

MAKINSK POULTRY FARM PROJECT
ENVIRONMENTAL AND SOCIAL IMPACT
ASSESSMENT
NON-TECHNICAL SUMMARY

APRIL 2016

MAKINSK POULTRY FARM PROJECT

ENVIRONMENTAL AND SOCIAL IMPACT
ASSESSMENT (ESIA)

NON-TECHNICAL SUMMARY (NTS)

EBRD

Draft Final

Project no: 70017146

Date: April 2016

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QUALITY MANAGEMENT

ISSUE/REVISION	FIRST ISSUE	REVISION 1	REVISION 2	REVISION 3
Remarks		Incorporate comments		
Date	29/01/2016	April 2016		
Prepared by	Paul McGimpsey Barbara Silva Elena Bub	Paul McGimpsey Barbara Silva Elena Bub		
Signature				
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Authorised by	Neal Barker	Neal Barker		
Signature				
Project number	70017146	70017146		
Report number	NTS001	NTS001		
File reference	E09 - Corporate Services\Projects 15\# ESG\EBRD UKPF Kazakhstan\Supplementary information report	E09 - Corporate Services\Projects 15\# ESG\EBRD UKPF Kazakhstan\Supplementary information report		

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1 INTRODUCTION

1.1 BACKGROUND

- 1.1.1 The European Bank for Reconstruction and Development (the “EBRD” or the “Bank”) is considering providing finance to the Ust-Kamenogorsk Poultry Farm JSC (“UKPF” or the “Company”) to construct and operate the proposed Makinsk Poultry Farm in northern Kazakhstan.
- 1.1.2 WSP | Parsons Brinkerhoff (WSP PB) has been commissioned by the EBRD to prepare an Environmental Impact Assessment (EIA) Supplementary Information Report (SIR) for the proposed Makinsk Poultry Farm.
- 1.1.3 This Non-Technical Summary (NTS) document is a summary of the SIR, which provides supplementary environmental, socio-economic and health information.

1.2 SITE CONTEXT

- 1.2.1 The proposed development would be located on agricultural land to the west of Makinsk. Makinsk (indicated by the red dot in Figure 1.1) is a town in northern Kazakhstan. It is the administrative center of Bulandy district in the Akmola region (shown in blue in Figure 1.1).

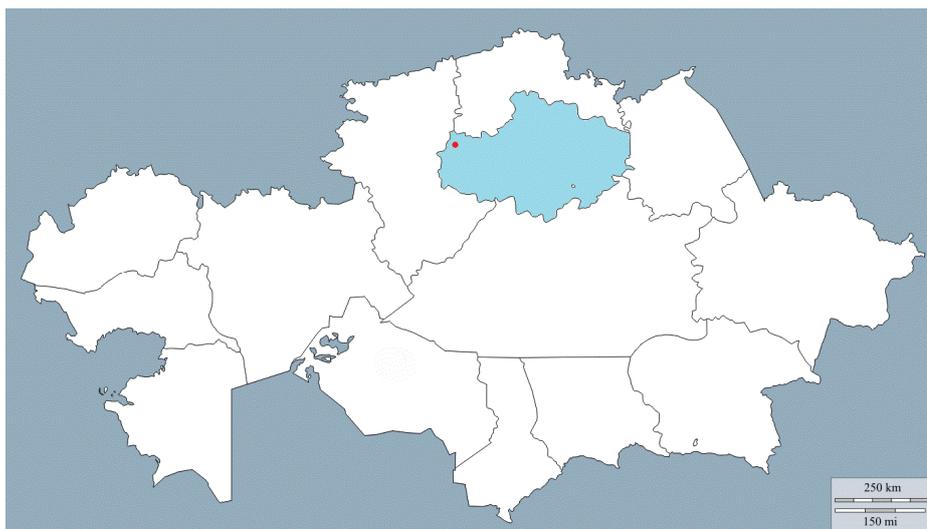


Figure 1.1: Makinsk and the Akmola region of Kazakhstan

- 1.2.2 The proposed site lies immediately to the west of the town of Makinsk. The land required for the poultry farm is all owned by the State. In total, the farm will require 301 hectares, of which 76 hectares is for the farm area for the technical aspects of the farm whilst a further 225 hectares will be used for the associated infrastructure such as the electrical, water and wastewater systems.
- 1.2.3 Further details of the proposed farm are provided in Chapter 2.

1.3 SCOPE OF THE ENVIRONMENTAL & SOCIAL IMPACT ASSESSMENT

- 1.3.1** The SIR is based on the information provided to WSP PB by the EBRD and by the Project Developer, MPF. Due to time constraints, further specialist surveys have not been undertaken at this stage to prepare this ESIA, however, where required, further specialist assessments have been proposed as part of an Environmental and Social Action Plan for the project. This approach has been adopted as further studies may only be possible when the project design information is further developed. WSP PB has been supported by local consultants based in Kazakhstan.
- 1.3.2** This ESIA has considered the area around the proposed farm and its associated infrastructure and the immediate vicinity, including the residential areas 125 m away from the hatchery unit and 1,250 m away from some of the main farm buildings. The potential effects on nearby settlements including the town of Makinsk, located 635 m away from the poultry farm, have also been considered. Nature conservation sites and water features have also been considered where there is the potential for impacts to occur.

1.4 ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

- 1.4.1** An environmental and social management plan (ESMP) has been prepared as a separate document and addresses the impacts and provides the means to monitor the predicted impacts, to provide reassurance as to the compliance with legal, corporate and EBRD requirements and to allow detection of emerging issues.
- 1.4.2** The ESMP addresses all anticipated impacts in respect of air, noise, water, soil, waste, social conditions of the local community etc. The ESMP references the relevant standards and regulations (Kazakh and the EBRD) that will apply to all phases of the project and includes the roles and responsibilities of the different parties involved in the design and implementation of the project.

2 DESCRIPTION OF THE PROJECT

2.1 OVERVIEW OF THE FARM PROCESS

2.1.1 The farm process begins with placing the eggs in an incubator unit. This is followed by 21 days of the incubation process, and broiler chicks hatching. Once hatched, the one day-old chicks are taken to the broiler houses for growing, where they remain for 40-42 days.

2.1.2 At the end of the growing cycle the poultry is prepared for slaughter and transported to the poultry processing plant. After a series of processes, such as stunning, slaughter, bleeding, scalding, removal of feathers, gutting, cleaning, cooling, cutting, sorting and packaging, the final product is taken out to the central storage and end product distribution warehouses. In total, the poultry farm would produce approximately 25 million chickens per year.

2.2 FARM INFRASTRUCTURE

2.2.1 The proposed site lies immediately to the west of the town of Makinsk with the farm units in excess of 2 km from the town with the associated infrastructure such as the feed mill, water treatment, wastewater treatment and composting facility closer to the town. Figure 2.1 shows the layout of the farm units and associated infrastructure.

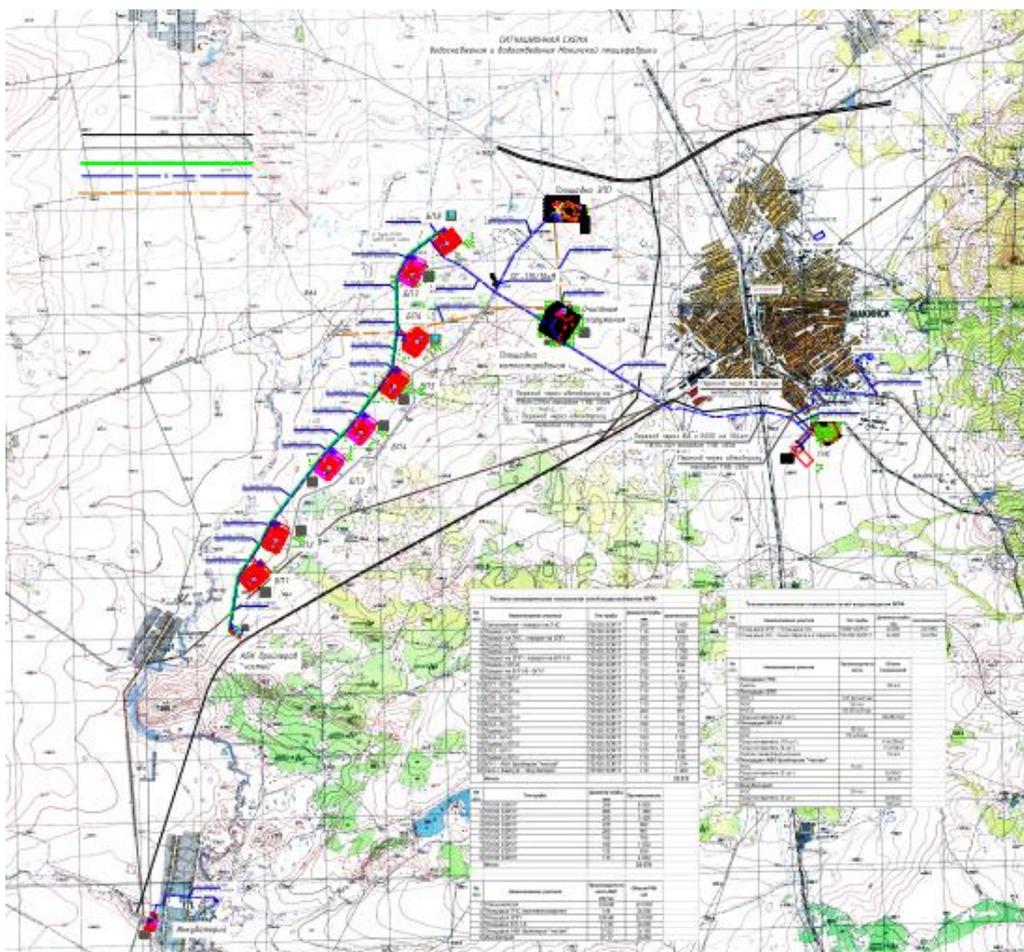


Figure 2.1: Layout of the farm units and associated infrastructure

2.2.2 The Makinsk Poultry Farm would be made up of a number of different buildings, as detailed below.

MAIN FARM

2.2.3 The main farm would contain:

- eight broiler farm units, each with 12 houses (approximately 185,000 m² in total each broiler farm unit);
- an incubator, accommodating hatching;
- a slaughter floor;
- rendering facility;
- a laundry;
- a central warehouse; and
- garaging for 12 cars and a vehicle wash facility.

2.2.4 Heating for the broiler houses will be from a gas fuelled boiler. For biosecurity reasons there would be separate roads for 'clean' and 'dirty' vehicles as well as biosecurity control points around the farm.

FEED MILL

2.2.5 The feed mill is planned to be operational run simultaneously with the first stage of the poultry farm. It is planned that this plant will provide 100% of the feed for the poultry farm complex.

2.2.6 The following equipment is to be installed at the feed mill:

- Scales;
- Transport lines-conveyors and bucket elevators
- Crushers
- Mixer
- Mixer Granulator
- Sifter (separator)
- Elevator equipment
- Reception: Transporters with 36 internal silos and 8 street silos

ADMINISTRATIVE BUILDINGS

- 2.2.7 There would be two administrative areas for the production process, one for the clean area and dirty area. The 'clean area' administrative building would be located in front of the broiler houses, whilst the 'dirty area' administrative building would be located at the poultry processing plant territory.

WASTEWATER PLANT

- 2.2.8 Wastewater collection, transport, storage, treatment and discharge facilities would be provided. The wastewater treatment plant would use dissolved air flotation technology – an effective process that removes a wide range of suspended solids in water. The process produces a sludge that would be transported by truck to the composting pad to be composted to manure.

COMPOSTING PAD

- 2.2.9 The litter and poultry droppings from the broiler houses will be transferred to the composting pad based on the 42 day growing cycle of the birds. This waste would be held in the composting pad for 42-55 days.
- 2.2.10 The compost would then be spread as manure on the fields. This agricultural fertiliser period lasts approximately 60 days a year, between August and September. The spreading will take place using two compost spreaders.

OTHER SERVICES

- 2.2.11 Other services provided on-site would include electricity, drinking water and communications. Power supply will be provided from electrical mains and hot water and steam from the boilers as detailed above. Liquefied petroleum gas (LPG) from a gas storage tank next to the feed mill would be used to power the boilers. The central heating at some smaller isolated buildings is from electric boilers.

3 POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK

3.1 LEGAL FRAMEWORK

3.1.1 The construction and operation of the proposed Makinsk Poultry Farm will meet the requirements of the RoK policy and legal requirements and international environmental agreement and standards and guidance such as those developed by the EBRD that are relevant to the project and these are discussed below. The project has been designed to comply with all these requirements.

3.2 REPUBLIC OF KAZAKHSTAN REGULATIONS

3.2.1 Environmental permitting in RoK historically was predominately based on the requirements of Soviet legislation. RoK regulations relevant to this project that has been considered in the EIA includes:

- Environmental Code
- Labour Code
- Public Health and Healthcare System Code
- Land Code
- Water Code
- Forest Code
- Law on Veterinary Medicine
- Law on Conservation, Reproduction and Usage of Fauna
- Law on Conservation of Flora
- Law on Specially Protected Natural Areas

3.3 INTERNATIONAL BEST PRACTICE AND THE EBRD REQUIREMENTS

3.3.1 The European Union (EU) has laid down strict requirements for the management of poultry operations to prevent and reduce as far as possible the negative effects on the environment from the growing of chickens:

- the Animal By-products Regulations; and
- the Industrial Emissions Directive.

3.4 EBRD PERFORMANCE REQUIREMENTS

- 3.4.1 The EBRD seeks to ensure that the projects they finance are socially and environmentally sustainable, respect the rights of affected workers and communities, and are designed and operated in compliance with applicable regulatory requirements and good international practices. The EBRD's Environmental and Social Policy was published in 1991 and updated in 2008 and 2014. The EBRD PRs consider the potential environmental and social impacts that must be assessed to demonstrate compliance, and provide the basis on which clients must demonstrate commitment to the sustainability of their business operations. The EBRD's Environmental and Social Policy includes compliance with the PR, which outline social and environmental responsibilities and specific practices that the EBRD clients must follow.

4 ASSESSMENT OF ALTERNATIVES

4.1 STRATEGIC LOCATION OF THE POULTRY FARM

- 4.1.1 The selection of the Akmola region for the proposed farm was determined by the proximity to the capital Astana which is the main sales market for poultry farm products as well as a good supply of grain in the region from local crop farms. In this case, Akmola region has a major competitive advantage, due to its location on the geographical territory surrounding the capital Astana.
- 4.1.2 The Akmola region is one of the major grain-producing regions of Kazakhstan. Therefore, construction of the proposed farm in the Akmola region would result in sustainability benefits associated with reducing the need to transport raw materials to and goods from the farm.
- 4.1.3 The Akmola region is also a favourable location for the project, because it is situated at the intersection of the regional highways that lead to the capital Astana. It has a developed railway network, road network and air transport.

4.2 LOCATIONS WITHIN THE AKMOLA REGION

- 4.2.1 The selection of the location for the development of the proposed poultry farm considered districts within, or near to, the Akmola region. An options study was undertaken to identify the most suitable location for the proposed development within, or near to, the Akmola region. Technical, environmental and social factors were considered in assessing the potential location. In total, nine districts for the proposed poultry farm site were considered.
- 4.2.2 Site selection criteria involved taking into account future location of the poultry farm in relation to available feed mills. In particular, the poultry farm and the feed mill should be in close proximity to each other, at a distance of no more than 10 km - 50 km.
- 4.2.3 Additional key factors that were considered included availability of existing infrastructure, number of urban consumers of future poultry farm products, raw materials availability, and existing competitors. Another priority was availability of railway lines and railway sidings in close proximity to the proposed development.
- 4.2.4 The main reason for the selection of these districts was the fact that there is an existing cultivation of grain (grade 4), which represents the main source for animal feed. The final choice of the district for the proposed development site was determined by the following criteria:
- existing infrastructure, including labour;
 - the presence of a sufficient number of urban consumers of poultry farm products nearby; and
 - raw materials availability.

4.2.5 The assessment resulted in Bulandy district scoring the best overall score. As a result the town of Makinsk in the Bulandy district was chosen as preferred location for the proposed poultry farm.

4.3 LOCATIONS WITHIN THE BULANDY DISTRICT

4.3.1 Two potential sites were identified during this analysis: one site to the west and the other to the east of the town of Makinsk.

4.3.2 The site to the east was deemed unsuitable due to its close proximity to the Bulandy Nature Reserve (approximately 7 km). Therefore, for biosecurity reasons and in order to avoid potential risk of adverse impacts that the proposed poultry farm could have on the Bulandy Nature Reserve, the site to the east of the town of Makinsk was not selected for the realisation of the proposed development.

4.3.3 As a result, it was recommended to build the proposed poultry farm to the west of the town of Makinsk.

4.4 SITE LAYOUT ALTERNATIVES

4.4.1 Site layout was constrained and influenced by the following criteria:

- Size of the area required to allow sufficient distance between each of the farm units (300 m to 1,000 m);
- Need to avoid drinking water protection zones;
- Need to provide appropriate buffer distance from residential areas;

5 ENVIRONMENTAL, SOCIO-ECONOMIC AND HEALTH BASELINE

5.1.1 This chapter includes a description of relevant aspects of the physical, natural, socio-economic and health environment.

5.2 LOCAL CLIMATIC CONDITIONS

5.2.1 The area is characterised as semi-arid, receiving an average of 200 mm to 400 mm of rain per year. The lowest rainfall is in January at 5.2 mm and seven rainfall days to a high in July of 38.9 mm and eight rainfall days on average. The highest average temperature was recorded in June and July at 24°C, whilst the lowest average temperature was recorded in January at -21°C. Wind direction is predominantly from the south-west throughout the year with an annual average wind speed of 2.1 m per second.

5.3 LANDSCAPE CHARACTER AND VISUAL AMENITY

5.3.1 The site is located within the Kazakh Steppe landscape which covers an area of approximately 804,500 km² across most of northern Kazakhstan. The landscape is characterised as semi-arid, receiving an average of 200 mm to 400 mm of rain per year.

5.3.2 The proposed site comprises flat terrain and is relatively uniform in character. Elevation with 2 km of the proposed site does not vary by more than 50 m. The site consists predominantly of dark brown soils. The formation of the soil in this area was influenced by continental climate, which is characterized by high aridity and sharp changes in temperature.

5.3.3 The site comprises undeveloped land with no buildings (residential or other) being located on site previously to the beginning of construction works. The Baisuat village to the south-west is in immediate proximity to the incubator building (125 m). The proposed feed mill that will supply feed for the chickens is immediately adjacent to the north-east site boundary. No other residential or industrial buildings are immediately surrounding the proposed farm site.

5.3.4 Given the flat character of the terrain, the views across the proposed development into the site are predominantly long. The views into the site from Kayrakty River and Pond on Kayrakty River are partly blocked by woodland areas.

LOCAL VEGETATION

5.3.5 Due to the low rainfall the area receives, the steppe consists of mostly grasslands and large, sandy areas. There are some woodland areas consisting of birches and pines growing in immediate proximity to the site. Vegetation on the site is predominantly low growing and sparse, with approximately eight to ten plant species per 100 m². Local vegetation predominantly comprises of low-level drought-resistant plants.

SETTLEMENTS

5.3.6 The three main settlements within a 1.5 km radius of the site are Makinsk, Karaozek and Baisuat. Baisuat is a village in the Bulandy District in Akmola Region of the Republic of Kazakhstan with a population of 230 people. It is the nearest settlement to the project site at a distance of approximately 125m. Makinsk is located approximately 635m away and Karaozek 1,250 m away.

VISUAL RECEPTORS

- 5.3.7 There are visual receptors of low, moderate and high sensitivity. The highly sensitive receptors comprise of people living in residential properties, the closest being at the distances stated above for each settlement.
- 5.3.8 The visual receptors of moderate sensitivity include people enjoying views from:
- Kayrakty River (distance from the site to the river: approximately 700 m)
 - Pond on Kayrakty River (distance from the site to the river: approximately 500 m)
 - Sukhaya River (distance from the site to the river: approximately 75 m)
- 5.3.9 Receptors of low sensitivity include people using roads to travel to work.

5.4 AIR QUALITY

- 5.4.1 Air quality was monitored across Kazakhstan at 29 locations in eleven cities between 2010 and 2012¹. Concentrations of Total Suspended Solids (from which particulate matter (PM10) concentrations are estimated), nitrogen dioxide (NO₂) and sulphur dioxide (SO₂) were monitored.
- 5.4.2 The majority of the monitoring carried out was in relatively close proximity to industrial facilities (including heavy industry, mining, smelting operations). The results indicated that all three pollutants breached the EU Limit Values for a number of years at the majority of the monitoring sites.
- 5.4.3 None of the monitoring stations are located in close proximity to the Proposed Development Site, and none are considered to be particularly representative of conditions in the vicinity of the Site; The Site is located in a rural area with the town of Makinsk being approximately 4.5 km from the centre of the proposed farm. One of the proposed buildings, however, would be closer to Makinsk, approximately 650 m away.
- 5.4.4 Concentrations of all three pollutants at the site are therefore likely to be low given the rural location and lack of industry surrounding the site.

5.5 NOISE AND VIBRATION

- 5.5.1 It is understood that the only local state policy referring to noise is the control of sound levels in the workplace which is subject to a limit of 80 dB(A).
- 5.5.2 The closest residential receptor from any part of the site is Baysuat village, which is approximately 125m from the Incubator site. Noise may disturb, annoy and affect negatively health and well-being of the people living in the village. All other surrounding villages are at least 1250m from any part of the development.
- 5.5.3 The dominant existing noise sources at the site are:
- Major roads to the north and to the east of the site;
 - Railway line to the north-east of the site;

¹ Joint Economic Research Program (JERP), The World Bank and Ministry of Environment and Water Resources of the Republic of Kazakhstan, November 2013. Towards Cleaner Industry and Improved Air Quality Monitoring in Kazakhstan.

5.6 SOILS, GEOLOGY, HYDROGEOLOGY AND HYDROLOGY

5.6.1 The terrain underlying and surrounding the site is flat. Elevation within 2 km does not exceed 50 meters to 1 km.

5.6.2 The surrounding terrain is monotonous and sparsely vegetated, with the soil consisting of a subzone of moderately dry Fescue-feather grass steppes in dark chestnut soils. The soil is characterised by a continental climate, associated with high aridity and sharp changes in temperature.

GEOLOGY

5.6.3 The published geology (USSR Ministry of Geology, Map of Mineral Resources, Sheet No. 42-XXV, 1:200,000 scale) indicates the ground conditions to comprise recent and Quaternary alluvial deposits associated with the flood plain of the River older deposits of fossil soils (loam) and colluvium.

HYDROGEOLOGY

5.6.4 The main aquifer system beneath the potential development area is comprised of superficial alluvial deposits. The upper sections of these deposits (loams, sands and gravel deposits) are in good hydraulic connection with the Kairakty River and respond quickly to seasonal input/output variations, indicated by groundwater level variations.

HYDROLOGY

5.6.5 Kairakty River originates in the southern part of Burabay district, east of the village of Klimovka. The total length of the river is 171 km, 150 km of which runs through the Akmola region. The river has a total catchment area of 4,930 km².

5.7 SURFACE WATER QUALITY

5.7.1 Water quality data for the Sukhaya and Kayrakty rivers was gathered during the EIA process. The existing background water quality data shows that no priority substances are released and the background data shows that chloride and phosphate levels in the river would likely exceed annual average environmental quality standards if the river was in the UK. The rivers originate from springs 17 km northeast and 30 km north from the discharge respectively. Kayrakty has another large irrigation impoundment 9 km upstream that can regulate water level at the discharge pipe entry. At present, no data is available concerning the rivers' flow data.

5.8 TERRESTRIAL AND AQUATIC ECOLOGY

5.8.1 The current baseline of the site is likely to be one of long-term disturbance, with original steppe habitat (and likely forest-steppe before this) having been lost or significantly altered as a result of agricultural, municipal, transportation and construction activities. The biodiversity of the area will be markedly reduced from its previous character. In general, the habitats across the site comprise a network of agricultural fields, with scattered scrub (including hedgerows) and some remnant steppe areas.

FLORA

5.8.2 The large extent of land under agricultural tenure will likely be typically very species-poor; there are no notable areas of set-aside land within these areas.

- 5.8.3 The undisturbed areas of the territory appear typical of such habitats across the region, and are likely to be dominated by a feather grass *Stipa lessingiana* – fescue *Festuca valesiaca* community, which includes herbs. Overall the diversity of the flora is very low.
- 5.8.4 Pockets of scrub and woodland are scattered across the site and wider area, with the largest such example located in the east of the site. To the immediate south of the site a more extensive woodland/scrub habitat prevails.

FAUNA

- 5.8.5 The faunal composition has been affected by disturbance similar to the flora habitat. A review of faunal data collected from within the Bulandy Nature Preserve (ca. 7km east of the site) suggests that mammals including roe deer, boar and badger, may have once been present across the site and the wider area.
- 5.8.6 With regards to ornithology, observations and published data (Giscov, Gavrilov, Erokhov, Žulij, Hrokov 1970-1997) related to territories adjacent to Astana recorded 176 species of bird. It is unlikely these species occur on the site with any great regularity, however, the presence of open water within 2km of the site may provide suitable habitat for the wetland species, and thus their occasional presence closer to the site is possible.
- 5.8.7 Although no records were obtained as part of this study, the presence of a common reptile and amphibian assemblage is considered likely, in addition to bat species which will make use of the site for foraging and potentially roosting purposes.
- 5.8.8 It's is also likely that an abundant insect assemblage is present at the site, including numerous fly species (many of which are either syanthropic, associated with standing water, or both), ground beetles and ants.

5.9 SOLID WASTE MANAGEMENT

- 5.9.1 The proposed new integrated poultry farm has the potential to give rise to significant levels of construction and operational waste streams.
- 5.9.2 It has been stated that the waste will be stored in metal containers and specialised organisations will transport the waste off site. It is proposed that the municipal solid waste (MSW) and construction waste will be disposed of at a MSW landfill. The disposal routes for the other waste streams are not detailed.
- 5.9.3 Hazardous waste streams will be generated during the operational phase, which pose a higher risk of pollution and health related incidents. Therefore, it is especially important that appropriate storage and disposal routes are identified and implemented.
- 5.9.4 It is considered that the litter and poultry droppings from the poultry houses will be transferred, using dump trucks, to a composting pad. The frequency of this movement is to be scheduled in accordance with the production figures at MPF. It is also planned that incubation egg shells (i.e. once the eggs have hatched) will be taken for composting.
- 5.9.5 Currently there are no procedures or plans in place for the safe management of waste/ litter and slurry, of which odour and nuisance related impacts are associated.

5.10 CULTURAL HERITAGE

- 5.10.1 There are no internationally, nationally or locally designated historical and cultural monuments in the project area. However, two monuments and three churches were identified within a 15 km area surrounding the site and are assessed to be of cultural or religious value:

- A monument of a prominent Kazakh fighter and poet Baluan Sholak, 'Atatobe', situated at 1km east of Voznesenka Вознесенка (approx. 13 km from the site);
- A monument of Lenin on ул.Пристанционная (approx. 2 km from the site);
- A Mosque on ул.1-мая (approx. 3.5 km from the site);
- A Catholic Church on октябрьский пер.(approx. 350 m from the site);
- The Orthodox Church of St. Nicholas on ул. Кима М. (approx. 2.3 km from the site).

5.10.2 There are 82 archaeological areas of local significance in the Bulandy District. Two of them are in Makinsk and are located 26 km from the project area. They are identified as burial grounds from the middle-age period. The archaeological potential of the site itself is unknown, although agricultural activity is likely to have disturbed and damaged an assets that may be present in the top layers of soil

5.11 SOCIO-ECONOMIC CONDITIONS

- 5.11.1 The proposed new poultry farm is situated to the west of the town of Makinsk in Bulandy District, which is a district of Akmola Region in north central Kazakhstan. The total population of Makinsk is 16,924 (2014) which represents approximately 0.5% of the district population, with the population distribution in Makinsk and the district remaining fairly constant with only minor population increases due to recent rural to urban migration.
- 5.11.2 The population density is considered to be relatively low (6.3 people/ km²) with many professionals such as doctors migrating to different part of Kazakhstan seeking higher salaries. The average wage for Bulandy District is KZT 65,282 lower than the regional average (KZT 81,032) and considerably less than the national average (KZT 109,970). Monthly average wage/ salary from 2011 to 2014 indicate a steady increase in pay over this period.
- 5.11.3 Unemployment in Bulandy District is very low (0.2% in 2013 and 2014), although these figures may be significantly higher as they only take into account registered unemployed people. There were 32 recipients of government social allowance, and housing benefits were paid to 20 families. In addition, government social allowance was paid to 63 individual in 2013 and 134 individuals in 2011.
- 5.11.4 The economically active population of the district is recorded at 59% of the total population. In Bulandy District, there are 1,297 disabled people of working age, of which 337 falls into the employable category (217 of these disabled people are employed).
- 5.11.5 The registered crime levels per 1,000 population in Bulandy District are significantly lower than national and regional levels with levels rising between 2012 (299 crimes) and 2013 (394 crimes) followed by a decline in 2014 (361 crimes). The figures indicate a 21% decrease in the number of registered crimes in Bulandy District from 2012 to 2014.
- 5.11.6 Main economic activities within urban district area are construction, manufacturing and processing sectors, in addition to, small retail businesses that employ approximately 3,063 people locally in Bulandy and Makinsk. Net business revenue from tourism in the district has increased by 0.2% since 2011 (7.7 million tenge in 2014), and general trading and public catering outlets have steadily increased from 187 to 198 between 2010 and 2013.

- 5.11.7 Crop cultivation and livestock farming are the main income generating economic activities within the project area, with the total regional gross output of about 11,763 million tenge significantly contributing to the national agriculture industry (comprising 7,419 million tenge for crop farming and 4,343.5 million tenge for livestock farming). The 2014 gross output shows an increase in output from the 2005 gross output figure of 39,080 million tenge. Crop farming within the district consists of predominantly cereal and legume, oil bearing crops, forage crops, potatoes and other general vegetables. The majority of the crop cultivated land (82%) in the district is used to grow cereal and legume. Livestock farming is predominantly cattle, sheep, horses, pigs and poultry. There has been a significant increase in poultry production within the district from 2012 to 2013 with this level sustained into 2014. Whilst farming of horses and pigs has remained at a generally constant level.
- 5.11.8 A high literacy rate of 99.8% is reported for the secondary school age population for both genders. Locally in Makinsk, the data shows there were five (5) secondary schools and five (5) pre-school institutions in 2014. 2,596 students representing a 100% enrolment was reported for 2014 with hot meals provided to every student.
- 5.11.9 Water supply and wastewater treatment services are provided by Bulandy Su Arnasy LLP with 60% of the district supplied with water. A growing problem with water supply includes non-payment of bills by a great number of customers. Water supply (via street water tap) is disconnected for an entire settlement if the majority do not pay the bills. Local data shows that shows that 17 out of 37 settlements were connected to water mains representing 50.9% of the overall population within the District.
- 5.11.10 Bulandy district is connected to the capital Astana and other main towns by the A11 highway. There is 344 km of road networks, of which 195 km are tarmac surfaced with the remaining gravelled roads. Solid waste is collected and disposed of by 'Makinsk MZD' LLP. The heating supply is currently inadequate and plans have been initiated to develop a 28MW heating plant with associated heat supply infrastructure to address this issue.

5.12 LAND ACQUISITION

- 5.12.1 The land for the Project has already been acquired by UKPF and at the time of acquisition was all state owned land. The project is to use 301 hectares of which 76 hectares is for the farm area for the technical aspects of the farm whilst a further 225 hectares will be utilised for the associated infrastructure such as the electrical, water and wastewater systems.
- 5.12.2 The wastewater treatment plant is to be located on a parcel of land that was previously set aside for a new landfill for the town of Makinsk. However, the landfill was given another parcel of land within an appropriate development zone to allow the wastewater treatment plant to be built in the proposed location. This wastewater treatment plant will be utilised by both the farm and the town.
- 5.12.3 It is understood that UKPF has acquired an elevator at the feed mill location and will simply reconstruct the infrastructure without additional land take.

5.13 SANITARY PROTECTION ZONE

- 5.13.1 In addition to the land required for the Project's physical footprint and associated infrastructure, a sanitary protection zone (SPZ) has been determined in accordance with national regulations. The company undertook a programme of stakeholder engagement for the Project in accordance with its requirements to consult publically under national planning legislation. This was advertised both locally and nationally. Six questions were raised and answered at the public meeting (4th December 2015) on the size of the SPZ, nearest residence to the project, quality of the wastewater and storm water discharges and what wastes will be generated.

5.14 PHYSICAL AND ECONOMIC DISPLACEMENT

- 5.14.1 There are no residential developments in the proposed SPZ for the sites and no physical resettlement associated with the Project in general.
- 5.14.2 The Project site will have security fencing in place to help facilitate the bio-security of the farm.
- 5.14.3 Due to land demands of the projects, there is economic displacement associated with the Project, mainly through the use of agricultural land. The companies affected were given parcels of land by the council greater than the area which was taken from them for the project.
- 5.14.4 Of the 301 hectares for the project, with the exception of the land designated for use as a landfill (which was state controlled), there were two parcels of land which had long term leases associated with them.

5.15 HEALTH CONDITIONS

- 5.15.1 The major causes of adult mortality in Kazakhstan are non-communicable diseases (reported by WHO to be 84% in 2014²) such as cardiovascular disease (54%), cancers (15%), other tobacco and alcohol-related diseases and injuries. There has been reduction in the incidence of cardiovascular disease, cancer and Tuberculosis. The incidence of alcohol and substance abuse for Bulandy District is relatively high with approximately 1,000 for every 100,000 population (2014). A very low proportion of the the population of Kazakhstan's population is HIV positive (0.1%) with drug abuse through shared needles being the main cause. In March 2012, WHO officially acknowledged Kazakhstan to be malaria-free given it had successfully maintained the territory as being malaria-free since 2001.

² http://www.who.int/nmh/countries/kaz_en.pdf

6

SUMMARY OF IMPACTS AND MITIGATION MEASURES

6.1.1 Table 6.1 provides a summary of the key impacts and proposed mitigation measures.

Table 6.1: Summary of impacts identified and mitigation measures

PHASE	ENVIRONMENTAL IMPACTS (POSITIVE/ NEGATIVE, SHORT TERM/ LONG TERM, TEMPORARY/PERMANENT)	PROPOSED MITIGATION MEASURES	RESIDUAL IMPACT
AIR QUALITY			
Construction	Dust and other emission from construction activities	<ul style="list-style-type: none"> → Sprinkling of water on unpaved, non-vegetated surface to minimise airborne fugitive dust and during earth moving activities, prior to clearing and before excavating, backfilling, compacting or grading; → When feasible, shut down idling vehicles and equipment; → Implement dust suppression measures to prevent air pollution through water application on roads, construction site, construction camps; → Develop a traffic management plan to ensure smooth traffic flow and safety for workers and passing traffic; → All vehicles must be regularly checked to ensure they are operating within legal requirements 	Negligible
	Air pollution: Dust and emissions generated from machinery, dust during soil works, waste spreading by birds and other animals	<ul style="list-style-type: none"> → Ensure all vehicle operators switch off engines when stationary - no idling vehicles; → Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable; and → Develop a Construction Management Plan to manage the sustainable delivery of goods and materials. 	Negligible
	Emissions of greenhouse gases	<ul style="list-style-type: none"> → Develop a traffic management plan to ensure smooth traffic flow; → Regularly check technical condition of vehicles and machinery; → Use vehicles equipped with effective exhaust mufflers; 	Negligible

PHASE	ENVIRONMENTAL IMPACTS (POSITIVE/ NEGATIVE, SHORT TERM/ LONG TERM, TEMPORARY/PERMANENT)	PROPOSED MITIGATION MEASURES	RESIDUAL IMPACT
		<ul style="list-style-type: none"> → Turn-off the construction machinery and equipment when not in use; and → Use efficient machinery and work schedule. 	
Operation	Odour from: <ul style="list-style-type: none"> → Wastewater Treatment Plant; → Composting pad; → Slaughter / processing plant; → Broiler sheds; and → Movement of waste from broiler sheds to composting pad. → Land spreading of composted manure 	<ul style="list-style-type: none"> → Optimise broiler shed management to reduce ammonia emissions from litter; → Maintain aerobic conditions within windrows to minimise odour production during composting; → Ensure broiler sheds are thoroughly cleaned between cycles; → Maintain a clean and tidy Site, cleaning up spillages rapidly; → Maintain and clean vehicles to reduce road vehicle odour; → Location of odorous processes well away from the Site boundary. 	Negligible
	Dust from: <ul style="list-style-type: none"> → Feed mill operations; → Preparation of litter (chopped straw); → Litter spreading within broiler sheds pre-cycle; and → Removal of waste from broiler sheds and transportation to composting pad. 	<ul style="list-style-type: none"> → Appropriate bag filters on feed mill exhausts (BAT); → Consideration of alternative bedding (e.g. coarser material such as wood shavings); → Use oil as binding agent within feed; → Manual spreading of litter; → Cover waste when transporting to composting pad; → Water unpaved roads to prevent spreading of dust, particularly during dry weather conditions; → Pave internal roads. 	Negligible
	Emissions from: <ul style="list-style-type: none"> → Vehicles operating on-site, as well as vehicles travelling to and from the Site; → On-site energy generating plant; → The broiler houses; → Composting; and → Disinfection 	<ul style="list-style-type: none"> → No idling vehicles on Site; → Ensure all vehicles are well maintained; → Develop and implement a Staff Travel Plan; → Optimise broiler shed management to reduce emissions from litter; → Maintain aerobic conditions within windrows to minimise emissions during composting. 	Negligible
	Emissions of greenhouse gases	<ul style="list-style-type: none"> → Energy audits and identification of possibilities for heat and hot water reuse; 	Minor

PHASE	ENVIRONMENTAL IMPACTS (POSITIVE/ NEGATIVE, SHORT TERM/ LONG TERM, TEMPORARY/PERMANENT)	PROPOSED MITIGATION MEASURES	RESIDUAL IMPACT
		<ul style="list-style-type: none"> → Minimisation of vehicle movements; → Management controls for composting and landspreading to be implemented; → Procedures for the efficient operation of the WWTP avoiding anaerobic conditions; and → Shut-off equipment and associated lighting when not in use. 	

PHASE	ENVIRONMENTAL IMPACTS (POSITIVE/ NEGATIVE, SHORT TERM/ LONG TERM, TEMPORARY/PERMANENT)	PROPOSED MITIGATION MEASURES	RESIDUAL IMPACT
Decommissioning	Emissions of greenhouse gases	<ul style="list-style-type: none"> → Develop a traffic management plan to ensure smooth traffic flow; → Regularly check technical condition of vehicles and machinery; → Use vehicles equipped with effective exhaust mufflers; → Turn-off the construction machinery and equipment when not in use; and → Use efficient machinery and work schedule. 	Minor
NOISE			
Construction	Noise from machinery and vehicles	<ul style="list-style-type: none"> → Limit noisy activities to the least noise- sensitive times of the day (week days between 7am and 10pm); → All machinery and equipment should have sound-control devices no less effective than those provided on the original machinery/ equipment. Motorised equipment should be adequately muffled and maintained; → To the extent possible, route heavy-truck traffic away from residences and other sensitive receptors; → Workers in the vicinity of sources of high noise shall wear necessary personnel protective equipment (PPE). 	Negligible
Operation	Noise from machinery and vehicles	<ul style="list-style-type: none"> → Limit noisy activities to the least noise- sensitive times of the day (week days between 7am and 10pm); → All mechanical service equipment shall include suitable noise control measures such as silencers, anti-vibration mounts and flexible connections; → Barriers (e.g. fences, etc.) or purpose-built acoustic screens should be used to reduce noise reaching administrative building where practicable; → Machinery in intermittent use should be shut down or throttled down to a minimum when not in use; and → PPE should be provided to employees for hearing protection, the sign boards and training procedure should be in place. 	Negligible
LANDSCAPE AND VISUAL			

PHASE	ENVIRONMENTAL IMPACTS (POSITIVE/ NEGATIVE, SHORT TERM/ LONG TERM, TEMPORARY/PERMANENT)	PROPOSED MITIGATION MEASURES	RESIDUAL IMPACT
Construction	Landscape and Visual impact of construction	<ul style="list-style-type: none"> → All practicable measures should be implemented to avoid or effectively control potentially adverse construction effects on existing landscape character and visual receptors; → Installation of 2 m high fence with checkpoint is planned for the construction and operation phase in order to protect the site and to screen the development from nearby sensitive receptors; → Lighting for facilities should not exceed the minimum required for safety and security. 	Minor
Operation	Landscape and Visual Impact of poultry farm operation	<ul style="list-style-type: none"> → All practicable measures should be implemented to avoid or effectively control potentially adverse operation effects on existing landscape character and visual receptors; → Mitigation planting of local tree species on site to reduce the landscape and visual impacts of the farm. → Planting of two rows of trees within each farm unit and between the buildings used to breed broiler chickens. → Planting of trees around veterinary, composting and clearance facilities as well as along the site boundary. → In particular, to avoid adverse impacts on the visual amenity, planting of trees should be undertaken around the incubator building and along the south-west and south site boundaries to screen Baisuat village, Karaozek village, Sukhaya River, Kayrakty River, and pond on Kayrakty River from the proposed farm. → Lighting for facilities should not exceed the minimum required for safety and security. 	Moderate
Decommissioning	Landscape and Visual Impact of poultry farm decommissioning	<ul style="list-style-type: none"> → Remove all necessary aboveground structures and facilities from the site; → Re-establish the terrain and drainage pattern similar to natural conditions of the adjacent areas; → Restore the vegetation cover, composition and diversity commensurate with the ecological setting; → Use plant species characteristic of the landscape in the course of restoration of the vegetation cover on the reclaimed areas. 	Negligible

PHASE	ENVIRONMENTAL IMPACTS (POSITIVE/ NEGATIVE, SHORT TERM/ LONG TERM, TEMPORARY/PERMANENT)	PROPOSED MITIGATION MEASURES	RESIDUAL IMPACT
GEOLOGY AND SOILS			
Construction	Loss/contamination of soil during removal for construction/ operation/ decommissioning of buildings	<ul style="list-style-type: none"> → Topsoil depth confirmation and identification of dispersion characteristics for erosion potential → Careful removal of topsoil → Appropriate and secure storage e.g. away from drainage lines and strategically located to assist sequence of future rehabilitation → Management of topsoil to maintain stability e.g. minimise length of time subsoil is exposed, use erosion control measures such as bonded fibre matrix, composite/ erosion control blankets, gravelling, revegetation etc. → Upon completion of construction, reinstatement of topsoil landscaping the works as soon as practicable including use of suitable topsoil, use of contour ripping to control erosion, seeding with appropriate seed mix, application of appropriate fertiliser or gypsum if required → Development of detailed topsoil management plan, including a site layout drawing, locating where soil will be removed and stored. 	Negligible
	Impacts from seismic activity, potential for slope instability and increased erosion and water quality problems	<ul style="list-style-type: none"> → Construction of cut-out drains; → Establishment of buffer zone around poultry farm; → Ensure preservation of safety rules by workers whilst dealing with hazardous and toxic materials; → Compliance with site rules on storage and handling of construction materials, fuel, oil products, chemical substances, etc.; → Regular inspection of poultry farm facilities to ensure proper operation; → Train workers on how to act in an emergency situation; and → Establish reliable communication between site and respective regional authorities, first aid service, rescue service, police office, fire office, operators of electricity, gas and water supply to ensure adequate response in case of an emergency. 	Negligible
Operation	Impacts from seismic activity, potential for slope instability and increased	<ul style="list-style-type: none"> → Prepare Emergency Preparedness and Response Plan, inform the workers on its provisions; 	Minor

PHASE	ENVIRONMENTAL IMPACTS (POSITIVE/ NEGATIVE, SHORT TERM/ LONG TERM, TEMPORARY/PERMANENT)	PROPOSED MITIGATION MEASURES	RESIDUAL IMPACT
	erosion and water quality problems	<ul style="list-style-type: none"> → Ensure compliance with rules on storage and handling of construction materials, fuel, oil products, chemical substances, etc.; → Regularly inspect facilities and infrastructure to ensure their proper operation and updating of as-built documentation; → Provide periodic training to workers on how to act in emergency situations; and → Maintain reliable communication between site and respective regional authorities, first-aid service, rescue service, police office, fire office, operators of electricity, gas and water supply utilities to ensure adequate response in case of emergency. 	
Decommissioning	Loss/contamination of soil during removal for construction/ operation/ decommissioning of buildings	<ul style="list-style-type: none"> → Carry out same activities required during construction of buildings 	Negligible
Construction, Operation and Decommissioning	Spillages/ leakages of oil, fuel from machinery, equipment and vehicles and other potentially polluting substances impacting land and surface water	<ul style="list-style-type: none"> → Compliance with site rules on storage and handling of construction materials, fuel, oil products, chemical substances, etc.; and → Regular inspection of facilities to ensure proper operation. 	Minor
HYDROGEOLOGY, HYDROLOGY AND WATER QUALITY			
Construction	Pollution of surface water and groundwater resources due to spillage of fuel/oil or other hazardous substances including concrete, in addition to, movement of vehicles and machinery/ equipment	<ul style="list-style-type: none"> → To reduce the likelihood of contamination due to spillage of oil from construction equipment and wastewater from construction camps, the sites for these areas should be carefully designated and proper technical condition of machinery and equipment shall be ensured. In addition, sand or fine gravel should be spread on the ground at these locations designated for parking and servicing construction machinery. In the event of a spillage, the polluted layer should be removed and replaced with a new layer of sand or gravel; → Sections located very close to drainage ditches/ culverts shall not be used for construction material storage and temporary accumulation of waste; → Provide for covered zones of preliminary accumulation of construction materials and wastes in order to minimise formation of leachate as a result of rainfall; 	Negligible

PHASE	ENVIRONMENTAL IMPACTS (POSITIVE/ NEGATIVE, SHORT TERM/ LONG TERM, TEMPORARY/PERMANENT)	PROPOSED MITIGATION MEASURES	RESIDUAL IMPACT
		<ul style="list-style-type: none"> → Septic tank installed and to be emptied on a regular basis to control domestic effluents; → All vehicles must be regularly checked and their normal operation technical conditions shall be ensured. In case any leakage of oil or other liquid occurs, the vehicle must be moved to a paved impermeable area to be immediately repaired; and → Water samples shall be taken and analysed for oil products in the event that leakage is observed. 	
	Change in drainage pattern resulting from construction of construction compound and temporary laydown area, site buildings, access roads, grid connection, electric cable and other pipework installation, and excavation activities	<ul style="list-style-type: none"> → Minimise the planned amount of land to be disturbed as much as possible (use existing access roads and quarries if possible); → Locate access roads to minimise stream crossings; → Construct drainage ditches where necessary, use appropriate structures at culvert outlets to prevent erosion; → Clean and maintain drainage ditches and culverts regularly; → Use special construction techniques in areas of steep slopes, erodible soils and stream crossings; → Dispose of excess excavation materials in approved areas to control erosion and minimise run-off. 	Negligible
	Wastewater generation and disposal	<ul style="list-style-type: none"> → Avoid potential spills; → Washing of vehicles and equipment on the site will be restricted; → Chemicals and other liquid and solid dangerous materials must be managed properly; and → Septic tank installed and to be emptied on a regular basis to ensure that wastewater from the welfare facilities will be collected and adequately removed from the site. 	Negligible
Operation	Pollution of surface water and groundwater resources due to spillage of fuel/oil or other hazardous substances including concrete, in addition to, movement of vehicles and machinery/ equipment	<ul style="list-style-type: none"> → Regularly inspect and clean drainage ditches/ gullies; → Regularly inspect leachate collection and treatment facilities, wheel wash system, water supply and sewerage network at administrative buildings to ensure proper operational technical conditions; → To reduce the likelihood of oil spillage from machinery and equipment, and contamination with wastewater from administrative 	Minor

PHASE	ENVIRONMENTAL IMPACTS (POSITIVE/ NEGATIVE, SHORT TERM/ LONG TERM, TEMPORARY/PERMANENT)	PROPOSED MITIGATION MEASURES	RESIDUAL IMPACT
		<p>facilities, proper technical condition of machinery and equipment shall be ensured.</p> <ul style="list-style-type: none"> → All vehicles must be regularly checked and their normal operational technical conditions shall be ensured. In case any leakage of oil or other liquid is observed, the vehicle must be moved to a paved impermeable area and be immediately fixed; → Groundwater and surface water quality shall be monitored at regular intervals during operation. 	
	<p>Change in drainage pattern resulting from construction of construction compound and temporary laydown area, site buildings, access roads, grid connection, electric cable and other pipework installation, and excavation activities</p>	<ul style="list-style-type: none"> → Clean and maintain drainage ditches and culverts regularly to ensure proper removal of run-off; → Do not alter or restrict existing drainage systems, especially in sensitive areas such as erodible soils or steep slopes; and → Regularly monitor groundwater table through monitoring wells established at the site. 	Negligible
	<p>Wastewater generation and disposal</p>	<ul style="list-style-type: none"> → Regularly inspect and ensure proper maintenance of wastewater collection tank, vehicle washing systems, leachate collection and treatment facilities; → Regularly inspect and maintain the surface water collection systems; → Ensure regular cleaning of drainage ditches/ culverts; → Avoid potential spills through application of appropriate staff training and occupational rules; → Washing of vehicles and equipment on the site to be restricted to garage areas; → Chemicals and other liquids and solid dangerous materials must be stored and properly managed; and → Wastewater from the administrative facilities and poultry farm shall be collected and treated at the WWTP. 	Minor
	<p>Landspreading of the manure on agricultural land</p>	<ul style="list-style-type: none"> → Develop land spreading procedures that cover: <ul style="list-style-type: none"> ○ Nutritional need of land and crops; ○ Prevention of spreading too close to rivers, when land too 	Negative Minor

PHASE	ENVIRONMENTAL IMPACTS (POSITIVE/ NEGATIVE, SHORT TERM/ LONG TERM, TEMPORARY/PERMANENT)	PROPOSED MITIGATION MEASURES	RESIDUAL IMPACT
		<p>wet, whilst snow is present on the ground, on sloping fields and take into account land practices;</p> <ul style="list-style-type: none"> ○ Manage land spreading during public holidays and weekends, take into account wind direction and how to incorporate into the ground. <p>→ Develop a spill prevention and response plan for addressing land spreading operations including spill prevention measures, training requirements, spill response actions, spill response kits and notification to authorities;</p> <p>→ Train employees to promptly contain, report and/or clean up any spill;</p> <p>→ Provide portable spill containment and clean-up equipment in all vehicles;</p> <p>→ Document accidental releases as to cause, corrective actions taken, and resulting in environmental or health and safety impacts.</p>	
Decommissioning	<p>Pollution of surface water and groundwater resources due to spillage of fuel/oil or other hazardous substances including concrete, in addition to, movement of vehicles and machinery/ equipment</p>	<p>→ Regularly inspect and clean drainage ditches/ gullies;</p> <p>→ Regularly inspect leachate collection and treatment facilities to ensure proper operational technical conditions;</p> <p>→ All vehicles must be regularly checked and their normal operational technical conditions shall be ensured. In case any leakage of oil or other liquid is observed, the vehicle must be moved to a paved impermeable area and be immediately fixed;</p> <p>→ Surface water quality will be managed for directing clean run-off away from sources of possible contamination; and</p> <p>→ Groundwater and surface water quality shall be monitored at regular intervals during decommissioning.</p>	Negligible
	Wastewater generation and disposal	Refer to mitigation measures related to construction phase above.	Negligible
FLORA AND FAUNA			
Construction	Biodiversity	<p>→ Pollution prevention measures to ensure protection of the local water environment.</p> <p>→ Site/Sanitary Protection Zone (SPZ) fencing installed prior to poultry farm construction to minimise site access by wildlife species.</p>	Negligible

PHASE	ENVIRONMENTAL IMPACTS (POSITIVE/ NEGATIVE, SHORT TERM/ LONG TERM, TEMPORARY/PERMANENT)	PROPOSED MITIGATION MEASURES	RESIDUAL IMPACT
		<ul style="list-style-type: none"> → Robust cleaning of works vehicles at source in order to prevent spread of non-native invasive plant species. → Full survey of ecological receptors across the site – focussing primarily on fauna (e.g. roosting bats and nesting bats). → Retention of key habitat features where possible (as identified from the field survey work), or compensatory provision thereof, → Monitoring of any mitigation to ensure on-going success of such measures. 	
Operation	Biodiversity	<ul style="list-style-type: none"> → Pollution prevention measures to ensure protection of the local water environment. → Specific traps chosen to avoid capture of non-target species. 	Negligible
GROUNDWATER AND WATER SUPPLY			
Construction	Impacts of Construction and Operation	<ul style="list-style-type: none"> → Groundwater pumping test data to assess the potential yields available and the response/impact to superficial aquifer groundwater levels or river stage levels. → Develop sub-regional water balance to assess whether potential abstractions could be sustained by the local aquifer/river system (basic inflows/ outflows considerations). → Consideration of the need for groundwater treatment during abstraction. 	Moderate
Operation			
WASTE			
Construction	Construction waste impacts on ground and water quality	<ul style="list-style-type: none"> → Best practice measures and recommendation for the minimisation and management of waste should be incorporated into a Construction Environmental Management Plan (CEMP). 	Negligible
	Construction waste impacts on waste management infrastructure	<ul style="list-style-type: none"> → A waste management strategy is recommended to be developed and implemented to ensure that that waste materials are stored and disposed of appropriately. → The waste hierarchy will be adopted as far as reasonable practicable. Material deemed suitable for reuse on the project site will be retained and stockpiled where possible to incorporate such materials into the 	Moderate

PHASE	ENVIRONMENTAL IMPACTS (POSITIVE/ NEGATIVE, SHORT TERM/ LONG TERM, TEMPORARY/PERMANENT)	PROPOSED MITIGATION MEASURES	RESIDUAL IMPACT
		<p>subsequent construction process. If materials cannot be reused on-site, then the feasibility of reusing them off-site will be explored.</p> <ul style="list-style-type: none"> → Identifying waste streams which could successfully be used by other businesses or operations. This results in the diversion of waste from landfill and thus presents the potential for cost savings. 	
Operation	Construction waste impacts on ground and water quality	<ul style="list-style-type: none"> → The waste hierarchy will be adopted as far as reasonable practicable. Dedicated waste storage areas for waste segregation for recyclable and non-recyclable refuse will be implemented on site. → Waste storage will be clearly labelled to ensure that cross contamination is minimised. 	Negligible
	Construction waste impacts on waste management infrastructure	<ul style="list-style-type: none"> → A waste management strategy is recommended to be developed and implemented to ensure that that waste materials are stored and disposed of appropriately. 	Moderate
	Odour and nuisance related impacts associated with the transport of litter and hatchery waste to the composting site	<ul style="list-style-type: none"> → It is recommended that a schedule of movements is developed, which is based on the requirements of the broilers and the hatchery. This should take into consideration vehicle movements through villages and planning, where possible, to minimise travel through residential areas in order to minimise the risk of odour and noise nuisance impacts. → It is recommended that the construction of bypass roads are considered, where there is a significant impact associated with the transportation of waste materials. → Covered vehicles will be used for the transportation of litter and hatchery waste. 	Negligible
	Odour and nuisance related impacts associated with the composting	<ul style="list-style-type: none"> → It is required that a formalised calculation is undertaken to ensure that adequate storage is available during the composting phase. → Heights of the windrows should be kept below 3m; → The use of tarpaulins for covering windrows will limit odour emissions and flies and allows better integration of windrows into the landscape. → The use of tarpaulins to provide health protection towards birds and rodents and for managing moisture content in places where heavy rainfall is experienced. → The siting of the windrows should also be considered, and should not 	Negligible

PHASE	ENVIRONMENTAL IMPACTS (POSITIVE/ NEGATIVE, SHORT TERM/ LONG TERM, TEMPORARY/PERMANENT)	PROPOSED MITIGATION MEASURES	RESIDUAL IMPACT
		<p>be sited within 10m of surface water or on a groundwater vulnerable zone in order to minimise the pollution risk to surface and groundwater.</p> <p>→ The following BAT points should be considered:</p> <ul style="list-style-type: none"> • Store litter on solid impermeable floor, equipped with a drainage system and a collection tank for run-off; • Ensure there is sufficient capacity to hold organic manures during periods in which the application to land is not possible; • Store organic manure in field heaps places away from surface and/or underground watercourse which liquid run-off might enter; • Reduce the ratio between the emitting surface area and volume of the organic manure; • Cover solid heaps. 	
	Odour related impacts from spreading activities	<p>→ Develop a management plan prior to spreading.</p> <p>→ Time applications of manure to optimise crop benefit and minimise environmental loss.</p> <p>→ Adapt the manure application rate.</p> <p>→ Identify areas unsuitable for spreading.</p> <p>→ Avoid organic manure within 10m of a surface water course.</p>	Negligible
	Impacts from spreading activities on waste management infrastructure	<p>→ Assess the manure receiving land to identify risks of run-off, taking into account:</p> <ul style="list-style-type: none"> • Soil types, conditions and slope of field; • Climatic conditions; • Field drainage and irrigations; • Crop rotations; • Water resources and water protected zones <p>→ Incorporate organic manure within 24 hours of spreading.</p> <p>→ Consideration of techniques to minimise odour impacts:</p> <ul style="list-style-type: none"> • Ploughing immediately behind the spreader; • Delaying spreading until local weather conditions (i.e. wind direction) are more favourable; 	Minor

PHASE	ENVIRONMENTAL IMPACTS (POSITIVE/ NEGATIVE, SHORT TERM/ LONG TERM, TEMPORARY/PERMANENT)	PROPOSED MITIGATION MEASURES	RESIDUAL IMPACT
		<ul style="list-style-type: none"> • Injecting into the land ; → Spreading should also take place during the day; → Prior to spreading the machinery should be checked; → Development and communication of guidance on manure land spreading and odour nuisance to all relevant personnel. → Regular inspections of storage facilities; → Development of emergency preparedness and response plan. 	
CULTURAL HERITAGE			
Construction	Impacts of Construction and Operation	→ Develop a chance find procedure to be used during construction to aid in managing archaeological finds	Negligible
Operation		→ The procedure should include a method for considering whether there are areas with a higher potential for undiscovered archaeology to be present, where an archaeological watching brief should be used.	
EMPLOYMENT			
Construction	Direct employment	→ No mitigation required/ proposed measure to maximise benefits.	N/A
	Indirect employment	→ No mitigation required/ proposed measure to maximise benefits.	N/A
	Direct local business opportunities	→ Initiatives to promote local business for farming.	N/A
	Business opportunities indirectly associated with the project	<ul style="list-style-type: none"> → Engagement activities with the local communities. → The establishment of a social programme to implement Corporate social responsibility (CSR) initiatives throughout the Bulandy District and to encourage sustainable socio-economic development in the region. → All measures below are based on the condition that they are economically viable, or cost competitive, or non-detrimental to the overall cost of the contract. → Maintain a close dialogue and continuous updates with government authorities on the plans and progress of the project, defining as accurately as possible the needs of the project and the timing of the activities during construction. 	N/A

PHASE	ENVIRONMENTAL IMPACTS (POSITIVE/ NEGATIVE, SHORT TERM/ LONG TERM, TEMPORARY/PERMANENT)	PROPOSED MITIGATION MEASURES	RESIDUAL IMPACT
		<ul style="list-style-type: none"> → Maintain close relationships with Employer's Associations and Civic Society organisations, keeping them abreast of forthcoming opportunities and discussing solutions and alternatives to potential challenges for the local companies to access business opportunities. → Participate and organise open day events to inform, identify and attract potential services and goods suppliers and workforce → Monitor indicators related to volume and type of business and local share, and incorporate into the annual report. → Unbundling of contracts for services and supplies to the site where no cost hindrance to the project exists. → Preferential purchase of local goods and services to the poultry farm operation. → Supplier opportunities enhancement programmes - Regular liaison with local communities to determine whether local services / produce could replace existing non-local suppliers. → Requirements in contract with providers of catering services to give preference to supplying local/ traditional food. 	
	Impact on key aspects of the local and potentially regional provision of services and development in the local area (e.g. transport, waste infrastructure, utilities)	<ul style="list-style-type: none"> → Implementation of local and national plans and programmes. → Implement local community programmes – specifically related to access to potable water. → Development and implementation of a water management plan with regular reviews and updates. → Development and implementation of a waste management plan with regular reviews and updates, particular focus will be placed on the commercial feasibility of transporting waste to current and future recycling facilities. → Establish co-operation with local government as soon as possible, in order to clarify the project needs for treatment and final disposition of certain types of wastes, and solutions acceptable to the authorities. → Promote the development of new and innovative waste recycling/ reuse local business. <p style="text-align: center;">Review the possibility for the trans-boundary transport of</p>	Negligible

PHASE	ENVIRONMENTAL IMPACTS (POSITIVE/ NEGATIVE, SHORT TERM/ LONG TERM, TEMPORARY/PERMANENT)	PROPOSED MITIGATION MEASURES	RESIDUAL IMPACT
		recyclables	
Operation	Estimated workforce of 805 staff during operation of the poultry farm	<ul style="list-style-type: none"> → Provision of on-the-job training. → Existing HR personnel actively seeking to improve retention of local workforce. → Implementation of an early HR recruitment campaigns to include as a minimum: → Promotion of fair treatment, non-discrimination, and equal opportunity of workers. → Establishment, maintenance, and improvement of the worker-management relationship. → Promotion of compliance with national employment and labour laws. → Protection to workers, including vulnerable categories of workers such as children, migrant workers, workers engaged by third parties, workers in the client's supply chain, and workers sourced from the local community. → Promotion of safe and healthy working conditions, and the health of workers. → Avoidance of forced labour. → Prepare detailed job description for each position offered and their corresponding requirements. → Proactive and early communication with labour unions and professional associations relating to requirements. 	Minor to Moderate
	Impacts of direct employment	→ No mitigation required/ proposed measure to maximise benefits.	N/A
	Impacts of indirect employment	→ No mitigation required/ proposed measure to maximise benefits.	N/A
	Impacts of direct local business opportunities	<ul style="list-style-type: none"> → Initiatives to promote local business for farming. → Engagement activities with the local communities. 	N/A
	Business opportunities indirectly associated with the project	→ The establishment of a social programme to implement Corporate social responsibility (CSR) initiatives throughout the Bulandy District and to encourage sustainable socio-economic development in the	N/A

PHASE	ENVIRONMENTAL IMPACTS (POSITIVE/ NEGATIVE, SHORT TERM/ LONG TERM, TEMPORARY/PERMANENT)	PROPOSED MITIGATION MEASURES	RESIDUAL IMPACT
		<p>region.</p> <ul style="list-style-type: none"> → All measures below are based on the condition that they are economically viable, or cost competitive, or non-detrimental to the overall cost of the contract. → Maintain a close dialogue and continuous updates with government authorities on the plans and progress of the project, defining as accurately as possible the needs of the project and the timing of the activities during construction. → Maintain close relationships with Employer's Associations and Civic Society organisations, keeping them abreast of forthcoming opportunities and discussing solutions and alternatives to potential challenges for the local companies to access business opportunities. → Participate and organise open day events to inform, identify and attract potential services and goods suppliers and workforce → Monitor indicators related to volume and type of business and local share, and incorporate into the annual report. → Unbundling of contracts for services and supplies to the site where no cost hindrance to the project exists. → Preferential purchase of local goods and services to the poultry farm operation. → Supplier opportunities enhancement programmes - Regular liaison with local communities to determine whether local services / produce could replace existing non-local suppliers. → Requirements in contract with providers of catering services to give preference to supplying local/ traditional food. 	
	Impact of local economic flows, resulting in land and food price inflation, etc.	→ No mitigation required/ proposed measure to maximise benefits.	N/A
	Impact of local economic flows, resulting in inflation of land value	→ No mitigation required/ proposed measure to maximise benefits.	N/A
	Impact on key aspects of the local and potentially regional provision of services and development in the local area (e.g.	<ul style="list-style-type: none"> → Implementation of local and national plans and programmes. → Implement local community programmes – specifically related to 	Negligible

PHASE	ENVIRONMENTAL IMPACTS (POSITIVE/ NEGATIVE, SHORT TERM/ LONG TERM, TEMPORARY/PERMANENT)	PROPOSED MITIGATION MEASURES	RESIDUAL IMPACT
	transport, waste infrastructure, utilities)	<p>access to potable water.</p> <ul style="list-style-type: none"> → Development and implementation of a water management plan with regular reviews and updates. → Development and implementation of a waste management plan with regular reviews and updates, particular focus will be placed on the commercial feasibility of transporting waste to current and future recycling facilities. → Establish co-operation with local government as soon as possible, in order to clarify the project needs for treatment and final disposition of certain types of wastes, and solutions acceptable to the authorities. → Promote the development of new and innovative waste recycling/ reuse local business. → Review the possibility for the trans-boundary transport of recyclables 	
LAND USE			
Construction	Economic Displacement	<ul style="list-style-type: none"> → Develop and implement a Land Acquisition and Livelihood Restoration Framework (LALRF) and later a detailed Plan, according to EBRD requirements, focusing on both formal and informal livelihoods that are adversely impacted by the Project. This should include identification of vulnerable groups and development of targeted measures to ensure that they are not subjected to adverse effects or at a disadvantage in terms of distribution of benefits and opportunities for development. → Implement a formal grievance mechanism as part of a wider stakeholder engagement plan. 	Minor
Operation			
SOCIAL			
Construction	Impacts of in-migration of workforce due to interaction between workers and local community	<ul style="list-style-type: none"> → Implementation of a Stakeholder engagement plan (SEP), including its regular evaluation and review at key milestones within the project lifetime (this should be a live document throughout the project to facilitate the continued community consultation during the project). → Implementation of a Grievance mechanism, including evaluation and improvement of the Grievance Mechanism if required for the 	Minor to Moderate

PHASE	ENVIRONMENTAL IMPACTS (POSITIVE/ NEGATIVE, SHORT TERM/ LONG TERM, TEMPORARY/PERMANENT)	PROPOSED MITIGATION MEASURES	RESIDUAL IMPACT
		<p>operational phase.</p> <ul style="list-style-type: none"> → Bi-annual review of grievances reported and solutions provided (number of grievances received and percentage of them satisfactorily resolved reported in annual report). Identify any recurring themes. → Monitoring of the demographic changes taking place in local communities. → Develop social indicators as part of a monitoring plan; this will allow an early identification of demographic changes and social problems. → Regular focus group meetings with women in the community and identified vulnerable groups (returning migrant workers and their families). → Support through local support groups for vulnerable groups and unskilled workers at risk from social exclusion. → Contracts with suppliers should reflect measures for the prevention of risks for social conflict → Free or subsidised alcohol counselling for the local workers or their families can facilitate the prevention of social problems related to substance abuse and retain workforce (co-ordinated with public health programmes and specialised organisations) → Support the design and implementation of a Community Development Plan which (potentially) focuses on the following areas: <ul style="list-style-type: none"> ■ Health awareness campaigns to educate the workforce and their families associated with the risks of substance abuse and smoking (particularly smoking inside living areas); ■ Assistance to civil society groups that can provide support to vulnerable groups located within the two communities and; ■ Provision of equipment to local schools to boost young people's interaction with technology and basic educational materials. 	
	Improved living standards	→ No mitigation required/ proposed measure to maximise benefits.	N/A
	Improved community infrastructure and services	→ No mitigation required/ proposed measure to maximise benefits.	N/A

PHASE	ENVIRONMENTAL IMPACTS (POSITIVE/ NEGATIVE, SHORT TERM/ LONG TERM, TEMPORARY/PERMANENT)	PROPOSED MITIGATION MEASURES	RESIDUAL IMPACT
Operation	Impacts of in-migration of workforce due to interaction between workers and local community	→ Implementation of a Stakeholder engagement plan (SEP), including its regular evaluation and review at key milestones within the project lifetime (this should be a live document throughout the project to facilitate the continued community consultation during the project).	Minor to Moderate
	Demographic changes associated with increase of 805 employees	<ul style="list-style-type: none"> → Implementation of a Grievance mechanism, including evaluation and improvement of the Grievance Mechanism if required for the operational phase. → Bi-annual review of grievances reported and solutions provided (number of grievances received and percentage of them satisfactorily resolved reported in annual report). Identify any recurring themes. → Monitoring of the demographic changes taking place in local communities. → Develop social indicators as part of a monitoring plan; this will allow an early identification of demographic changes and social problems. → Regular focus group meetings with women in the community and identified vulnerable groups (returning migrant workers and their families). → Support through local support groups for vulnerable groups and unskilled workers at risk from social exclusion. → Contracts with suppliers should reflect measures for the prevention of risks for social conflict → Free or subsidised alcohol counselling for the local workers or their families can facilitate the prevention of social problems related to substance abuse and retain workforce (co-ordinated with public health programmes and specialised organisations) → Support the design and implementation of a Community Development Plan which (potentially) focuses on the following areas: <ul style="list-style-type: none"> ■ Health awareness campaigns to educate the workforce and their families associated with the risks of substance abuse and smoking (particularly smoking inside living areas); ■ Assistance to civil society groups that can provide support to vulnerable groups located within the two communities and; 	Minor to Moderate

PHASE	ENVIRONMENTAL IMPACTS (POSITIVE/ NEGATIVE, SHORT TERM/ LONG TERM, TEMPORARY/PERMANENT)	PROPOSED MITIGATION MEASURES	RESIDUAL IMPACT
		<ul style="list-style-type: none"> ■ Provision of equipment to local schools to boost young people's interaction with technology and basic educational materials. 	
	Improved living standards	→ No mitigation required/ proposed measure to maximise benefits.	N/A
	Education capacity	<ul style="list-style-type: none"> → A training needs assessment should be prepared as part of the planned formal management system. A training programme to be developed for the delivery of the training. → Locally based Kzakh/ Russian speaking HR Manager to be appointed to develop and follow up on recruitment training and career development of the staff → Actively promote training in the English language, for both potential workers as well as for improving communications skills of local workers, for example offering courses to be taken during their weeks off or after work hours on the site for workers and making the classes available for non-employees. Consider the potential to increase the capacity of English teaching in the local schools to improve employability of the local people. → Engagement with local education institutions. Creation of opportunities for apprenticeships and vocational courses. → Regular evaluation of progress on the training programmes and performance of apprentices and local and international staff, in order to continuously optimise the internal training programme. → Consider whether any collaboration with other farming companies could be adopted to increase capacity of workers in the industrial sector. → Identify any Government programmes aimed at increasing capacity for working in the poultry farming sector. 	N/A
	Improved community infrastructure and services	→ No mitigation required/ proposed measure to maximise benefits.	N/A
Health			
Construction	Increased demand on healthcare services	→ Contact with local health service and cooperation established between both parties.	Minor

PHASE	ENVIRONMENTAL IMPACTS (POSITIVE/ NEGATIVE, SHORT TERM/ LONG TERM, TEMPORARY/PERMANENT)	PROPOSED MITIGATION MEASURES	RESIDUAL IMPACT
		<ul style="list-style-type: none"> → Emergency preparedness plan in place. → Develop clear criteria and conditions for use of local health services; communicate these to health providers and assess the need for supplementing capacity where necessary in cooperation with local authority. → Recommend obligatory health screening of workers for transmittable diseases. → Collaboration with the local medical centres to ensure capacity for community screening with particular focus on identified vulnerable groups (e.g. returning migrant workers and their families). 	
	Increased risk of respiratory and / or circulatory disease.	<ul style="list-style-type: none"> → No mitigation required/ proposed measure to maximise benefits. 	N/A
	Increased risk of communicable diseases , including sexually transmitted diseases	<ul style="list-style-type: none"> → Workforce awareness campaigns. → Collaboration with the local health services to increase awareness throughout the local communities with specific focus on identified vulnerable groups (e.g. returning migrant workers and their families) 	Minor
	Risk of incidence of alcohol and substance abuse	<ul style="list-style-type: none"> → Health and Socio-Economic monitoring arrangements should be developed and included in a Monitoring Plan. Monitoring and records procedures, which form part of the Integrated Management System, will provide details on the collation, presentation and review of this information. → Ongoing communications with the heads of communities and community wide stakeholder engagement. → The allocation of a budget for social investment, which can be requested by the local communities through community leader. → Chess lessons, film screenings / cultural events and concerts sponsored by the poultry farm company. 	Minor
	Impact on water quality and supply	<ul style="list-style-type: none"> → Development and implementation of a water management plan. → Implementation of an environmental management system – procedures for the safe handling and storage of hazardous materials. → Replanting of cleared ground. 	Negligible

PHASE	ENVIRONMENTAL IMPACTS (POSITIVE/ NEGATIVE, SHORT TERM/ LONG TERM, TEMPORARY/PERMANENT)	PROPOSED MITIGATION MEASURES	RESIDUAL IMPACT
		<ul style="list-style-type: none"> → Identify those within the local communities who use the surface water and their uses. Collation of contact details for these people and the notification of any incidents, which may result in the decline in water quality. → Installation of waste water treatment associated with drainage from the poultry farm. 	
	Occupational health and safety	<ul style="list-style-type: none"> → Occupational health monitoring → Implementation of a health and safety management system certified to OHSAS 18001 (an internationally recognised standard) and also aligned to the requirements prescribed in EBRD's Performance Requirement 2 (Labour and Working Conditions), which aims to promote safe and health working conditions, and the health of workers. → Health and safety training. → Planned preventative maintenance schedule in place. → Continuous health and safety training for all employees. → Appropriate contractual requirement to suppliers and contractors regarding safety measures. 	Minor
	Impact on vulnerable groups	<ul style="list-style-type: none"> → Introduce a specific initiative or awareness campaigns to promote employment amongst minorities within the local community. 	Negligible
	Exposure to potentially hazardous materials	<ul style="list-style-type: none"> → As part of the integrated management system, operational control procedures are in place for the management of hazardous materials. Studies have been completed to determine feasibility of replacing these materials with alternatives, although this is not considered to be feasible at the moment, a regular review of the study will be undertaken and replacements made where possible. → Emergency response plan in place detailing several emergency scenarios e.g. fire, etc. → Spill response kits, procedures and training. → Road safety plan. Vehicles used for transportation appropriate to the risk of the materials. → Awareness raisings campaigns and coordination with the local health 	Negligible

PHASE	ENVIRONMENTAL IMPACTS (POSITIVE/ NEGATIVE, SHORT TERM/ LONG TERM, TEMPORARY/PERMANENT)	PROPOSED MITIGATION MEASURES	RESIDUAL IMPACT
		service to ensure specific facts are presented to minimise the perception of risks which are not applicable / relevant to the project.	
Operation	Increased demand on healthcare services	<ul style="list-style-type: none"> → Contact with local health service and cooperation established between both parties. → Emergency preparedness plan in place. → Develop clear criteria and conditions for use of local health services; communicate these to health providers and assess the need for supplementing capacity where necessary in cooperation with local authority. → Recommend obligatory health screening of workers for transmittable diseases. → Collaboration with the local medical centres to ensure capacity for community screening with particular focus on identified vulnerable groups (e.g. returning migrant workers and their families). 	Minor
	Increased risk of respiratory and / or circulatory disease.	<ul style="list-style-type: none"> → No mitigation required/ proposed measure to maximise benefits. 	N/A
	Increased risk of communicable diseases , including sexually transmitted diseases	<ul style="list-style-type: none"> → Workforce awareness campaigns. → Collaboration with the local health services to increase awareness throughout the local communities with specific focus on identified vulnerable groups (e.g. returning migrant workers and their families) 	Minor
	Risk of incidence of alcohol and substance abuse	<ul style="list-style-type: none"> → Health and Socio-Economic monitoring arrangements should be developed and included in a Monitoring Plan. Monitoring and records procedures, which form part of the Integrated Management System, will provide details on the collation, presentation and review of this information. → Ongoing communications with the heads of communities and community wide stakeholder engagement. → The allocation of a budget for social investment, which can be requested by the local communities through community leader. → Chess lessons, film screenings / cultural events and concerts sponsored by the poultry farm company. 	Minor

PHASE	ENVIRONMENTAL IMPACTS (POSITIVE/ NEGATIVE, SHORT TERM/ LONG TERM, TEMPORARY/PERMANENT)	PROPOSED MITIGATION MEASURES	RESIDUAL IMPACT
	Impact on water quality and supply	<ul style="list-style-type: none"> → Development and implementation of a water management plan. → Implementation of an environmental management system – procedures for the safe handling and storage of hazardous materials. → Replanting of cleared ground. → Identify those within the local communities who use the surface water and their uses. Collation of contact details for these people and the notification of any incidents, which may result in the decline in water quality. → Installation of waste water treatment associated with drainage from the poultry farm. 	Negligible
	Occupational health and safety	<ul style="list-style-type: none"> → Occupational health monitoring → Implementation of a health and safety management system certified to OHSAS 18001 (an internationally recognised standard) and also aligned to the requirements prescribed in EBRD's Performance Requirement 2 (Labour and Working Conditions), which aims to promote safe and health working conditions, and the health of workers. → Health and safety training. → Planned preventative maintenance schedule in place. → Continuous health and safety training for all employees. → Appropriate contractual requirement to suppliers and contractors regarding safety measures. 	Minor
	Impact on vulnerable groups	<ul style="list-style-type: none"> → Introduce a specific initiative or awareness campaigns to promote employment amongst minorities within the local community. 	Negligible
	Exposure to potentially hazardous materials	<ul style="list-style-type: none"> → As part of the integrated management system, operational control procedures are in place for the management of hazardous materials. Studies have been completed to determine feasibility of replacing these materials with alternatives, although this is not considered to be feasible at the moment, a regular review of the study will be undertaken and replacements made where possible. → Emergency response plan in place detailing several emergency 	Negligible

PHASE	ENVIRONMENTAL IMPACTS (POSITIVE/ NEGATIVE, SHORT TERM/ LONG TERM, TEMPORARY/PERMANENT)	PROPOSED MITIGATION MEASURES	RESIDUAL IMPACT
		<p>scenarios e.g. fire, etc.</p> <ul style="list-style-type: none"> → Spill response kits, procedures and training. → Road safety plan. Vehicles used for transportation appropriate to the risk of the materials. → Awareness raisings campaigns and coordination with the local health service to ensure specific facts are presented to minimise the perception of risks which are not applicable / relevant to the project. 	

7 PROJECT INFORMATION

7.1.1 This chapter includes a description of the project timescale, how to communicate with the company, how to raise grievances and contact details.

7.2 PROJECT TIMESCALE

7.2.1 The project will be constructed in phases with the main period of construction being 2016-2019 and lasting 38 months in total. The hatchery foundations have currently been constructed and the slaughterhouse foundations were being finished during the site visit in December 2015.

7.3 STAKEHOLDER ENGAGEMENT PLAN

7.3.1 A Stakeholder Engagement Plan (SEP) has been developed as part of the disclosure package and covers the following:

- Introduction
- Project Description
- Legal framework for Project disclosure and public consultation
- Stakeholder identification
- Summary of previous stakeholder engagement activities
- Project consultation and disclosure program
- Grievance mechanism

7.3.2 The SEP defines the consultation approach, the key identified stakeholders and how to provide feedback and how any feedback and comments are addressed. Any stakeholders requiring to be included within the consultation process should use the contact details provided below or attend a meeting as detailed within the SEP.

7.4 HOW TO PROVIDE FEEDBACK AND RAISE GRIEVANCES

7.4.1 A Project grievance mechanism will be set up according to the SEP. This grievance mechanism will be implemented by MPF. The grievance mechanism provides opportunities for stakeholders and the general public during all stages of the Project to submit their comments, complaints and requests for information and to receive the feedback via a convenient communication channel. MPF have provided an email address, telephone number and a grievance form for stakeholders to communicate any comments, complaints and grievances.

7.4.2 MPF's grievance mechanism will have three aspects: 1) for external stakeholders, 2) for internal stakeholders and 3) for employees. The SEP will provide a mechanism through which affected people can contact MPF or the local offices with any questions, comments or grievances about the Project. The grievance log is not yet available but it has been confirmed by MPF that comments and grievances will be systematically collected in a database along with the response and actions taken with regards to grievances.

7.5 COMPANY CONTACT DETAILS

7.5.1 The contacts with regards to Social aspects and Public Relations are detailed below:

Rabiga Alibekovna Tokseitova

Director of the external relations service of Aitas-Group LLP (public relations)

Tel: +7 777 535 59 53

E-mail: Rabiga.Toxeitova@aitas-group.kz

Larissa Nazyrova

HR service director of Aitas-Group LLP (social sphere)

Tel: +7 777 535 59 64

E-mail: Larissa.Nazyrova@aitas-group.kz

7.5.2 The contacts with regards to operational matters are detailed below:

Alexey Shevhcenko

Director- Makinsk Poultry Farm

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Lmaty District,

010000,

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