

**POINT WISE COMPLIANCE ON OBSERVATIONS STATE EXPERT APPRAISAL COMMITTEE, ODISHA ON ENVIRONMENTAL CLEARANCE FOR PROPOSED EXPANSION FOR CONSTRUCTION OF HOUSING COLONY AND CONVENIENT SHOPPING (PHASE-III) OF M/s Z-ESTATES PVT. LTD. AT KALARAHANGA, BHUBANESWAR, ODISHA.**

<b>Sl. No.</b>	<b>Specific Conditions</b>	<b>Compliance</b>
i.	Certificate from the concerned DFO about the distance of the project site from the Eco-Sensitive Zone of Chandaka-Dampada Wildlife Sanctuary and Nandan Kanan Sanctuary.	Certificate from the concerned DFO about the distance of the project site from the Eco-Sensitive Zone of Chandaka-Dampada Wildlife Sanctuary and Nandan Kanan Sanctuary is attached in <b>Annexure-1</b> . Hence, the site is outside the Chandaka-Dampara Eco-Sensitive Zone boundary.
ii.	Status of Wildlife Clearance along with copy of the application submitted for wildlife clearance (if any) as the project is located within 10 km (default) from the boundary of Nandan Kanan National Park.	As per MoEF&CC notification no. <b>S.O. 5736 (E), dated 15<sup>th</sup> Nov., 2018</b> , General condition doesn't apply for Building & Construction Project. However the notification regarding Nandankanan Sanctuary is not yet notified and is still in the shape of draft notification (Enclosed as <b>Annexure-2</b> ). The letter from Director, Nandankanan Biological Park enclosed in <b>Annexure-3</b> . However we are in the process of applying for Wild-Life clearance and copy of the same shall be submitted in due course.
iii.	Permission status from Water Resources, Govt. of Odisha for ground water drawl from phase-I onward including use of ground water/bore well at construction stage.	Total Fresh water requirement for Phase-I & II is 551.20 KLD. Total Fresh water requirement for Phase-III is 471.0 KLD. Water permission letter from CGWA is attached in <b>Annexure-4</b> . Letter from Directorate of Ground Water Development, Odisha is enclosed in <b>Annexure-5A &amp; 5B</b> . In the construction of Phase-II, Ground Water is not used during the construction activity.
iv.	A study to be carried out on impact on ground water table as the proponent is drawing huge quantity of ground water and study report to be submitted.	The study of Water levels recorded in the data logger is measured in metre form March-19 to August-19 at 10:00 AM & 10:00 PM i.e. for a period of 6 months. During this period the water levels vary between 6.41 m and 9.74 m. It indicates there is a variation of 3.06 m in water levels in these 6 months. This variation water level seems to be due to seasonal fluctuation. 9.74 m occurs on 3 <sup>rd</sup> April, 2019 which is during pre monsoon period. 6.41 m occurs on 6 <sup>th</sup> July 2019 i.e. during monsoon month. It indicates there is a rise in water level during monsoon which is

		<p>justified. The project proponent is drawing 220 m<sup>3</sup> of water per day. 17 nos of recharge structures, whose photographs are enclosed, have also been constructed to replenish ground water. To assess the impact on groundwater table as per the renewal NOC issued by CGWA vide letter No. 21-4(287)/SER/CGWA/2011-683 dated 16.07.2019 the conditions must be implemented, data must be kept and the same should be submitted to CGWA on regular basis so that in future the impact on groundwater can be identified and mitigative measures can be implemented.</p> <p>Copy of the study report submitted to CGWB during obtaining NOC is enclosed as <b>Annexure-6.</b></p>
v.	Certificate of compliance to Consent to Operate conditions of existing projects from State Pollution Control Board, Odisha.	<p>Letters has been submitted to State Pollution Control Board, Odisha for inspection and verify the compliance of Consent to Operate condition.</p> <p>Point wise compliance to conditions for Consent to Operate is given in <b>Annexure-7.</b></p>
vi.	Detailed water balance phase wise and combined.	<p><b>For Phase- I &amp; II</b>  Fresh Water Requirement is 551.20 KLD.  Total Water Requirement is 984.51 KLD.  Total Waste Water Generation is 710.84 KLD.</p> <p><b>For Phase- III</b>  Fresh Water Requirement is 471.0 KLD.  Total Water Requirement is 708.0 KLD.  Total Waste Water Generation is 602.0 KLD.</p> <p><b>For Phase- I, II &amp; III</b>  Fresh Water Requirement is 1022.20 KLD.  Total Water Requirement is 1692.51 KLD.  Total Waste Water Generation is 1312.84 KLD.  Phase wise and combined water balance is attached in <b>Annexure-8.</b></p>
vii.	DG set stack height details including location and its effect w.r.t. sound and emission on periphery as well on the existing and proposed dwellers.	<p>The stack height for PH-I has been kept as per statutory norms and the location was made away from the building.</p> <p>The stack Height for PH-II &amp; PH-III shall be kept as per the statutory norms.</p> <p>The dispersion modeling also shows that Ambient Air Quality values are very low near the building and much lower than the stipulated norm. Details Given in <b>Annexure-9.</b></p> <p>Noise level of the area is well within the norm. Noise Monitoring Report is attached in</p>

		<p><b>Annexure-10.</b> Every DG Set has an acoustic enclosure to dampen the noise generated.</p>
viii.	Details of STP for waste water treatment (phase wise)	<p>Capacity of STP for Phase I is 270 KLD, which is already in Operation. Capacity of STP for Phase II is 580 KLD, which is under construction. Capacity of STP for Phase III is 650 KLD (The technology and process details are under Technical Evaluation and shall be intimated after finalization. The function and treatment process for the existing STP (270 KLD) is attached in <b>Annexure-11.</b></p>
ix.	Detailed calculation for providing rainwater recharge pits	<p>For Phase 1 total 17 nos. of Rain Water Harvesting pits has been constructed for Ground Water Recharging. Phase II project is under construction stage. Details Rain water harvesting details for entire phases is attached in <b>Annexure-12.</b> Total 58 nos. of Rain Water Harvesting Pits shall be provided after completion of entire project.</p>
x.	Details of Solid Waste Management (phase wise). If outsourced, copy of agreement with agency collecting solid waste from the premises	<p>Solid waste generation for Phase I &amp; Phase II will be 2.44 TPD. Solid waste generation for Phase III Shall be 2.41 TPD. Detail of Solid Waste Management (phase wise) is attached in <b>Annexure-13.</b> The solid waste disposal has been outsourced by M/s United Resorts &amp; Services LLP (The facility management company for Z-1). The agreement copy is attached in <b>Annexure-14.</b></p>
xi.	Details of discharge points	<p>The excess storm water has been discharged to Municipality drain running in-front of project site. The Excess treated water, if any, shall be discharged to Municipality drain running in-front of project site. The map showing location of Storm &amp; Excess treated water discharge point is given in <b>Annexure-15.</b></p>
xii.	Permission status from explosive controlling authority for use of diesel / LPG for the existing projects	<p>We have not proposed any HSD storage Tanks for fuel storage, so there is no license required. Since the LPG cylinders are connected to manifold no explosive License is required. Certificate is attached in <b>Annexure-16.</b></p>

xiii.	Detailed proposal for installation of Organic Waste Converter / Polycrack Machine for Solid Waste Management and if done for the existing project, details process to be submitted	There is no Organic waste converter in the existing phase. However we are planning to have Organic waste converter/composting machine to be installed in the ongoing PH-II.
xiv.	Matrix of greenbelt for different phases of the project	Total Green belt area is <b>51852.54 sqm.</b> Detail Green belt plan is given in <b>Annexure-17.</b>
xv.	Basis of calculation of waste water used for dust suppression and landscaping	As per Norm 4 liter water is required for per square meter Green Belt Area. Landscaping (4 ltr/sqm of GB) = $17950 \times 4 = 71800$ liter = <b>71.8 KLD</b> As per Norm 2 liter water is required for per square meter Road Area. Dust Suppression (2 ltr/sqm of Road Area) = $11000 \times 2 = 22000$ liter = <b>22.0 KLD</b>
xvi.	Action Taken Report (ATR) on "Being complied" portion of the certified compliance report of MoEF&CC, Govt. of India.	Action Taken Report is given in <b>Annexure-18.</b>
xvii.	Other major construction features in the periphery if any and their distances	These are the major construction activity near periphery of project site. 1. M/s S J Developers (Royal Lagoon) 2. M/s Mani Tribuhvan

OFFICE OF THE DIVISIONAL FOREST OFFICER & WILDLIFE WARDEN  
CHANDAKA WILDLIFE DIVISION  
GAJA-VIHAR; P.O: BARAMUNDA, BHUBANESWAR -751003  
Ph-No-(0674) 2355400,Email-dfochandakawl.od@gov.in/chandakadampara@gmail.com

No. 3579/3F, Bhubaneswar, Dated. 15 July 2019

To

The Managing Director  
M/s Z-Estates Pvt. Ltd.  
M4/34, Acharya Vihar, Bhubaneswar, Pin-751013

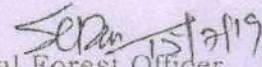
**Sub: Issuance of Certificate about the distance of our Project "Z-1" at Kalarahanga from the Eco-Sensitive Zone of Chandaka-Dampada Wildlife Sanctuary and Nandankanan Sanctuary.**

Ref: Your Letter No. Nil dt.06.07.2019.

Sir,

Inviting a reference to the above cited correspondence on the captioned subject, this is to inform you that, the proposed site in Mouza: Kalarahanga in Bhubaneswar Tahasil of Khordha District, is not coming within Chandaka Dampara Wildlife Sanctuary or it's Eco-Sensitive Zone. Further the village Kalarahanga is not coming within the jurisdiction of Chandaka Wildlife Division, Bhubaneswar.

Yours faithfully

  
Divisional Forest Officer  
Chandaka Wildlife Division  
Bhubaneswar



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## पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय

### अधिसूचना

नई दिल्ली, 5 जुलाई, 2018

**का.आ. 3263(अ)**— अधिसूचना का निम्नलिखित प्रारूप, जिसे केन्द्रीय सरकार, पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3 की उपधारा (2) के खंड (v) और खंड (xiv) तथा उपधारा (3) के साथ पठित उपधारा (1) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, जारी करने का प्रस्ताव करती है, पर्यावरण (संरक्षण) अधिनियम, 1986 के नियम 5 के उपनियम (3) की अपेक्षानुसार, जन्तुशाखा की जानकारी के लिए प्रकाशित किया जाता है; जिनके उससे प्रभावित होने की संभावना है, और यह सूचित किया जाता है कि उक्त प्रारूप अधिसूचना पर, उस तारीख से, जिसको इस अधिसूचना को अंतर्बिष्ट करने वाले भारत के राजपत्र की प्रतियां जन्तुशाखा को उपलब्ध करा दी जाती हैं, साठ दिन की अवधि की समाप्ति पर या उसके पश्चात् बिचार किया जाएगा;

ऐसा कोई व्यक्ति, जो प्रारूप अधिसूचना में अंतर्बिष्ट प्रस्तावों के संबंध में कोई आपत्ति या सुझाव देने का इच्छुक है, वह विनिर्दिष्ट अवधि के भीतर, केन्द्रीय सरकार द्वारा बिचार किए जाने के लिए, अपनी आपत्ति या सुझाव सचिव, पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय, इंदिरा पर्यावरण भवन, जोग बाग रोड, अलीमंज, नई दिल्ली-110003 को या ई-मेल esz-mesf@nic.in पर लिखित रूप में भेज सकता है।

### प्रारूप अधिसूचना

नंदनकान्त वन्यजीव अभयारण्य उड़ीसा के 19 वन्यजीवों अभयारण्यों में से एक है। नंदनकान्त प्राणी उद्यान को कंजिया झील और राज्य वनस्पति उद्यान के साथ वन्यजीव (संरक्षण) अधिनियम, 1972 के अन्तर्गत उड़ीसा सरकार द्वारा 3 अक्टूबर, 1979 को नंदनकान्त वन्यजीव अभयारण्य के रूप में अधिसूचित किया गया जिसका क्षेत्रफल 4.37 वर्ग किलोमीटर है। इसमें झूलानठ और कृष्णानगर संरक्षित वन और प्राकृतिक बाजा जल झील कंजिया, राष्ट्रीय महत्वपूर्ण अद्रभूमि शामिल है। नंदनकान्त संदाकान्दम्भारा वन्यजीव अभयारण्य के निकट स्थित है।

और, नंदनकान्त वन्यजीव अभयारण्य विभिन्न जंगली **वनस्पतियों** और जंगली पशुओं के लिए उत्कृष्ट वास प्रदान करता है। इस अभयारण्य का उड़ीसा राज्य की जंगली वनस्पतियों और जीव जंतुओं के बाह्य स्वस्थाने संरक्षण के एकीकरण के लिए विशेष स्थान है। अभयारण्य में समृद्ध वनस्पति विविधता भी है। नंदनकान्त के संरक्षित क्षेत्र में 704 जंगली **वनस्पतियों** की प्रजातियों में से 142 परिवारों को प्रलेखित किया गया है। अभयारण्य से महत्वपूर्ण वनस्पति जेय (दील्वेलिया गन्दीका), चाम्पका (मिचेइलिया चाम्पका), उहांडी (अल्फॉसेज मादगास्केइनिया), बरहिअण (अन्नोना ग्रेट्टाइड), नेउआ (अचमः स्क्रुअरनोसा), चिनि वम्या (अग्टवोरठगाय होकपेइलस), पोउमोसु वम्यडी (पोल्यार्थिया केरासोइदेस), देकदरु (पोल्यार्थिया लॉगिफवेलिया), मुअकोनि (पोइयाइथिया सुहेगोसा), मुसाकनी, अकांविदी (क्विस्साम्पेलोस पेगइरा), दांदाहीया, दादाया (कोककुलस हीगसुलस), कालाबाडीनाइ (टीलिइठकोरा अकमिंताइ), पदमा (नेल्ल-महो नुकिठेरा), अमरा (अर्जेमोने मेक्सिकाना), निठुरा (कम्परिस ब्रेक्सिगीना), असाधुअ (कम्परिस जेवनिका), बनासोरिसा (मैने क्विस्कोस), बनना (क्रांतिका मगना), मदन मसुक (ह्लुवंधुस एनेस्परमस), सुंदरी (हिंक्सा ओगेलना), आकाडा (केसरिया एलीपलिका), मिरामु (फोलीमला अगवेंसिस), सुरेडा (पोलीकार्पोन प्रोस्ट्राटम), बाडकनकनुअ (पोर्तुलाका ओलेगाकिया), कनकनुका (पोर्तुलाका त्राइगिफाइ), पॉगान्म (किलोफी थुन इन्फोइडरु), बुरिआना (मेमिसा सुरीगा), नगेसुर (मेसुअ फ्रेज), काना भेंडी (अवेरतोस्कोस मलिहोव), कानी, कनिआ (हिंविंस्कस तिलिएसुस), कजरंतिनि (सीडा अकुरा) आदि अभिलिखित की गई हैं। यह वन्यजीव संरक्षण के लिए आंतुकों के बीच जामरुकता उत्पन्न करने के लिए एक उत्कृष्ट स्थान रहा है और वन्यजीव अनुसंधान और प्रबंधन के लिए महत्वपूर्ण स्थान है।

और, नंदनकान्त प्राणी उद्यान में स्तनशायियों पक्षियों और सर्पियों की 153 प्रजातियां, और मछलियों की 38 प्रजातियों का वास कर रहा है। इसके अलावा, नंदनकान्त वन्यजीव अभयारण्य मुक्त जंगली पशुओं की कई प्रजातियों का वास स्थल है। अब तक, नंदनकान्त वन्यजीव अभयारण्य के अंतर्गत स्तनशायियों की 13 प्रजातियां, पक्षियों की 71 प्रजातियां, सर्पियों की 15 प्रजातियां, उभयचरों की 10 प्रजातियां, तितलियों की 85 प्रजातियां, ओडोनेटस की 54 प्रजातियां और मकड़ियों की 51 प्रजातियां प्रलेखित की गई हैं। अभयारण्य में मुख्य जीवजंतु सामान्य नेवला (हेरपेलेस इडवागदसि), सामान्य लंगूर (पेस्वेयटीस इन्सेलुस), रीसस मैकाक्यू (मैकाका म्लैट), तीन धारीदार पाम गिलहरी (फुताम्लुस फ्लगन्तगियम), चूहा (रेटस रैटस), हार्सथू बैट (ग्लिनेलोफोस लेपिडस), भारतीय लोमड़ी (वुलपेस वैगालेंसिस), साल (मानिस कैसिकाउडाडा), ट्रे तीतर (फरांकोलिनुस पॉदीकेरीअनुस), नाजंर गोल्डन कैकेड कुडयेकराक्रिसोकोलेप्लस लुसिडस), भारतीय नीलकंठ पक्षी (कोरासिस वैथालेंसिस), रुस्सेस सांग (दयोइअ रुस्सेल्ली), कोकरा मोनोसेप्लारा (ताजा ताजा कौडथिया), कॉमन इंडियन ब्राज़ बैक और ट्री श्रेक (हेन्ड्रेलाफिस रीरिस्टिस), गिगिंटिअसमेलेजेंट जेलातिवस) आदि पाए जाते हैं। नंदनकान्त वन्यजीव अभयारण्य से कुछ पूर्वभ जीवजंतु जंगली सूअर (सस स्कोरोटा), गेडल (मेल्लीबोरा कर्पेंसिस), भारतीय साही (हिंस्ट्रीकस इंडिका), माउस हिरण या भारतीय श्रेकगोट्टेन (टुरागुलस मेमिंघा), सामान्य एशियन मुसंग (फरादाकुउरुस हेरमाफगोवीटिस), सियार (कैनिंस ऑरियस), बनदिलार, फिल्लस चाजोस), छोटा भारतीय गंध बिलाव (बिबेरिगुला इंडिका), धारीदार लकड़बग्घा (ह्लेता ह्लेता), इंडियन फ्लायिंग लोमड़ी (फटेगोप्लस गिगंटुस), लाल जंगली मटरमूंगा (गल्लुस गल्लुस मूर्गी), छोटी जंगली मुर्गी (गलोपेरिडिक्स स्पॉडिसा), कॉमन डीग (अन्तास केव्रा), गडकान (अन्तास स्टेपेगा), उत्तरी सीक्यर (अन्तास अकुरा), बारगेड वुल्लेकेइल (टुरतिवस सुसकिटाटोर), पीला मोथां चितककरी और महारता कडफोडका (हेडोकोपोस महाराट्टेंसिस), स्माल ड्रीन बारबेट (मेगलाइमा विगिदिस), कॉपर-स्मिथ बारबेट (मेगलाइमा हेमाकेफला), ब्राउन-हेडेड बारबेट (मेगलेमा जेलनिका), सामान्य हुदहुद (उपउपा एपोप्स), ब्लू पतेना (मेगोप्स फिलिपिनुस), येलो मॉन्टिन लिज़ार्ड (वागानुस फल्लेस्कैस), बांडेड करैत (वुंगेस फसलरस), चैकेरेड कील बैक (क्सेनोक्रोफिस पीसकटोर), कॉमन ड्रीन व्हिप श्रेक (अईतुल्ला नसुता) आदि अभिलिखित किए गए हैं। भारतीय मूल के पक्षियों की संख्या साल भर यहां रहती है। संरक्षित क्षेत्र के अंतर्गत ओपन विल्व स्ट्रोक, पर्पल मौरहेन, जकता, रेड जंगली पक्षी, भारतीय मौर, कोइल, बगुला, इगरेटस आदि का प्रजनन अभिलिखित किया गया है।

और, संदत्तकालन बल्यजीव अभयारण्य के चारों ओर के क्षेत्र को, जिसका विस्तार और सीमा इस अधिसूचना के पैरा 1 में विनिर्दिष्ट है, पर्यावरण की दृष्टि से पारिस्थितिकी संवेदी जोन के रूप में सुरक्षित और संग्रहित करना तथा उक्त पारिस्थितिकी संवेदी जोन में उद्योग या उद्योगों की श्रेणियों के प्रचालन तथा प्रसंस्करण को प्रतिषिद्ध करना आवश्यक है,

अतः, अब, केन्द्रीय सरकार, पर्यावरण (संरक्षण) अधिनियम, 1986 के नियम 5 के उपनियम (3) के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की उपधारा (1) तथा धारा 3 की उपधारा (2) एवं उपधारा (3) के खंड (v) और खंड (xiv) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, कटुक और खोंगशा उड़ीसा राज्य में संदत्तकालन बल्यजीव अभयारण्य की सीमा के चारों ओर 0 से 340 किलोमीटर तक विस्तारित क्षेत्र को संदत्तकालन बल्यजीव अभयारण्य पारिस्थितिकी संवेदी जोन (जिसे इसमें इसके पश्चात् पारिस्थितिकी संवेदी जोन कहा गया है) के रूप में अधिसूचित करती है, जिसका विवरण निम्नानुसार है, अर्थात्:—

**1. पारिस्थितिकी संवेदी जोन का विस्तार और सीमा—(1)** पारिस्थितिकी संवेदी जोन का क्षेत्र 1.31 बर्ग किलोमीटर फैला हुआ है जो कटुक जिला 0.18 बर्ग किलोमीटर अथा है और खोंगशा जिला में क्षेत्र 1.13 बर्ग किलोमीटर है। पारिस्थितिकी संवेदी जोन श्रेणी का विस्तार संग्रहित क्षेत्र से शून्य से 340 मीटर तक है। पारिस्थितिकी संवेदी जोन का विस्तार अभयारण्य की उत्तरी सीमा में शून्य मीटर है जो कि पी.इव्ल्यू.डी. सड़क के साथ चंदाका-दम्पारा अभयारण्य के साथ सह कालिक से सीमा के निकटवर्ती स्तंभ सं. 131 से 137 तक जाता है।

(2) संदत्तकालन बल्यजीव अभयारण्य और इसके पारिस्थितिकी संवेदी जोन की सीमा का वर्णन उपाबंध-II में दिया गया है।

(3) सीमा विवरण और अक्षांश और देशांतर के साथ पारिस्थितिकी संवेदी जोन का मानचित्र उपाबंध-II क के रूप में संलग्न है।

(4) संदत्तकालन बल्यजीव अभयारण्य और इसके पारिस्थितिकी संवेदी जोन के भू-निर्देशांक सारणी क और ख के उपाबंध III में दिए गए हैं।

(5) पारिस्थितिकी संवेदी जोन के अंतर्गत आने वाले ग्रामों की सूची उपाबंध-IV के रूप में संलग्न है।

**2. पारिस्थितिकी संवेदी जोन के लिए आंचलिक महायोजना—(1)** राज्य सरकार, पारिस्थितिकी संवेदी जोन के प्रयोजन के लिए, राजपत्र में अंतिम अधिसूचना के प्रकाशन की तारीख से दो वर्ष की अवधि के भीतर, स्थानीय व्यक्तियों के परामर्श से और इस अधिसूचना में दिए गए अनुबंधों का पालन करते हुए राज्य सरकार के सहम प्राधिकारी के अनुमोदनार्थ, एक आंचलिक महायोजना बनाएगी।

(2) राज्य सरकार द्वारा पारिस्थितिकी संवेदी जोन के लिए आंचलिक महायोजना इस अधिसूचना में विनिर्दिष्ट नीति से तथा प्रासंगिक केंद्रीय और राज्य विधियों के अनुरूप तथा केंद्रीय सरकार द्वारा जारी दिशा निर्देशों, यदि कोई हों, के अनुसार बनायी जाएगी।

(3) आंचलिक महायोजना में पारिस्थितिकी और पर्यावरण संबंधी समस्याओं को शामिल करने के लिए इसे राज्य सरकार के निम्नलिखित विभागों के परामर्श से बनाया जाएगा, अर्थात्:—

- (i) वन और पर्यावरण विभाग;
- (ii) आवास और शहरी विकास;
- (iii) पर्यटन;
- (iv) सिंचाई;
- (v) लोक निर्माण विभाग (भवन और सड़कें);
- (vi) राजस्व विभाग;
- (vii) उड़ीसा राज्य प्रदूषण नियंत्रण बोर्ड।

(4) जब तक इस अधिसूचना में विनिर्दिष्ट न हो, आंचलिक महायोजना में वर्तमान में अनुमोदित भू-उपयोग, अवसंरचना और क्रियाकलापों पर कोई प्रतिबंध नहीं लगाया जाएगा तथा आंचलिक महायोजना में सभी अवसंरचनाओं और क्रियाकलापों में सुधार की व्यवस्था की जाएगी जिससे कि वे अधिक दक्ष और पारिस्थितिकी-अनुकूल बन सकें।

(5) आंचलिक महायोजना में वनरोहित और अवक्रमित क्षेत्रों के सुधार, विद्यमान जल निकायों के संरक्षण, आवाह क्षेत्रों के प्रबंधन, जल-संभरणों के प्रबंधन, भू-जल के प्रबंधन, मृदा और नदी के संरक्षण, स्थानीय जनता की आवश्यकताओं तथा पारिस्थितिकी एवं पर्यावरण के ऐसे अन्य पहलुओं की व्यवस्था की जाएगी जिन पर ध्यान दिया जाना आवश्यक है।

(6) आंचलिक महायोजना में सभी विद्यमान पूजा स्थलों, दामों एवं शहरी वस्तियों, बनों की श्रेणियों एवं किस्मों, कृषि क्षेत्रों, उपजाऊ भूमि, उद्यानों एवं उद्यानों की तरह के हरित क्षेत्रों, बागवानी क्षेत्रों, बगीचों, झीलों और अन्य जल निकायों की सीमा का निर्धारण किया जाएगा तथा सहायक मानचित्र भी दिया जाएगा। इस महायोजना में विद्यमान और प्रस्तावित भू-उपयोग की विशेषताओं का ब्यौरा देने वाले मानचित्र भी दिए जाएंगे।

(7) आंचलिक महायोजना में पारिस्थितिकी संवेदी जोन में होने वाले विकास का विनियमित किया जाएगा और सारणी में यथासूचीबद्ध प्रतिषिद्ध एवं विनियमित क्रियाकलापों का पालन किया जाएगा। इसमें स्थानीय जनता की आजीविका की सुरक्षा के लिए पारिस्थितिकी-अनुकूल विकास का भी सुनिश्चय एवं संवर्धन किया जाएगा।

(8) आंचलिक महायोजना, क्षेत्रीय विकास योजना की सह-कालिक होगी।

(9) आंचलिक महायोजना पारिस्थितिकी संवेदी जोन में विकास को विनियमित किया जाएगा ताकि स्थानीय समुदायों की आजीविका सुरक्षा के लिए पारिस्थितिकी अनुकूल विकास सुनिश्चित किया जा सके।

(10) अनुमोदित आंचलिक महायोजना, निगरानी समिति के लिए एक संदर्भ दस्तावेज होगी ताकि वह इस अधिसूचना के उपबंधों के अनुसार, निगरानी के अपने कर्तव्यों का निर्वहन कर सके।

**3. राज्य सरकार द्वारा किए जाने वाले उपाय-** राज्य सरकार, इस अधिसूचना के उपबंधों को प्रभावी बनाने के लिए निम्नलिखित उपाय करेगी, अर्थात्—

(1) **भू-उपयोग**—(क) पारिस्थितिकी संवेदी जोन में बनों, बागवानी क्षेत्रों, कृषि क्षेत्रों, मनोरंजन के लिए चिन्हित उद्यानों और खुले स्थानों का वृहद बाणिज्यिक या आवासीय परिसरों या औद्योगिक क्रियाकलापों के लिए प्रयोग या संपरिवर्तन अनुज्ञात नहीं किया जाएगा।

(ख) परंतु पारिस्थितिकी संवेदी जोन के भीतर भाग (क) में विनिर्दिष्ट प्रयोजन से भिन्न प्रयोजन के लिए कृषि और अन्य भूमि का संपरिवर्तन, निगरानी समिति की सिफारिश पर और सक्षम प्राधिकारी के पूर्व अनुमोदन से, क्षेत्रीय नगर योजना अधिनियम तथा यथा लागू केन्द्रीय/राज्य सरकार, के अन्य नियमों एवं विनियमों के अधीन तथा इस अधिसूचना के उपबंधों के अनुसार स्थानीय निवासियों की निम्नलिखित आवासीय जरूरतों को पूरा करने के लिए अनुज्ञात किया जाएगा:

(i) विद्यमान सड़कों को चौड़ा करना, उन्हें सुदृढ़ करना और नई सड़कों का संनिर्माण करना;

(ii) वृन्ध्यादी ढांचों और नालागत सुविधाओं का संनिर्माण और नवीकरण;

(iii) प्रदूषण उत्पन्न न करने वाले लघु उद्योग;

(iv) कृत्रीय उद्योग एवं ग्राम उद्योग; पारिस्थितिकी पर्याटन में सहायक सुविधा भण्डार, स्थानीय सुविधाएं तथा ग्रह बास; और

(v) बड़ावा दिए गए और पैरा-4 में उल्लिखित क्रियाकलाप।

(ग) परंतु यह भी कि क्षेत्रीय शहरी नियोजन अधिनियम के अधीन सक्षम प्राधिकारी के पूर्व अनुमोदन के बिना तथा राज्य सरकार, के अन्य नियमों एवं विनियमों का पालन किए बिना तथा संविधान के अनुच्छेद 244 के उपबंधों तथा तत्समय प्रवृत्त विधि, जिसके अंतर्गत अनुसूचित जनजाति और अन्य परंपरागत वन निवासी (वन अधिकारों की मान्यता) अधिनियम, 2006

(2007 का 2) भी है, का अनुपालन किए बिना वाणिज्यिक या औद्योगिक विकास क्रियाकलापों के लिए जनजातीय भूमि का प्रयोग अनुज्ञात नहीं होगा।

(घ) परंतु यह भी कि पारिस्थितिकी संवेदी जोन के अंतर्गत आने वाली भूमि के अभिलेखों में हुई किसी त्रुटि को, निगरानी समिति के विचार प्राप्त करने के पश्चात्, राज्य सरकार द्वारा प्रत्येक मामले में एक बार सुधारा जाएगा और उक्त त्रुटि को सुधारने की सूचना केंद्रीय सरकार के पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय को दी जाएगी।

(ङ.) परंतु यह भी कि उपर्युक्त त्रुटि को सुधारने में, इस उप-पैरा में यथा उपबंधित के सिवाय, किसी भी दशा में भू-उपयोग का परिवर्तन शामिल नहीं होगा।

(च) अनुप्रयुक्त या अनुत्पादक कृषि क्षेत्रों में पुनः बनीकरण तथा पर्यावासों और जैव-विविधता की बहाली के प्रयास किए जाएंगे।

(2) **प्राकृतिक वन स्रोत**— अंचलिक महायोजना में सभी प्राकृतिक वन स्रोतों के अबाहू क्षेत्रों की पहचान करके उनके संरक्षण और बहाली की योजना सम्मिलित की जाएगी और राज्य सरकार द्वारा दिशानिर्देश इस रीति से बनाए जाएंगे कि उसमें इन क्षेत्रों या इनके अंतर्गत के क्षेत्रों के लिए हानिकारक विकास क्रियाकलापों को प्रतिषेध किया गया हो।

(3) **पर्यटन/पारिस्थितिकी पर्यटन**—(क) पारिस्थितिकी संवेदी जोन में सभी नए पारिस्थितिकी पर्यटन क्रियाकलाप या विद्यमान पर्यटन क्रियाकलापों का विस्तार पारिस्थितिकी संवेदी जोन सम्बंधी पर्यटन महायोजना के अनुसार अनुज्ञात होगा।

(ख) पारिस्थितिकी पर्यटन महायोजना राज्य सरकार के पर्यावरण और वन विभागों के परामर्श से पर्यटन विभाग द्वारा बनायी जाएगी।

(ग) पर्यटन महायोजना अंचलिक महायोजना का घटक होगी।

(घ) पारिस्थितिकी पर्यटन संबंधी क्रियाकलाप निम्नानुसार विनियमित किए जाएंगे, अर्थात् :-

(i) वन्यजीव अभयारण्य की सीमा से 1.0 किलोमीटर के भीतर, या पारिस्थितिकी संवेदी जोन की सीमा तक, इनमें जो भी अष्टिक निकट हो, किसी होटल या रिजॉर्ट का नया संचिर्माण अनुज्ञात नहीं किया जाएगा। तथापि, पारिस्थितिकी पर्यटन सुविधाओं के लिए संग्रहित क्षेत्र की सीमा से एक किलोमीटर की दूरी से परे पारिस्थितिकी संवेदी जोन की सीमा तक पूर्ण परिभाषित और अभीहित क्षेत्रों में पर्यटन महायोजना के अनुसार, नए होटलों और रिजॉर्ट की स्थापना अनुज्ञात होगी।

(ii) पारिस्थितिकी संवेदी जोन के अन्दर सभी नए पर्यटन क्रियाकलापों या विद्यमान पर्यटन क्रियाकलापों का विस्तार, केंद्रीय सरकार के पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय द्वारा जारी दिशानिर्देशों तथा पारिस्थितिकी पर्यटन पर बल देने वाले राष्ट्रीय व्याघ्र संरक्षण प्राश्चिकरण द्वारा जारी पारिस्थितिकी पर्यटन संबंधी दिशानिर्देशों (समय-समय पर यथा संशोधित) के अनुसार होगा।

(iii) अंचलिक महायोजना का अनुमोदन होने तक, पर्यटन के विकास और विद्यमान पर्यटन क्रियाकलापों के विस्तार को वास्तविक स्थल-विक्षिप्त संवीक्षा तथा निगरानी समिति की सिफारिश के अन्तर्गत पर संबंधित विनियामक प्राश्चिकरणों द्वारा अनुज्ञात किया जाएगा और पारिस्थितिकी संवेदी जोन में किसी नए होटल/ रिजॉर्ट या वाणिज्यिक प्रतिष्ठान का संचिर्माण अनुज्ञात नहीं होगा।

(4) **प्राकृतिक विरासत** — पारिस्थितिकी संवेदी जोन के अंतर्गत आने वाले बहुमूल्य प्राकृतिक विरासत के सभी स्थलों जैसे कि जीव पूल रिजर्व क्षेत्र, शैल संग्रचना, जल प्रपात, झरने, दर्जे, उपवन, गुफाएं, स्थल, वनपथ, रोहण मार्ग, उग्रप्रपात आदि की पहचान की जाएगी और उनकी सुरक्षा एवं संरक्षण के लिए अंचलिक महायोजना के भाग के रूप में एक विरासत संरक्षण योजना बनायी जाएगी।

(5) **मानव निर्मित विरासत स्थल -** पारिस्थितिकी संवेदी जोन में भवनों, संग्रहालयों, कलाकृति-क्षेत्रों तथा ऐतिहासिक, स्थापत्य संरचनाएँ, सौंदर्यात्मक और सांस्कृतिक महत्त्व के क्षेत्रों की पहचान की जाएगी और उनके संरक्षण के लिए आंचलिक महायोजना के भाग के रूप में एक विरासत संरक्षण योजना बनायी जाएगी।

(6) **श्रुति प्रदूषण-** पारिस्थितिकी संवेदी जोन में श्रुति प्रदूषण का निवारण और नियंत्रण, पर्यावरण (संरक्षण) अधिनियम, 1986 के अधीन बनाए गए श्रुति प्रदूषण (विनियमन और नियंत्रण) नियम, 2000 के अनुसार किया जाएगा।

(7) **वायु प्रदूषण-** पारिस्थितिकी संवेदी जोन में, वायु प्रदूषण का निवारण एवं नियंत्रण, वायु (प्रदूषण निवारण और नियंत्रण) अधिनियम, 1981 (1981 का 14) के उपबंधों और उसके अधीन बनाए गए नियमों के अनुसार किया जाएगा।

(8) **बहिष्कार का निस्तारण-** पारिस्थितिकी संवेदी जोन में उपचारित बहिष्कार का निस्तारण, पर्यावरण (संरक्षण) अधिनियम, 1986 और उसके अधीन बनाए गए नियमों के अन्तर्गत शामिल किए गए पर्यावरणीय प्रदूषण के निस्तारण संबंधी सहायक मानकों या राज्य सरकार द्वारा नियत मानकों, इनमें जो भी अधिक कठोर हों, के अनुसार किया जाएगा।

(9) **टोस अपशिष्ट-** टोस अपशिष्ट का निपटारा एवं प्रबंधन निम्नानुसार किया जाएगा:-

(क) पारिस्थितिकी संवेदी जोन में टोस अपशिष्ट का निपटारा और प्रबंधन भारत सरकार के पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय की समय-समय पर यथा संशोधित अधिसूचना सं. का.अ. 1357(अ), दिनांक 8 अप्रैल, 2016 के तहत प्रकाशित टोस अपशिष्ट प्रबंधन नियम, 2016 के उपबंधों के अनुसार किया जाएगा। अकार्बनिक पदार्थों का निपटारा पारिस्थितिकी संवेदी जोन से बाहर चिन्हित किए गए स्थानों पर पर्यावरण-अनुकूल तरीके से किया जाएगा;

(ख) पारिस्थितिकी संवेदी जोन में माल्य प्रौद्योगिकियों का प्रयोग करते हुए विद्यमान नियमों और विनियमों के अनुरूप टोस अपशिष्ट का सुरक्षित और पर्यावरण-अनुकूल प्रबंधन अनुज्ञाप किया जाएगा।

(10) **जैव चिकित्सा अपशिष्ट-** जैव चिकित्सा अपशिष्ट का प्रबंधन निम्नानुसार किया जाएगा:-

(क) पारिस्थितिकी संवेदी जोन में जैव चिकित्सा अपशिष्ट का निपटारा और प्रबंधन भारत सरकार के पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय की समय-समय पर यथा संशोधित अधिसूचना सं.सा.का.नि 343 (अ), तारीख 28 मार्च, 2016 के तहत प्रकाशित जैव चिकित्सा अपशिष्ट प्रबंधन नियम, 2016 के उपबंधों के अनुसार किया जाएगा।

(ख) पारिस्थितिकी संवेदी जोन में माल्य प्रौद्योगिकियों का प्रयोग करते हुए विद्यमान नियमों और विनियमों के अनुरूप टोस अपशिष्ट का सुरक्षित और पर्यावरण-अनुकूल प्रबंधन अनुज्ञाप किया जाएगा।

(11) **प्लास्टिक अपशिष्ट प्रबंधन:-** पारिस्थितिकी संवेदी जोन में प्लास्टिक अपशिष्ट का प्रबंधन, भारत सरकार के पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय की समय-समय पर यथा संशोधित अधिसूचना सं.सा.का.नि 340(अ), तारीख 18 मार्च, 2016 के तहत प्रकाशित प्लास्टिक अपशिष्ट प्रबंधन नियम, 2016 के उपबंधों के अनुसार किया जाएगा।

(12) **निर्माण और विध्वंस अपशिष्ट का प्रबंधन:-** पारिस्थितिकी संवेदी जोन में निर्माण और विध्वंस अपशिष्ट का प्रबंधन, भारत सरकार के पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय की समय-समय पर यथा संशोधित अधिसूचना सं.सा.का.नि 317(अ), तारीख 29 मार्च, 2016 के तहत प्रकाशित निर्माण और विध्वंस अपशिष्ट प्रबंधन नियम, 2016 के उपबंधों के अनुसार किया जाएगा।

(13) **ई-अपशिष्ट-** पारिस्थितिकी संवेदी जोन में ई-अपशिष्ट का प्रबंधन, भारत सरकार के पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय द्वारा प्रकाशित तथा समय-समय पर यथा संशोधित ई-अपशिष्ट प्रबंधन नियम, 2016 के उपबंधों के अनुसार किया जाएगा।

(14) **सड़क-यातायात-** सड़क-यातायात को पर्यावरण-अनुकूल तरीके से विनियमित किया जाएगा और इस संबंध में आंचलिक महायोजना में विशेष उपबंध शामिल किए जाएंगे। आंचलिक महायोजना के तैयार होने और राज्य सरकार के सहम प्राधिकारी

से अनुमोदित होने तक, निगरानी समिति प्रासंगिक अश्लिष्टियों और उनके दूरत्व बनाए गए नियमों एवं विनियमों के अनुसार सहक-यातायात के अनुपालन की निगरानी करेगी।

(15) **बाह्य जलित प्रदूषण:-** बाह्य जलित प्रदूषण की रोकथाम और नियंत्रण लागू विधियों के अनुसार किया जाएगा। स्वच्छतर ईंधन जैसे कि सीएनजी, एलपीजी आदि के प्रयोग के प्रयास किए जाएंगे।

(16) **औद्योगिक ईकाइयां:-** (i) सरकारी राजपत्र में इस अश्लिष्टता के प्रकाशन की तारीख को या उसके बाद पारिस्थितिकी संवेदी जोन में किसी नए प्रदूषणकारी उद्योग की स्थापना अनुज्ञात नहीं होगी।

(ii) जब तक इस अश्लिष्टता में विनिर्दिष्ट न हो, पारिस्थितिकी संवेदी जोन में केंद्रीय प्रदूषण नियंत्रण बोर्ड द्वारा फरवरी, 2016 में जारी दिशानिर्देशों में किए गए उद्योगों के वर्गीकरण के अनुसार केवल गैर-प्रदूषणकारी उद्योगों की स्थापना अनुज्ञात होगी। इसके अतिरिक्त, गैर-प्रदूषणकारी कठोर उद्योगों को बढ़ावा दिया जाएगा।

(17) **पहाड़ी इलाकों का संरक्षण:-** पहाड़ी इलाकों का संरक्षण निम्नानुसार किया जाएगा:

(क) आंचलिक महायोजना में पहाड़ी इलाकों के उन क्षेत्रों को दर्शाया जाएगा जिनमें किसी भी संनिर्माण की अनुज्ञा नहीं होगी।

(ख) जिन इलाकों या विद्यमान छोटी पहाड़ी इलाकों में अव्यष्टिक भू-क्षरण होता है उनमें किसी भी संनिर्माण की अनुज्ञा नहीं होगी।

**4. पारिस्थितिकी संवेदी जोन में प्रतिषिद्ध या विनियमित किए जाने वाले क्रियाकलापों की सूची-** पारिस्थितिकी संवेदी जोन में सभी क्रियाकलाप, पर्यावरण (संरक्षण) अश्लिष्टियम, 1986 (1986 का 29) के उपबंधों और राष्ट्रीय विनियमन जोन (सीआरजेड) अश्लिष्टियम, 2011 एवं पर्यावरणीय प्रभाव आकलन (ईआईए) अश्लिष्टियम, 2006 सहित उसके अधीन बने नियमों और वन (संरक्षण) अश्लिष्टियम, 1980 (1980 का 69), भारतीय वन अश्लिष्टियम, 1927 (1927 का 16), वन्यजीव (संरक्षण) अश्लिष्टियम, 1972 (1972 का 53) सहित अन्य लागू नियमों तथा उनमें किए गए संशोधनों के अनुसार शासित होंगे और नीचे दी गई सारणी में विनिर्दिष्ट रीति से विनियमित होंगे,

### सारणी

क्रम सं.	क्रियाकलाप	टिप्पणी
<b>क. प्रतिषिद्ध क्रियाकलाप</b>		
1.	वाणिज्यिक खनन।	(क) स्थानीय निवासियों की वास्तविक श्रेष्ठ आवश्यकताओं की पूर्ति के लिए किए जाने वाले क्रियाकलापों, जिनमें घरों के निर्माण या मरम्मत और मकान बनाने एवं अन्य क्रियाकलापों के लिए देशी टाइलें या ईंटें बनाने हेतु जमीन की खुदाई शामिल है, को छोड़कर सभी नई और वर्तमान (लघु एवं बृहद खनिज) पत्थर खोदने एवं ढोहने वाली इकाइयां तत्काल प्रभाव से निषिद्ध की जाती हैं; (ख) खनन क्रियाकलाप, डी.एन. गोपालमन शिरमूलपाद बनाम भारत संघ के मामले में वर्ष 1995 की रिट याचिका (सिविल) सं 202 में दिनांक 4 अगस्त, 2006 तथा गोला फाउंडेशन बनाम भारत संघ के मामले में वर्ष 2012 की रिट याचिका (सिविल) सं. 435 में दिनांक 21 अप्रैल, 2014 के माननीय उच्चतम न्यायालय के आदेश के अनुसार किए जाएंगे।
2.	प्रदूषण (जल, वायु, मृदा, श्रवण आदि) उत्पन्न करने वाले उद्योगों की स्थापना।	पारिस्थितिकी संवेदी जोन में कोई नया उद्योग लगाने और वर्तमान प्रदूषणकारी उद्योगों का विस्तार करने की अनुज्ञा नहीं होगी। जब तक कि इस अश्लिष्टता में विनिर्दिष्ट न हो, पारिस्थितिकी संवेदी जोन में फरवरी, 2016 में केंद्रीय प्रदूषण नियंत्रण बोर्ड द्वारा जारी दिशानिर्देशों में किए गए उद्योगों के वर्गीकरण के अनुसार केवल गैर-प्रदूषणकारी उद्योगों की स्थापना होगी। इसके अतिरिक्त, गैर-प्रदूषणकारी कठोर उद्योगों को प्रोत्साहन दिया जाएगा।

3.	बड़ी बाप एवं जल विद्युत परियोजनाओं की स्थापना।	लाघू विधियों के अनुसार प्रतिपिंड (अन्यथा उपबंधित के सिवाय) होंगे।
4.	किसी परिसंक्रमण पदार्थ का प्रयोग या उत्पादन या प्रसंकरण।	लाघू विधियों के अनुसार प्रतिपिंड (अन्यथा उपबंधित के सिवाय) होंगे।
5.	प्राकृतिक जल निकासों या भूमि क्षेत्र में अनुपचारित बहिष्कारों का निस्सारण।	लाघू विधियों के अनुसार प्रतिपिंड (अन्यथा उपबंधित के सिवाय) होंगे।
6.	नई अंग मिलों की स्थापना।	पारिस्थितिकी संवेदी जोन में नई अंग मिलों की स्थापना और विद्यमान अंग मिलों का विस्तार अनुज्ञात नहीं होगा।
7.	ईट भट्टों की स्थापना।	लाघू विधियों के अनुसार प्रतिपिंड (अन्यथा उपबंधित के सिवाय) होंगे।

### ख. विनियमित क्रियाकलाप

8.	होटलों और रिजॉर्टों की वाणिज्यिक स्थापना।	<p>पारिस्थितिकी पर्यटन क्रियाकलापों हेतु लघू अस्थायी संरचनाओं के निर्माण को छोड़कर, संग्रहित क्षेत्र की सीमा से 1.0 किलोमीटर के भीतर, या पारिस्थितिकी संवेदी जोन की सीमा तक, इनमें जो भी अधिक निकट हो, नए वाणिज्यिक होटलों और रिजॉर्टों की स्थापना अनुज्ञात नहीं होगी।</p> <p>परंतु, संग्रहित क्षेत्र की सीमा से 1.0 किलोमीटर के बाहर या पारिस्थितिकी संवेदी जोन की सीमा तक, इनमें जो भी अधिक निकट हो, सभी नए पर्यटन क्रियाकलाप करते या विद्यमान क्रियाकलापों का विस्तार, पर्यटन महायोजना और लाघू दिशानिर्देशों के अनुसार अनुज्ञात होगी।</p>
9.	संनिर्माण क्रियाकलाप।	<p>(क) संग्रहित क्षेत्र की सीमा से 1.0 किलोमीटर के भीतर, या पारिस्थितिकी संवेदी जोन की सीमा तक, इनमें जो भी अधिक निकट हो, किसी भी नये वाणिज्यिक संनिर्माण की अनुज्ञा नहीं होगी:</p> <p>(ख) परंतु स्थानीय लोगों को अपनी आवास सम्बन्धी निम्नलिखित आवश्यकताओं को पूरा करने के लिए, पैरा 3 के उप पैरा (1) में सूचीबद्ध क्रियाकलापों सहित अपने प्रयोग के लिए, अपनी भूमि में भवन उफ विधियों के अनुसार, संनिर्माण करने की अनुज्ञा होगी :-</p> <p>(i) विद्यमान सड़कों को चौड़ा करना, उन्हें सुदृढ़ करना और नई सड़कों का संनिर्माण करना;</p> <p>(ii) बुनियादी ढांचों और नागरिक सुविधाओं का संनिर्माण और नवीकरण करना;</p> <p>(iii) फरवरी, 2016 में केंद्रीय प्रदूषण नियंत्रण बोर्ड द्वारा किए गए बर्गीकरण के अनुसार, गैर-प्रदूषणकारी लघू उद्योगों की स्थापना ;</p> <p>(iv) ग्रामीण उद्योगों सहित कृषि उद्योगों, सुविधा भण्डारों और ग्रह-वास सहित पारिस्थितिकी पर्यटन में सहायक स्थानीय सुविधाओं की व्यवस्था और</p> <p>(v) इस अधिसूचना में सूचीबद्ध बड़ावा दिए गए क्रियाकलाप।</p> <p>(ग) परन्तु गैर-प्रदूषणकारी लघू उद्योगों से संबंधित संनिर्माण क्रियाकलाप लाघू नियमों और विनियमों, यदि कोई हों, के अनुसार, सक्षम प्राधिकारी की पूर्ण अनुमति से विनियमित किए जाएंगे और वे न्यूनतम होंगे।</p> <p>(घ) 1.0 किलोमीटर से आगे ये आंचलिक महायोजना के अनुसार विनियमित होंगे।</p>
10.	गैर-प्रदूषणकारी लघू उद्योग।	फरवरी, 2016 में केंद्रीय प्रदूषण नियंत्रण बोर्ड द्वारा जारी उद्योगों के बर्गीकरण के अनुसार, गैर-प्रदूषणकारी उद्योग तथा अपरिसंक्रमण लघू और सेवा उद्योग, कृषि, पशु कृषि, बागवानी या कृषि आधारित उद्योग, जो पारिस्थितिकी संवेदी जोन से देशी सामग्रियों से उत्पाद बनाने हैं, सक्षम प्राधिकारी द्वारा अनुज्ञात होंगे।

11.	वृक्षों की कटाई।	(क) राज्य सरकार के सक्षम प्राधिकारी की पूर्ण अनुमति के बिना वन भूमि या सरकार भूमि या राजस्व भूमि या निजी भूमि पर वृक्षों की कटाई की अनुज्ञा नहीं होगी। (ख) वृक्षों की कटाई केंद्रीय या संबंधित राज्य के अधिनियमों और उनके अधीन बनाए गए नियमों के उपबंधों के अनुसार विनियमित होगी।
12.	वन उत्पादों और गैर काष्ठ वन उत्पादों (एनटीएफपी) का संग्रह।	लाभू विधियों के अधीन विनियमित होगा।
13.	विद्युत और संचार टॉवर लगाने, हार-विद्युत तथा अन्य सुविधाएँ ढांचे की व्यवस्था।	लाभू विधियों के अधीन विनियमित होगा। भूमिगत केबल बिछाने को बढ़ावा दिया जाएगा।
14.	नागरिक सुविधाओं सहित सुविधाएँ ढांचे की व्यवस्था।	यह व्यवस्था लाभू विधियों, नियमों, विनियमों और मौजूदा दिशानिर्देशों के अनुसार उपशमन उपायों के साथ की जाएगी।
15.	विद्यमान सड़कों को चौड़ा करना, उन्हें सुदृढ़ बनाना और नई सड़कों का निर्माण करना।	ये कार्य लाभू विधियों, नियमों, विनियमों और मौजूदा दिशानिर्देशों के अनुसार उपशमन उपायों के साथ किये जाएंगे।
16.	पर्यटन से संबंधित अन्य क्रियाकलाप जैसे कि पारिस्थितिकी संवेदी जैव क्षेत्र के ऊपर से गर्म वायु के गुब्बारे, हेलिकॉप्टर, ड्रोन, माइक्रोलाइट्स उड़ाना आदि।	लाभू विधियों के अधीन विनियमित होगा।
17.	पहाड़ी खानों और नदी तटों का संरक्षण।	लाभू विधियों के अधीन विनियमित होगा।
18.	रात्रि में सड़क यातायात का संयोजन।	लाभू विधियों के अधीन वाणिज्यिक प्रयोजन के लिए विनियमित होगा।
19.	स्थानीय जनता द्वारा अपनायी जा रही वर्तमान कृषि और बागवानी पद्धतियों के साथ डेयरियाँ, पशु उत्पादन, जल कृषि और मत्स्य पालन।	स्थानीय जनता के प्रयोग के लिए लाभू विधियों के अधीन अनुज्ञात होंगे।
20.	फार्मों, कारपोरेट, कंपनियों द्वारा बड़े पैमाने पर वाणिज्यिक पशुधन संपदा और कृषक फार्मों की स्थापना।	लाभू विधियों के अधीन विनियमित होंगे।
21.	प्राकृतिक जल निकासी या भू क्षेत्र में उपचारित अपशिष्ट जल/बहिर्स्राव का निस्सारण।	जल निकासी में उपचारित अपशिष्ट जल/बहिर्स्राव के निस्सारण से बचा जाएगा। उपचारित अपशिष्ट जल के पुनर्चक्रण और पुनः उपयोग के प्रयास किए जाएंगे अन्यथा उपचारित अपशिष्ट जल/बहिर्स्राव का निस्सारण लाभू विधियों के अनुसार विनियमित किया जाएगा।
22.	सतही और भूजल का वाणिज्यिक प्रयोग एवं निष्कर्षण।	लाभू विधियों के अधीन विनियमित होगा।
23.	कृषि या अन्य उपयोग के लिए खूले कएं/बोर कएं आदि का निर्माण।	समुचित प्राधिकारी द्वारा विनियमित किया जाएगा तथा क्रियाकलाप की सख्त निगरानी की जाएगी।
24.	टॉस अपशिष्ट प्रबंधन।	लाभू विधियों के अधीन विनियमित होगा।
25.	विदेशी प्रजातियों को लाना।	लाभू विधियों के अधीन विनियमित होगा।
26.	पारिस्थितिकी पर्यटन।	लाभू विधियों के अधीन विनियमित होगा।
27.	पॉलिथिन बैगों का प्रयोग।	लाभू विधियों के अधीन विनियमित होगा।
28.	वाणिज्यिक सकेत बोर्ड और हॉर्डिंग का प्रयोग।	लाभू विधियों के अधीन विनियमित होगा।
<b>ग.संबंधित क्रियाकलाप</b>		
29.	बर्बाद जल संचय।	सक्रिय रूप से बढ़ावा दिया जाएगा।
30.	जैविक छेदी।	सक्रिय रूप से बढ़ावा दिया जाएगा।

31.	सभी नविकल्पों के लिए हर्षित प्रौद्योगिकी का अंगीकरण।	सक्रिय रूप से बढ़ावा दिया जाएगा।
32.	ग्रामीण कारिगरी सहित कठोर उद्योग।	सक्रिय रूप से बढ़ावा दिया जाएगा।
33.	नवीकरणीय ऊर्जा और ईंधन का प्रयोग।	वायोमैस, सौर प्रकाश इत्यादि को सक्रिय बढ़ावा दिया जाएगा।
34.	कृषि वानिकी।	सक्रिय रूप से बढ़ावा दिया जाएगा।
35.	बागान लगाना और जड़ी बूटियों का रोपण।	सक्रिय रूप से बढ़ावा दिया जाएगा।
36.	पारिस्थितिकी अनुकूल यातायात का प्रयोग।	सक्रिय रूप से बढ़ावा दिया जाएगा।
37.	कौशल विकास।	सक्रिय रूप से बढ़ावा दिया जाएगा।
38.	अवक्रमित भूमि/वन/पर्यावासों की बहाली।	सक्रिय रूप से बढ़ावा दिया जाएगा।
39.	पर्यावरण के प्रति जागरूकता।	सक्रिय रूप से बढ़ावा दिया जाएगा।

**5. निगरानी समिति-** केंद्रीय सरकार, पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3 की उपधारा (3) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, पारिस्थितिकी संवेदी जोन की प्रभावी निगरानी के लिए निम्नलिखित को शामिल करके एक निगरानी समिति गठित करती है:-

1.	आर.डी.सी. केंद्रीय प्रभाग, कटुक	--अध्यक्ष;
2.	कलेक्टर, कटुक	--सदस्य;
3.	कलेक्टर, खोर्दशा	--सदस्य;
4.	पुलिस उपायुक्त, भुवनेश्वर	--सदस्य;
5.	राज्य सरकार द्वारा नामित किया जाने वाला एक पारिस्थितिकी और पर्यावरण विशेषज्ञ	--सदस्य;
6.	सचिव, भुवनेश्वर, विकास प्राधिकरण	--सदस्य;
7.	राज्य सरकार द्वारा नामित जैव विविधता में एक विशेषज्ञ	--सदस्य;
8.	प्रतिष्ठित संस्थान या राज्य के विश्वविद्यालय से पारिस्थितिकी में एक विशेषज्ञ	--सदस्य;
9.	भुवनेश्वर नगर निगम के आयुक्त, का प्रतिनिधि	--सदस्य;
10.	उड़ीसा राज्य प्रदूषण नियंत्रण बोर्ड के सदस्य सचिव के प्रतिनिधि	--सदस्य;
11.	उप निदेशक, संदत्तकान्त प्राणी उद्यान और वन्यजीव बाईन, संदत्तकान्त अभयारण्य	--सदस्य सचिव।

## 6. विचारार्थ विषय:-

- (1) निगरानी समिति इस अधिसूचना के उपबंधों के अनुपालन की निगरानी करेगी।
- (2) निगरानी समिति का कार्यकाल तीन वर्ष तक या राज्य सरकार द्वारा नई समिति का पुनर्गठन किए जाने तक होगा और इसके बाद निगरानी समिति राज्य सरकार द्वारा गठित की जाएगी।
- (3) वे क्रियाकलाप जो भारत सरकार के तत्कालीन पर्यावरण और वन मंत्रालय की अधिसूचना सं. का.अ. 1533(अ) तारीख 14 सितंबर, 2006 की अनुसूची के अन्तर्गत आते हैं और जो पारिस्थितिकी संवेदी जोन की सीमा में आते हैं इस अधिसूचना के पैरा 4 में दी गई सारणी में यथा विनिर्दिष्ट प्रतिपिद्ध क्रियाकलापों के सिवाए वास्तविक विनिर्दिष्ट स्थलीय दशाओं के अन्तर्गत पर निगरानी समिति द्वारा संवीक्षा की जाएगी और उन्हें उक्त अधिसूचना के उपबंधों के अर्थात् पूर्व पर्यावरण अनापत्ति के लिए केंद्रीय सरकार के पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय को भेजा जाएगा।
- (4) इस अधिसूचना के पैरा 4 के अर्धीन सारणी में यथा विनिर्दिष्ट प्रतिपिद्ध क्रियाकलापों को छोड़कर, भारत सरकार के तत्कालीन पर्यावरण और वन मंत्रालय की अधिसूचना संख्या का.अ. 1533(अ) तारीख 14 सितंबर, 2006 की अनुसूची में

शामिल न किए गए परंतु पारिस्थितिकी संवेदी जोन के अंतर्गत आने वाले क्रियाकलापों की वास्तविक स्थल-विशिष्ट दशाओं के अज्ञान पर, निगरानी समिति द्वारा संवीक्षा की जाएगी और उन्हे संबंधित विनियामक प्राधिकरणों को भेजा जाएगा।

(5) निगरानी समिति का सदस्य-सचिव या संबंधित उपायुक्त ऐसे व्यक्ति के विरुद्ध, जो इस अधिसूचना के किसी उपबंध का उल्लंघन करता है, पर्यावरण (संरक्षण) अधिनियम, 1986 की धारा 19 के अधीन शिकायत दर्ज करने के लिए सक्षम होगा।

(6) निगरानी समिति संबंधित विभागों के प्रतिनिधियों या विशेषज्ञों, औद्योगिक संघों के प्रतिनिधियों या संबंधित पक्षों को, प्रत्येक मामले में आवश्यकता के अनुसार, अपने विचार-विमर्श में सहायता के लिए आमंत्रित कर सकती।

(7) निगरानी समिति प्रत्येक वर्ष 31 मार्च की स्थिति के अनुसार अपनी वार्षिक कार्यवाही रिपोर्ट राज्य के मुख्य वन्यजीव वार्डन को, **उपाबंध V** में दिए गए प्रपत्र के अनुसार, उस वर्ष की 30 जून तक प्रस्तुत करेगी।

(8) केन्द्रीय सरकार का पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय निगरानी समिति को उसके कृत्यों के प्रभावी निर्वहन के लिए ऐसे निर्देश दे सकेगा जो वह उचित समझे।

**7.** इस अधिसूचना के उपबंधों को प्रभावी बनाने के लिए केन्द्रीय सरकार और राज्य सरकार, अतिरिक्त उपाय, यदि कोई हों, विनिर्दिष्ट कर सकती।

**8.** इस अधिसूचना के उपबंध भारत के माननीय उच्चतम न्यायालय या उच्च न्यायालय या राष्ट्रीय हरित अधिकरण द्वारा पारित किए गए या पारित किए जाने वाले आदेश, यदि कोई हों, के अधीन होंगे।

[फा0सं0 25/49/2017-ईएसजेड]

खलित कपूर, वैज्ञानिक 'जी'

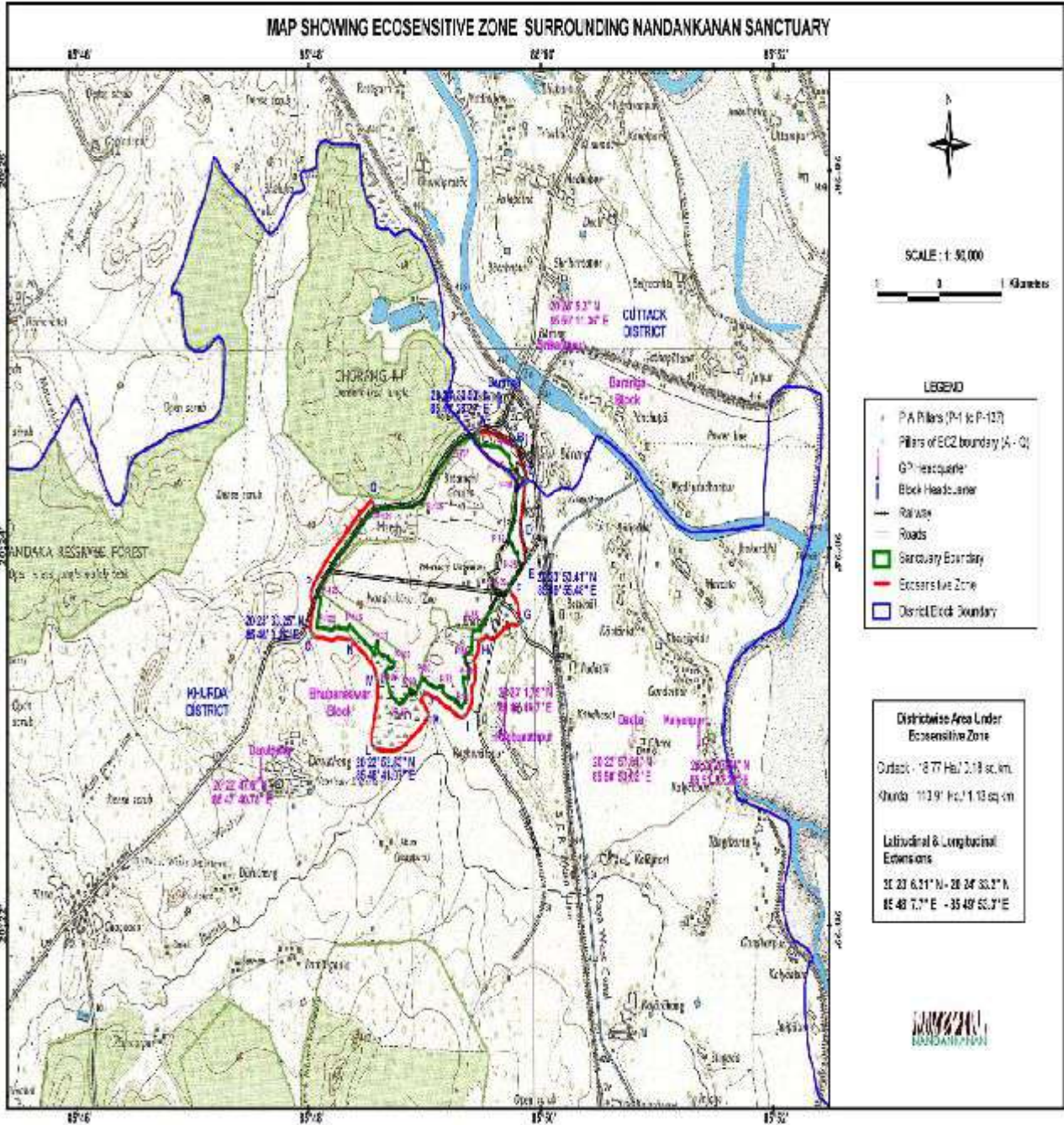
## **उपाबंध-1**

### **नंदनकानन वन्यजीव अभयारण्य के पारिस्थितिकी संवेदी जोन की सीमा का वर्णन**

नंदनकानन अभयारण्य के संबंध में पारिस्थितिकी संवेदी जोन संरक्षित क्षेत्र की सीमा से एक सौ मीटर तक का क्षेत्र है, सीमा स्तंभ 1 से 11 तक 150 मीटर की औसत दूरी के साथ, स्तंभ संख्या 11 से 25 तक स्तंभ संख्या 25 से 32 तक 125 मीटर की औसत दूरी के साथ यह अभयारण्य सीमा के साथ पी.डब्ल्यू.डी. सड़क के साथ मिलती है, स्तंभ संख्या 32 से 51 तक 270 मीटर औसत दूरी के साथ पूर्ण अन्य संक्रांत प्लॉट सं. 5 (ग्राम जंगल) आच्छादित है, स्तंभ सं. 87 से 112 तक 340 मीटर की औसत दूरी के साथ दलदल क्षेत्र को आच्छादित करता है। चंदाका-दम्पारा अभयारण्य (सुंरुंग आर. एफ) की सीमा अभयारण्य की उत्तरी सीमा में स्थित है जो कि स्तंभ सं. 131 से 137 के निकटवर्ती है, पारिस्थितिकी संवेदी जोन सीमांकित नहीं की गई है पी.डब्ल्यू.डी सड़क के साथ चंदाका-दम्पारा अभयारण्य के साथ अभयारण्य सीमा स्तंभ सं.131 से 137 के साथ-साथ जाती है।

**उपाबंध- II**

**भारतीय सर्वेक्षण (एस ओ आई) टोपोग्राफिक पट मुख्य अवस्थानों के अक्षांश और देशांतर के साथ नंदनकानन बन्धजीव अभयारण्य के परिस्थितिकी संवेदी जोन का मानचित्र**



**उपाबंध III**

सारणी क: नंदनकानन बन्द्यजीब अभयारण्य के मुख्य अवस्थानों के भू-निर्देशांक

सीमा स्तंभ	बी.पी.एस अवस्थान					
	उत्तर(अक्षांश)			पूर्व (देशांतर)		
	दिग्री	मिनट	सेकेंड	दिग्री	मिनट	सेकेंड
1	20	24	35.300	85	49	20.700
2	20	24	31.733	85	49	23.543
3	20	24	31.917	85	49	26.136
4	20	24	31.647	85	49	28.141
5	20	24	31.300	85	49	33.447
6	20	24	30.568	85	49	35.092
7	20	24	28.075	85	49	38.895
8	20	24	26.251	85	49	39.281
9	20	24	24.002	85	49	41.697
10	20	24	22.318	85	49	43.674
11	20	24	18.635	85	49	43.107
12	20	24	13.463	85	49	42.218
13	20	24	07.874	85	49	41.286
14	20	24	05.904	85	49	40.183
15	20	24	00.700	85	49	37.935
16	20	24	00.582	85	49	39.166
17	20	23	59.950	85	49	40.387
18	20	23	59.533	85	49	40.269
19	20	23	57.091	85	49	41.854
20	20	23	57.445	85	49	43.06
21	20	23	56.267	85	49	42.892
22	20	23	55.207	85	49	43.139
23	20	23	54.050	85	49	43.835
24	20	23	53.269	85	49	44.284
25	20	23	52.830	85	49	44.927
26	20	23	52.369	85	49	44.34
27	20	23	51.395	85	49	43.374
28	20	23	51.684	85	49	42.957
29	20	23	50.977	85	49	42.582
30	20	23	50.699	85	49	42.818
31	20	23	47.936	85	49	39.755
32	20	23	46.041	85	49	37.967
33	2	23	44.671	85	49	36.650
34	20	23	44.221	85	49	36.404
35	20	23	44.414	85	49	35.386
36	20	23	44.606	85	49	34.476
37	20	23	44.317	85	49	34.241
38	20	23	44.189	85	49	33.877
39	20	23	44.082	85	49	33.438

40	20	23	44 060	85	49	33 031
41	20	23	44 059	85	49	32 510
42	20	23	43 228	85	49	31 979
43	20	23	42 539	85	49	31 375
44	20	23	41 528	85	49	30 565
45	20	23	40 522	85	49	29 730
46	20	23	39 596	85	49	28 955
47	20	23	38 554	85	49	28 048
48	20	23	37 552	85	49	27 251
49	20	23	36 524	85	49	26 462
50	20	23	35 509	85	49	25 652
51	20	23	34 416	85	49	24 751
52	20	23	34 004	85	49	23 236
53	20	23	33 134	85	49	23 260
54	20	23	32 207	85	49	20 109
55	20	23	32 383	85	49	19 633
56	20	23	27 058	85	49	19 059
57	20	23	25 606	85	49	17 521
58	20	23	25 520	85	49	16 476
59	20	23	24 261	85	49	15 603
60	20	23	23 602	85	49	16 142
61	20	23	22 574	85	49	16 039
62	20	23	21 203	85	49	16 669
63	20	23	21 267	85	49	17 273
64	20	23	20 402	85	49	17 992
65	20	23	17 232	85	49	17 200
66	20	23	17 207	85	49	14 754
67	20	23	13 939	85	49	15 225
68	20	23	11 296	85	49	16 412
69	20	23	10 431	85	49	15 225
70	20	23	08 328	85	49	14 266
71	20	23	09 224	85	49	12 532
72	20	23	10 046	85	49	12 429
73	20	23	10 046	85	49	11 112
74	20	23	10 772	85	49	11 195
75	20	23	11 292	85	49	08 29
76	20	23	11 721	85	49	07 302
77	20	23	13 502	85	49	04 222
78	20	23	15 134	85	49	04 475
79	20	23	14 993	85	49	02 256
80	20	23	14 517	85	49	01 533
81	20	23	15 070	85	42	59 657
82	20	23	15 622	85	42	52 513
83	20	23	15 267	85	42	57 395
84	20	23	16 002	85	42	56 256
85	20	23	17 306	85	42	55 417

86	20	23	17.537	85	42	53.926
87	20	23	12.988	85	42	50.919
88	20	23	12.911	85	42	50.238
89	20	23	13.489	85	42	49.365
90	20	23	14.415	85	42	47.771
91	20	23	13.862	85	42	47.424
92	20	23	12.886	85	42	48.954
93	20	23	12.333	85	42	48.555
94	20	23	12.847	85	42	47.810
95	20	23	11.511	85	42	46.140
96	20	23	10.393	85	42	44.328
97	20	23	09.545	85	42	42.002
98	20	23	10.920	85	42	39.831
99	20	23	11.986	85	42	38.083
100	20	23	19.567	85	42	34.832
101	20	23	21.340	85	42	36.618
102	20	23	20.749	85	42	37.544
103	20	23	21.160	85	42	38.738
104	20	23	21.225	85	42	39.098
105	20	23	22.497	85	42	39.625
106	20	23	24.128	85	42	36.297
107	20	23	24.822	85	42	36.516
108	20	23	25.375	85	42	33.766
109	20	23	26.056	85	42	31.826
110	20	23	29.409	85	42	31.145
111	20	23	29.422	85	42	30.669
112	20	23	25.401	85	42	29.449
113	20	23	27.713	85	42	27.174
114	20	23	29.744	85	42	24.013
115	20	23	32.866	85	42	19.285
116	20	23	34.986	85	42	16.561
117	20	23	33.560	85	42	15.623
118	20	23	33.881	85	42	11.537
119	20	23	34.125	85	42	09.160
120	20	23	33.200	85	42	07.554
121	20	23	33.958	85	42	03.108
122	20	23	33.984	85	42	00.050
123	20	23	37.761	85	42	00.538
124	20	23	43.132	85	42	01.746
125	20	23	43.980	85	42	00.140
126	20	23	45.574	85	42	00.708
127	20	23	52.053	85	42	06.365
128	20	23	56.191	85	42	10.944
129	20	24	01.566	85	42	17.521
130	20	24	06.530	85	42	23.000
131	20	24	11.190	85	42	29.763

132	20	24	11.426	85	48	32.771
133	20	24	11.533	85	48	36.605
134	20	24	12.117	85	48	49.063
135	20	24	14.247	85	48	54.346
136	20	24	22.761	85	49	00.468
137	20	24	32.623	85	49	12.132

**सारणी ख: पारिस्थितिकी संवेदी जोन के मुख्य अवस्थानों के भू-निर्देशांक**

महत्वपूर्ण अवस्थानों के पारिस्थितिकी संवेदी जोन सीमा स्तंभ निर्देशांक		
स्तंभ	देशांतर	अक्षांश
ए	85.82496	20.40941
बी	85.83039	20.40817
सी	85.8321	20.40513
डी	85.83134	20.40065
ई	85.83229	20.39799
एफ	85.82972	20.39551
जी	85.83115	20.39256
एच	85.82544	20.39113
आई	85.82316	20.38428
जे	85.81754	20.38619
के	85.81811	20.38428
एल	85.81031	20.38152
एम	85.81078	20.38761
एन	85.80697	20.39113
ओ	85.80145	20.39152
पी	85.80126	20.39523
क्यू	85.81012	20.40341

**उपाबंध-IV**

भू-निर्देशांकों के साथ नंदनकानन वन्यजीव अभयारण्य के पारिस्थितिकी संवेदी जोन के अंतर्गत आने

**वाले ग्राम क्षेत्रों की सूची**

जिला	ग्राम	क्षेत्र (हेक्टेयर)	देशांतर	अक्षांश	स्तंभ आई.डी
कट्टक	दधापटना	18.77	85°49'20.700"	20°24'35.300"	1
			85°49'26.869"	20°24'36.529"	2
			85°49'37.628"	20°24'32.828"	3

			85°49'41.534"	20°24'30.910"	4
			85°49'46.469"	20°24'22.686"	5
			85°49'46.301"	20°24'20.840"	6
			85°49'44.508"	20°24'19.927"	7
			85°49'43.251"	20°24'18.950"	8
			85°49'43.841"	20°24'22.373"	9
			85°49'41.696"	20°24'24.002"	10
			85°49'39.281"	20°24'26.251"	11
			85°49'38.896"	20°24'28.075"	12
			85°49'35.092"	20°24'30.568"	13
			85°49'33.447"	20°24'31.301"	14
			85°49'28.141"	20°24'31.647"	15
			85°49'26.136"	20°24'31.917"	16
			85°49'23.700"	20°24'31.800"	17
खोरधा	दधा	7.678	85°49'46.301"	20°24'20.840"	6
			85°49'44.508"	20°24'19.927"	7
			85°49'43.251"	20°24'18.950"	8
			85°49'45.852"	20°24'15.902"	18
			85°49'44.139"	20°24'06.582"	19
			85°49'44.070"	20°24'02.744"	20
			85°49'45.852"	20°23'58.359"	21
			85°49'46.126"	20°23'55.686"	22
			85°49'46.743"	20°23'54.384"	23
			85°49'45.768"	20°23'53.754"	24
			85°49'44.535"	20°23'54.902"	25
			85°49'43.884"	20°23'56.067"	26
			85°49'43.558"	20°23'56.992"	27
			85°49'43.764"	20°23'58.208"	28
			85°49'42.428"	20°23'57.848"	29
			85°49'40.851"	20°24'00.178"	30
			85°49'40.868"	20°24'00.572"	31
			85°49'39.669"	20°24'01.155"	32
			85°49'38.444"	20°24'01.258"	33
			85°49'40.586"	20°24'06.397"	34
			85°49'41.656"	20°24'08.196"	35
			85°49'42.428"	20°24'13.636"	36
खोरधा	जुझागडा	60.828	85°48'53.575"	20°23'11.456"	65
			85°48'52.268"	20°23'13.302"	66
			85°48'52.241"	20°23'14.537"	67
			85°48'52.435"	20°23'15.544"	68
			85°48'54.409"	20°23'09.961"	129
			85°48'54.897"	20°23'09.549"	130
			85°48'56.542"	20°23'07.185"	131
			85°48'56.509"	20°23'06.153"	132
			85°48'56.490"	20°23'05.540"	133
			85°48'55.257"	20°23'03.587"	134
			85°48'51.556"	20°23'00.966"	135
			85°48'47.907"	20°22'58.910"	136

			85°48'45.440"	20°22'57.009"	137
			85°48'42.613"	20°22'55.723"	138
			85°48'40.146"	20°22'55.055"	139
			85°48'35.006"	20°22'55.107"	140
			85°48'30.432"	20°22'55.980"	141
			85°48'28.633"	20°22'56.854"	142
			85°48'27.811"	20°22'58.499"	143
			85°48'28.530"	20°23'02.714"	144
			85°48'30.638"	20°23'10.423"	145
			85°48'30.895"	20°23'13.918"	146
			85°48'30.792"	20°23'17.002"	147
			85°48'30.278"	20°23'20.034"	148
			85°48'28.685"	20°23'22.347"	149
			85°48'26.834"	20°23'23.837"	150
			85°48'24.110"	20°23'26.510"	151
			85°48'16.966"	20°23'31.290"	152
			85°48'10.233"	20°23'31.753"	153
			85°48'07.972"	20°23'30.981"	154
			85°47'58.875"	20°23'32.266"	155
			85°47'57.384"	20°23'33.603"	156
			85°47'56.973"	20°23'35.556"	157
			85°47'57.539"	20°23'40.387"	158
			85°47'58.207"	20°23'43.059"	159
			85°47'58.016"	20°23'43.351"	160
			85°48'28.464"	20°24'10.295"	171
			85°48'23.000"	20°24'06.530"	172
			85°48'17.521"	20°24'01.566"	173
			85°48'10.944"	20°23'56.190"	174
			85°48'06.365"	20°23'52.053"	175
			85°48'00.708"	20°23'45.574"	176
			85°48'00.140"	20°23'43.980"	177
			85°48'01.746"	20°23'43.132"	178
			85°48'00.538"	20°23'37.761"	179
			85°48'00.050"	20°23'33.984"	180
			85°48'03.108"	20°23'33.958"	181
			85°48'07.328"	20°23'33.229"	182
			85°48'09.179"	20°23'34.283"	183
			85°48'15.629"	20°23'33.615"	184
			85°48'16.400"	20°23'35.131"	185
			85°48'19.227"	20°23'32.972"	186
			85°48'23.904"	20°23'29.863"	187
			85°48'27.013"	20°23'27.833"	188
			85°48'29.274"	20°23'25.391"	189
			85°48'30.559"	20°23'29.477"	190
			85°48'31.022"	20°23'29.529"	191
			85°48'31.665"	20°23'26.137"	192
			85°48'33.695"	20°23'25.366"	193
			85°48'36.444"	20°23'24.980"	194

			85°48'36.264"	20°23'24.184"	195
			85°48'39.502"	20°23'22.693"	196
			85°48'38.988"	20°23'21.331"	197
			85°48'37.344"	20°23'20.843"	198
			85°48'36.444"	20°23'21.434"	199
			85°48'34.645"	20°23'19.584"	200
			85°48'37.781"	20°23'12.054"	201
			85°48'39.631"	20°23'10.949"	202
			85°48'41.687"	20°23'09.613"	203
			85°48'44.025"	20°23'10.384"	204
			85°48'45.927"	20°23'11.514"	205
			85°48'47.546"	20°23'12.928"	206
			85°48'48.265"	20°23'12.388"	207
			85°48'48.728"	20°23'12.928"	208
			85°48'47.186"	20°23'13.879"	209
			85°48'47.649"	20°23'14.521"	210
			85°48'49.113"	20°23'13.467"	211
			85°48'50.090"	20°23'12.902"	212
			85°48'50.809"	20°23'12.953"	213
			85°49'28.084"	20°23'38.549"	111
			85°49'29.374"	20°23'38.755"	112
			85°49'30.693"	20°23'39.380"	113
			85°49'32.011"	20°23'40.417"	114
			85°49'33.110"	20°23'41.653"	115
			85°49'33.082"	20°23'42.896"	116
			85°49'32.839"	20°23'44.355"	117
			85°49'32.127"	20°23'43.576"	124
			85°49'31.506"	20°23'42.848"	125
			85°49'30.702"	20°23'41.830"	126
			85°49'29.910"	20°23'40.771"	127
			85°49'29.075"	20°23'39.839"	128
खोरधा	रघुनाथपुर	35.470	85°49'38.252"	20°23'46.324"	37
			85°49'39.458"	20°23'43.368"	38
			85°49'42.670"	20°23'40.927"	39
			85°49'44.083"	20°23'34.887"	40
			85°49'42.284"	20°23'33.731"	41
			85°49'37.916"	20°23'34.117"	42
			85°49'34.960"	20°23'32.575"	43
			85°49'30.206"	20°23'29.620"	44
			85°49'27.893"	20°23'29.877"	45
			85°49'26.608"	20°23'30.776"	46
			85°49'24.552"	20°23'29.491"	47
			85°49'22.368"	20°23'29.363"	48
			85°49'21.854"	20°23'25.122"	49
			85°49'19.798"	20°23'22.938"	50
			85°49'21.212"	20°23'20.625"	51
			85°49'20.698"	20°23'16.770"	52
			85°49'20.235"	20°23'15.665"	53

			85°49'18.848"	20°23'14.226"	54
			85°49'19.516"	20°23'11.040"	55
			85°49'18.436"	20°23'08.264"	56
			85°49'16.380"	20°23'05.746"	57
			85°49'14.376"	20°23'04.718"	58
			85°49'13.245"	20°23'04.770"	59
			85°49'08.774"	20°23'07.288"	60
			85°49'04.332"	20°23'09.453"	61
			85°49'01.064"	20°23'11.400"	62
			85°48'58.598"	20°23'12.016"	63
			85°48'54.691"	20°23'13.250"	64
			85°48'53.575"	20°23'11.456"	65
			85°48'52.268"	20°23'13.302"	66
			85°48'52.241"	20°23'14.537"	67
			85°48'52.435"	20°23'15.544"	68
			85°48'53.842"	20°23'17.785"	69
			85°48'55.204"	20°23'17.425"	70
			85°48'56.720"	20°23'16.089"	71
			85°48'57.337"	20°23'16.063"	72
			85°48'57.979"	20°23'17.142"	73
			85°48'58.211"	20°23'17.117"	74
			85°48'58.391"	20°23'15.729"	75
			85°48'59.495"	20°23'15.138"	76
			85°49'01.397"	20°23'14.624"	77
			85°49'02.656"	20°23'15.138"	78
			85°49'04.327"	20°23'15.215"	79
			85°49'04.095"	20°23'13.570"	80
			85°49'07.102"	20°23'11.823"	81
			85°49'08.516"	20°23'11.360"	82
			85°49'11.060"	20°23'10.872"	83
			85°49'10.931"	20°23'10.101"	84
			85°49'12.242"	20°23'10.127"	85
			85°49'12.345"	20°23'09.227"	86
			85°49'14.066"	20°23'08.379"	87
			85°49'15.685"	20°23'10.487"	88
			85°49'16.217"	20°23'11.964"	89
			85°49'15.729"	20°23'14.007"	90
			85°49'15.125"	20°23'15.948"	91
			85°49'14.663"	20°23'17.939"	92
			85°49'17.721"	20°23'18.029"	93
			85°49'17.913"	20°23'20.586"	94
			85°49'17.220"	20°23'22.051"	95
			85°49'16.603"	20°23'21.935"	96
			85°49'15.973"	20°23'22.719"	97
			85°49'16.166"	20°23'23.747"	98
			85°49'15.678"	20°23'25.057"	99
			85°49'16.474"	20°23'25.751"	100
			85°49'17.656"	20°23'25.833"	101

			85°49'19.121"	20°23'27.272"	102
			85°49'19.558"	20°23'32.310"	103
			85°49'20.213"	20°23'33.042"	104
			85°49'24.068"	20°23'33.389"	105
			85°49'23.259"	20°23'34.198"	106
			85°49'24.878"	20°23'34.648"	107
			85°49'25.867"	20°23'35.817"	108
			85°49'26.651"	20°23'36.807"	109
			85°49'27.512"	20°23'37.860"	110
			85°49'28.084"	20°23'38.549"	111
			85°49'29.374"	20°23'38.755"	112
			85°49'30.693"	20°23'39.380"	113
			85°49'32.011"	20°23'40.417"	114
			85°49'33.110"	20°23'41.653"	115
			85°49'33.082"	20°23'42.896"	116
			85°49'32.839"	20°23'44.355"	117
			85°49'34.054"	20°23'44.443"	118
			85°49'34.322"	20°23'44.561"	119
			85°49'34.771"	20°23'44.904"	120
			85°49'35.617"	20°23'44.754"	121
			85°49'36.710"	20°23'44.491"	122
			85°49'36.967"	20°23'44.954"	123
			85°49'32.127"	20°23'43.576"	124
			85°48'54.409"	20°23'09.961"	129
			85°48'54.897"	20°23'09.549"	130
			85°48'56.542"	20°23'07.185"	131
			85°48'56.509"	20°23'06.153"	132
			85°48'56.490"	20°23'05.540"	133
खोरधा	कृष्णा नगर	9.934	85°47'58.207"	20°23'43.059"	159
			85°47'58.016"	20°23'43.351"	160
			85°47'59.644"	20°23'46.027"	161
			85°48'03.132"	20°23'50.785"	162
			85°48'08.158"	20°23'55.544"	163
			85°48'11.207"	20°23'58.647"	164
			85°48'16.892"	20°24'04.024"	165
			85°48'21.699"	20°24'07.745"	166
			85°48'25.846"	20°24'10.025"	167
			85°48'29.389"	20°24'11.241"	168
			85°48'29.741"	20°24'11.259"	169
			85°48'29.763"	20°24'11.190"	170
			85°47'57.333"	20°23'44.396"	214
			85°47'57.179"	20°23'45.989"	215
			85°47'57.744"	20°23'47.891"	216
			85°48'02.113"	20°23'53.442"	217
			85°48'05.556"	20°23'56.885"	218
			85°48'10.131"	20°24'01.100"	219
			85°48'16.041"	20°24'05.674"	220
			85°48'21.284"	20°24'10.608"	221

			85°48'27.091"	20°24'14.617"	222
			85°48'28.479"	20°24'15.234"	223

**उपाबंध-V****वाटिस्त्रिदिकी संवेदी बोन की निगदानी सभित्ति-की गई कार्वाई सम्बन्धी रिपोर्ट का प्रश्न**

1. बैठकों की संख्या और तारीख ।
2. बैठकों का कार्यकृत : कृपया मुख्य उल्लेखनीय बिंदुओं का वर्णन करें । बैठक के कार्यकृत को एक पृथक उपाबंध में प्रस्तुत करें ।
3. पर्यटन महायोजना सहित आंचलिक महायोजना की तैयारी की स्थिति ।
4. भू-अभिलेखों की स्पष्ट त्रुटियों के सुधार के लिए निबन्धन गए मामलों का सार। विकरण उपाबंध के रूप में संलग्न करें।
5. पर्यावरण प्रभाव मूल्यांकन अधिसूचना, 2006 के अधिन आने वाली गतिविधियों से संबंधित संकीक्षा किए गए मामलों का सार। विकरण एक पृथक उपाबंध के रूप में संलग्न करें।
6. पर्यावरण प्रभाव मूल्यांकन अधिसूचना, 2006 के अधिन न आने वाली गतिविधियों से संबंधित संकीक्षा किए गए मामलों का सार। विकरण एक पृथक उपाबंध के रूप में संलग्न करें।
7. पर्यावरण (संरक्षण) अधिनियम, 1986 की धारा 19 के अधिन दर्ज की गई प्रिकायनों का सार।
8. कोई अन्य महत्वपूर्ण मामला ।

**MINISTRY OF ENVIRONMENT, FORESTS AND CLIMATE CHANGE****NOTIFICATION**

New Delhi, the 5th July, 2018

**S.O.3263(E).**—The following draft of the notification, which the Central Government proposes to issue in exercise of the powers conferred by sub-section (1), read with clause (v) and clause (xiv) of sub-section (2) and sub-section (3) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986) is hereby published, as required under sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986, for the information of the public likely to be affected thereby; and notice is hereby given that the said draft notification shall be taken into consideration on or after the expiry of a period of sixty days from the date on which copies of the Gazette containing this notification are made available to the Public;

Any person interested in making any objections or suggestions on the proposals contained in the draft notification may forward the same in writing, for consideration of the Central Government within the period so specified to the Secretary, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jorbagh Road, Aliganj, New Delhi-110 003, or send it to the e-mail address of the Ministry at: - [esz-mef@nic.in](mailto:esz-mef@nic.in)

**Draft Notification**

**WHEREAS.** - Nandankanan Wildlife Sanctuary is one of the 19 wildlife sanctuaries of Odisha. Nandankanan Zoological Park together with Kanjia Lake and State Botanical Garden has been notified as Nandankanan Wildlife Sanctuary on 3<sup>rd</sup> August, 1979 by the Govt. of Odisha under Wildlife (Protection) Act, 1972 covering an area of 4.37 Sq. km. It includes Jujhagarh and Krishnanagar protected forest and a natural freshwater lake Kanjia, a wetland of national importance. Nandankanan is situated adjoining to Chandaka-Dumpara Wildlife Sanctuary.

**AND WHEREAS,** Nandankanan Wildlife Sanctuary provides an excellent habitat for various wild plants and wild animals. The sanctuary enjoys a special place in our State for integration of *ex-situ* and *in-situ* conservation of wild

flora and fauna. The sanctuary also has a rich floral diversity. 704 species of wild plants belonging to 142 families have been documented in protected area of Nandankanan. The important flora recorded from the sanctuary are Oau (*Dillenia rnm dica*), Champaka (*Micheilia champaca*), Uhanti (*Alphonsea madraspaiana*), Barhial (*Annona retteuiata*), Neua (*Annum: squarrosa*), Chini champa (*Artabrorrys hocapeialus*), Potamossu champati (*Polyalthia cerasoides*), Debadaru (*Polyalthia longifolia*), Guakoli (*Poiyaithia suherosa*), Musakani, Akanbindi (*Cissampelos pareira*), Dandahiya, Dadaya (*Cocculus hirsulus*), Kalajati Nai (*Tiliatcora acuminata*), Padma (*Nell-mho nucifera*), Agara (*Argemone Mexicana*), Niphura (*Capparis brevispina*), Asadhua (*Cpparis zeylanica*), Banasorisa (*Menne viscosa*), Baruna (*Crateva magna*), Madan Mastak (*Hybanthus enneaspermus*), Sundri (*Hixa orellana*), Khakada (*Casearia eiliplica*), Miragu (*Folygala arvensis*), Sureta (*Polycarpon prostratum*), Badabalbalua (*Portulaca oleracea*), Balbaluka (*Portulaca quadrifida*), Poonang (*CalophyThun inophydrhun*), Churiana (*Mammea suriga*), Nugesur (*Mesua ferrea*), Bana Bhendi (*Abeirnoschus manihot*), Bani, Baniya (*Hibiscus tiliaceus*), Bajarmtili (*Sida acuta*) etc. It has been an outstanding place for creating awareness amongst visitors for wildlife conservation and is an important site for wildlife research and management.

**AND WHEREAS**, 153 species of mammals, birds and reptiles and 38 species of fishes are being flourish housed in Nandankanan Zoological Park. Apart from above, Nandankanan Wildlife Sanctuary is the habitat of many species of free living wild animals. So far, 13 species of mammals, 71 species of birds, 15 species of reptiles, 10 species of amphibians, 85 species of butterflies, 54 species of odonates and 51 species of spiders have been documented inside Nandankanan Wildlife sanctuary. The major fauna found in the sanctuary are Common mongoose (*Herpestes edwardsi*), Common Langur (*Presbytis entellus*), Rhesus Macaque (*Macaca mulatta*), Three striped palm squirrel (*Funambulus palmarium*), Rat (*Rattus rattus*), Horse shoe bat (*Rhinolophus lepidus*), Indian fox (*Vulpes bengalensis*), Pangolin (*Mauls crassicaudata*), Grey Partridge (*Francolinus pondicerianus*), Larger Golden backed Woodpecker (*Chrysocolaptes lucidus*), Indian Roller or Blue Jay (*Coracias benghalensis*), Russels Viper (*Daboia russelli*), Cobra Monocellate (*Naja naja kaouthia*), Common Indian Braze back or tree snake (*Dendrelaphis tristis*), Chameleon (*Chameleon zeylanicus*) etc. While some rare fauna recorded from the Nandankanan Wildlife sanctuary are Wild Boar (*Sus scrota*), Ratel (*Mellivora capensis*), Indian Poprcupine (*Hystrix indica*), Mouse Deer or Indian Chevrotain (*Tragulus meminna*), Common palm civet (*Paradoxurus hermaphrodites*), Jackal (*Canis aureus*), Jungle Cat (*Fells chaos*), Small Indian civet (*Viverricula indica*), Striped hyena (*Hyaena hyaena*), Indian flying fox (*Pteropus giganteus*), Red Jungle fowl (*Gallus gallus murghi*), Red Spurfowl (*Galloperdix spadicea*), Common Teal (*Anas crecca*), Gadwall (*Anas strepera*), Northern Pintail (*Anas acuta*), Barred Buttonquail (*Turnix suscitator*), Yellow fronted Pied or Mahratta Woodpecker (*Dendrocopos mahrattensis*), Small Green Barbet (*Megalaima viridis*), Copper-smith Barbet (*Megalaima haemacephala*), Brown-headed Barbet (*Megalaima zeylanica*), Common Hoopoe (*Upupa epops*), Blue Bee-eater (*Merops philippinus*), Yellow monitor lizard (*Varanus fulvescens*), Banded krait (*Bungarus fasciatus*), Checkered keel back (*Xenochrophis piscator*), Common Green Whip Snake (*Ahaetulla nasuta*) etc. The number of birds of Indian origin stays here round the year. Breeding of open bill stork, purple moorhen, jacana, red jungle fowl, Indian peafowl, koel, herons, egrets etc. have been recorded inside the protected area.

**AND WHEREAS**, it is necessary to conserve and protect the area the extent and boundaries of which is specified in paragraph 1 of this notification around the protected area of Nandankanan Wildlife Sanctuary, as Eco-sensitive zone from ecological, environmental and biodiversity point of view and to prohibit industries or class of industries and their operations and processes in the said Eco-sensitive Zone.

**NOW THEREFORE**, in exercise of the powers conferred by sub section (1) and clauses (v) and (xiv) of sub-section (2) and sub-section (3) of Section 3 of the Environment (Protection) Act 1986 (29 of 1986) read with sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986, the Central Government hereby notifies an area to an extent from zero to 340 meters around the boundary of Nandankanan Wildlife Sanctuary in the in the Cuttack and Khordha district of Odisha as the Nandankanan Wildlife Sanctuary, Eco-sensitive Zone (herein after referred to as the Eco-sensitive Zone) details of which are as under, namely: -

1. **Extent and boundaries of Eco-sensitive Zone.** – (1) The Eco-sensitive Zone is spread over an area of **1.31 sq. kms** out of which 0.18 sq. km comes under Cuttack district and 1.13 sq.km areas in Khordha district. The extent of ESZ ranges from **zero to 340 meters** from the protected area. Zero meters ESZ extent at Northern boundary of the sanctuary i.e. adjacent to the pillar No.131 to 137 as boundary goes co-terminus with Chandaka-Dampara Sanctuary along the PWD road.
  - (2) The boundary description Nandankanan Wildlife Sanctuary and its Eco-sensitive Zone is given in **Annexure-I**.
  - (3) The map of the Eco-sensitive Zone along with boundary details and latitudes and longitudes is appended as **Annexure-II A**.
  - (4) The geo-coordinates of Nandankanan Wildlife Sanctuary and its Eco-sensitive Zone are given in table **A and B** of **Annexure-III**.

(5) The list of villages falling within the Eco-sensitive Zone is appended as **Annexure-IV**.

**2. Zonal Master Plan for Eco-sensitive Zone.-** (1) The State Government shall, for the purpose of the Eco-sensitive Zone prepare, a Zonal Master Plan, within a period of two years from the date of publication of final notification in the Official Gazette, in consultation with local people and adhering to the stipulations given in this notification for approval of the Competent authority of State.

(2) The Zonal Master Plan for the Eco-sensitive Zone shall be prepared by the State Government in such manner as is specified in this notification and also in consonance with the relevant Central and State laws and the guidelines issued by the Central Government, if any.

(3) The Zonal Master Plan shall be prepared in consultation with the following State Departments, for integrating the ecological and environmental considerations into the said plan, namely:-

- (i) Department of Forest & Environment;
- (ii) Housing & Urban Development;
- (iii) Tourism;
- (iv) Irrigation;
- (v) PWD (Building and Roads) Public Works Department;
- (vi) Revenue Department;
- (vii) Odisha State Pollution Control Board.

(4) The Zonal Master Plan shall not impose any restriction on the approved existing land use, infrastructure and activities, unless so specified in this notification and the Zonal Master Plan shall factor in improvement of all infrastructure and activities to be more efficient and eco-friendly.

(5) The Zonal Master Plan shall provide for restoration of denuded areas, conservation of existing water bodies, management of catchment areas, watershed management, groundwater management, soil and moisture conservation, needs of local community and such other aspects of the ecology and environment that need attention.

(6) The Zonal Master Plan shall demarcate all the existing worshipping places, villages and urban settlements, types and kinds of forests, agricultural areas, fertile lands, green area, such as, parks and like places, horticultural areas, orchards, lakes and other water bodies and also with supporting maps. The Plan shall be supported by Maps giving details of existing and proposed land use features.

(7) The Zonal Master Plan shall regulate development in Eco-sensitive Zone and adhere to prohibited, regulated activities listed in the Table in paragraph 4 and also ensure and promote eco-friendly development for livelihood security of local communities.

(8) The Zonal Master Plan shall be co-terminus with the Regional Development Plan.

(9) The said Master Plan shall regulate development in Eco-sensitive Zone so as to ensure eco-friendly development for livelihood security of local communities.

(10) The Zonal Master Plan so approved shall be the reference document for the Monitoring Committee for carrying out its functions of monitoring in accordance with the provisions of this notification.

**3. Measures to be taken by the State Government -** The State Government shall take the following measures for giving effect to the provisions of this notification, namely:-

**(1) Land use. -**

- (a) Forests, horticulture areas, agricultural areas, parks and open spaces earmarked for recreational purposes in the Eco-sensitive Zone shall not be used or converted into areas for major commercial or major residential complex or industrial activities.
- (b) Provided that the conversion of agricultural and other lands, for the purpose other than that specified at part (a), within the Eco-sensitive Zone may be permitted on the recommendation of the Monitoring Committee, and with the prior approval of the competent authority under Regional Town Planning Act and other rules and regulations of Central/State Government as applicable and vide provisions of this Notification, to meet the residential needs of the local residents such as:
  - (i) Widening and strengthening of existing roads and construction of new roads;
  - (ii) Construction and renovation of infrastructure and civic amenities;
  - (iii) Small scale industries not causing pollution;

- (iv) Cottage industries including village industries; convenience stores and local amenities supporting eco-tourism including home stay; and
- (v) Promoted activities and given under para 4.
- (c) Provided further that no use of tribal land shall be permitted for commercial and industrial development activities without the prior approval of the competent authority under Regional Town Planning Act and other rules and regulations of State Government and without compliance of the provisions of article 244 of the Constitution or the law for the time being in force, including the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (2 of 2007):
- (d) Provided also that any error appearing in the land records within the Eco-sensitive Zone shall be corrected by the State Government, after obtaining the views of Monitoring Committee, once in each case and the correction of said error shall be intimated to the Central Government in the Ministry of Environment, Forest and Climate Change:
- (e) Provided also that the above correction of error shall not include change of land use in any case except as provided under this sub-paragraph.
- (f) Efforts shall be made to reforest the unused or unproductive agricultural areas with afforestation and habitat restoration activities.
- (2) **Natural water bodies.**-The catchment areas of all natural springs shall be identified and plans for their conservation and rejuvenation shall be incorporated in the Zonal Master Plan and the guidelines shall be drawn up by the State Government in such a manner as to prohibit development activities at or near these areas which are detrimental to such areas.
- (3) **Tourism/ Eco-tourism:-** (a) All new eco-tourism activities or expansion of existing tourism activities within the Eco-Sensitive Zone shall be as per the Tourism Master Plan for the Eco-Sensitive Zone.
- (b) The Eco-Tourism Master Plan shall be prepared by Department of Tourism in consultation with State Departments of Environment and Forests.
- (c) The Tourism Master Plan shall form a component of the Zonal Master Plan.
- (d) The activities of eco-tourism shall be regulated as under, namely:-
  - (i) No new construction of hotels and resorts shall be allowed within 1 km from the boundary of the Wildlife Sanctuary or upto the extent of the ESZ whichever is nearer. However, beyond the distance of 1 km from the boundary of the Wildlife Sanctuary till the extent of the Eco-sensitive Zone, the establishment of new hotels and resorts shall be allowed only in pre-defined and designated areas for Eco-tourism facilities as per Tourism Master Plan.
  - (ii) all new tourism activities or expansion of existing tourism activities within the Eco-sensitive Zone shall be in accordance with the guidelines issued by the Central Government in the Ministry of Environment, Forest and Climate Change and the eco-tourism guidelines issued by National Tiger Conservation Authority (as amended from time to time) with emphasis on eco-tourism;
  - (iii) Until the Zonal Master Plan is approved, development for tourism and expansion of existing tourism activities shall be permitted by the concerned regulatory authorities based on the actual site specific scrutiny and recommendation of the Monitoring Committee and no new hotel /resort or commercial establishment construction is permitted within Eco-Sensitive Zone area.
- (4) **Natural heritage.**- All sites of valuable natural heritage in the Eco-sensitive Zone, such as the gene pool reserve areas, rock formations, waterfalls, springs, gorges, groves, caves, points, walks, rides, cliffs, etc. shall be identified and a heritage conservation plan shall be drawn up for their preservation and conservation as a part of the Zonal Master Plan.
- (5) **Man-made heritage sites.**- Buildings, structures, artefacts, areas and precincts of historical, architectural, aesthetic, and cultural significance shall be identified in the Eco-sensitive Zone and heritage conservation plan for their conservation shall be prepared as part Zonal Master Plan.
- (6) **Noise pollution.** - Prevention and Control of noise pollution in the Eco-sensitive Zone shall be complied with in accordance with Noise Pollution (Regulation and Control) Rules, 2000 under the Environment (Protection) Act, 1986 and amendments thereto.
- (7) **Air pollution.**- Prevention and control of air pollution in the Eco-sensitive Zone shall be complied with in accordance with the provisions of the Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981) and rules made thereunder and amendments thereto.
- (8) **Discharge of effluents.** - Discharge of treated effluent in Eco-sensitive Zone shall be in accordance with the provisions of the General Standards for Discharge of Environmental Pollutants covered under the Environmental (Protection) Act, 1986 and rules made thereunder or standards stipulated by State Government whichever is more stringent.

**(9) Solid wastes.** - Disposal and Management of solid wastes shall be as under:-

- (a) The solid waste disposal and management in the Eco-sensitive Zone shall be carried out in accordance with the Solid Waste Management Rules, 2016 and published by the Government of India in the Ministry of Environment, Forest and Climate Change vide notification number S.O. 1357 (E), dated the 8<sup>th</sup> April, 2016; the inorganic material may be disposed in an environmental acceptable manner at site identified outside the Eco-sensitive Zone.
- (b) Safe and Environmentally Sound Management (ESM) of Solid wastes in conformity with the existing rules and regulations using identified technologies may be allowed within Eco-Sensitive Zone.

**(10) Bio-medical waste.** – Bio medical waste management shall be as under:

- (a) The bio-medical waste disposal in the Eco-sensitive Zone shall be carried out in accordance with the Bio-Medical Waste Management Rules, 2016 published by the Government of India in the Ministry of Environment, Forest and Climate Change *vide* Notification number GSR 343 (E), dated the 28<sup>th</sup> March, 2016.
- (b) Safe and Environmentally Sound Management (ESM) of Bio-medical wastes in conformity with the existing rules and regulations using identified technologies may be allowed within Eco-Sensitive Zone.

**(11) Plastic Waste Management.** - The Plastic Waste Management in the Eco-sensitive Zone shall be carried out as per the provisions of the Plastic Waste Management Rules, 2016 published by the Government of India in the Ministry of Environment, Forest and Climate Change *vide* notification number G.S.R. 340(E), dated the 18<sup>th</sup> March, 2016, as amended from time to time.

**(12) Construction and Demolition Waste Management.** - The Construction and Demolition Waste Management in the Eco-sensitive Zone shall be carried out as per the provisions of the Construction and Demolition Waste Management Rules, 2016 published by the Government of India in the Ministry of Environment, Forest and Climate Change *vide* notification number G.S.R. 317(E), dated the 29<sup>th</sup> March, 2016, as amended from time to time.

**(13) E-waste.** - The E- Waste Management in the Eco-sensitive Zone shall be carried out as per the provisions of the E-Waste Management Rules, 2016 published by the Government of India in the Ministry of Environment, Forest and Climate Change and as amended from time to time.

**(14) Vehicular traffic.** – The vehicular movement of traffic shall be regulated in a habitat friendly manner and specific provisions in this regard shall be incorporated in the Zonal Master Plan and till such time as the Zonal Master plan is prepared and approved by the Competent Authority in the State Government, the Monitoring Committee shall monitor compliance of vehicular movement under the relevant Acts and the rules and regulations made thereunder.

**(15) Vehicular Pollution.** - Prevention and control of Vehicular Pollution shall be complied with in accordance with applicable laws. Efforts to be made for use of cleaner fuel for example CNG, LPG, etc.

**(16) Industrial Units:-** (i) On or after the publication of this Notification in the Official Gazette, no new polluting industries shall be allowed to be set up within the Eco-Sensitive Zone.

- (ii) Only non-polluting industries shall be allowed within ESZ as per classification of Industries in the Guidelines issued by Central Pollution Control Board in February 2016, unless so specified in this Notification. In addition, non-polluting cottage industries shall be promoted.

**(17) Protection of Hill Slopes.** - The protection of hill slopes shall be as under:

- (a) The Zonal Master Plan shall indicate areas on hill slopes where no construction shall be permitted.
- (b) No construction on existing steep hill slopes or slopes with a high degree of erosion shall be permitted.

**4. List of activities prohibited or to be regulated within the Eco-sensitive Zone.-**

All activities in the Eco sensitive Zone shall be governed by the provisions of the Environment (Protection) Act, 1986 (29 of 1986) and the rules made there under including the Coastal Regulation Zone (CRZ), 2011 and the Environmental Impact Assessment (EIA) Notification, 2006 and other applicable laws including the Forest (Conservation) Act, 1980 (69 of 1980), the Indian Forest Act, 1927 (16 of 1927), the Wildlife (Protection) Act 1972 (53 of 1972), and amendments made thereto and be regulated in the manner specified in the Table below, namely:-

TABLE

S. No.	Activity	Description
<b>A. Prohibited Activities</b>		
1.	Commercial Mining.	(a) All new and existing (minor and major minerals), stone quarrying and crushing units are prohibited with immediate effect except for meeting the domestic needs of bona fide local residents including digging of earth for construction or repair of houses and for manufacture of country tiles or bricks for housing and for other activities. (b) The mining operations shall be carried out in accordance with the order of the Hon'ble Supreme Court dated 04.08.2006 in the matter of T.N. Godavarman Thirumulpad Vs. UOI in W.P.(C) No.202 of 1995 and dated 21.04.2014 in the matter of Goa Foundation Vs. UOI in W.P.(C) No.435 of 2012.
2.	Setting of industries causing pollution (Water, Air, Soil, Noise, etc.).	No new industries and expansion of existing polluting industries in the Eco-sensitive zone shall be permitted. Only non-polluting industries shall be allowed within ESZ as per classification of Industries in the Guidelines issued by Central Pollution Control Board in February 2016, unless so specified in this notification. In addition, non-polluting cottage industries shall be promoted.
3.	Establishment of major hydroelectric project.	Prohibited (except as otherwise provided) as per applicable laws.
4.	Use or production or processing of any hazardous substances.	Prohibited (except as otherwise provided) as per applicable laws.
5.	Discharge of untreated effluents in natural water bodies or land area.	Prohibited (except as otherwise provided) as per applicable laws.
6.	Setting of new saw mills.	No new or expansion of existing saw mills shall be permitted within the Eco-sensitive Zone.
7.	Setting up of brick kilns.	Prohibited (except as otherwise provided) as per applicable laws.
<b>B. Regulated Activities</b>		
8.	Commercial establishment of hotels and resorts.	No new commercial hotels and resorts shall be permitted within one kilometre of the boundary of the Protected Area or upto the extent of Eco-sensitive zone, whichever is nearer, except for small temporary structures for Eco-tourism activities. Provided that, beyond one kilometre from the boundary of the protected Area or upto the extent of Eco-sensitive zone whichever is nearer, all new tourist activities or expansion of existing activities shall be in conformity with the Tourism Master Plan and guidelines as applicable.
9.	Construction activities.	(a) No new commercial construction of any kind shall be permitted within one Kilometer from the boundary of the Protected Area or upto extent of the Eco-sensitive Zone whichever is nearer: (b) Provided that, local people shall be permitted to undertake construction in their land for their use including the activities listed in sub paragraph (1) of paragraph 3 as per building byelaws to meet the residential needs of the local residents such as: (i) Widening and strengthening of existing roads and construction of new roads; (ii) Construction and renovation of infrastructure and civic amenities; (iii) Small scale industries not causing pollution termed as per Classification done by Central Pollution Control Board of February 2016;

		<p>(iv) Cottage industries including village industries; convenience stores and local amenities supporting eco-tourism including homestays; and</p> <p>(v) Promoted activities listed in this Notification.</p> <p>(c) Provided that the construction activity related to small scale industries not causing pollution shall be regulated and kept at the minimum, with the prior permission from the competent authority as per applicable rules and regulations, if any.</p> <p>(d) Beyond one kilometre it shall be regulated as per the Zonal Master Plan.</p>
10.	Small scale non-polluting industries.	Non-polluting industries as per classification of industries issued by the Central Pollution Control Board in February 2016 and non-hazardous, small-scale and service industry, agriculture, floriculture, horticulture or agro-based industry producing products from indigenous materials from the Eco-sensitive Zone shall be permitted by the competent Authority.
11.	Felling of Trees.	<p>(a) There shall be no felling of trees on the forest or Government or revenue or private lands without prior permission of the competent authority in the State Government.</p> <p>(b) The felling of trees shall be regulated in accordance with the provisions of the concerned Central or State Act and the rules made there under.</p>
12.	Collection of Forest produce or Non-Timber Forest Produce (NTFP).	Regulated under applicable laws.
13.	Erection of electrical and communication towers and laying of cables and other infrastructures.	Regulated under applicable law. Underground cabling may be promoted.
14.	Infrastructure including civic amenities.	Shall be done with mitigation measures, as per applicable laws, rules and regulation and available guidelines.
15.	Widening and strengthening of existing roads and construction of new roads.	Shall be done with mitigation measures, as per applicable laws, rules and regulation and available guidelines.
16.	Undertaking other activities related to tourism like over flying the ESZ area by hot air balloon, helicopter, drones, Microlites, etc.	Regulated under applicable law.
17.	Protection of Hill Slopes and river banks.	Regulated under applicable laws.
18.	Movement of vehicular traffic at night.	Regulated for commercial purpose under applicable laws.
19.	Ongoing agriculture and horticulture practices by local communities along with dairies, dairy farming, aquaculture and fisheries.	Permitted under applicable laws for use of locals.
20.	Establishment of large-scale commercial livestock and poultry farms by firms, corporate, companies.	Regulated under applicable laws .
21.	Discharge of treated waste water/effluents in natural water bodies or land area.	The discharge of treated waste water/effluents shall be avoided to enter into the water bodies. Efforts to be made for recycle and reuse of treated waste water. Otherwise the discharge of treated waste water/effluent shall be regulated as per applicable laws.
22.	Commercial extraction of surface and ground water.	Regulated under applicable law.
23.	Open Well, Bore Well etc. for agriculture or other usage.	Regulated and the activity should be strictly monitored by the appropriate authority.

24.	Solid Waste Management.	Regulated under applicable laws.
25.	Introduction of Exotic species.	Regulated under applicable laws.
26.	Eco-tourism.	Regulated under applicable laws.
27.	Use of polythene bags.	Regulated under applicable laws.
28.	Commercial Sign boards and hoardings.	Regulated under applicable laws.
<b>C. Promoted Activities</b>		
29.	Rain water harvesting.	Shall be actively promoted.
30.	Organic farming.	Shall be actively promoted.
31.	Adoption of green technology for all activities.	Shall be actively promoted.
32.	Cottage industries including village artisans, etc.	Shall be actively promoted.
33.	Use of renewable energy and fuels.	Bio gas, solar light etc. to be actively promoted
34.	Agro-Forestry.	Shall be actively promoted.
35.	Plantation of Horticulture and Herbs.	Shall be actively promoted
36.	Use of eco-friendly transport.	Shall be actively promoted.
37.	Skill Development.	Shall be actively promoted.
38.	Restoration of Degraded Land/ Forests/ Habitat.	Shall be actively promoted.
39.	Environmental Awareness.	Shall be actively promoted.

**5. Monitoring Committee :-** The Central Government constitutes a Monitoring Committee, for effective monitoring of the provisions of this Notification under sub-section (3) of section 3 of the Environment (Protection) Act, 1986 comprising of the following, namely:-

1.	R.D.C. Central Division, Cuttack	Chairman;
2.	Collector, Cuttack	Member;
3.	Collector, Khordha	Member;
4.	Deputy Commissioner of Police, Bhubaneswar	Member;
5.	One representative of Non-governmental Organizations working in the field of environment to be nominated by the Central Government	Member;
6.	Secretary, Bhubaneswar Development Authority	Member;
7.	A expert in Biodiversity nominated by the State Government	Member;
8.	One expert in Ecology from reputed institution or university of the State	Member;
9.	Representative of Commissioner, Bhubaneswar Municipal Corporation	Member;
10.	Representative of Member Secretary, Odisha State Pollution Control Board	Member;
11.	Deputy Director, Nandankanan Zoological Park & Wildlife Warden, Nandankanan Sanctuary	Member Secretary.

#### 6. Terms of Reference. –

- (1) The Monitoring Committee shall monitor the compliance of the provisions of this notification.
- (2) The tenure of the Monitoring committee shall be for three years or till the re-constitution of the new Committee by the State Government and subsequently the Monitoring Committee would be constituted by the State Government.
- (3) The activities that are covered in the Schedule to the notification of the Government of India in the erstwhile Ministry of Environment and Forests number S.O. 1533 (E), dated the 14<sup>th</sup> September, 2006, and are falling in the Eco-sensitive Zone, except for the prohibited activities as specified in the Table under paragraph 4 thereof, shall be scrutinized by the Monitoring Committee based on the actual site-

specific conditions and referred to the Central Government in the Ministry of Environment, Forest and Climate Change for prior environmental clearances under the provisions of the said notification.

- (4) The activities that are not covered in the Schedule to the notification of the Government of India in the erstwhile Ministry of Environment, Forest and Climate Change number S.O. 1533 (E), dated the 14<sup>th</sup> September, 2006 and are falling in the Eco-sensitive Zone, except for the prohibited activities as specified in the Table under paragraph 4 thereof, shall be scrutinized by the Monitoring Committee based on the actual site-specific conditions and referred to the concerned regulatory authorities.
  - (5) The Member Secretary of the Monitoring Committee or the concerned Deputy Commissioner(s) shall be competent to file complaints under section 19 of the Environment (Protection) Act, 1986 against any person who contravenes the provisions of this notification.
  - (6) The Monitoring Committee may invite representatives or experts from concerned Departments, representatives from industry associations or concerned stakeholders to assist in its deliberations depending on the requirements on issue to issue basis.
  - (7) The Monitoring Committee shall submit the annual action taken report of its activities as on the 31<sup>st</sup> March of every year by the 30<sup>th</sup> June of that year to the Chief Wildlife Warden in the State as per proforma given in Annexure V.
  - (8) The Central Government in the Ministry of Environment, Forest and Climate Change may give such directions, as it deems fit, to the Monitoring Committee for effective discharge of its functions.
7. The Central Government and State Government may specify additional measures, if any, for giving effect to provisions of this notification.
8. The provisions of this notification are subject to the orders, if any passed or to be passed by the Hon'ble Supreme Court of India or the High Court or National Green Tribunal.

[F. No. 25/49/2017-ESZ]

LALIT KAPUR, Scientist 'G'

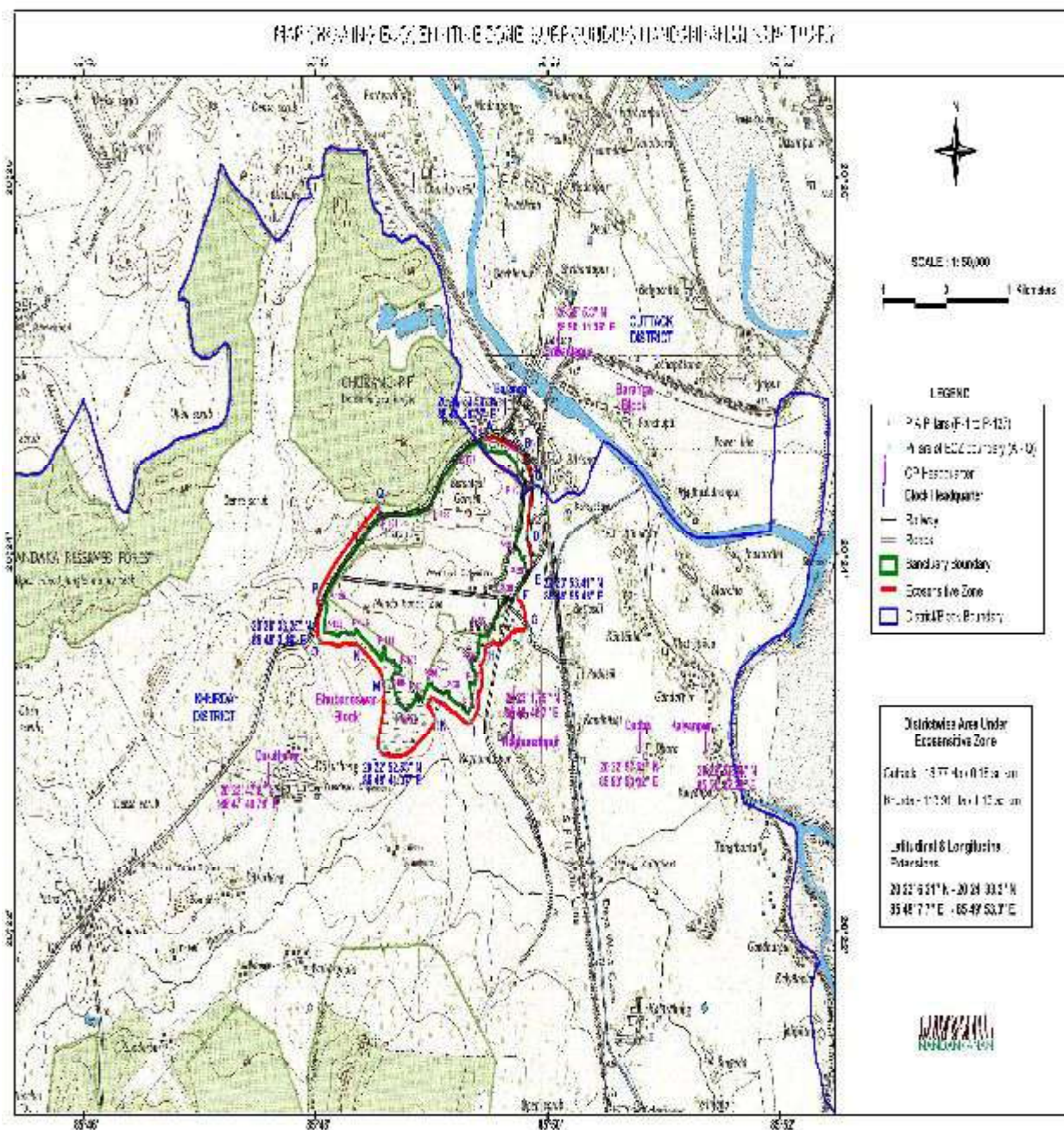
### **ANNEXURE- I**

#### **BOUNDARY DESCRIPTION OF ECO-SENSITIVE ZONE OF THE NANDANKANAN WILDLIFE SANCTUARY**

The Eco-sensitive zone in respect of Nandankanan Sanctuary is the area up to one hundred meters from the boundary of the protected area except from the boundary Pillar No. 1 to 11 with average distance of 150 meters, from pillar No. 11 to 25 with average distance of 125 meters, from pillar No. 25 to 32 it merges with PWD road along the sanctuary boundary, from pillar No. 32 to 51 with average distance of 270 meters covering entire alienated plot No. 5 (Gramya Jungle), from pillar No. 87 to 112 with average distance of 340 meters covering the swampy area. The boundary of Chandaka-Dampara Sanctuary (Churang R.F.) being located in the Northern boundary of the sanctuary i.e. adjacent to the pillar No.131 to 137, the ESZ has not been demarcated as the sanctuary border pillar No. 131 to 137 goes co-terminus with Chandaka-Dampara Sanctuary along the PWD road.

**ANNEXURE- II**

**MAP OF ECO-SENSITIVE ZONE OF NANDANKANAN WILDLIFE SANCTUARY ALONG WITH LATITUDE AND LONGITUDE OF PROMINENT LOCATIONS ON SURVEY OF INDIA (SOI) TOPOSHEET**



**ANNEXURE-III****TABLE A: Geo-coordinates of Prominent Locations of Nandankanan Wildlife Sanctuary**

BOUNDARY PILLAR	GPS Location					
	North (LATITUDE)			East (LONGITUDE)		
	Degree	Minute	Second	Degree	Minute	Second
1	20	24	35.300	85	49	20.700
2	20	24	31.733	85	49	23.543
3	20	24	31.917	85	49	26.136
4	20	24	31.647	85	49	28.141
5	20	24	31.300	85	49	33.447
6	20	24	30.568	85	49	35.092
7	20	24	28.075	85	49	38.895
8	20	24	26.251	85	49	39.281
9	20	24	24.002	85	49	41.697
10	20	24	22.318	85	49	43.674
11	20	24	18.635	85	49	43.107
12	20	24	13.463	85	49	42.218
13	20	24	07.874	85	49	41.286
14	20	24	05.904	85	49	40.183
15	20	24	00.700	85	49	37.935
16	20	24	00.582	85	49	39.166
17	20	23	59.950	85	49	40.387
18	20	23	59.533	85	49	40.269
19	20	23	57.091	85	49	41.854
20	20	23	57.445	85	49	43.06
21	20	23	56.267	85	49	42.892
22	20	23	55.207	85	49	43.139
23	20	23	54.050	85	49	43.835
24	20	23	53.269	85	49	44.284
25	20	23	52.830	85	49	44.927
26	20	23	52.369	85	49	44.34
27	20	23	51.395	85	49	43.374
28	20	23	51.684	85	49	42.957
29	20	23	50.977	85	49	42.582
30	20	23	50.699	85	49	42.818
31	20	23	47.936	85	49	39.755
32	20	23	46.041	85	49	37.967
33	2	23	44.671	85	49	36.650
34	20	23	44.221	85	49	36.404
35	20	23	44.414	85	49	35.386
36	20	23	44.606	85	49	34.476
37	20	23	44.317	85	49	34.241
38	20	23	44.189	85	49	33.877
39	20	23	44.082	85	49	33.438
40	20	23	44.060	85	49	33.031

41	20	23	44.059	85	49	32.510
42	20	23	43.228	85	49	31.979
43	20	23	42.539	85	49	31.375
44	20	23	41.528	85	49	30.565
45	20	23	40.522	85	49	29.730
46	20	23	39.596	85	49	28.955
47	20	23	38.554	85	49	28.048
48	20	23	37.552	85	49	27.251
49	20	23	36.524	85	49	26.468
50	20	23	35.509	85	49	25.658
51	20	23	34.416	85	49	24.751
52	20	23	34.004	85	49	23.236
53	20	23	33.134	85	49	23.860
54	20	23	32.807	85	49	20.109
55	20	23	32.383	85	49	19.633
56	20	23	27.058	85	49	19.059
57	20	23	25.606	85	49	17.581
58	20	23	25.580	85	49	16.476
59	20	23	24.861	85	49	15.603
60	20	23	23.602	85	49	16.142
61	20	23	22.574	85	49	16.039
62	20	23	21.803	85	49	16.669
63	20	23	21.867	85	49	17.273
64	20	23	20.402	85	49	17.992
65	20	23	17.832	85	49	17.800
66	20	23	17.807	85	49	14.754
67	20	23	13.939	85	49	15.885
68	20	23	11.896	85	49	16.412
69	20	23	10.431	85	49	15.885
70	20	23	08.388	85	49	14.266
71	20	23	09.224	85	49	12.532
72	20	23	10.046	85	49	12.429
73	20	23	10.046	85	49	11.118
74	20	23	10.778	85	49	11.195
75	20	23	11.292	85	49	08.89
76	20	23	11.781	85	49	07.302
77	20	23	13.502	85	49	04.282
78	20	23	15.134	85	49	04.475
79	20	23	14.993	85	49	02.856
80	20	23	14.517	85	49	01.533
81	20	23	15.070	85	48	59.657
82	20	23	15.622	85	48	58.513
83	20	23	15.867	85	48	57.395
84	20	23	16.008	85	48	56.856
85	20	23	17.306	85	48	55.417
86	20	23	17.537	85	48	53.926

87	20	23	12.988	85	48	50.919
88	20	23	12.911	85	48	50.238
89	20	23	13.489	85	48	49.365
90	20	23	14.415	85	48	47.771
91	20	23	13.862	85	48	47.424
92	20	23	12.886	85	48	48.954
93	20	23	12.333	85	48	48.555
94	20	23	12.847	85	48	47.810
95	20	23	11.511	85	48	46.140
96	20	23	10.393	85	48	44.328
97	20	23	09.545	85	48	42.002
98	20	23	10.920	85	48	39.831
99	20	23	11.986	85	48	38.083
100	20	23	19.567	85	48	34.832
101	20	23	21.340	85	48	36.618
102	20	23	20.749	85	48	37.544
103	20	23	21.160	85	48	38.738
104	20	23	21.225	85	48	39.098
105	20	23	22.497	85	48	39.625
106	20	23	24.128	85	48	36.297
107	20	23	24.822	85	48	36.516
108	20	23	25.375	85	48	33.766
109	20	23	26.056	85	48	31.826
110	20	23	29.409	85	48	31.145
111	20	23	29.422	85	48	30.669
112	20	23	25.401	85	48	29.449
113	20	23	27.713	85	48	27.174
114	20	23	29.744	85	48	24.013
115	20	23	32.866	85	48	19.285
116	20	23	34.986	85	48	16.561
117	20	23	33.560	85	48	15.623
118	20	23	33.881	85	48	11.537
119	20	23	34.125	85	48	09.160
120	20	23	33.200	85	48	07.554
121	20	23	33.958	85	48	03.108
122	20	23	33.984	85	48	00.050
123	20	23	37.761	85	48	00.538
124	20	23	43.132	85	48	01.746
125	20	23	43.980	85	48	00.140
126	20	23	45.574	85	48	00.708
127	20	23	52.053	85	48	06.365
128	20	23	56.191	85	48	10.944
129	20	24	01.566	85	48	17.521
130	20	24	06.530	85	48	23.000
131	20	24	11.190	85	48	29.763
132	20	24	11.426	85	48	32.771

133	20	24	11.533	85	48	36.605
134	20	24	12.117	85	48	49.063
135	20	24	14.247	85	48	54.346
136	20	24	22.761	85	49	00.468
137	20	24	32.623	85	49	12.132

**TABLE B: Geo-coordinates of Prominent Locations of Eco-Sensitive Zone**

ESZ boundary Pillar Coordinate of Important Locations		
Pillar	Longitude	Latitude
A	85.82496	20.40941
B	85.83039	20.40817
C	85.8321	20.40513
D	85.83134	20.40065
E	85.83229	20.39799
F	85.82972	20.39551
G	85.83115	20.39256
H	85.82544	20.39113
I	85.82316	20.38428
J	85.81754	20.38619
K	85.81811	20.38428
L	85.81031	20.38152
M	85.81078	20.38761
N	85.80697	20.39113
O	85.80145	20.39152
P	85.80126	20.39523
Q	85.81012	20.40341

**ANNEXURE-IV****LIST OF VILLAGES WITH AREA COMING UNDER ECO-SENSITIVE ZONE OF  
NANDANKANAN WILDLIFE SANCTUARY ALONG WITH GEO-COORDINATES**

District	Village	Area (Ha)	LONGITUDE	LATITUDE	Pillar ID
CUTTACK	DADHAPATNA	18.77	85°49'20.700"	20°24'35.300"	1
			85°49'26.869"	20°24'36.529"	2
			85°49'37.628"	20°24'32.828"	3
			85°49'41.534"	20°24'30.910"	4
			85°49'46.469"	20°24'22.686"	5
			85°49'46.301"	20°24'20.840"	6
			85°49'44.508"	20°24'19.927"	7
			85°49'43.251"	20°24'18.950"	8
			85°49'43.841"	20°24'22.373"	9
			85°49'41.696"	20°24'24.002"	10

			85°49'39.281"	20°24'26.251"	11
			85°49'38.896"	20°24'28.075"	12
			85°49'35.092"	20°24'30.568"	13
			85°49'33.447"	20°24'31.301"	14
			85°49'28.141"	20°24'31.647"	15
			85°49'26.136"	20°24'31.917"	16
			85°49'23.700"	20°24'31.800"	17
KHORDHA	DADHA	7.678	85°49'46.301"	20°24'20.840"	6
			85°49'44.508"	20°24'19.927"	7
			85°49'43.251"	20°24'18.950"	8
			85°49'45.852"	20°24'15.902"	18
			85°49'44.139"	20°24'06.582"	19
			85°49'44.070"	20°24'02.744"	20
			85°49'45.852"	20°23'58.359"	21
			85°49'46.126"	20°23'55.686"	22
			85°49'46.743"	20°23'54.384"	23
			85°49'45.768"	20°23'53.754"	24
			85°49'44.535"	20°23'54.902"	25
			85°49'43.884"	20°23'56.067"	26
			85°49'43.558"	20°23'56.992"	27
			85°49'43.764"	20°23'58.208"	28
			85°49'42.428"	20°23'57.848"	29
			85°49'40.851"	20°24'00.178"	30
			85°49'40.868"	20°24'00.572"	31
			85°49'39.669"	20°24'01.155"	32
			85°49'38.444"	20°24'01.258"	33
			85°49'40.586"	20°24'06.397"	34
			85°49'41.656"	20°24'08.196"	35
			85°49'42.428"	20°24'13.636"	36
KHORDHA	JUHAGADA	60.828	85°48'53.575"	20°23'11.456"	65
			85°48'52.268"	20°23'13.302"	66
			85°48'52.241"	20°23'14.537"	67
			85°48'52.435"	20°23'15.544"	68
			85°48'54.409"	20°23'09.961"	129
			85°48'54.897"	20°23'09.549"	130
			85°48'56.542"	20°23'07.185"	131
			85°48'56.509"	20°23'06.153"	132
			85°48'56.490"	20°23'05.540"	133
			85°48'55.257"	20°23'03.587"	134
			85°48'51.556"	20°23'00.966"	135
			85°48'47.907"	20°22'58.910"	136
			85°48'45.440"	20°22'57.009"	137
			85°48'42.613"	20°22'55.723"	138
			85°48'40.146"	20°22'55.055"	139
			85°48'35.006"	20°22'55.107"	140
			85°48'30.432"	20°22'55.980"	141
			85°48'28.633"	20°22'56.854"	142
			85°48'27.811"	20°22'58.499"	143

			85°48'28.530"	20°23'02.714"	144
			85°48'30.638"	20°23'10.423"	145
			85°48'30.895"	20°23'13.918"	146
			85°48'30.792"	20°23'17.002"	147
			85°48'30.278"	20°23'20.034"	148
			85°48'28.685"	20°23'22.347"	149
			85°48'26.834"	20°23'23.837"	150
			85°48'24.110"	20°23'26.510"	151
			85°48'16.966"	20°23'31.290"	152
			85°48'10.233"	20°23'31.753"	153
			85°48'07.972"	20°23'30.981"	154
			85°47'58.875"	20°23'32.266"	155
			85°47'57.384"	20°23'33.603"	156
			85°47'56.973"	20°23'35.556"	157
			85°47'57.539"	20°23'40.387"	158
			85°47'58.207"	20°23'43.059"	159
			85°47'58.016"	20°23'43.351"	160
			85°48'28.464"	20°24'10.295"	171
			85°48'23.000"	20°24'06.530"	172
			85°48'17.521"	20°24'01.566"	173
			85°48'10.944"	20°23'56.190"	174
			85°48'06.365"	20°23'52.053"	175
			85°48'00.708"	20°23'45.574"	176
			85°48'00.140"	20°23'43.980"	177
			85°48'01.746"	20°23'43.132"	178
			85°48'00.538"	20°23'37.761"	179
			85°48'00.050"	20°23'33.984"	180
			85°48'03.108"	20°23'33.958"	181
			85°48'07.328"	20°23'33.229"	182
			85°48'09.179"	20°23'34.283"	183
			85°48'15.629"	20°23'33.615"	184
			85°48'16.400"	20°23'35.131"	185
			85°48'19.227"	20°23'32.972"	186
			85°48'23.904"	20°23'29.863"	187
			85°48'27.013"	20°23'27.833"	188
			85°48'29.274"	20°23'25.391"	189
			85°48'30.559"	20°23'29.477"	190
			85°48'31.022"	20°23'29.529"	191
			85°48'31.665"	20°23'26.137"	192
			85°48'33.695"	20°23'25.366"	193
			85°48'36.444"	20°23'24.980"	194
			85°48'36.264"	20°23'24.184"	195
			85°48'39.502"	20°23'22.693"	196
			85°48'38.988"	20°23'21.331"	197
			85°48'37.344"	20°23'20.843"	198
			85°48'36.444"	20°23'21.434"	199
			85°48'34.645"	20°23'19.584"	200
			85°48'37.781"	20°23'12.054"	201

			85°48'39.631"	20°23'10.949"	202
			85°48'41.687"	20°23'09.613"	203
			85°48'44.025"	20°23'10.384"	204
			85°48'45.927"	20°23'11.514"	205
			85°48'47.546"	20°23'12.928"	206
			85°48'48.265"	20°23'12.388"	207
			85°48'48.728"	20°23'12.928"	208
			85°48'47.186"	20°23'13.879"	209
			85°48'47.649"	20°23'14.521"	210
			85°48'49.113"	20°23'13.467"	211
			85°48'50.090"	20°23'12.902"	212
			85°48'50.809"	20°23'12.953"	213
			85°49'28.084"	20°23'38.549"	111
			85°49'29.374"	20°23'38.755"	112
			85°49'30.693"	20°23'39.380"	113
			85°49'32.011"	20°23'40.417"	114
			85°49'33.110"	20°23'41.653"	115
			85°49'33.082"	20°23'42.896"	116
			85°49'32.839"	20°23'44.355"	117
			85°49'32.127"	20°23'43.576"	124
			85°49'31.506"	20°23'42.848"	125
			85°49'30.702"	20°23'41.830"	126
			85°49'29.910"	20°23'40.771"	127
			85°49'29.075"	20°23'39.839"	128
KHORDHA	RAGHUNATHAPUR	35.470	85°49'38.252"	20°23'46.324"	37
			85°49'39.458"	20°23'43.368"	38
			85°49'42.670"	20°23'40.927"	39
			85°49'44.083"	20°23'34.887"	40
			85°49'42.284"	20°23'33.731"	41
			85°49'37.916"	20°23'34.117"	42
			85°49'34.960"	20°23'32.575"	43
			85°49'30.206"	20°23'29.620"	44
			85°49'27.893"	20°23'29.877"	45
			85°49'26.608"	20°23'30.776"	46
			85°49'24.552"	20°23'29.491"	47
			85°49'22.368"	20°23'29.363"	48
			85°49'21.854"	20°23'25.122"	49
			85°49'19.798"	20°23'22.938"	50
			85°49'21.212"	20°23'20.625"	51
			85°49'20.698"	20°23'16.770"	52
			85°49'20.235"	20°23'15.665"	53
			85°49'18.848"	20°23'14.226"	54
			85°49'19.516"	20°23'11.040"	55
			85°49'18.436"	20°23'08.264"	56
			85°49'16.380"	20°23'05.746"	57
			85°49'14.376"	20°23'04.718"	58
			85°49'13.245"	20°23'04.770"	59
			85°49'08.774"	20°23'07.288"	60

			85°49'04.332"	20°23'09.453"	61
			85°49'01.064"	20°23'11.400"	62
			85°48'58.598"	20°23'12.016"	63
			85°48'54.691"	20°23'13.250"	64
			85°48'53.575"	20°23'11.456"	65
			85°48'52.268"	20°23'13.302"	66
			85°48'52.241"	20°23'14.537"	67
			85°48'52.435"	20°23'15.544"	68
			85°48'53.842"	20°23'17.785"	69
			85°48'55.204"	20°23'17.425"	70
			85°48'56.720"	20°23'16.089"	71
			85°48'57.337"	20°23'16.063"	72
			85°48'57.979"	20°23'17.142"	73
			85°48'58.211"	20°23'17.117"	74
			85°48'58.391"	20°23'15.729"	75
			85°48'59.495"	20°23'15.138"	76
			85°49'01.397"	20°23'14.624"	77
			85°49'02.656"	20°23'15.138"	78
			85°49'04.327"	20°23'15.215"	79
			85°49'04.095"	20°23'13.570"	80
			85°49'07.102"	20°23'11.823"	81
			85°49'08.516"	20°23'11.360"	82
			85°49'11.060"	20°23'10.872"	83
			85°49'10.931"	20°23'10.101"	84
			85°49'12.242"	20°23'10.127"	85
			85°49'12.345"	20°23'09.227"	86
			85°49'14.066"	20°23'08.379"	87
			85°49'15.685"	20°23'10.487"	88
			85°49'16.217"	20°23'11.964"	89
			85°49'15.729"	20°23'14.007"	90
			85°49'15.125"	20°23'15.948"	91
			85°49'14.663"	20°23'17.939"	92
			85°49'17.721"	20°23'18.029"	93
			85°49'17.913"	20°23'20.586"	94
			85°49'17.220"	20°23'22.051"	95
			85°49'16.603"	20°23'21.935"	96
			85°49'15.973"	20°23'22.719"	97
			85°49'16.166"	20°23'23.747"	98
			85°49'15.678"	20°23'25.057"	99
			85°49'16.474"	20°23'25.751"	100
			85°49'17.656"	20°23'25.833"	101
			85°49'19.121"	20°23'27.272"	102
			85°49'19.558"	20°23'32.310"	103
			85°49'20.213"	20°23'33.042"	104
			85°49'24.068"	20°23'33.389"	105
			85°49'23.259"	20°23'34.198"	106
			85°49'24.878"	20°23'34.648"	107
			85°49'25.867"	20°23'35.817"	108

			85°49'26.651"	20°23'36.807"	109
			85°49'27.512"	20°23'37.860"	110
			85°49'28.084"	20°23'38.549"	111
			85°49'29.374"	20°23'38.755"	112
			85°49'30.693"	20°23'39.380"	113
			85°49'32.011"	20°23'40.417"	114
			85°49'33.110"	20°23'41.653"	115
			85°49'33.082"	20°23'42.896"	116
			85°49'32.839"	20°23'44.355"	117
			85°49'34.054"	20°23'44.443"	118
			85°49'34.322"	20°23'44.561"	119
			85°49'34.771"	20°23'44.904"	120
			85°49'35.617"	20°23'44.754"	121
			85°49'36.710"	20°23'44.491"	122
			85°49'36.967"	20°23'44.954"	123
			85°49'32.127"	20°23'43.576"	124
			85°48'54.409"	20°23'09.961"	129
			85°48'54.897"	20°23'09.549"	130
			85°48'56.542"	20°23'07.185"	131
			85°48'56.509"	20°23'06.153"	132
			85°48'56.490"	20°23'05.540"	133
KHORDHA	KRUSHNA NAGAR	9.934	85°47'58.207"	20°23'43.059"	159
			85°47'58.016"	20°23'43.351"	160
			85°47'59.644"	20°23'46.027"	161
			85°48'03.132"	20°23'50.785"	162
			85°48'08.158"	20°23'55.544"	163
			85°48'11.207"	20°23'58.647"	164
			85°48'16.892"	20°24'04.024"	165
			85°48'21.699"	20°24'07.745"	166
			85°48'25.846"	20°24'10.025"	167
			85°48'29.389"	20°24'11.241"	168
			85°48'29.741"	20°24'11.259"	169
			85°48'29.763"	20°24'11.190"	170
			85°47'57.333"	20°23'44.396"	214
			85°47'57.179"	20°23'45.989"	215
			85°47'57.744"	20°23'47.891"	216
			85°48'02.113"	20°23'53.442"	217
			85°48'05.556"	20°23'56.885"	218
			85°48'10.131"	20°24'01.100"	219
			85°48'16.041"	20°24'05.674"	220
			85°48'21.284"	20°24'10.608"	221
			85°48'27.091"	20°24'14.617"	222
			85°48'28.479"	20°24'15.234"	223

**Annexure -V****Performa of Action Taken Report: - Eco-sensitive Zone Monitoring Committee.-**

1. Number and date of Meetings
2. Minutes of the meetings: Mention main noteworthy points. Attach Minutes of the meeting as separate Annexure.
3. Status of preparation of Zonal Master Plan including Tourism Master Plan
4. Summary of cases dealt for rectification of error apparent on face of land record (Eco-sensitive Zone wise). Details may be attached as Annexure.
5. Summary of cases scrutinised for activities covered under the Environment Impact Assessment Notification, 2006. Details may be attached as separate Annexure.
6. Summary of cases scrutinised for activities not covered under the Environment Impact Assessment Notification, 2006.  
Details may be attached as separate Annexure.
7. Summary of complaints lodged under section 19 of the Environment (Protection) Act, 1986.
8. Any other matter of importance.

RAKESH  
SUKUL

Digitally signed by  
RAKESH SUKUL  
Date: 2018.07.09  
17:37:38 +05'30

OFFICE OF THE DIRECTOR, NANDANKANAN BIOLOGICAL PARK,  
MAYUR BHAWAN, SAHEED NAGAR, BHUBANESWAR-7

Memo No. 1055 /2WL(P)- 61/2019 Dated 01.08.2019

To

The Z Estates Pvt. Ltd.,  
M4/34, Acharya Vihar, Bhubaneswar-13

Sub:

Issuance of Certificate about the distance of the project "Z-1" at Kalarahang from the Eco-sensitive zone of Chandaka-Dampada Wildlife Sanctuary and Nandankanan Sanctuary.

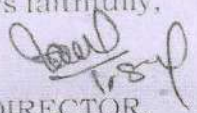
Ref:

Your letter No. nil dated 15.07.2019.

Sir,

With reference to the subject cited above, it is to inform that the project area as proposed to be taken by the Project proponent is coming within 10 kins. from the periphery of Nandankanan protected Area and it has also been stated by the State Level Expert Appraisal Committee in Annexure-A, that the said project is not coming within the limit of Nandankanan Sanctuary. Further, as far as Eco-sensitive Zone of Nandankanan Sanctuary concerned, the final Notification of Eco-sensitive Zone of Nandankanan Sanctuary is awaited, so we can not issue any such clearance for the said project till receipt of final notification which is coming within 10kms aerial distance from Nandankanan Protected area as reported by the Deputy Director, Nandankanan Zoological Park.

Yours faithfully,

  
1.8.19  
DIRECTOR,

Nandankanan Biological Park



भारत सरकार  
केन्द्रीय भूमि जल प्राधिकरण  
जल संसाधन, नदी विकास  
और गंगा संरक्षण मंत्रालय

Government of India  
Central Ground Water Authority  
Ministry of Water Resources,  
River Development & Ganga Rejuvenation

Member (CGWA)

CGWA/IND/Proj/2019-373-R

No.21-4(287)/SER/CGWA/2011- 683

Dated:- 16 JUL 2019

To

M/s Z Estates Pvt. Ltd.  
M 4/34, Acharya Vihar  
Bhubaneswar, Odisha - 751013

**Sub: - Renewal of NOC for ground water withdrawal to M/s Z Estates Pvt. Ltd. in respect of their existing Z1 Resi-Commercial Complex located at Village Kalarahanga, Block Baranga, Tehsil Khandagiri, District Khurda, Odisha - reg.**

Refer to your application dated 22/06/2017 on the above cited subject. Based on recommendation of Regional Director, Central Ground Water Board, South Eastern Region, Bhubaneswar vide his office letter no. No. 5-22/SER/CGWA/2018-19-446 dated 29/03/2019, and further deliberations on the subject, the NOC issued to M/s Z Estates Pvt. Ltd. in respect of their existing Z1 Resi-Commercial Complex located at Village Kalarahanga, Block Baranga, Tehsil Khandagiri, District Khurda, Odisha vide this office letter of even no. dated 23/06/2015 is hereby renewed. The earlier NOC issued vide Letter No. 21-4(287)/SER/CGWA/2011-1008 dated 23/06/2015 shall be deemed to be extended from 23/06/2017 to 09/07/2019 and the renewed NOC shall be valid from 10/07/2019 to 09/07/2022 and shall be subject to the following conditions:-

1. The firm may continue to abstract 3,46,750 cu.m/year through nine (9) existing bore wells only. No additional ground water abstraction structures shall be constructed for this purpose without prior approval of the CGWA.
2. All the wells shall remain fitted with digital water flow meters and monthly ground water abstraction data of each well shall continue to be recorded in a log book.
3. M/s Z Estates Pvt. Ltd., shall, continue to implement ground water recharge measures to the tune of 97,200 cu.m/year for augmenting the ground water resources of the area. Firm shall also undertake periodic maintenance of recharge structures at its own cost.
4. The firm shall continue to execute monthly ground water level monitoring in the project area through one (1) no. of existing piezometer. The firm shall install digital water level recorder and telemetry system in the existing piezometer. Firm shall share user ID and password of the telemetry system with the Regional Director, Central Ground Water Board, South Eastern Region, Bhubaneswar.
5. The ground water quality shall be monitored once in a year during pre monsoon period.
6. The ground water monitoring data in respect of S. No. 2, 4 & 5 shall be submitted to the Regional Director, Central Ground Water Board, South Eastern Region, Bhubaneswar on regular basis at least once in a year.

18/11, Jamnagar House, Mansingh Road, New Delhi-110011


Phone: (011) 23383561, Fax: 23382051, 23386743

Website : www.cgwa-noc.gov.in

स्वच्छ सुरक्षित जल - सुन्दर खुशहाल कल

CONSERVE WATER - SAVE LIFE

7. The firm shall ensure proper recycling and reuse of waste water after adequate treatment.
8. Action taken report in respect of S. No. 1 to 7 shall be submitted to CGWA within one year period.
9. The NOC is liable to be cancelled in case of non-compliance of any of the conditions as mentioned in S. No. 1 to 8.
10. The project proponent shall take all necessary measures to prevent contamination of groundwater in the premises failing which the firm shall be responsible for any consequences arising there upon.
11. This NOC is subject to prevailing Central/State Government rules/laws or Court orders related to construction of tubewell/ground water withdrawal/construction of recharge or conservation structures/discharge of effluents or any such matter as applicable.
12. This NOC does not absolve the applicant / proponent of his obligation / requirement to obtain other statutory and administrative clearances from other statutory and administrative authorities.
13. The NOC does not imply that other statutory / administrative clearances shall be granted to the project by the concerned authorities. Such authorities would consider the project on merits and be taking decisions independently of the NOC.

  
Member (CGWA)

**Copy to:**

1. The Member Secretary, Odisha Pollution Control Board, Paribesh Bhawan, A/118, Nilakantha Nagar, Unit- VIII, Bhubaneswar, Odisha - 751012.
2. The District Collector & Magistrate, District Khurda, Odisha for necessary action.
3. The Regional Director, Central Ground Water Board, South Eastern Region, Bhubaneswar. This has reference to your recommendation dated 29/03/2019.
4. Guard File 2019-20.

  
Member (CGWA)

Date:-2<sup>nd</sup> July 2019

Chief Engineer & Director,  
Directorate of Ground Water Development,  
Department of Water Resources,  
Govt. Of Odisha, Bhubaneswar.

Sub:- Issuance of Permission for Ground Water drawal from Phase-1 onward including use of Ground Water/Borewell at our Project Z-1 at Kalarahanga, Bhubaneswar. (Latitude -20° 22' 0.72" N & Longitude- 85° 50' 06.28" E)

Dear Sir,

We are developing a residential Complex named "Z-1" at Kalarahanga, Bhubaneswar. First phase of this Complex Consisting of 444 flats have been completed in 2016 and is being occupied by the residents. Second Phase of this Complex (II-A) consisting of roughly around 589 flats are under construction and are scheduled to be completed and delivered to the buyers by the end of 2020.

The Second Phase expansion (II-B) consisting of roughly 586 flats is undergoing the approval process. The construction of this phase will commence after all the clearances are obtained. In the process of this approval, the "State Level Expert Appraisal Committee, Odisha" has asked us to obtain necessary permission from Water Resources Department, Govt of Odisha for drawal of Ground Water from Phase-1 onward including use of Ground Water/Bore well at the site. We are enclosing herewith the letter of this committee for your reference and perusal.



Further we would like to intimate you that we have all through this project obtained necessary permissions from Central Ground Water Board (CGWB) of Govt. of India for withdrawal of the required underground Water/Borewell. We are enclosing herewith the permissions/NOC obtained from the CGWB for your reference and perusal.

We now therefore request your good offices to kindly issue us necessary permission for this as required by the Appraisal Committee at the earliest and oblige.

Thanking You,

With Regards

  
For Z Estates Pvt. Ltd.

Encl:- As above

**DIRECTORATE OF GROUND WATER DEVELOPMENT: ODISHA**

HP BUILDING, UNIT-8, DELTA SQUARE, BHUBANESWAR-12

[Phone No.2561038 (O), Fax:2561046; email: [gwd.odisha@gmail.com](mailto:gwd.odisha@gmail.com)]

No.2M-35(pt.)/2004 1585

/GWD, dt, 30/7/2019

From

Er. Prakash Kumar Nanda,  
Chief Engineer & Director,

To

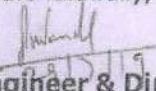
The Z Estates Private Limited,  
M4/34, Acharya Vihar, Bhubaneswar-751013,**Sub: Issuance of permission for Ground Water drawal from Phase-I onward including use of Ground Water / Bore well at out Project Z-I at Kalarahanga, Bhubaneswar. (Latitude-20° 22' 0.72" & Longitude-85° 50' 06.28"E).****Ref: Letter dt.02/07/2019.**

Sir,

With reference to the letter and subject cited above, it is to intimate that, as the Ground Water Regulation Bill has not yet been enacted till date in the State of Odisha, this Directorate is not in a position to issue NoC to this effect.

This is for information and necessary action.

Yours faithfully,

  
Chief Engineer & Director

SUBMISSION of COMPLIANCE REPORT  
to  
**CENTRAL GROUND WATER BOARD**  
for  
RESIDENTIAL BUILDING  
**“Z-ONE”**  
by Z ESTATES PVT. LTD.  
AT NANDAN KANAN ROAD, KALARAHANGA  
BHUBANESHWAR

## CONDITION - 1

The firm may withdraw 950 m<sup>3</sup>/day (and not exceeding 3,46,750 m<sup>3</sup>/year) of ground water, through existing one (1) and proposed eight (8) borewells only. No additional ground water abstraction structure to be constructed for this purpose without prior approval of the CGWA.

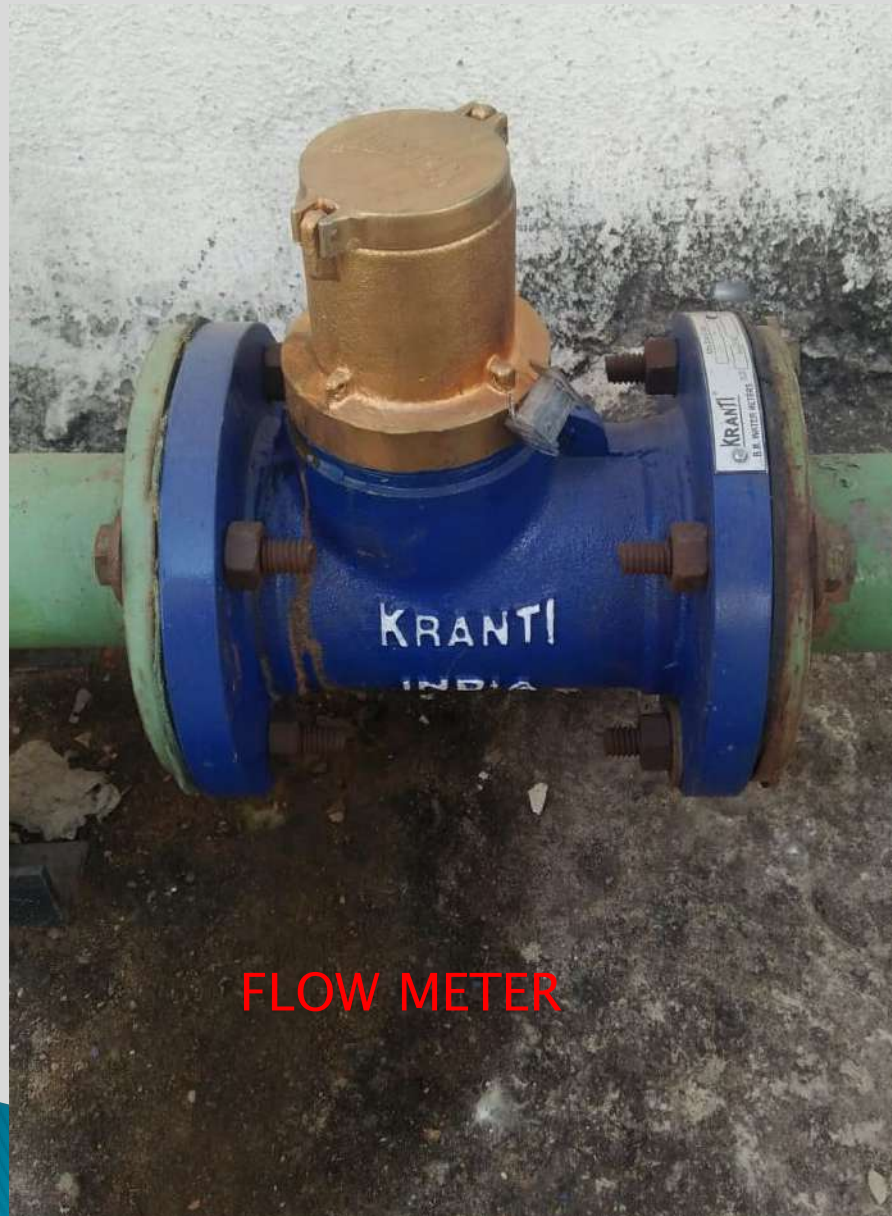
At present the ground water withdrawal is well within the permitted quantity ( i.e, 220 m<sup>3</sup>/day ) It is being used for only drinking and domestic purpose of Phase -I of the project. The ground water is drawn through three bore wells fitted with flow meters. The month wise ground water abstract data from April 2018 to February 2019 is enclosed here.

<b>2018 WATER METER READING 03 OF EVERY MONTH</b>									
<b>YEAR</b>	<b>TOWER</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
2018	April	26644	16084	7617	20361	17971	11307	17037	4723
	May	28623	17204	8530	21745	19439	11853	18187	6363
	June	29990	18088	9260	22893	20474	11853	19290	11853
	July	30861	19040	10013	24153	11853	11853	20254	9100
	August	31462	20046	10908	25466	22621	11853	21164	10367
	September	31569	22220	12722	28180	25017	11853	22995	12627
	October	31573	22220	13545	29325	26098	11853	23471	14250
	November	31575	22220	13545	29325	26095	11853	23471	14250
	December	31577	22403	14369	29517	27248	11853	23963	14936
2019	January	31579	23404	15124	30472	28330	101	24455	15745
	February	31581	24378	15810	31646	29375	786	36	859

## CONDITION - 2

**All the wells to be fitted with water meter by the firm at its own cost and monitoring of ground water abstraction to be undertaken accordingly on regular basis, at least once in a month. The ground water quality to be monitored twice in a year during pre monsoon and post monsoon periods.**

The three bore wells are fitted with flow meters duly calibrated. The photograph of **flow meters** are given here under. The ground water abstraction is done on a regular basis. The ground water quality is being monitored twice in a year . Pre monsoon and post monsoon. The month wise ground water abstraction data and ground water quality data is being submitted regularly to the Regional Director, Central Ground Water Board, South Eastern Region, Bhubaneswar. **The month wise ground water abstraction data from April 2018 to Feb 2019 is given here.**



FLOW METER



INSIDE OFFLOW METER



INSTITUTE OF MINERALS AND MATERIALS TECHNOLOGY  
BHUBANESWAR-751 013

TEST REPORT

Date: 10.01.2018

Sample Ref. No. :- LT05-ESD/12/17/20  
Name & Address of the Party :- MANAS RANJAN MANDOI  
UNITED RESORTS AND SERVICES LLP  
T-3, Ground floor  
Z-1 (Advait)  
BHUBANESWAR 751024  
Sample Details :- Water Sample for drinking purpose  
Date of Receiving :- 21.12.2017  
Date(s) of Conducting Test :- All working days during 21.12.17 to 09.01.2018  
[Sample was required to keep under incubation for 120 hrs. at 20°C]  
Date of Completion of Test :- 09.01.2018  
Standard / Method Adopted :- BIS methods

  
मुख्य वैज्ञानिक एवं अध्यक्ष/ Chief Scientist & Head  
पर्यावरण एवं संप्रोषण विभाग  
Environment and Sustainability Department  
खनिज एवं पदार्थ प्रौद्योगिकी संस्थान  
Institute of Minerals and Materials Technology  
भुवनेश्वर/ Bhubaneswar-751013

Analytical Report along with Drinking Water Specification, Bureau of Indian Standard  
(As Per 10500 - 2012BIS)

Sl. No.	Parameter	Test Sample (With Reference No.)	BIS, Acceptable limit	Permissible Limit in the absence of Alternate source
1.	Color, Hazen units	<5	5	15
2.	Odour	Agreeable	Agreeable	Agreeable
3.	Taste	-	Agreeable	Agreeable
4.	Turbidity, NTU	0.09	1	5
5.	pH	7.09	6.5-8.5	No relaxation
6.	Total Hardness (as CaCO <sub>3</sub> ) mg/L	65.05	200	600
7.	Calcium mg/L	14.0	75	200
8.	Magnesium mg/L	7.3	30	100
9.	Iron, µg/L	78.1	300	1000
10.	Copper µg/L	1.24	50	1500
11.	Manganese, µg/L	3.31	100	300
12.	Aluminium, µg/L	1.27	30	200
13.	Zinc, µg/L	112.4	5000	15000
14.	Lead, µg/L	<0.05	10	No relaxation
15.	Arsenic, µg/L	0.42	10	50
16.	Cadmium, µg/L	<0.05	3.0	No relaxation
17.	Phenolic Compounds mg/L	Nil	0.001	0.002
18.	Chloride, mg/L	24.8	250	1000
19.	Dissolved Solids mg/L	132.8	500	2000
20.	Sulfate, mg/L	3.2	200	400
21.	Nitrate, mg/L	0.2	45	No relaxation
22.	Fluoride, mg/L	0.09	1.0	1.5
23.	Chromium (VI), µg/L	5.24	50	No relaxation
24.	Alkalinity, mg/L	75.6	200	600
25.	Nitrite	Nil	-	-
26.	Total Silica mg/L	2.94	-	-
27.	Conductivity µs/cm	201	-	-
28.	**DO mg/L	6.23	-	-
29.	Biological oxygen demand (BOD <sub>5</sub> ) mg/L	0.3	-	-
30.	Sodium mg/L	16.28	150 l*	-
31.	Potassium, mg/L	0.52	12.00 *	-
32.	Residual free chlorine mg/L	Nil	0.02	1.0
33.	Minerals Oil, mg/L	Nil	0.5	No relaxation
34.	Total Suspended Solid	NIL	-	-

CONCLUSION: WATER SAMPLE FIT FOR HUMAN DRINKING PURPOSE

  
11/01/2018

- BIS has not yet set limit  
\* UK Water Supply (Water Quality) Regulation Act 1989  
\*\* DO was determined as soon as the sample was received.  
It was not collected in DCO bottle

Signature   
**Dr. C. R. PANDA**  
मुख्य वैज्ञानिक एवं अध्यक्ष/ Chief Scientist & Head  
पर्यावरण एवं संप्रोषण विभाग  
Environment and Sustainability Department  
खनिज एवं पदार्थ प्रौद्योगिकी संस्थान  
Institute of Minerals and Materials Technology  
भुवनेश्वर/ Bhubaneswar-751013  
E mail L.D.crpanda@immt.res.in

N.B. :- The sample is not drawn by the institute. Liability if any for CSIR/IMMT arising in connection with the testing shall be subject to ceiling of amount received by the institute from the client. The report should not be interpreted in part.



**CSIR-IMMT**  
A Govt India Autonomous Body  
**Environmental Chemical Lab of E. & S. Dept.**  
**Bhubaneswar-751013, Odisha**  
Phone- +91-674-256-7126, +91-674-237-9401

**TEST REPORT**

Issued to: Manas Ranjan Mandoi  
Safety Officer  
United Resort and services LLP  
Z-One, Kalarahanga, Nadankanan Road  
Bhubaneswar-751024  
Test Report No. 05/18-12  
Source of Sample : Z-one, T-5, 602  
Bottle Seal no if any: 01  
Type of Sample : Drinking Water sample  
Letter Reference : LT05-ESD/18/61

Date: 02.07.2018

Date of Sampling: 17.05.2018  
Sample Received on: 17.05.2018  
Sample Analyzed on: 30.06.2018

Sl No	Characteristics	Test Method (P) of IS:3025	Requirements as per IS 10500:2012 (Latest Version)		Test Result
			Acceptable limit	Permissible Limit	
1	Temperature °C	Part 9	-	-	24.7
2	Color, Hazen units	Part 4	5	15	<2
3	Odour	Part 5	Agreeable	Agreeable	Agreeable
4	Turbidity, NTU	Part 10	1	5	19.58
5	pH	Part 11	6.5-8.5	No relaxation	6.65
6	Total Hardness (as CaCO <sub>3</sub> ) mg/L	Part 21	200	600	60.05
7	Calcium mg/L	Part 40	75	200	16.03

1 of 3

*(Signature)*  
मुख्य वैज्ञानिक एवं अध्यक्ष, Chief Scientist & Head  
पर्यावरण एवं सततता विभाग  
Environment and Sustainability Department  
खनिज एवं पदार्थ प्रौद्योगिकी संस्थान  
Institute of Minerals and Materials Technology  
भुवनेश्वर/Bhubaneswar-751013

8	Magnesium mg/L	Part 46	30	100	4.86
9	Iron, g/L	Part 53	300	No relaxation	1262.0
10	Copper, µg/L	Part 42	50	1500	86.9
11	Manganese, µg/L	Part 59	100	300	16.5
12	Nickel, µg/L	Part 55	30	200	39.4
13	Zinc, µg/L	Part 49	5000	15000	722.2
14	Lead, µg/L	Part 47	10	No relaxation	7.2
15	Arsenic, µg/L	KIT Method	10	No relaxation	<0.05
16	Cadmium, µg/L	Part 41	3.0	No relaxation	1.5
17	Phenolic Compounds mg/L	KIT Method	0.001	0.02	Nil
18	Chloride, mg/L	Part 32	250	1000	26.58
19	Dissolved Solids mg/L	Part 16	500	2000	142.88
20	Sulfate, mg/L	Part 24	200	400	11.46
21	Nitrate, mg/L	Part 34	45	No relaxation	Nil
22	Fluoride, mg/L	Part 60	1.0	1.5	0.14
23	Chromium, µg/L	Part 52	50	No relaxation	50.7
24	Alkalinity, mg/L	Part 23	200	600	50.0
25	Nitrite, mg/L	Part 62	-	-	Nil
26	Total Silica, mg/L	Part 35	-	-	1.85
27	Conductivity, µs/cm	Part 14	-	-	188
28	**DO, mg/L	Part 38	-	-	5.47
29	Sodium, mg/L	Part 45	150 *	-	8.25
30	Potassium, mg/L	Part 45	12.00 *	-	0.60
31	Residual free chlorine, mg/L	Part 26	0.02	1.0	Nil
32	Mineral Oil, mg/L	Part 39	0.5	No relaxation	Nil

2 of 3

*(Signature)*  
मुख्य वैज्ञानिक एवं अध्यक्ष, Chief Scientist & Head  
पर्यावरण एवं सततता विभाग  
Environment and Sustainability Department  
खनिज एवं पदार्थ प्रौद्योगिकी संस्थान  
Institute of Minerals and Materials Technology  
भुवनेश्वर/Bhubaneswar-75

33.	Total Suspended Solid, mg/l	Part 17	-	-	19.83
-----	-----------------------------	---------	---	---	-------

- BIS has not yet set limit\*  
UK Water Supply (Water Quality) Regulation Act 1989  
\*\* DO was determined as soon as the sample was received.

Authorized Signatory

*(Signature)*  
**Dr C R PANDA**  
Chief Scientist & HOD  
0674-2379304  
E mail I.D.crpanada@immt.res.in

मुख्य वैज्ञानिक एवं अध्यक्ष, Chief Scientist & Head  
पर्यावरण एवं सततता विभाग  
Environment and Sustainability Department  
खनिज एवं पदार्थ प्रौद्योगिकी संस्थान  
Institute of Minerals and Materials Technology  
भुवनेश्वर/Bhubaneswar-751013

N.B. - The sample is not drawn by the institute. Liability if any for CSIR/IMMT arising in connection with the testing shall be subject to ceiling of amount received by the institute from the client. The report should not be interpreted in part.

3 of 3

**QUALITY REPORT OF WATER FOR JULY'2018**

## CONDITION - 3

**M/s Z Estates Pvt Ltd., shall, continue to implement ground water recharge measure to the tune of 97,200 m<sup>3</sup>/year in consultation with the Regional Director, Central Ground Water Board, South Eastern Region, Bhubaneswar .**

Z Estates Pvt. Ltd has been implementing various ground water recharge measures in and around the project for increasing the ground water resources. The details of which with photographs have been submitted earlier to the Regional Director, Central Ground Water Board, South Eastern Region, Bhubaneswar.

Z Estates Pvt. Ltd has the approval to withdraw maximum 950 m<sup>3</sup>/day for which need to recharge 97,200 m<sup>3</sup>/year . At present the ground water withdrawal is well within the permitted limit, i.e, 220 m<sup>3</sup>/day as the project is partly under construction and quantity of water being recharged is :

For the year 2017-18, a volume of 9,416.00 m<sup>3</sup> was recharged while for the year 2018-19 a volume of 11,140.00 m<sup>3</sup> was recharged through various initiatives.

The year wise rain water recharged through various initiatives is given here-under.

Avg. rain fall data as recorded by govt. of odisha department of water resources at Bhubaneswar total rain fall

for 2017-18 is	= 1530.1 mm
Total Terrace area	= 6154.38 Sqm
Total volume of rain fall	= 6154.38 x 1.530
	= 9,416.20 Cum
Total water to be recharged (say)	= 9,416.00 Cum

for 2018-19 is	= 1810.6 mm
Total Terrace area	= 6154.38 Sqm
Total volume of rain fall	= 6154.38 x 1.810
	= 11,139.42 Cum
Total water to be recharged (say)	= 11,140.00 Cum

## CONDITION - 4

The photographs of the recharge structures after completion of the same are to be furnished immediately to the Regional Director, Central Ground Water Board, South Eastern Region, Bhubaneswar for verification and under intimation to this office.



**Calculation on requirement of recharge pit capacity for recharging terrace water for Z1 Project ( Phase - 1 ) at Kalarahanga, Bhubaneswar**

**Capacity of Designed storage tank :-**

Providing 4 No.s 1.2m dia ring upto 6m. Height per pit.

$$4 \times (\pi/4) \times 1.2^2 \times (6-0.3) \text{ (ignoring the top ring )} = 25.77$$

$$\text{Say} = 25 \text{ cum / no.}$$

**For Tower - 1 to 8**

$$\text{Total terrace area} = 4,872.96 \text{ sqm}$$

$$\text{Required capacity of Rain water storage tank} = 6 \text{ cum per } 100.00 \text{ sqm}$$

$$= 292.38 \text{ cum}$$

$$\text{Hence No.s of Storage tank required} = \mathbf{11.70} \text{ no.s}$$

**For Dormitory**

$$\text{Total terrace area} = 264.42 \text{ sqm}$$

$$\text{Required capacity of Rain water storage tank} = 6 \text{ cum per } 100.00 \text{ sqm}$$

$$= 15.87 \text{ cum}$$

$$\text{Hence No.s of Storage tank required} = \mathbf{0.63} \text{ no.s}$$

**For Club House**

$$\text{Total terrace area} = 1,017.00 \text{ sqm}$$

$$\text{Required capacity of Rain water storage tank} = 6 \text{ cum per } 100.00 \text{ sqm}$$

$$= 61.02 \text{ cum}$$

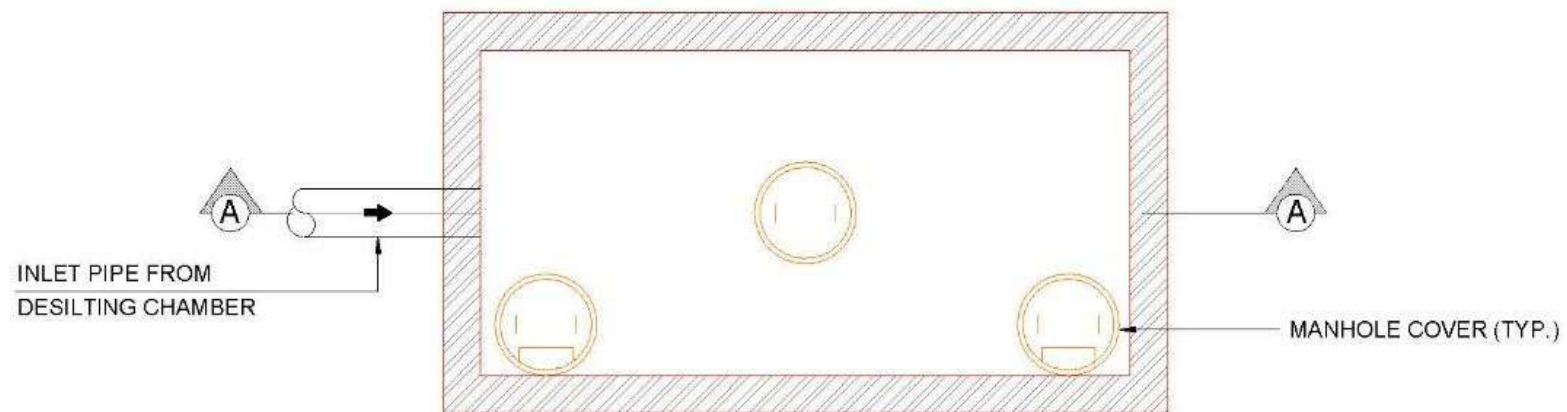
$$\text{Hence No.s of Storage tank required} = \mathbf{2.44} \text{ no.s}$$

$$\text{TOTAL REQUIREMENT :} = \mathbf{14.77} \text{ no.s}$$

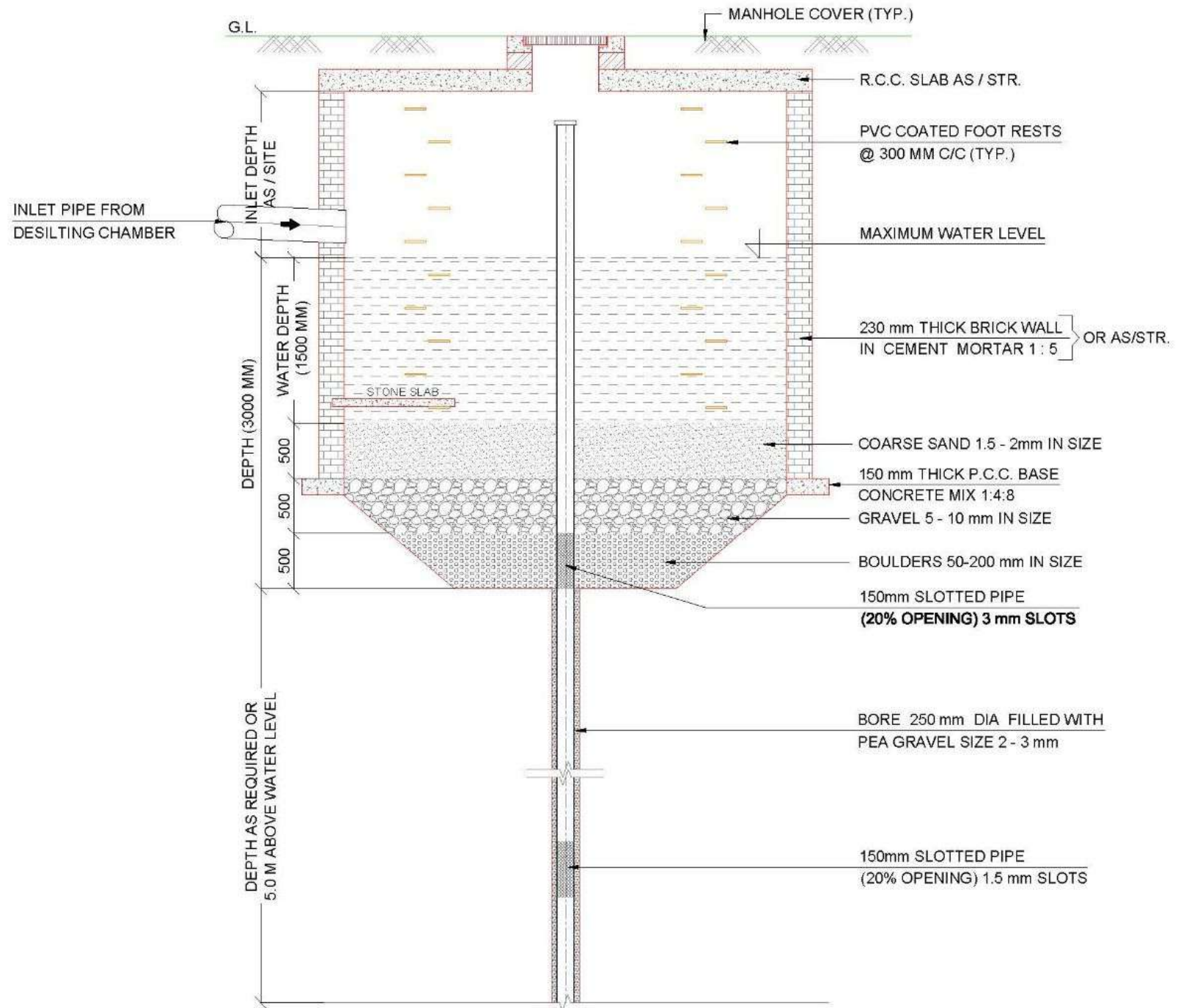
$$\text{Say :} = \mathbf{15.00} \text{ no.s}$$

$$\text{TOTAL CONSIDERED AT SITE :} = \mathbf{17.00} \text{ no.s}$$

# RECHARGE PIT DETAIL

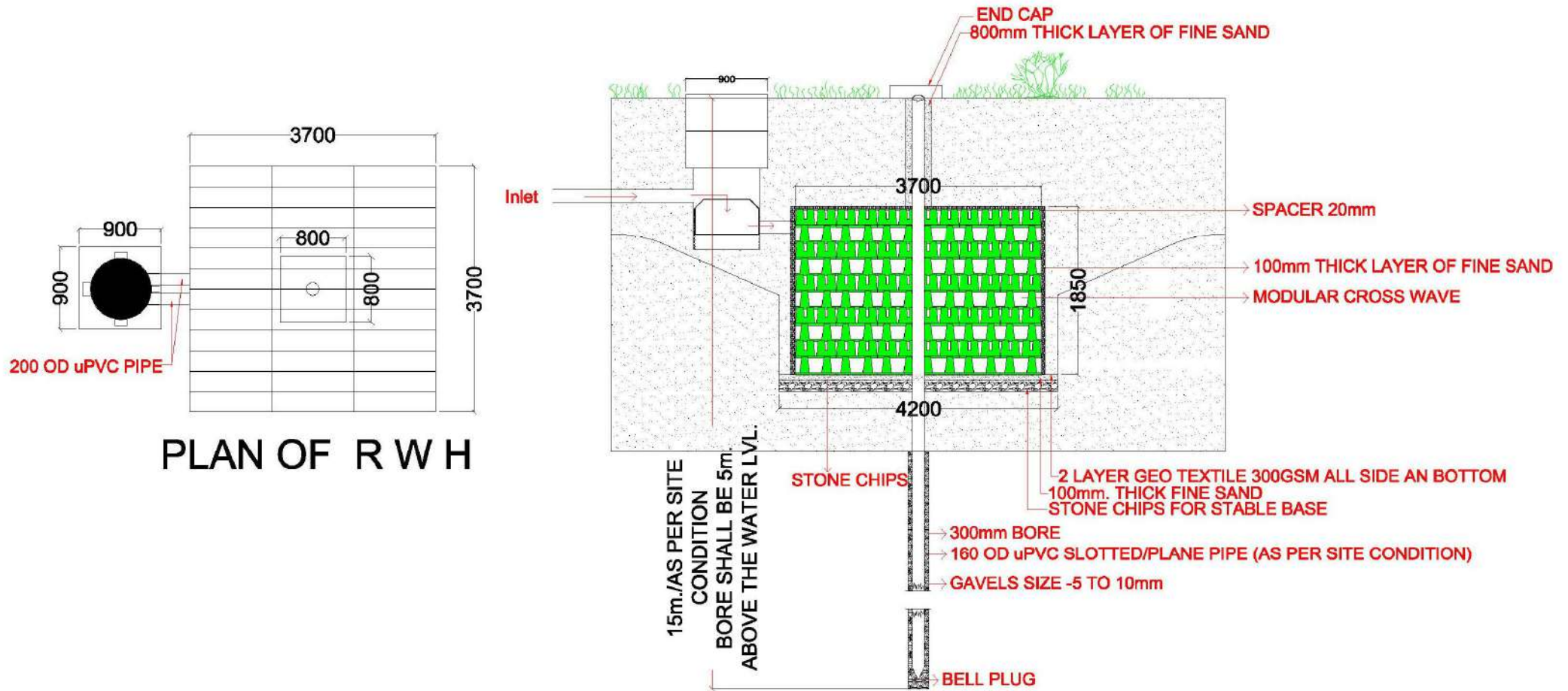


PLAN OF 4.0 X 1.7 M WIDE RECHARGE PIT



SECTION A - A

# RECHARGE CUM HARVESTING PIT DETAIL



Section View Modular Cross-Wave  
Rainwater Harvesting

## CONDITION - 5

The firm at its own cost shall install piezometers at suitable locations and execute ground water regime monitoring programme in and around the project area on regular basis in consultation with the Central Ground Water Board, South Eastern Region, Bhubaneswar.

Z Estates Pvt. Ltd has been installed the piezometer on 30.10.2018 and monitoring the Ground water level on daily basis and taking report monthly.

**Contractor/Supplier**

Encardio-Rite Electronics Pvt. Ltd.  
A-7, Industrial estate, Talkatora Road  
Lucknow

**Customer/Buyer**  
**Z ESTATES PVT LTD.**

1	Date of Installation	30-10-2018
2	Customer	Z ESTATES PVT LTD
3	Agreement No.	
4	Purchase Order No.	ZEPL/Z1-PH-III/PO/18-19/ 0,DT-28-09-2018
5	Model of Instrument	ESCL-10VTR-Bx
6	Data Logger S. No. / Sensor S. No.	BE01195/37994
7	Logger ID	
8	Cable length used (m)	50MTR
9	Bore well depth (m)	
10	WLS reading (m)	6.35
11	Platform height	.19
12	Location	Z ONE APARTMENT
	• Village	KALARAHANGA, BHUBANESWAR
	• Mandal/ District	KHURDA
	• Height above Mean Sea Level (MSL)	20MTR
• Northing/ Easting	20.20.365106,85.833783	
13	Coefficient (A1)	-1.3962E-05
14	Coefficient (A2)	-8.6398E-14
15	Initial Reading before Installation (A0)	-96.295
16	Installation Depth (m)	-19.067
17	SIM Service Provider	
18	SIM No.	

REV-02-01 AUG 16

19	Mob No. of SIM Card	
20	Signal strength (on Site)	
21	Current Scan Rate (frequency) Starting from (time)	24.00Hrs/10AM
22	Upload Time/s	
23	Current Water Level after Installation (mWC)	-6.16
24	Temperature ( °C)	28.2
25	Barometric Pressure (hpa)	-1006
26	Name of Encardio rite's representative	RISHABH RAJPOOT
27	Name of Customer' representative	PARTHASARATHI PANDA
28	Remarks by Installation Engineer	INSTALLATION HAS BEEN DONE SUCCESSFULLY

The above instrument has been installed and tested found O.K. and satisfactory and finally accepted.

*Rishabh Rajpoot*  
Signature:

ENCARDIO RITE REPRESENTATIVE

*Parthasarathi Panda*  
Signature:

CUSTOMER REPRESENTATIVE

Name: *PARTHASARATHI PANDA*

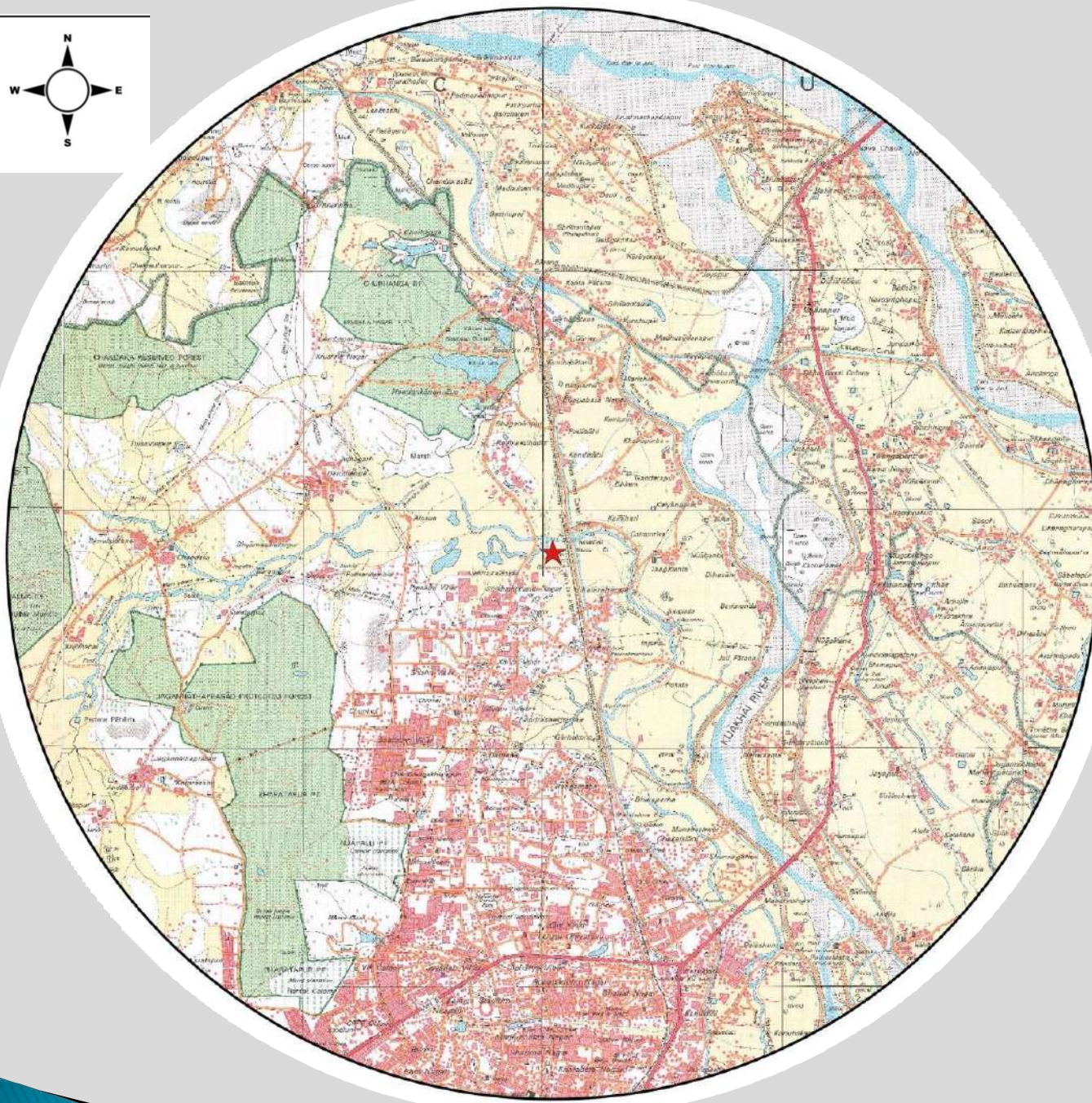
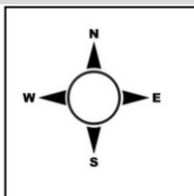
Designation: *DCM (PSC, QM)*

Contact No: *957450262*

Stamp:



REV-02-01 AUG 16



## TOPO MAP

(10km Buffer Zone of project site)

Scale

1 0 1 2 km



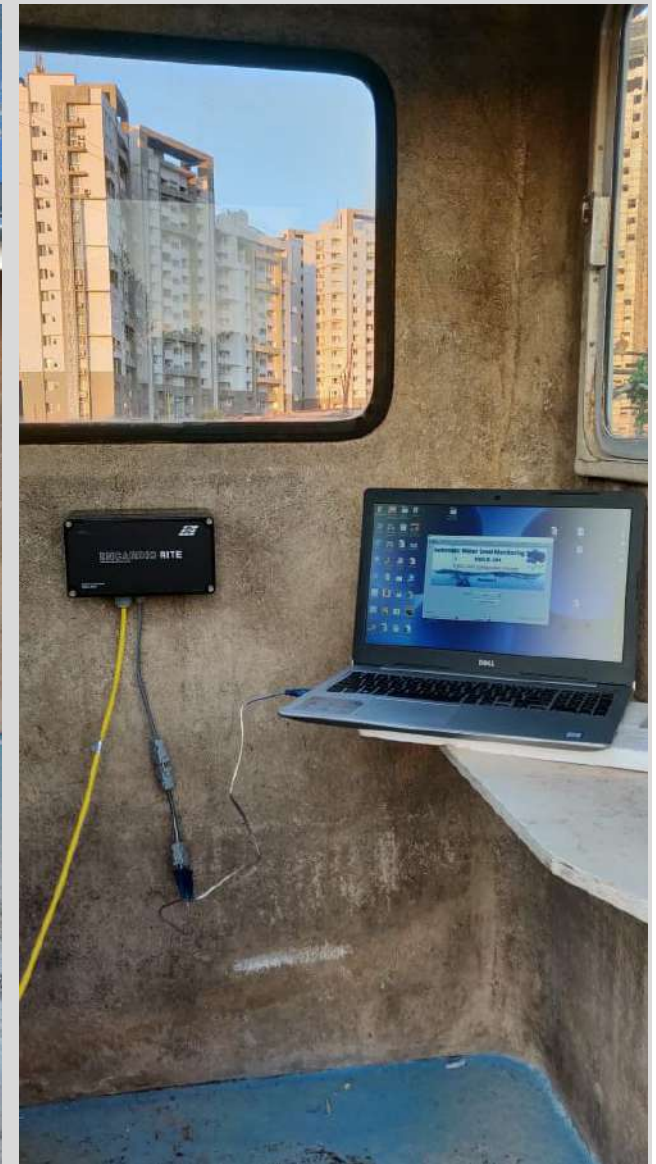
REFERENCE

SOI Toposheet No-73H/11 & 73H/15

### Legend

-  Project Site
-  10KM Buffer Zone
-  Settlement
-  Railway
-  State Highway
-  Major Road
-  Minor Road
-  Contour
-  RF/ PF
-  River/ Waterbody

**TOPO MAP SHOWING THE SITE LOCATION**



PHOTOGRAPHS OF PIEZOMETER

## CONDITION - 6

The ground water monitoring data in respect of S. No. 2 & 5 to be submitted to Central Ground Water Board, South Eastern Region, Bhubaneswar, on regular basis at least once in a year.

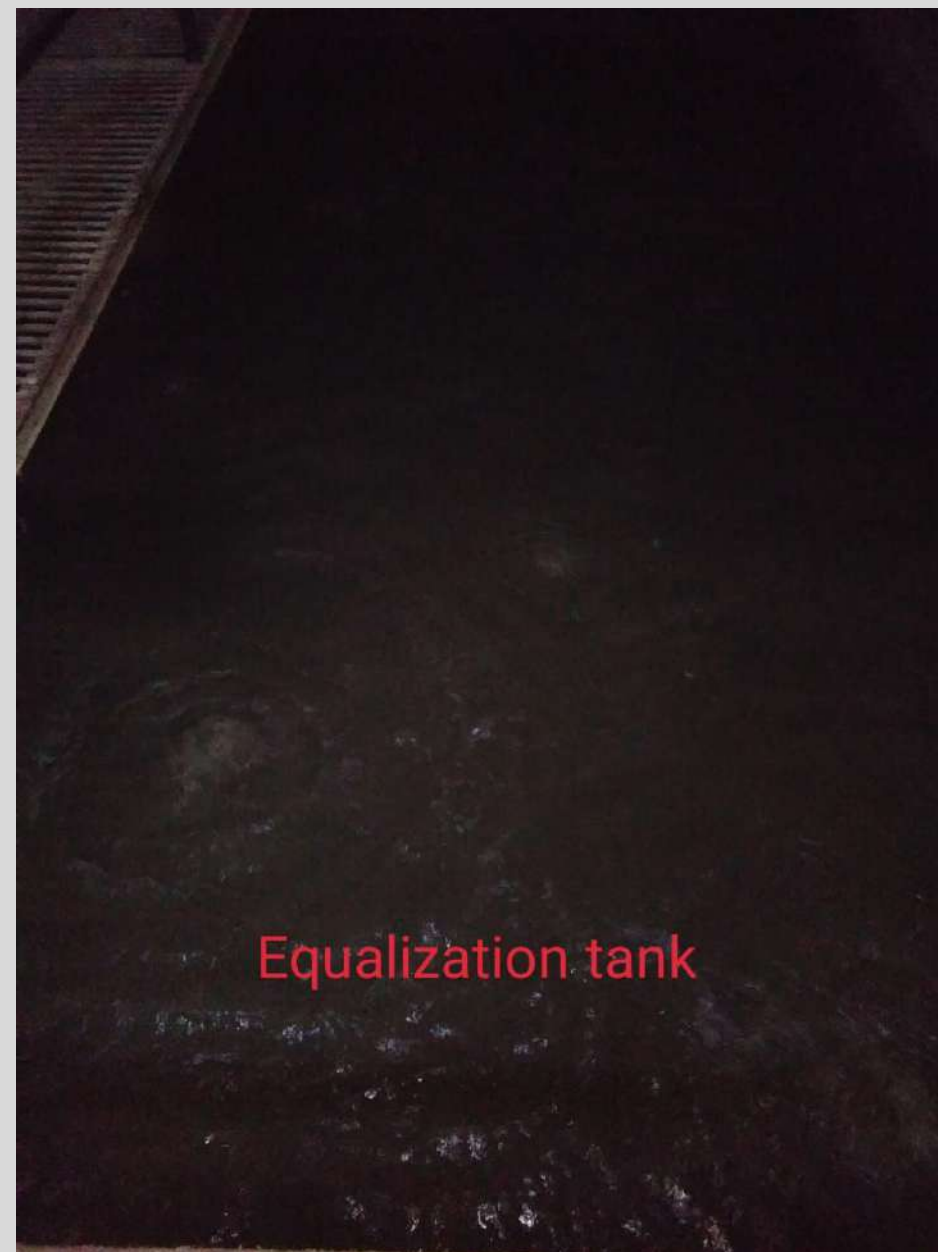
2018 WATER METER READING 03 OF EVERY MONTH									
YEAR	TOWER	1	2	3	4	5	6	7	8
2018	April	26644	16084	7617	20361	17971	11307	17037	4723
	May	28623	17204	8530	21745	19439	11853	18187	6363
	June	29990	18088	9260	22893	20474	11853	19290	11853
	July	30861	19040	10013	24153	11853	11853	20254	9100
	August	31462	20046	10908	25466	22621	11853	21164	10367
	September	31569	22220	12722	28180	25017	11853	22995	12627
	October	31573	22220	13545	29325	26098	11853	23471	14250
	November	31575	22220	13545	29325	26095	11853	23471	14250
	December	31577	22403	14369	29517	27248	11853	23963	14936
2019	January	31579	23404	15124	30472	28330	101	24455	15745
	February	31581	24378	15810	31646	29375	786	36	859

## CONDITION - 7

The firm shall ensure proper recycling and reuse of waste water after adequate treatment.

Z Estates Pvt. Ltd has been installed the STP to reuse the waste water for flushing and watering the greens and maintaining the same in regular basis.







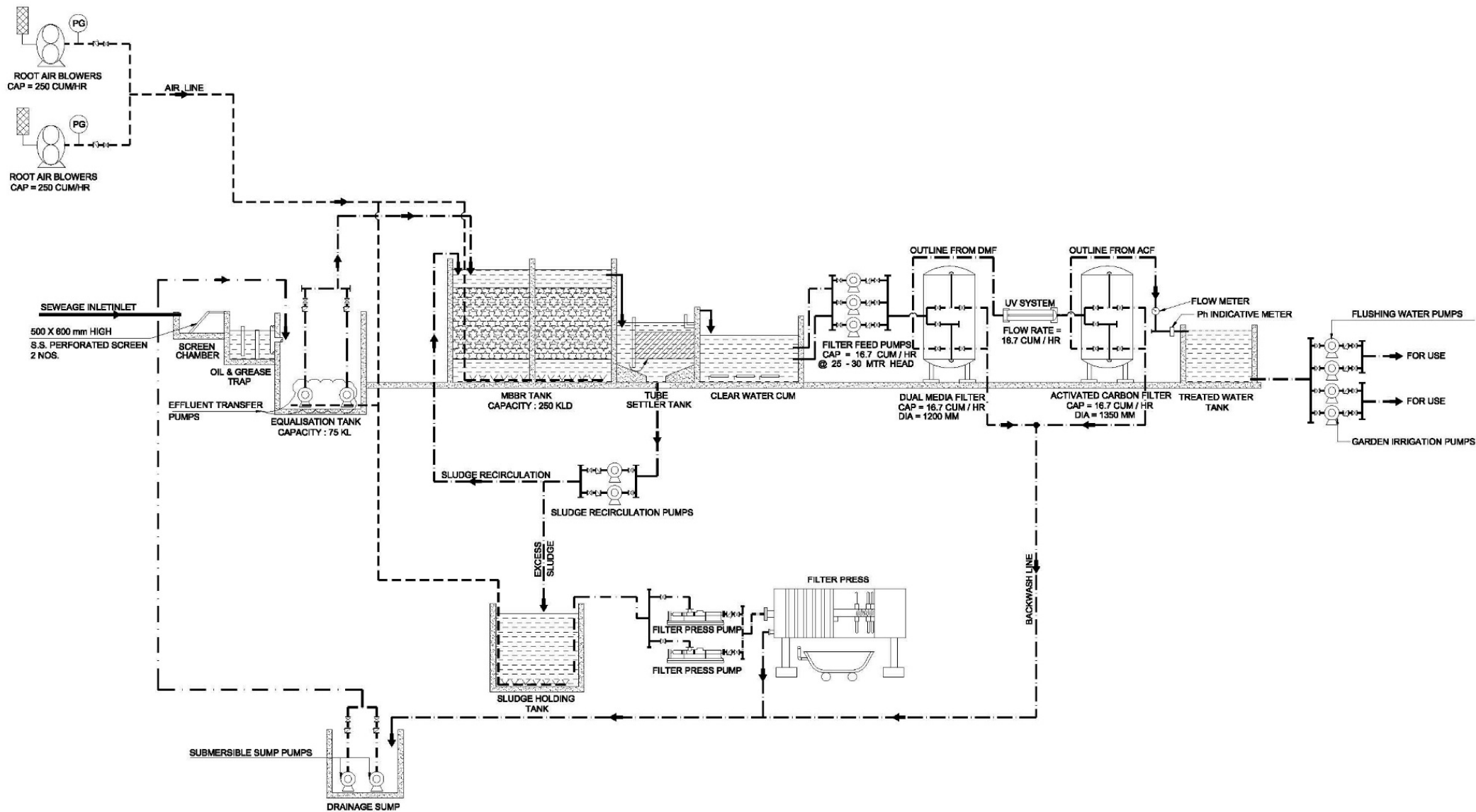
Tube sieltter tank



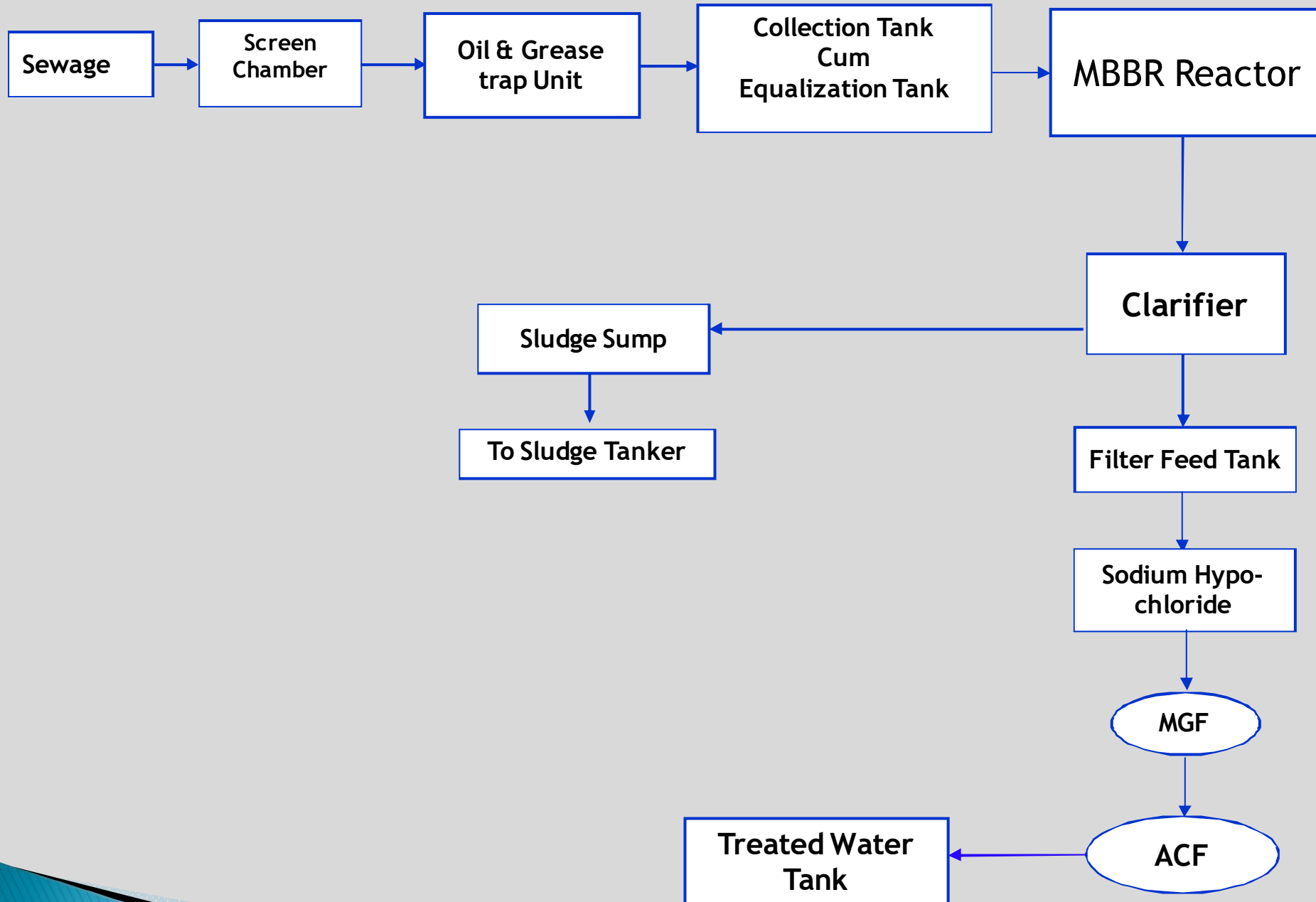
STP - Bar screen, Grid chamber, Oil chamber



clarify water tank



## LINE DIAGRAM OF STP



## STP FLOW DIAGRAM

## CONDITION - 8

**Action taken report in respect of Sl. No - 1 to 7 may be submitted to CGWA within One year period.**

The action taken report is being submitted timely.

## CONDITION - 9

**The permission is liable to be cancelled in case of non-compliance of any of the conditions as mentioned in Sl. No. - 1 to 8.**

Noted and agreed.

## CONDITION - 10

The NOC is subject to prevailing Central / State Govt. rules / laws or quote orders related to construction of tube well / Ground water withdrawal / construction of recharge or conservation structures / discharge of effluents or any such matter as applicable.

Noted and agreed.

## CONDITION - 11

The NOC doesn't absolve the applicant / proponent office obligation / requirement to obtain other statutory and administrative clearances from other administrative authorities.

Noted.

## CONDITION - 12

The NOC doesn't imply that other statutory / administrative clearances shall be granted to the projects by the concern authorities . Such authorities should consider the project on merits and be taking decisions independently of the NOC.

Noted.

## CONDITION - 13

The NOC is valid for two years from the date of issue of this letter.

Noted.





# Z ESTATES PRIVATE LIMITED

Date: 05<sup>th</sup> Sep, 2019

To,

**The Regional Officer,  
State Pollution Control Board, Odisha,  
Chandaka Industrial Estate,  
Bhubaneswar**



**Sub:** Request for issue of Certificate of Compliance to consent to operate conditions, for construction of Housing Colony and Shopping Mall by M/s Z-Estates Pvt. Ltd. At- village Kalarahanga, Bhubaneswar.

**Ref.:** 1. EC granted by SEIAA, Odisha vide letter no. SEIAA-261/10, dt 16.08.2011.  
1. Amendment of EC granted by SEIAA, Odisha for modification of project vide letter no. SEIAA-827, dt 23.02.2016  
2. Issue of Consent to Operate vide letter no 1788/IND-I-CON-6488 Dt 27.01.2016

Dear Sir,

In continuation to our letter dated 04<sup>th</sup> September, 2019, we request you to kindly issue the Certificate of Compliance to consent to operate conditions for the construction of Housing Colony and Shopping Mall by M/s Z-Estates Pvt. Ltd. At-village Kalarahanga, Bhubaneswar.

For your reference we are enclosing a copy of consent to operate and point wise compliance to the conditions of CTO.

Request you to kindly do the needful at your end.

Thanking you  
Yours faithfully,

*Raw Keshavadas*  
For M/s Z-Estates Pvt. Ltd.



**POINT WISE COMPLIANCE TO CONCENT TO OPERATE CONDITIONS OF EXISTING PROJECTS OF Z ESTATES PVT.LTD AT KALARAHANGA, BHUBANESWAR, KHURDA, ODISHA-751024.VIDE CONSENT TO OPERATE LETTER NO-1788/IND-I-CON-6488 DT 27.01.2016**

**CONSENT ORDER NO-2819.**

**A. DETAIL OF HOUSING PROJECT.**

<b>Sl. No.</b>	<b>CONDITION</b>	<b>COMPLIANCE</b>
1.	<b>Construction of Multistoried Residential Housing Project.</b>	The Applicant (Project Proponent ) has obtained EC for existing project vide letter-no SEIAA-261/10 dated 16-08-2011 and for the proposed construction vide letter no.SEIAA/827,Dated 23-02-2016.

**B. DISCHARGE PERMITTED THROUGH THE FOLLOWING OUTLET SUBJECT TO THE STANDRAD.**

1.	<b>Outlet of STP -To be used for gardening, toilet flushing, vehicle washing and balance to municipal sewer. STP (270KLD).</b>	At present the treated water is being used for gardening, toilet flushing and car washing after maintaining pre-scribed Standard and no water is being discharged to Municipality drain
----	--	---

**C.EMISSION PERMITTED THROUGH THE FOLLOWING STACK SUBJECT TO THE PRECRIBED STANDRAD.**

1.	<b>3 DG set(380 KVA) each</b>	3nos (DG) sets 380 KVA Each are in operation for the existing project. Low Sulphur type fuel is used in the DG set. From the data submitted on emission as well as noise quality, it is noted that the values are within the permissible limits. All silence DG sets Confirming to the standards of CPCB-II,2017.
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**D.DISPOSAL OF SOLID WASTE PERMITTED ....**

1	<b>Garbage.</b>	Daily garbage collected from existing House hold is being handed over to authorized BMC vendor for disposal on daily basis.
2.	<b>STP sludge.</b>	The STP sludge is being used as manure for gardening.

**E.GENERAL CONDITIONS FOR ALL UNITS.**

1.	<b>This consent is given by the Board in consideration of the particulars given in the application. Any change or alteration or deviation made in actual practice from the particulars furnished in the application will also be the ground liable for review/variation/revocation of the consent order under section 21 of AIR (Prevention &amp; control of Pollution) Act</b>	The Applicant (Project Proponent) has obtained EC for Phase-I project vide letter no SEIAA-261/10 dated 16-08-2011 and for the PH-II after submitting the revised proposal stating all necessary changes done from the earlier application vide letter- no. SEIAA/827, Dated 23-02-2016.
----	---	--

	<b>1981 and to make such variation as deemed fit for the purpose of the Acts.</b>	
2.	The housing project would immediately submit revised application for consent to operate to this Board in the event of any change in the approved layout plan building facility/quantify/quality of the waste water generated /capacity of number of DG set etc and the applicant shall not change or alter as such without permission of the Board.	The Applicant (Project Proponent) has obtained EC for Phase-I project vide letter no SEIAA-261/10 dated 16-08-2011 and for the PH-II after submitting the revised proposal stating all necessary changes done from the earlier application vide letter no. SEIAA/827, Dated 23-02-2016.
3.	<b>The application shall comply with and carry out the directives/orders issued by the Board in the consent order and at all subsequent times without any negligence on his part. In case of non-compliance of any order/directives issued at any time and/or violation of the terms and conditions of this consent order, the applicant shall be liable for legal action as per the provisions of the Law/Act.</b>	The proponent is submitting half yearly compliance reports regularly to SPCB and MOEF&CC. Date of Report submitted (Last 4) 1.1-06-2019. 2.1-12-2018. 3.1-06-2018 4.1-12-2017
4.	<b>The issuance of this consent does not convey any property right in either real or personal property or any exclusive privileges nor does it authorize any injury to private or any invasion of personal rights nor any infringement of central state laws or regulation.</b>	Conditions complied.
5.	<b>This consent does not authorize or approve the construction of any physical structure or facilities or the undertaking of any work in any natural water courses.</b>	Conditions complied.
6.	<b>The applicant shall display the consent granted to him in a prominent place for perusal of the public and inspecting officers of this Board.</b>	Display board present at site.
7.	<b>An inspection book shall be opened and made available to board's officers during the visit to the project site.</b>	Inspection Book available at site.
8.	<b>The applicant shall furnish to the visiting officer of the Board any information regarding the construction, installation, or operation of effluent treatment system / air pollution control</b>	Permission from the Bhubaneswar development Authority(B.D.A) has been obtained for occupancy vide letter no.24944 dated 27.08.016.The project has assured for timely renewal for the same.

	<b>system/stack monitoring system any other particulars as may be pertinent to preventing and controlling pollution of water/Air.</b>	
9.	<b>Meters must be affixed at the entrance of the water supply connection so that such meters are easily accessible for inspection and maintenance and for other purposes of the Act provided that the place where it is affixed shall in no case be at a point before which water has been taped by the consumer for utilization for any purposes whatsoever.</b>	There is no Municipality water connection to the project and Flow meters have been installed for drawing water from the borewells. Renewal of NOC for Ground water withdrawal is being issued by Central Ground water Authority vide letter no.21-4(287)/SER/CGWA/2011-683 Dated 16JUL2019.
10.	<b>The applicant shall display suitable caution board at the place where the effluent is entering into any water body or any other place to be indicated by the Board indicating therein that the area into which the effluents are being discharged is not fit for the domestic use/bathing.</b>	The project area is facilitated with different signages stating different use of area and services throughout the project area.
11.	<b>Storm water shall not be allowed to mix with the trade and/or domestic effluent on the upstream of the terminal manholes where the flow measuring devices will be installed.</b>	The storm water is not mixing with any other effluent/waste water before discharged to municipality drain running in-front of project site.
12.	<b>The applicant shall maintain good housekeeping within the complex. All pipes, valves, sewers and drains shall be leak proof. Floor washing shall be admitted into the effluent collection system only and shall not be allowed to find their way in storm drains or open areas.</b>	The Project proponent has engaged housekeeping personnel to maintain good housekeeping all around the project and maintained all the pipes, valves, sewers and drains leak proof.
13.	<b>The applicant shall all times maintain good working condition and operate as efficiently as possible all the treatment or control facilities installed by him to</b>	The Project proponent has engaged Expert professionals to maintain and operate one 270 KLD STP, one 230 KLD capacity WTP and 33KV Electric Supply with all control

	<b>achieve with the term(s) and conditions of the consent.</b>	and distribution facilities installed by him, on there -own.
14.	<b>Care should be taken to keep the anaerobic lagoon, if any biologically active and not utilized as mere stagnation ponds. The anaerobic lagoons should be fed with the required nutrients for effective digestion. Lagoons should be constructed with sides and bottom made impervious.</b>	There is no Lagoon present at the project site.
15	<b>The effluent disposal on land, if any should be done without creating any nuisance to the surroundings or inundation of the lands at any time.</b>	There is no Effluent discharge happened at the project site.
16.	<b>If at any time the disposal of treated effluent on land becomes incomplete or un satisfactory or create any problem or becomes a matter of dispute, the project must adopt alternate satisfactory treatment and disposal measures.</b>	That there is no Effluent discharge happened at the project site.
17.	<b>The sludge from treatment units shall dried in sludge beds and the drained liquid shall be properly treated.</b>	At present the treated water is being used for gardening, toilet flushing and car washing and no water is being discharged to Municipality drain.
18.	<b>The applicant shall provide port holes for sampling the emissions and access platform for carrying out stack sampling and provide electrical outlet points and other arrangements for chimneys/stacks and other sources of emissions so as to collect samples of emission by the Board or the applicant at any time in accordance with the provision of the act or rules made there in.</b>	No Source of emission present at project site.
19.	<b>The applicant shall provide all facilities and render required assistance to the Board staff for collection of samples/stack monitoring/inspection.</b>	All Facilities and Support has been provided .
20.	<b>No control equipment or chimney shall be altered or replaced or as the case may be erected or re-erected except with the previous approval of the Board.</b>	No use of chimney is there at site.

21.	<b>The stack monitoring system employed by the applicant shall be opened for inspection to this Board at any time.</b>	
22.	<b>There shall not be any Fugitive or episodal discharge from the premises.</b>	No Fugitive or episodal discharge happens at site.
23.	<b>Any upset condition in any of the plant/plants of the project which is likely to result in increased effluent discharge/emission of air pollutants and/or result in violation of the standards mentioned above shall be reported to the Headquarters and regional Office of the Board by fax/speed post within 24 hours of its occurrence.</b>	From the data submitted on emission as well as noise quality, it is mentioned that the values are within the permissible limits. The proponent is submitting half yearly compliance reports regularly to SPCB and MOEF&CC. Date of Report submitted (Last 4) 1.1-06-2019. 2.1-12-2018. 3.1-06-2018 4.1-12-2017
24.	<b>The project proponent shall plant trees within the complex develop green belt along the boundary and develop landscaping and greenway within the premises.</b>	Green belt & plantation of trees has been developed along the boundary of the site as per the BDA Guidelines. There is also plantation along the road and parking area.
25.	<b>The solid waste such as sweeping, wastage, packaging, empty container, residues, sludge from waste water treatment system shall be collected and disposed of scientifically to the satisfaction of the Board, so as not to cause fugitive emission/dust problems/leaching etc.</b>	Solid wastage such as sweeping wastage, packaging, empty container, residues are being handed over to 3 <sup>rd</sup> party authorized vender for disposal. Sludge from waste water treatment plant is being used as manure after treatment.
26.	<b>Management Notwithstanding anything contained in this conditional letter of consent the Board hereby reserves to it the right and power under section 27(2) of the water (prevention &amp; control of pollution) Act 1974 to review/impose additional condition/revoke/change/alter any and/or all the conditions imposed herein and to make such variations as deemed fit for the purpose of the Act by the Board.</b>	t The data submitted on emission as well as noise quality, it is mentioned that the values are within the permissible limits.  The proponent is submitting half yearly compliance reports regularly to SPCB and MOEF&CC. Date of Report submitted (Last 4) 1.1-06-2019. 2.1-12-2018. 3.1-06-2018 4.1-12-2017
27.	<b>The industry shall abide by E(P) Act 1986 and Rules framed there under.</b>	The project proponent has agreed to abide by the rules as mentioned.
<b>F. SPECIAL CONDITIONS (AIR POLLUTION CONTROL):</b>		
1.	<b>Diesel power generating sets shall have acoustic enclosure.</b>	3nos (DG) sets (with Acoustic Enclosure) 380 KVA Each are in operation for the existing project. Low Sulphur type fuel is used in the DG sets. From the data

		submitted on emission as well as noise quality, it is noted that the values are within the permissible limits. All silence DG sets Confirming to the standards of CPCB-II,2017.
2.	<b>The Height of the stack connected to DG set shall conform to the following <math>H=h+0.2\sqrt{KVA}</math></b>	All silence DG sets Confirming to the standards of CPCB-II,2017.The placement of DG is away from the habitable area,i.e Building.
3.	<b>The ambient air quality in the premises of the unit shall confirm to the norm stipulated in Annexure-I.</b>	The data submitted on air quality in the premises, it is mentioned that the values are within the permissible limits.  The proponent is submitting half yearly compliance reports regularly to SPCB and MOEF&CC. Date of Report submitted (Last 4) 1.1-06-2019. 2.1-12-2018. 3.1-06-2018 4.1-12-2017

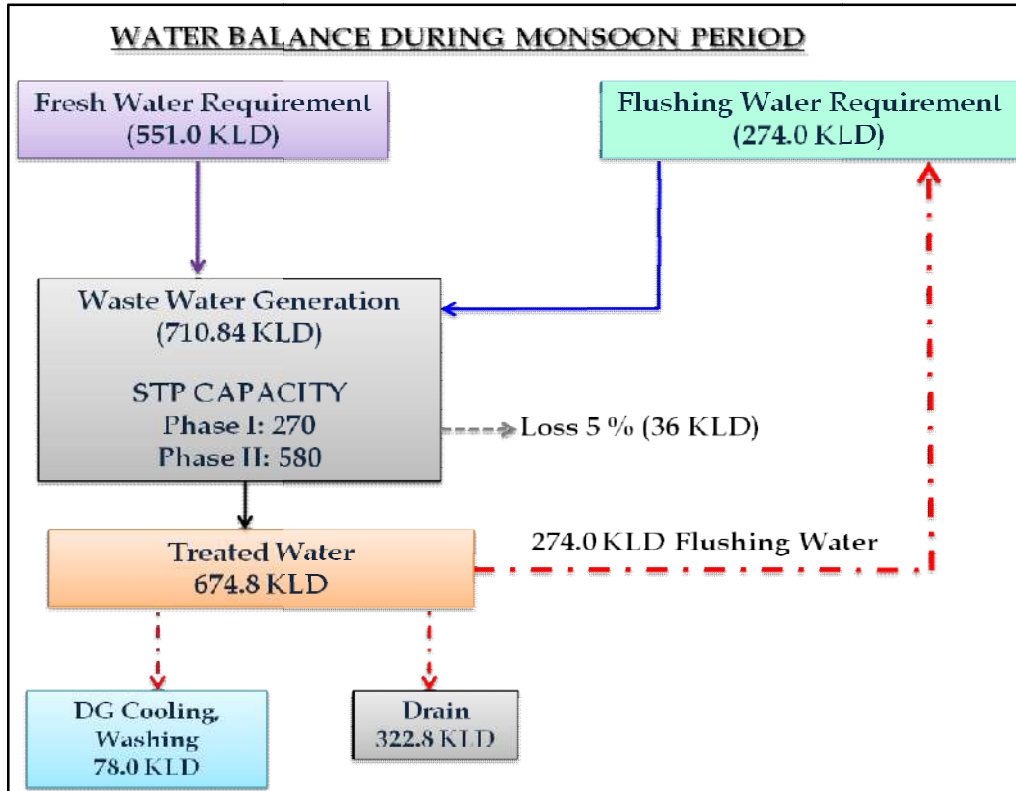
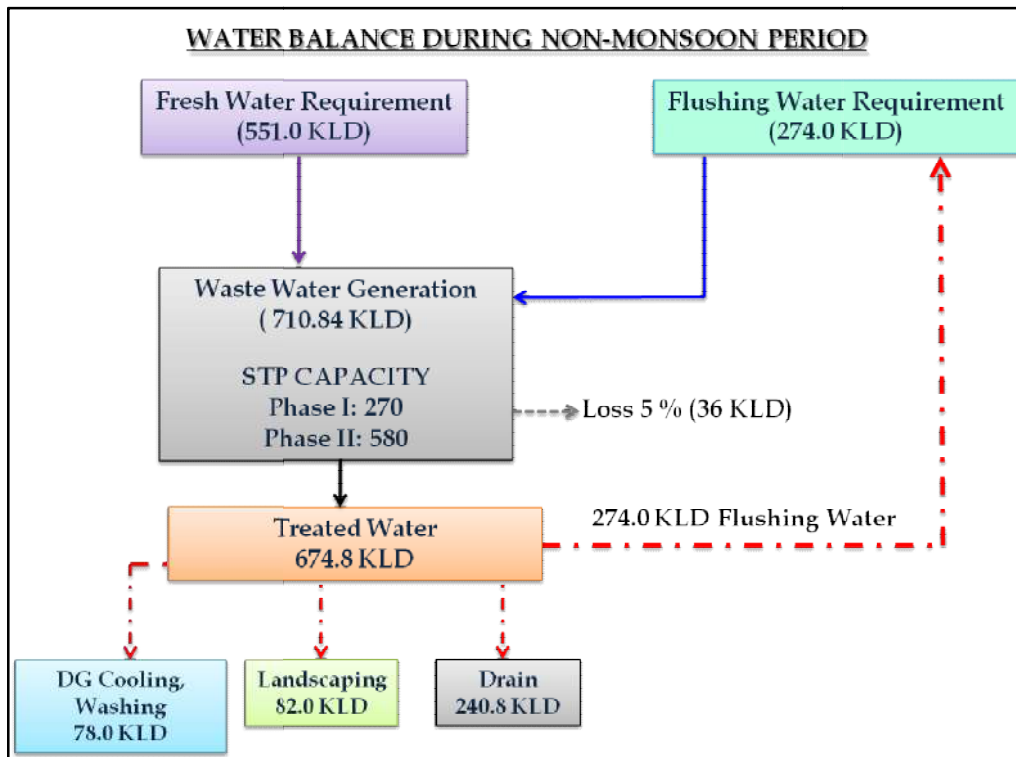
**G. SPECIAL CONDITIONS (WATER POLLUTION CONTROL):**

1.	<b>The entire domestic water shall be treated in the existing Sewage Treatment plant (STP). The treated waste water shall be partly reused for toilet flushing, landscaping, vehicle washing and green belt. The balance treated effluent shall be discharged to Municipal sewer and shall meet prescribed standard mentioned in section-B of this order. STP shall be operated without any stoppage and maintained properly.</b>	, At present the treated water(maintaining standard parameter norms) is being used for gardening, toilet flushing and car washing and no water is being `discharged to Municipality drain.
2	<b>Separate storm water drain and weep holes in the compound walls shall be provided to ensure natural drainage of rain water in the catchment area during the monsoon period.</b>	Execution of separate storm water drain and provision of weep holes on the compound wall at required places to ensure natural drainage of rain water in the catchment area during the monsoon period.
3.	<b>The solid waste generated should be properly collected segregated and shall be handed over to BMC for ultimate disposal.</b>	The solid waste generated from household is being collected and handed over to Authorized BMC vendor for ultimate disposal.
4.	<b>Rain water harvesting structure shall be developed inside the premises and maximum efforts shall be made to reuse harvested rain water with a definite plan and programme to reduce drawl of fresh water.</b>	!7 nos of rain water recharge Pit are being executed and in operation at site as per the guide lines of BDA.

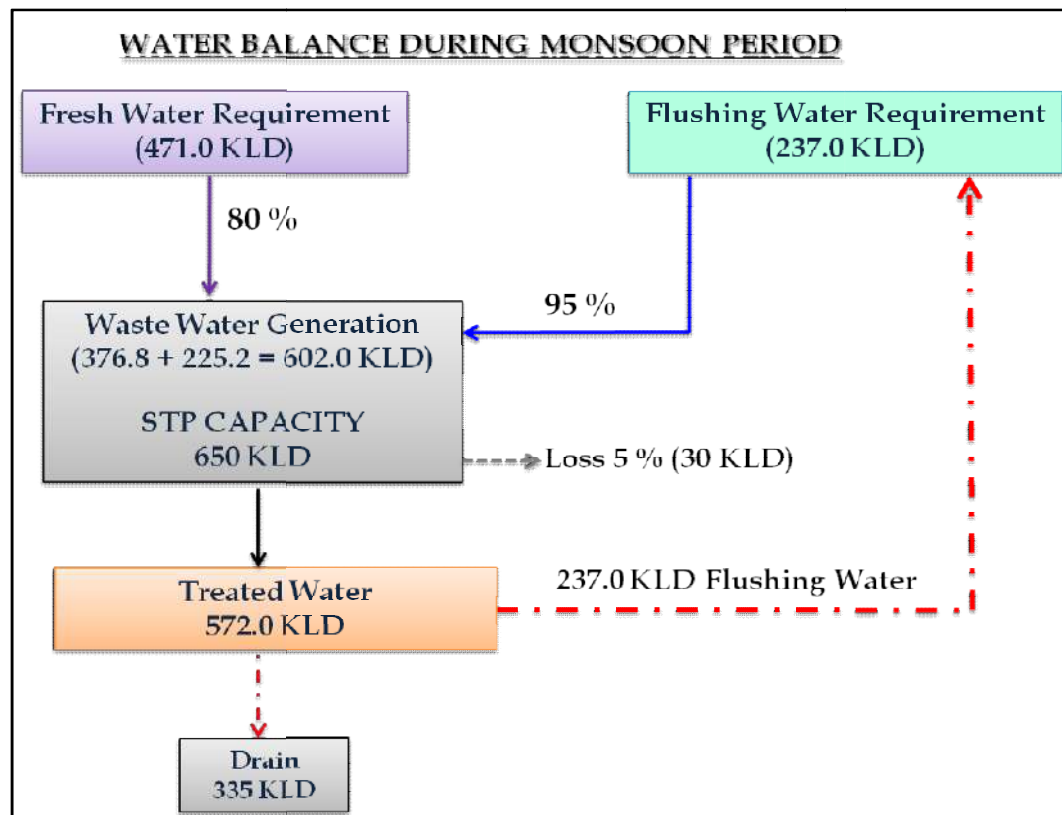
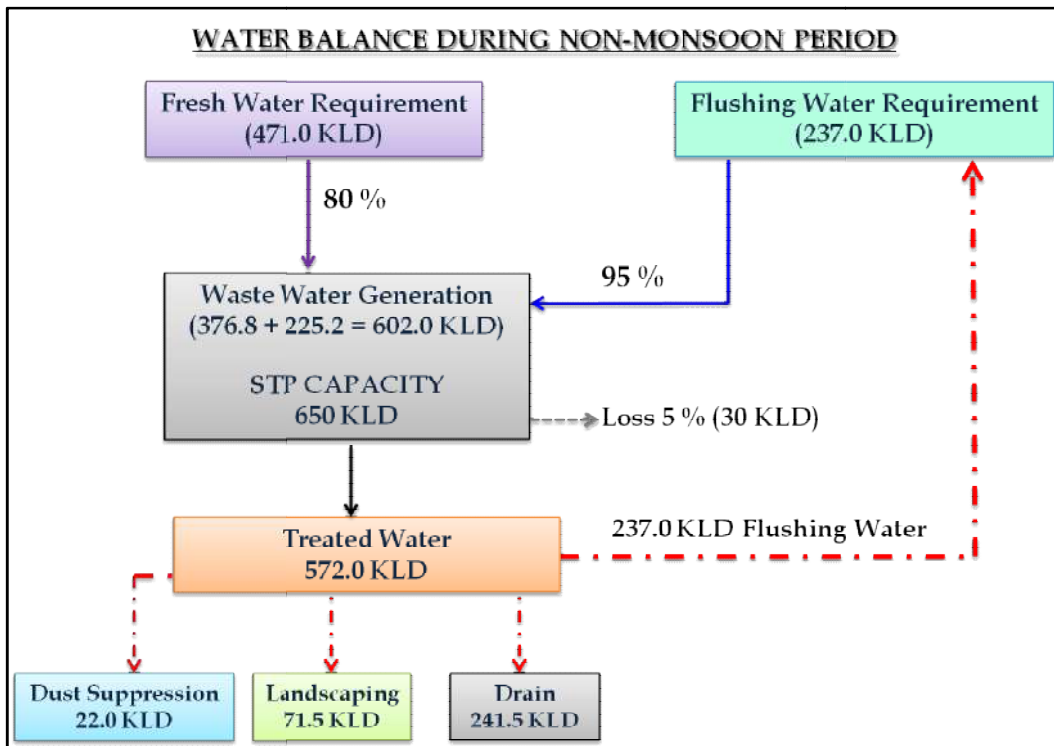
5.	<b>There shall not any Leakage of oil from DG set area.</b>	There is no leakage of oil from DG sets observed at site .
<b>H. SPECIAL CONDITIONS (OTHERS)</b>		
1	<b>The proponent shall comply the conditions as stipulated in environmental clearance issued by SEIAA Odisha vide letter No .433dt 16.08.2011 .</b>	The proponent is submitting half yearly compliance reports regularly to SPCB and MOEF&CC. Date of Report submitted (Last 4) 1.1-06-2019. 2.1-12-2018. 3.1-06-2018 4.1-12-2017
2.	<b>The waste water treatment system and other environmental measures shall be operated and maintained all the time either by project proponent (Builder of the Project) or by the Owner's welfare Association as the case may be.</b>	The Project proponent(Builder of the project) has engaged Expert professionals to maintain and operate one 270 KLD STP, one 230 KLD capacity WTP and 33KV Electric Supply with all control and distribution facilities installed by him, on there -own.
3.	<b>Energy conservation measure like installation of CFLS/TFLs for the lighting the areas outside the building should be in place. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination. Use of solar panels may be done to the extent possible.</b>	LED bulbs has been used(as a part of Energy Conservation measure) for all the common area lighting (Building and outside building) and all street lighting.
4.	<b>Opaque wall should meet prescriptive requirement as per Energy conservation. Building code which is proposed to be mandatory for all air-conditioned spaces while it is aspirational for non-air-conditioned spaces by use of appropriate thermal insulation material to fulfill requirement.</b>	Opaque wall and thermal insulation has been used in the project.
5.	<b>Lube oil from Diesel generator shall be disposed to authorized waste recycler.</b>	The Lube oil generated from DG sets during maintenance is being handed over to authorized waste recycler.
6.	<b>The board may impose further condition or modify the conditions are stipulated in this order during installation and/or at the time of obtaining consent to operate and may revoke this order in case the stipulated conditions are not implemented and/or information is found to have been</b>	The project proponent has given his consent to abide by the conditions stipulated in this order.

	<b>suppressed/wrongly furnished in the application form.</b>	
7.	<b>In case the consent fee is revised upwards during this period of consent the unit shall pay the differential amount to the Board (for the remaining years) to keep the consent order in force if the industry fails to pay the amount within the period stipulated by the Board the consent order will be revoked without prior notice.</b>	The project proponent has given his consent to abide by the condition mentioned.
8.	<b>The Board reserves the right to revoke/refuse consent at any time during this period in case any violation is observed and modify/stipulate additional conditions as deemed appropriate.</b>	The project proponent has given his consent to abide by the condition mentioned.

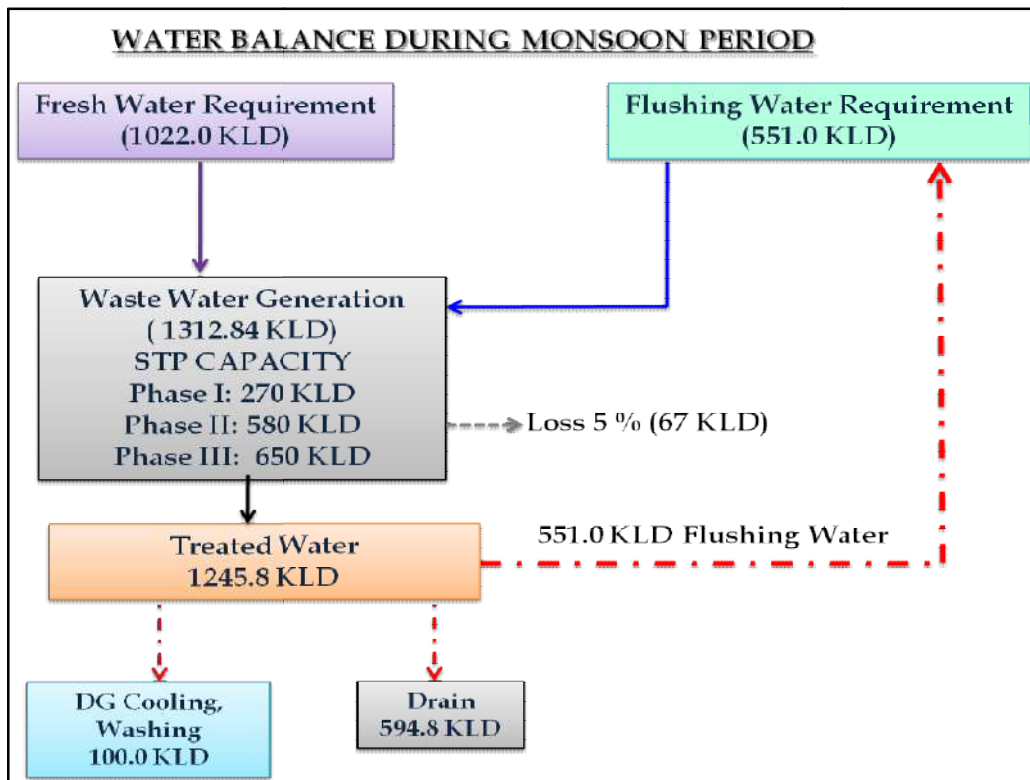
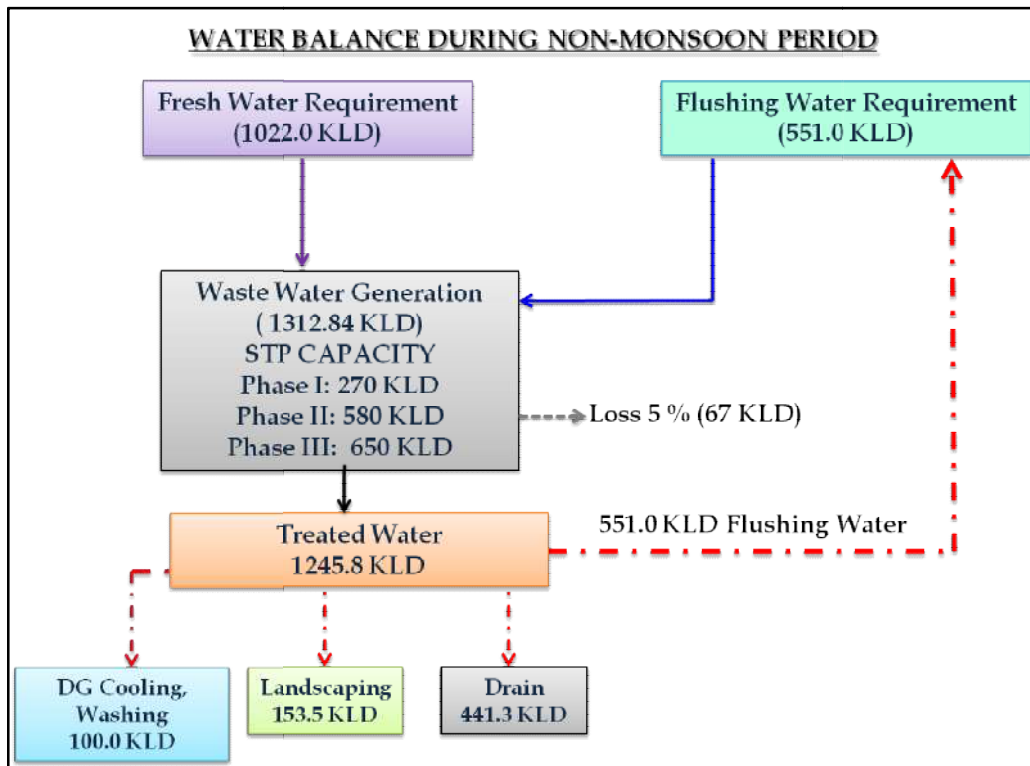
**Water Balance for Phase-I & II:**



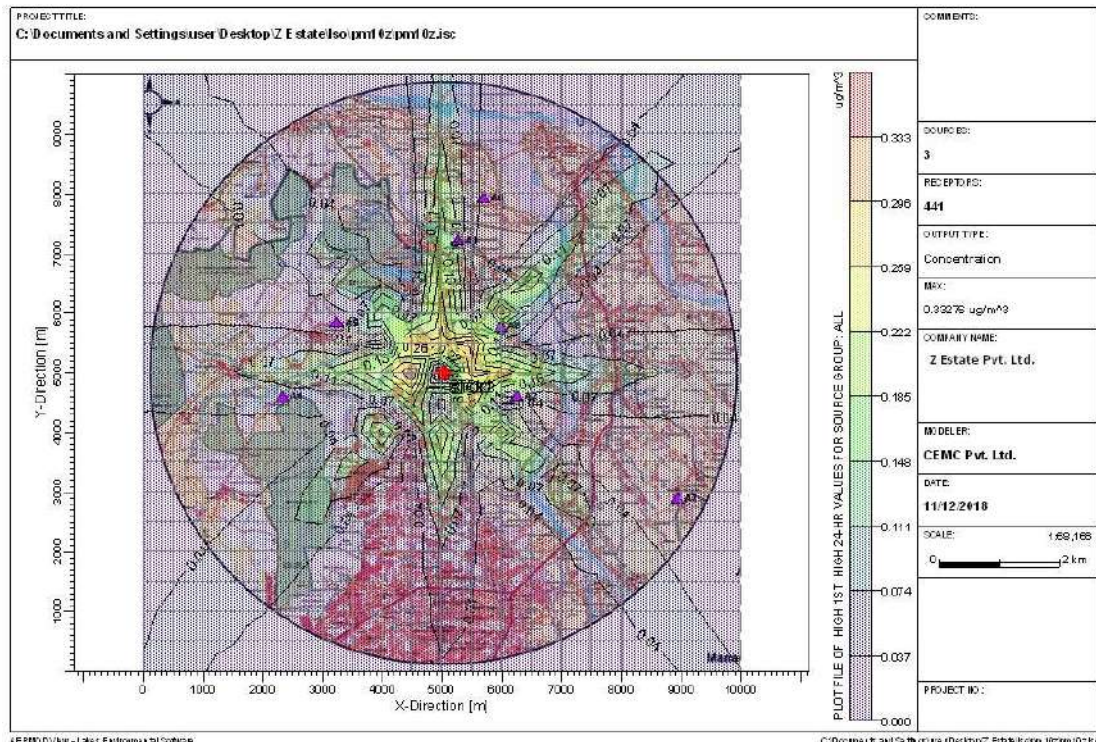
**Water Balance for Phase-III:**



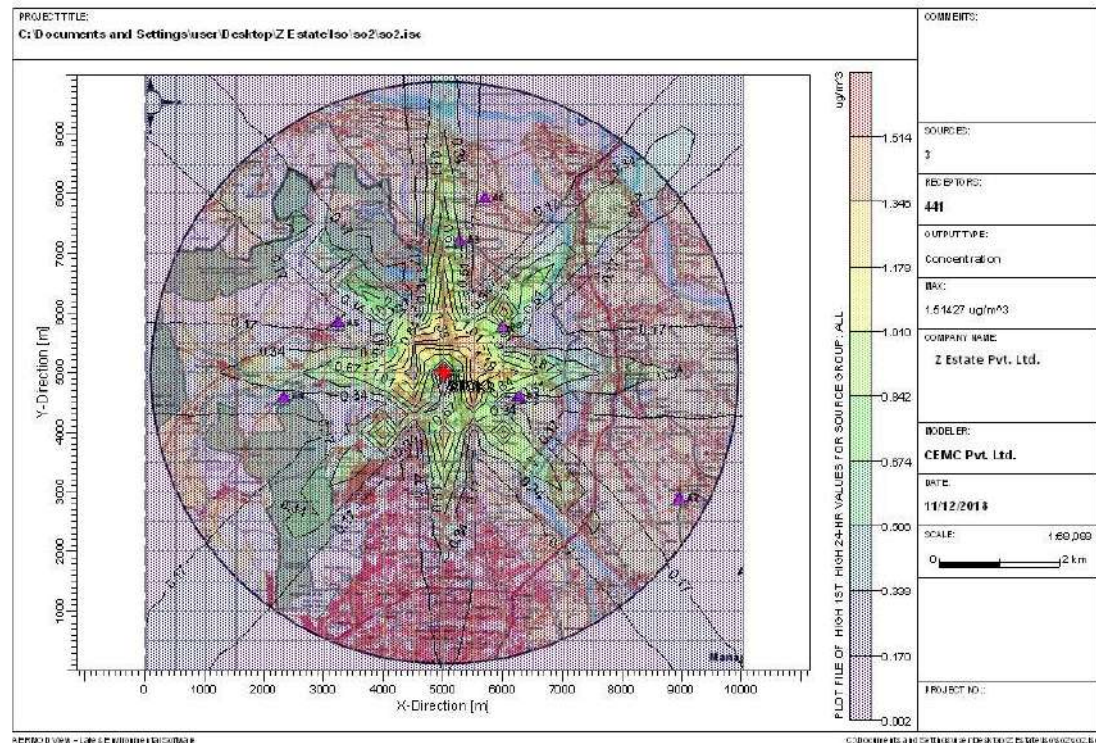
**Water Balance for Phase-I, II & III:**



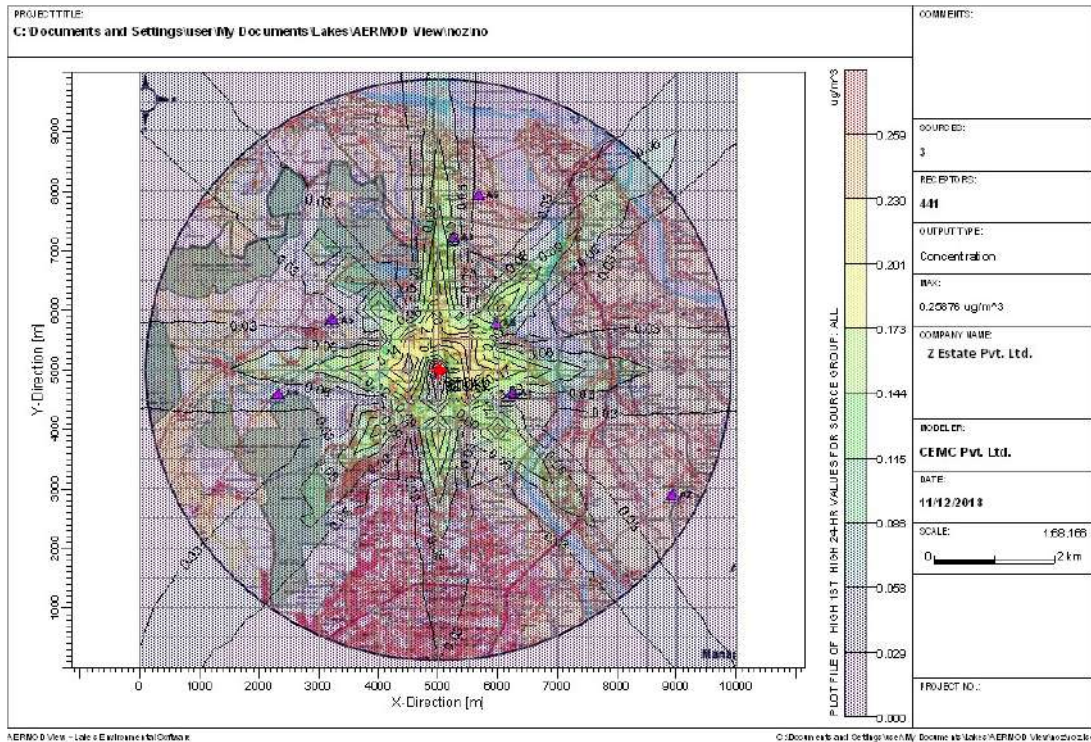
Isopleths of PM<sub>10</sub>, SO<sub>2</sub>, NOx concentration:



**Isopleths of PM<sub>10</sub> for the Proposed Project**



**Isopleths of SO<sub>2</sub> for the Proposed Project**



### Isopleths of NO<sub>x</sub> for the Proposed Project

#### Incremental and Ambient Concentration (µG/M<sup>3</sup>)

Pollutant	Sampling Station	Base line value	Incremental Values	Total
PM10	Project site	73.9	0.22	74.12
	Singada	73	0.04	73.04
	Dadhapatna	71.4	0.11	71.51
	Sundarpur	64.1	0.07	64.17
	Daruthenga	64.6	0.07	64.67
	Belagachia	71	0.04	71.04
	Jagannathpur	68.9	0.04	68.94
	Balipada	63.2	0.11	63.31
NO <sub>x</sub>	Project site	25.5	1.18	26.68
	Singada	23.4	0.51	23.91
	Dadhapatna	25.6	0.51	26.11
	Sundarpur	22.2	0.34	22.54
	Daruthenga	24.1	0.17	24.27
	Belagachia	33.7	0.17	33.87
	Jagannathpur	34.1	0.17	34.27
	Balipada	24	0.51	24.51
SO <sub>2</sub>	Project site	15	0.17	15.17
	Singada	14	0.09	14.09
	Dadhapatna	13.2	0.09	13.29
	Sundarpur	11	0.06	11.06
	Daruthenga	13.1	0.03	13.13
	Belagachia	12.6	0.06	12.66
	Jagannathpur	12.9	0.03	12.93
	Balipada	13.3	0.09	13.39



# CENTRE FOR ENVOTECH AND MANAGEMENT CONSULTANCY PVT. LTD.

An ISO 9001-2008 & OHSAS 18001:2007 Certified Company, Empanelled with OCCL, ORSAC and SPCB of Govt. of Odisha  
Accredited by NABET, QCI for EIA Studies as 'A' Category Consultant Organization. Empanelled with PCCF (Wildlife) & CWLW, Odisha  
Enlisted in Construction Industry Development Council (CIDC) established by the Planning Commission (Govt. of India)  
MoEF&CC, Govt. of India, Recognised Environment Laboratory under Environment (Protection) Act, 1986.

Report no. - CEMC/ZEPL/270219/N

Issued Date-27.02.2019

## NOISE MONITORING REPORT

Client Name and Address	M/s. Z Estates Pvt. Ltd., Patia, Bhubaneswar
Reference No.	CEMC-27022019N
Nature of Sampling	Noise Sampling
Instrument used	Sound Level Meter
Sampling By	Mr. Bikash Kumar Samantaray
Sampling Date	18.02.2019

Sl. No.	Locations	dB(A) Day time	dB(A) Night time
1	Steel Yard Area	66.2	51.6
2	Near STP Site	57.2	40.8
3	Tower A Waste Site	65.8	43.1

## NOISE LEVEL STANDARD

Area Code	Category of Area/Zone	Permissible Limit in dB (A)	
		Day Time	Night Time
A	Industrial Area	75	70
B	Commercial Area	65	55
C	Residential Area	55	45
D	Silence Zone	50	40

  
Authorized Signatory

Notes:

- The results relate only to the sample tested.
- This Test Report shall not be reproduced wholly or in part without prior written consent of the laboratory.
- The samples received shall be destroyed after two weeks from the date of issue of the Test Report unless specified otherwise.
- This Test Report shall not be used in any advertising media or as evidence in the court of Law without prior written consent of the laboratory.



Environmental Studies (EIA & EMP), Monitoring, Forest Diversion Planning, DPR, Wildlife Management Plan, Hazardous & Safety Studies, RS & GIS, Baseline Survey, Hydrological & Geological Studies, Socio-economic Studies, DGPS & ETS Survey.

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## **Sewage Treatment Plant**

**Sewage treatment** is the process of removing contaminants from domestic or household sewage. It includes physical, chemical, and biological processes to remove physical, chemical and biological contaminants. Its objective is to produce an environmentally safe fluid waste stream (or treated effluent) and a solid waste (or treated sludge) suitable for disposal or reuse (usually as farm fertilizer). The objective of sewage treatment is to produce a disposable effluent without causing harm to the surrounding environment, and prevent pollution.

The sewage treatment plant is based on Multi Bed Bioreactor Technology. The biological treatment system will consist of an MBBR tank with Air Blower. The treatment scheme will consist of Screening, Equalization, Biological Treatment, Clarification, Sludge Recirculation, Filtration and Disinfection. The treated water will be low in BOD, COD, TSS, O&G etc.

### **Process Technology**

Domestic wastewater is mainly comprised of small concentrations of suspended and dissolved organic solids. Among the organic substances present in sewage are carbohydrates, lignin, fats, soaps, synthetic detergents, proteins and their decomposition products. The main pollutants in the raw sewage are represented in the form of Bio-chemical Oxygen Demand (BOD) and Chemical Oxygen Demand (COD). The ammonical nitrogen, nitrate nitrogen and phosphorous present also represent as polluting substances. The bacterial ability to break down the organic matter to harmless end products like carbon dioxide and water molecules is utilized to treat the raw sewage. That sewage causes harmful effect on surrounding environment. Biological treatment is needed for this sewage containing organic matter.

### **Biological Sewage Treatment**

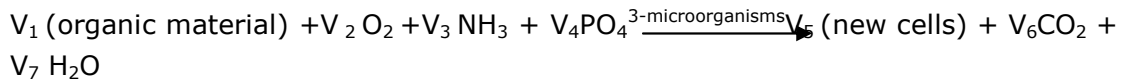
The objectives of Biological treatment of domestic wastewater are to

- Transform (i.e., oxidize) dissolved and particulate biodegradable constituents into acceptable end products.
- Capture and incorporate suspended and non settleable colloidal solids into a biological floc or biofilm.
- Transform or remove nutrients, such as nitrogen and phosphorus, and
- Remove specific trace organic constituents and compounds.

### **Role of Microorganisms in Sewage Treatment**

The removal of dissolved and particulate carbonaceous BOD and the stabilization of organic matter found in sewage are accomplished biologically using a variety of microorganisms, principally bacteria. Microorganisms are used to oxidize the dissolved and particulate carbonaceous organic matter into simple end products

and additional biomass, as represented by the following equation for the aerobic biological oxidation of organic matter.



Where  $V_1$  = the stoichiometric coefficient.

Oxygen ( $\text{O}_2$ ), ammonia ( $\text{NH}_3$ ), and phosphate ( $\text{PO}_4^{3-}$ ) are used to represent the nutrients needed for the conversion of the organic matter to simple end products (i.e., carbon dioxide ( $\text{CO}_2$ ) and water). Here microorganisms are needed to carry out the oxidation process. The term new cells are used to represent the biomass produced as a result of the oxidation of the organic matter. Microorganisms are also used to remove nitrogen and phosphorus in sewage treatment processes. Specific bacteria are capable of oxidizing ammonia (nitrification) to nitrite and nitrate, while other bacteria can reduce the oxidized nitrogen to gaseous nitrogen. For phosphorus removal, biological processes are configured to encourage the growth of bacteria with the ability to take up and store large amounts of inorganic phosphorus.

Because the biomass has a specific gravity slightly greater than that of water, the biomass can be removed from the treated liquid by gravity settling. It is important to note that unless the biomass produced from the organic matter is removed on a periodic basis, complete treatment has not been accomplished because the biomass, which itself is organic, will be measured as BOD in the effluent. Without the removal of biomass from the treated liquid, the only treatment achieved is that associated with the bacterial oxidation of a portion of the organic matter originally present.

### **Submerged Attached Growth Processes**

Aerobic submerged fixed- film processes include down flow packed- bed reactors, up flow packed- bed reactors, and up flow fluidized- bed reactors. The type and size of packing is a major factor that affects the performance and operating characteristics of submerged attached growth processes. Designs differ by their packing configuration, inlet, and outlet flow distribution and collection. No clarification is used with aerobic submerged attached growth processes, and excess solids from biomass growth and influent suspended solids are trapped in the system and must be periodically removed. Most designs require a backwashing system much like that used in a water filtration plant to flush out accumulated solids, usually on a daily basis.

The major advantages of submerged attached growth processes are

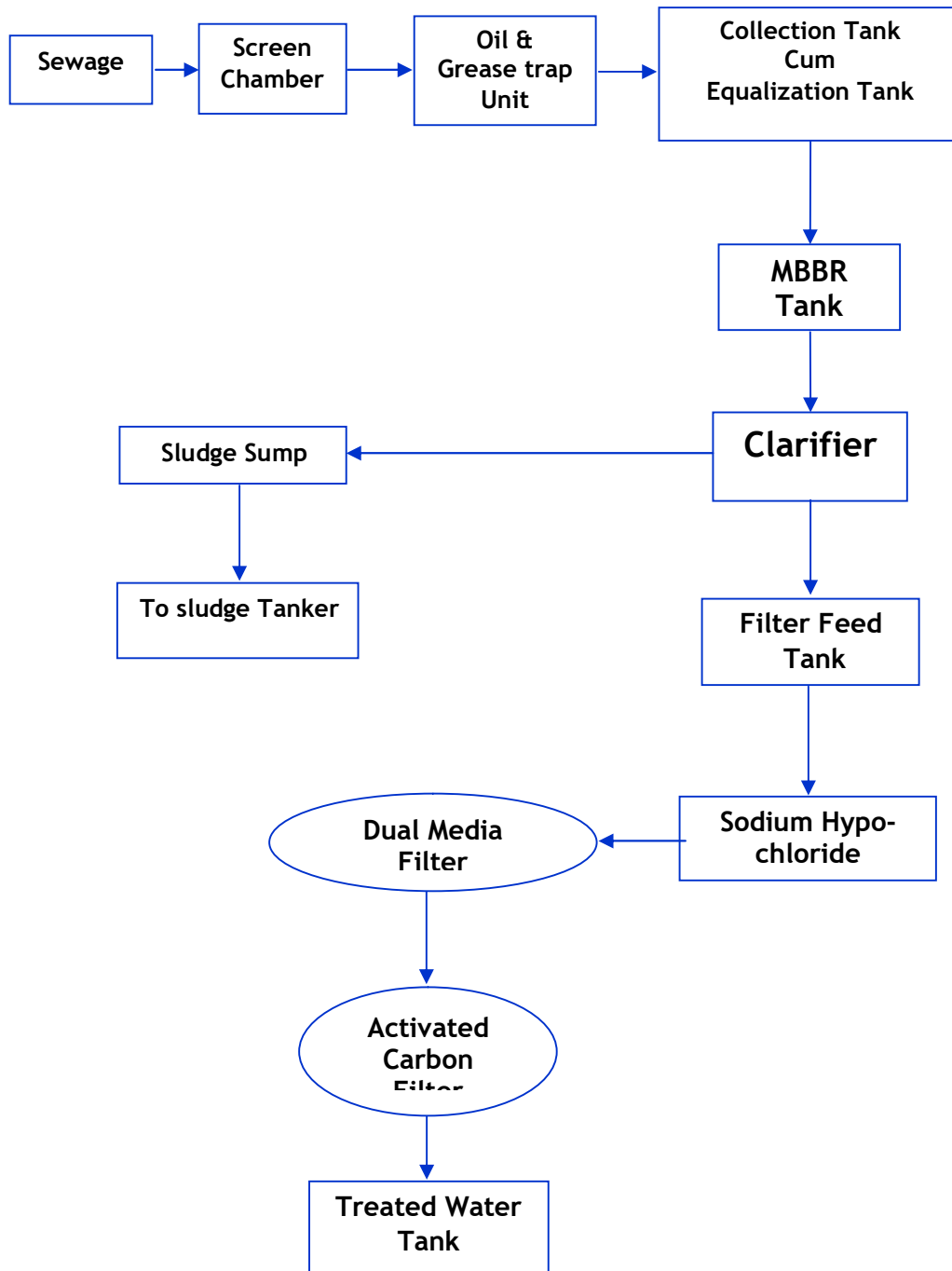
- Their relatively small space requirement,
- The ability to effectively treat dilute waste water,
- No sludge settling issues as in activated- sludge process.

Here suspended growth process is adopted for biological treatment of raw sewage.

## Suspended Growth Process in Sewage Treatment

In suspended growth processes, the microorganisms responsible for treatment are mentioned in liquid suspension by appropriate mixing methods. The most common suspended growth process used for Sewage treatment is activated-sludge process.

### Process Description with Flow Diagram



## **Process characteristics**

The process design involves Physicochemical and Biological process.

- **Physico-Chemical Process**

Screening, Equalization, MBBR, Clarification, Filtration, and Chlorination.

- **Biological Process**

Converting organic pollutant into harmless by-products with the help of Aerobic Micro organisms in the MBBR media.

## **Concept for S.T.P.**

- a) Good quality of treated water.
- b) Under any circumstances stringent pollution control norms are met.
- c) No threat for disposal.
- d) As far as possible it keeps the environment clean & free from contamination.
- e) In future, it may be a requisite for the institution while trying to get ISO14001 Certification/ other appreciation.
- f) Minimal electricity consumption, less chemical consumption with low operation & maintenance cost and less space.
- g) Save the mother earth for future generations and fulfill social obligations.

## **Proposed Treatment Scheme**

The treatment consists of Aerobic Treatment in MBBR Tank with the help of Air blower, and then Clarifier and Tertiary Treatment in Multi grade filter and Activated carbon Filter with chlorination.

In this process the sewage will be treated in three stages

- Primary treatment
  - Secondary treatment
  - Tertiary treatment
- **Primary treatment:**
1. In the primary treatment the effluent will pass through the bar screen chamber. In this section suspended matters, grit and floating material etc will be removed from the effluent. Then the effluent is sent to a collection tank cum equalization tank by gravity.
  2. The effluent will be pumped from equalization tank to MBBR Tank for Aerobic Treatment.
- **Secondary treatment:**
1. In the secondary treatment the effluent in MBBR tank is treated by aerobic process followed by clarifier. In MBBR tank organic load will be degraded with the help of aeration by the bacterial population colonized on the poly propylene packing discs.
  2. Mixed liquor suspended solids (MLSS) will be maintained in MBBR tank in definite proportion by the MBBR Media.

3. Oxygen is injected in MBBR tank by air from the air blower.
4. Then effluent will go to the clarifier tank for settling of sludge. The clear overflow from clarifier will go to the filter feed tank. The excess sludge from the clarifier shall be withdrawn to sludge holding tank then to sludge drying beds for sludge dewatering. The dried sludge can be used as good manure for landscaping.

➤ **Tertiary treatment:**

1. In the tertiary treatment the clear water from filter feed tank will be filtered by pumping through the MGF (Multi Grade filter) and ACF (Activated Carbon Filter) for further polishing i.e. for removing colour and smell from the treated water.
2. The treated sewage is then added with chlorine to kill the pathogens / E-Coli coliforms, so that it becomes fit for disposal in the lake / water ways. Chlorine being a very strong oxidising agent, a small dose of 3-4 mg / l is enough to achieve desired levels of disinfection.
3. Small residual chlorine (of the order of 0.2-0.25 mg / l) also ensures that there is no re-growth of E-coli, till the final disposal point. The treated sewage, now substantially free from organic contamination, free from coliform bacteria can be safely disposed off in the river, or in other water bodies. This water can also be re-used for gardening/toilet flushing or for other secondary applications.
4. Chemicals treatment using at least 1% hypo-chloride solution or any other equivalent chemical reagent must be ensured that chemical treatment ensures disinfection.

**Final Water Quality**

The Sewage Treatment Plant operates on activated sludge process and the value of parameters of the final treated water is given below.

**Table No. 2: Inlet & Outlet Water Quality**

Sl. No.	Parameter	Unit	Inlet Value	Outlet Value
1.	pH	-	7.0 to 8.0	6.5 to 8.5
2.	BOD <sub>5</sub>	mg/L	300	< 10
3.	COD	mg/L	800	< 50
4.	TSS	mg/L	350	< 50
5.	O & G	mg/L	50	< 5
6.	E COLI	MPN	10 <sup>6</sup> – 10 <sup>7</sup> / 1000 ml	10 <sup>3</sup> /1000 ml
7.	Colour		Unobjectionable	Unobjectionable

### **RAINWATER RECHARGING AND STORM WATER MANAGEMENT**

The storm water disposal system for the premises shall be self-sufficient to avoid any collection/stagnation and flooding of water during excess rainfall. The amount of storm water run-off depends upon many factors such as intensity and duration of precipitation, characteristics of the tributary area and the time required for such flow to reach the drains. The drains shall be located near the carriage way along either side of the roads. Taking the advantage of road camber, the rainfall run off from roads shall flow towards the drains. Storm water from various blocks and roof shall be connected to adjacent drain by a pipe through catch basins. Proposed storm water system consists of pipe drain, catch basins and recharging pits at regular intervals for rain water recharging. Therefore, it has been calculated to provide 58 nos. of rainwater harvesting pits at selected locations, which will catch the maximum run-off from the area.

- 1) Since the existing topography is congenial to surface disposal, a network of storm water pipe drains is planned adjacent to roads. All building roof water will be brought down through rain water pipes.
- 2) Proposed storm water system consists of pipe drain, catch basins and seepage pits at regular intervals for rain water harvesting and ground water recharging.
- 3) Peak hourly rainfall 120 mm/hr shall be considered for designing the storm water drainage system.

#### **Design specifications of the rain water harvesting plan are as follows:**

Rain water harvesting has been catered to and designed as per the guideline of CGWA. Peak hourly rainfall has been considered as 120 mm/hr. The recharge pit of 6.0 m length, 1.5 m breadth and 3.0 m depth is constructed for recharging the water. At the bottom of the recharge well, a filter media is provided to avoid choking of the recharge bore. Design specifications of the rain water harvesting plan are as follows:

- Catchments/roofs would be accessible for regular cleaning.
- The roof will have smooth, hard and dense surface which is less likely to be damaged allowing release of material into the water. Roof painting has been avoided since most paints contain toxic substances and may peel off.
- All gutter ends will be fitted with a wire mesh screen and a first flush device would be installed. Most of the debris carried by the water from the rooftop like leaves, plastic bags and paper pieces will get arrested by the mesh at the terrace outlet and to prevent contamination by ensuring that the runoff from the first 10-20 minutes of rainfall is flushed off.
- No sewage or wastewater would be admitted into the system.

- No wastewater from area likely to have oil, grease or other pollutants has been connected to the system.

### **Maximum Rainfall Intensity Calculation (For Recharge Pit)**

Rational formula for calculating run-off = CIA

Q = Runoff in m<sup>3</sup>

A = Area in sqm

C = Co-efficient of run-off based on Manual on norms and standards for environment clearance of large construction projects, Ministry of Environment and Forests, Government of India.

I = Intensity of rainfall in mm based on IMD Data

Yearly rainfall : 1493 mm/yr

Monsoon Months : June – September

For determination of no. of Rain Water Harvesting pits maximum rainfall value has been taken.

Average Rainfall = 27 mm/day

Maximum hourly rainfall = 120 mm/hr

### **Calculations for storm water load for recharging in Max. Rainfall**

#### **Total Run-off: Roof Top**

Intensity of rainfall = 120 mm/hr

Drainage area in sqm = 16730.86 m<sup>2</sup>

Coefficient of run-off = 0.90

Therefore, runoff = 0.90 x 0.120 x 16730.86 = **1806.93 m<sup>3</sup>/hr**

#### **Rain Water Storage Tank Details:**

Total Runoff (Roof top area) = 1806.93 m<sup>3</sup>/hr

Rain water harvesting tank with 50 % of total runoff = 904 m<sup>3</sup>/hr

Depth of the Tank is 3.0 m.

Sump area is 216.3 sqm.

#### **Total Run-off: Paved Surface**

Intensity of rainfall = 120 mm/hr

Drainage area in sqm = 73006.82 m<sup>2</sup>

Coefficient of run-off = 0.70

Therefore, runoff = 0.70 x 0.120 x 73006.82 = **6132.57 m<sup>3</sup>/hr**

### **Total Run-off: Unpaved Surface**

Intensity of rainfall = 120 mm/hr  
Drainage area in sqm = 51852.55 m<sup>2</sup>  
Coefficient of run-off = 0.15  
Therefore, runoff = 0.15 x 0.120 x 51852.55 = **933.34 m<sup>3</sup>/hr**  
**Total Runoff Load = (1806.93 + 6132.57 + 933.34) m<sup>3</sup>/hr**  
**= 8872.84 m<sup>3</sup>/hr**

### **Typical Rain Water Recharge Pit Details:**

⇒ Considering coefficient for Evaporation/ Spillage and first flush etc.  
= 0.700  
⇒ Total Storm Water Flow = 8872.84 X 0.700 m<sup>3</sup>/Hour  
= 6210.99 m<sup>3</sup>/Hour  
SAY = 6211 m<sup>3</sup>/Hour

### **VOLUME OF STORM WATER**

Total Storm Water Flow = 6211 m<sup>3</sup>/hr  
Considering 15 minutes (0.25 Hr) Retention Period.  
Volume Required = 6211 x 0.25  
= 1552.75 m<sup>3</sup>  
Volume = 1553 m<sup>3</sup>

Considering 1 No. Rain Water Harvesting Pit of size 6.0 m length, 1.5 m breath and 3.0 m depth.

### **Volume of One No. Rain Water Harvesting Pit**

Length (l) = 6.0 m  
Breath (b) = 1.5 m  
Height (h) = 3.0 m

Volume of 1 No. Rain Water Harvesting Pit

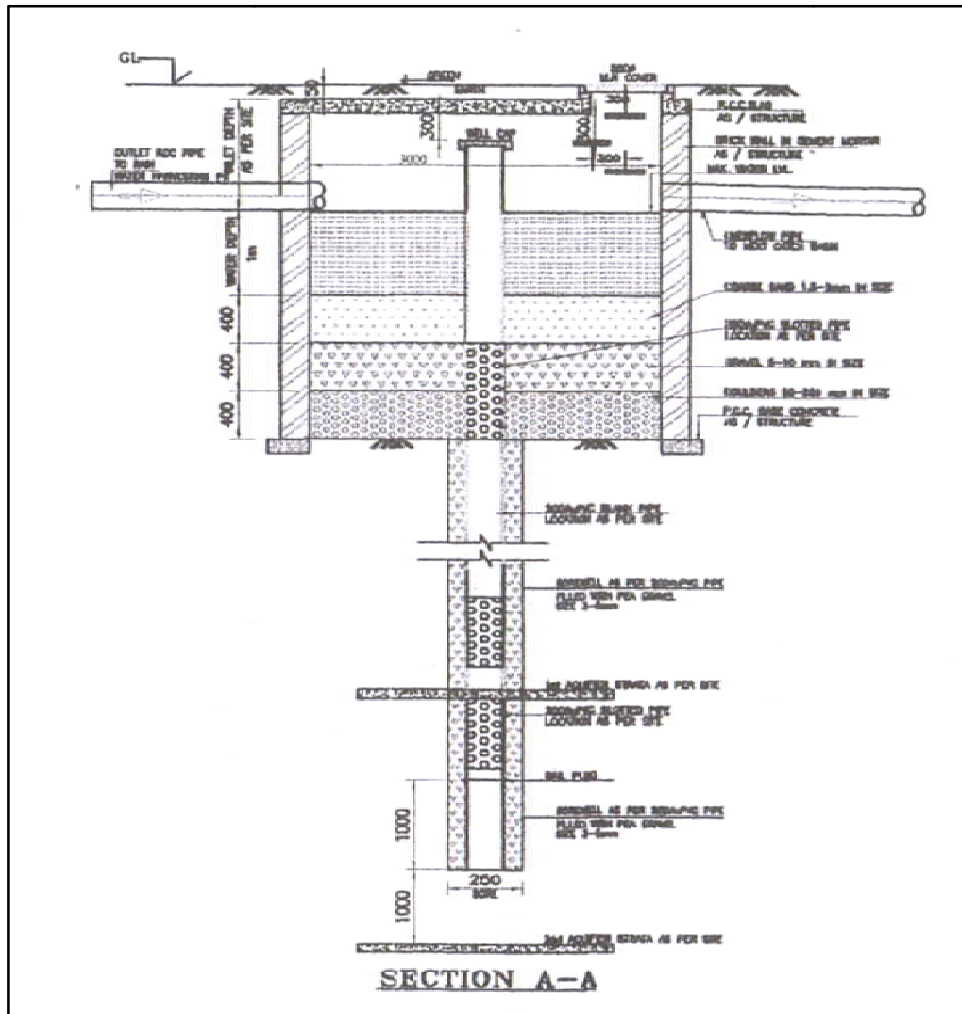
= 1.0 x l x b x h  
= 1.0 x 6.0 x 1.5 x 3.0  
= 27.0 m<sup>3</sup>

### **No. of Rain Water Harvesting Pit**

Total No. of rain water harvesting pit required

= Total Volume/Volume of One Rain Water Harvesting Pit  
 = 1553/27  
 = 57.5 Nos.

**Total no. of Rain Water Harvesting Pit = 58 Nos.**



**Fig No.1: Rain water harvesting pit design**

**SOLID WASTE MANAGEMENT****Solid Waste Generation (Phase-I & II):**

From the residential complex solid waste in form of food waste from kitchen and miscellaneous waste will be generated @ 0.4 kg/capita/day, which will be about  $5165 \times 0.45 = 2324.25$  kg/day. The generated solid waste from the residential complex will be segregated as biodegradable and non-biodegradable. This will be collected in separate colored bins. Proper waste management practices will be adopted during the collection, storing and disposal of the generated solid waste. Waste generated from Floating people will be @ 0.15 kg/capita/day, which will be about  $517 \times 0.15 = 77.5$  kg/day.

Solid waste from sweeping and Dry Garbage containing non biodegradable wastes like polythene bags, metal, ceramic Waste, glass etc. shall be stored in separate garbage bin and send to approved agency for final disposal.

Around 15 kg/day of STP sludge will be generated. As sewage sludge contains many elements essential to plant life, such as nitrogen, phosphorous, potassium, and in addition, at least traces of minor nutrients which are considered more or less indispensable for plant growth, such as boron, calcium, copper, iron, magnesium, manganese, sulphur and zinc. The sludge humus, besides furnishing plant food, benefits the soil by increasing the water holding capacity, thus making possible the working of heavy soils into satisfactory seed beds. Sludge will be used as manure in landscaping.

**Solid waste Generation:****Table No. 1: Solid waste Generation**

<b>S. No.</b>	<b>Category</b>	<b>Counts (heads)</b>	<b>Waste generated (kg/day)</b>
1.	Residents	5165 @ 0.45 kg/day	2324.25
2.	Road sweeping	517 @ 0.15 kg/day	77.5
3.	STP sludge		45.0
<b>TOTAL SOLID WASTE GENERATED</b>			<b>2446.75 kg/day</b>

### **Solid Waste Generation (Phase-III):**

From the residential complex solid waste in form of food waste from kitchen and miscellaneous waste will be generated @ 0.4 kg/capita/day, which will be about  $5225 \times 0.45 = 2351.25$  kg/day. The generated solid waste from the residential complex will be segregated as biodegradable and non-biodegradable. This will be collected in separate colored bins. Proper waste management practices will be adopted during the collection, storing and disposal of the generated solid waste. Waste generated from Floating people will be @ 0.15 kg/capita/day, which will be about  $166 \times 0.15 = 24.9$  kg/day.

Solid waste from sweeping and Dry Garbage containing non biodegradable wastes like polythene bags, metal, ceramic Waste, glass etc. shall be stored in separate garbage bin and send to approved agency for final disposal.

Around 35 kg/day of STP sludge will be generated. As sewage sludge contains many elements essential to plant life, such as nitrogen, phosphorous, potassium, and in addition, at least traces of minor nutrients which are considered more or less indispensable for plant growth, such as boron, calcium, copper, iron, magnesium, manganese, sulphur and zinc. The sludge humus, besides furnishing plant food, benefits the soil by increasing the water holding capacity, thus making possible the working of heavy soils into satisfactory seed beds. Sludge will be used as manure in landscaping.

### **Solid waste Generation:**

**Table No. 2: Solid waste Generation**

<b>S. No.</b>	<b>Category</b>	<b>Counts (heads)</b>	<b>Waste generated (kg/day)</b>
1.	Residents	5225 @ 0.45 kg/day	2351.25
2.	Road sweeping	166 @ 0.15 kg/day	24.9
3.	STP sludge		183.0
<b>TOTAL SOLID WASTE GENERATED</b>			<b>2411.15 kg/day</b>



# United Resorts & Services LLP

## WORK ORDER

WO No: - URSLLP/WO/18-19/005

Thursday, 22<sup>nd</sup> NOV 2018

M/S CLEAN MART FACILITY SERVICES,  
PLOT NO-78, RASULGARH SQUARE,  
BHUBANESWAR-10, ODISHA.

Kind Attention  
Phone/Mob No.  
Project : -  
Subject:-

Mr. TRILOK ROUT  
+91-9439948599/9776437216/8249266818  
Z1 Advait, Kalarahanga, Nandankanan Road, Bhubaneswar  
Work Order for Waste cleaning service on annual contract  
basis. (From 1<sup>st</sup> of Nov 2018. to 31<sup>st</sup> Oct. 2019)

Dear Sir/Madam,

We pleased to inform you that, you are appointed to carry out the above work for our site Z-1, Advait.

### 1. Contract Amount

We confirm our acceptance of the work order for the above mention work as per following details;

SI No	Description	Unit Rate per Month in Rs.	Amount Per Year	Remark
1	Waste Management service/ Waste cleaning service form Z-1 , Advait to dump yard on daily basis. To be collect all the waste on daily basis.	6000.00	72000.00	Weekly 07 days
2	GST @ 18%		12960.00	
	TOTAL		84960.00	

In word: Eight Four Thousand Nine Hundred Sixty Only

### 1. Payment Terms:-

Payment shall be made by URSLLP on submission of invoices for approval and processing. The payment will be certified by URSLLP within 20 days of receipt of complete information and documents pertaining.



Regd. Office : Old Jail Complex, Cuttack-753001, Odisha

Branch Office : Tower-3, Ground Floor, Z-1 Project, Kalarahanga, Nandankanan Road, Patia, Bhubaneswar.

2. **Validity of W.O. :-** The validity of the **Work Order** is from 1<sup>st</sup> Nov 2018 to 31<sup>st</sup> Oct 2019.
3. **Escalation:-**  
No request for additional payment on account of escalation shall be entertained by URSLLP during the validity period of this WO as mentioned above. Any Statutory variation during the validity period increase or decrease on taxes, duties, government levies only shall be in the scope of URSLLP.
4. **Documents :-**  
All the documents and communication should have the Work Order reference. Along with the signed original documents i.e. Tax Invoice, test Certificate and Chals etc.
5. **Termination by URSLLP :-**  
The Client may be at any time, by giving 30 (thirty) days written notices to M/S CLEAN MART FACILITY SERVICES without assigning any reason, immediately suspend the whole or any part of the services M/S CLEAN MART FACILITY SERVICES shall not be entitled to any compensation for the non execution of the work except the fees which are payable to M/S CLEAN MART FACILITY SERVICES on a pro-data basis up to the stage of services in progress.
6. **Termination by M/S CLEAN MART FACILITY SERVICES :-**  
M/S CLEAN MART FACILITY SERVICES Shall have the right to terminate this Agreement by giving 30 (Thirty) days written notice to the Client if any of the following details;  
A) The Client fail to M/S CLEAN MART FACILITY SERVICES any amount properly due to and payable to M/S CLEAN MART FACILITY SERVICES under this Agreement within 30 (Thirty) days of the date upon which payment is due and the Client fails to remedy such breach within 30 (thirty) day after receipt of written notice from M/S CLEAN MART FACILITY SERVICES requiring payment, specifying the breach and requiring its remedy.
7. **Invoicing to be done at :-**  
United Resorts and Services LLP  
Z-1, Advait  
Via – KIIT, near OSIL colony,  
P.O.-Kalahanga, P.S.- infocity,  
Bhubaneswar - 751 024 (Odisha)  
GST Number- 21AAEFU4541J1ZB
8. **Communication:-**  
Please contact Mr. Samarendra Kumar Sahoo (Mobile no.+91-7381056591, Email: estatemanager@z-1.in), Estate Manager or Mr Jogendra Nayak, (Mob- 7381056592) from URSLLP at the site, in case of any coordination.



**Terms and condition:**

1. The Agency shall employ good and reliable persons with sound health and clean records.
2. The personnel engaged by the Agency for this work will not be the employee of the URSLLP or Z-1 society.
3. URSLLP shall in no way be responsible for meeting any kind of expenditure extra to the agency except the WO amount. All man power, Transport amount will be paid by the contractor.
4. Garbage Collection & Disposal work should be completed within the stipulated time as directed by the URSLLP. i.e between 11am to 5 pm on daily basis.
5. The contractor/agency will collect the garbage from the designated area as directed by the URSLLP. The contractor/agency should responsible to provide manpower for the said work .No extra manpower will be provided by the URSLLP for this job.
6. The contractor/Agency shall be fully responsible for the work allotted and shall not indulge in any other activities other than doing specified job allotted to them. In case of any loss/damage to Z-1 property during the work may recovered from the contractor/agency.
7. The Contractor will responsible to collect all kind of garbage related to the resident society and will ensure zero garbage to be kept in the designated dump yard. The contractor/agency should ensure all garbage to be collected within 12 hrs of dump.
8. The agency or contractor will dispose the garbage at their own risk in the designated dump yard by BMC. URSLLP/Society is no way responsible for this activity once the garbage are went outside from the Z-1 premises.

Yours faithfully

Agreed and accepted by the M/S Clean Mart Facility Services

For United Resorts and Services LLP.

Signature: -----

For United Resorts and Services LLP

  
Authorized Signatory

Authorized Signatory

Date: -----



HKS | HST | MR

for your records  
and future referenceHd  
9/3/05Telegram: 'EXPLOSIVES'  
NagpurTelephone 2510103  
FAX 2510577All communications  
intended for this Office  
should be addressed to  
the "Chief Controller of  
Explosives" and NOT to  
him by nameGOVERNMENT OF INDIA  
DEPARTMENT OF EXPLOSIVES  
"A" Block, 5<sup>th</sup> Floor, CGO Complex  
Seminary Hills, Nagpur-440006No R-4(2)91  
Dated 03/03/2005

To

M/s. Hindustan Petroleum Corporation Limited,  
17, Jamshedji Tata Road,  
Mumbai-400 001.

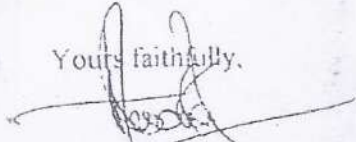
Sub: - Clarification regarding licence for Reticulated LPG system

Dear Sirs,

Please refer to your letter No. NIMRO/LPG/KS, dated 18/02/2005.

It is clarified that LPG cylinders connected to manifolds of a liquefied petroleum gas cylinder installation will be treated as cylinders in use and not as storage. As such, no storage licence is required to be obtained under Gas Cylinders Rules, 2004, for a LPG cylinder installation. However, such installations shall be in conformity to IS:6044 Part 1:2000 - Practice for LPG Commercial and Industrial Cylinder Installations, which may please be noted.

Yours faithfully,

  
 (C.R. Surendranathan) --  
 Controller of Explosives  
 for Chief Controller of Explosives



**ACTION TAKEN REPORT ON BEING COMPLIED  
OF CERTIFIED COMPLIANCE REPORT OF MOEF&CC,  
LETTER NO-109-46/EPE/3684 DATE-11.12.2018  
GOVT. OF INDIA**

**General Conditions**

Sl.No.	Condition of Environmental Clearance	Compliance
1)	The applicant (Project proponents) will take necessary measures for prevention, control and mitigation of Air Pollution, Water Pollution, Noise Pollution and Land Pollution including solid waste management as mentioned by them in Form-1, Form-1A and Environment Management Plan (EMP) in compliance with the Prescribed statutory norms and standards.	Condition Complied
2)	The applicant will take statutory clearance/approval/permissions from the concerned authorities in respect of the project as and when required.	Condition Complied
3)	The applicant will submit half-yearly compliance report on post-environmental monitoring in respect of the stipulated terms and conditions in the Environmental Clearance to the State Environmental Impact Assessment Authority, (SEIAA, and Orissa) on 1st June and 1st December of each calendar year.	Condition Complied
4)	The project proponent shall obtain Periodic Occupancy Renewal Certificate from the competent authority at an interval of 3 to 5 years as per the provisions of National Building Code (NBC) 2005.	Condition Complied

5)	The project proponent shall comply all the conditions stipulated by the Bhubaneswar Development Authority (BDA) in its building plan approval letter issued vide LetterNo.BP2B-3415/10/7398/BP/BDA, Bhubaneswar, dated 26.04.2011.	Condition Complied
6)	The project proponent shall provide 16 (sixteen) mtrs. wide open space all around the 02 (two) nos. of B+G+19, 16 mtrs wide open space for 1 (one) no. of B+G+24, 13 mtrs wide open space for 17 nos. of B+G+14, and 12 mtrs wide open space for 06 mtrs. of B+G+12 mtrs. of building blocks for movement of fire engine as per provisions of National Building Code (NBC)-2005 and as recommended by Fire Prevention Officer, Orissa.	Condition Complied
7)	The project proponent shall comply to all the conditions stipulated by the Fire Prevention Officer, Orissa.	Condition Complied
8)	The project proponent shall comply to all the conditions stipulated by the Air Port Authority of India in its NOC for height clearance issued vide letter No. AAI/ER/NOC/(274/10)/200-202 dated 07.02.2011.	Condition Complied
9)	The applicant will adopt the prescribed norms and standards provided in the National Building Code of India, 2005, specially relating to:	
	a) Fire protection and life safety of occupants of the buildings.	Condition Complied
	b) Safety of personnel during construction, operation and demolition of buildings.	Condition Complied
	c) Day lighting and natural ventilation of buildings.	Condition Complied
	d) Safety from electrical fire, shock and lightning of the buildings.	Condition Complied
	e) Air-conditioning, heating and mechanical ventilation of the buildings.	Condition Complied

	f) Acoustics and noise control of the buildings.	Condition Complied
	g) Maintenance and functioning with emissions from generators supplying power to common space/ residential area in case of power failure along with fuelhandling /storage.	Condition Complied
	h) Installation of lifts and escalators in the buildings.	Condition Complied
	i) Water supply, drainage and sanitation including solid waste management	Condition Complied
	j) Landscaping of surrounding areas of the buildings.	Condition Complied

## Special Conditions

### A) CONSTRUCTION PHASE

Sl. No.	Condition of Environmental Clearance	Compliance
i)	No ground water shall be extracted for the project work at any stage during' construction phase.	<b>Being Complied:</b> In the construction of Phase II, ground water is not used during the construction activity. The water required for construction work is being brought by tankers.
ii)	Provision shall be made for the housing of construction labours within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	<b>Being Complied:</b> Presently about 650 workers are working at the construction site. 3 no. of hutments of capacity 700 persons have been provided to the workers. Besides housing, other facilities like, electricity, treated water, lavatories, bathing platforms, canteen, security guard, first-aid, crèche, and grocery shop are provided. Periodical cleaning of drains, sanitization and mosquito repelling arrangement is made.
iii)	First-Aid Room will be provided in the project site both during construction and operation of the project.	<b>Being Complied:</b> First aid room with basic first-aid facility has been provided at the project site for the workers.

iv)	All the top soil excavated during construction activities should be stored separately for use in land filling, horticulture/ landscape development within the project site.	<p><b>Being Complied:</b></p> <p>The excavated soil from the operational part has been used for backfilling and the fertile top soil is being used for greenbelt and landscape development purpose.</p> <p>Presently 7acre of earmarked area is under construction. The excavated top soil is stored at the site, which will be used for plantation pit filling.</p>
v)	Disposal of muck during construction phase should not create any adverse effect on the neighboring communities and will be disposed off taking the necessary precautions for general safety and health aspects of people only in approved sites with the approval of competent authority.	<p><b>Being Complied:</b></p> <p>During construction phase, no muck is disposed off outside the project area. Generated muck is presently utilized partly for back filling and balance for landscaping activities. Hence, any type of adverse effect on the neighboring communities will not arise.</p>
vi)	Soil and ground water samples will be tested to ascertain that there is no threat to ground water quality by leaching of heavy metals and other toxic contaminants.	<p><b>Being Complied:</b></p> <p>Ground water is being used for domestic purpose only. The analysis of ground water quality has regularly monitored.</p> <p>The ground water and soil are not contaminated due to the ongoing construction activity.</p>
vii)	Construction spoils, including bituminous material and other hazardous materials should not be allowed to contaminate watercourses, ground water and dump sites by following safe dumping/disposal practice as per statutory rules and norms with necessary approval of the Orissa Pollution Control Board.	<p><b>Being Complied:</b></p> <p>This is a construction project for residential housing complex and does not generate any hazardous materials.</p> <p>Construction spoils/material are reused in backfilling.</p> <p>No bituminous material are being used in the Project.</p>
viii)	The diesel generator sets to be used during construction phase shall be low sulfur diesel type and should conform to Environment (Protection) Rules 1986 prescribed for air emission and noise standards.	Condition Complied.
ix)	The diesel required for operating DG sets shall be stored in underground tanks and if required, clearance from the Chief Controller of Explosives shall be taken.	<p><b>Being Complied:</b></p> <p>Fuel (Diesel) is used at a rate of 10L/hr. Diesel is stored in HDPE drums on concrete floor (Max. 600L) and the dry tanks of the individual DG sets are being</p>

		filled from time to time.
x)	Vehicles used for bringing construction materials to the site should be in good condition and should have a pollution check certificate, covered and conform to statutory air and noise emission standards and should be operated only during non-peak hours of the day.	<b>Being Complied:</b> Vehicles of good condition and having valid PUC (Pollution Under Control) Certificate are used for transportation. The construction materials are brought in daytime, in completely covered & during non-peak hours.
xi)	Ambient noise levels should conform to residential standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase. Adequate measures should be taken to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB/ OPCB.	<b>Being Complied:</b> The Air quality monitoring and Noise monitoring reports reveal that the values are within the prescribed limits of CPCB/ OPCB.
xii)	Fly ash bricks should be used as building material in the construction as per the provisions of Fly Ash Notification of September 1999 and as amended thereafter.	<b>Being Complied:</b> Fly ash bricks and AAC (Autoclave Aerated Concrete) blocks have been used for construction work.
xiii)	Ready mixed concrete would be used in building construction,	<b>Being Complied:</b> Ready mixed concrete (Grade M-25, M-30, M-35, M-40, M-45, M-50) is used in building construction.
xiv)	Storm water control and its re-use should be as per CGWB and BIS standards for these applications	<b>Being Complied:</b> Construction work had started after obtaining Consent to Establish from State Pollution Control Board on 16.02.2012. Storm water drainage system is being provided in the project site which is connected to the rain water recharge pits.
xv)	Water demand during construction should be optimized by adopting best practices without compromising quality.	<b>Being Complied:</b> Presently 80KLD of water is consumed for the construction activity, which is brought by tankers.
xvi)	Separation of grey and black water supplies and collection should be done by the use of dual plumbing line. Grey and black water should be treated separately before recycling/reuse.	<b>Being Complied:</b> Dual plumbing system is already provided in the sewage treatment system. Grey and Black water shall be treated separately before recycling/reuse.
xvii)	Fixtures for showers, toilet flushing and drinking water should be of low flow-	<b>Being Complied:</b> Low flow type showers & toilet flush are

	type and restricted to requirements by use of aerators, avoiding wastage pressure reducing devices or sensor based controls.	installed in the project.
xviii)	Use of glass may be maximum up to 40% of total outer wall area to reduce the energy consumption and load on air-conditioning,if necessary, high quality double glass with special reflective coating may be used in the windows.	<b>Being Complied:</b> About 24% of the outer wall area is covered with glasses. However in the outer wall of model building, about 20% is covered with glass.
xix)	Roof should meet the prescribed requirement as per Energy Conservation Building Code by using appropriate thermal insulation material.	<b>Being Complied:</b> The building is constructed following Energy Conservation Building Code. The roofs are insulated to minimize the heat.Roof and wall insulation are provided to conserve energy.
xx)	Opaque wall should meet prescriptive requirements as per Energy Conservation Building Code,	<b>Being Complied:</b> Opaque wall will meet the Energy Conservation as per Building Code.
xxi)	The approval of the competent authority shall be obtained for structural safety of the buildings due to earthquake, adequacy of firefighting equipments etc. as per National Building Code of India, 2005 including protection measures from lightning etc.	<b>Being Complied:</b> Zone-III Seismic Load Design is conductedfor earthquake protection complying all rules and regulations applicable as per National Building Code of India, 2005. Approval from competent authorityhas been obtained.
xxii)	Regular supervision of the above and other measures for monitoring should be in place all through the construction phase to avoid disturbances and pollution to the surroundings.	<b>Being Complied:</b> Regular supervision is carried out to look after all safety measures at the construction site. Monitoring of air, water, noise & soilhas been carried out by an accredited environmental laboratory periodically.

## B) OPERATION PHASE

Sl. No.	Condition of Environmental Clearance	Compliance
i)	The installation of the Sewage Treatment Plant (STP) should be certified by acompetent agency and a report in this regard should be submitted to the SEIAA,Orissa before the project is commissioned for operation. Treated	Condition Complied

	effluent from STP shall be recycled/ reused to the maximum extent possible. Treatment of 100% grey water by decentralized treatment should be done. Discharge of unused treated effluent shall conform to the norms and standards of the Orissa State Pollution Control Board. Necessary measures should be taken to mitigate the odour problem from STP.	
ii)	The STP sludge should not be dried nor incinerated within the project site and should be disposed off as per the norms of SPCB, Orissa.	<b>Being Complied:</b> The STP sludge is being disposed as per the norms of SPCB, Odisha.
iii)	The project proponent will ensure that under no circumstances, the environment is polluted due to non-functioning /under performance of sewerage disposal system of the project. To achieve this, a stand-by STP with similar capacity should be installed to be put into service during the maintenance /over hauling of the original STP.	<b>Being Complied:</b> STP plant is being monitored & maintained as per the standard operating procedure. For different stages of treatment stand by units are provided which shall act as additional treatment system during exigencies. For phase II, construction activity is under progress.
iv)	The solid waste generated should be properly collected and segregated. Wet garbage should be disposed off to composted and dry/ inert solid waste should be disposed off to a certified agency for safe disposal. Necessary approval/permission may be obtained from the concerned authorities.	Condition complied.
v)	Diesel power generating sets proposed as source of back-up power for lift elevators and common area illumination during operation phase should be of enclosed type and conform to Environment Protection (EP) Rules 1986. The height of the stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets put together and should be more than the highest building height. Low sulfur diesel should be used. The location of the DG sets may be decided in consultation with Orissa State Pollution Control Board. Care may be taken to avoid disposal of smoke /pollutants	Condition complied.

	from DG sets in the residential area.	
vi)	Noise should be controlled to ensure that it does not exceed the prescribed standards. During night time, the noise levels measured at the boundary of the sites shall be restricted to the permissible levels to comply with the prevalent regulations.	Condition Complied.
vii)	Green-belt & avenue Plantation of trees over at least 20% of the site area shall be done using native tree species/ plants improving greenery & keeping in view aesthetics considerations in the whole campus. Professional landscape architects should be engaged to design the green layout to provide for multi tier plantation and green fencing all around, mitigating various environmental parameters like dust, noise, emissions etc. and pathway for joggers.	Condition Complied.
ix)	Weep holes in the compound walls shall be provided to ensure natural drainage of excessive rain water in the project area during the monsoon period after the harvesting operations. Care must be taken so that there is no water logging in the territory and drainage is 100%.	Condition Complied.
x)	The ground water level and its quality should be monitored regularly in consultation with Central /State Ground Water Authority.	Condition Complied.
xi)	Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Traffic congestion shall be avoided inside the project site. The area ear marked for parking shall not be used for any other purpose. Alternate entry and exit must be provided to handle excess traffic and emergency situations.	Condition Complied.
xii)	A Report on the energy conservation measures confirming to energy conservation norms finalized by the Bureau of Energy Efficiency should be prepared incorporating details about building materials & technology, R & U Factors etc and submitted to the SEIAA, Orissa in three	Partially Complied.

	months time before operation /habitation.	
xiii)	Provisions of solar hot water storage/supplies at the roof top may be made as per statutory norms of CPCB/MoEF/SPCB, Orissa.	Solar power heater will be installed in strategic location.
xiv)	Energy conservation measures like installation of CFLs/ TFLs for lighting the areas outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines /rules of the regulatory authority to avoid toxic contamination. Use of solar panels may be adopted to the maximum extent possible, especially for street lights.	All Street lights, Garden lights, Common area lights, Club house lighting are provided with energy saving LED lights.
xv)	The building blocks should have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation.	Condition Complied.
xvi)	The funds earmarked for the environment protection measures shall be judiciously utilized. Under no circumstances this funds shall be diverted for other purposes like Annual allocation and maintenance /monitoring etc. and expenditure for this fund should be reported to the SEIAA, Orissa.	Condition Complied
xvii)	The need of the local people should be appropriately addressed in the CSR activities to be undertaken in the area. An action plan in this regard should be prepared and submitted.	Condition Complied.