

**Environmental and the Social Management Plan for the
Sub-Project:**

**„Renovation, reconstruction and extension of "Villa
Vangelina" on the green Katlanovo hill in the vicinity of
Skopje, Municipality of Petrovec“**



Content:

| | |
|---|----|
| 1. Description of the project | 4 |
| 2. Legal framework..... | 13 |
| 3. Basic Data/ Description of the location..... | 16 |
| 4. Environmental and Social Impacts..... | 27 |
| 5. Mitigation measures..... | 33 |
| 6.Environmental and Social Management Plan..... | 36 |

Introduction

Local and Regional Competitiveness Project (LRCP) is a four-year investment operation, supported by the European Union using funds from IPA II earmarked for competitiveness and innovation in Macedonia. LRCP will be managed as a Hybrid Trust Fund and consists of four components, executed by the World Bank and the Government of Macedonia. The Project will provide investment funding and capacity building to support sector growth, investment in destinations and specific destination prosperity. At the regional and local levels, the Project will support selected tourism destinations in the country through a combination of technical assistance to improve destination management, infrastructure investment and investments in linkages and innovation. The investments will be undertaken through a grant scheme for the regional tourism stakeholders such as municipalities, institutions, NGOs and private sector.

The investment will be at all times in line with the Environmental and Social Management Framework (ESMF) prepared for the Local and Regional Competitiveness Project.

This Environmental and Social Management Plan (ESMP) has been prepared for activities carried out under the subproject “Renovation, reconstruction and extension of Villa Vangelina on the green Katlanovo hill“.

The ESMP presents the environmental due diligence document comprised of project description, technical details, scope, setting and location based on which it assesses the environmental and social impacts and the avoidance and mitigation measures addressing them. Implementation of mitigation measures addressing the identified environmental and social impacts defined in the ESMP is mandatory.

The subproject will offer the possibility for establishing business and tourist contacts with the tourist agencies in Republic of Macedonia and will increase the tourist offer of the existing tourist agencies and the hotel-accommodation capacities (due to the probability that tourists will be more interested to visit this locality) as well as possibilities for self-employment of people from the local region.

1. Description of the project

The main goal of the sub-project is improvement of the overall experience of the visitors in the rural areas in the vicinity of Skopje.

Specific goals of the sub-project are:

- To improve the functionality and accommodation capacity of Villa Vangelina
- To attract tourists, visitors, that will visit and explore the locality - Katlanovo. The wider surrounding of this locality has diverse flora and fauna
- Villa Vangelina to be placed on the tourist map of the Republic of Macedonia
- To enable activities for exploration of the site.

Description of the current situation and existing objects in villa Vangelina

Existing situation in villa Vangelina is as follows:

- 2 bungalows are partly constructed (missing roof, insulation, stone façade and final mortar on the walls):
 - Bungalow 1 with 5 apartments, one room for ironing and terraces – Figure 1;
 - Bungalow 2 – with living room, terrace and 1 apartment (2 bedrooms), apartments in two bungalows are with a total capacity for accommodation of 22 visitors;
- Restaurant on an area of 70m² (capacity for 30 visitors), with a restaurant terrace (75m²), with a total capacity for 150-160 visitors – Figure 2;
- Center for education / organization of events / conference hall (70m²), with capacity for 60 persons;
- Existing parking area (cleared of low vegetation and leveled (800 m²) - Figure 3;
- Existing recreational swimming pool (12mx6m) – Figure 4, with seating area around the swimming pool of 400m², sanitary and technical part (12x5m²) equipped with 5 rooms from which 4 toilets and one room for wardrobe) – Figure 5. In technical part there is water pump and other mechanical and electrical equipment;
- Area with surface of 300m² foreseen for children's playground (cleared from grass and low vegetation).



Figure 1 Bungalow 1



Figure 2 Restaurant



Figure 3 Parking space

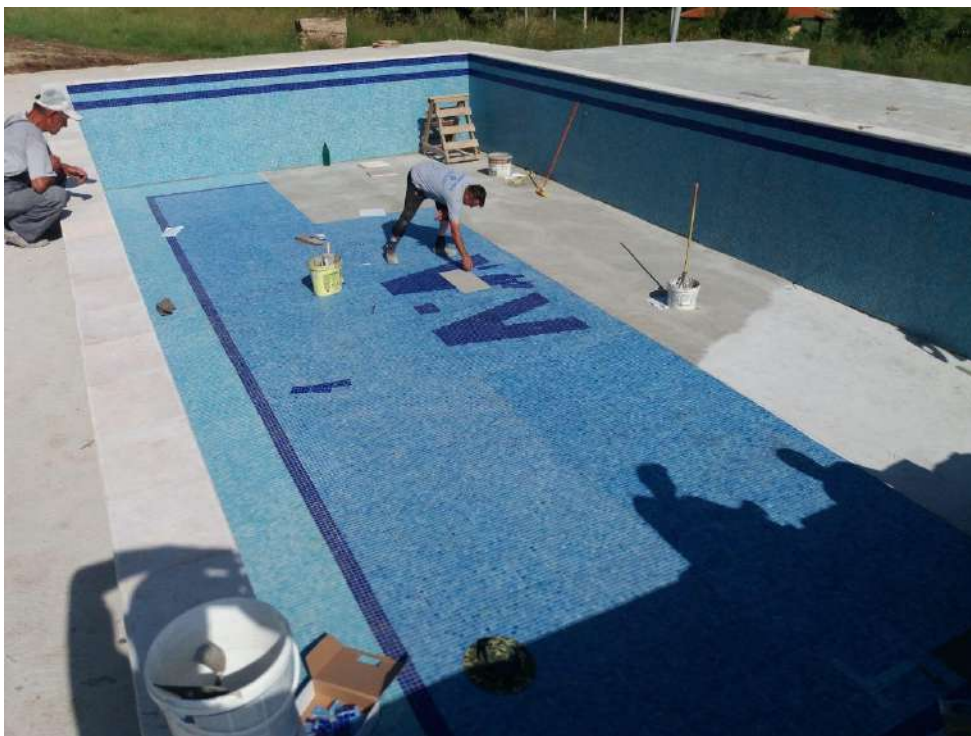


Figure 4 Swimming pool



Figure 5 Object foreseen for technical part and rooms for the pool



Figure 6 Location for installation of entrance door



Figure 7 Location foreseen for installation of entrance door for parking space

The main and specific goals will be achieved through the following sub-project activities:

1. Reconstruction and interior arrangement of 6 apartments. The apartments will be completely finished and arranged (installed roof, facade, carpentry, interior and exterior, electrical installation, plumbing, drainage and sewerage, lighting);
2. Equipping of the apartments in the style and ambience of the surrounding area and the offered content of the entire facility, providing all the conditions for a comfortable stay of tourists (installation of tiles, wooden floors, entrance doors, sanitary equipment, furniture, air conditioning, TV);
3. Renovation of the conference room – finishing works and arrangement of an attic and procurement of an equipment - (installation of new 13 windows, one interior door, 40 wooden chairs, 10 wooden tables);
4. Supply and installation of 4 solar panels – for increased energy efficiency - in order to save energy;
5. Development and installation of a web platform - in order to provide easy access to information about accommodation and other activities and contents of the facility;
6. Purchase of equipment for outdoor restaurant: 80 wooden chairs, 26 wooden dining tables, 15 plastic tables, 120 plastic chairs, etc.);
7. Purchase and installation of modern kitchen for restaurant, with: freezer compartment,

- vertical fridge freezer, fridge for fruits and vegetables, 10 refrigerator chambers under work tables 70x80 cm, 2 deep fat fryers, 2 built in hobs, 4 hobs, 1 oven, 1 washing machine, 1 dishwasher and working tables (12 m long);
8. Purchase and installation of sanitary equipment for baths and swimming pool area, such as: showers, wash basins and toilet faucets;
 9. Horticultural arrangement of the site with: evergreen woods, grass, flowers, irrigation system. ;
 10. Arrangement of the existing parking space - compacting with gravel and installation of lighting - providing parking space for 40 vehicles, 1 bus and 1 van;
 11. Arrangement of space for children's playground with children equipment for fun activities, purchase of 2 swings, 2 seesaws, area with sand and carousel;
 12. Installation of fence around the complex – 90 m wooden fence with 110 cm height and 280 m galvanized colored fence 125x50cm;
 13. Installation of 3 sliding doors: two-part metal door with an electric motor (5 m x 160 cm), entrance door two-part metal and wood (4,5 m x 160 cm) – Figure 6, and door for entrance in parking space two-part metal door with an electric motor (7 m x 160 cm) – Figure 7.

Layouts of apartment, restaurant and kitchen are given in Annex.

Water supply

The sanitary water for the needs of the employees, visitors of the villa, as well as for fire protection is provided from the local water supply network of the village of Blace, considering its vicinity. There is existing plumbing and water meters only reconstruction and installation activities are foreseen.

Waste waters management

All wastewaters from toilets will be collected in the existing concrete leakage proof (impermeable) septic tank (5mx5mx3m = 75m³).

Electrotechnical infrastructure

There is an existing electro technical infrastructure, so the objects will be connected on the existing power grid.

Below is a technical description of the planned activities under this sub-project.

Bungalow 1

Bungalow 1 is constructed as ground facility. The ground floor is with following functional contents: a living room, a kitchen with a dining room, two bedrooms with shower baths, toilets and a terrace. The floor will be from parquet and ceramic tiles. The ceiling of the attic will be performed as a lowered ceiling from plasterboard. All openings are provided with PVC locks that are glazed with thermopan flat emission glass 4 + 16 + 4 mm. All rooms are naturally illuminated through windows and doors.

Overall surface of this bungalow is as follow:

| | | | |
|-----------------------|----------------|---------------------|-----------------------------|
| 01 | Apartment 1 | Floor-ceramic tiles | 22,49 m ² |
| 01a | Bath | Floor-ceramic tiles | 3,42 m ² |
| 02 | Apartment 2 | Floor-ceramic tiles | 22,51 m ² |
| 02a | Bath | Floor-ceramic tiles | 3,42 m ² |
| 03 | Apartment 2 | Floor-ceramic tiles | 17,10 m ² |
| 03a | Bath | Floor-ceramic tiles | 3,42 m ² |
| 04 | Apartment 3 | Floor-ceramic tiles | 12,44 m ² |
| 05 | Bath | Floor-ceramic tiles | 14,07 m ² |
| 06 | Technical room | Floor-ceramic tiles | 22,51 m ² |
| 06a | Guard/security | Floor-ceramic tiles | 3,42 m ² |
| 07 | Apartment 4 | Floor-ceramic tiles | 22,13 m ² |
| 07 a | Bath | Floor-ceramic tiles | 3,42 m ² |
| Overall net surface | | | 150,35 m ² |
| 01 t | Terrace | Floor-ceramic tiles | 7,92 m ² |
| 02 t | Terrace | Floor-ceramic tiles | 6,93 m ² |
| 03 t | Terrace | Floor-ceramic tiles | 9,89 m ² |
| 06 t | Terrace | Floor-ceramic tiles | 7,31 m ² |
| 07 t | Terrace | Floor-ceramic tiles | 7,46 m ² |
| Overall gross surface | | | 238,50 m² |

Bungalow 2

Bungalow 2 is constructed as ground facility. On the ground floor there are following functional contents: living room, kitchen with dining room, two bedrooms with shower baths, auxiliary room, sanitary toilets and terrace. The floor will be made from parquet and ceramic tiles. The ceiling of the attic will be performed as a lowered ceiling from plasterboard. All openings are provided with PVC locks that are glazed with thermopan flat emission glass 4 + 16 + 4 mm. All rooms are naturally illuminated through windows and doors. In this object reconstruction of electrical installation, plumbing, drainage and sewerage is foreseen.

Overall surface of this bungalow is as follow:

| | | | |
|-----------------------|--------------------------|---------------------|-----------------------------|
| 01 | Living room | Floor- parquet | 28,40 m ² |
| 02 | Kitchen with dining room | Floor-ceramic tiles | 9,30 m ² |
| 03 | Toilet | Floor-ceramic tiles | 2,43 m ² |
| 04 | Bath | Floor-ceramic tiles | 3,48 m ² |
| 05 | Bath | Floor-ceramic tiles | 3,48 m ² |
| 06 | Bedroom | Floor- parquet | 15,50 m ² |
| 8 | Bedroom | Floor- parquet | 15,50 m ² |
| Overall net surface | | | 78,90 m ² |
| 08 | Terrace | Floor-ceramic tiles | 6,40 m ² |
| 09 | Terrace | Floor-ceramic tiles | 21,00 m ² |
| Overall gross surface | | | 122,76 m² |

Construction crafts, concrete and masonry will be performed in accordance with the Detail Design, and in accordance with the technical regulations and norms that are suitable for this type of works. Design foresees the following masonry works:

Bungalow 1

Facade wall

- Facade brick 12 cm (partially finished)
- Styrofoam 5 cm
- PE foil
- Thermal block 20 cm (finished)
- Mortar 2 cm

Internal partition wall

- Mortar 2 cm (finished)
- Hollow brick 12 cm (finished)
- Mortar 2 cm

Internal partition wall

- Hollow brick 25 cm (finished)
- Mortar 2 cm

Bungalow 2

Facade wall

- Facade brick 12 cm (partially finished)
- Styrofoam 5 cm
- PE foil
- Thermal block 20 cm (finished)
- Mortar 2 cm (finished)

Internal partition wall

- Mortar 2 cm
- Hollow brick 12 cm (finished)
- Mortar 2 cm

Floors

The floors are treated according to the type and purpose of the rooms and they will be covered with ceramic tiles. Attic will be polished and colored with poly color.

Carpentry

The foreseen external windows and doors are type PVC glazed with thermopan glass.

The internal parapet boards will be wooden.

With the project solution (Detail Design), insulation works, ie thermal protection of objects, are foreseen. Thermal protection of objects is achieved with the thermal shell of the object and with proper selection of façade and windows and doors as well as the roof cover.

Restaurant

The restaurant with Main design is foreseen as ground floor and a floor (GF + F1). On the ground floor there are following structures: restaurant for 30 guests (with terrace 150-160 guests), kitchen and toilets. The ground floor is correlated with the terrace and yard.

On the first floor there is a terrace connected with ground floor with stairs.

In a constructive sense, the object is constructed as reinforced concrete skeletal construction of load-bearing pillars and beams and reinforced concrete slabs as intercostal construction. The floor is parquet and ceramic tiles. The ceiling of the attic should be made as a lowered ceiling of plasterboard. All openings are provided with PVC locks, which are glazed with thermopan flat, low silicon glass 4 + 16 + 4 mm.

All rooms are naturally illuminated through windows and doors. In the object all installations will be installed, such as: plumbing, sewerage, electricity. Heating will be with inverters.

Overall surface of restaurant is as follow:

| Ground floor | | | |
|-----------------------|----------------|---------------------|-----------------------------|
| 01 | Restaurant | Floor-ceramic tiles | 86,80 m ² |
| 02 | Kitchen | Floor-ceramic tiles | 14,80 m ² |
| 03 | Auxiliary room | Floor-ceramic tiles | 3,97 m ² |
| 04 | Wash basin | Floor-ceramic tiles | 3,68 m ² |
| 03 | Toilet | Floor-ceramic tiles | 1,50 m ² |
| 03a | Toilet | Floor-ceramic tiles | 1,62 m ² |
| Overall gross surface | | | 133,47 m² |
| First floor | | | |

| | | | |
|-----------------------|---------|---------------------|----------------------------|
| 01 | Terrace | Floor-ceramic tiles | 49,37 m ² |
| 02 | Stairs | Floor-ceramic tiles | 6,43 m ² |
| Overall gross surface | | | 64,40 m² |

Realization of the subproject activities will further increase the tendency of the site towards the development of rural tourism at this locality. The overall expectations with the realization of this sub-project are "Increased attractiveness for visiting rural areas, relocation of the population from towns in the villages, and increased satisfaction with the consumption of high-quality offer of Macedonian cuisine and Macedonian food products".

Expected results from this subproject are:

a) Renovated, reconstructed and upgraded apartments with accommodation capacity of 22 visitors, 5 apartments with comfortable and quality beds and traditional design elements in the style and spirit of the surrounding environment

b) Fully equipped kitchen and restaurant with capacity for serving 150 -160 visitors with quality Macedonian traditional food and "modern conference room" with accommodation capacity of 60 people.

c) Advanced skills for preparation of traditional Macedonian food and unique authentic culinary experiences in the region is the third expected result, which will be achieved through training for improvement of the skills for preparation of traditional Macedonian food, as well as presentation and tasting skills, cooking classes, outdoor events for tasting food and wine, etc.

The realization of the project will have a positive impact on the destination (Municipality of Petrovec, village of Katlanovo and its surroundings) and will provide excellent opportunities for increasing the attractiveness of the natural beauty of the destination. The tourist map will be enriched with another site - offering diversity in the natural beauties of the destination.

With the realization of this sub-project the tourist offer in the destination will be improved, and it will impact local economic development of the country. By achieving the basic goal, the achievement of the goal of the LRCP is ensured, "To increase the contribution of tourism to the local economic development, and to improve the capacity to encourage the development of tourism and to facilitate the management of the destinations".

2. Legal framework

National Environmental Impact Assessment procedure for the project development

The Environmental Impact Assessment procedure has been prescribed into the Law on Environment (“Official Gazette No“. 53/05, 81/05 24/07, 159/08 и 83/09; 124/10, 51/11, 123/12, 93/13, 163/13, 42/14, 129/15 and 39/16 (Chapter XI/Articles 76-94) where the requirements of the EU Directives on EIA (Directive 85/337/EEC - amended by Directives 97/11/EC, 2003/35/EC and 2009/31/EC) have been transposed. The procedure starts when the Investor (Project Beneficiary) who intends to implement a project submits a Letter of intent, in written and electronic form to the Ministry of Environment and Physical Planning (MoEPP - Administration for Environment), which is the responsible authority for the entire procedure. The Administration for Environment is obligated to give feedback on the specific request whether they should or shouldn't necessary develop SEA, EIA or Elaborate for environmental protection. The Screening procedure is a stage during which the MoEPP determines whether a SEA, EIA or Elaborate should be carried out or not for a certain project. For the development of projects that do not belong to the list of the projects for which the EIA procedure has to be carried out (small scale projects), there is a requirement for the preparation of an „Elaborate for environmental protection - Environmental Impact Assessment Report“ (relevant for the Category B projects under the WB OP/BP 4.0.1 Environmental Assessment procedure).

National procedure for environmental assessment of small-scale projects

During the national EIA Procedure within the screening phase, if the decision has been made by the Ministry of environment and physical planning that there is no need for EIA procedure to be carried out, the investor should start with procedure for development of Elaborate for environmental protection. This procedure is obligatory for small scale projects causing short-term, minor negative environmental impacts when Ministry of environment and physical planning within above mentioned decision have stated the need for preparation of Elaborate in accordance to rulebooks quoted below (ea. Reconstruction or construction of local streets, roads, construction of local drinking water supply systems, sewage systems and small scale WWTPs - less than 10 000 p.e., etc.). There are two Decrees that refer to the projects for which the -Elaborate should be prepared:

A) Decree on the list of projects for which the Elaborate for environmental protection should be prepared by the investor and the Elaborate need to be approved by the Ministry of Environment and Physical Planning (Official Gazette of RM" No. 36/12);

B) Decree on the list of projects for which the Elaborate for environmental protection should be prepared by the investor and the Elaborate need to be approved by the Mayor of the municipality or Mayor of City of Skopje („Official Gazette of RM" No. 32/12).The content of Elaborate for environmental protection - EIA report should be in line with the Rulebook on EIA Report form and content and procedure for EIA Report adoption (Official Gazette of RM No. 123/12). The EIA Report – Elaborate contains the main characteristics of the project activities, the

main positive and negative environmental impacts identified taking into account the site-specific baseline environmental data. Very simplified Environmental Protection Program comprises various measures that will prevent, mitigate and compensate the adverse impact on all environmental elements need to be developed based on the national environmental legislation and good international practice. No public hearing is proposed during the preparation and adoption of the EIA Report-Elaborate (according to the national legislation). On Figure 8 the simplified scheme of the EIA Report-Elaborate procedure is presented as well as the competent authority for adoption of EIA Report/Elaborate.

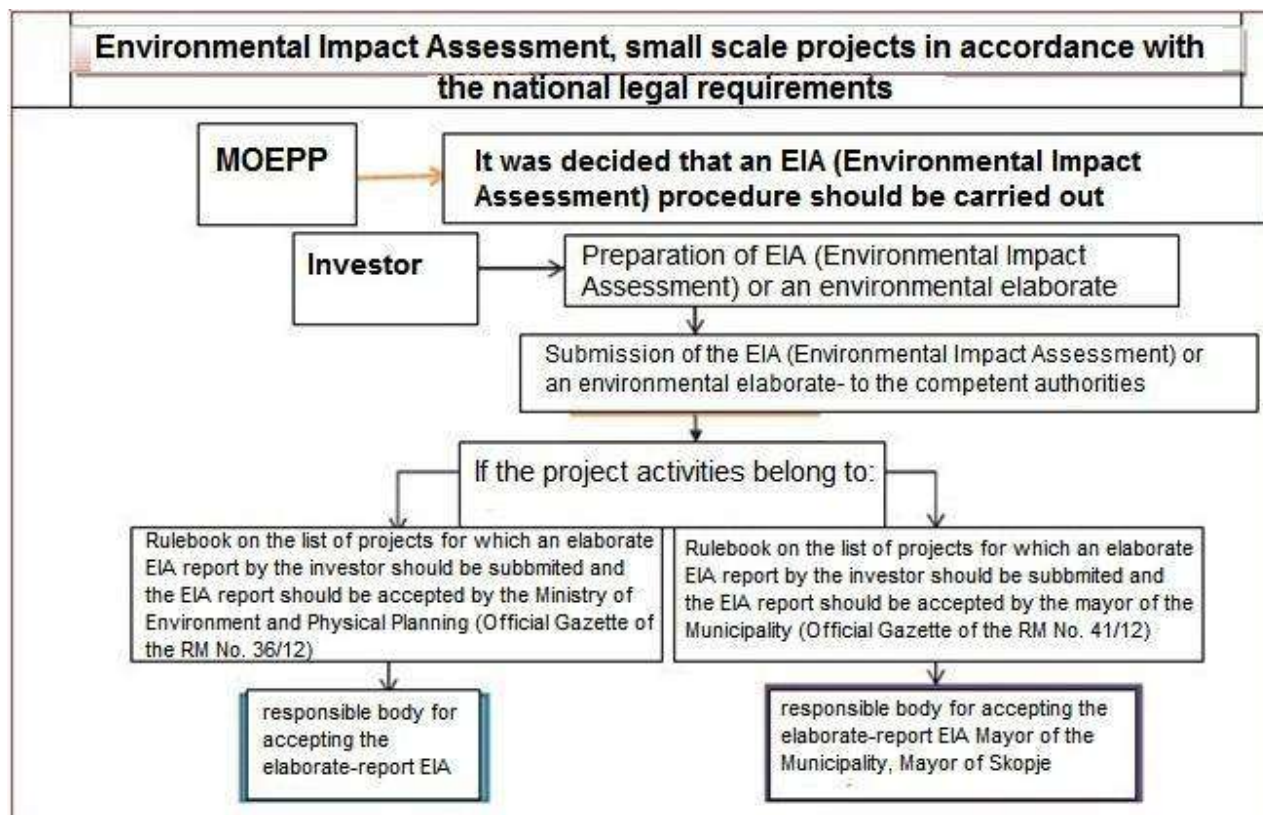


Figure 8 EIA (Environmental Impact Assessment) procedure for small scale projects (Environmental Report)

According to prescribed requirements from national legislation for the realization of the activities proposed within the subproject „Renovation, reconstruction and extension of Vila Vangelina in the green Katlanovo hill” preparation of Elaborate for environmental protection is necessary. Elaborate for environmental protection is prepared and Decision for its approval issued by municipality of Petrovec is attached in the Annex.

Public consultations about the Environmental and Social Management Plan

The prepared Environmental and Social Management Plan (ESMP) for this project will be part of the bidding documentation and Contract with the Contractor (along the bills of quantities) who will be obliged for implementation of the envisaged measures according to the Mitigation and Monitoring Plan. Implementation of the ESMP is mandatory for the Contractor. The Supervising engineer, has an obligation to monitor and evaluate the implementation of the proposed

measures within the Mitigation and Monitoring Plan and to report to the investor and the LRCP Project Office/Municipality of Petrovec.

The Contractor/Global DVD DOOEI-Kumanovo will report on the state of the environment and the application of the mitigation and monitoring measures envisaged in this ESMP, in the regular progress reports of the subproject every three months (unless otherwise specified by the environmental expert, approved by the Environmental Specialist from WB) to the environmental expert.

According to the LRCP Environmental and Social Management Framework (ESMF), ESMP must pass a public consultation before the sub-grantee is finally approved. Once the draft ESMP version is approved by the Project Implementation Unit (PIU), the environmental expert and the WB Environment Specialist, it will be published on the website of the LRCP PIU and/or Cabinet of the Deputy Prime Minister for Economic Affairs, the Agency for promotion and support of tourism and the website of the affected municipality (Municipality of Petrovec), where it will remain available to the public for at least 14 days. A printed copy will be available in the LRCP PIU / Cabinet of the Deputy Prime Minister of the Government of the Republic of Macedonia for Economic Affairs (CDPMEA) and the Municipality of Petrovec. The call for comments and participation in the public consultation meeting (with place and time) will go together with the ESMP. The public consultation meeting will be held in the affected municipality at the end of the consultation period. Proactively, the Applicant (Global DVD DOOEI, Kumanovo in cooperation with municipality of Petrovec) will inform and invite the major stakeholders in the project, including local NGOs, affected communities and municipalities directly and in an appropriate manner. The submitted comments will be included in the Report from Public Hearing, which will be part of the final version of the ESMP. In this manner, all comments from the public will be available to the applicants and they will take all relevant comments and cover the responses and notes in the final ESMP.

The ESMP must be disclosed in English, Macedonian and Albanian language. The implementation of the Environmental and Social Management Plan will enable the timely undertaking of the proposed measures and contribute to the realization of the project activities without significant environmental impacts.

3. Basic Data/ Description of the location

3.1 Institutional framework and beneficiary capacity

The activities related to the implementation of the subproject „Renovation, reconstruction and extension of Villa Vangelina” will be carried out on the territory of the Municipality of Petrovec by the employees in the company Global Center DVD LTD export-import, Kumanovo.

The company for production, construction, trade, services and traffic Global Center DVD LTD export-import, Kumanovo was established in Kumanovo in 1989, under the name SKOPSKO DD DOOEL, Kumanovo. The main activity of the company is wholesale of beverages and food products for the Kumanovo, Probistip, Kratovo and Kriva Palanka regions. In the first years of existence there are 45 employees in total. In 2001, the company was re-registered due to entering a segment in construction. The company has achieved significant successes, and the distribution center has been awarded several times as the best and most successful distribution center in the country.

Since 2008, SKOPSKO DD DOOEL has been expanding its activity in the production of early garden products under greenhouses in Mlado Nagorichane, Kumanovo. The company started with the realization of a large investment cycle in the reconstruction of greenhouses on an area of 120,000m². Renewal in electrical installation and irrigation systems has been done, which successfully produces early garden crops from 2008 to 2017.

After the expiration of the contract for regional representation with the company PIVARA, Skopje, in 2016, SKOPSKO DD DOOEL was renamed as GLOBAL CENTER DVD DOOEL, Kumanovo. Within the development strategy of GLOBAL CENTER DVD, the realization of the family idea for rural tourism is included, so, since 2011, the company invests significant funds in raising the "Villa Vangelina" facility and creating a strategy for development of micro-tourist destination in v. Blace, municipality of Petrovec.

The fact that GLOBAL CENTER DVD LTD, Kumanovo has been successfully working for more than 30 years in many branches is sufficient proof of a good entrepreneurial experience, successful execution of the business and relevance for realization and raising family rural tourism. After putting into operation of “Villa Vangelina”, the team that will continue to work is ready to maintain the functionality of this tourist destination and to achieve good results in the future.

In accordance with the national legislation of the Republic of Macedonia for realization of the sub-project, Global Center DVD LTD, Kumanovo acquired a Decision for approval of Elaborate for environmental protection for the foreseen activities for renovation, reconstruction and upgrade of “Vila Vangelina“ in the locality green Katlanovo hill.

Regarding the nature of the foreseen project activities, construction permit for activities for renovation, reconstruction and upgrade of Vila Vangelina in accordance with the Law on construction („Official Gazzette of R. Macedonia“ num. 130/09 and its amendments) is obtained, as well as approval for installation of equipment in childrens playground. All infrastructure activities will be carried out in accordance with the project and technical requirements stated in prepared design documentation, which the Contractor must monitor and implement.

3.2 Geographical features, relief and geology

The municipality of Petrovec is located in the southeastern part of the Skopje valley and belongs directly to the lower catchment area between the river Vardar and the river Pcinja. In the west, on the right side of the Pchinja River, which flows in the middle of the territory of the Municipality of Petrovec, there is the level of the Skopsko Pole, while on the left side of the river, beside its alluvial plane towards the Otovica area, there is a hilly land known as Katlanovo Brdo.

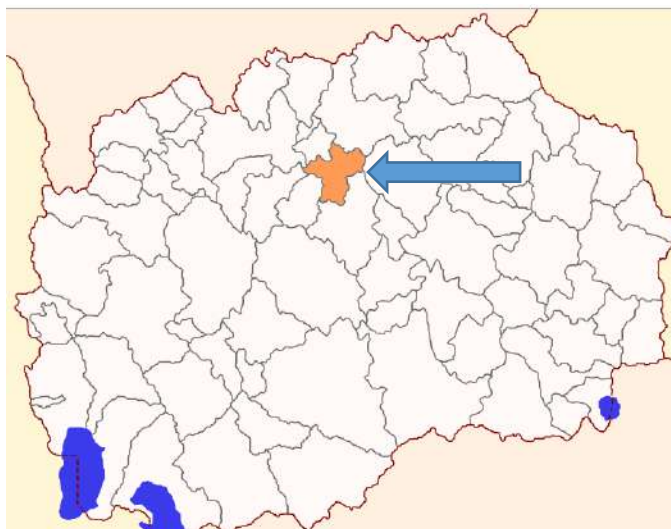


Figure 9 Location of Municipality of Petrovec

The territory of the municipality of Petrovec covers an area of 222 km², and belongs to medium by size municipalities in the Republic of Macedonia.

Municipality of Petrovec is characterized by favorable geographical position:

- Distance of 17 km from the capital of Macedonia (city of Skopje);
- Distance of 5 km from the airport "Petrovec" - Skopje;
- It extends along the highway E-75, Skopje-Gevgelija-Thessaloniki;
- It extends along the regional road R-103, Skopje - Veles;
- Distance of 10 km from the Skopje-Belgrade highway.

Geology

The main geological features of this municipality are alluvial-deluvial sediments and clay and merl stone deposits. These are poorly bound rock masses that are characterized by low engineering-geological features.

3.3 Hydrological features

The location of the municipality of Petrovec belongs to the Water Management Area (WMA) Skopje, which covers the local basin of the river Vardar from the water profile Radusa to the mouth of the Pchinja River, without the confluence of the river Treska and with the right tributaries of Markova and Kadina Reka and left tributaries Lepenec and Serava. Water resources in the municipality are the river Vardar and Pcinja

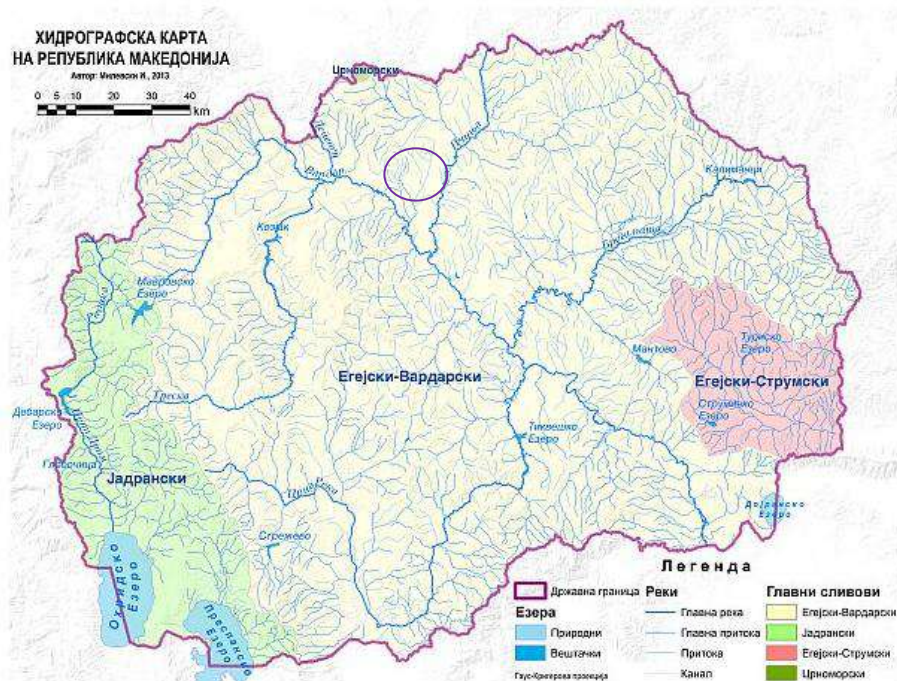


Figure 10 Hydrographic map of Republic of Macedonia

River Vardar is the longest and major river in the Republic of Macedonia. It springs from the karst spring at the village Vrutok in the southwestern part of the Polog Valley at the foothills of Shar Planina at an altitude of 683 m. Our country leaves at Gevgelija at a elevation of 43 m, and then flows through Greece and flows into the Aegean Sea. The total length of the river is 388 km, of which our country belongs 301 km. From the spring to the estuary it covers a watershed of 28.588 km² of which in the Republic of Macedonia there are 20.535 km², in neighboring Greece 6.843 km² and on north in the Republic of Serbia 1.210 km² (upper flows of Lepenec and Pcinja). The maximum depth of the river is 4 m (13 ft). The main feature of its valley is its composite, ie polygenetic character, because, through our country, it flows through five valleys and four gorges. They alternate as it follows: Poloska Valley (63,5 km), Derven Klisura (21,5 km), Skopje Valley (51 km), Taorska Gorge (31 km), Veleska Valley (7,5 km), Veleska Gorge (22 km), Tikvesh Valley (55 km), Demir Kapija Gorge (19,5 km) and Valandovo-Gevgelija Valley (30 km). Of the total length of the Vardar valley, two-thirds (207 km) is flatland, and one third (94 km) is a gorge valley. On its course across our country, Vardar receives 37 tributaries longer than 10 km. 16 of them are flowing from the right, and 21 on the left side.

River Pchinja is the second left tributary of the river Vardar. The spring is located on the territory of the Republic of Serbia, more precisely under the top of the Bela Voda at Mountain – Dukat, at an altitude of 1.664 m, and in river Vardar it flows from the Taorska Valley at an altitude of 191 m. The total length of the river flow is 135 km, with a mean declination of 10,9 ppm. It has a catchment area of 2.840 km², of which 2.317 km² are in the Republic of Macedonia. In Vardar average annual input of water is 16 m³/s. The minimum water flows at Katlanovska Banja are 1.30 m³/s and the maximum are 702 m³/s. From its spring river Pchinja turns into a large arch towards the southwest and south and under the monastery St. Prohor Pcinjski enters in the territory of the Republic of Macedonia, and through it flows in a length of 76 km. From the exit from the gorge near the village Pelince, Pchinja enters in the Kumanovo valley, in which the valley

expands, and from Mlado Nagoricane a spacious alluvial plane is already formed, with an area of 3.000 ha, at an absolute height of 200-300 m and a wide of 2 km. At this location in the Kumanovo valley, Pchinja flows in a length of about 30 km, has a slope of only 2.5 ‰, and receives its two main tributaries - Kriva Reka near the village Kletchevce and Kumanovska River near the village Dobroshane.

Other larger tributaries of Pchinja are: Bistrica (17,5 km), Dragomanska Reka (11 km), Petroshnica (23 km) and Luka (17 km). Basic feature of the Pchinja basin, which has an average height of 760 m, is the presence of intensive erosion processes. As a consequence of erosion, on several locations in the riverbed of this river, as well as its tributaries, a large amount of deposited material has been deposited, and the water in Pcinja is regularly muddy during every precipitation.

The realization of the sub-project activities will not cause negative impacts on the quality and quantity of the waters on the territory of the Municipality of Petrovec.

3.4 Climate

Climate at the territory of the municipality of Petrovec is continental. Basic features are sharp and humid winters, as well as dry and hot summers. The terrain is under influence of northern and northeastern winds, and in the summer period of local winds from Skopska Crna Gora. With the highest frequency is the northern wind (142%), than: northeastern wind (120%), southeast (114%), southern (82%), northwest (81%), west (74%) and the eastern wind with a frequency of 56%. Air temperatures are identical with the same values as in the entire Skopje Field, they are minimal in January, and maximal in July. Due to increased ventilation, fogs appear on average about 50 days and are characterized by morning frosts until the end of month - April. The total average annual rainfall is about 504 mm, with a maximum in November and May. The drought period lasts from July to September with frequent drought periods longer than 60 days. The average number of bright days during the year is 86, cloudy days 184, and dusky 95. The relative humidity of the air is 70%.

3.5. Population

On the territory of the Municipality of Petrovec there are 17 (seventeen) inhabited rural areas, which according to their location are distributed in three rural centers:

- Petrovec - the seat of the Local Self-Government, which includes the villages: Rzanichino, Ognjanci, Cjojlija and Chiflik;
- Katlanovo, which includes the villages: Brezica, Gradmanci, Letevci, Badar, Blace and Kozhle;
- Sredno Konjari, which includes the villages: Dolno Konjari, Gorno Konjari, Sushica and Divnje.



Figure 11 Map of settlements in the municipality of Petrovec

According to the assessment from 2016, the municipality of Petrovec has 9.089 inhabitants.



Figure 12 Demographic map of municipality of Petrovec

3.6 Natural resources

The territory of the Municipality of Petrovec, according to the relief and configuration of the terrain, is plain to hilly.

The total agricultural area is 18.619 hectares, of which:

- Arable land – 7.309 hectares;
- Pastures – 5.438 hectares;
- Forests – 5.911 hectares.

On the territory of this municipality, as characteristic natural resources are: river Vardar, Pcinja and the mountain Gradishtanska (Figure 13).

Gradishtanska mountain is a low and quite disaggregated mountain that extends in the direction of SW-NE, between the lower flow of Pcinja in the west and Ovche Pole in the east, about 30 km in length. This mountain is an area in which four different regions and areas of Macedonia are bordering: Skopje and Skopje Valley (Petrovec municipality) from the northwest, Kumanovo (Kumanovo municipality) from the north and the northeast, Ovcxe Pole (Sveti Nikole) from the east and southeast and Veles (Veles Municipality) from the southwest.

The average width is about 9 km with a total area of 230 km². The highest peak is Gradiste or Gjurishte (861 m), then Venec (853 m), located in the central part, Golicj (790 m) in the north and Crn Vrv in the southern part of the mountain. The mountain is overgrown with dense low-stemmed plants and shrubs, such as: *Cornus mas*, *Quercus coccifera*, wild lilac, as well as deciduous trees such as oak, willow, poplar and European aspen. Hydrographically, this mountain is distinguished by a number of quite strong and rich water springs and short mountain streams. In the western part of the mountain, on the toe of Katlanovo, near the Pchinja, thermal springs of healing mineral water emerge, on which the famous Katlanovo spa was built. In this mountain following species of fauna are present: *Rupicapra rupicapra*, moles, foxes, wolves, weasels, wild rabbits and wild birds, pardix, *Phasianus colchicus*.



Figure 13 Mountain Gradishtanska

3.7 Biodiversity

On the location where the project activities will take place, no nature protected areas and rare and endangered species are present, only ruderal vegetation, shrubs and low stemmed plants are found.

On the wider area on the locality where project activities will take place, i.e. on the territory of municipality of Petrovec there is Quercus-Carpinetum orientales macedonicum Rudski apud Ht., plant association. This plant association is thermophilic and xerophilic and is dominated by *Quercus pubescens* and white hornbeam. Significant plant species and their IUCN status are:

- *Quercus pubescens* - LC;
- *Fraxinus ornus*- LC;
- *Cornus mas*- LC;
- *Silene viridiflora* - NA;
- *Cyclamen hederifolium* - NA;
- *Ranunculus psilostachya* - LC;
- *Symphytum bulbosum* - DD;
- *Tamus communis* - NA;
- *Carpinus orientalis* - LC;
- *Acer monspessulanum*- LC;
- *Euonymus verrucosus*- LC;
- *Iris sintenisii* - NA;
- *Lithospermum purpureocaeruleum*- NA;
- *Saxifraga bulbifera*- NA;
- *Geranium sanguineum*-NA, etc.

In Katlanovo area there is plant association *Erythronio - Carpinetum orientalis*. On the left

side of the river Pcinja there is very interesting flora, such as: *Erythronium dens-canis* (NA), *Galanthus gracilis* (DD), *Scilla bifolia* (LC), *Fritillaria graeca* var. *gussichiae* (DD), *Anemone ranunculoides* (NA), etc.

Fauna in river Pcinja is represented by freshwater crab. The green frog is a frequent resident of the Pchinja River, especially in the slowly flowing parts of the river. The water turtle is found in Katlanovo and Badar.

Protected areas in the Municipality of Petrovec

On the territory of the municipality of Petrovec, there is Katlanovski Predel (Katlanovo area) that has been designated as Monument of Nature, since 1991.

This monument of nature is located on the left and right banks of the Pchinja River and the left bank of the river Vardar.

The protected area is 5442.6 hectares and it extends in the vicinity of the villages Katlanovo, Badar and Kozhle.

In the protected area of the Katlanovski Predel, a general feature of flora is the dominance of thermal and xerophytic plants and plant associations. A large number of Mediterranean plants are found here (*Ruskus aculearis*, *Asparagus acutifolius*, *Jasminum fruticans*, *Rus coriaria*). There are plants that are on the edge of northern prevalence (from Minor Asia to Macedonia), such as *Juniperus excelsa*, *Podocytisus Caramanicus*, *Astragalus ponticus*.

All tree vegetation in this area belongs to oak forests. On the mentioned area, presence of 75 species of trees and shrubs was noted. In the area of the village Kozhle, on the right bank of the Pchinja the northernmost areal of the *Juniperus excelsa* in our country is present.

On the right bank of the river Pcinja, where the Bansko Rid is located, only a few meters from the river there is a terrace on which *Katlanovska Spa* is situated.

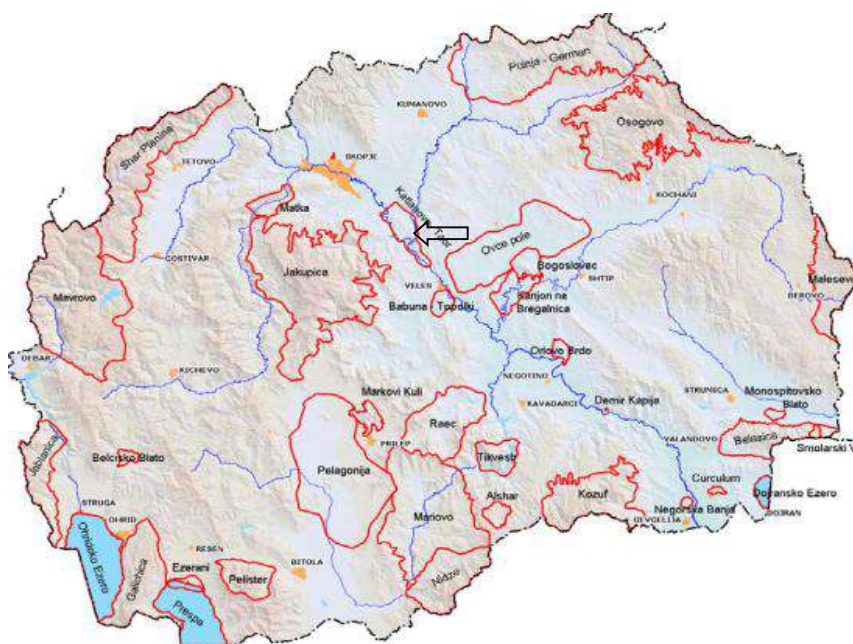


Figure 14 Location of Katlanovo area on National Emerald Network of Macedonia

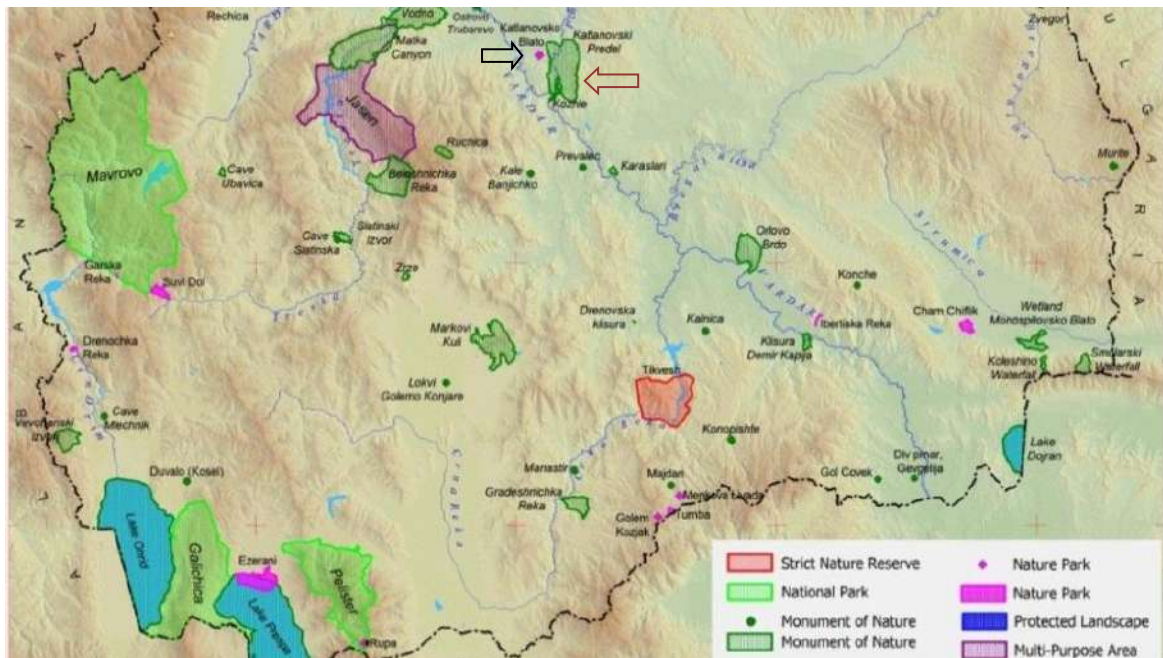


Figure 15 National Protected Areas in Macedonia with marked Katlanovski Predel (red arrow) and Katlanovsko Blato (black arrow)

Katlanovska Banja (Katlanovo Spa) - This area is located 27 km to the south of Skopje, at the place where the river Pchinja is passing through Katlanovo hill and creating a short but very beautiful gorge. The visible tectonic fissure which is about 350 m long, makes this monument of nature particularly important. Mineral water springs containing water rich in gasses are present at many places. The water is coming forth in periodical pulsing (fumaroles) and is of juvenile (volcanic) origin. The preserved connection between thermal water and tectonic fissure is of special importance in respect to the Katlanovo Spa; a rarity not only in the Balkan Peninsula, but also in the whole of Europe.

Other natural feature of this area is Katlanovsko Blato (Katlanovo swamp).

Katlanovsko Blato (Nature Park) is ichthio-ornithological reserve close to Skopje occupying an area of 70 ha. This swamp is the remainder of the former Skopje Neogene Lake. Until 1968 it was representing the only natural spawning place of carp and other fresh water fish species from the river Vardar. It was the most important resting place for large number of migratory birds, from and to Europe, along the Morava-Vardar migration direction.



Figure 16 Katlanovo swamp

Besides Katlanovo swamp, the ecological zone Badar is located on the territory of this protected area. It is located after Katlanovo along the river Pchinja and covers a large area, from Katlanovo to Crn Vrv. This locality not only has a beautiful nature, but it is a zone with lot of natural rarities.

Location where project activities will take place is on safe distance from Katlanovo swamp, Katlanovo spa and Badar (3,5 km, 4 km, 2,2 km respectively), and foreseen activities will not cause any negative impact on these natural resources.



Figure 17 Position of villa Vangelina in relation to Katlanovo swamp, Katlanovo spa and Badar (source: Google Earth)

3.8 Cultural heritage

Within the Municipality of Petrovec there are several older medieval churches and monasteries: the 18th century monastery of „Sent. Spas“, in the village of Kozhle, the church „Sent.Trojca“ in the village of Cjojlija, the church „Sent. George“ in the village of Petrovec. In the village of Katlanovo, there are the churches „Sent Nikola“ and „Sent Nedela“, which is located near Katlanovska Banja. The church „St. Georgi the Victorious“, it is a village church that was built in the period of the 16th and 17th century

On the territory where the project activities will take place, no cultural heritage is present.

4. Environmental and social Impacts

Realization of the planned activities of the subproject “Renovation, reconstruction and extension of Vila Vangelina on the green Katlanovo hill”, will cause certain environmental and social impacts. The Environmental and Social Management Plan aims to assess the potential environmental and social impacts from the foreseen project activities.

The environmental impacts of this type of project activities are categorized into two main types of activities:

- Reconstruction phase (reconstruction and renovation of apartments, installation of equipment for kitchen, restaurant, activities for arrangement of parking space, activities for arrangement of children’s playground, etc.)
- Operational phase (functioning of villa Vangelina and all foreseen structures with this sub-project).

4.1 Emissions in to the air

The location of the sub-project is on a relatively peaceful place, without intensive traffic that would dramatically affect the environment and cause air pollution. With the reconstruction and renovation activities, use and maintenance of the planned infrastructure, no significant changes in air quality are expected, as reconstruction activities will be short term and limited to a reconstruction of apartments, and parcel arrangement for parking space and children playground. Additional emissions from heating and cooling of apartments aren’t expected, because usage of electricity for such purposes is foreseen.

Reconstruction and renovation phase

During this phase following impacts on air quality can be identified:

- Fugitive dust emission from reconstruction activities on apartments, conference room, terrain compaction and arrangement for parking area and children’s playground arrangement, as well as from installation of equipment for children’s playground;
- Emission of exhaust gases from construction machinery and transportation vehicles;
- Fugitive emission of volatile organic compounds from paints and varnishes from activities for reconstruction and renovation of the existing apartments.

The dust generated by mechanical interventions of construction mechanization, from activities of reconstruction of the apartments, compaction with gravel, from parcel arrangement, and the combustion of fuel from construction mechanization during such activities, affects the surrounding environment depending on the size of the particles (aerodynamic diameter) and conditions during activities, primarily because of the wind speed (which affects their distribution - transmission).

Emissions of exhaust gases in the air will be generated by construction mechanization. The most common pollutants produced by the exhaust gases are SO₂, NO_x, CO, PM₁₀, unburned carbohydrates, sulfur, lead, benzene and other aromatic hydrocarbons that contribute to the secondary production of ozone, and they are all present as a direct or indirect threat to human health and the environment.

The type and quantity of exhaust gases will depend primarily on the type of fuel, the condition of the vehicles, the frequency of movement and the duration of the construction activities. However, the quality of fuel in the country follows European standards and is controlled by accredited laboratories. So, we can conclude that emissions from mobile sources engaged within this sub-project do not pose a major threat to air quality.

Possible impact on air quality and air emissions are also expected from vehicles transporting materials and equipment on sub-project location and transporting waste outside of the site (local impact, limited to the location of renovation/reconstruction occurring only in reconstruction phase).

The fugitive emission of volatile organic components from the use of paints and varnishes will have less influence, because these compounds (used in small quantities for finishing works in the apartments) are easily evaporative and retain shortly in the air. Contractor should use eco-friendly paints and varnishes to minimize environmental impacts.

During this phase, most sensitive receptors that will be exposed to emissions in the air will be the engaged employees. The impact on air quality can be assessed as short-term, local, indirect, reversible, with a low intensity of environmental impact.

Operational phase

In operational phase effect on the air quality will occur from vehicles arriving at location on villa Vangelina and usage of parking space. This will be a long-term impact, with a minor significance and intensity but with repetitive occurrence, as well as with a local character.

4.2 Emissions in the water

Reconstruction and renovation phase

Within the activities planned with the sub-project that will be carried on site no emissions in the underground and surface waters are expected. In the vicinity of the site there are no watercourses which may be affected from these project activities.

It is of particular importance to avoid accidental oil and/or fuel leakages from the vehicles and machines that will be used during the reconstruction and their direct contact with the soil, and therefore indirectly with the groundwater/surface water resources. Any paint spills in to the existing cesspool should be avoided by the Contractor. Improper waste management can also cause emissions in to soil and underground waters. If preventive measures detailedly shown in Mitigation Plan given below, are not set there is a possibility these emissions to cause long term and significant impacts on surface, underground waters and soil.

Operational phase

In the operational phase, the sources of emissions in the waters will generally be the same as so far (from sanitary and hygiene use of visitors, preparation of food in the restaurant etc.). All wastewaters will be collected in the existing concrete leakage proof septic tank (5m x 5m x 3m = 75m³).

4.3 Emissions in to the soil

The effects from project activities are expected to be mitigatable with proper implementation of measures for protection of the soil during planned project activities. The Contractor should establish a system for proper waste management, so no waste to remain on the soil and the municipal waste generated by the engaged employees to be collected in appropriate containers and later transported from the site by authorized companies. The Contractor shall not permit any leakage of engine oil from the vehicles that will be used to perform the envisaged reconstruction activities. Project activities must be carried out in such a manner as to prevent accidental emissions in the soil, as well as preventing damage to the soil structure from the movement of the vehicles and construction mechanization. Possible unintentional emissions include leaks of fuel, oil, lubricants and other chemicals, as well as the erosion of the upper layer of the soil due to topsoil washing. The Contractor must take into account the precautionary and mitigation measures planned within the Mitigation Plan, as presented below, in order to prevent the possible leakage of fuel or engine oil into the soil from the mechanization.

Reconstruction and renovation phase

At this phase, the following impacts can occur:

- Possible accidental leakages of fuels and oils from construction mechanization, a process that can cause impacts on groundwater;
- Inadequate management of the generated waste on the site.

Operation phase

In the operational phase, the emissions of exhaust gases resulting from vehicle arriving at site and using parking space will be with less intensity and impact on soil.

We can conclude that the realization of the project activities for villa Vangelina will not cause major negative impacts on the soil.

4.4 Noise

The word "noise" denotes any unpleasant sound that the human ear finds difficult to bear. The noise, as a complex physical phenomenon depends on intensity, duration and frequency; it affects the psycho-physical condition negatively and can permanently or partially damage the hearing.

Reconstruction and renovation phase

During the realization of the foreseen project activities there will be an increased level of noise as a result of work of the equipment and construction mechanization engaged in reconstruction of apartments, upgrade of the parking lot, parcel arrangement/landscaping, installation of equipment for children playground. Noise will be generated from vehicles transporting materials and equipment on sub-project location and transporting waste outside of the site.

The occurrence of noise from the construction mechanization during the work will have very small negative impact due to the fact that it will have limited duration and local character. Noise emission would be insignificant if the Contractor uses vehicles and construction machinery in accordance to the technical standards and the construction works are performed during daytime (7-19 o'clock).

There will be noise from the electric tools during the activities for renovation of apartments, but the impact on the surrounding environment will be insignificant.

The distance from the populated areas, the geological characteristics and the configuration of the terrain is essential for the impact of noise on the environment.

According the Rulebook for the locations of monitoring stations and measuring points ("Official Gazette of RM" no. 120/08), the project location is in Area with IV degree of noise protection, space intended for **industrial and processing activities**, and other activities that can cause noise with higher intensity (due to relative closeness of Skopje International Airport). In this Area following noise levels are allowed: -Ld - day (period from 07:00 to 19:00) – 70 dB; Lv - evening (period from 19:00 to 23:00) - 70 dB and for Ln night (period from 23:00 to 07:00) – 60 dB.

There are no settlements and sensitive areas in the vicinity of the location where project activities will take place, so no expected negative impacts on local population as a result of noise that will be generated in this phase.

Operational phase

In the operational phase, noise will be generated from visitors on the site that will use all foreseen structures with the sub-project and from vehicles that will arrive on locality and use parking space. Generated noise will not cause significant negative environmental impact.

4.5 Waste generation and management

During the conduction of envisaged sub-project activities the quantity of the generated waste will vary.

Reconstruction and renovation phase

Waste generation from the reconstruction and extension activities can potentially pollute the surrounding environment if it is inadequate managed. Mainly, generated waste in this phase will be inert (surplus of excavated soil from expansion of the parking lot as well as leftovers of concrete, tiles and there will be a fractions of recyclable (such as paper, plastic, wood and glass). According to the List of types of waste, generated waste during this phase can be categorized as mixed municipal waste generated from the employees, construction waste, but there will also be small quantities of hazardous waste, for example, due to accidental spilling of machine oil, lubricants, fuel and other hazardous substances, contaminated packaging. Biodegradable waste from terrain clearance and vegetation removal will also be generated in this phase and mineral material from excavations for parcel and children's playground arrangement. The purchase and installation of equipment may create non-hazardous waste (paper, cardboard, plastics and other synthetic materials) and due to the packaging of the equipment (packaging waste). From usage of paints and varnishes hazardous packaging waste will be generated. From the activities for renovation of apartments, and installation of new equipment and furniture, construction waste such as waste plywood, gypsum boards as well as wood, metals, glass, plastic, parts of tiles, hazardous waste, paint and glues residues and packaging will be generated.

The inert construction waste that will be created is listed as non-hazardous waste. It is still necessary to have planned location where that waste will be temporarily stored. The inert waste (e.g. surplus earthen material, concrete, crushed stones and bricks, etc.) can cover large areas and may disrupt the landscape. The largest quantities of the excavated earthen material from arrangement of space for parking and space for children playground will be used for bulking and will be stored for further use on temporary surfaces or transported to a legal, licensed landfill. The quantities of waste will be minimal if proper waste management is applied using the best available techniques and construction practices. The Contractor has the obligation for proper waste management on the site.

The generated construction waste will be transferred to the nearest legal landfill. The waste from the reconstruction of the apartments and the other activities will be deposited at a temporary location and later transported by "PE Petrovec" or any other legal entity with appropriate permit and disposed at a legal permitted landfill.

There is no asbestos waste on site or radioactive lighting rods and no new materials containing these materials will be used in course of this sub-project.

Operational phase

In the operational phase, communal solid waste will be generated from visitors on the site and from the employees. On the location there are placed waste bins and containers so proper waste management will be enabled. Collected waste will be transported to a legal, licensed landfill.

4.6 Impacts on the nature, habitats and species

With the realization of the sub-project, the impacts on biodiversity will be insignificant.

On the location where the project activities will take place, no nature protected areas and no rare and endangered species are present, only ruderal vegetation, shrubs and low stemmed plants are found.

Project activities to be carried out at the site proposed for the project will be carefully planned and implemented in order not to disturb surrounding flora, fauna and habitats.

Reconstruction and renovation phase

In this phase, the impacts on the surrounding biodiversity will occur as a result of the use of construction mechanization, through noise generation, fugitive dust emission and emission of exhaust gases, as well as an increase in the number of employees at the site. Also, there is a risk of accidental fire ignition and improper waste management. Such impacts are local and limited to the location where reconstruction activities will be carried out and the possibility of their occurrence is low if proper supervision is engaged.

Operation phase

There is no nature protected areas as well as rare and endangered species in immediate surroundings of the site where reconstruction will take place, so the impacts are considered insignificant if appropriate mitigation measures are implemented.

4.7 Social impacts

The project does not acquire the land acquisition therefore there are not any social impacts due to land acquisition and resettlement issues. During reconstruction activities some occupational, health and safety issues for the employees may emerge due to increased noise, fugitive emission of dust, exhaust gases etc. But these impacts will be short-term and limited to the location where project activities will take place.

The implementation of this subproject is expected to provide positive socio-economic benefits to the region through the increased employment opportunities, and other social benefits. The greatest benefit will be the possibility for rural tourism development, and the growth of the local economy. Setting this location on the tourist map will provide better information to tourists and will create opportunities for further development. Naturally, the positive socio-economic benefits that will result from this project will be greater than the negative effects over the nature and the environment, which justifies the implementation of these project activities.

5. Mitigation measures

The mitigation measures described in this section are general, and the detailed compulsory mitigation measures are provided in a table in the respective chapter on the Mitigation and Monitoring Plan.

The Contractor must agree to all the requirements in order to eliminate the potential for injuries to employees and other occupational, health and safety issues, local population and visitors and tourists. All reconstruction, renovation and extension activities must be carried out by trained employees. Parties responsible for the implementing of the mitigation measures stipulated in this ESMP are:

1. Contractor (company selected through tender/procurement procedure)
2. Engineer-supervision
3. Applicant /beneficiary (Global Centar DVD DOOEL, Kumanovo).

5.1 Air

During foreseen project activities following preventive measures should be implemented in order to minimize identified negative impacts on air quality:

- Carefully determined period for works on the location;
- Limiting unnecessary traffic on the site where the reconstruction, extension works are implemented;
- Use of quality fuel for the vehicles (according to the national standards);
- Using personal protective equipment by the employees;
- Providing measures for the protection of vehicles and equipment - in particular, measures for maintenance of the exhaust pipes installation, the engine oil filters, and regular servicing of the equipment and construction mechanization in order to reduce leakages and emissions.

5.2 Water

During foreseen project activities, following preventive measures should be applied in order to minimize the negative impact on surface and groundwater:

- Regular maintenance of the vehicles and construction mechanization and periodic repairs in accordance with the procedures and in order to reduce leakage, emissions. The maintenance and repairs of the vehicles and construction machinery are not allowed to be carried out at the so called - construction site;
- Contractor vehicles and construction mechanization to use existing access roads;
- Careful selection of the location for temporary storage of construction material, disposal of the construction waste to the licensed landfill (approved by the Municipality of Petrovec);

- The excavated soil/surplus earthen material (if any), will be adequately temporarily stored on the location;
- All of the hazardous materials and hazardous waste are separately stored and labeled in containers with secondary containment system.

5.3 Soil

During foreseen project activities, following preventive measures will be implemented in order to minimize the negative impact on the soil:

- Careful planning of the all project works in order to reduce the negative effects and to prevent soil contamination;
- Reducing of the size of the construction site in order to minimize the land surface that will suffer adverse impact (all foreseen reconstruction, extension activities must be carried out within the site that is planned for implementation of project activities);
- Restricted movement of vehicles and use of machinery that puts less pressure on the ground and generates vibrations;
- All hazardous materials, such as fuel, paints, varnishes, lubricants, adhesives and packaging waste must be placed in separate leak-proof containers (suitable for acceptance and storage of all types of materials) located at the construction site, protected from extreme weather conditions (rain, wind);
- Protection of construction materials and stopping of construction activities in conditions of heavy rains;
- The area of the construction site will be limited and properly marked. Appropriate marking of the site for reconstruction and renovation, marking the appropriate location for temporary storage of the construction material on the site, providing warning strips;
- Landfills where excess of excavated material will be disposed must possess appropriate permits/approvals;
- In case of occurrence of contaminated soil from the eventual release of oils from the construction mechanization, contaminated soil will be removed and treated as hazardous waste, and for the further handling of hazardous waste, the Contractor will act in accordance with Article 57 of the Law on Waste Management ("Official Gazette of RM" no. 68/04, 71/04, 107/07, 102/08, 134/08, 82/09, 124/10, 09/11, 47/11, 51/11, 163/11, 123/12, 147/13, 163/13, 51/15, 146/15, 156/15, 39/16, 63/16).

5.4 Noise

During expansion, renovation and reconstruction activities, following preventive measures will be implemented in order to minimize the negative impact on noise:

- The noise level will not exceed 70dB during the day and at night and the construction work will not be performed overnight (renovation hours 7.00h till 19.00h);
- Establishment of a special traffic regime for the vehicles of the contractor during the period of reconstruction, renovation, and extension with appropriate signaling;
- The construction activities will be adequately planned in order to reduce the time of use of the equipment that generates noise with significant intensity;
- Since it is a rural area, and in the vicinity of the site there aren't any settlements the emitted noise will not cause negative impact;
- During the operations the engine covers of generators, air compressors and other

powered mechanical equipment should be closed, and equipment placed as far away from residential areas as possible;

- Use of best construction practices with particular emphasis on noise levels.

5.5 Waste

During foreseen project activities, following preventive measures will be implemented in order to minimize the negative impact on waste:

- Identification, classification of waste according the national List of Waste („Official Gazette of R. Macedonia“ no.100/05);
- Establishing contact with authorized waste collectors, transporters of different types of waste and providing safe storage/disposal. The generated waste will be stored at separate locations at the construction site, marked/labeled with the type of waste (hazardous / non-hazardous / inert) until the moment of its collection, transportation and final disposal. The vehicles transporting the waste from the construction site will be covered to prevent dispersion;
- The waste from renovation activities of apartments such will be handed over to an authorized company that possess license from competent authority – MOEPP;
- Reconstruction, renovation and extension activities will end (finish) only after all waste materials have been removed (no waste must be left on the construction site)/ collected by authorized company);
- It is forbidden to burn waste at the construction site;
- The generated waste should, if possible, be reused as construction material (with the approval of the engineer-supervisor, the user and LRCP Environmental Expert);
- The construction waste will be disposed at a licensed landfill designated by the Municipality;
- The waste that will be generated from the engaged employees on the site, will be collected, transported and disposed at a landfill that meets the basic standards in accordance with the legal acts, and by applying of the best waste management practices.

5.6 Biodiversity (flora & fauna)

As a measure for reducing the impacts of the use of construction machinery (vibration, noise and increased exhaust emissions) it is recommended to use proper construction mechanization with appropriate technical features and use of adequate fuels. The footprint of reconstruction works will be reduced to a minimum at the construction site at the planning stage. It is forbidden to collect firewood from and around the workspace. Animal harassment and the collection of plants in that area are strictly prohibited.

6. Environmental and Social Management (Mitigation and monitoring) Plan

6.1 Monitoring plan

The company - Global Center DVD LTD export-import, Kumanovo and municipality of Petrovec have the responsibility for harmonizing the project with the environment, project implementation and operating within the frames of the national legislation, of this ESMP and within the frames of the measures it defines, as well as within the frames of the ESMF (Environmental and Social Management Framework) of the entire project. The monitoring of the environmental and social aspects, as defined in the Monitoring plan, is the responsibility of the Global Center DVD LTD export-import, Kumanovo. Global Center DVD LTD export-import, Kumanovo, will submit reports on environmental compliance and on the implementation of environmental protection measures and on the progress to the PIU (Project Implementation Unit) in the project progress reports, as well as within the quarterly reports during the implementation period.

The prepared Environmental and Social Management Plan for this sub-project will be a part of the tender and contractual documentation for all project activities. The Contractor will be obliged to implement the envisaged measures according to the Mitigation Plan. The engineer-supervisor has the obligation to monitor and evaluate the proposed measures implementation within the frames of the Monitoring Plan and to inform the investors.

The public will be included in the procedure for assessing the impacts during public hearings in the Municipality of Petrovec. The submitted comments will be included in the report from the public hearings, which will be a part of the plan. In this manner, all comments from the public will be available to the applicants and they will take all relevant comments and include the responses and comments in the final ESMP.

The implementation of the Environmental and Social Management Plan and the social aspects will enable timely undertaking of the proposed measures and will contribute to the realization of the project activities without significant impacts on the environment.

Mitigation plan

| Activity | Expected Environmental Impact | Measure for Mitigation | Responsibility for Implementing Mitigation Measure | Period of Implementing Mitigation Measure | Cost associated with implementation of mitigation measure |
|---|---|---|---|--|---|
| Preparation phase | | | | | |
| Preparation of design documentation, general conditions, etc. | Possible adverse social and health impacts for the employees, users and local population as a result of non-compliance with the safety measures | <ul style="list-style-type: none"> - Planning of the time for startup of the project activates; - Public is informed of works through Notification at Municipality Notice Board and web site of the company and through other means, if needed; - All work will be carried out in safe and disciplined manner; - All needed permits, opinions and decisions have been obtained before the works commence, including the EIA approval; - Local, Environmental and occupational, health and safety (OHS) inspections have been notified of works before they start; - Set up a special traffic regime, approved by the competent authority (e.g. traffic police); - The children’s playground, as well as the equipment is designed and installed in line with the national legislation and following the best practices and international safety standards. | Global Center DVD LTD export-import, Kumanovo, Municipality of Petrovec, Contractor, Supervision engineer | Prior to start of Reconstruction and Renovation activities | The expenditure is included in budget of the company |
| | Light pollution (photo pollution)- Impacts on surrounding biodiversity | - Choice/design of lamps will minimize possible light pollution. | Global Center DVD LTD export-import, Kumanovo, Municipality of Petrovec, Contractor, | Design phase | The expenditure is included in budget of the company |

| | | | | | |
|--|---|--|----------------------------------|---|---|
| | | | Supervision engineer | | |
| Reconstruction and renovation phase | | | | | |
| - Reconstruction and renovation phase | Possible adverse social and health impacts for the employees, users and local population as a result of non-compliance with the safety measures | <ul style="list-style-type: none"> - Implementation of Good construction practices during this phase including: - Ensure proper marking of the project locations with tapes and warning signs, fencing off if necessary. Dangerous locations (e.g. holes, the pool, etc.) must be marked and fenced off when not worked on; - Installation of signs for reducing / limiting of the vehicle speeds near the project location; - Access of non-authorized personnel within the project locations is not allowed; - Special traffic regime is set, approved by the competent authority (e.g. traffic police) for the vehicles of the Contractor during the period of reconstruction (together with the municipal staff and police department) and installation of signs to ensure safety, traffic flow, and access to site and facilities; - Set up of vertical signalization and signs at the beginning of the site; - Machines will be handled only by experienced and trained personnel, thus reducing the risk of accidents; - All employees must be familiar with the fire hazards and fire protection measures and must be trained to handle fire extinguishers, hydrants and other devices used for extinguishing fires; - Employees must be adequately trained, certified and experienced for the work they are performing in accordance with national | Contractor, Supervision engineer | During Reconstruction and renovation activities | The expenditure is included in the bill of quantities |

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| | | <p>occupational, health and safety legislation;</p> <ul style="list-style-type: none"> - Devices, equipment and fire extinguishers will be always functional, so in case of need they could be used rapidly and efficiently; - First aid kits will be available on the site and personnel trained to use it; - Procedures for emergency situations (including spills, accidents, etc.) are available at the site; - Employees to wear PPE (personal protective equipment); - Employees personal protective clothes and equipment is available in sufficient quantities and is worn/used at all times; - The children’s playground, as well as the equipment for fun activities is constructed in line with the national legislation and following the best practices and meeting the best international safety standards. | | | |
| Impacts on the air | | | | | |
| - Reconstruction and renovation phase | <ul style="list-style-type: none"> - Fugitive dust emission from construction mechanization from performance of activities such as: excavations, removal of vegetation, terrain clearance etc. - Exhaust gases from construction machinery - Fugitive emission of volatile organic compounds from the use of paints and varnishes | <ul style="list-style-type: none"> - Use of proper construction mechanization; - Avoiding work mechanization in the so-called "idle"; - Determining the duration of machine operation; - Local population will be informed about construction activities and working hours; - Vehicles loads likely to emit dust must be covered; prevent dust during upload and unload; - Keep the topsoil and stockpiles separate. Protect with sheets/fences in the case of windy weather; - Construction materials will be kept covered | Contractor, Supervision engineer | - During Reconstruction and renovation activities | The expenditure is included in the bill of quantities |

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| | | <p>in suitable places in order to reduce the distribution of dust;</p> <ul style="list-style-type: none"> - Locate stockpiles away from drainage lines, and places susceptible to land erosion; - Ensure all transportation vehicles and machinery have been equipped with appropriate emission control equipment, regularly maintained and attested; - Ensure all vehicles and machinery use petrol from official sources (licensed gas stations) and on fuel determined by the machinery and vehicles producer; - Use of eco-friendly paints and varnishes | | | |
| Impacts on water and soil | | | | | |
| <p>- Reconstruction and renovation phase</p> | <ul style="list-style-type: none"> - Spillage of fuel or motor lubricants and oils, - Discharge of waste water from employees - Accident of construction machinery at construction site - Improper waste management. - Impacts to soil and water | <ul style="list-style-type: none"> - Carrying out regular maintenance of vehicles and construction mechanization and periodic repairs in accordance with the prescribed procedures to reduce leakage, emissions and dispersion; - The washing, maintenance and repairs to vehicles and construction machinery are forbidden to be carried out at the construction site; - The vehicles and construction machinery of the Contractor to use only existing access roads; - No mineral or other waste is to be stored near watercourses; - No water will be released to a natural recipient without a prior treatment; - Careful selection of the location for storage of construction materials, warehouses / disposal of construction waste; location must be defined/approved by the | <p>Contractor, Supervision engineer</p> | <ul style="list-style-type: none"> - During Reconstruction and renovation activities | <p>The expenditure is included in the bill of quantities</p> |

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| | | <p>Municipality;</p> <ul style="list-style-type: none"> - The excavated earthen material will be adequately stored at the location; - Prevent hazardous spillage coming from waste (temporary waste storage will be leakage-proof and those for hazardous or toxic waste equipped with secondary containment system, e.g. double walled or bunded containers); - If hazardous spillage occurs, remove it, clean the site and follow procedures and measures for hazardous waste management; - In the case of any run-off coming from working area possibly contaminated by hazardous substances shall be collected on site to a temporary retention basin and transported to an adequate licensed waste water treatment plant; - Construction equipment and vehicles (regular maintenance and checkups of oil and gas tanks, machinery and vehicles can be parked (manipulated) only on asphalted or concrete surfaces with surface runoff water collecting system; - Protection of construction materials and stopping reconstruction activities in conditions of heavy rains; - All hazardous materials, such as fuel, lubricants, adhesives, and packaging waste are non-inert waste must be placed in special appropriate containers located at the construction site, protected from extreme weather conditions; - In case of occurrence of contaminated soil | | | |
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| | | <p>from the eventual release of oils from the construction mechanization, contaminated soil will be removed and treated as hazardous waste;</p> <ul style="list-style-type: none"> - Water for the reconstruction activities will be supplied from the existing sources and there will be no new drilling or use of natural water courses; - No anticorrosive substances will be applied on the site; - When applying protective coatings and paints, measures will be taken against accidental spilling; - Apply storm water management and soil erosion prevention measures; - parking lot is equipped with stormwater collection system and oil and grease separator. | | | |
| Waste management | | | | | |
| - Reconstruction and renovation phase | <ul style="list-style-type: none"> - Generation of mixed communal solid waste - Construction waste from reconstruction and extension activities - Organic waste from removed vegetation and terrain clearance (if any) - Surplus earthen material - Packaging waste - Waste from renovation activities (plywood, leftovers of gypsum boards as well as wood, metals, glass, plastic, etc.) | <ul style="list-style-type: none"> - Selection and separation of the generated waste; - Identification and classification of waste according the national List of Waste („Official Gazette of R.M.“no.100/05); - Determination of waste characteristics; - Storage on places designated for that purpose. Final and temporary waste disposal must be on legal, licensed landfills approved by the Municipality; - Containers for each identified waste type are provided in sufficient quantities and positioned conveniently; - Waste collection and disposal pathways and licensed landfills/processing plants will be identified for all major waste types; | Contractor, Supervision engineer | - During Reconstruction and renovation activities | The expenditure is included in the bill of quantities |

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| | <p>- Hazardous waste (contaminated soil, and packaging waste from paints, varnishes, etc.)</p> | <ul style="list-style-type: none"> - For management of hazardous wastes, instructions/guidelines from Ministry of Environmental Protection and Physical Planning will be followed; - Construction wastes will be separated from general refuse, organic, liquid and chemical wastes by on-site sorting and temporarily stored in appropriate containers; - The records of waste disposal will be regularly updated and kept as proof for proper management, as designed; - Whenever feasible the Contractor will reuse and recycle appropriate materials; -Discarding any kind of waste (including organic waste) or waste water to the surrounding nature or water-bodies is strictly forbidden; - Collect, transport and final disposal/processing of the municipal waste by a licensed company; - Waste from renovation activities - plywood, leftovers of gypsum boards, tiles, concrete as well as wood, metals, glass, plastic, to be handed over to a licensed company; - If the waste has one or more hazardous characteristics, the generator and / or owner is obliged to classify the category of hazardous waste and handle it as hazardous waste; - All waste will be collected and disposed adequately by licensed collectors and to licensed landfills; - Planed project activities will end (finish) only after all waste materials have been removed (no waste must be left on the construction site)/ collected by authorized | | | |
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| | | <p>company;</p> <ul style="list-style-type: none"> - It is forbidden to burn waste at the construction site; - A waste that is generated during the stay and work of the Contractor employees, by applying the best management practices, will be collected, transported and deposited in a legal landfill that meets the basic standards in accordance with the legal acts. | | | |
| - Reconstruction and renovation phase | - Toxic / hazardous materials and waste management | <ul style="list-style-type: none"> - Temporarily storage on site of all hazardous or toxic substances (including wastes) will be in safe containers labeled with details of composition, properties and handling information. Chemicals are managed, used and disposed, and precautionary measures taken as required in the Material Safety Data Sheets (MSDS); - Hazardous substances (including liquid wastes) will be kept in a leak-proof container to prevent spillage and leaking. This container will possess secondary containment system such as bunds (e.g. banded-container), double walls, or similar. Secondary containment system must be free of cracks, able to contain the spill, and be emptied quickly; - The containers with hazardous substances must be kept closed, except when adding or removing materials/waste. They must not be handled, opened, or stored in a manner that may cause them to leak; -The containers holding ignitable or reactive wastes must be located at least 15 meters (50 feet) from the facility's property line; - Large amounts of fuel will not be kept at the | Contractor, Supervision engineer | - During Reconstruction and renovation activities | The expenditure is included in the bill of quantities |

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| | | <p>site;</p> <ul style="list-style-type: none"> - Waste will be never mixed and will be transported by specially licensed carriers and disposed/processed only in a licensed facility' - Paints with toxic ingredients or solvents or lead-based paints will not be used; - Hazardous waste will be transported and handled only by licensed companies in line with the national regulation; - Hazardous waste will be disposed only to licensed landfills or processed in licensed processing plants; - Landfills where excess of excavated material will be disposed must possess' appropriate permits/approvals; | | | |
| | - Materials management and procurement of chemicals | <ul style="list-style-type: none"> - No new materials containing asbestos or lead-based paint will be used; - Mineral resources (aggregate for parking space) must be supplied only from licensed companies with valid documentation. The companies can prove H&S measures and environmental management in accordance with national legal requirements; - Chemicals are purchased from authorized dealer; - Chemicals are managed, handled and stored in accordance to Materials Safety Data Sheet (MSDS); - Chemicals are managed and handled only by authorized and adequately trained and experienced personal/staff | Contractor, Supervision engineer | - During Reconstruction and renovation activities | The expenditure is included in the bill of quantities |
| | - Asbestos waste management and waste lighting rods | - If asbestos is found on the site, environmental inspection and other competent authorities (e.g. MESP) will be | Contractor, Supervision engineer | - During Reconstruction and renovation | The expenditure is included in the bill of quantities |

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| | | <p>notified and instruction requested. The asbestos must be removed or properly encapsulated/bind.</p> <ul style="list-style-type: none"> - Asbestos will be removed, managed, transported and disposed in line with the national regulation and best practices (breakage prevented, water sprayed against dusting, waste asbestos packed in hermetically closed packages, temporary storage in closed facilities, properly marked in all three languages, etc.). - Workers handling asbestos will wear protective clothes, adequate respirators/masks (depending on a type of asbestos). - Only licensed companies for managing asbestos can be engaged on these works. - Removed asbestos cannot be reused. - In the case radioactive rods were identified on the site, a company licensed for its removal will be engaged. | | activities | |
| Impacts due to increased noise level | | | | | |
| - Reconstruction and renovation phase | - Increased noise level as a result of reconstruction, renovation and extension activities | <ul style="list-style-type: none"> - Construction activities can only take place daytime (07-19h); - Construction activities will be planned appropriately to reduce the use time of the equipment that creates the noise with high intensity; - The level of noise will not exceed the allowed level of noise in accordance to the existing law; - The monitoring on the level of noise will be performed during the reconstruction activities (per request from authorized environmental inspector); | Contractor, Supervision engineer | - During Reconstruction and renovation activities | The expenditure is included in the bill of quantities |

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| | | - During the operations the engine covers of generators, air compressors and other powered mechanical equipment will be closed. | | | |
| Impacts on biodiversity | | | | | |
| - Reconstruction and renovation phase | - Impacts to biodiversity (removal of vegetation, disturbance due to noise, fugitive dust emission and exhaust gasses) | <ul style="list-style-type: none"> - Use proper construction mechanization with appropriate technical features and use of adequate fuels, adequate removal of vegetation, use of best construction practices; - Reducing the size of the construction site due to the minimization of the land that will suffer a negative impact; - Open fires and burning waste are strictly prohibited; - Pouching and other types of disturbance of animals as well as collection of plants and forest products is strictly prohibited; - When replanting or greening the site, only native plants will be used; | Contractor, Supervision engineer | - During Reconstruction and renovation activities | The expenditure is included in the bill of quantities |
| - Reconstruction and renovation phase | - Cultural Heritage (chance findings) | <ul style="list-style-type: none"> - The procedures will follow the national legislation for chance findings In the case there would be chance findings works will be stopped and authorized competent authority (Ministry of Culture and regional museum and institute) informed within 24 hours - The contractor will further follow competent authorities' instructions and the works will recommenced upon their approval. | Contractor, Supervision engineer | - During Reconstruction and renovation activities | N.A. |
| Social impacts | | | | | |
| - Reconstruction and renovation phase | -Occupational, health and safety issues for employees | - Preparation of Plan for protection at work on so called temporary construction mobile | Contractor, Supervision | - During Reconstruction | The expenditure is included in the bill |

| | | sites in accordance with OHS legislation | engineer | and renovation activities | of quantities |
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| Operative phase | | | | | |
| Waste management | | | | | |
| Operational phase: Tourists visiting the Villa Vangelina | <ul style="list-style-type: none"> - Municipal waste management; - Water and soil impact; | <ul style="list-style-type: none"> - Concluding Contract with a local utility company for waste collection, transportation and its disposal to a municipal landfill; - Regularly emptying of cesspool by an authorized company and management/treatment of content in treatment plants in line with the national legislation; - Regular maintenance and testing impermeability of the cesspool. - Oil and grease separator is regularly maintained. | Municipal communal enterprise | <ul style="list-style-type: none"> - During working period of Villa Vangelina and other supporting facilities | Depending on the tariff of the Municipal Communal Enterprise |
| General safety measures | | | | | |
| Operational phase: Tourists visiting the Villa Vangelina | <ul style="list-style-type: none"> - Safety issues for visitors, especially for pool and children’s playground | <ul style="list-style-type: none"> - Implementation of safety instructions and measures for visitors, especially for children safety, and for pool, such as warning signs, trained personal for pool rescue and lifesaving, regular maintenance of playground items, etc. | Employees in Villa Vangelina | <ul style="list-style-type: none"> - During working period of Villa Vangelina and other supporting facilities | N.A. |

N.A. – Not applicable

6.2 Monitoring activities

It is essential to prepare a monitoring plan and to conduct frequent monitoring in order to demonstrate the overall performance of the project activities and the short-term impacts of the construction activities. More specifically, as an integral and essential part of the Environmental and social management plan, the environmental monitoring program will have the following objectives:

- Determining the true scale / size of the impact;
- Controlling the impacts of the construction processes and the operational phase;
- Inspecting environmental protection standards that are applicable during construction activities;
- Checking and monitoring of the implementation of environmental protection solutions during construction activities;
- Proposing mitigation measures in the event of unexpected impacts;
- Assessment of the effect of the mitigation measures during the construction and operational phase;

The project will implement an environmental monitoring plan that: (1) monitors the performance of the Contractor during the implementation in order to inspect whether the contractor applies the expected mitigation measures, and then (2) assess the real impacts the project has on the environment over the years after completion of the various project components. The main components of the Monitoring Plan are as follows:

- Observation/monitoring of the environmental parameters;
- Observation/monitoring of specific areas, locations and parameters;
- Applicable standards and criteria;
- Duration and frequency
- Obligations of the institution and
- Costs.

Monitoring plan

| What | Where | How | When | Why | By Whom | How much |
|---|---|---|--|---|--|--|
| Parameter is to be monitored? | Is the parameter to be monitored? | Is the parameter to be monitored (what should be measured and how)? | Is the parameter to be monitored (timing and frequency)? | Is the parameter being monitored? | Is the parameter to be monitored– (responsibility)? | is the cost associated with implementation of monitoring |
| Preparation phase | | | | | | |
| 1. Checking the necessary documentation (permits, etc.) | - Offices of the municipality of Petrovec | Visual inspection of the necessary documentation and check if it is in line with national legal requirements | Before the start of the reconstruction activities | To ensure the legal aspects of the foreseen project activities | Supervision engineer, municipality representative, LRCP EE | - Included in sub-project budget |
| 2. Notification of public and relevant institutions | - Offices of Contractor | Visual inspection of the necessary documentation | Before the start of the reconstruction activities | To ensure public awareness | Supervision engineer, municipality representative, LRCP EE | - Included in sub-project budget |
| Implementation phase (reconstruction, renovation and extension) | | | | | | |
| 3. Occupational health and safety measures for employees, users, safety measures for local population and other visitors on construction site | - On so called temporary construction site; - Mountain Lodge (addition of an attic). - Safety of playground, pool | Verification of documentation and visual checks before and during the execution of the foreseen project activities. Monitor whether envisaged OHS and safety measures are met | During implementation phase | To prevent health and safety risks – mechanical injures and to provide safe access and mobility | Contractor, Supervision engineer, LRCP EE, Municipality inspection | - Included in sub-project budget |

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| 4. Safe traffic flow | - On site | Visual checks and reporting | During equipment delivery | To ensure coordinated traffic flow | Contractor, Supervision engineer, LRCP EE, Municipality inspection | - Included in sub-project budget |
| 5. Site is well organized: fences, warnings, sign postage in place. | - On site | Inspection | Unannounced controls during work | To prevent accidents | Contractor, Supervision engineer, LRCP EE, Municipality inspection | - Included in sub-project budget |
| 6. Occurrence of fugitive dust emission during project activities Exhaust emissions from construction mechanization and vehicles. Fugitive emission of volatile organic compounds | - On so called temporary construction site; - Arrangement of children playground and parking space, renovation activities in apartments | Visual inspection of the presence of dust and exhaust gases and check whether the paints and varnishes meet the prescribed quality standards In the case of complaints or negative inspection findings, sampling by authorized agency | During implementation phase Upon complaint or negative inspection finding | To ensure no excessive emission during works | Supervision engineer, LRCP EE, Municipality inspection, Inspection from MOEPP | - Included in sub-project budget |
| 7. Spillage of fuel or motor fuel and oils Discharge of waste water Accident on construction site from construction mechanization | - On so called temporary construction site; - Villa Vangelina | Visual inspection of the presence of oil stains on soil Visual inspection for discharges of waste water from the employees | During implementation phase | To ensure no spillage of fuel and oils and discharge of waste water from the employees during works | Supervision engineer, LRCP EE, Municipality inspection | - Included in sub-project budget |
| 8. Leakage of fuels and oils from construction mechanization, a | - On so called temporary construction site; | Visual inspection of the presence of oil stains on soil | During implementation | To ensure no spillage of fuel and oils and inadequate | Supervision engineer, LRCP EE, Municipality | - Included in sub-project budget |

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| <p>process that can cause impacts on groundwater, as its filtration goes through the soil; Inadequate management of generated waste at construction site Pollution of groundwater and soil can occur in case of accidents and emergencies.</p> | <p>- Villa Vangelina</p> | <p>Visual inspection of waste management</p> | <p>phase</p> | <p>waste management</p> | <p>inspection</p> | |
| <p>9. Generation of mixed municipal waste construction waste from construction activities Surplus earthen material and other waste types</p> | <p>- On so called temporary construction site; - Villa Vangelina</p> | <p>Selection and separation of waste by type Visual monitoring and inspection of the transport lists of the Contractor Control of documentation for handed over waste to authorized companies Visual inspection for inadequate temporarily (disposed) waste and all other mitigation measures given in mitigation plan</p> | <p>During implementation phase Daily level after the collection and transportation of the solid waste</p> | <p>Do not leave the solid waste on the construction site and to avoid negative impact to the local environment and the local inhabitant's health</p> | <p>Contractor, Supervision engineer, LRCP EE, Municipality inspection</p> | <p>- Included in sub-project budget</p> |
| <p>10. Occurrence and generation of hazardous waste from construction</p> | <p>- On so called temporary construction site;</p> | <p>Visual inspection of the presence of hazardous waste and its proper</p> | <p>During implementation</p> | <p>To improve the waste management at local and national</p> | <p>Contractor, Supervision engineer, LRCP</p> | <p>- Included in sub-project</p> |

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|---|--|--|---|--|---|----------------------------------|
| activities | Villa Vangelina | management according to legislation for waste management; Inspection of waste records; -Inspection of the transport lists and the conditions of the storage space | phase Before the transportation of the hazardous waste (if any) | level Hazardous waste does not be dispose to any landfill | EE, Municipality inspection | budget |
| 11. Increased noise level as a result of project activities | - On so called temporary construction site; - Villa Vangelina | Auditive noise level assessment Monitoring on the level of noise dB (with suitable equipment) and competent certified company according to ISO 17025 in case of complaints or negative inspection findings. | During implementation phase Upon complaint or inspection finding | To determine whether the level of noise is above or below the permissible level of noise | Contractor, Supervision engineer, LRCP EE, Municipality and MOEPP inspection | - Included in sub-project budget |
| Operative phase | | | | | | |
| Waste management | | | | | | |
| 1. Municipal waste from visitors and employees in the Villa Vangelina | - Villa Vangelina | Waste is properly collected, sorted and stored as well as disposed to a licensed landfill | According to the dynamics of the Public Utility Company | To prevent improper waste management | Public Utility Company | - / |
| Cesspool maintenance and management; oil and grease separator | - Villa Vangelina | Documentation check; visual | According to the dynamics of the Public Utility | To prevent improper wastewater | Public Utility Company | - / |

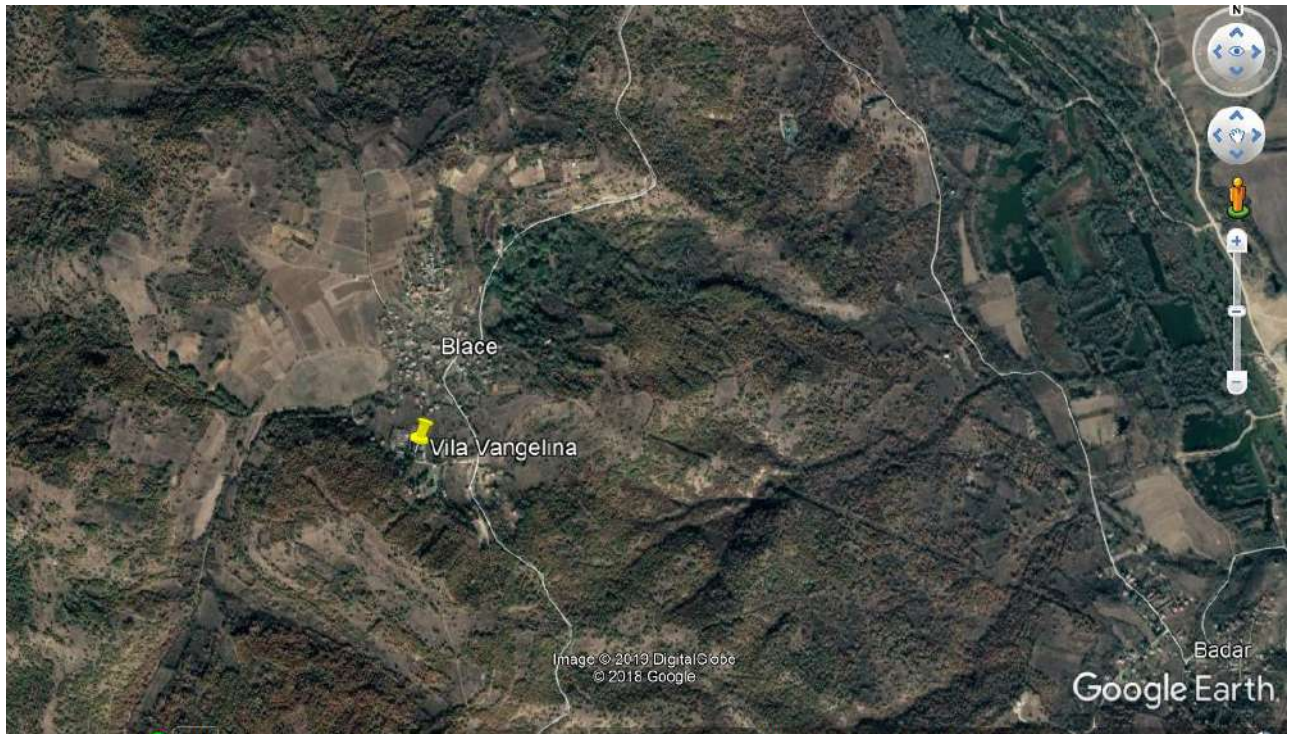
| | | | | | | |
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| maintenance | | | Company | management | | |
| General safety measures | | | | | | |
| 1. Safety issues for visitors | - Villa Vangelina (children playground and pool) | Regular visual check of safety measures implementation and maintenance of children playground and pool | On daily basis | To ensure implementation of safety measures at locality | Empoyees in Villa Vangelina | - / |

During the project activities, special attention should be paid to:

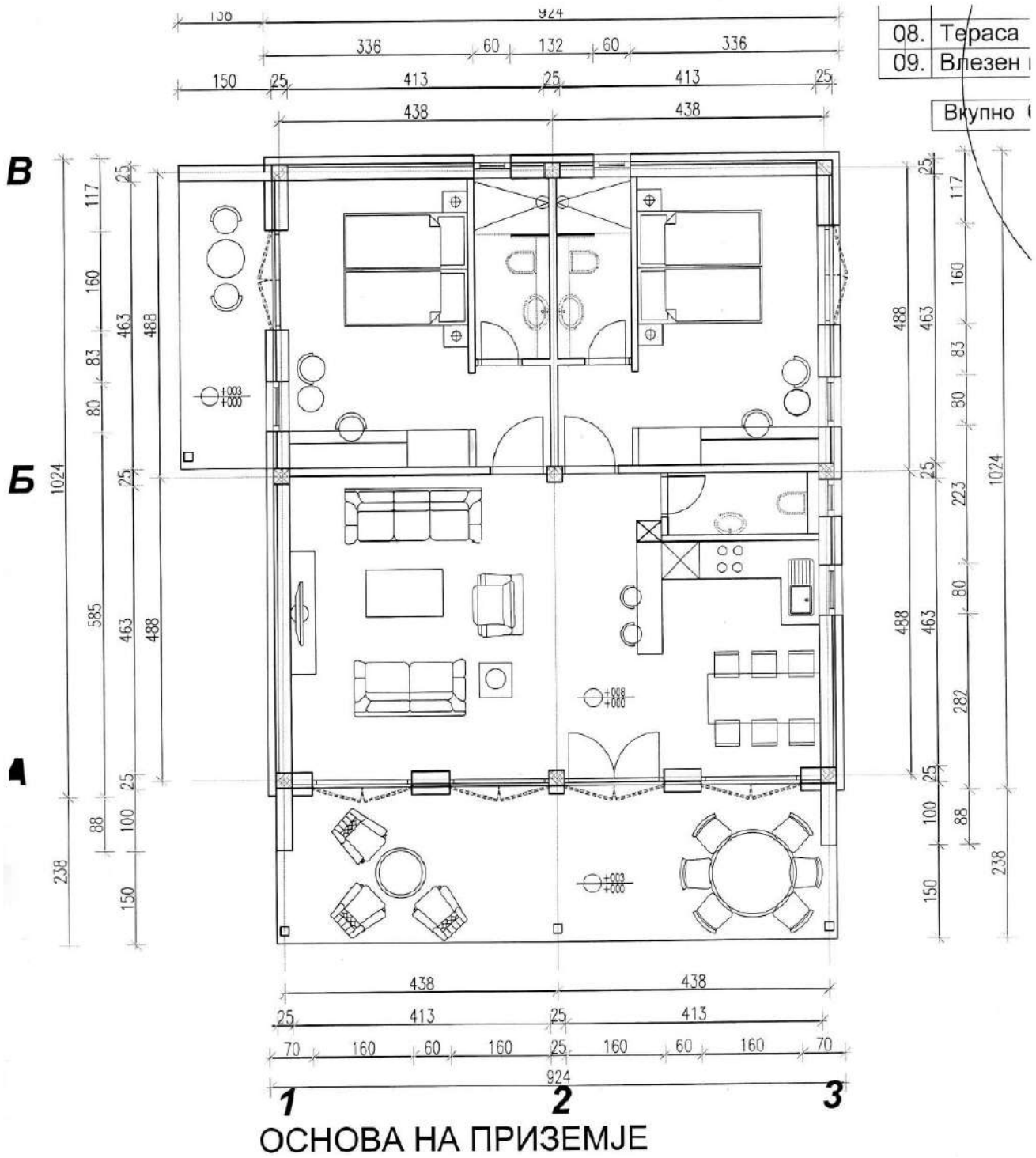
- The contractor is obliged to minimize the impacts of generated waste, emitted dust and noise.
- The supervisory authority will supervise the impacts of the construction works over the environment.
- Local inspection entities/bodies will also supervise, in aim to ensure the Contractor will remove any possible irregularities.

ANNEXES:

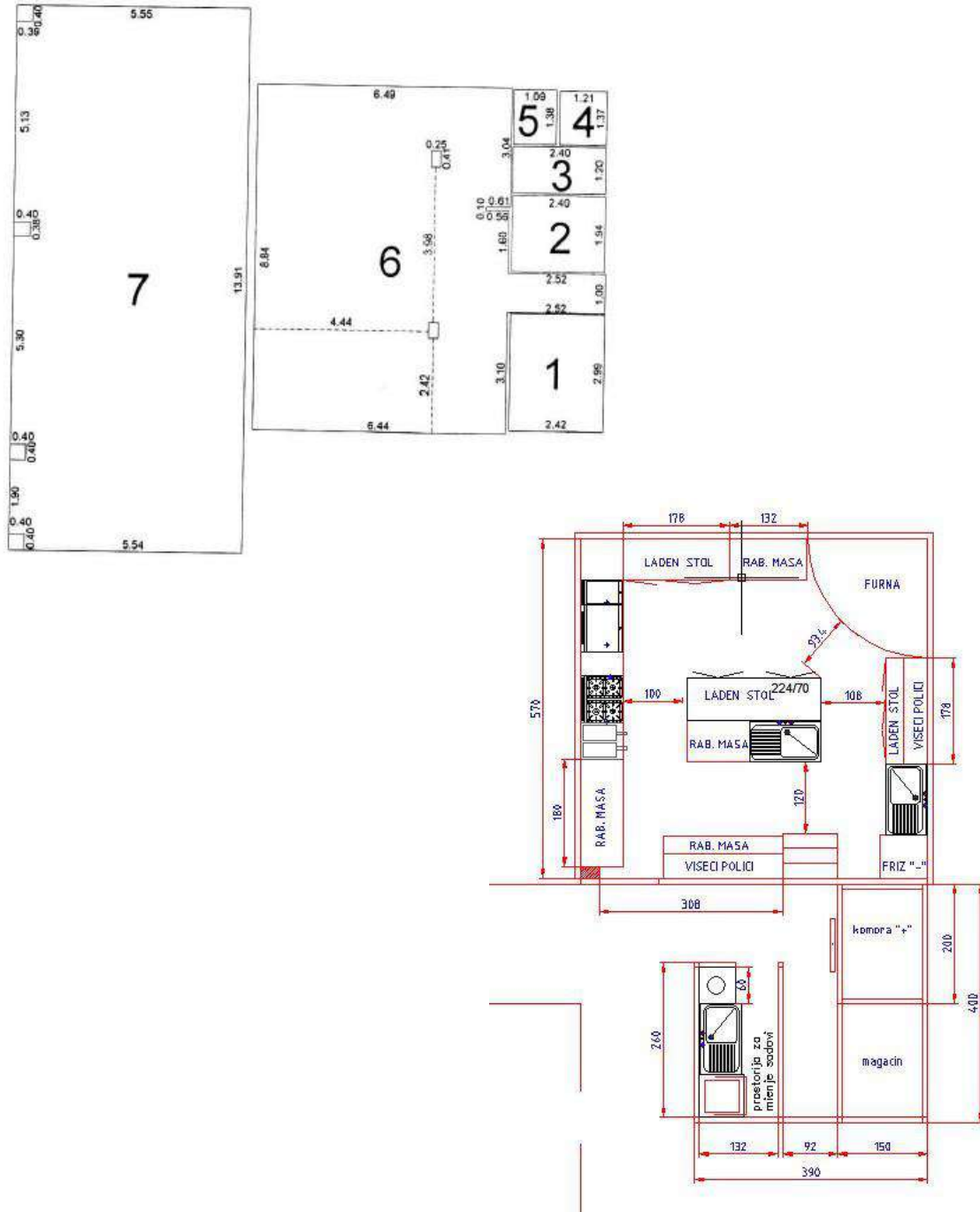
1. Satellite image of Villa Vangelina
2. Layout of apartment
3. Layout of restaurant and kitchen
4. Decision for approval of Elaborate for environmental protection for renovation, reconstruction and extension of Vila Vangelina



Satellite image of Villa Vangelina (source: Google Earth)



Layout of apartment in villa Vangelina



Layout of restaurant and kitchen

Согласно Законот за локалната самоуправа („Службен весник на Република Македонија“ бр.05/02), Законот за животна средина („Службен весник на Република Македонија“ бр.53/05, 81/05, 24/07, 159/08, 83/09, 48/10, 51/11,123/12,93/13, 42/14, 44/15,129/15 и 39/16) Уредбата за определување на проектите и за критериумите врз основа на кој се утврдува потребата за спроведување на постапката за оцена на влијанијата врз животната средина („Службен весник на Република Македонија“ бр. 74/05, 109/09, 164/12) и Уредбата за изменување на Уредбата за дејности и активности за кои задолжително се изработува Елаборат, а за чие одобрување е надлежен органот за вршење на стручни работи од областа на животната средина („Службен весник на Република Македонија“ бр.36/12) и Уредбата за изменување на Уредбата за дејности и активности за кои задолжително се изработува Елаборат, а за чие одобрување е надлежен Градоначалникот на општината („Службен весник на Република Македонија“ бр.32/12) постапувајќи по Барањето на **ГЛОБАЛ ЦЕНТАР ДВД ДООЕЛ ИЗВОЗ-УВОЗ КУМАНОВО**, за одобрување Елаборат за заштита на животната средина бр.09-1623/1 од 03.12.2018 година, Градоначалникот на Општина Петровец, донесе:

Р Е Ш Е Н И Е

за одобрување на Елаборат за заштита на животна средина

1. Со ова Решение се одобрува Елаборатот за заштита на животната средина, со тех. број: 242-11/18 од 30.11.2018 г, изработен од Консултантско друштво ЕНВИРО РЕСУРСИ ДОО Скопје, за Реновирање, реконструкција и доградба на Вила Вангелија на зелениот катлановски рид во околината на Скопје, општина Петровец за потребите на инвеститорот Глобал Центар ДВД ДООЕЛ извоз-увоз Куманово,
2. Од доставената документација констатирано е дека се работи за Реновирање, реконструкција и доградба на Вила Вангелија. Проектот опфаќа решение за бунгалови во склоп на хотелскиот комплекс и изработка на проктни решенија на новопредвидената состојба и определување на градежните основи кои во целост треба да одговораат на потребните карактеристики, нема да има значителни влијанија врз животната средина.
3. Инвеститорот се задолжува целосно и без исклучоци да се придржува кон пропишаниот режим и мерки за Елаборатот за заштита на животната средина, како и кон дополнителните решенија доколку низ работата на

хотелскиот комплекс се покаже потреба од зголемен обем и вид на превенција.

Образложение

Глобал Центар ДВД ДООЕЛ извоз-увоз Куманово, поднесе до Општина Петровец, барање за одобрување Елаборат за заштита на животната средина бр.09-1623/1 од 03.12.2018 г.

Елаборатот се однесува за Реновирање, реконструкција и доградба на Вила Вангелија. Проектот опфаќа решение за бунгалови во склоп на хотелскиот комплекс и изработка на проктни решенија на новопредвидената состојба и определување на градежните основи кои во целост треба да одговораат на потребните карактеристики.

Согласно Законот за животна средина („Службен весник на Република Македонија“ бр.53/05, 81/05, 24/07, 159/08, 83/09, 48/10, 51/11,123/12,93/13, 42/14, 44/15,129/15 и 39/16) и Уредбата за дејностите и активностите за кои задолжително се изработува елаборат, а за чие одобрување е надлежен Градоначалникот на Општината, Градоначалникот на Град Скопје и Градоначалникот на општините во Градот Скопје („Службен весник на Република Македонија“ бр.32/12), дејноста за која е изготвен предметниот Елаборат е опфатена со Прилог 1 од Уредбата и за истиот се спроведува постапка за одобрување на Елаборат за заштита на животната средина.

Елаборатот е во целост изработен согласно Правилникот за формата и содржината на Елаборатот за заштита на животната средина, постапката за нивно одобрување, како и начинот на водење на Регистарот за одобрени елаборати („Службен весник на Република Македонија“ бр. 44/13).

При увидот на терен извршен од страна на претставникот на Одделението за урбанизам, комунални дејности и заштита на животната средина на Општина Петровец, на ден 03.12.2018 година констатирано е дека фактичката состојба соодветствува со податоците во Елаборатот и дека може да отпочне постапката за издавање решение за одобрување Елаборат за животна средина.

Комуналниот отпад се подига од страна на ЈКП „Петровец,, - Петровец, за што се приложени платени сметки за комунален смет.

Во случај на надминување на дозволените нивоа на емисии, ќе се применат одредбите на Законот за заштита на животната средина во делот на Делокругот на надзор на овластениот инспектор и делот на Прекршочните одредби.

Врз основа на изнесеното, е одлучено како во диспозитивот на ова Решение.

Упатство за правно средство:

Против ова Решение подносителот на барањето за одобрување на Елаборатот за заштита на животната средина има право на жалба до Министерот за животна средина и просторно планирање во рок од 15 дена од денот на приемот на Решението.

Ова решение влегува во сила со денот на донесувањето

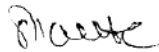
Упатство за правно средство:

Против ова Решение подносителот на барањето за одобрување на Елаборатот за заштита на животната средина има право на жалба до Министерот за животна средина и просторно планирање во рок од 15 дена од денот на приемот на Решението.

Бр. 09-1623/3
03.12.2018 г.

Изработил: Наталија Миткова дипл.маш.инж.

Одобрил: Блаже Арсовски дипл.инж.



Градоначалник
Борче Митевски дипл.есс.

