface of the transit road crossing the Curonian Spit and to increase traffic safety. Reconstruction of Smiltynė-Nida Road must be carried out without substantial changes to the longitudinal and transverse profiles of the road; only the surface of the road should be improved, shoulders should be repaired, and a safe and aesthetically pleasing traffic space should be formed. Any work on the section of the road in Nagliai Nature Reserve must not damage anything protected under the law. The road junction near Nida, Juodkrantė, and other residential areas must be reconstructed.

94. Given the protection and use of functional zones, it is necessary to plan different parameters for different sections of road reconstruction, particularly in nature reserves.

95. It is important to build access and parking at the main sightseeing attractions in the national park:

95.1. in Nagliai Nature Reserve, only one parking lot is retained at Nagliai Dune for visitors of the reserve. The other three parking lots in the reserve must be demolished according to the procedure provided for in the law;

95.2. a new parking lot is planned between Nida and Preila, at Vecekrug Dune.

96. Since revival of water transport is a key priority for the development of the transport system, it is recommended to fulfil the marina development programme in Nida, Juodkrantė and Smiltynė consistently and to revive the marinas in Nida, Preila and Pervalka. Mooring places for the boats of local fishermen can be built in the existing or planned marinas. It is planned to build a tourist marina in Alksnynė.

97. The currently available airfield with minimal facilities and runway in Nida can be used for helicopters, gliders and light aircraft to land and move and the flying procedure must be strictly regulated. The currently available runway meets the requirements for such regulated use; lengthening the runway is prohibited because this would mean that the complex would be transformed into a civilian airfield.

98. The construction of a bridge across the Curonian Lagoon is not planned since it would be inefficient for transport and dangerous for the preservation of the Curonian Spit.

99. The following are the main guidelines for the development of the basic engineering infrastructure:

99.1. Energy resources that can be used to satisfy the needs of the municipality of Neringa are electricity, wood and other biofuels, and geothermal energy;

99.2. Electricity should remain the prioritised energy of the Curonian Spit. In order to reduce the number of accidents and improve the visual environment, the major part of the network should in the future be replaced with underground cables. First of all, the overhead line between the mainland and the Curonian Spit running through the island of Kaulės

Nugara, which causes accidents and spoils the environment, must be replaced with an underground cable, then the distribution lines crossing the dunes or recreational areas and power supply in residential areas should be replaced with an underground cable;

99.3. Renovating the heating supply units in Nida and Juodkrantė and replacing heating pipes in these settlements are recommended — to divide the former central heating pipeline networks and replace them with steel pre-insulated bonded pipe systems for directly buried networks;

99.4. Limited use of solar energy and the heat of the lagoon water may be alternative sources of energy supply in the future. Construction of wind turbines and their complexes is prohibited;

99.5. The master plan and part of the master plan of the municipality of Neringa municipality specify development policies and measures of water supply and the wastewater collection and treatment system. Development of the supply of drinking water and management of wastewater collection infrastructure is provided in the special plans of the municipality of Neringa.

99.6. Water quality improvement facilities are being improved in all settlements, and water supply systems are being expanded and adapted for fire-fighting needs. Buildings and structures available at water supply facilities can only be used for servicing the facilities. The centralised wastewater management will be replaced with separate water treatment facilities for Nida, Preila, Pervalka and Juodkrantė that would comply with modern sanitation and hygiene requirements and have an automated control system. Separate residential areas or groups of houses will be equipped with individual wastewater collection tanks, pumping stations, and pressure wastewater pumping systems, and also the former area in the southern part of the Pervalka horn treatment facilities will be rehabilitated;

99.7. Development of a waste-sorting, collection and secondary use system and removal of the sorted waste from the Curonian Spit to the inland landfill is a priority;

99.8. Technology yards of 0.5–1 hectare in size will be prepared by the roads near felling sites for firewood preparation and technological timber waste;

99.9. Construction of towers for technical infrastructure on the Great Dune Ridge is prohibited;

99.10. Locations for the NordBalt link and offshore wind turbines are specified in the master plan of Klaipėda County, the Marine Area Plan supplementing the Master Plan of the Republic of Lithuania, and special plans for energy infrastructure.

100. The use of advertising is controlled in the national park. It is prohibited to build advertising hoardings or place them on buildings, structures or trees in all observation platforms or spaces visible from observation platforms, landscape reserves or recreational zones. Advertising of traditional businesses and services of the Curonian Spit is allowed at the companies that provide the services or in designated residential areas of the national park. It is proposed to prepare special rules to regulate advertising in the national park.