



Initial Environment Examination

Project Number: 40648-023
January 2017

IND: Infrastructure Development Investment Program for Tourism - Tranche 1

Subproject: Integrated Car Parking, Interpretation Centre, Toilet and Other Facilities at Chintpurni
(Block A & B) (Package HPTDB/2/1A)

Submitted by

Project Management Unit, Tourism Development Board, Shimla

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Asian Development Bank

Tourism Development Board

IDIPT-HP (ADB Loan No.2676-IND)

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E-mail : tourismmin-hp@nic.in
Website : [www : himachaltourism.gov.in](http://www.himachaltourism.gov.in)

No. IDIPT-HP/2676-IND/IEE/HPTDB/2.1A/2016- 4395 Dated 28.12.2016

Project Director

To

The Country Director,
India Resident Mission,
Asian Development Bank,
4 San Martin Marg, Chanakayapuri,
New Delhi-110021 (India)
(Fax No. 011-26870955)
Tel.: +91-11-24107200.

Kind Attn. Mr. Leonardus Boenawan Sondjaja (ADB)

Subject: ADB Loan 2676-IND, IDIPT-HP, - Submission of revised Initial Environmental Examination for "Integrated Car Parking, Interpretation Center, Toilet and Other Facilities at Chintpurni (Block A & B)" sub-project under contract package no. HPTDB/2/1A" under Tranche 1 - Regarding

Ref: ADB Fax Dated 25th November, 2016

Madam,

This is with reference to the subject cited above. The Initial Environmental Examination (IEE) for "Integrated Car Parking, Interpretation Center, Toilet and Other Facilities at Chintpurni (Block A & B)" sub-project under contract package no. HPTDB/2/1A" under Tranche 1 has been revised. The compliance matrix is as below:-

Sr. No	ADB Observations	Compliances
1	We refer to the submission of initial environmental examination (IEE) report for the ongoing "Integrated Car Parking, Interpretation Center, Toilet and Other Facilities at Chintpurni (Block A & B)" sub-project under contract package no. HPTDB/2/1A by the Project Management Unit, IDIPT-HP (ADB),	-----

Sr. No	ADB Observations	Compliances
	<p>Tourism Development Board, Himachal Pradesh through letter of 22 October 2016. We note that the civil works contract was signed in June 2014 and the works are at advanced stage of completion. We have reviewed the IEE report and have the following observations</p>	
2	<p>We observe from table 2 titled "Environmental regulatory compliance" (page 10) of the IEE report that the environmental clearance (EC) under the EIA Notification, 2006, as amended is not required for the sub-project. However, the past three environmental monitoring reports (EMRs) submitted for this project to ADB (covering reporting period from January 2015 to June 2016) had reported that the EC for this sub-project was processed by the State Environment Impact Assessment Authority (SEIAA) of Himachal Pradesh in December 2013 and January 2014. Please provide a copy of the EC issued by the SEIAA for this sub-project. Please include the status of compliance with the EC terms and conditions in the next EMR due for the period July to December 2016.</p>	<p>Complied</p> <ul style="list-style-type: none"> The case was placed before the 34th & 35th meeting of Himachal Pradesh State level Expert Appraisal Committee (SEAC) on 17.12.13 and 23.01.14 respectively considering the built-up area 29,727 m² covering three blocks i.e. A, B & C. As per the minutes (attached as Annexure 1), it was informed that <i>"The proposal is yet to be approved by the SADA. As the area is yet to be finalized and approved by the SADA, the committee felt that the project should firm up the project approval with some suggestions"</i>. Thereafter the case was placed before the SADA incorporating all the suggestions by the SEAC and approval was accorded vide letter no. SADA (chint) case no. BP 70/2013-113-117 (attached as Annexure 2). Approval from Town and Country Planning is also taken (attached as Annexure 3). Presently built up area is 18,715.84 sqm covering block A & B, therefore, it's not covered in ambit of EIA Notification, 2006 and as such no Environmental Clearance required. As indicated above the suggestion's given in SEAC minute's placed to the SADA and approval was accorded. Same shall be included in the next EMR due for the period



Sr. No	ADB Observations	Compliances
		July to December 2016.
3	<p>We note that the sewage treatment plant (STP) has been proposed under the subproject's scope (sr.no. 8, table 1, page 7 of IEE report). Please reflect the requirements and the status thereof for obtaining the consents to establish and operate the STP in table 2 of environmental regulatory compliance</p>	<p>Complied</p> <ul style="list-style-type: none"> • Requirements for obtaining the consents to establish and operate the STP has been given in Table 2 of the revised IEE • Drawing has been approved by the Town and Country Planning • Consent for establishment and operate is required from H.P. Pollution Control Board for the proposed STP and is being applied now.
4	<p>We refer to the environmental management plan (EMP) given in the contractor's contract agreement (dated April 2013) and the EMP provided in the above IEE report, and observe that the following environmental issues cited in the contract document have not been reflected in the EMP provided in the IEE report:</p> <ul style="list-style-type: none"> • slope stability related issues like structural designs and provisions of retaining wall; • integration of energy efficiency and energy conservation programs; • circulation plan for safe passage of tourists; and • noise levels on monthly basis as per environmental monitoring plan (during construction stage) 	<p>Complied</p> <ul style="list-style-type: none"> • Slope stability related issues have been added in EMP of IEE report with provision of retaining wall and structural designs. (refer points 45, 61 and tables 4, 5, 7 & 8 of the revised IEE Report) • Integration of energy efficiency and energy conservation programs included in IEE in design and construction phase management plan. (refer points 54, 71 and tables 4, 5, 7 & 8 of the revised IEE Report) • Circulation plan for safe passage of tourists has been included. (refer point 51 & table 4 of the revised IEE Report). However, during construction phase whole the site is barricaded with hard board/metal sheets and guarded with security guard, therefore there is no possibility of entrance of tourists • Noise level monitoring is planned on twice- annually basis as HPPCB has already conducted it.
5	<p>We also observe that the following environmental issues identified in the IEE report are not covered in the EMP</p>	<p>Complied</p> <p>IEE has been revised including all these provisions and this</p>



Sr. No	ADB Observations	Compliances
	<p>attached with the contractor's contract agreement:</p> <ul style="list-style-type: none"> • impact and mitigation measures on physical and cultural resources during construction stage; • impact and mitigation due to waste generation during construction stage; and • Impact and mitigation measures on occupational health and safety during construction stage 	<p>revised IEE after approval from ADB shall be issued to contractor to follow.</p>
6	<p>Since, the works have commenced in June 2014 and substantially completed, we request you to carry out a due diligence study on residual environmental impacts covering the following issues to ascertain if any environmental impacts were left unaddressed. In case the study identifies such unresolved impacts arising out of the activities undertaken in this subproject then immediate corrective actions need to be undertaken within a defined time frame:</p> <ul style="list-style-type: none"> • report on slope stability related issues due to sub-project and implementation of mitigation measures; • report on integration and implementation of energy efficiency and energy conservation programs; • report on implementation of circulation plan for safe passage of tourists; • report on implementation of identified impact and proposed mitigation measures on physical and cultural resources; • report on management of waste generation at construction sites; • report on implementation of occupational health and safety at construction sites; • report on public consultation during project implementation; and • report on the assessment of the environmental monitoring carried out for parameters such as ambient air quality, surface water and noise levels from the commencement of the works 	<p>Complied</p> <p>Due diligence report is prepared on the given topics and attached herewith</p>



Sr. No	ADB Observations	Compliances
	till date	
7	Please revise the IEE report incorporating our above observations and submit it along with comments' compliance matrix for ADS's review and approval. Please undertake a due diligence study on residual environmental impacts, and provide a report on the residual environmental issues and a time bound corrective action plan, if any to ADB for review. The environmental due diligence study and its implementation report will also be disclosed on ADB web site. We request you to submit the due diligence report no later than 21 December 2016.	Revised IEE report along with compliance matrix of above observations is being hereby submitted to ADB for review and approval. Due diligence report to study on residual environmental impacts is also prepared and is attached separately.

The revised IEE is enclosed. Kindly accord approval for the.

With Regards,



**Project Director,
IDIPT-HP.**

Enclosures:

1. Revised Initial Environmental Examination for "Integrated Car Parking, Interpretation Center, Toilet and Other Facilities at Chintpurni (Block A& B)" sub-project under contract package no. HPTDB/2/1A"under Tranche 1
2. Due Diligence Report on Study of Residual Environmental Impacts- "Integrated Car Parking, Interpretation Center, Toilet and Other Facilities at Chintpurni (Block A& B)" sub-project under contract package no. HPTDB/2/1A"under Tranche 1

**Minutes of 35th SEAC Meeting dtd. 23.01.2014
Refer Point 2.3**

**State Expert Appraisal Committee, Himachal Pradesh
At H.P. Department of Environment, Science & Technology
Government of India
Ministry of Environment and Forests**

MINUTES OF THE 35th MEETING OF THE STATE EXPERT APPRAISAL COMMITTEE
HELD IN CONFERENCE HALL, H.P. STATE POLLUTION CONTROL BOARD, SHIMLA
ON 23rd JANUARY, 2014

35th meeting of State Expert Appraisal Committee for appraisal of the Project proposals received for Environmental Clearance was held on 23rd January, 2014 in the Conference Hall of H.P. State Pollution Control Board, Shimla. The following were present in the meeting:

- | | | |
|----|-------------------------|-----------|
| 1. | Sh. Balram Sharma, | Chairman |
| 2. | Er. Ashok Mahajan | Member |
| 3. | Dr. Kulraj Singh Kapoor | Member |
| 4. | Er. R.M Gupta | Member |
| 5. | Er. D.K. Sharma | Secretary |

ITEM NO. 1: CONFIRMATION OF THE MINUTES OF 34th MEETING OF SEAC:

The minutes of the 34th meeting of SEAC held on 17th December, 2013 were e-mailed to all the members and the Committee confirmed the minutes as no comments have been received from the members.

ITEM NO. 2: APPRAISAL OF CASES FOR ENVIRONMENTAL CLEARANCE.

- 2.1 River Bed Mining for Sand, Stone and Bajri, Prop. Sh. Madan Mohan Sharma at Village Bangran, Tehsil Paonta Sahib, Distt. Sirmour (H.P.) at Mauja- Mohakampur Nawada, Tehsil-Paonta Sahib, Distt-Sirmour H.P.

Consultant Name:- SRUSHITI SEWA, NAGPUR

Proposal is River Bed mining for Sand, Stone and Bajri over an area of 59-00 Bighas or 4.93 hectare (private land) in Khasra No. 638/613/590/188/8 at Mauza Mohakampur

35th Meeting of SEAC

8. The proponent shall implement environment management plan to mitigate the environmental impacts. Specific safeguard measures to control PM_{10} as well as pollution due to transportation.
9. All documents including approved working cum EMP and EIA report should be compatible with one another in terms of the mine lease area production levels, waste generation and its management and mining technology.
10. Impact on topography, drainage, agricultural fields, cattle fields, wildlife, water logging leading to water borne diseases should be mitigated as far as possible.
11. Impact of the project on the water quality should be assessed and necessary safeguard measures, if any required should be provided.
12. The proponent shall take up plantation in the buffer of mine area.
13. The proponent shall estimate quantum of solid waste generation and shall manage/dispose it scientifically by providing proper retaining structures.
14. Before the proponent starts mining activities in the area, he shall establish ground water level bench mark so as to monitor the ground water level.
15. The proponent shall ensure that no pot holes shall be created by the mining activities.
16. The proponent shall plant fast growing tree species along both the sides of approach road.
17. The proponent shall provide material to School, Temple & Panchayat works free of cost.
18. Proponent shall not undertake mining in the wetted perimeter.
19. The mining shall be carried in a way that the water channel is maintained in the centre so that banks remain protected.
20. The proponent shall revise the proposed EMP cost to Rs. 8 lakhs towards capital cost and Rs. 2 lakhs as recurring expenditure.
21. The mining operation shall be carried out strictly in between 9 A.M. to 5 P.M.

2.3 M/s Project Director, IDIPT-HP, US Club Shimla, for construction of Integrated Parking Interpretation center and Tourism amenities at Chintpurni area Village-Moin, Tehsil- Amb, Distt-Una H.P.

The Proposal is for construction of Integrated Parking, interpretation center and tourism amenities at Chintpurni area with built up area of 29,727 m^2 . Total land area of the project as informed by proponent is 4.5 Acre. The water requirement for the proposed project during construction phase is 25 KLD which will be met through tankers and water harvesting tank. The power requirement for the proposed university is indicated as 500 KW sourced through HPSEBL. Two DG set having capacity 250 KVA each shall be provided for power back up. The unit has proposed Sewage Treatment Plant of 400

35th Meeting of SEAC

5

KLD(2 Units of 200 KLD). The proponent has proposed Roof Top Rain Water Harvesting System of capacity 75,000 Litres. Solid Waste and Biodegradable Waste shall be treated by vermin composting facility and recyclable waste shall be sold off to authorized vendors and remaining waste will be disposed off to designated Municipal Dumper or nearby bin as proposed. Solid waste shall be collected/ disposed off as per provisions of Municipal Solid Waste (Management & Handling) Rules, 2000 under Environment (Protection) Act, 1986.

Proposal was also listed in 34th meeting of SEAC & deferred on the request of the consultant during presentation. The proposal is yet to be approved by the SADA. As the area is yet to be finalized and approved by the SADA, the committee felt that the project should firm up the project approval and also take the following consideration in the project:-

1. Shops/counters at the entrance of hall will certainly create congestion therefore it should be used as a waiting room and providing lockers, cloak room, information centre, drinking water, security and related facilities.
2. Large number of toilets provided on the parking floor doesn't seem to be required. The necessity of the toilets will be either at the entrance area or at the waiting hall. A separate block of toilets for the general public is also required. It is recommended that the drawings be modified accordingly.
3. The desirability of increasing parking floor/ block should be explored. The hotel area may be reduced to bare minimum and a facility of guest house and dormitory accommodation for the driver may be provided. The commercial use of the hotel is not likely to be viable and successful.

2.4 Mining of Brick Earth/ Ordinary earth by M/s Sh. Pawan Kumar Prop. M/s Naina Bricks Village- Seola, P.O. Jukhala, Tehsil sadar, Distt. Bilaspur at, Mauza Riri, Jukhala, Tehsil Sadar, Distt. Bilaspur, H.P.

The proposal is for mining of Brick Earth/ Ordinary Earth over an area of 4.88 Hectare (private land) in Khasra No. 19, 805/20, 26, 822/782/435, 831/787/463, 36, 33, 40, 112/95, 33/1, 97/4, 12, 16, 22, 33, 115/35, 37/1 and 49 at Mauza Riri, Jukhala, Tehsil Sadar, Distt. Bilaspur, H.P. The proposed capacity as mentioned in the application form is 12,00,000 Bricks per annum.

Now the proponent has submitted that in view MoEF, GOI, Office Memorandum No. L-11011/47/2011 IA.II (M) dated 24-06-13, the proposal does not require EIA/EMP and has requested for grant of Environmental Clearance.



35th Meeting of SEAC



NoC from the Member Secretary, SADA dated 18-07-2014



SPECIAL AREA DEVELOPMENT AUTHORITY
SHRI CHINTPURNI HIMACHAL PRADESH

No. SADA(chint)Case NO: BP 70/2013- 113-117

Dated:- 18-7-2014

To The Temple Officer,
Chintpurni Temple, Una,
Distt. Una H.P.

Subject:- Regarding permission for development/change of land use under H.P. Town
& Country Planning Act, 1977.

Reference:- Your office letter No. TTC-7/Parking-08-929-2014 dated 12-07-2014.

In pursuance to Director, Town & Country Planning Department H.P letter No. HIM/TP/PP(P.Reg) SADA Chintpurni/2014-2140-41 dated 26-06-2014, you are hereby granted permission under Section 16 (a) of the H.P. Town & Country Planning Act, 1977 for construction of 3 numbers building blocks by changing the use of land from barren to commercial (Integrated Parking, Interpretation centre and Tourist Amenities complex on Kh. No. 665,666,667,670,671,712 and 715 Village Moin, Sub-Tehsil Bharwain falling under Chintpurni Special Area subject to the following conditions:-

1. As the permission is granted on the basis of revenue record supplied by you, hence you will be responsible for any type of land dispute at later stage.
2. No tree shall be cut without prior permission of the competent authority.
3. You will inform the Authority on completion of construction upto plinth level, so as to verify the construction as per approved plan at initial stage.
4. You have to construct Rain Water Storage Tank as approved in the drawings.
5. You have to pay any additional fee if pointed out by the audit at later stage.

Encl:- Approved drawings 25 Nos.

G. Corrigendum issued vide letter No. BP-70/13 325-09 dated 19/9/14

"That this permission is valid for three years only"

which can further be renewed year by year

bases but total period shall not be exceed to 5 years."

Member Secretary,
Special Area Development Authority,
Shri Chintpurni District Una (H.P.)

Copy to

- 1 The deputy Secretary (TCP) to the Govt. of Himachal Pradesh, Shimla w.r.t. letter No TCP- F(6)-8/2014 dated 3.06.2014 for information please.
- 2 The Director, Town and Country Planning department, HP Shimla-9 for information please.
- 3 The Project Director, IDIPT, PMU office, U.S. club Shimla-I, for information please.
- 4 The Deputy Commissioner, Una cum Chairman special area Development Authority Chintpurni, for information please.

Choudhary
Member Secretary,
Special Area Development Authority,
Shri Chintpurni District Una (H.P.)

0.14
for m/record
Cind
30/7/14

NoC from Town & Country Planning dated 03-06-2014

No. TCP-F(6)-8/2014
 Government of Himachal Pradesh
 Town & Country Planning Department

From: The Secretary (TCP) to the Government of Himachal Pradesh
 To: The Director, Town & Country Planning, Himachal Pradesh

Subject: Regarding approval of building under Town and Country Planning Act, 1977.

Dated: Shimla-2, 03-06-2014

I am directed to refer to your letter No.HIM/TP/PP.P Reg/SADA, Chintpurni/2014-15628 dated 25-03-2014 on the subject cited above and to convey the approval of the Government in favour of Member Secretary SADA, Chintpurni for construction of three no. blocks of integrated parking, interpretation centre and Tourist Amenities Complex on Khasra No. 665, 666, 670, 671, 712 and 715 at village Momy which fall within Chintpurni SADA with relaxation in No. of storeys i.e. 7 storeys (4+3 parking floor) against maximum permissible storeys i.e. 4+1 parking floor and overall height of building 30.28m against maximum permissible height 18.30m in Block B.

You are, therefore requested to take further necessary action in the matter accordingly after completing all codal formalities, under intimation to this Department.

Yours faithfully,
 [Signature]
 Under Secretary (TCP) to the Govt. of Himachal Pradesh
 Ph. 0177-2620627
 Shimla-2, 2014

Encl. No. As above
 Dated Shimla-2, 2014

Copy is forwarded to the Additional Secretary (GAD) of Himachal Pradesh with reference to Item No.35 of Cabinet meeting held on 24-05-2014 H.P. for information.

Under Secretary (TCP) to the Govt. of Himachal Pradesh

Please convey the approval to the quarter concerned -
 A TP-1
 12/6/2014
 JECHD

Chintpurni - 2
 178
 6/6/14

DUE DILIGENCE REPORT ON STUDY OF RESIDUAL ENVIRONMENTAL IMPACTS

**ADB Loan No. 2676-IND
Project Number: 40648**

Tranche 1

**Sub-project: Integrated Car Parking, Interpretation Centre, Toilet and
Other Facilities at Chintpurni (Block A & B) (Package HPTDB/2/1A)**



December, 2016

Prepared by the Himachal Pradesh Tourism Development Board

DUE DILIGENCE REPORT ON STUDY OF RESIDUAL ENVIRONMENTAL IMPACTS

Integrated Car Parking, Interpretation Centre, Toilet and Other Facilities at Chintpurni (Block A & B) (Package HPTDB/2/1A)

1.0 Background:

1. As part of the Investment Program, the Project aims to complete subprojects under four or five different components of the Investment Program in the State of Himachal Pradesh (Part A).
 - A. Component 1: Urban Infrastructure and Service Improvement
 - B. Component 2: Connectivity Improvement
 - C. Component 3: Quality Enhancement of Natural and Cultural Attractions
 - D. Component 4: Community-based Activities
 - E. Component 5: Capacity Development, Community Participation and Project Management
2. This subproject pertains to Component 1 and as per Schedule 5 of FFA, Subproject Concept Report (SCR) and Subproject Appraisal Report (SAR) of subproject has been approved and has been categorized as “B Category” subproject. Accordingly Initial Environmental Examination (IEE) was prepared by following project Environmental Assessment and Review Framework (EARF, July 2010) and disclosed on the ADB website and project website. The IEE including EMP is part of contract agreement. The subprojects contract details are as below;
3. Package No. HPTDB/2.1: The subproject was awarded to M/s. A.S. Enterprise - Unipro Techno Infrastructure Pvt. Ltd. JV Chandigarh and contract agreement signed on 26 June, 2014. Stipulated time for completion is 1st January, 2017. The variation for package no. 2.2 (Rest sheds, toilet facilities and view points along road from TRC to temple at Chintpurni) has already been executed with the contract package no. 2.1.
4. Since, the works have commenced in 2014 and substantially completed the Mall Road works. The Due Diligence Report on study of residual environmental impact is given below;

2.0 Report on Slope Stability Related Issues due to sub-project and Implementation of Mitigation Measures

5. As the proposed site is having steep slope, there is requirement for slope stability at work site during construction as well as during operation stages. There is provision of retaining walls all around the site for slope stability at site. During site visits it was observed that sufficient retaining walls with enough strength are constructed to protect the slopes. All the structures are also designed in such a way to cope with slopes.



Photographs of retaining walls around the site for slope stability

3.0 Report on Integration and Implementation of Energy Efficiency and Energy conservation programs

6. In the project design only LED lights have been taken for all the area lights, toilets, corridors and indoor lightings etc. A field study was undertaken in the month of December 2016 site. It was observed that contractor is using LED/CFL lights for area lighting and indoor lights. Energy efficient equipment (with star rating) like welding machines, stone cutting machines, drill machines, grinders etc. are being used at sites. There is provision of solar water heater for supply hot water in kitchen and bathrooms.



Use of solar water heater



Use of energy efficient welding machine



Use of LPG for cooking at workers camp



Energy efficient and Super silent DG set

4.0 Report on Implementation of Circulation Plan for Safe Passage of Tourists

7. Circulation plan for safe passage of tourists is not required as during Construction phase the whole work area barricaded by hard boards and is secured.



5.0 Report on Implementation of Identified Impacts on Physical and Cultural Resources

8. There are no physical and cultural resources reported within the site and therefore no impact on physical and cultural resources envisioned. No complain received from the owners of the structures/properties nearby the construction area.
9. Project board and cautionary sign boards placed at appropriate place to inform nature and duration of construction works.
10. Implementation of good housekeeping emphasized throughout the construction. Wastes removal is on regular basis. Stockpiling of materials on road side was not done that may obstruct/slow down pedestrians and/or vehicle movement.
11. Workers were aware not using nearby/adjacent areas as toilet facility.
12. Heavy vehicles allowed in non-peak hours for transport of construction material in the vicinity of sites.
13. Instructions on event of chance finds for archaeological and/or ethno-botanical resources have been oriented.

6.0 Report on Management of Waste Generation at Construction Sites

14. Solid waste managed according to the reuse, recycling and disposal. However, no any demolition activities required at site therefore no any demolition debris generated at site. Excavated materials like soil and stones were fully reused at site for leveling as the site is having uneven surface. General refuse generated in workers camps and work site is being collected in dustbin at site on regular basis and disposed through municipal system.
15. Solid waste like packaging materials, empty containers and other similar items has been avoid for stockpiling and removed as early as possible.

7.0 Report on Implementation of Occupational Health and Safety at Construction Sites

16. Implementation of occupational health and safety at construction sites of Mall Road and Town Hall are being regularly monitored during site visits of safeguard specialists of PMU/PMC/DSC and also being regularly monitored by site engineers of PIU and DSC. During site visits following points are observed regarding occupational health and safety.

Sr. No	OH&S issues	Compliance status
1.	Use of PPEs	<ul style="list-style-type: none"> Complied, workers using PPEs as per nature of works
2.	Drinking water facilities	<ul style="list-style-type: none"> Drinking water available from bore well.
3.	Toilets and sanitation	<ul style="list-style-type: none"> Toilets provided nearby camps and are being used by workers
4.	First aid box	<ul style="list-style-type: none"> First Aid Box is available at each site with proper equipment Qualified first-aid personnel provided at all times and his contact number has been displayed at site Emergency numbers displayed. Documentation of work-related accidents being done.
5.	H&S orientations	<ul style="list-style-type: none"> IFC EHS Guidelines on Occupational Health and Safety has been shared in Workshops. H&S orientation training has been given to all new workers to ensure that they are apprised of the rules of work at the site, personal protective protection. Site-specific safety plan is available at site. (refer Annexure-1) Regular site orientation is being provided by PMU/PMC/DSC safeguard staff on regular basis. (refer Annexure-2)
6.	Medical insurance of workers	<ul style="list-style-type: none"> Medical insurance has been done for workers by contractors
7.	Rest Shelters	<ul style="list-style-type: none"> Clean eating areas have been provided to the workers where they are not exposed to hazardous or noxious substances.
8.	Barricades to secure site	<ul style="list-style-type: none"> Proper barricades are provided by contractor to secure the construction site Visitor/s not allowed to enter hazard areas unescorted.
9.	Sign boards/Safety	<ul style="list-style-type: none"> Sign boards informing the name of work, contact numbers etc. are provided at each site. Cautionary boards regarding work, traffic signage and traffic aids are also provided at all sites Sufficient lights provided in working in working & heavy equipment operating areas. Moving equipment is outfitted with audible back-up alarms.
10.	Labor records and wages	<ul style="list-style-type: none"> Labour registration is in place Labor records are maintained by contractor and wage register is also maintained as per legal requirements.
11.	Free Traffic Movement	<ul style="list-style-type: none"> Stockpiling of material is inside the premises which allowing free movement of road traffic and safely.
12.	Dust Suppression	<ul style="list-style-type: none"> Water sprinkling being done as per requirement.
13.	Malaria risk	<ul style="list-style-type: none"> No water accumulation at site, therefore no such risk

PHOTO ILLUSTRATIONS



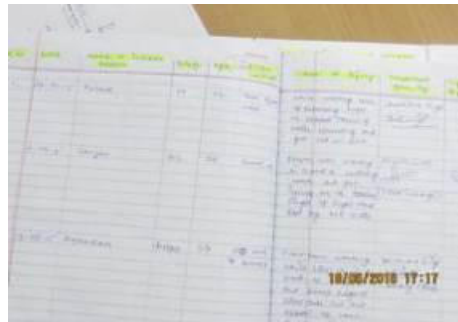
Fire Bucket at site



Emergency Number Displayed



Phone Number Displayed



First Aid Register Maintained



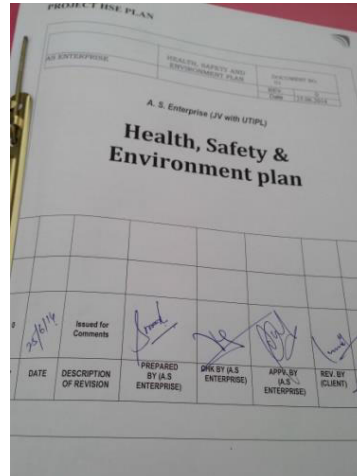
Safety Signage's



Protection for openings in building



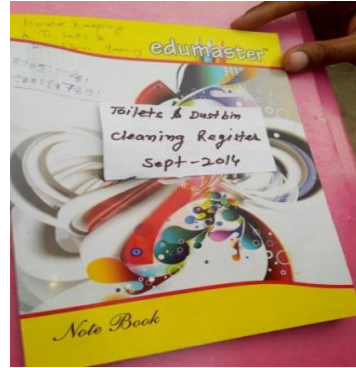
Safety Policy displayed at site



HS & Environment Plan



Dustbin at site



Cleaning Register Maintained at site



Cautionary Signage's at site



Safety Signage and Fire Extinguisher



Use of safety belt during work at height



PPEs in Use at site



PPEs Provided to Visitors



Mask use by stone workers

 <p>08/06/2016 10:30</p>	 <p>22/06/2016 10:38</p>
<p>Toilets at site</p>	<p>Drinking Water arrangement at site</p>
 <p>22/06/2016 11:05</p>	 <p>22/06/2016 11:05</p>
<p>Grievance Register maintained at site</p>	<p>Report of Tool box talk at site</p>
	
<p>Orientation at site</p>	<p>Interaction with PIU/DSC/Contractor</p>
 <p>22/06/2016 11:05</p>	 <p>22/06/2016 11:05</p>
<p>Social Messages displayed at site</p>	<p>Social Messages displayed at site</p>



8.0 Report on Public Consultations During Project Implementation

17. Public consultations are being done on regular basis during visit of safeguard specialists of PMU/PMC/DSC. Public consultations are also being done by site engineers of PIU/DSC and contractors and their suggestions and complains are being addressed as per site conditions and feasibility.



Consultation Report dated 18.6.2016

Consultation With nearby Shopkeepers

Site: Chintpurni, Kangra
Date: 18/06/2016

S.No.	Name and Address	Signature
1.	Shyam Sunder, Shopkeeper near site	[Signature]
2.	Ved Baskash nearby resident	[Signature]
3.	Sangeer, Shopkeeper near Chintpurni site	[Signature]

Outcome of consultation -

- Works are satisfactory
- No interference with existing traffic
- Proper barricades are provided
- No material stored on road side
- No disturbance of livelihood due to works

[Signature] Environment Specialist
DSC

[Signature] Jyoti Kaur Singh
Social Sabhagata expert
DSC

9.0 Environmental Monitoring of Ambient Air and Ambient noise during construction

18. Environmental Monitoring for ambient air and noise are being done on regular basis at site. There is no water source present near the site, which can be impacted through construction works. Testing conducted by HPPCB and results are within permissible limits. (refer **Annexure 3**).

Annexure-1

SAFETY PLAN

Chintpurni Subprojects

Brief Introduction

The famous and much revered temple of goddess Chhinnmastika at Chintpurni is situated on NH Jalandhar-Hoshiarpur-Dharamshala at a distance of 3 km from Bharwain in village Chhapoh, tehsil Amb, district Una, HP. The temple was taken over by the government of HP under the HP Hindu Public Religious Institution and Endowment Act, 1984 on June 12th 1987 to better manage the temple affairs and to provide basic facilities to the huge number of devotees visiting the temple all around the year. The proposed site for the integrated car parking, interpretation centre, toilets and other facilities at Chintpurni is sited at privately owned land under the ownership of Chintpurni temple trust.

There is acute shortage of parking in the temple area. Visitor's facilities are severely short in supply, necessitating urgent attention and remedial measures, such as provision of visitor facilities like toilet, drinking water and tourist's information etc. Therefore the proposed interventions in the said project will help to provide parking with basic amenities.

SP-70, 2001- Handbook on Construction Safety Practices shall be followed for detail.

Construction Safety Rules

1. Keep your mind on your work at all times. Injury or termination or both can be the result.
2. Personal safety equipment must be worn as prescribed for each job, such as: safety glasses for eye protection, hard hats at all times within the confines of the construction area where there is a potential for falling materials or tools, gloves when handling materials, and safety shoes are necessary for protection against foot injuries.
3. Precautions are necessary to protect against burns from hot materials.
4. If any part of your body should come in contact with an acid or caustic substance, rush to the nearest water available and flush the affected part. Secure medical aid immediately.
5. Watch where you are walking. Don't run.
6. The use of illegal drugs or alcohol or being under the influence of the same on the project shall be cause for termination. Inform your supervisor if taking strong prescription drugs that warn against driving or using machinery.
7. Do not distract the attention of fellow workers. Do not engage in any act which would endanger another employee.
8. Sanitation facilities have been or will be provided for your use. Defacing or damaging these facilities is forbidden.
9. A good job is a clean job, and a clean job is the start of a safe job. So keep your working area free from rubbish and debris.
10. Do not use a compressor to blow dust or dirt from your clothes, hair, or hands.
11. Never work aloft if you are afraid to do so, if you are subject to dizzy spells, or if you are apt to be nervous or sick.

12. Never move an injured person unless it is absolutely necessary. Further injury may result. Keep the injured as comfortable as possible and utilize job site first-aid equipment until an ambulance arrives.
13. Know where firefighting equipment is located and be trained on how to use it.
14. Lift correctly - with legs, not the back. If the load is too heavy GET HELP. Stay fit. Control your weight. Do stretching exercises. Approximately twenty percent of all construction related injuries result from lifting materials.
15. Do not use power tools and equipment until you have been properly instructed in the safe work methods and become authorized to use them.
16. Be sure that all guards are in place. Do not remove, displace, damage, or destroy any safety device or safeguard furnished or provided for use on the job, nor interfere with the use thereof.
17. Do not enter an area which has been barricaded.
18. If you must work around power shovels, trucks, and dozers, make sure operators can always see you. Barricades are required for cranes.
19. Never oil, lubricate, or fuel equipment while it is running or in motion.
20. Before servicing, repairing, or adjusting any powered tool or piece of equipment, disconnect it, lock out the source of power, and tag it out.
21. Barricade danger areas. Guard rails or perimeter cables may be required.
22. Use the "four and one" rule when using a ladder. One foot of base for every four feet of height.
23. Portable ladders in use shall be equipped with safety feet unless ladder is tied, blocked or otherwise secured. Step ladders shall not be used as a straight ladder.
24. Ladders must extend three feet above landing on roof for proper use.
25. Defective ladders must be properly tagged and removed from service.
26. Keep ladder bases free of debris, hoses, wires, materials, etc.
27. Scaffold planks shall be properly lapped, cleated or otherwise secured to prevent shifting.
28. Use only extension cords of the three-prong type. Use ground fault circuit interrupters at all times and when using tools in wet atmosphere (e.g. outdoors) or with any temporary power supply. Check the electrical grounding system daily.
29. The use of harnesses with safety lines when working from unprotected high places is mandatory. Always keep your line as tight as possible.
30. Never throw anything "overboard." Someone passing below may be seriously injured.
31. Open fires are prohibited.
32. Know what emergency procedures have been established for your job site. (location of emergency phone, first aid kit, stretcher location, fire extinguisher locations, evacuation plan, etc.).

Site Health and Safety Management Plan

1. Health and safety targets for the project – setting standards.
2. Regular liaison between the architect, principal contractor and client.
3. Employees and sub-contractors are encouraged to raise health and safety issues and concerns with the concerned person regarding the safety issues. All the health and safety information will be communicated to the labour.
4. On-site training job training will be given under the supervision of a competent person. Details of training will be recorded and held in the company's health and safety folder within the site office.

5. All accidents must be recorded (see health and safety folder located in the site office). An accident book can be used for this purpose. All accidents will be investigated to prevent any re-occurrence
6. Disallow worker exposure to noise level greater than 85 dBA for a duration of more than 8 hours per day without hearing protection. The use of hearing protection shall be enforced actively
7. Develop comprehensive site-specific health and safety (H&S) plan. The overall objective is to provide guidance to contractors on establishing a management strategy and applying practices that are intended to eliminate, or reduce, fatalities, injuries and illnesses for workers performing activities and tasks associated with the project.
8. Include in H&S plan measures such as:
 - a. Type of hazards during excavation works;
 - b. Corresponding personal protective equipment for each identified hazard;
 - c. H&S training for all site personnel;
 - d. Procedures to be followed for all site activities; and
 - e. Documentation of work-related accidents.
9. Provide H&S orientation training to all new workers to ensure that they are apprised of the rules of work at the site, personal protective protection, and preventing injury to fellow workers.
10. Ensure that qualified first-aid can be provided at all times. Equipped first-aid stations shall be easily accessible throughout the site as well as at construction camps.
11. Provide medical insurance coverage for workers.
12. Secure construction zone from unauthorized intrusion and accident risks.
13. Provide supplies of potable drinking water.
14. Provide clean eating areas where workers are not exposed to hazardous or noxious substances.
15. Provide visitor orientation if visitors to the site can gain access to areas where hazardous conditions or substances may be present. Ensure also that visitor/s do not enter hazard areas unescorted.
16. Ensure the visibility of workers through their use of high visibility vests when working in or walking through heavy equipment operating areas.
17. Ensure moving equipment is outfitted with audible back-up alarms.
18. Mark and provide sign boards in the construction zone, and areas for storage and disposal. Signage shall be in accordance with international standards and be well known to, and easily understood by workers, visitors, and the general public as appropriate.

Job Safety Checklist

A. Safety Rules

- Hard hats and safety glasses worn.
- Safety belts worn while working above 2m ground
- Work shoes worn.
- Work areas safe and clean.
- Safety mono-goggles/face shields worn when circumstances warrant.
- Electrical cords and equipment properly grounded with GFI's in place and checked by a competent person.
- No use of alcoholic beverages or controlled substances
- All scaffolds if any, built to specifications.

- Excavation/trenches sloped or shored.
- Drug testing of employees involved in accident(s) resulting in personal injury or property damage.
- No water leakage near electrical cords
- No air/noise/water pollution due to construction activities
- Fire safety provisions in place
- Emergency numbers in place

B. Recordkeeping

- Proper registers at site for injuries and illness.
- Proper labor registers.
- Emergency numbers.

C. Housekeeping and Sanitation

- General neatness.
- Regular disposal of trash.
- Passageways, driveways, and walkways clear.
- Adequate lighting.
- Oil and grease removed.
- Waste containers provided and used.
- Adequate supply of drinking water

D. First Aid

- First aid stations with supplies and equipment.
- The expiration dates of supplies checked monthly. Expired supplies discarded.
- Trained first aid personnel.
- Injuries promptly and properly reported.

E. Personal Protective Equipment

- Hard hats.
- Gloves.
- Shoes
- Belts
- Eye and face protection.
- Fall protection.

F. Fire Protection

- Fire extinguishers charged and identified.
- A No Smoking signs posted.
- Flammable and combustible material storage area.
- Fuel containers labelled.

G. Hand and Power Tools

- Tools inspected.
- Power tools properly guarded.
- Safety guards in place.

H. Welding & Cutting

- Compressed gas cylinders secured in vertical position.

- Hoses inspected.
- Cylinders, caps, valves, couplings, regulators, and hoses free of oil.
- Caps on cylinders in storage in place.
- Flash back arresters in place.
- Welding screens in place.
- Fuel and oxygen cylinders separated in storage.

I. Electrical

- All portable tools and cords properly grounded [Ground Fault Interrupters (GFI=s) properly installed].
- Daily visual inspection of caps, ends and cords for deformed or missing pins, insulation damage and internal damage.
- Tests of cords, tools and equipment for continuity and correct attachment of the equipment grounding connector (GFI) to the proper terminal made every month and:
 - i. Prior to first use.
 - ii. Prior to return to service after repairs.
 - iii. Prior to return to service after incident that may have caused damage to cord or equipment.
- Cords and equipment not meeting requirements immediately tagged and removed from service until repairs have been made.

J. Ladders

- Inspected at regular intervals.
- No broken or missing rungs or steps.
- No broken or split side rail.

K. Scaffolding

- Inspected at regular intervals.
- Footings are a sound ridge and capable of carrying maximum intended load.
- Tied into building vertically and horizontally at 14 foot intervals.
- Properly cross-braced.
- Proper guardrails and toe boards.
- Scaffold planks capable of supporting at least four (4) times the maximum intended load.

L. Material Storage and Handling

- Material at least two (2) feet from edge of excavation site.
- Proper temperature and moisture levels for safe storage of materials to prevent deterioration or volatile hazards within the storage area.
- Inventory maintained and inspected frequently.
- Proper protective gear worn when handling chemicals.

Site Plan (Distance of project site from hospitals, police stations, fire etc.)

Annexure-2

SAFEGUARDS TRAINING TO CONTRACTOR AT SITE, CHINTPURNI

Date: 03.03.2016

Place: Chintpurni

Facilitated by:

- Ms. Priyanka Khanghata Safeguard Specialist, PMU,
- Dr. Seema Srivastava, Environmental Specialist, PMC,
- Dr. Pratibha Joshi, Safeguard Specialist (Social & Gender special), PMC,
- Mr. Abhay Srivastava, Environmental Specialist, DSC,
- Mr. Jyotidhari Singh, Safeguard Specialists (Social)

Participants: Contractor's engineers, supervisors, workers

Onsite training at Chintpurni project site was conducted during site visit by safeguard staff of PMU, PMC and DSC. The purpose of training was to make aware the workers about risks and hazards of occupation health and safety during construction works. Issues discussed were –

- 1) **Safety:** Safety during work at height; Safety in electrical connections and use of electrical equipment's and Fire Safety; Area lighting in site and camps
- 2) **PPEs Use:** Personnel safety; Proper use of PPEs as per work like at height, welding, electricity etc
- 3) **Health & Hygiene:** Hazards of unhygienic conditions at workers camps and awareness about sanitation at site and camps; Use of toilets and hazards of open defecation; Personal hygiene; safe drinking water and other health issues
- 4) **Barricading:** Protection of site from intruders and public safety
- 5) **Environmental Issues:** Protection of environment by reducing air, water and noise pollution
- 6) **Social Issues:** Gender issues; HIV/AIDs issues; Wine drinking etc.
- 7) **Documentation Requirements:** Briefed about NOCs, permissions, registers etc

Photographs



Training to site engineers of contractor by DSC Environmental Specialist



Training to engineers, supervisors and workers by safeguard specialists of PMU, PMC and DSC



Documentation Requirements to engineers, supervisors

Annexure 3

Test Results

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Annexure-1

Ambient air monitoring (Chintpurni)


Date 29.04.2014

Location	RSPM (ug/m3)	SPM	Nox	So2
1 Site 1 Near Integrated Parking Chintpurni	56.06	64.96	BDL	BDL
2 Site 2 Near Rest Sheds Toilet Facilities	71.96	83.33	BDL	BDL
3 Site 3 View points along road from TRC to temple	73.86	85.79	BDL	BDL

Annexure-2

Noise Monitoring (Chintpurni)

Location	
1 Site 1 Near Integrated Parking Chintpurni	67.8 dB (A)
2 Site 2 Near Rest Sheds Toilet Facilities	64.5 dB (A)
3 Site 3 View points along road from TRC to temple	66.5 dB (A)



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Annexure-3

H.P. STATE POLLUTION CONTROL BOARD
"HIMAGRICO BUILDING" JACHH JASSUR-176201
DISTRICT KANGRA (H.P.)

Report No. 18.

Dated:- 27.05.2014.

Issued to:- Sr. Environmental Engineer,
H.P. State Pollution Control Board,
Una, Distt. Una.

Sample Received on:- 30.04.2014.

Type of Sample: Soil Sample.

Description of Sample:- Tourism Project Chintpurni Site-1

Sr. No.	Parameter	Results
Physico-Chemical Parameter		
1.	pH(1:5)	5.85 ✓
2.	Ca	777.55 mg/kg ✓
3.	Mg	116.95 mg/kg ✓
4.	Organic Carbon Matter	1.26 mg/kg ✓
5.	T. Phosphate	14.49 mg/kg ✓
6.	Sulphate	280.0 mg/kg ✓
Heavy Metals		Total Solids mg/Kg
7.	Total Chromium.	11.0 mg/kg ✓
8.	Iron (Fe)	26700.0 mg/kg ✓
9.	Lead (Pb)	21.0 mg/kg ✓
10.	Cadmium	ND ✓
11.	Copper	17.0 mg/kg ✓
12.	Zinc	63.0 mg/kg ✓
13.	Nickel	38.0 mg/kg ✓

Note:-

1. Sample collected by SEE(U)
2. Sample consumed in testing.


STATE BOARD ANALYST

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Annexure-3

H.P. STATE POLLUTION CONTROL BOARD
"HIMAGRICO BUILDING" JACHH JASSUR-176201
DISTRICT KANGRA (H.P.)

Report No. 19.

Dated:- 27.05.2014.

Issued to:- Sr. Environmental Engineer,
H.P. State Pollution Control Board,
Una, Distt. Una.

Sample Received on:- 30.04.2014.

Type of Sample: Soil Sample.

Description of Sample:- Tourism Project Chintpurni Site-2

Sr. No.	Parameter	Results
Physico-Chemical Parameter		
1.	pH(1:5)	5.92
2.	Ca	797.59 mg/kg
3.	Mg	363.03 mg/kg
4.	Organic Carbon Matter	1.52 mg/kg
5.	T. Phosphate	17.39 mg/kg
6.	Sulphate	70.0 mg/kg
Heavy Metals		Total Solids mg/Kg
7.	Total Chromium.	6.80 mg/kg
8.	Iron (Fe)	18900.0 mg/kg
9.	Lead (Pb)	15.0 mg/kg
10.	Cadmium	ND
11.	Copper	20.4 mg/kg
12.	Zinc	43.2 mg/kg
13.	Nickel	33.0 mg/kg

Note:-

1. Sample collected by SEE(U)
2. Sample consumed in testing.


STATE BOARD ANALYST

Annexure-4
53

H.P.STATE POLLUTION CONTROL BOARD
"HIMAGRICO BUILDING" JACHH JASSUR-176201
DISTT. KANGRA (H.P.)

Report No:- **104.**

Dated:- **24.05.2014.**

Issued to:- The Sr. Environmental Engineer,
H.P State Pollution Control Board,
Una, Distt. Una

Sample received on:- 30.04.2014.

Description of Sample:- Grab. (Tourism project Site-1)

Sr. No.	Parameter	Results
1.	pH	8.39
2.	TDS	308.0 mg/l
3.	TSS	18.2 mg/l
4.	COD	10.0 mg/l
5.	BOD	1.6 mg/l
6.	T. Alkalinity	145.0 mg/l
7.	Total Hardness	173.0 mg/l
	1. CaCo3	120.0 mg/l
	2. MgCo3	53.0 mg/l
8.	Chloride	18.0 mg/l
9.	Sulphate	22.58 mg/l
10.	Nitrate	3.67 mg/l
11.	Floride	0.24 mg/l
12.	Fe	BDL
13.	Conductance	424.0 mg/l
14.	O & G	BDL
15.	Total Phosphate	0.036 mg/l

Note:-

1. Sample not collected by us.
2. Sample consumed in testing.


STATE BOARD ANALYST

Annexure-4
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H.P.STATE POLLUTION CONTROL BOARD
"HIMAGRICO BUILDING" JACHH JASSUR-176201
DISTT. KANGRA (H.P.)

Report No:- 105.

Dated:- 24.05.2014.

Issued to:- The Sr. Environmental Engineer,
H.P State Pollution Control Board,
Una, Distt. Una

Sample received on:- 30.04.2014.

Description of Sample:- Grab. (Tourism project Site-2)

Sr. No.	Parameter	Results
1.	pH	6.94
2.	TDS	282.0 mg/l
3.	TSS	3.40 mg/l
4.	COD	25.0 mg/l
5.	BOD	5.5 mg/l
6.	T. Alkalinity	109.0 mg/l
7.	Total Hardness	129.0 mg/l
	1. CaCo3	72.0 mg/l
	2. MgCo3	57.0 mg/l
8.	Chloride	11.5 mg/l
9.	Sulphate	15.81 mg/l
10.	Nitrate	3.46 mg/l
11.	Floride	0.62 mg/l
12.	Conductance	345.0 mg/l
13.	O & G	0.32 mg/l
14.	Total Phosphate	0.017 mg/l

Note:-

1. Sample not collected by us.
2. Sample consumed in testing.


STATE BOARD ANALYST

Results

Annexure-1

Ambient Air Monitoring (Chintpurni) 20/11/2014

S. No.	Date Location	RSPM($\mu\text{g}/\text{m}^3$)	SPM	Nox	Sox
1.	Integrated Parking Interpretation Centre	70.49	82.29	BDL	BDL
2.	Rest Sheds Toilets Facilities point Barvahi to Dhliara Road	60.07	69.10	BDL	BDL
3.	Rest Sheds Toilet Facilities point Barvahi to Mubarakpur Road	46.53	55.21	BDL	BDL

Annexure-2

Noise Monitoring (Chintpurni) 20/11/2014

S. No.	Date Location	Parameters(Leq dB)
1.	Integrated Parking Interpretation Centre	58.4
2.	Rest Sheds Toilets Facilities point Barvahi to Dhliara Road	58.5



H.P. STATE POLLUTION CONTROL BOARD
"HIMAGRICO BUILDING" JACHH JASSUR-176201
DISTRICT KANGRA (H.P.)

Annexure-

Report No.:- 522.

Dated 27.12.2014.

Issued to:- **Sr. Environmental Engineer,
H.P. State Pollution Control Board,
Una (H.P.).**

Sample Received on:- 21.11.2014.

Description of Sample:- Grab (Integrated Parking Interpretation Centre).

<u>Method of Analysis</u>							
IS-2488 (I-V), IS- 3025 (Part 44): 1933, "Standard Method for the Examination of Water & Waste Water," 19 th edition prepared & published jointly by:- 1. American Public Health Association. 2. American Water Works Association. 3. Water Pollution Control Federation.							
Sr. No.	Parameter	Results	Unit	Sr. No.	Parameter	Results	Unit
1.	pH	7.48	-	22.	CaCo3	149.0	mg/l
2.	Conductivity	380.0	µmhocm-1	23.	MgCo3	24.0	mg/l
3.	TDS	214.0	mg/l	24.	TKN	-	mg/l
4.	TSS	82.2	mg/l	25.	Mercury (Hg)	-	mg/l
5.	COD	20.0	mg/l	26.	Arsenic (AS)	-	mg/l
6.	BOD	3.5	mg/l	27.	Selenium	-	mg/l
7.	Sulphate (SO4)	24.09	mg/l	28.	Temperature (T)	-	°C
8.	NO3 N	2.84	mg/l	29.	Flouride (F)	0.35	mg/l
9.	Chloride (Cl)	19.0	mg/l	30.	DO	-	mg/l
10.	Sodium (Na)	-	mg/l	31.	Potassium (K)	-	mg/l
11.	Total Iron (Fe)	0.08	mg/l	32.	P. Alkalinity	-	mg/l
12.	Total Hardness	173.0	mg/l	33.	Sulphide (S)	-	mg/l
13.	Total Chromium	-	mg/l	34.	Chloride	-	mg/l
14.	Zinc (Zn)	-	mg/l	35.	NH3 N	-	mg/l
15.	Copper (Cu)	-	mg/l	36.	Chromium+6	-	mg/l
16.	Total Cyanide	-	mg/l	37.	PO4	-	mg/l
17.	Total Alkalinity	131.0	mg/l	38.	Turbidity	-	NTU
18.	Lead (Pb)	-	mg/l	39.	TC	-	MPN/100ml
19.	Cadmium (Cd)	-	mg/l	40.	FC	-	MPN/100ml
20.	Oil & Grease	0.32	mg/l	41.	Ca++	59.72	mg/l
21.	Phosphate	0.62	mg/l	42.	Mg++	5.86	mg/l

Note:-

1. Sample collected by SEE(U).
2. Sample consumed in testing.


STATE BOARD ANALYST

Due Diligence Report on Study of Residual Environmental Impacts
Package No. HPTDB/2.1A

4
H.P. STATE POLLUTION CONTROL BOARD
"HIMAGRICO BUILDING" JACHH JASSUR-176201
DISTRICT KANGRA (H.P.)

Report No:- 523.

Dated 27.12.2014.

Issued to:- Sr. Environmental Engineer,
H.P. State Pollution Control Board,
Una (H.P.).

Sample Received on:- 21.11.2014.

Description of Sample:- Grab(Rest Sheds Toilet Facilities point Barvahi to Dhliara Road).

Method of Analysis							
IS-2488 (I-V), IS- 3025 (Part 44): 1933, "Standard Method for the Examination of Water & Waste Water," 19 th edition prepared & published jointly by:- 1. American Public Health Association. 2. American Water Works Association. 3. Water Pollution Control Federation.							
Sr. No.	Parameter	Results	Unit	Sr. No.	Parameter	Results	Unit
1.	pH	7.96	-	22.	CaCo ₃	182.0	mg/l
2.	Conductivity	590.0	µmhos-cm-1	23.	MgCo ₃	102.0	mg/l
3.	TDS	370.0	mg/l	24.	TKN	-	mg/l
4.	TSS	12.2	mg/l	25.	Mercury (Hg)	-	mg/l
5.	COD	16.0	mg/l	26.	Arsenic (AS)	-	mg/l
6.	BOD	2.4	mg/l	27.	Selenium	-	mg/l
7.	Sulphate (SO ₄)	21.08	mg/l	28.	Temperature (T)	-	°C
8.	NO ₃ N	5.40	mg/l	29.	Flouride (F)	0.30	mg/l
9.	Chloride (Cl)	28.0	mg/l	30.	DO	-	mg/l
10.	Sodium (Na)	-	mg/l	31.	Potassium (K)	-	mg/l
11.	Total Iron (Fe)	0.11	mg/l	32.	P. Alkalinity	-	mg/l
12.	Total Hardness	284	mg/l	33.	Sulphide (S)	-	mg/l
13.	Total Chromium	-	mg/l	34.	Chloride	-	mg/l
14.	Zinc (Zn)	-	mg/l	35.	NH ₃ N	-	mg/l
15.	Copper (Cu)	-	mg/l	36.	Chromium+6	-	mg/l
16.	Total Cyanide	-	mg/l	37.	PO ₄	-	mg/l
17.	Total Alkalinity	164.0	mg/l	38.	Turbidity	-	NTU
18.	Lead (Pb)	-	mg/l	39.	TC	-	MPN/100ml
19.	Cadmium (Cd)	-	mg/l	40.	FC	-	MPN/100ml
20.	Oil & Grease	0.20	mg/l	41.	Ca ⁺⁺	72.95	mg/l
21.	Phosphate	0.38	mg/l	42.	Mg ⁺⁺	24.89	mg/l

Note:-

1. Sample collected by SEE(U).
2. Sample consumed in testing.


STATE BOARD ANALYST

Due Diligence Report on Study of Residual Environmental Impacts
Package No. HPTDB/2.1A

5

H.P. STATE POLLUTION CONTROL BOARD
"HIMAGRICO BUILDING" JACHH JASSUR-176201
DISTRICT KANGRA (H.P.)

Report No.:- 524.

Dated 27.12.2014.

Issued to:- Sr. Environmental Engineer,
H.P. State Pollution Control Board,
Una (H.P.).

Sample Received on:- 21.11.2014.

Description of Sample:- Grab (Rest Sheds Toilet Facilities point Barvahi to Mubarakpur Road).

Method of Analysis						
IS-2488 (I-V), IS- 3025 (Part 44): 1933, "Standard Method for the Examination of Water & Waste Water," 19 th edition prepared & published jointly by:- 1. American Public Health Association. 2. American Water Works Association. 3. Water Pollution Control Federation.						
Sr. No.	Parameter	Results	Unit	Sr. No.	Parameter	Results Unit
1.	pH	8.14	-	22.	CaCo3	184.0 mg/l
2.	Conductivity	609.0	µmhøcm-1	23.	MgCo3	100.0 mg/l
3.	TDS	352.0	mg/l	24.	TKN	- mg/l
4.	TSS	10.4	mg/l	25.	Mercury (Hg)	- mg/l
5.	COD	20.0	mg/l	26.	Arsenic (AS)	- mg/l
6.	BOD	3.5	mg/l	27.	Selenium	- mg/l
7.	Sulphate (SO4)	23.15	mg/l	28.	Temperature (T)	- °C
8.	NO3 N	3.92	mg/l	29.	Flouride (F)	0.28 mg/l
9.	Chloride (Cl)	24.0	mg/l	30.	DO	- mg/l
10.	Sodium (Na)	-	mg/l	31.	Potassium (K)	- mg/l
11.	Total Iron (Fe)	0.07	mg/l	32.	Phenol	- mg/l
12.	Total Hardness	284.0	mg/l	33.	Sulphide (S)	- mg/l
13.	Total Chromium	-	mg/l	34.	Chloride	- mg/l
14.	Zinc (Zn)	-	mg/l	35.	NH3 N	- mg/l
15.	Copper (Cu)	-	mg/l	36.	Chromium+6	- mg/l
16.	Total Cyanide	-	mg/l	37.	PO4	- mg/l
17.	Total Alkalinity	233.0	mg/l	38.	Turbidity	- NTU
18.	Lead (Pb)	-	mg/l	39.	TC	- MPN/100ml
19.	Cadmium (Cd)	-	mg/l	40.	FC	- MPN/100ml
20.	Oil & Grease	0.36	mg/l	41.	Ca++	73.75 mg/l
21.	Phosphate	0.15	mg/l	42.	Mg++	24.40 mg/l

- Note:-**
1. Sample collected by SEE(U).
 2. Sample consumed in testing.


STATE BOARD ANALYST

Due Diligence Report on Study of Residual Environmental Impacts
Package No. HPTDB/2.1A

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H.P. STATE POLLUTION CONTROL BOARD
"HIMAGRICO BUILDING" JACHH JASSUR-176201
DISTRICT KANGRA (H.P.)

Report No. 90.

Dated:- 21.01.2015.

Issued to:- Sr. Environmental Engineer,
H.P. State Pollution Control Board,
Una, Distt. Una.

Sample Received on:- 21.11.2014.

Type of Sample: Soil Sample.

Description of Sample:- Integrated Parking Interpretation Centre .

Sr. No.	Parameter	Results
Physico-Chemical Parameter		
1.	pH(1:5)	7.11 ✓
2.	Ca	404.81 mg/kg ✓
3.	Mg	80.40 mg/kg ✓
4.	Organic Matter (Carbon)	-
5.	Total phosphate	125.3 mg/kg ✓
6.	Sulphate	7.72 mg/kg ✓
Heavy Metals		Total Solids mg/Kg
7.	Total Chromium.	ND ✓
8.	Iron (Fe)	634.0 mg/kg ✓
9.	Lead (Pb)	-
10.	Cadmium	-
11.	Copper	9.0 mg/kg ✓
12.	Zinc	22.6 mg/kg ✓
13.	Nickel	8.0 mg/kg ✓

Note:-

1. Sample collected by SEE(U)
2. Sample consumed in testing.


STATE BOARD ANALYST

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H.P. STATE POLLUTION CONTROL BOARD
"HIMAGRICO BUILDING" JACHH JASSUR-176201
DISTRICT KANGRA (H.P.)

Report No. 91.

Dated:- 21.01.2015.

Issued to:- Sr. Environmental Engineer,
H.P. State Pollution Control Board,
Una, Distt. Una.

Sample Received on:- 21.11.2014.

Type of Sample: Soil Sample.

Description of Sample:- Rest Sheds Toilet Facilities point Barvahi to Dhiara Road .

Sr. No.	Parameter	Results
Physico-Chemical Parameter		
1.	pH(1:5)	6.47 M 6.07 ✓
2.	Ca	468.94 mg/kg ✓
3.	Mg	170.55 mg/kg ✓
4.	Organic Matter (Carbon)	-
5.	Total phosphate	141.86 mg/kg ✓
6.	Sulphate	3.48 mg/kg ✓
Heavy Metals		Total Solids mg/Kg
7.	Total Chromium.	ND ✓
8.	Iron (Fe)	634.0 mg/kg ✓
9.	Lead (Pb)	-
10.	Cadmium	-
11.	Copper	7.40 mg/kg ✓
12.	Zinc	25.40 mg/kg ✓
13.	Nickel	5.6 mg/kg ✓

Note:-

1. Sample collected by SEE(U)
2. Sample consumed in testing.


STATE BOARD ANALYST