

No. SEIAA: 115: CON: 2010

**STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT  
AUTHORITY, KARNATAKA**

(Constituted by Ministry of Environment & Forests, Government of India)

Department of Ecology and Environment

Room No.709, 7<sup>th</sup> Floor, IV-Gate,

M.S. Building, Bangalore-560 001,

Date: 3<sup>rd</sup> October 2013.

To,

The Housing Commissioner,  
Karnataka Housing Board (KHB),  
4<sup>th</sup> Floor, E Block, Cauvery Bhavan,  
Bangalore- 560009.

Sir,

Sub: Proposed Composite Housing Scheme at Sy.No.s 4P, 5/4P, 28, 30/1, 2, 3, 4, 31, 32/1 to 5, 33, 34/1, 2, 3, 35, 36, 37, 38/1 to 3, 39, 40/1 to 5, 41/1 to 4, 42/2,3,4, 4P, 45/3,5,6, 46, 47/2 to 8, 49, 50, 51/1 to 4, 52/1 to 3, 53, 54/1 to 3, 55, 56/2 to 4, 57P, 59/5 to 6, 60/1,2 --9, 61, 62, 63, 64, 65/1,2,3, 66, 67/1,2, 68/1,2,3, 69/1- -5, 70, 71, 72/1,2,3, 73, 74, 75, 76/1--5, 77/1,2, 78/1,2, 79, 80, 81/1,2,3, 93, 93/2, 94/1---5, 95/1,2, 96, 97/1---8, 98/1--8, 99, 100/1,2,3, 101/1,2,3, 186/1,2P, 187/1,2,3, 188, 189/1 &3, 190/2,3,4, 191/1--4, 192/1,2,3, 193, 194, 195, 196/1,2,3, Suryanagar II Phase, Hinakki Village, Jigani Hobli, Anekal Taluk, Bangalore District by Karnataka Housing Board - issue of Environment Clearance -reg.

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This has reference to your application No. KHB/HC/SNGR/ PH.II/2010-11 dated 15.11.2010 addressed to SEIAA, Karnataka and subsequent letters addressed to SEIAA/SEAC Karnataka furnishing further information/seeking prior environmental clearance for the above project under the EIA Notification, 2006. The proposal has been appraised as per the prescribed procedure in light of the provisions under the EIA Notification, 2006 on the basis of the mandatory documents enclosed with the application viz., the Form 1, Form 1A, conceptual plans and the additional clarifications furnished in response to the observations of the SEAC, Karnataka.

2. It is, inter-alia, noted that Karnataka Housing Board have proposed for development of residential layout on a plot area of 30,56,905.26 Sqm out of which 13,45,406.27 Sqm for 9136 residential plots of different divisions (EWS - 1384, LIG -2470, MIG - 2994, HIG-I - 1426 and HIG-II - 327), 94,859.48 Sqm for commercial plots, 3,94,253.70 Sqm for parks & open spaces, 1,66,887.16 Sqm for

Public & Semi public, 12,667.85 Sqm for Utility & Services, 10,35,832.40 Sqm for Traffic & Transportation and 6998.40 Sqm for service industry. Total water consumption is 7.8 MLD. The total wastewater discharge is 6.24 MLD. It is proposed to construct Sewage Treatment Plant with a total capacity of 9 MLD (2 MLD, 3 MLD and 4 MLD) . The project cost is ₹ 994 crores.

3. The project proposal has been considered by SEAC and ToRs were issued on 21.02.2011 for conducting Environment Impact Assessment Study. EIA has been conducted by M/s Environmental Health and Safety Consultants Private Limited, # 13/2, 1<sup>st</sup> Main Road, Near Fire Station, Industrial Town, Rajajinagar, Bangalore - 560010. EIA report has been submitted vide letter dated 10.02.2012.

4. Based on the information submitted by you, presentation made by you and consultant, M/s Environmental Health and Safety Consultants Private Limited, # 13/2, 1<sup>st</sup> Main Road, Near Fire Station, Industrial Town, Rajajinagar, Bangalore - 560010 The State Level Expert Appraisal Committee (SEAC) examined the proposal in the meeting held on 28/29.01.2011, 17.03.2012 and 20<sup>th</sup>, 21<sup>st</sup> & 23<sup>rd</sup> September 2013 and has recommended for issue of Environmental Clearance.

3. The SEIAA Karnataka after due consideration of the relevant documents submitted by the project proponent, additional clarifications furnished in response to its observations and the recommendation of the SEAC have in its meeting held on 30<sup>th</sup> September 2013 and accorded environmental clearance as per the provisions of Environmental Impact Assessment Notification-2006 and its subsequent amendments, subject to strict compliance of the terms and conditions as follows: -

#### **Part A- SPECIFIC CONDITIONS**

##### **I. Construction Phase**

1. Set up an environment management cell and ensure that the cell manages / maintains all the environmental aspects such as sewage treatment, solid waste disposal, maintenance of green belt areas, etc., and in case the commercial space is sold / leased, then enter into an agreement with the prospective buyers to ensure that they maintain the cell and take care of all environment concerns during the operation phase of the project. In addition, sufficient fees should be levied so as to raise a corpus fund to maintain the Environment cell.
2. Appoint an Environment and safety engineer during the construction phase to take care of environment and safety aspects.
3. The project proponent should ensure that during the construction phase utmost care is taken to ensure that there is no noise nuisance, no air and water pollution and no disturbance to the nearby inhabitants. In case of violation, the project construction activity may have to be directed to be stopped.

4. Provide at the main entrances bell gates, which are located at least 12' inside the boundary of the project to enable smooth flow of traffic on the main road leading to the entrance.
5. All required sanitary and hygienic measures should be in place before starting construction activities and to be maintained throughout the construction phase. Sufficient number of toilets/bathrooms shall be provided with required mobile toilets, mobile STP for construction work force.
6. A First Aid Room should be provided in the Project both during construction and operation of the project.
7. Adequate drinking water and sanitary facilities should be provided for construction workers at the site. The safe disposal of wastewater and solid wastes generated during the construction phase should be ensured.
8. Provision shall be made for the housing of construction labourers within the site with all necessary infrastructures. The housing may be in the form of temporary structures to be removed after the completion of the project. The facilities shall include the crèche.
9. Provision should be made for the supply of fuel (kerosene or cooking gas); utensils such as pressure cookers etc. to the labourers during construction phase.
10. All the labourers to be engaged for construction should be screened for health and adequately treated before engaging them to work at the site and detailed report submitted to SEIAA. Safety standards as per National Building Code (NBC) should be ensured.
11. For dis-infection of wastewater which is not meant for recycling for toilet flushing, use ultra violet radiation and not chlorination. For treated wastewater meant for reuse for toilet flushing, disinfect by using chlorination.
12. All the topsoil excavated during construction activities should be stored for use in horticulture / landscape development within the project site.
13. Disposal of muck, construction debris during construction phase should not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
14. Soil and ground water samples should be tested at the project site during the construction phase to ascertain that there is no threat to ground water quality by leaching of heavy metals and or other toxic contaminants and report submitted to SEIAA.
15. Construction spoils, including bituminous material and other hazardous materials, must not be allowed to contaminate watercourses and the dumpsites for such material must be secured so that they should not leach into the ground water.

16. The diesel generator sets to be used during construction phase should be of low sulphur diesel type and should conform to 'E (P) Rules prescribed for air and noise emission standards.
17. Vehicles hired for bringing construction material to the site should be in good condition and should conform to the applicable air and noise emission standards and should be operated only during non-peak hours.
18. Ambient noise levels should conform to the 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 to reduce air and noise pollution during construction keeping in mind CPCB norms on noise limits.
19. Fly ash should be used as building material in the construction as per the provisions of Fly Ash Notification of September 1999 and amended as on August 2003.
20. Ready mixed concrete must be used in building construction.
21. Storm water control and its re-use as per CGWB and BIS standards for various applications.
22. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices and only tertiary treated water shall be used for construction as per G.O. No. FEE 188 ENV 2003 dated 14.08.2003.
23. No ground water is to be drawn without permission from the Central Ground Water Authority.
24. Separation of grey and black water should be done by the use of dual plumbing line for separation of grey and black water.
25. Treatment of 100% grey water by decentralized treatment should be done.
26. Fixtures for showers, toilet flushing and drinking should be of low flow either by use of aerators or pressure reducing devices or sensor based control.
27. Use of glass shall not exceed 40% of exposed area to reduce the electricity consumption and load on air conditioning. If necessary, use high quality double glass with special reflective coating in windows.
28. The provision of Energy Conservation Building code, 2007 shall be fully complied with.
29. Roof should meet prescriptive requirement as per Energy Conservation Building Code, 2007 by using appropriate thermal insulation material.
30. Opaque wall should meet prescriptive requirement as per Energy Conservation Building Code, 2007 which is proposed to be mandatory for all air conditioned spaces while it is optional for non-air conditioned spaces by use of appropriate thermal insulation material to fulfil requirement.
31. Facilities such as ramps and separate parking shall be provided for the benefit of physically challenged.
32. The project shall be made operational only after necessary connection for water supply and sewerage line is provided by the Competent Authorities.

33. The project authority shall maintain and operate the common infrastructure facilities created including STP and solid waste management facility after commissioning the project.
34. The project authorities shall not use Kharab land if any for any purpose and keep available to the general public duly displaying a board as public property. No structure of any kind be put up in the Kharab land and shall be afforested and maintained as green belt only.
35. The natural sloping pattern of the project site shall remain unaltered and the natural hydrology of the area be maintained as it is to ensure natural flow of storm water.
36. The project authorities shall leave 30 mtrs buffer from the boundary of lake and 15 meters on either side of the channel / nala and other water bodies and this shall be free from any permanent structures. The buffer so maintained shall be planted with indigenous tree species such as Neem, Akash Mallige, Mahagoni, Honge, Kadamba Ficus, etc. and maintained as green belt.
37. The project Authorities shall take appropriate measures to protect and preserve the water bodies such as lake, Nalah etc. if any within the project area.
38. Provision for effective rainwater harvesting and ground water recharge shall be made.
39. Provision for undertaking avenue plantation along with layout formation shall be made.
40. The proponent shall take up the construction activity only after obtaining NOC or clearance from the competent authority for assured supply of water as the case may be.
41. The proponent shall undertake the following activities towards the corporate social commitment made vide letter dated 23.07.2013 with a total budget of ₹ 8610 lakhs as committed and report be submitted to the Authority.
  - a. Development/Rejuvenation of surrounding village tanks at a cost of ₹ 850 lakhs (Hinnakki, Naganayakanahalli Tanks) within 2 years
  - b. Providing UGD system to affected villages namely Hinnakki, Marsur ad Lingapura at a cost of ₹ 400 Lakhs by December 2015.
  - c. Providing civic amenities to public in the layout (Construction of hospital, police station, school and bus bay) at a cost of ₹ 2900 Lakhs by December 2015.
  - d. Allotment of sites at concessional rate at 25% to the land losers.
  - e. Rehabilitation of 30 houses for economically weaker section (EWS) in Hinnakki village for ₹ 60 lakhs .
  - f. Allotment of sites to economically weaker section (EWS) at subsidized rate.
  - g. Development of parks and play grounds in the layout at a cost of ₹ 700 Lakhs.

**II. Operation Phase.**

1. The installation of 3 Sewage Treatment Plant (STP) of total capacity 9 MLD (2 MLD, 3 MLD and 4 MLD) should be carried out and the plant shall be got certified by an independent expert and a report in this regard should be submitted to the SEIAA immediately. Discharge of treated sewage shall conform to the norms & standards of the Karnataka State Pollution Control Board. Treated sewage should be used for gardening, etc. as proposed, using dual plumbing line.
2. Rainwater harvesting for surface run-off harvesting as per the plan submitted should be implemented. Before recharging the surface run off, pre-treatment must be done to remove suspended matter, oil and grease.
3. Ensure that the excess runoff rainwater from the greenbelt area, which is irrigated by treated water, does not get into infiltration pits and contaminate the ground water. Such excess flow should be safely let in to the storm water drains.
4. The solid waste generated should be properly collected and segregated insitu. The Biodegradable organic waste be composted by installing bio-converter in site and used. The non-biodegradable waste be disposed to the authorized recyclers.
5. Any hazardous waste including biomedical waste should be disposed-off as per the applicable Rules and norms with necessary approvals of the Karnataka State Pollution Control Board.
6. As agreed by the project proponent, develop a minimum of 33 % of the project area i.e., minimum 10,08,605.26 Sqm area for green belt and plant with heavy foliage indigenous tree species such as Mahagoni, Honge, Neem, Akash Mallige, Kadamba, Ficus and Ashoka, etc at an espacement of 3 mts x 3 mts i.e. 1111 plants/hectare.

The green belt design along the periphery of the plot shall achieve attenuation factor confirming to the day and night noise standards prescribed for residential land use. The open spaces inside the plot should be suitably landscaped and covered with vegetation of indigenous variety.

7. Incremental pollution loads on the ambient air quality; noise and water quality should be periodically monitored after commissioning of the project.
8. Application of solar energy should be incorporated for illumination of common areas, lighting for gardens and street lighting in addition to provision for solar water heating. A hybrid system or fully solar system for the complex should be provided. Details in this regard should be submitted to the SEIAA.
9. Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Parking should be fully internalized and no public space should be utilized.

10. 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 submit to the SEIAA in three months time.
11. All toilets should have dual plumbing line for using treated water and no wastewater is discharged from the unit.
12. The Environment Management Plan including the human health and Safety management plan and Fire Safety and Protection plan proposed by the proponent shall be strictly implemented.
13. The proposed layout shall have D.G. Set of 2 X 125 KVA and 1 X 160 KVA as an alternate power supply source as proposed.

**PART - B. GENERAL CONDITIONS:**

1. The Environmental safeguards contained in the application should be implemented in letter and spirit.
2. All commitments made by the proponents in their application, and subsequent letters addressed to the SEAC/SEIAA should be accomplished before the construction work of the project is completed.
3. Half yearly monitoring reports should be submitted to the SEIAA and the Regional Office, MoEF, Bangalore.
4. Officials from the Department of Environment and Ecology, Bangalore / Regional Office of MoEF, Bangalore who would be monitoring the implementation of Environmental safeguards should be given full cooperation, facilities and documents / data by the project proponents during their inspection. A complete set of all the documents submitted to MoEF / SEIAA should be forwarded to the CCF, Regional Office of MoEF, Bangalore / Department of Environment and Ecology, Bangalore.
5. In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Authority.
6. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environmental (Protection) Act, 1986.
7. Any Appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred, within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Authority Act, 1997.
8. The Authority reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environmental clearance under the provisions of the Environment (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
9. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation

Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the competent authorities.

10. The project proponent should advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the Karnataka State Pollution Control board and may also be seen on the website of the SEIAA, Karnataka at <http://www.seiaa.kar.nic.in>. The advertisement should be made within 7 days from the day of issue of the clearance letter and a copy of the same should be forwarded to the Regional Office of the MoEF at Bangalore/ SEIAA Karnataka, Department of Environment and Ecology, Bangalore.
11. The project proponent should display the conditions prominently at the entrance of the project on a suitable size board for the information of the public.
12. These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006.
13. Under the provisions of Environment (Protection) Act, 1986, legal action shall be initiated against the project proponent if it is found that construction of the project has been started without obtaining environmental clearance.
14. The issuance of Environment Clearance doesn't confer any right to the project proponent to operate/run the project without obtaining Statutory clearances/sanctions from all other concerned authorities.

Yours faithfully,

  
(RAMACHANDRA)  
Member Secretary,  
SEIAA.

**Copy to:**

1. The Secretary, Ministry of Environment & Forests, Government of India, Paryavaran Bhavan, CGO Complex, Lodi Road, New Delhi-110003.
2. The Member Secretary, Anekal Planning Authority, (APA) Anna, #430 Hennagara Gate, Hosur Main Road, Bangalore-560099.
3. The Member Secretary, Karnataka State Pollution Control Board, Bangalore.
4. The CCF, Regional Office, Ministry of Environment & Forests (SZ), Kendriya Sadan, IV Floor, E & F wings, 17<sup>th</sup> Main Road, Koramangala II Block, Bangalore-560 034.
5. Guard File.