Environmental & Social Screening Report

for

Controlled Atmosphere Storage Facility, Rohru, Shimla District, H.P.

Submitted to

Himachal Pradesh Horticulture Development Project

Shimla

Prepared by

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Sub-Project Description

Himachal Pradesh Horticulture Development project (HPHDP), Himachal Pradesh in support of World Bank is proposing for the expansion of **Controlled Atmosphere (CA) storage facility at Rohru**, which is presently having a storage capacity of 700 Tons. The existing facility is proposed to upgrade into a multistoried structure to increase the capacity up to 2000 tons to meet the requirement of increased production of apples and become centers of excellence for post-harvest management of handling fruits. The Packing line would be upgraded to a four line system from the existing two lines. The CA storage facility is located in an area of 1.93 acres and connected to SH 10 at a distance of 0.04 km (S). The water required for floor washing is 12 KL once in a year and Fog Nozzle with 50 KL once in 15 days. The total power requirement (CA Stores & Grading and Packing) of 450 kVA will be sourced from Himachal Pradesh State Electricity Board. The waste water generated from floor washing/cleaning accounts for around 12 KL annually, and no other waste water is generated from the existing plant. Domestic waste water shall be treated in septic tank followed by soak pit or shall be treated in the portable STP and part of the water shall be used for greenbelt, dust suppression and the excess shall be discharged to streams. All the solid waste generated from the CA stores shall be disposed as per the Solid Waste Management Rules 2016. The proposed project is a Controlled Atmosphere storage facility (CA stores) and do not use any toxic/harmful chemicals during the storage. The plant also does not release any harmful gases in to the atmosphere during the operations. Hence around 2 km of study area is identified all around the project site to collect the baseline data for air, water, soil, noise, ecological and social considerations etc., and the environmental impacts expected to be identified for the project is also reported within the 2 km of study area.

Environmental Screening and Classification

(A) Impact Identification

Has sub-project a tangible impact on the environment?	The Controlled Atmosphere Storage Facility (CA Stores) at Rohru Village, Shimla District, Himachal Pradesh, is proposed to be upgraded and made into a multi storied structure to increase the capacity from 700 MT to 2000 MT. Some of the common equipment and units in Controlled atmosphere storage facilities are compressor, pumps, nitrogen control unit, temperature control unit, Oxygen and Carbon Dioxide control unit etc. The air pollution identified from CA storage unit is mainly due to DG sets, pumps, vehicles etc., within the facility. The environmental management plans will be designed to reduce or minimize the air emissions and will restrict the concentration levels within the threshold limit values so that they will not exceed the regulatory standards. Similarly, the liquid effluents generated from facility mainly comprise of organic pollutants and a suitable sewage treatment plant will be designed comprising preliminary, primary and secondary treatment facilities to meet all the specified parameters for discharge. The solid waste generated during all the unit operations is collected properly and segregated into organic and inorganic materials. The recyclables like plastics, packaging materials etc., are disposed to authorized recyclers/agents. By adopting suitable environmental management plans and treatment techniques, the environmental impacts arising out of the CA Store facility will be minimized to acceptable limits. Thus, there will not be any impact on the surrounding environment due to the CA Storage unit at Rohru.

What are the significant beneficial and adverse environmental effects of the sub- project?	The anticipated environmental effects of the sub-project include: • Air pollution • Water pollution • Solid waste generation • Noise pollution • Soil pollution • Flora and Fauna disturbances The liquid effluents mainly consist of suspended matter, BOD and COD, and are treated in a suitable treatment plant to minimize the adverse impacts on the environment. The solid waste generated during all the unit operations are collected properly and segregated into organic and inorganic materials. The recyclables like plastics, packaging materials etc., are disposed to authorized recyclers/agents. Due to the expansion and up gradation with advanced process facilities, there is an expected significant improvement in quality of the product and also in overall environmental aspects related to the storage facility. The people who are involved in the project will get benefited in terms of Environmental Health & Safety improvements made within the project activities. The quality and standard of living of the people is also expected to improve along with the benefits to economy of the region, due to the proposed project. Substantial mitigation measures to abate environmental instabilities have been proposed, and are discussed in the following sections and Environmental and Social Impact Assessment (ESIA) report.

Does the sub-project have any significant potential impact on the local communities?	The expansion/up gradation of CA storage unit at Rohru is mainly to introduce the modern technology which will enhance the capacity, cooling efficiency and also reduce the environmental effects on the human population working within the industry. The advanced technologies adopted will increase the cooling efficiency and the Environmental Health & Safety aspects of the workplace. As the present storage capacities are increased from existing capacities more manpower will be involved and to supplement this local community will be approached for employment. As the employment potential increases, the local communities are benefitted economically and the quality of life of communities will be enhanced. The environmental management plans prepared for CA storage unit at Rohru by introducing BATNEEC systems will significantly improve the environmental conditions within the process locations and reduce the environmental impacts in the surrounding working areas. Hence, the proposed up gradation project will not have any significant potential adverse impacts on the local communities. However, the following minor impacts may be envisaged: • The project would increase floating population and influx of labor and may adversely spread certain communicable diseases, if not checked. • Similarly, the frequent movement of vehicles would create problems related to traffic congestion. It may also lead to air and noise pollution in the local dwellings. • No acquisition of local land is envisaged for the expansion of the project. • There may not be any adverse impact on indigenous population and their livelihoods due to the project. The project would result to creation of jobs for the local people and also leads to the growth of ancillary services in the local areas.

What impact has the sub-project on the human health?	The CA storage unit mainly generates liquid and solid waste from different sections like floor cleaning and washing areas. The environmental control measures to be provided and advanced modern equipment to be introduced in the CA storage unit will drastically reduce the air emissions, leakages etc. and closed pipeline systems are used to carry the liquid effluents to the treatment plant for final disposal. In addition to the above, all the personal protective equipment in terms of masks, eye protective, hand gloves, leg boots, specified aprons, helmets etc. will also protect the workers' health to a great extent to minimize the exposure to cell pollutant parameter. The environmental management protection equipment provided at the CA storage areas will meet the regulatory standard levels for the workers to work for 8 hour shifts. The fresh air circulation by providing proper ventilation and sufficient lighting by regularly monitoring using the lux meter will also improve the in-house working area atmosphere for the entire workforce. Regular health checkups by the project management will be practiced at the CA Storage unit for all categories of workers, to update the health data and to identify any health issues in advance so that proper mitigation steps can be taken. The project would also have an impact on health of local communities due to water contamination, emissions, dust, and traffic pollution during the expansion/up gradation and operational phases which will be nullified by implementing a proper environmental management plan.

(B) Impact Mitigation

What alternatives to the sub-project design have been considered and what mitigation measures are proposed?	The CA storage unit identifies some of the key areas that can ensure the safety of operations • Improved CA storage facility safety systems • Robust traceability systems • Crisis management system • Risk identification and communication system Best available techniques not entailing excessive cost (BATNEEC) system will be adopted wherever possible to minimize the adverse impacts of the CA Storage unit operations. The system will use the most efficient pollution control techniques maintaining the balance between the economic costs and environmental costs. These techniques will considerably benefit the facility in optimizing the storage capacity and environmental impacts. • Appropriate mitigation measures are suggested to control of air, water, noise pollution, solid waste generation etc. are discussed in detail in the following sections and ESIA report. • The workers are suggested to be provided with necessary Personal Protective Equipment while working in facilities and periodic health check-ups for the workers and local communities are suggested. • Project execution team needs to be educated about rights and duties towards direct workers and contract workers • Adopt Skill gap analysis is suggested to create employment opportunities to the local people based on priority, educational qualification and skill set • Provision of infrastructural facilities for workers' recreation, sanitation, health and hygiene is suggested.

	• Sewerage and storm water systems to be provided based on maximum rainfall and maintained properly with regular checks for smooth flow of water • Training programs for workers on efficient handling of waste, safety at work, gender mainstreaming, child labour and rights of indigenous people & livelihoods.
Have concerned communities been involved and have their interests and knowledge been adequately taken into consideration in sub- project preparation?	Extensive stakeholder dialogues were conducted through different social tools like Focus Group Discussions (FGDs), participatory rural appraisal covering local farmers, workers, staff, self-help groups, community based organizations, NGOs and cooperative societies.

(C) Categorization and conclusion

Conclusion of the environmental screening:

- ✓ Sub-project is declined □
- ✓ Sub-project is accepted ■ Yes

- ✓ Sub-project is classified as environmental Category B and needs EMP ■ Yes

- ✓ Sub-project is classified as environmental Category C and does not need EMP □

Social Screening

Social safeguards screening information		Yes	No
1	Is the information related to the affiliation, ownership and land use status of the sub-project site available and verifiable? (The screening cannot be completed until this is available)	Yes	
2	Will the sub-project reduce people's access to their economic resources, such as land, pasture, water, public services, sites of common public use or other resources that they depend on?		No
3	Will the sub-project result in resettlement of individuals or families or require the acquisition of land (public or private, temporarily or permanently) for its development?		No
4	Will the sub-project result in the temporary or permanent loss of crops, fruit trees and household infrastructure (such as ancillary facilities, fence, canal, granaries, outside toilets and kitchens, etc.)?		No
If answer to any above question (except question 1) is "Yes", then OP/BP 4.12 Involuntary Resettlement is applicable and mitigation measures should follow this OP/BP 4.12 and the **Resettlement Policy Framework**			
Cultural resources safeguard screening information		**Yes**	**No**
5	Will the sub-project be implemented in the vicinity of a cultural heritage site?		No
6	Will the sub-project require excavation near any historical, archaeological or cultural heritage site?		No
If answer to question 5 is "yes", then **OP/ BP 4.11 Physical Cultural Resources** is applicable. In this case, sub-project proponent must provide evidence that consultation was held with and an agreement on this sub- project was obtained from an authorized representative of culture and heritage protection authority. If answer to question 6 is "Yes", then **OP/BP 4.11 Physical Cultural Resources** is applicable and possible chance finds must be handled in accordance with OP/BP and relevant procedures provided in this EMF.			

Environmental Management Plan

Part A: General Project and Site Information

Institutional & Administrative		
Project title	Conducting ESIA studies and preparation of ESMP for moderate to high risk activities under - HPHDP	
Sub-Project title	Environmental & Social Impact Assessment Report for Controlled Atmosphere Storage Facility at Rohru, Shimla District, Himachal Pradesh	
Scope of site-specific activity	• Undertaking survey through field visits to study project interventions requiring EIA/ESIA • Social impact assessment in consultation with stakeholders to identify and rank key issues and suggestive measures to address the concerns of all stakeholders • Assessing Current state of environmental and socio-economic conditions in the project site area • Identifying and evaluating the environmental and social impacts expected due to the project activity. • Evaluation of alternatives to avoid and/or minimize high risk impacts. • Identifying needs or existing gaps in the socio-economic conditions of the project. • Preparation of Intervention specific socio-environment Baseline Survey Report. • Increase quality of life for workers, improved sanitation, transportation and recreational facilities in the work place. • Suggest necessary capacity building and awareness as per identified needs. • Create awareness among project workers regarding terms and conditions of employment, gender inclusivity and also generate more employment opportunities to the indigenous/local people.	
Institutional arrangements	Task Team Leader: HPHDP	Safeguards Specialist: HPHDP

Implementation arrangements (Borrower)	Implementing entity: HPHDP	Works supervisor: PCU- HPHDP, PIU – HPMC, PIU-HPSAMB and PIU Horticulture Department	Works contractor: RESPL
Site Description			
Who owns the building to be constructed / extended / reconstructed?	Horticultural Produce Marketing and processing corporation limited. – HPMC		
Who owns the land allocated for sub-project? Who uses the land (formal/informal)?	Horticultural Produce Marketing and processing corporation limited. – HPMC Farmers Organization, societies and private entrepreneurs		
Description of physical and natural environment, and of the socio-economic context around the site	The salient physical features of the project and details of natural environment are given below: • Location : Rohru (V), Rohru (T), Shimla (D) • Geographical co-ordinate : 31° 11’ 59.60” N, 77° 44’ 40.65” E • Elevation : 1543m • Total land area : 1.93 Acres • Nearest railway station : Shimla,- 56.8 km (NE) • Nearest highway : SH-10- 0.04 km (S) • Nearest water body : Pabbar river 0.15 km(S) • National parks/Wildlife sanctuaries : Protected forest at Polkana village at 1.4 km (W) The prevailing socio-economic aspects of people inhabiting villages in the core and buffer zone of the proposed project facility, as per 2011 census: The study area consists of around 12,535 people out of whom male population is 6699 and female population is 5836. The literacy levels in selected villages of study area, reveals that an average literacy rate of 76.6% exists as per 2011 census data.		
Which of the project intervention sites does sub- project related to and how?	The sub project is related to controlled atmosphere storage facility, Rohru, Shimla, Himachal Pradesh.		

Legislation	
National & local legislation & permits that apply to sub- project activity	The sub-project is required to comply with the relevant Laws and Regulations of the State Pollution Control Board.
Public Consultation	
When / where the public consultation process took / will take place	Extended public consultations were conducted in the project area and nearby villages through FGDs, Participatory Rural Appraisal techniques. These consultations covered issues of local farmers, women & migrant workers, staff, Community Based Organizations, NGOs and Cooperative societies.
Attachments	
Attachment – 1	Eco Sensitive Map
Attachment 2	Facility layout

Part B: Safeguards Information

Environmental /Social Screening			
Will the site activity include/involve any of the following?	**Activity/Issue**	**Status**	**Triggered Actions**
	A. Building rehabilitation	[✓] Yes [ ] No	See Section **A** below
	B. New construction	[✓] Yes [ ] No	See Section **A** below
	C. Individual wastewater treatment system	[✓] Yes [ ] No	See Section **B** below
	D. Historic building(s) and districts	[ ] Yes [✓] No	See Section **C** below
	E. Acquisition of land	[ ] Yes [✓] No	See Section **D** below
	F. Hazardous or toxic materials	[ ] Yes [✓] No	See Section **E** below
	G. Impacts on forests and/or protected areas	[ ] Yes [✓] No	See Section **F** below
	H. Handling / management of medical waste	[ ] Yes [✓] No	See Section **G** below
	I. Traffic and Pedestrian Safety	[✓] Yes [ ] No	See Section **H** below

Activity	Parameter	Mitigation Measures Checklist
General Conditions	Notification and Worker Safety	• The workers are suggested to be provided with necessary Personal Protective Equipment while working in facilities and periodic health check-ups for the workers and local communities are suggested. • Projects execution team needs to be educated about rights and duties towards direct workers and contract workers • Skill gap analysis to create employment opportunities to the local people based on priority, educational qualification and skill set • Provision of infrastructural facilities for workers, sanitation, drinking water, health & hygiene and recreation.
A. General Rehabilitation and /or Construction Activities	Air Quality	**Pre-Construction & Construction Phase:** Most of the construction dust will be generated from the movement of construction vehicles on unpaved roads. Unloading and removal of soil material acts as a potential source for dust nuisance. The control measures proposed to be taken up are given below • Water sprinkling on main haul roads in the project area will be done, this activity will be carried out at least twice a day, as per the need frequency will be increased like on windy days. In this way around 50% dust reduction will be achieved from the contributing exposed surface. • The duration of stockpiling of excavated mud will be as short as possible as most of the material will be used as backfill material for the open cut trenches for road development. • Temporary thin sheets of sufficient height (3m) will be used to erected dust dispersion into surrounding site atmosphere or all around the project site as barrier for dust control. • Tree plantations around the project boundary will be initiated (where ever required) at

Activity	Parameter	Mitigation Measures Checklist
		the early stages by plantation of 2 to 3 years old saplings using drip irrigation or by regular watering so that the area will be moist for most part of the day. • All vehicles carrying raw materials will be instructed to be covered with tarpaulin / plastic sheet, unloading and loading activity will be stopped during windy period. • To reduce the dust movement from civil construction site to the neighborhood, the external part of the building will be covered by plastic sheets. **Operation Phase:** • DG set are to be provided with a stack height of 30m as per MoEF&CC guidelines for proper dispersion of sulphur dioxide and oxides of nitrogen. • Internal roads will be concreted / asphalted to reduce dust emissions. • Vehicles with PUC certification would be allowed for entering into the plant to avoid pollution of exhaust gases. • Speed restriction will be followed within the project area and speed breakers will be provided at entry and exit points with proper sign board. **Odor:** • Proper air flow control or negative air pressure within the grading and packing unit, either through innovative design interventions, or installing odor control equipment will be maintained to abate odor. • Fruit waste dump area will be delineated from the main activity area so as to eliminate potential public exposure to odor. • Odor control equipment as mist air dry fog odor suppression systems or atomizers can be

Activity	Parameter	Mitigation Measures Checklist
		installed at odor generation source. • Neutralizers such as sodium hypochlorite, potassium permanganate or commercial preparations as Ecosorb can be applied to control odor nuisance
	Noise	**Pre-Construction & Construction Phase:** • Noise generating equipment will be used only during day time for brief period based on its requirement. • Proper enclosures will be used for reduction in noise levels. Where ever possible, the noise generating equipment will be kept away from the human habitation. • Temporary thin sheets of sufficient height (3m) will be erected around the noise generating activity spread or all around the project site as barrier for minimizing the noise travel to surrounding areas. • All vehicles entering into the project will be informed to maintain speed limits, and not blow horns unless it is required. **Operation Phase:** Acoustic enclosures, noise barriers or shields will be provided for DG set and pumps etc., and wherever possible they will be mounted on anti-vibration pads to minimize the noise. Regular maintenance will be carried out as per the schedule prescribed by the manufacturer for smooth functioning.
	Water Quality	**Pre-Construction & Construction Phase:** • The total water required for construction is sourced from natural stream from nearby mountain.

Activity	Parameter	Mitigation Measures Checklist
		• The raw water received is stored in a tank and used for construction activities. • During site development necessary precautions will be taken, so that the runoff water from the site gets collected to working pit and if any over flow is, will be diverted to nearby greenbelt / plantation area. **Operational phase** • The total water requirement is about 12 KL once in a year and Fog Nozzle with 50 Kl once in 15 days. • Water used for domestic activities should meet IS 10500:2012 drinking water standards and inland surface water standards IS 2296-1992. • The treated wastewater can be reused for floor washing, vehicle washing, greenbelt, dust suppression etc.
	Waste management	**Pre-Construction & Construction Phase:** • Waste produced from the construction activities within the facility area of 0.25 acre will be regularly collected in a storage area and protected with proper sheets to prevent any potential waste scatter • Attempts will be made to keep the waste segregated into different heaps as far as possible so that their further gradation and reuse is facilitated. • Materials, which can be reused for purpose of construction, leveling, making roads/ pavement will also be kept in separate heaps from those which are to be sold or land filled. • Construction waste generated will be deposited at collection center made by local body or handed over to the authorized processing facilities of construction and demolition waste.

Activity	Parameter	Mitigation Measures Checklist
		• Construction activities may generate some quantity of muck, which is managed by mixing it with straw, stone dust or rice husk, to reduce the adverse impacts. **Operation phase:** The domestic solid waste is anticipated 8Kg/day during season, and 4 Kg/day during non-season generated will be collected from processing area and brought to one place, and it will be segregated into recyclable, and non-recyclable. The recyclables will be disposed to local vendors and compostable (rotten fruit waste) will be converted to the vermin compost in the dump yard, whereas the non-compostable solid waste will be disposed into local municipal bins. There will be a minimal waste from the project site.
B. Individual wastewater treatment system	Water Quality	The wastewater generated will be collected and sent to water treatment scheme and domestic water will be diverted to portable STP or septic tank. The treated water will be used for gardening and dust suppression etc.
C. Historic building(s)	Cultural Heritage	There exists no historical building representing cultural heritage within 2km radius study area.
D. Acquisition of land	Land Acquisition Plan/Framework	The land acquisition activities are the responsibilities of HPMC for this sub-project
E. Toxic Material	Toxic / hazardous waste management	• Identification of major hazards based on Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) amendment rules, 1989 and • Occupational health and safety of workers
F. Affected forests, wetlands and/or protected areas	Protection	The proposed project does not encompass any forest lands, wetlands or protected areas within the study area.
G. Disposal of medical	Infrastructure for	Medical waste is usually not envisaged in the facility. Any minor medical waste generated

Activity	Parameter	Mitigation Measures Checklist
waste	medical waste management	through use of first aid kit due to any injuries will be sent to appropriate bio-medical waste handlers as per the Bio-Medical Waste Management Rules, 2016.
H Traffic and Pedestrian Safety	Direct or indirect hazards to public traffic and pedestrians by construction activities	Vehicular emissions are the major source of air quality impacts in the study area. The principal cause of air pollution during the construction phase is the diesel-powered vehicles used in haulage of aggregates, earth and other construction material. Gaseous emissions like NO_X, CO and Hydro Carbon might be released from the vehicular movement, which has a direct impact on the environment. Increase in the traffic in the study area has a direct impact on the existing natural environment such as air quality and the ambient noise levels as a heavy release of automobile exhaust and vehicular noise generation is envisaged. **Impacts:** ➢ Minor effects on health of nearby residents such as headache, cough and respiratory problems etc. ➢ Increase in accidents due to the speed of the vehicles may be observed. **Mitigation measures :** ➢ Existing roads have to be repaired; new roads and road intersections have to be laid. ➢ The construction material should be transported during non-peak hours for avoiding heavy traffic. ➢ The construction material must be placed inside the boundary of facility without causing inconvenience to the pedestrians and avoiding unnecessary traffic jam ➢ Only trained and licensed drivers should be allowed to access vehicles used for transport of materials to project site. However the present road due to the up gradation/expansion activity and increase in the

Activity	Parameter	Mitigation Measures Checklist
		number of vehicles that visit the site, the traffic is not going to increase drastically. This implies that traffic will not have a major impact due to the proposed up gradation/expansion.

Part D: Monitoring Plan

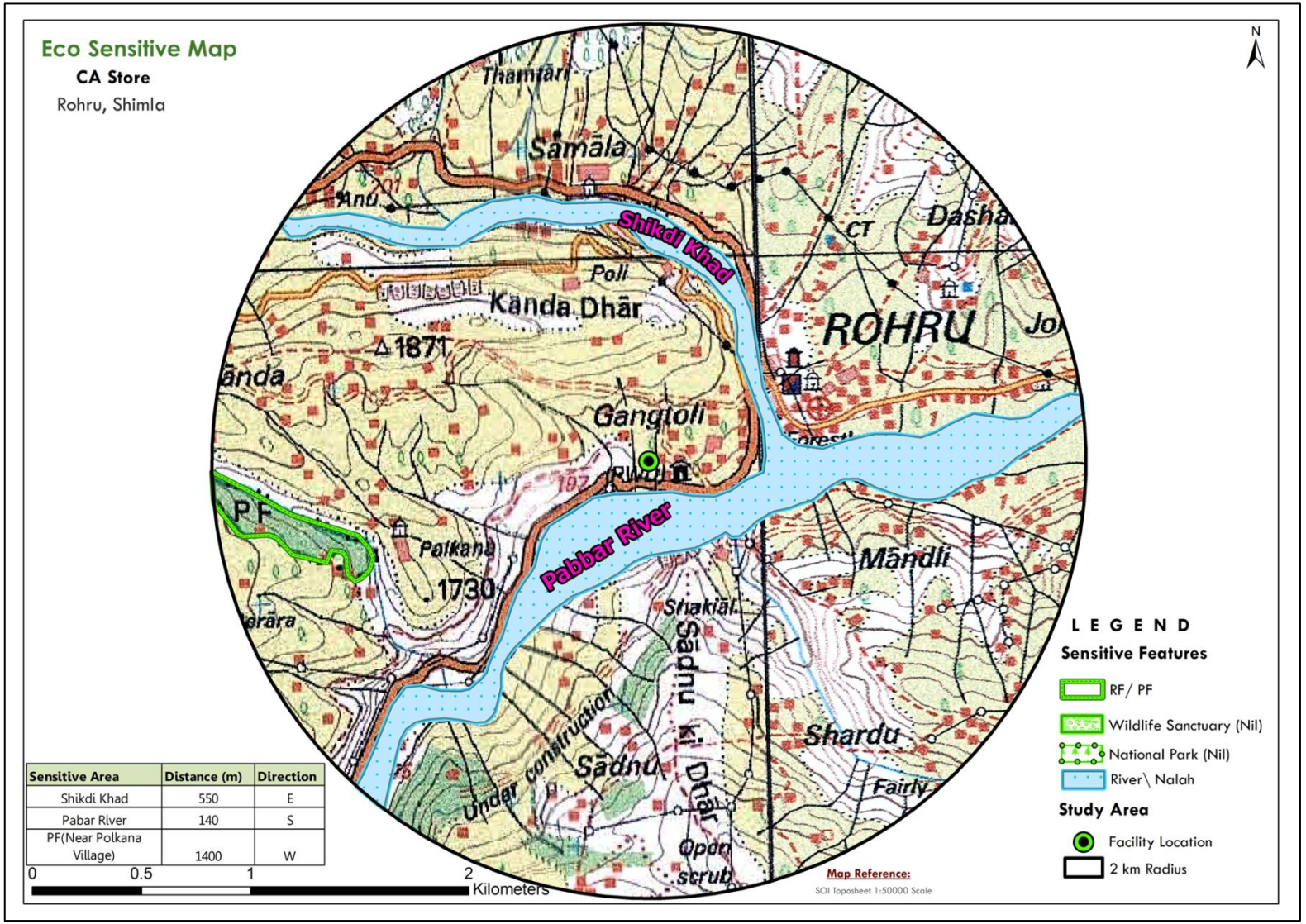
Potential impact of sub-project	**What** (Is the parameter to be monitored?)	**Where** (Is the parameter to be monitored?)	**How** (Is the parameter to be monitored?)	**When** (Define the frequency / or continuous?)	**Why** (Is the parameter being monitored?)	**Who** (Is responsible for monitoring?)
Air quality	PM_{10}, $PM_{2.5}$, SO_2, NO_x, and CO	Ambient air quality within the premises of the facility to be monitored.	As per the CPCB/SPCB guidelines and standards	Every quarter/ once in a month as per CFE/CFO conditions issued by SPCB	The parameters are monitored to observe any deviation with the specified standards and propose the respective control measures to maintain the levels well within the standards.	Plant Manager
Noise quality	Noise levels (day and night equivalents)	Noise levels within the premises of the facility to be monitored.	As per the AAQ Standards in respect of Noise SO 123 E dt. 14th Feb 2000 standards	Daily till the construction activities are completed /once in a month during operation phase as per CFE/CTO conditions given by SPCB	The noise levels are monitored to observe any deviation with the specified standards and propose the respective control measures to maintain the levels well within the standards.	Plant Manager / Site In charge

Potential impact of sub-project	**What** (Is the parameter to be monitored?)	**Where** (Is the parameter to be monitored?)	**How** (Is the parameter to be monitored?)	**When** (Define the frequency / or continuous?)	**Why** (Is the parameter being monitored?)	**Who** (Is responsible for monitoring?)
Water quality	Physico-chemical and Biological parameters such as Colour, pH, TDS, EC, *E. Coli* etc.	Monitoring ground & surface water quality in the project site.	As per IS – 10500:2012 and IS 2296–1992 Inland surface water standards	Once in a quarter/ as per CFE/CTO conditions given by SPCB	To monitor, analyze and observe any deviation from the standards and taken measures to avoid contamination of ground and surface water.	Plant Manager / Site In charge
Soil quality	Physico-chemical parameters such as Colour, Texture, NPK, heavy metals etc.	Monitoring of soil quality in the project site	As per the standard soil classification – Indian Council of Agricultural Research, New Delhi	Once in a quarter/ as per CFE/CTO conditions given by SPCB	For maintaining the soil quality in and around the project site and to protect topsoil.	Plant Manager / Site In charge
Waste Management	Solid waste/ Hazardous Waste	Within the facility	As per Waste Management rules 2016	Once in a month/ as per CFE/CTO conditions given by SPCB	For reducing the quantity of waste generation, reusing and recycling.	Plant Manager / Site In charge
Health	All relevant parameters of occupational health	Health check-ups for employees within the facility	Applicable rules of Occupational health and	Once in a six months as per CFE/CTO conditions given by	Maintaining health and safety at workplace and	Plant Manager / EHS Manager

Potential impact of sub-project	What (Is the parameter to be monitored?)	Where (Is the parameter to be monitored?)	How (Is the parameter to be monitored?)	When (Define the frequency / or continuous?)	Why (Is the parameter being monitored?)	Who (Is responsible for monitoring?)
	such as immunization, vaccination etc.	and specially for migrant labour and women workers	Factories act, 2016	SPCB and Factories act, 2016	reducing the risk of exposing to hazard.	
Social aspects - Workers	Workers, including women, migrant workers and contract workers and child labour (if any)	Migrant workers passbooks to be maintained, employment health records to be maintained. Likewise, physical verification of birth certificates and others to check	Applicable rules of inter-state migration act, child labour prevention act and other applicable labour Laws	Once in a year, before the commencement of season especially.	Protection of project workers - women, migrant workers, contracted workers etc.	Plant Manager / EHS Manager
Community Health	Water-borne, vector-borne diseases, and communicable and non-communicable diseases	periodic Health camps for workers, truck drivers and local community	As per the applicable labour laws and international standards and social management framework	Once in six months and continuous monitoring of premises and floating population to facility	Anticipate and avoid adverse impacts on the health of workers and communities.	Plant Manager / EHS Manager

Potential impact of sub-project	**What** (Is the parameter to be monitored?)	**Where** (Is the parameter to be monitored?)	**How** (Is the parameter to be monitored?)	**When** (Define the frequency / or continuous?)	**Why** (Is the parameter being monitored?)	**Who** (Is responsible for monitoring?)
Traffic risks	Road safety risks to workers, local communities and other road users	Conducting periodic Road safety assessment to monitor and preparation of regular reports	As per the applicable regulations and international standards	Once in an year	Minimize workers and community exposure to project specific traffic risks	Plant Manager / EHS Manager

Attachment 1- Eco-Sensitive Map



Attachment 2 – Facility layout