The 181<sup>st</sup>meeting of the Maharashtra Coastal Zone Management Authority (MCZMA) was held on 11<sup>th</sup> & 14<sup>th</sup> July, 2025 under the Chairmanship of Secretary, Environment and Climate Change Dept. Proposals were appraised through Videoconferencing on Cisco WebEx platform. List of members present in the meeting is at <u>Annexure-I.</u>

Item No.1: Proposed construction of 400/220 KV MC Line from existing 400 KV DC Padagaon to Nagothane Line to the proposed 400 KVSS at JSW Dolvi Steel Plant By Maharashtra State Electricity Transmission Co. Ltd (MSETCL).

#### INTRODUCTION:

Officials from the Maharashtra State Electricity Transmission Company (MSETCL) along with Consultant presented the proposal before the Authority. MSETCL has proposed the construction of Transmission Line from 400 kv Nagothane to JSW Dolvi Substation shall serve as booster for the industries with additional power availability for the expansion of industry in Raigad District. As presented by the PP, the details of the proposed transmission line is as follows-

- Total Length of proposed line is 27.455 km.
- Area of Reserved Forest, Protected Forest, DLC, Revenue Forest etc -18.2259 Ha
- Nos of Mangrove tree affected 112
- Total nos of tower to be erected and affected total in forest- 17 out of 109
- Total forest area affected due to pillars- 0.4274
- Proposed transmission line is outside any protected area.

The PP presented that proposed transmission line passes inside CRZ II, CRZ IB, CRZ IA, CRZ IVB with remaining length outside CRZ as per approved CZMP.

It was further presented that, these transmission lines are vital for stretching the transmission system for supplying un-interrupted, power supply to Raigad district

#### **DELIBERATIONS:**

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The Authority noted that, the PP has submitted the CRZ map in 1:4000 scale showing the alignment of the proposed transmission line, as prepared by the IRS, Chennaiconsidering approved CZMP, 2019. As per the said CRZ report, the proposed transmission line of MSETCL in various villages of Alibaug and Murud Taluka of Raigad District, passes through 50 meter setback line from the HTL of Amba River, Creek and mangroves as per the approved CZMP (Map No. MH 63, 64 & 67). Hence, the proposed transmission line passes inside CRZ II, CRZ IB, CRZ IA, CRZ IVB with remaining length outside CRZ as per approved CZMP prepared under CRZ Notification, 2019.

As per the said report, the length of the proposed transmission line in CRZ categorization is as follows:

CRZ Classification	Length in Meters
CRZ IA	857.42
CRZ IA (50 m mangrove buffer zone)	15259.56
CRZ IB	561.43
CRZ III (NDZ)	4943.69
CRZ IVB	266.98
Outside CRZ	5565.90
Total	27455.00

Further, the IRS report mentions the locations of proposed transmission towers. Certain tower locations are falling in CRZ IA (Mangroves), 50 m mangroves, CRZ III and certain locations are outside CRZ area.

The PP has submitted the EIA report prepared by the Centre for Envotech and Management Consultancy private Ltd (Nabet Accredited consultancy).

As per the EIA report, the MSETCL has proposed construction of Transmission Line at Dolvi. The channel passes through the following villages; Kansai, Godsai, Balsai, Patansai, Chikani, Nagothane, Warvatane, Nidi, Palas, ShetPalas, Taluka Roha, District Raigad as well as Kharkolti, Khartale, Kharoli, Kharkalai, Kasurkhantwadi, PatniPandapur, Kharaksu, Kharbhaisbad, Khaparle, Khardombi, Kharghat, Kharamchela, KharKarvi, Taluka Pen, District Raigad.

The EIA report mentions that analysis of alternatives for a transmission project, it's essential to consider technical, economic, environmental, and social aspects to identify the best solution. Evaluating different options allows for the

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identification of potential environmental impacts associated with each alternative. Alternative alignment 1 shows 45.5755 Ha of diversion of forest land, Alternate alignment 2 shows 30.4809 Ha of diversion of forest land. Both the alternative alignments predict more diversion of forest land than proposed alignment of transmission line which shows 15.1046 Ha area, hence proposed alignment of transmission line most favourable for this project.

The Authority noted the anticipated impact of the project and mitigation measure & Environment Management Plan(EMP). Certain observations/ mitigation measures suggested in the EIA report is as follows:

- Frequently Spraying water to construction sites, especially on unpaved roads, excavations, and soil stockpiles, can decrease the dust produced. Soil, sand, and other easily airborne materials must be covered during transportation or storage on the site. Enforcing speed restrictions for construction vehicles on site (e.g., 15-25 km/h) can lessen the dust raised while being transported
- Utilizing electric or hybrid construction equipment when feasible can greatly diminish air pollutants and greenhouse gas emissions
- Adequate disposal and containment of construction waste and debris will stop airborne particles and other pollutants from being emitted into the air
- Limit loud activities (like drilling, blasting, or heavy equipment operations)
   to the hours of daylight (typically between 8:00 AM and 6:00 PM).
- Whenever feasible, utilize modern construction equipment specifically engineered to function with decreased noise emissions. Electric machinery, for instance, has the ability to produce much lower levels of noise compared to conventional diesel-operated equipment.
- Set up silt fences, sediment traps, and barriers around construction sites, especially around water sources, to stop soil and sediment from flowing into nearby rivers, lakes, or streams.
- Construct temporary retention or settling ponds to allow suspended sediments in runoff water to settle before the water enters nearby streams or rivers.
- Enforcing rigorous waste disposal rules can prevent construction waste from entering nearby water sources. Waste materials need to be gathered and disposed of in specified facilities located at a distance from rivers. Planning construction in a way that minimizes disturbance to natural waterways is important.

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- Mitigation measures for the land environment should focus on minimizing damage to the ecosystems, soil, water resources, and biodiversity in the region
- Give priority to paths that go through less vulnerable or already impacted regions to steer clear of biodiversity hubs and important animal passageways.
- Design the shortest and most efficient routes that reduce land clearing and minimize ecological disturbance. Use bird diverters, reflective markers, or line markers to make transmission lines more visible to birds, especially in migratory bird areas.
- Mitigating the ecological impact of a transmission line project involves minimizing the disruption to ecosystems, wildlife, and natural landscapes while maintaining the project's operational needs.

Dr. Anish Andheria, Expert Member suggested that since the pylons of the towers are close to the creek, the PP should exercise due caution & mitigations measures while construction phase so that creek flow is not obstructed and creek ecology is not disturbed. Consultant assured that pylone will not be constructed in the creek area and at least 20 meter distance will be kept from the bank of the creek/ river. Proper mitigation measures will be implemented to ensure that there is not disturbance to creek ecosystem. The PP further assured that mangrove replantation will be done in consultation with the Mangrove Cell.

Dr. Bansiwal, Expert member asked the PP about the timeline for completion of the project. The PP responded, once all the necessary permissions are secured work will be commenced and likely it will be completed within 18 months. Dr. Bansiwal suggested that the PP should ensure the timely restoration plans of the site, immediately after completion of construction.

The Authority observed that the transmission line is important public utility project, which will help the regional rural communities of the Raigad district. This project will help minimize power cuts and ensure a stable electricity supply. However, while construction phase, all the necessary mitigation measures and Environment Management Plan/ Disaster Management Plan as suggested in the EIA report should be implemented by the project implementing agency. All necessary required statutory permissions should be obtained by the PP including the Mangrove NOC, Forest clearance, High Court approval etc.

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The Authority further noted the permissibility of the proposal under CRZ Notification, 2019 is as follows:

- 1) As per para 5.1.1 CRZ IA (iii) of the CRZ Notification, 2019, public utilities projects are permitted in CRZ IA areas.
- 2) As per para 5.1.1(ii), In the mangrove buffer, only such activities shall be permitted like laying of pipelines, **transmission lines**, conveyance systems or mechanisms and construction of road on stilts, etc. that are required for public utilities
- 3) As per para 5.1.2(xv), pipeline, conveying systems including transmission lines are permitted in CRZ IB area.
- 4) As per para 5.3(i), in CRZ III areas. Activities as permitted in CRZ-I B, shall also be permissible in CRZ-III, in so far as applicable.
- 5) As per para 5.4(xiii), pipeline, conveying systems including transmission lines, are permitted in CRZ IV area

The Authority further noted as per para 7(iii) of the CRZ Notification, 2019& OM dated 29<sup>th</sup> November, 2022, the proposal requires final CRZ clearance from the MoEF&CC, New Delhi. The said provision is reproduced as follows:

"For all other permissible and regulated activities as per this notification, which fall purely in CRZ-II and CRZ-III areas, the CRZ clearance shall be considered by the concerned Coastal Zone Management Authority and such projects in CRZ-II and III, which also happen to be traversing through CRZ-I or CRZ-IV areas or both, CRZ clearance shall, however be considered only by the Ministry of Environment, Forest and Climate Change, based on recommendations of the concerned Coastal Zone Management Authority"

#### DECISION:

In the light of above, the Authority after detailed discussion and deliberation decided to recommend the proposal from CRZ point of view to MoEF&CC, New Delhi, under CRZ Notification, 2019 subject to compliance of the following conditions:

- 1. The proposed project should be carried out strictly as per the provisions of CRZ Notification, 2019 (as amended from time to time) and guidelines/clarifications given by MoEF from time to time.
- 2. PP should exercise all possible mitigation measures so that during construction phase, there is less impact on mangrove and creek ecosystem. Since the pylons of the towers are close to the creek, the PP should exercise due caution & mitigations measures while construction

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- phase so that creek flow is not obstructed and creek ecology is not disturbed
- 3. Prior High Court permission shall be obtained, as per the Hon'ble High Court order in PIL 87/2006, since the alignment of transmission line is passing through mangroves & 50 m mangrove buffer zone area.
- 4. PP shall undertake compensatory mangrove plantation in accordance with provisions of the CRZ Notification, 2019, in consultation with the Mangrove Cell.
- 5. NoC from Mangrove Cell shall be obtained by the PP.
- 6. Forest Clearance under Forest (Conservation) Act, 1980 shall be obtained.
- 7. PP to install Bird diverters in transmission lines so as to avoid accidental collision of Birds
- 8. Site preparation and site restoration in CRZ area should be undertaken without damaging the coastal-geomorphological features.
- Construction debris and excavated material should not be disposed off in the mangrove area & creek water to avoid any adverse impact on mangroves and marine water quality.
- 10. All the safety measures and Disaster Management Plan should be implemented during construction and operation phase of the project.
- 11. Limit loud activities (like drilling, blasting, or heavy equipment operations) to the hours of daylight (typically between 8:00 AM and 6:00 PM), as suggested in the EIA report.
- 12. Project proponent should implement Mitigation measures and Environment Management plan & Disaster Management Plan as suggested in the EIA report, effectively and efficiently during construction and operational phase of the project to ensure that coastal environment is protected.
- 13. All other required permissions from different statutory authorities should be obtained prior to commencement of work.

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Item No.2: Proposed construction of water pipeline from Radha Swami Satsang Metro Station to NazrethAagar in Bhayandar Village, Bhayandar (W), Thane District, Maharashtra by M/s. Mira Bhayandar Municipal Corporation (MBMC).

#### INTRODUCTION:

The officials from the Mira Bhayandar Municipal Corporation (MBMC) and consultant presented the proposal before the Authority. MBMC officials presented that, due to rapid urbanization of the MBMC area, there is increased demand for basic amenities such as water, sewage treatment, waste disposal, and energy. As a result, the existing infrastructure, including pipelines for water supply, sewage systems, and gas distribution, is facing immense pressure and often struggles to meet the needs of the growing population. To address these challenges and ensure the sustainable development of the region, the MBMC has initiated the water pipelines Project.

Proposed construction of water Pipeline is from Radha Swami Satsang Metro Station to NazrethAagar in Bhayandar Village, Bhayandar (W), Thane District.

- Length of the water pipeline is 1872 meter
- Width of the pipeline is 1 meter
- Diameter of the pipeline is 0.5 meter

Consultant presented that, proposed pipeline is passing through CRZ - IA (50m Mangrove Buffer Zone), CRZ-II and outside CRZ as per approved CZMP.

#### **DELIBERATIONS:**

The Authority noted that, the PP has submitted the CRZ map in 1:4000 scale superimposing the project alignment, as prepared by the IRS, Chennai, considering approved CZMP, 2019.

The IRS report mentions that, the project is located at administrative boundary of the MBMC and in the vicinity of the creek which is a tidally influenced inland water body and mangroves.

As per the said IRS report, the project site falls partly inside the 50 m buffer from the HTL of creek and 50 m buffer from mangrove as per approved CZMP (Map no. MH 82). Hence, the proposed water pipeline falls inside CRZ IA

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(50 m buffer from mangrove) and CRZ II with remaining length outside CRZ as indicted in the local level CRZ map.

The length of the proposed pipeline is various CRZ category is as follows:

CRZ - Classification	Length (m)
CRZ - IA (50m Mangrove Buffer Zone)	797.73
CRZ-II	974.53
Outside CRZ	100.11
Total	1872.37

The Authority noted that the PP has submitted the EIA report prepared by the M/s Mantec Consultants Pvt Ltd (Nabet Accredited).

The EIA report which states that, the water supply situation in Mira Bhayandar is facing challenges due to rapid urban growth, increasing population, and outdated infrastructure. The primary source of water for the region is the Surya River, with additional supplies from nearby Mumbai's water pipelines. However, the rising demand from new residential, commercial, and industrial developments has strained the existing water distribution network, leading to issues such as water shortages, inconsistent supply, and occasional contamination, particularly in high-density areas and informal settlements. The extension of pipelines into underserved or newly developed areas, especially in Mira Road and Bhayandar East, ensures that the growing population has access to a reliable water supply.

The Authority discussed the anticipated impacts, mitigation measure, Environmental Monitoring plan, Disaster Management Plan as suggested in the EIA report. The EIA report states that No mangrove cutting is envisaged during construction phase. Care will be taken that no mangroves are being disturbed. Certain mitigation measures as mentioned in the EIA report is as follows:

- Every care has to be taken to avoid damage to the top soil. It has to be
  preserved and utilized. Problems could arise from dumping of
  construction spoils (Concrete, bricks) waste materials (from contractor
  camps), etc. causing surface and ground water pollution. However, it is
  proposed to have mix concrete directly from batching plant for use at
  site
- Mitigation measures should include proper water supply, sanitation, drainage, healthcareand human waste disposal facilities. In addition to

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these, efforts need to be made to avoidwater spills, adopt disease control measures and employment of local labour.

- construction material such as steel, bricks, etc. should be housed in a fenced stored yard. The balance material from store yards will be removed for use/disposal at the end of work
- Proposed project is on plain area and thus the excavation would be limited
  to piers and their piling. The soil would be used for refilling at other site.
  If there would be some residual soil, it would be utilized by MBMC for
  internal use for refilling sites and, if surplus, it would be disposed-off at
  designated locations as per Local Authority permission
- Trucks carrying soil, sand or stone will be covered with traps to avoid spilling and blowing by wind from quarry to the site of construction
- Sprinkling water will control fugitive dust entrainment
- Latest construction equipment and technologies will be used with arrangements for dust and noise control
- During construction phase, the solid waste generated will be disposed-off
  at authorized places. The construction debris will be transported via
  closed trucks to avoid fugitive dust emission, which will give rise higher
  SPM to the surrounding area. No solid waste shall be dumped/disposed in
  CRZ and/or mangrove areas.

Dr. Anish Andheria, Expert Member raised a concern about the methodology of the laying of the water pipeline. During construction phase, excavation by the JCB will have more impact on the surrounding area. He suggested that the MBMC need to implement the new mythology/ techniques for laying of pipeline in order to ensure less footprint on ground and thus, impact on surrounding is mitigated during construction phase. MBMC may explore options of Horizontal Directional Drilling / Caterpillar technique for effective &more sustainable way of laying the water pipeline.

Dr. Rangnath, Expert member asked the MBMC to have proper restoration plan of the site after the completion of the proposed work. MBMC assured for the same.

Dr. Bansiwal, Expert Member disposal plan of the excavated material. Consultant presented that, excavated material will be utilized for backfilling purpose by the MBMC. Surplus, if any would be disposed-off at designated locations as per Local Authority permission.

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The Authority noted that the proposed water pipeline project is for the benefit of resident of the MBMC area. However, MBMC need to implement all necessary measures during construction phase to minimize the impact on surrounding area. As suggested by the Expert Members, the MBMC to explore implement the options of HDD or caterpillar methodology of laying the water pipeline to minimize the impact on the CRZ area during the construction phase. All the mitigation measure suggested in the EIA report should be strictly implemented by the MBMC. In addition to this, the PP need to obtain all other required permissions like Mangrove Cell NoC, High Court approval etc.

The Authority noted as per 5.1.1 (CRZ-IA)of CRZ Notification, 2019: "(ii) In the mangrove buffer, only such activities shall be permitted like laying of pipelines, transmission lines, conveyance systems or mechanisms and construction of road on stilts, etc. that are required for public utilities."

It was further noted, as per para 7(iii) of the CRZ Notification, 2019 & OM dated 29<sup>th</sup> November, 2022, the proposal requires final CRZ clearance from the MoEF&CC, New Delhi. The said provision is reproduced as follows:

"For all other permissible and regulated activities as per this notification, which fall purely in CRZ-II and CRZ-III areas, the CRZ clearance shall be considered by the concerned Coastal Zone Management Authority and such projects in CRZ-II and III, which also happen to be traversing through CRZ-I or CRZ-IV areas or both, CRZ clearance shall, however be considered only by the Ministry of Environment, Forest and Climate Change, based on recommendations of the concerned Coastal Zone Management Authority"

#### DECISION:

After deliberation, the Authority decided to recommend the proposal from CRZ point of view under CRZ Notification, 2019 to MoEF&CC New Delhi subject to compliance of following conditions:

- 1. The proposed project should be carried out strictly as per the provisions of CRZ Notification, 2019 (as amended from time to time) and guidelines/clarifications given by MoEF&CC from time to time.
- 2. MBMC to explore & implement the options of HDD or caterpillar methodology of laying the water pipeline to minimize the impact on the CRZ area during the construction phase.

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- 3. Prior High Court permission should be obtained by the PP as per Hon'ble High Court order dated 17th Sep, 2018 in PIL 87/2006, since the proposed project is affected by 50 m mangrove buffer zone.
- 4. PP to obtain the NoC from the mangrove cell.
- 5. Project proponent should implement Mitigation measures and Environment Management plan as stipulated in the EIA report, effectively and efficiently during construction and operational phase of the project to ensure that coastal environment is protected.
- 6. The construction debris and excavated material should not be disposed off in the mangrove area & creek water to avoid any adverse impact on mangroves and marine water quality.
- 7. Debris generated during the project activity should not be dumped in CRZ
- 8. All other required permission from different statutory authorities should be obtained before starting construction at the site shall be ensured by Urban Local Body.

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Item No.3: Regarding error correction in Coastal Zone Management Plan (CZMP) 2019 (Sheet no. E 43 B 4/ SW, Map no. MH 77) for Development of Infrastructure requirements of PMAY and other housing schemes at Taloja Node, STP, MBR, Fire station, Road and for further development pocket at sector-37, Taloja, Navi Mumbai, District-Raigad, State-Maharashtra by City And Industrial Development Corporation Of Maharashtra Ltd

#### INTRODCUTION:

The CIDCO officials along with Consultant presented the proposal before the Authority. As per presentation, the CIDCO has proposed to develop infrastructure requirements of PMAY and other housing schemes at Taloja Node, STP, MBR, Fire station, Road and for further development pocket at sector-37, Taloja, Navi Mumbai of Maharashtra

The part of proposed plot falls under CRZ as per the approved CZMP, 2019 and requires to obtain the CRZ clearance as per CRZ notification 2019. Hence the CIDCO carried out the CRZ mapping for the project through the National Centre for Sustainable Coastal Management (NCSCM) for demarcation of the proposed development on the CZMP.

Consultant submitted that, the NCSCM visited the project site during January 2024. Major observations provided by tCSCM were as follows:

- As per approved CZMP 2019 part of the proposed project falls within CRZ-II and CRZ-I(B) area.
- As per field survey by the NCSCM the proposed project fall entirely outside the CRZ area.

Consultant presented that, it is evident from CRZ mapping study that the actual CRZ status of the project varies from approved CZMP (Sheet no. E 43 B 4/ SW) (Map no. MH 77).

Consultant further presented that, there is an error in the approved CZMP which needs to be corrected. Hence, it was requested that, the said CZMP is required to be revised as per provision made for revision in CZMP vide para 7 in Annexure IV of CRZ notification 2019.

#### **DELIBERATIONS:**

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The Authority noted that the CRZ map in 1:4000 scale & report prepared by the NCSCM, Chennai pertaining to site under reference. The said report states that, NCSCM has conducted an investigation for the project site to demarcate HTL and ESAs. Two maps (CRZ map and field based map) have been prepared in 1:4000 scale. The CRZ map is prepared based on the approved CZMP of the Maharashtra as per the CRZ Notification, 2019. The field based map prepared based on ta field survey conducted during June, 2024 and CRZ Notification, 2019.

As per approved CZMP, the part of proposed project activities such as Public Utility, STP, Fire Station, Mass balancing reservoir and 15 meter wide road falls within CRZ IB(intertidal zone) and CRZ II (CRZ landward of HTL) categories. Part of proposed project boundary falls within the CRZ IB (Intertidal zone) & CRZ II (CRZ landward of HTL) categories. NCSCM report further states that, with reference to the field survey the proposed project activities / boundary walls outside of CRZ area such as CRZ I, CRZ II, CRZ III, CRZ IV categories.

The NCSCM also concludes that, the proposed project activities falls within the sheet Number E43 B4 /SW and Map No. MH 77 of approved CZMP prepared as per the CRZ Notification, 2019. A CRZ map covering the 7 km radius of project site representing CRZ categories based on approved CZMP is given.

The Authority observed the two (2) maps prepared by the NCSCM and noted that the one map is based on the CZMP approved by the MoEF&CC, New Delhi under CRZ Notification, 2019 and other map is based on current field survey of June, 2024. The Authority observed that NCSCM in its report does not report any error in CZMP approved by the MoEF&CC, New Delhi. It simply reports the ground position of the June, 2024 in its field survey map. The Authority noted that base data timeline of the approved CZMP may be differing from the field survey map of June, 2024.

The Authority after deliberation observed that the NCSCM need to provide a detailed a report in the matter based on the base data of approved CZMP, whether there is any error in the CZMP approved by MOEF&CC under CRZ Notification, 2019 and if yes, then justification for correction of the said error. Accordingly, the Authority opined that it would be appropriate to seek the said report from the NCSCM, as stated above.

#### DECISION:

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In the light of above, the Authority after deliberation decided that the NCSCM to provide a detailed a report in the matter based on the base data of approved CZMP, 2019 whether there is any error in preparation of the CZMP approved by MOEF&CC under CRZ Notification, 2019 and if yes, then justification for correction of the said error. Accordingly, the Authority opined that it would be appropriate to seek the said report from the NCSCM, as stated above. If the report of the NCSCM confirms that there is an error in the approved CZMP with justification for the correction, then the matter may be recommended to MoEF&CC, New Delhi for further appropriate decision in the matter for rectification of the said error.

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Item No. 4: Proposed cleaning of Holding Pond A& B via De-siltation process and construction of Storm Water Pumping Station (SWPS) with gate pumps technology at Holding Pond of Kalamboli Node, Panvel by M/s. Panvel Municipal Corporation

#### INTRODUCTION:

The Municipal Commissioner (MC), Panvel Municipal Corporation (PMC) along with consultant presented the proposal before the Authority.

The PMC has proposed cleaning of Holding Pond A& B via De-siltation process and construction of Storm Water Pumping Station (SWPS) with Gate pumps technology at Holding Pond, Kalamboli. Desilting will involve removal of loose sediments that have accumulated relatively recently, which will help in mitigating flooding situation at Kalamboli Node. The proposed activity area is Latitude 19°01'50.2"N Longitude 73°05'39.2"E of Kalamboli Node, Panvel, Navi Mumbai, Maharashtra

The said Holding pond has area of 27. 95 Ha with capacity of 3,55,000 Cum. It serve as crucial flood control infrastructure, particularly for areas located below the high tide level. They act as a buffer between storm water drains and the creek, temporarily storing excess rainwater during high tide or heavy rainfall and releasing it when the tide recedes, thus preventing flooding which is a Dutch method.

The issue of storm water drains feeding into Ponds A & B, combined with heavy siltation, poses significant flood risks in Kalamboli, particularly during high tides and heavy rainfall events.

To reduce flood risk, PMC proposes De-Siltation of Ponds & Construction of Pumping Station which are most essential measures. Thus, the project aims to protect human life of Kalamboli Node, local infrastructure, roads, services, buildings, Businesses like Kalamboli Steel Market from flood-related water damage, especially in low-lying areas.

Municipal Commission, PMC submitted that, recent years have seen increased frequency of localized flooding in the city. There are many areas in the city that face flooding and people must be relocated to safer areas in areas where inundation is more. Hence, it is utmost necessary to undertake the

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desiling of the Kalamboli Holding ponds and construct the pumping station for proper discharge of the water.

Consultant presented that, as per study conducted by IRS Chennai the exiting holding pond A & B falls under CRZ IA, CRZ IA (50m Mangrove buffer zone), CRZ IB, CRZ II & proposed pumping station falls under CRZ- IB as per Approved CZMP 2019

#### DELIBERATIONS:

The Authority noted that the PP has submitted the CRZ map in 1:4000 superimposing the project site, as prepared by the IRS, Chennai, considering approved CZMP, 2019. As per the said report, the project site at Kolhekhar & Ambetarkhar village of Panvel Taluka, Raigad District is located near a creek and mangroves.

Area of the project activities in various CRZ categories is as follows:

Project activity	CRZ category	Area in Sqm	Total area in Sqm
Existing Holding Pond (A + B)	CRZIA	12315.27	
	CRZ IA (50 m mangrove buffer )	94213.76	253500
	CRZIB	129412.63	
	CRZ II	17558.34	
Proposed pumping station	CRZ IB	312.76	312.76

The Authority noted that the PMC has submitted the EIA report prepared by the Yash Engineering Consultant Pvt Ltd and ACE Environment (Nabet Accredited)

The Authority noted the observations of the EIA report which is as follows:

- De-siltation activity in the project will focus on Holding Pond A& B, spanning a combined gross area of 25.35 hectares. This effort will remove an estimated 2,38,387 metric tons (MT) of silt, restoring the ponds capacity and functionality. By addressing these issues, the project aims to improve flood resilience and ensure the sustainability of water management systems in the area.
- The proposed activity will be accomplished through Maintenance dredging by mechanical means which includes employing suitable dredgers to clear

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the area of around 2,53,500.00 Sq.Mt. i.e., 25.35 ha of Kalamboli Node, Holding Pond.

- Water extraction from the ponds will be carried out before desiltation, with water drained from the five sections as work progresses using pumps or gravity flow, down to a 2-foot invert level to expose the silt layer. Sufficient water will be retained in the pond to support the surrounding mangrove trees.
- A 6.00-meter-wide access road will be constructed for the construction & Maintenance of the SWPS. Additionally, three 6.00-meter-wide entry and exitpoints will be provided to ensure smooth vehicular movement during the desiltation process.
- As the Holding Ponds A and B are of large size, Ponds will be divided into
  five sections to ensure convenience and high-quality desiltation work.
  Temporary bunds will be constructed in Pond B, with minimal mangrove
  cutting considered in the compensatory plantation. Approximately 205
  numbers of mangroves will be cut and compensatory plantation will be
  done by Forest Department. PP (PMC) will pay the charges for new
  plantation and maintenance. Additionally, the temporary & existing bund in
  Pond B will be demolished to allow one-way water flow during the
  operation phase, and the surrounding bund walls will be repaired or rebuilt
  as necessary
- Silt removal from the ponds will be carried out using excavators, JCBs, and pumps, maintaining a 10-meter buffer distance from the mangroves. The total estimated quantity of silt to be removed from both ponds is 2,38,387 metric tons
- The excavated silt will be transferred to the pond within the project site for temporary drying and processing. Drying area is separated into 2 section for the convenience of the work. Proper drying is crucial to make the silt more manageable for transport minimizing environmental risks during transit
- Dried silt will be transported by trucks to authorized site assigned by PMC, ensuring adherence to environmental and regulatory standards. This will ensure that the ponds remain clear of silt, restoring their intended function
- Site location of pumping station is considered at flap-gate outfall of Sec-7 Pond near the common outlet channel of Sec-7 Pond and Sec-9 Pond. The Gate Pumps are proposed based on the site. A Gate pumps consists of a floodgate on an existing waterway equipped with pumps.

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The EIA report suggests the Mitigation measures for desilting works, which is as follows:

- Implementation of planting grass or using geo textiles along the road to prevent soil erosion and sediment runoff into the pond.
- Use of sediment traps to filter suspended solids before water is released back into the pond.
- Install silt curtains during pond drainage to minimize the spread of suspended solids into surrounding water bodies.
- Monitoring the drying process that silt does not become airborne, causing dust pollution.
- Use of eco-friendly silt pumping method that minimize disturbance to pond ecology.
- Avoiding the use of chemicals or heavy machinery like dredgers that may harm pond's natural ecosystem and water quality
- Planting native plants along the bunds to stabilize the soil and prevent erosion.
- Regularly monitoring water quality parameters to ensure the pond's ecosystem remains healthy.
- Ensuring pipelines and transfer systems are secure and leak-proof to prevent spillage of silt into the surrounding environment.
- Reinforcing bunds with strong, durable materials to withstand heavy rains and prevent future silt accumulation.
- Removing vegetation and mangroves only within the construction footprint.
- Replanting mangroves and native vegetation in nearby areas to compensate for loss.
- Establishing a buffer zone to protect remaining mangroves from construction impacts.
- Prohibit disposal of construction waste, oils or chemicals into the pond.
- Restoring the site by stabilizing disturbed soil and painting native vegetation post construction.

Consultant presented that mangrove present mainly on periphery of the holding pond few will be required to remove. Approximately 175-200 mangroves will be cut mainly for SWP5 construction, access roads for construction work, creating temporary bunds and removal of existing bunds that are obstructing the inflow from storm water drains. Compensatory plantation will be done as per guidelines from Forest Dept. Rest other mangroves will be restored with scientific manner. Consultant further presented that A forest application has

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been submitted, and following a site visit by the DFO on July 6, 2025, the exact number of mangrove cut will be confirmed by the forest office soon

Consultant further pointed out the Hon'ble high Court order dated 28<sup>th</sup> July, 2008 in Notice of Motion in PIL 87/2007 (BEAG v/s State of Maharashtra) where it was observed/permitted that cleaning & maintenance of artificial channels and holding ponds developed as storm water drainage system, especially in Kalamboli, Panvel and Ulwe which are critical may be taken up as per the technical requirement

The Panvel Municipal Corporation Engineer submitted that, hydraulic model studies have also been carried for the project which is part of the EIA report. The said report also recommends the implantation of the project and observes that storm water drains/channels and hydraulic model simulation with various combination it is recommended that the optimum size of pumping station along with Sec-7 Pond is 12 m3/sec to mitigate the flooding problem in the catchment area.

Dr Anish Andheria raised concern about the disposal of silt, considering the large quantity of the silt. He asked about the disposal plan of the silt. The Municipal Commissioner, PMC submitted that the quarry has been identified at Valavali village in Panvel Taluka. The EIA report has suggested various mitigation measures for silt disposal which will be strictly followed.

Dr.Rangnath asked about the capacity of the identified quarry. The MC, PMC & Consultant presented Consultant presented that area of the quarry is 11.48 Ha with 2.5 to 3.5 Depth which will be adequate to accommodate the silt from the Holding pond. The MC, PMC assured that silt disposal plan has been covered in the EIA studies and all the mitigation measures as suggested in the EIA report will be implemented.

Dr Mirashe, Member suggested that PMC shall undertake regular studies of silt analysis and ensure whether any hazardous materials are present in the silt. Accordingly, disposal plan shall be undertaken.

Dr Anish Andheria suggested that siltation in the holding pond would be recurrent problem hence, long term holistic solution / appropriate measures should be implemented by the PMC to minimize the siltation of the holding pond.

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The Authority observed that the project focuses on two primary components i.e. De-silting of Holding Ponds along with the construction of Storm Water Pumping Station (SWPS) with gate pumps technology to manage excess rainwater. The proposed activity is necessary to prevent the waterlogging/flooding in the surrounding areas of Kalamboli Node. Thus, the project & its timely execution is significant from disaster management point of view.

The Authority observed that desilting process would hamper certain mangrove vegetation which is inevitable consequence of the proposed activity. While desilting activity, the Panvel Municipal Corporation should implement all possible measure to minimize the removal of mangrove from the Holding pond. PMC may consult the Mangrove Cell in the matter. The Authority observed that the silt disposal is important factor in the proposed activity which needs to be scrupulously carried out so that there would not be further environmental degradation and nuisance in the surrounding area. All the necessary statutory permissions should be obtained such mangrove Cell NoC, Hon'ble High Court approval etc for the proposed activity.

The Authority noted the permissibility as per CRZ Notification, 2019:

- a) As per para 5.1.1 (i) & (ii) public utilities are permissible in CRZ IA area
- b) As per para 5.1.2 (f), "measures to prevent sand bars, installation of tidal regulators, laying of storm water drains or for structure for prevention of salinity ingress and freshwater recharge" is permissible in CRZ IB area.
- c) The para 5.1.2 (x) "storm water drains" is permissible activity in CRZ IB.
- d) As per para 5.2(i) "Activities as permitted in CRZ-I B, shall also be permissible in CRZ-II, in so far as applicable"

The Authority further noted as per para 7(iii) of the CRZ Notification, 2019 & OM dated 29<sup>th</sup> November, 2022, the proposal requires final CRZ clearance from the MoEF&CC, New Delhi. The said provision is reproduced as follows:

"For all other permissible and regulated activities as per this notification, which fall purely in CRZ-II and CRZ-III areas, the CRZ clearance shall be considered by the concerned Coastal Zone Management Authority and such projects in CRZ-II and III, which also happen to be traversing through CRZ-I or CRZ-IV areas or both, CRZ clearance shall, however be considered only by the Ministry of

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Environment, Forest and Climate Change, based on recommendations of the concerned Coastal Zone Management Authority"

#### DECISION:

In the light of above, the Authority after detailed discussion and deliberation decided to recommend the proposal from CRZ point of view to MoEF&CC, New Delhi, under CRZ Notification, 2019 subject to compliance of the following conditions:

- 1. The proposed project should be carried out strictly as per the provisions of CRZ Notification, 2019 (as amended from time to time) and guidelines/clarifications given by MoEF from time to time.
- 2. During desilting activity, the Panvel Municipal Corporation should implement all possible measures to minimize the removal of mangrove & less impact on creek ecosystem. PMC may consult the Mangrove Cell in the matter.
- 3. PMC to ensure use of eco-friendly silt pumping method that minimize disturbance to pond ecology.
- 4. Panvel Municipal Corporation shall implement Silt Disposal Plan with all the mitigation / suggestive measures as prescribed in the EIA report.
- 5. Prior High Court permission shall be obtained, as per the Hon'ble High Court order in PIL 87/2006, since the proposed activity will require removal of mangroves
- 6. PP shall undertake compensatory mangrove plantation in accordance with provisions of the CRZ Notification, 2019, in consultation with the Mangrove Cell.
- 7. NoC from Mangrove Cell shall be obtained by the PP.
- 8. Forest Clearance under Forest (Conservation) Act, 1980, if applicable shall be obtained.
- 9. All the safety measures and Disaster Management Plan should be implemented during construction and operation phase of the project.
- 10. Project proponent should implement Mitigation measures and Environment Management plan & Disaster Management Plan as suggested in the EIA report, effectively and efficiently to ensure that coastal environment is protected.
- 11. Long term holistic solution / appropriate measures should be implemented by the PMC to minimize the siltation of the holding pond.
- 12. All other required permissions from different statutory authorities should be obtained prior to commencement of work.

Member Secretary

Chairperson

<u>Item No.5:</u> Proposed Playground for Children in Reservation No. 290 in the Area of Mira Bhayandar by Mira Bhayandar Municipal Corporation (MBMC)

#### INTRODUCTION

Officers from the Mira Bhayandar Municipal Corporation (MBMC) along with consultant presented the proposal before the Authority.

The MBMC has proposed the Playground for Children in Reservation No. 290 in the Area of Mira Bhayandar. The Proposed project falls in CRZ-IB and remaining area falls inside CRZ-II as per approved CZMP (Map No: MH-82 vide CRZ Notification, 2019 of MoEF&CC) as per the report of IRS, Chennai.

CRZ Category	Area in Sqm
CRZIB	487,13
CRZ II	1833.79
Outside CRZ	26040.94
Total	38361.86

#### DELIBERATIONS:

The Authority noted the report of the IRS which states that the project site for soil filling and parallel spreading of soil in Reservation No. 290 (Playground) area of Navghar village, Mira Bhayander, MBMC falls parly inside the 50 m buffer from the HTL for creek and intertidal area.

The Authority further noted the Environment Management Plan submitted by the MBMC. As per the EMP, the excavated earth which is generated during construction will be reused within the site for backfilling, leveling and for the development of landscape & pavement area formations. Therefore there will not be any solid waste problem from the generation of excavated earth.

The Authority from the CRZ report and EMP noted that the project involves land filling and excavation in the part of site which is intertial.

Dr Anish Andheria raised a concern about the playground boundary proposed in the creek. There should not be reclamation/filing of soil in the creek. This will disturb the drainage pattern of the area. Consultant presented

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that there would not be reclamation of creek for the development of playground.

During discussion, the Authority recollected that earlier in 178<sup>th</sup> meeting, the Authority rejected the land filling proposal on the said site. It was discussed what change has been made by the MBMC in the recent proposal. Expert Members expressed that MBMC should have mentioned this fact in its current application.

Expert Members expressed that MBMC need to submit a clarification on comparison between the earlier proposal and current proposal. MBMC further shall submit undertaking that there would not be land filling / reclamation in the creek.

#### DECISION:

In the light of above, the Authority after deliberation decided that MBMC shall submit a clarification on comparison between the earlier proposal and current proposal. MBMC further shall submit undertaking that there would not be land filling / reclamation in the creek. Accordingly, the proposal is deferred, for submission of above said information by the MBMC.

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Chairperson

Item No. 6:

Construction of the LILO on 132KV Dahanu - Boisar (MIDC) transmission line for 220KV Palghar Substation passing through Palghar District, Maharashtra state By Maharashtra State Electricity Transmission Company (MSETCL)

#### INTRODUCTION:

Officials from the Maharashtra State Electricity Transmission Company (MSETCL) along with Consultant presented the proposal before the Authority.

The MSETCL has proposed the Construction of the LILO on 132 kV Dahanu - Boisar (MIDC) Transmission Line for 220/132 kV Palghar Substation passing through Palghar District, Maharashtra State. The project will ensure zero load shedding and for industrial growth of Palghar District. This will have strong and reliable source of power for Dahanu.

The said LILO arrangement will strengthen the complex network Palghar areas and there will be improvement in the reliability of the system. The project likely aims to strengthen the electricity transmission system, ensure redundancy, and prepare the network for future demand increases. While this budget allocation is significant, it highlights the scale of work needed to enhance the power infrastructure.

- Total Length of Transmission Line -16.5km
- Total length of Transmission line in CRZ area = 4172.14m
- Total towers in CRZ area 13 numbers (total towers 66 nos.)

Consultant presented that, as per approved CZMP the proposed project activities such as Transmission Line & Tower area falls, under CRZ categories such as IA (mangrove), IA (50m Mangrove buffer), IB (Intertidal Zone) & CRZ III (No Development Zone).

Total of length of 4172.14m and area of 112599.13 sq. m. of transmission line area falls in CRZ as per approved CZMP 2019.

#### **DELIBERATIONS:**

The Authority noted that, the PP has submitted the CRZ map in 1:4000 scale showing the alignment of the proposed transmission line, as prepared by the NCSCM, Chennai.

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As per NCSCM report, Area of the proposed activities following under different CRZ categorization as per approved CZMP, 2019.

CRZ IA (Mangrove) (Sqm)	CRZ IA (50 m mangrove buffer zone) (5qm)	CRZ IB (intertidal area) (Sqm)	No Development Zone (Sqm)	Outside CRZ (Sqm)
1052.30	1172.40	1231.55	715.89	15270.9

The PP has submitted the EIA report prepared by the Centre for Envotech and Management Consultancy private Ltd (Nabet Accredited consultancy).

The EIA report states that while doing the survey work for 132kV D/C LILO on 132kV Boisar-MIDC Tr line for 220kV Palghar s/s, the line alignment survey was carried out by avoiding new housing layout, schemes, ponds, dense forest as well as existing electric lines etc. MSETCL has carried out detailed route survey of the alignment of the proposed lines and every care was taken to avoid populated villages, habitations, place of archeological and religious importance, damns, mangrove cutting etc. Three alternative alignments were proposed and finally Route-1 was selected considering minimum forest area involved.

The Authority noted the anticipated impact of the project and mitigation measure & Environment Management Plan (EMP). Certain observations/mitigation measures suggested in the EIA report is as follows:

- The land filling would be restricted within the boundary of the propped site. Efforts would be made to ensure that there no spillage of fill material to adjoining properties
- Regular surveillance of any spillage onto adjoining properties shall be carried out. Immediate removal of spilled fill material shall be done.
- The embankment of the substation shall be stabilised so that no erosion takes place.
- Material transportation vehicles to be covered to minimize dust.
- Removal of vegetation to clear the Site for construction will cause cutting of tress and loss of natural biodiversity. The removal of vegetation would also indirectly cause exposure of soil to desiccation by wind and sunlight, loss of soil anchorage and increased vulnerability of soil

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to erosion by wind and water, leading to changes in the soil regime and the corresponding loss or degradation of the related ecosystem services.

- Monitoring of bird collision risk before/after establishing the transmission line: Any incidents or bird hits should be reported, and location-specific mitigation measures should be employed. Before establishing a transmission line, "birduse" areas should be identified to guide appropriate routing of the transmission line.
- To reduce the possible electrocution due to birds perching "Raptor Perch Deterrent Devices or Anti Perch Devices" like Pole Cap/ Cone, Bird Spider, Bird Spikes can be used.
- Spirals and bird flight diverters: Spiral Vibration dampers reduce the line vibration and increase visibility of the line, placed 3m apart on shield wires. Bird flight diverters are increasing radius spirals.

Dr. Anish Andheria, Expert Member suggested that during construction phase, especially when constructing the cement foundation, all possible mitigation measures need to be implemented to minimize its impact on CRZ area. Proper mitigation measures will be implemented to ensure that there is minimum impact on mangroves and creek ecosystem. Compensatory mangrove plantation should be carried out in consultation with Mangrove Cell.

The Authority noted that for improvement of power supply in Dahanu area, transmission line is important public utility. The MSETC shall implement all environmental measures while implementing the project to have less impact on coastal ecology and biodiversity. All necessary mitigation measures and Environment Management Plan/ Disaster Management Plan as suggested in the EIA report should be implemented by the project implementing agency. All necessary required statutory permissions should be obtained by the PP including the Mangrove NOC, Forest clearance, High Court approval etc.

The Authority further noted the permissibility of the proposal under CRZ Notification, 2019 is as follows:

- 6) As per para 5.1.1 CRZ IA (iii) of the CRZ Notification, 2019, public utilities projects are permitted in CRZ IA areas.
- 7) As per para 5.1.1(ii), In the mangrove buffer, only such activities shall be permitted like laying of pipelines, transmission lines, conveyance systems or mechanisms and construction of road on stilts, etc. that are required for public utilities
- 8) As per para 5.1.2(xv), pipeline, conveying systems including transmission lines are permitted in CRZ IB area.

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- 9) As per para 5.3(i), in CRZ III areas, Activities as permitted in CRZ-I B, shall also be permissible in CRZ-III, in so far as applicable.
- 10) As per para 5.4(xiii), pipeline, conveying systems including transmission lines, are permitted in CRZ IV area

The Authority further noted as per para 7(iii) of the CRZ Notification, 2019 & OM dated 29<sup>th</sup> November, 2022, the proposal requires final CRZ clearance from the MoEF&CC, New Delhi. The said provision is reproduced as follows:

"For all other permissible and regulated activities as per this notification, which fall purely in CRZ-II and CRZ-III areas, the CRZ clearance shall be considered by the concerned Coastal Zone Management Authority and such projects in CRZ-II and III, which also happen to be traversing through CRZ-I or CRZ-IV areas or both, CRZ clearance shall, however be considered only by the Ministry of Environment, Forest and Climate Change, based on recommendations of the concerned Coastal Zone Management Authority"

#### **DECISION:**

In the light of above, the Authority after detailed discussion and deliberation decided to recommend the proposal from CRZ point of view to MoEF&CC, New Delhi, under CRZ Notification; 2019 subject to compliance of the following conditions:

- 1. The proposed project should be carried out strictly as per the provisions of CRZ Notification, 2019 (as amended from time to time) and guidelines/clarifications given by MoEF from time to time.
- 2. PP should exercise all possible mitigation measures so that during construction phase, there is less impact on mangrove and creek ecosystem. Creek flow should not be obstructed and creek ecology is not disturbed.
- 3. Prior High Court permission shall be obtained, as per the Hon'ble High Court order in PIL 87/2006, since the alignment of transmission line is passing through mangroves & 50 m mangrove buffer zone area.
- 4. PP shall undertake compensatory mangrove plantation in accordance with provisions of the CRZ Notification, 2019, in consultation with the Mangrove Cell.
- 5. NoC from Mangrove Cell shall be obtained by the PP.
- 6. Forest Clearance under Forest (Conservation) Act, 1980 shall be obtained.

- 7. PP to install Bird diverters in transmission lines so as to avoid accidental collision of Birds. Before establishing a transmission line, "birduse" areas should be identified to guide appropriate routing of the transmission line.
- 8. Site preparation and site restoration in CRZ area should be undertaken without damaging the coastal-geomorphological features.
- Construction debris and excavated material should not be disposed off in the mangrove area & creek water to avoid any adverse impact on mangroves and marine water quality.
- 10. All the safety measures and Disaster Management Plan should be implemented during construction and operation phase of the project.
- 11. Limit loud activities (like drilling, blasting, or heavy equipment operations) to the hours of daylight (typically between 8:00 AM and 6:00 PM).
- 12. Project proponent should implement Mitigation measures and Environment Management plan & Disaster Management Plan as suggested in the EIA report, effectively and efficiently during construction and operational phase of the project to ensure that coastal environment is protected.
- 13. All other required permissions from different statutory authorities should be obtained prior to commencement of work.

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<u>Item No.7:</u> Proposed development of Bird Park at Bhandup, Mumbai by State Forest Department

#### **INTRODUCTION:**

The APCCF, Mangrove Cell and Consultant presented the proposal before the Authority. The Mangrove Cell has proposedBird Park in Bhandup region of Mumbai and lies along the Thane Creek. The site has a diverse variety of native as well as migratory birds, which make it an ideal site for a bird park, rich with diverse ecosystems and vibrant biodiversity.

The lake near Bhandup water pumping station receives its water from the backwater of the pumping station it brings with it various kinds of impurities which develops algae, mosses, fungi and due to this mangrove have also developed and this type of ecosystem attracts flamingos. The depth of the lake on an average is till 2 feet which makes it easy for the birds to stand in the lake and have their food, these flamingos come in their particular season and it's not just the flamingos it consists of various other species of birds which makes this area rich in biodiversity. There is a certain category of birds which is dependent on the salt and there are already existing salt plants which attracts these birds. It is a very good spot for bird photography, a hidden closed spot will be made for the photography so it does not disturb their habitat through human intervention.

All the people coming to visit the site will be asked to park their vehicles outside the park in the facility provided, and then walk toward the proposed project where they will be briefed about the Bhandup pumping station, biodiversity, different species of birds available, all of this will be explained in the lecture hall.

The Land Parcel (An Approx. Area of 3 Hectares) for the Proposed Developmental Activities Mentioned Above Belongs to MCGM (Survey No. 63, CTS No. 477). The Site Encompasses Mulund CTS No. 1318 (33.4 Acres), Nahur Survey No. 796 (16.67 Acres), and Bhandup Survey No. 477 (160.42 Acres).

As presented, Project Components of the proposed Manaroves Trail.

	<u> </u>
Entrance	vehicular parking zone-1
	cycle stand facility cycle on rent
	ticketing facility
Ticketing	entry regulating and ticket checking

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	baggage counter	
	water and washroom facility	
Parking	vehicular parking zone-2	
Pause point	<ul> <li>his/her toilet facility</li> </ul>	
	<ul> <li>viewing terrace for saltpan area</li> </ul>	
Tourist spot-1	<ul> <li>visitor center</li> </ul>	
	<ul> <li>nature interpretation center</li> </ul>	
	souvenir shop	
	<ul> <li>lecture/orientation space</li> </ul>	
	<ul> <li>reference section</li> </ul>	
	• eatery	
Tourist spot-2	Bird hide	
Tourist spot-3	bird hide	
	multi-level observation tower	
Tourist spot-4	Bird hide	
Tourist spot-5	Bird watch tower with fixed telescope	
Tourist spot-6	floating jetty	
	<ul> <li>mangrove trail</li> </ul>	
	• butterfly garden	

#### DELIBERATIONS:

The PP has submitted the CRZ map in 1:4000 scale prepared by the IRS Chennai superimposing the site, as per approved CZMP, 2019. As per the said report of the IRS:

- The site falls partly inside the 50m or width of creek (whichever is less) setback line from HTL of creek, 50m buffer from Mangroves as per approved CZMP (Map No.MH 79). Hence the proposed Mangrove Trail as a part of development of Bird Park (Mangrove Trail) at Bhandup, Mumbai, passes through CRZ-II, CRZ IA (Eco-Sensitive Zone), CRZ-IA (50m Mangrove buffer) with remaining length outside CRZ as per approved CZMP.
- The proposed Parking falls in CRZ-II and Pause Point, Bird Hide-1, NIC, Watch Tower-3, Watch Tower-2, Watch Tower -1 and end of Mangrove trail falls in CRZ-IA (50m Mangroves Buffer Zone) and CRZ - IA (Eco-Sensitive Zone). The Bird Hide-2 falls in CRZ-IB and CRZ - IA (Eco-Sensitive Zone) as indicated in the local level CRZ map.
- The aforesaid project site falls partly inside the 50m setback line from Mangroves as per approved CZMP (Map No. MH 79).

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 The length of proposed Mangrove trail inside the Bird Park proposed as a part of Eco-tourism facility at Bhandup, Mumbai

Activity	CRZ category	Length in meter
Proposed Mangrove Train	CRZ IA (50 m mangrove buffer zone)	1866.88
-	CRZ II	174,25
	Outside CRZ	120.26
	Total	2161.59
Proposed Mangrove Trail	Eco Sensitive Zone	1583.78

The PP has submitted the EIA report prepared by the Centre for Envotech& Management Consultancy Pvt Ltd (Nabet Accredited). The Authority noted the observations of the EIA report, anticipated impacts and Mitigation measures, Environment Management Plan, as suggested in the EIA report.

The EIA report mentions that, the Bhandup Bird Park project is of great ecological, social, and educational importance to both Mumbai and the surrounding region. It offers significant opportunities for awareness towards biodiversity conservation, particularly for migratory birds, while also enhancing green space, improving community well-being, and supporting environmental education. The Park would act as a vital part of Mumbai's ecological infrastructure, contributing to sustainable urban development and providing recreational place for both wildlife enthusiasts and local residents. Through its creation, Bhandup can become a model for integrating nature with urban life, promoting biodiversity, eco-tourism, and environmental awareness in the heart of one of India's most rapidly growing cities.

The proposed project falls in Eco Sensitive zone of Thane Creek Flamingo Sanctuary (TCFS) which is located right in the midst of a mega-city and is crucial for the conservation of this unique natural environment with its eclectic mix of mangroves, mudflats and threatened bird species.

Dr Anish Andheria, Expert Member suggested that carrying capacity of the project site needs to be ascertained in order to preserve the ecologically sanctity of the site. Due precautions should be exercise so that site should be not be overcrowded with the visitors/ tourists, which may have adverse impact

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on birds. Proper crowd management Plan should be formulated and implemented, so that Bird & their habitat should not be disturbed.

Dr Mirashe, Member expressed that solid / liquid waste management plan should be in place during construction and operation phase of the project.

The Authority noted that project proposed by the Mangrove Cell would help in creating awareness about the mangroves and marine life & birds. However, considering the environmental sensitive of the site, mangrove cell shall have all possible environmental safeguards and precautions while implementing the project.

The Authority noted that as per para 5.1.1 CRZ IA, mangrove walks, nature trails etc is a permissible activity.

The Authority further noted as per para 7(iii) of the CRZ Notification, 2019 & OM dated 29<sup>th</sup> November, 2022, the proposal requires final CRZ clearance from the MoEF&CC, New Delhi. The said provision is reproduced as follows:

"For all other permissible and regulated activities as per this notification, which fall purely in CRZ-II and CRZ-III areas, the CRZ clearance shall be considered by the concerned Coastal Zone Management Authority and such projects in CRZ-II and III, which also happen to be traversing through CRZ-I or CRZ-IV areas or both, CRZ clearance shall, however be considered only by the Ministry of Environment, Forest and Climate Change, based on recommendations of the concerned Coastal Zone Management Authority"

#### DECISION:

In the light of above, the Authority after detailed discussion and deliberation decided to recommend the proposal from CRZ point of view to MoEF&CC, New Delhi, under CRZ Notification, 2019 subject to compliance of the following conditions:

- The proposed project should be carried out strictly as per the provisions of CRZ Notification, 2019 (as amended from time to time) and guidelines/ clarifications given by MoEF from time to time.
- 2. Carrying capacity of the project site needs to be ascertained by the Mangrove Cell, in order to preserve the ecologically sanctity of the site. Due precautions should be exercise so that site should be not be overcrowded with the visitors/ tourists, which may have adverse impact

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- on birds. Proper crowd management Plan should be formulated and implemented, so that Bird & their habitat should not be disturbed.
- 3. Prior High Court permission shall be obtained, as per the Hon'ble High Court order in PIL 87/2006, since the proposed project is affected by 50 m mangrove buffer zone area.
- 4. Forest Clearance under Forest (Conservation) Act, 1980, if applicable shall be obtained.
- 5. Site preparation and site restoration in CRZ area should be undertaken without damaging the coastal-geomorphological features.
- 6. Solid / liquid waste management plan should be in place during construction and operation phase of the project.
- 7. Project proponent should implement Mitigation measures and Environment Management plan & Disaster Management Plan as suggested in the EIA report, effectively and efficiently to ensure that coastal environment is protected.
- 8. All other required permissions from different statutory authorities should be obtained prior to commencement of work.

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Item No. 8:

Proposed laying of 1200mm <1400mm<1800mm<2400mm Ø RC NP4 pipe sewer line by micro-tunneling method along Seth Govindram Jolly Marg to JVLR to E.E. Highway to Bhandup Pumping Station along E.E. Highway Service Road, Bhandup (E) by MCGM\

#### INTRODUCTION:

The MCGM officials along with consultant presented the proposal before the Authority.

The MCGM has proposed laying of 1200mm <1400mm <1800mm <2400 mm  $\emptyset$  RC NP4 pipe sewer line by micro-tunneling method along Seth Govindram Jolly Marg to JVLR to E.E. Highway to Bhandup Pumping Station along E.E. Highway Service Road, Bhandup (E).

- The total length of the proposed sewer line is 5390 m
- Depth Range: 6 m. to 11 m.
- Total Excavation Quantity: 17,300 cumTotal no of Robohole: 62 Nos.

MCGM officials presented that project is required to upgrade ageing and inefficient sewer infrastructure and to handle increased sewage load from urban growth. This will help in mitigating the urban flooding during monsoons. This will address environmental and public health concerns.

Consultant presented that the proposed site falls in CRZ IA, CRZ IB, CRZ II and outside CRZ area, as per the approved CZMP, 2019.

#### DELIBERATIONS:

The PP has submitted the CRZ map in 1:4000 scale prepared by the IRS Chennai superimposing the site, as per approved CZMP, 2019. As per the said report of the IRS:

CRZ category	Length in meter	Total length in meter	
CRZ IA (50 m mangrove buffer zone)	2295.70		
CRZ IB	73.58	E300.0	
CRZ II	1273.75	5390.0	
Outside CRZ	1746.97		
CRZ IA (Eco-sensitive zone)	1891.46		

The PP has presented the EIA report for the project by M/s Aquara Enviro projects Pvt Ltd. The Authority noted the anticipated impacts, mitigation measures.

Dr Anish Andheri asked consultant about the disposal plan of the soil/slurry and further asked considered projections for the laying of the sewer line. MCGM officials presented that 25 years is considered projections for the project. He further clarified that excavated material will be disposed off at authorized dumping location.

The Authority asked the MCGM to submit a note on disposal of excavated soil during micro-tunnelling activity and about the disposalof sewage from BhandupPumping Station.

MCGM vide letter dated 11.7.2025 submitted a note in the matter.

Observation Point	Reply of MCGM
Method of disposal of excavated soil,	Given that the tunnelling operations
during excavation for shaft and micro	are planned well below the
tunnelling activity	contaminated
	strata, no excavation of contaminated
	soil
	is anticipated. However, to address
·	the minor volume ofsoil substrate
	that may be excavatedduring the
	construction of access shafts.For
	Micro Tunnel Boring Machine
	(MTBM), Slurry Separation Plant will
	be deployed. This plant is a
•	customized slurry recycling and
	purification system tailored to
	project specific needs. It carries out
	a two-stage purification process using
	a double-deck vibratingscreen and
	desander hydro cyclones, ensuring
	that the recycled slurry complies with
	operational and environmental standards.
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	Disposal of Excavated Material: All
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excavated solid material recovered from the separation plant will be transported and disposed of authorized dumping locations. strict adherence to the conditions Solid laid out in the WasteManagement (SWM) No Objection Certificate (NOC) issued by the competent authority.

Provide details about disposal of sewage from Bhandup Pumping Station

The Brihanmumbai Municipal Corporation

(BMC) has formulated a long-term sewerage management plan to cater to the sewage collection, treatment, and disposal needs for the next 30 years. Under this plan, the Sewerage Project Department is responsible for laying pipelines of various diameters to strengthen and expand the sewer network, particularly to accommodate the growing population in the Kanjurmarg, Vikhroli, and Bhandup areas.

The disposal of treated sewage into waterbodies and creeks will be carried out byBMC in accordance with the latest guidelines and norms prescribed by the Maharashtra Pollution Control Board(MPCB).

In addition, other departments of BMC ,such as the Mumbai Sewage Disposal Project (MSDP) and Sewerage Operations Department, are actively involved in the continuous improvement of sewage treatment processes and the safe, compliant disposal of sewage.

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The Authority noted that sewer line project by the MCGM is a public interest and it will be done by Micro-tunnelling method to minimize excavation and reduce environmental impact

The Authority noted that,

- As per the para 5.1.1 (ii) of CRZ Notification, 2019, laying of pipeline is permissible in 50 m mangrove buffer zone area
- As per para 5.1.1(iii) & 5.1.2 (i)(c) public utility projects are permissible in CRZ IA area.
- As per para 5.2 (i) Activities permissible in CRZ IB shall also be permissible in CRZ II area.

The Authority further noted as per para 7(iii) of the CRZ Notification, 2019 & OM dated 29<sup>th</sup> November, 2022, the proposal requires final CRZ clearance from the MoEF&CC, New Delhi. The said provision is reproduced as follows:

"For all other permissible and regulated activities as per this notification, which fall purely in CRZ-II and CRZ-III areas, the CRZ clearance shall be considered by the concerned Coastal Zone Management Authority and such projects in CRZ-II and III, which also happen to be traversing through CRZ-I or CRZ-IV areas or both, CRZ clearance shall, however be considered only by the Ministry of Environment, Forest and Climate Change, based on recommendations of the concerned Coastal Zone Management Authority

#### DECISION:

After deliberation, the Authority decided to recommend the proposal from CRZ point of view under CRZ Notification, 2019 to MoEF&CC New Delhi subject to compliance of following conditions:

- 1. The proposed project should be carried out strictly as per the provisions of CRZ Notification, 2019 (as amended from time to time) and guidelines/clarifications given by MoEF&CC from time to time.
- 2. MCGMshall implement all possible mitigation measures to minimize the impact on the CRZ area during the construction phase.
- 3. Prior High Court permission should be obtained by the PP as per Hon'ble High Court order dated 17th Sep, 2018 in PIL 87/2006, since the proposed project is affected by 50 m mangrove buffer zone.
- 4. PP to obtain the NoC from the mangrove cell.

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- 5. Project proponent should implement Mitigation measures and Environment Management plan as stipulated in the EIA report, effectively and efficiently during construction and operational phase of the project to ensure that coastal environment is protected.
- 6. The construction debris and excavated material should not be disposed off in the mangrove area & creek water to avoid any adverse impact on mangroves and marine water quality.
- 7. MCGM to ensure that all excavated solid material recovered from the separation plant will be transported and disposed of at authorized dumping locationsDebris generated during the project activity should not be dumped in CRZ area.
- 8. All other required permission from different statutory authorities should be obtained before starting construction at the site shall be ensured by Urban Local Body.

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Item No. 9:

Demolition and reconstruction of bridge on Nalah for connectivity of Upper and Lower Koliwada at Gorai Village, Borivali West in R-Central Ward by MCGM

### INTRODUCTION:

The Executive Engineer, MCGM along with consultant presented the proposal before the Authority.

The MCGM has proposed demolition and reconstruction of bridge on Nalah for connectivity of Upper and Lower Koliwada at Gorai Village, Borivali West in R-Central Ward, Mumbai.

Presently, the bridge is in dilapidated condition and requires reconstruction. Length of bridge is 11.5 meter and width is 7.2 meter

As per the approved CZMP, the site is situated partly in CRZ II and partly in CRZ IB area.

### **DELIBERATIONS:**

The PP has submitted the CRZ map in 1:4000 scale prepared by the IRS Chennai superimposing the site, as per approved CZMP, 2019. As per the said report of the IRS:

CRZ category	Area in Sqm
CRZ II	5.28
CRZ IB	24.18
Total	29.46

The PP has submitted the EIA report prepared by the Centre for Envotech Management Consultancy Pvt Ltd (Nabet Accredited). The Authority noted the observations of the EIA report, anticipated impacts and Mitigation measures, Environment Management Plan, as suggested in the EIA report.

Expert Members observed that bridge is important local connectivity link and due to dilapidated conditions & safety point of view, bridge requires reconstruction. MCGM should ensure that C&D waste should not be disposed in creek and it should be treated in C&D waste plant.

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The Authority noted that as per para 5.1.2 (i) (c) the proposed activity is permissible in CRZ IB area. Further as per para 5.2 (i) of CRZ Notification, 2019, activities permisible in CRZ IB shall also be permissible in CRZ II area.

The Authority further noted as per para 7(iii) of the CRZ Notification, 2019 & OM dated 29<sup>th</sup> November, 2022, the proposal requires final CRZ clearance from the MoEF&CC, New Delhi. The said provision is reproduced as follows:

"For all other permissible and regulated activities as per this notification, which fall purely in CRZ-II and CRZ-III areas, the CRZ clearance shall be considered by the concerned Coastal Zone Management Authority and such projects in CRZ-II and III, which also happen to be traversing through CRZ-I or CRZ-IV areas or both, CRZ clearance shall, however be considered only by the Ministry of Environment, Forest and Climate Change, based on recommendations of the concerned Coastal Zone Management Authority"

### **DECISION:**

After deliberation, the Authority decided to recommend the proposal from CRZ point of view under CRZ Notification, 2019 to MoEF&CC New Delhi subject to compliance of following conditions:

- 1. The proposed project should be carried out strictly as per the provisions of CRZ Notification, 2019 (as amended from time to time) and guidelines/clarifications given by MoEF&CC from time to time.
- 2. MCGM shall implement all possible mitigation measures to minimize the impact on the CRZ area during the construction phase.
- 3. MCGM should ensure that C&D waste should not be disposed in creek and it should be treated in C&D waste plant.
- 4. Project proponent should implement Mitigation measures and Environment Management plan as stipulated in the EIA report, effectively and efficiently during construction and operational phase of the project to ensure that coastal environment is protected.
- All other required permission from different statutory authorities should be obtained before starting construction at the site shall be ensured by Urban Local Body.

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Item No.10:

Proposed construction of 05 Beacons in Panvel Creek at

Belapur, Taluka & District Thane by MMB

### INTRODUCTION:

The Chief Engineer, MMB along with Consultant presented the proposal before the Authority. The MMB has proposed construction of 05 Beacons in Panvel Creek at Belapur, Taluka & District Thane. Beacons component involves Deck Dimensions-  $3.5~\text{m} \times 2.5~\text{m}$  and lighting system solar indicator light

These beacons are designed to guide fishing boats and vessels navigating in the Panvel Creek and surrounding areas, particularly near jetty located in Belapur. Belapur serves as a major commercial and business hub in Navi Mumbai, with significant reliance on water transport for fishing and trade-related activities.

The navigational channel between Belapur-Ulwe is characterized by rocky patches that remain exposed during low tide and get submerged at high tide, creating hazardous conditions for boats.

Due to frequent boat accidents caused by submerged rock formations, the construction of these beacons is essential to enhance navigation safety in this navigation channel. The implementation of this project will significantly reduce the human risk, boat accidents, damage and it will also improve the safety of fishing vessels, passenger boats and cargo transport, ensuring uninterrupted maritime operations for the fishing community and commercial users by providing clear navigation paths. All the 5 beacons are situated in CRZ IV B area as per the approved CZMP, 2019

#### **DELIBERATIONS:**

The PP has submitted the CRZ map in 1:4000 scale prepared by the NCSCM Chennai superimposing the site, as per approved CZMP, 2019. As per the said map, all the 5 sites are situated in CRZ IVB area (Creek).

The PP has submitted the EIA report prepared by the Centre for M/s Building Environment India Pvt Ltd (Nabet Accredited). The Authority noted the observations of the EIA report, anticipated impacts and Mitigation measures, Environment Management Plan, as suggested in the EIA report.

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Certain Mitigation measures as suggested in the EIA report is as follows:

- Piling activity should be carried out during low tide period to minimize sedimentresuspension and avoid turbidity of water
- Encasement piling or any other appropriate method of piling should be employed to avoidincrease in turbidity of water during construction activity
- Regular servicing and maintenance of construction equipment should be carried out. Alsoacoustic enclosures should be provided wherever applicable to the high noise generating machinery
- Spillage of construction material into creek water should be strictly avoided to avoid contamination and turbidity. Skilled manpower should be deployed on site and construction should be carried out under supervision of site supervisor.
- On site generated construction waste should be stored at designated place and disposed to authorized agency
- Storage of fuel and construction material should be done away from intertidal area to avoid contaminations from accidental spillages and entry into sea water.

On inquiry by the Dr Anish Andheria, the MMB informed that lifespan of the beacon is around 10-15 years. Dr Anish suggested the duringpiling activity, due precaution should be taken to avoid adverse impact on marine life. Paint used for the beacon should not be harmful to marine life.

The Authority noted that Beacons are critical tool in ensuring navigations safety for the boats which is a permissible activity as per para 5.4 (iii) in CRZ IV of the CRZ Notification, 2019.

The Authority further noted as per para 7(ii) of the CRZ Notification, 2019 & OM dated 29<sup>th</sup> November, 2022, the proposal requires final CRZ clearance from the MoEF&CC, New Delhi. The said provision is reproduced as follows:

"All development activities or projects in CRZ-I and CRZ-IV areas, which are regulated orpermissible as per this notification, shall be dealt with by Ministry of Environment, Forest and Climate Change for CRZ clearance, based on the recommendation of the concerned Coastal Zone Management Authority"

#### DECISION:

After deliberation, the Authority decided to recommend the proposal from CRZ point of view under CRZ Notification, 2019 to MoEF&CC New Delhi subject to compliance of following conditions:

- 1. The proposed project should be carried out strictly as per the provisions of CRZ Notification, 2019 (as amended from time to time) and guidelines/clarifications given by MoEF&CC from time to time.
- 2. During piling activity, due precaution should be taken to avoid adverse impact on marine life. Paint used for the beacon should not be harmful to marine life.
- 3. On site generated construction waste should be stored at designated place and disposed to authorized agency
- 4. Project proponent should implement Mitigation measures and Environment Management plan as stipulated in the EIA report, effectively and efficiently during construction and operational phase of the project to ensure that coastal environment is protected.
- 5. All other required permission from different statutory authorities should be obtained before starting construction at the site shall be ensured by Urban Local Body.

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Item No.11:

Proposed development of UttanVirar Sea link project along with three land connectors at Uttan (Dist. Thane), Vasai and Virar (Dist. Palghar), Maharashtra by M/s. Mumbai Metropolitan Region Development Authority (MMRDA).

### **INTRODUCTION:**

The MMRDA officials along with consultant presented the proposal before the Authority.

The MMRDA has proposed the development of Uttan to Virar Sea Link (UVSL) project. The VersovaVirar Sea Link (VVSL) was initially planned to connect Versova to Virar by MSRDC as per Feasibility Study. However, the MCGM has undertaken North Coastal Road and the DahisarBhayandar Link Road (DBLR) as an alternative coastal route connecting Versova to Bhayandar.

Thus, the GoM, vide GR dated. 15.03.2024, approved revised plan i.e. UVSL project, starting from Uttan to Virarlinking to the ongoing DBLR project at Bhayandar and connecting to the Delhi-Mumbai Expressway (DME) beyond Virar. The region's existing road network, including the Western Express Highway (WEH), S. V. Road, Link Road and NH-48 is heavily congested, with ongoing development expected to worsen the situation. The project will act as a bypass in MMR to divert through-traffic and reduce congestion, strengthens north-south connectivity

Project Alignment Details:

Features	Main Sea Link	Uttan Connector	Vasai Connector	Virar Connector
Length of Alignment	24.35 km	9.32 km	2.5 km	18.95 km
Number of Lanes	4 + 4 (Dual Carriageway)	3 + 3 (Dual Carriageway)	3 + 3 (Dual Carriageway)	3 + 3 (Dual Carriageway)
Width of Structure/ Formation	19.5 m + 6 m gap + 19.5 m	15.5 m + 2.5 m gap + 15.5 m	15.5 m + 0.5 m gap + 15.5 m	15.5 m + 0.5 m gap + 15.5 m
No. of interchanges	3 Nos. (for connectors)	1 No. with DBLR	Nil	1 No. with DME 1 No at ChikhalDongre
Navigational	3 spans @120	NIL	NIL	1 span @ 120

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Features	Main Sea Link	Uttan Connector	Vasai Connector	Virar Connector
Spans	m each			m
Road over Bridge	NIL	NIL	NIL	3 Nos. (Max. Span 161.8 m)
Tunnels (Nos./Length)	NIL	3 Nos., 1124 m	NIL	1 No., 332 m
Design Speed	100 km/hr	80 km/hr	80 km/hr	80 km/hr

Consultant presented that, the proposed UVSL alignment intersects multiple CRZ components as outlined in the CRZ Notification of 2019, including CRZ-I (A), CRZ-I (B), CRZ-II, and CRZ-IV (A) & (B).

Consultant further presented that, the Sea link is a permissible activity under CRZ Notification, 2019 under Para 5, Sub Clause 5.1 for CRZ-I, 5.1.1 for CRZ-IA, 5.1.2 for CRZ-I B, 5.2 for CRZ-II, 5.3 for CRZ-III & 5.4 for CRZ-IV of CRZ Notification, 2019.

### **DELIBERATIONS:**

After detailed presentation by the Consultant and MMRDA officials, the Authority, after taking into account detailed EIA studies, deliberated various aspects of the project.

#### 1) CRZ report of the IRS, Chennai:

The Authority noted that the PP has submitted the CRZ map in 1:4000 scale showing the alignment of the Proposed Sea Link, prepared by the Institute of Remote Sensing, Chennai, considering the approved CZMP, 2019.

As per the report of the IRS, Chennai, the CRZ statement of the proposed alignment is as follows:

Table.2 Area statement of the proposed road in Various CRZ

Description	CRZ - Classification	Area in	Total Area in
		Sq.m	Sq.m
Proposed VVSL	CRZ - IB	283969.31	5465581.11
Maín Alignment	CRZ - IVA	5181611.80	
Proposed Virar	CRZ - IA	66760.85	1749109.43
Connector	CRZ_IA (50m Mangroves	99700.45	
	Buffer Zone)		
	CRZ - IB	97342.58	
	CRZ - II	82717.16	
-	CRZ - IVA	334030.20	
	CRZ - IVB	60693.02	
	Outside CRZ	1007865.18	
Proposed Vasai	CRZ - IA (50m Mangroves	2550.47	397407.18
Connector	Buffer Zone)		
	CRZ - IB	259178.22	
	CRZ - II	121005.06	:
	CRZ - IVA	11233.42	
	Outside CRZ	3440.01	
Proposed Uttan	CRZ - IA	87106.15	1068113.73
Connector	CRZ - IA (50m Mangroves	81118.78	***************************************
	Buffer Zone)		***************************************
	CRZ - IB	147996.90	
	CRZ - 11	96550.56	
	CRZ - IVA	292387.90	
	Outside CRZ	362953.44	-

### 2) Environment Impact Assessment Report

The PP has submitted the EIA report prepared by the M/s Mahabal Enviro Engineers Pvt Ltd (Nabet accredited consultant). The Authority noted the detailed observations of the said EIA report, anticipated impacts, Mitigations Measure, Environment Management Plan & Environmental Cost Benefit Analysis.

The Authority also noted the following Additional Studies conducted for the project, which are part of the EIA report:

- Analysis of Alternatives
- Risk Analysis

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- Disaster Management Plan
- · Hydrodynamic & Hydraulic Studies.
- Social Impact Assessment
- Traffic Analysis Report
- Mangrove Management Plan

### 3) Analysis of Alternatives:

The EIA covers the detailed study in this aspect. The analysis of alternatives has been conducted for the entire VVSL project, which serves as an extension of the VVSL project. Considering the available technologies and construction techniques, three concepts have been proposed for the construction of the Sea Link. a) Elevated Alignment Concept b) Immersed Tunnel Concept and c) Undersea Tunnel Concept

### 4) Impacts due to shoreline Change:

The alignment area of the Sea Link project is located in a region where the local seabed, coastline, and wave dynamics are stable. Detailed coastal and oceanographic studies, such as wave modelling, hydrodynamic assessments, and sediment transport studies, indicate that the area is not influenced by significant shoreline erosion or sediment movement caused by nearshore waves or littoral drift. The Sea Link is being constructed on piles and it will not require the alteration of the seabed or shoreline through activities such as reclamation or dredging. This further ensures that the natural flow of water and the stability of the shoreline are largely maintained, as piles do not obstruct sediment movement or disrupt wave patterns in the way other structures like reclamation or groynes. Thus, environmental impacts due to shoreline changes are considered to be negligible.

To substantiate this, the Department of Ocean Engineering at IIT Madras has conducted Hydrodynamic Modelling showing that coastal currents in the region are unlikely to be significantly affected by the bridge construction. The bridge piers are too small to modify the global coastal current patterns, unlike shore-protruding structures such as reclamation or breakwaters.

Measurement of coastline changes was made by comparing historical maps and charts based on accurate surveys. Remote Sensing and GIS techniques were effectively used for the assessment of shoreline

changes. Various approaches (Satellite imageries, Google images, one and two dimensional numerical models and Survey of India (SoI) maps) were used to study the shoreline changes along the coast. The analysis concludes that the alignment area does not experience significant changes from shoreline shifts due to near-shore waves or littoral drift, nor does the project involve structures that would significantly alter coastal flow patterns. The sea link design, with its pile foundation, is expected to allow natural water flow and maintain existing depths, minimizing environmental impact.

### 5) Impact on the Mangroves&Compensatory Plantation:

As per EIA report, the part of the alignment passes through the CRZ areas along the Mira- Bhayander and Vasai-Virar coasts including mangrove Reserved Forest and its buffer areas.

Mangrove area affected by Uttan Connector is 8.71 Ha and 6.68 Ha by Virar Connector of the sea link. Thus, the total estimated mangrove vegetation loss associated with the UVSL project is ~15.39 Ha resulting into cutting of ~8,420 mangroves in the Right of Way.

Mangrove cutting in RoW will lead to habitat loss which further may impact upon the marine fauna such as fishes, insects, invertebrates, amphibians and birds which are dependent for food and shelter.

Mangrove cutting will only be carried out after obtaining the necessary permissions from the Hon'ble High Court after the receipt of CRZ Clearance. Removal of mangrove will be done in span-by-span basis for the sections where construction will be taken up.

In mangrove areas, an elevated road viaduct will be constructed to avoid habitat fragmentation. Pre-cast units will be used to reduce impact on mudflats during construction. Distance between 2 piers of viaduct in mudflat area will be over 60 m to minimise disturbing the ecologically sensitive intertidal habitats.

Loss of mangroves due to the RoW will be compensated by planting mangrovesat other identified sites, following a 1:5 ratio (five mangroves planted for eachone lost). Thus, although 15.39 Ha of mangrove will be cut during the construction phase, five times that amount, 77 Ha of

mangrove, will be replanted as a part of the mitigation measures. This effort aims to restore the ecosystem and enhance biodiversity, ensuring a positive long-term environmental impact

### 6) Impact on Sub-tidal & Intertidal Zone:

Proposed alignment, which spans approximately 24.35 km through the sea about 1 km from the shoreline, involves the construction of 810 columns with 4,860 piles. Each pile will have a diameter of 1.5 m and will be buried to a depth of 29 m from the seabed. The total footprint of this project in the subtidal region will cover 8,586  $\,\mathrm{m}^2$ . The piling operation will permanently affect the benthic system within this footprint and surrounding areas.

### 7) Impact on Corals:

Field visits to rocky shores along the alignment, including areas like UttanVashi, Posha Peer, Arnala and near Datiware Beach, showed the absence of coral reefs. Thus, no impact due to proposed activities in sea is anticipated.

## 8) Impact of pilling in the sea on Marine Life& its Mitigation:

Piling is an essential construction method often used for marine infrastructure projects, such as bridges, piers etc. One of the primary concerns is the noise and vibration generated by piling, which affect fish and other marine life.

This project involves underwater bored piling operations between Uttan and Virar, spanning ~24.35 km. A total of 4,860 piles (1.5 m diameter) will be installed 6 m below sea level and 29 m beneath the seabed. Heavy machinery, including reverse circulation drilling rigs, will be used, generating noise levels up to 105-110 dB above water. Also, during construction, installation of piles to support temporary construction platforms/TAB will result in elevated noise levels in the sea.

As a result, marine species within a 200 m radius of the underwater piling operation may experience temporary disturbances, while noise levels beyond this distance are expected to fall below harmful levels.

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Bored pilling technique will be considered for pilling. The method involves drilling a hole into the ground, inserting reinforcement, and then filling the hole with concrete to create a pile Since the process does not involve hammering or vibratory equipment, the vibrations generated are generally much lower. Also, implement a soft-start/ramp-up procedure to give marine species time to move away from the immediate area.

One of the most effective mitigation measures is to schedule piling activities outside critical periods when fish are spawning or migrating. By conducting piling work during off-peak seasons, the disturbance to these sensitive periods will be minimized.

### 9) Management Plan of Marine Mammals

During the baseline study period, dolphin species (Indian Ocean HumpbacDolphin) were sighted in the study area. Also, the study area experiences the sightings of Striped Dolphin, Spinner Dolphin, Blue Whale, Killer Whale, Humpback Whale, Bryde's Whale, Cuvier's Beaked Whale, Dwarf Sperm Whale and Indo-Pacific Finless Porpoise, etc. through secondary sources. To protect these marine mammals and their habitat, the following additional precautions (excluding the previously mentioned mitigation measures) will be taken during the piling activity in the sea:

### 10) Regarding fisheries & fishing centers

Major fishing centers along the project alignment include Dongri Chowk, PaliUttan, BhatyeUttan, Arnala, Khochivade, Naigaon-Koliwada, Vasai Pachubandar, and Rangaon. According to the Fish Production report 2021-22, Department of Fisheries, GoM the study area has 1,284 mechanized boats and 40 non-mechanized boats owned by local fisherfolk. During construction, temporary obstructions may occur as work is carried out span-by-span, blocking access for fishing boats. This can be minimized by using a crane barge with a pile guide frame, which will stay within the crane boom's reach. Additionally, the piling operation will create a sediment plume, potentially causing fish to move away due to high suspended sediment levels. However, these impacts are expected to be temporary and localized. Moreover, except for artisanal fishermen, most

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mechanized vessels generally operate a few kilometres away from the coast

To assess these impacts, a participatory approach, was used incorporating group discussions and public consultations to ensure inclusivity, collaboration, and active stakeholder engagement.

Compensation will be provided to the fishermen in accordance with the Compensation Policy for affected fishermen, as outlined in the GoM Resolution dated 09.03.2023.

### 11) Impact due to land acquisition:

The proposed UVSL is a Green field project and requires a total 211.11 Ha of land. Additionally, no embankment or reclamation will be carried out in the sea, creeks, or creeklets as part of UVSL project.

The proposed sea link alignment and its connectors pass through Private land, Agriculture land, Barren land, Mangroves, Saltpans, Vegetation, etc. For this purpose, MMRDA is in the process of acquiring 211.11 Ha of land, and has prepared a DPR.

The land required for the UVSL project is currently inhabited, necessitating the preparation of a detailed Rehabilitation and Resettlement (R&R) Plan to address the impacts on existing communities.

### 12) Impact of Archaeological Monuments

The Arnala Fort, Vasai Fort, Buddhist Stupas, Dongri and Ghodbundar Forts are the only archaeological monuments within study area. The construction of the UVSL project does not fall within both prohibited and regulated areas. However, an application for the NOC from the ASI Department has been submitted. The NOC is expected before the project work commences.

The alignment traverses through ESZ of Tungareshwar Wildlife Sanctuary (TWLS) affecting an area of 5.20 Ha. Out of that, 2.50 Ha is under reserved forest in ESZ of TWLS. Mangrove forest of 48.8608 Ha (Total Mangroves: 5,002 Nos.) 1.67 Ha permanent removal, Temporary Removal 8.91 Ha. Loss of mangroves due to the RoW will be compensated

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by planting mangroves at other identified sites, following a 1:5 ratio (five mangroves planted for each one lost) in consultation with Mangrove Cell, Mumbai. Applications for both Forest and NBWL Clearances are submitted and same are under process at competent authorities.

### 13) Green belt development:

Total trees in the alignments are 9,075, of which 1,868 will be cut, 1,612 will be transplanted, and 5,595 will be retained. In accordance with the "Maharashtra (Urban Areas) Protection and Preservation of Trees (Amendment) Act, 2023," ~52,000 trees will be planted as compensatory measures.

Dr Anish Andheriaexpressed that the project is a mega scale and its primary impact will be due to Uttan, Vasai and Virar connectors which will be passing through agricultural, mangroves and other habitation. Utmost care should be taken by the MMRDA to lessen the impacts of these connectors on mangroves or surrounding coastal environment. MMRDA in consultation with mangrove Cell may implement all possible mitigation measures to lessen the footprint of the proposed activities on mangrove area. MMRDA in consultation with Mangrove Cell will implement the long term compensatory mangrove plantation plan. It was discussed that a comprehensive carbon footprint assessment for the project should be meticulously documented. All feasible measures and techniques should be implemented to minimize the carbon footprint of the project.

Dr Anish Andheria further raised a concern over the impact of project on local fishermen, especially marginalized fishermen. MMRDA officials and consultant presented consultation has been done with the local fishermen community and their views will be taken into consideration. Compensation will be provided to the fishermen in accordance with the Compensation Policy for affected fishermen, as outlined in the GoM Resolution dated 09.03,2023.

The Authority observed that the MMRDA should carry out proposed activities keeping in view minimum disturbance to coastal ecosystem by adhering to all possible mitigation measures. All mitigation measures & Environment Management Plan as suggested in the EIA report should be followed in letter and spirit. Controlled and Precision construction methodology to be exercised during construction, especially within intertidal areas, in order to avoid the adverse impact on seabed & coastal environment. Casting yard for the

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construction of precast segments of the sea link project should be located beyond CRZ area. All adequate measures will be taken to mitigate fugitive dust emission during project activities.

The MMRDA official assured that all the environmental precautions / measures will be undertaken to minimize the impact of proposed sea link project on mangroves and intertidal areas. Mangrove re-plantation plan will be undertaken in consultation with the Mangrove Cell of the Forest Department. MCGM further assured that all required statutory permissions from Mangrove Cell, Forest Department, MPCB etc. would be obtained including Prior High Court permission Hon'ble High Court order dated 17<sup>th</sup> Sep, 2018 in PIL 87/2006, before commencement of project.

The Authority observed that the MMRDA should formulate a Marine Biodiversity conservation plan and implement it with the assistance of reputed concern expert agency in the field. MMRDA shall set up a full-fledged inhouse Environment Management Cell for effective implementation of the Environment Management Plan including monitoring, Marine Biodiversity conservation plan and recommendations of the various additional studies covered in the EIA report. Specific Budget shall be allocated for the said set up of the Environment Management Cell.

The Authority noted that proposed sea link project is vital infrastructure project which aims to decongest the traffic. UVSL will enhance safety and reduce noise and air pollution, improving the quality of life for residents.

The Authority noted that, proposed project of UttanVirar Sea link project along with three land connectors is permissible, in the light of para 5.1.1 (i) (a) CRZ IA, 5.1.2 for CRZ-I B, 5.2 for CRZ-II, 5.3 for CRZ-III & 5.4 (ii) for CRZ-IV of CRZ Notification, 2019.

The Authority further noted as per para 7(iii) of the CRZ Notification, 2019 & OM dated 29<sup>th</sup> November, 2022, the proposal requires final CRZ clearance from the MoEF&CC, New Delhi. The said provision is reproduced as follows:

"For all other permissible and regulated activities as per this notification, which fall purely in CRZ-II and CRZ-III areas, the CRZ clearance shall be considered by the concerned Coastal Zone Management Authority and such projects in CRZ-II and III, which also happen to be traversing through CRZ-I or CRZ-IV areas

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or both, CRZ clearance shall, however be considered only by the Ministry of Environment, Forest and Climate Change, based on recommendations of the concerned Coastal Zone Management Authority"

#### DECISION:

After deliberation, the Authority decided to recommend the proposal from CRZ point of view under CRZ Notification, 2019 to MoEF&CC New Delhi subject to compliance of following conditions:

- 1. The proposed UttanVirar Sea link project should be carried out strictly as per the provisions of CRZ Notification, 2019 as amended from time to time and with a commitment of protection and conservation of coastal environment.
- 2. MMRDA to ensure that proposed activities should be carried out with exercising extra caution with objective to have less impact on the mangroves and coastal ecology.
- 3. Casting yard for the construction of precast segments of the sea link project should be located beyond CRZ area.
- 4. Prior High Court permission should be obtained by the PP as per Hon'ble High Court order dated 17<sup>th</sup> Sep, 2018 in PIL 87/2006, since the project involves cutting of mangroves.
- 5. PP to obtain the prior Forest Clearance under Forest (Conservation) Act, 1980.
- 6. NoC from the Mangrove Cell should be obtained by the PP. Compensatory mangrove plantation should be carried out in consultation with Mangrove Cell.
- 7. PP shall undertake compensatory mangrove plantation in accordance with provisions of the CRZ Notification, 2019, in consultation with the Mangrove Cell.
- 8. A comprehensive carbon footprint assessment for the project should be meticulously documented. All feasible measures and techniques should be implemented to minimize the carbon footprint of the project
- 9. MMRDA should formulate a Marine Biodiversity conservation plan and implement it with the assistance of reputed concern expert agency in the field. MMRDA shall set up a full-fledged inhouse Environment Management Cell for effective implementation of the Environment Management Plan including monitoring, Marine Biodiversity conservation plan and recommendations of the various studies which are part of the

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EIA studies. Specific Budget shall be allocated for the said set up of the Environment Management Cell.

- 10. The design criteria and engineering of the project should incorporate considerations for climate change factors. This ensures that the project is resilient and adaptable to the potential impacts of climate change.
- 11. Adequate measures should be implemented in order to mitigation fugitive dust emission during dredging activity. Periodic monitoring of air quality will be carried out and prompt remedial action should be undertaken in case deviations from NAAQS are recorded.
- 12. The health, safety, and environmental compliance measures should be thoroughly documented. Additionally, periodic training must be provided at all levels. This training should also be meticulously documented to ensure effective implementation and adherence to standards.
- 13. There shall be no disposal of solid or liquid waste in the coastal area. Solid waste management shall be as per Solid Wastes Management Rules, 2016.
- 14. MMRDA to implement C & D waste management plan strictly as per Construction and Demolition Waste Management Rules, 2016.
- 15. During the construction phase, sustainable construction practices & exploration of other alternatives needs to be explored by the MMRDA to maintain the stability & integrity of the shorelines. Necessary training / awareness should be imparted to contractors & workers so that adequate environmental safeguards could be implemented on site, during execution of the project activities
- 16.PP to ensure that noise and vibration level is within permissible limit during construction phase of the project. Noise barriers are erected at appropriate locations.
- 17. Project proponent should implement Environment Management plan for the project effectively and efficiently during construction and operational phase of the project to ensure that coastal environment is protected. It is also suggested to have a third-party monitoring/Audit of all such management initiatives by Govt agency during and after completion of project from time to time.
- 18. PP should ensure that livelihood activities of the fishermen communities should not be hampered due to project activities. The local fishermen will be allowed free and non-discontinuity access to operate their fishing boats. All recommendations of the EIA studies concerning the fisheries/fishermen shall be complied with.
- 19. Noc from the Fisheries Department/ office of Commissioner Fisheries should be obtained by the MMRDA.

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- 20.MMRDA to ensure that adequate fishermen compensation for affected fishermen, as per the Govt policy shall be implemented
- 21. MMRDA to ensure planning trees with dense foliage around the project site periphery to mitigate noise pollution from traffic. Development of green belt with trees and other vegetation helps minimize the overall noise level in the area. CPCB guidelines for greenbelt parameters should be followed for effective mitigation of air and noise pollution. Regular maintenance of green belt should be ensured.
- 22. No labour camp are allowed in CRZ area & it should also be ensured that the waste water from these entities should not be released into sea. Mobile toilets with mobile STPs to be provided in work front area.
- 23. There shall be no disposal of solid or liquid waste in the coastal area. Solid waste management shall be as per Solid Wastes Management Rules, 2016.
- 24. Debris generated during the project activity should not be dumped in CRZ area. It should be processed scientifically at a designated place.
- 25.All Hazardous material should be disposed of scientifically as per Hazardous material management Rules.
- 26.PP to ensure that best industrial practices should be followed for fire safety measures and for conservation of coastal environment
- 27.All other required permissions from the concerned statutory authorities should be obtained prior to commencement of the work.

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Shairperson

<u>Item No.12:</u> Proposed Pipeline passing through Desai Creek (Ulhas River)

South Side of the Bridge near Katai Naka, Dist.: Thane by

Mahanagar Gas Ltd.

#### INTRODUCTION:

Consultant along with representatives from M/s Mahanagar Gas Ltd (MGL) presented the proposal before the Authority.

MGL proposes Natural Gas Distribution Pipeline (Dombivali-Taloja Looping) from Manpada junction in Dombivali MIDC along Kalyan-Shilphata road passing through Desai creek (Ulhas River) South side of the bridge nearKatai Naka. Length of pipeline is 350 meter which is proposed to laid using Horizontal Directional Drilling Process (HDD) method.

Mahanagar Gas Limited had submitted CRZ Application along with a CRZ map to MCZMA on March 22, 2022 as per CRZ Notification 2011. The matter was earlier deliberated in 173<sup>rd</sup> meeting of the MCZMA held on 20<sup>th</sup> March, 2024, wherein the proposal was recommended vide letter dated 24<sup>th</sup> May, 2024 to MoEF&CC, New Delhi.

MoEFCC and MS, MCZMA had raised EDS regarding resubmission of CRZ Map and Report as per CRZ Notification 2019. Accordingly, the proposal was deliberated in 177<sup>th</sup> meeting of MCZMA held on 23<sup>rd</sup> August 2024, wherein the Authority asked to submit the CRZ map in 1:4000 scale and report as per CRZ Notification 2019.

Now, MGL has submitted the CRZ Map in 1:4000 scale as per CRZ Notification 2019 from NIO, Goa, for proposed pipeline passing through Desai Creek (Ulhas River) South side of the bridge near Katai Naka.

Proposed pipeline will be passing through Desai creek and as per CRZ notification 2019. The Pipeline is passing through CRZ-IB & CRZ-II area.

#### **DELIBERATIONS:**

The Authority noted that the PP has submitted the CRZ map in 1:4000 scale, prepared by the NIO, Goa. As per the said report, the CRZ classification of the proposed Pipeline passing through Desai Creek is as follows:

CRZ category	Length (meter)
CRZ IB	59.5
CRZ II	117.3
Non CRZ	173.2
Total	350

The Consultant presented that, to meet the increasing demand of gas for Industrial, Commercial and Domestic Customers in Khidkali, Shilphata, Mumbra & Kausa area. PP is proposing to lay a Pipeline passing through Desai Creek (Ulhas River) South Side of the Bridge near Katai Naka.

The Authority noted that, M/s Mahanagar Gas Ltd has submitted the EIA report prepared by Eco Chem Sales and services (Nabet accredited consultant). The Authority noted the observations of EIA report along with Mitigation measures and EMP for the project. The PP shall strictly implement the mitigation measures as suggested in the EIA report.

The EIA report states that natural course of creek water and tidal regime will not be hampered due to laying of proposed pipeline as it will be laying under 2.5 meter below the water bed without disturbing the aquatic system. There will not be chances of any contamination of creek water. Although air, water, noise and land environment area likely to be effected by the pipeline laying activities. But the impacts will be marginal and for short term only.

As per para 5.1.2 of the CRZ Notification, 2019:

"Activities shall be regulated or permissible in the CRZ-I B areas as under:-

(ii) Activities related to waterfront or directly needing foreshore facilities such as ports and harbours, jetties, quays, wharves, erosion control measures, breakwaters, pipelines, lighthouses, navigational safety facilities, coastal police stations, Indian coast guard stations and the like."

As per para 5.1.2 of the CRZ Notification, 2019:

"(i) Activities as permitted in CRZ-I B, shall also be permissible in CRZ-II, in so far as applicable."

As per para 7(iii) of the CRZ Notification, 2019, "For all other permissible and regulated activities as per this notification, which fall purely in CRZ-II and CRZ-III areas, the CRZ clearance shall be considered by the concerned Coastal

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Zone Management Authority and such projects in CRZ -II and III, which also happen to be traversing through CRZ-I or CRZ-IV areas or both, CRZ clearance shall, however be considered only by the Ministry of Environment, Forest and Climate Change, based on recommendations of the concerned Coastal Zone Management Authority"

The Authority noted that proposed pipeline in CRZ-IB & CRZ II area is permissible activity as per CRZ Notification, 2019 subject to CRZ clearance by MoEF&CC, New Delhi.

#### Decision:

In the light of above, the Authority after deliberation decided to recommend the proposal to MoEF&CC, New Delhi under CRZ Notification, 2019 subject to following conditions

- 1. The proposed pipeline should be carried out strictly as per the provisions of CRZ Notification, 2019 (as amended from time to time) and guidelines/clarifications given by MoEF&CC from time to time.
- 2. Natural course of creek/river water should not be hampered due to proposed activities.
- 3. During construction phase, the project implementing agency should proactively implement all possible appropriate environmental measures to achieve minimum disturbance to coastal ecosystem.
- 4. The construction debris and dredged material should not be disposed off in the creek water to avoid any adverse impact on marine water quality.
- 5. PP to ensure that best industrial practices should be followed for fire safety measures and for conservation of coastal environment.
- 6. Debris generated during the project activity should not be dumped in CRZ area. It should be processed scientifically at a designated place, as per MSW Rules, 2016.
- 7. PP to implement recommendations of the EIA / EMP report for mitigation of environment impacts
- 8. The Project proponent should effectively implement the mitigation measure and Environment Management Plan during construction and operation phase of the project.
- 9. All other required permission from different statutory authorities should be obtained before starting construction at the site shall be ensured by Local Body.

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Item No.13:

Development of Mangrove Park at Aronda, Tal. Sawantvadi,

Dist: Sindhudurg by Divisional Forest Officer, Mangrove

Division, South Konkan

### INTRODUCTION:

The APCCF, Mangrove along with Consultant presented the proposal before the Authority. The Mangrove Cell has proposed the development of Mangrove Park at Aronda, Tal. Sawantvadi, Dist: Sindhudurg. Project components involved in the project are-

- Elevated Mangrove Trail on Jambha wood piles; teak beams; load capacity 500 kg/sqm.
- 2. Multi-level Nature Interpretation Centre (NIC) with sunset deck & eatery.
- 3. Pause Points A & B.
- 4. Floating Jetty, Watch Tower, Ticketing Tower.

Sustainable measures proposed in the project involves-

- Atmospheric Water Generator (AWG) for water.
- Bio-digester system for waste.
- Solar panels & renewable energy.
- Precast/portable systems; low-maintenance materials.

# DELIBERATIONS:

The Authority noted that, the PP has submitted the CRZ map in 1:4000 scale prepared by the IRS, Chennai. As per the said report of the IRS, the project site falls in Mangroves, 50 m mangrove buffer zone, Intertidal area and 50 m setback line from the Terekholriver, as per approved CZMP, 2019. As per the IRS report:

Proposed activities	CRZ category	Length in meter	Total length
•	CRZIA	971.28	
Proposed mangrove elevated trail	CRZ IA (50 m mangrove buffer zone)	1212.21	2279.46
	CRZ III (NDZ)	94.79	
	CRZ IVB	0.79	
Proposed floating	CRZIA	4.00	142,19

Rail			
	CRZIA (50 m mangrove buffer)	138.19	
Duamagad bund ta	CRZ IB	18,41	
Proposed bund to	CRZ III (NDZ)	288.15	697.91
jetty	Outside CRZ	391.34	
Proposed jetty	CRZ IVB	45.83	45.83
Proposed waterway	CRZ IVB	1969.78	1969.78
Proposed Road to Jetty	CRZ III (NDZ)	455.80	851,11
	Outside CRZ	395.30	

The PP has submitted the EIA report as prepared by the Centre for Envotech& Management Consultancy Pvt. Ltd (Nabet Accredited)

The EIA report mentions that Aronda, a picturesque village in the Sindhudurg district of Maharashtra, is situated near the Terekhol River and the Arabian Sea, making it a place of rich natural and cultural heritage. Known for its serene backwaters, coconut groves, and lush greenery, Aronda forms an integral part of the Konkan region. The village is not only a reflection of the traditional Konkan lifestyle but also a vibrant example of the interplay between natural resources and human activities. Its socioeconomic environment is shaped by agriculture, fisheries, tourism, and local craftsmanship, which are deeply influenced by the region's geography and culture.

The Authority noted the anticipated impacts, mitigation measures as suggested in the EIA report. Certain mitigation measures are as follows:

- Construction related activities shall be restricted only to the necessary activity at site andmaximum construction activities would be carried off site during pre-construction and construction stage.
- Care should be taken to ensure that the construction workers camp is not located on site& does not disturb the surrounding land use. Minimum working place will be used to carry out work. Existing access/entrance to the road would be duly maintained. Squatter development along the project shall be strictly avoided by proper regulation and vigilance. Land use planning agencies would be involved for controlled development. Occurrence of "Induced Development" will be avoided as far as possible
- Sewage collection & treatment system shall be provided in the Nature Information Centre and only treated sewage shall be discharged in the creek. Siltation of soil into water bodies viz., seawater shall be prevented

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- as far as possible by adopting soil erosion control measures as perMPCB guidelines / or as per the directions of PMC
- During operation phase of the project, there will be increase in footfall due to visitors to Mangrove Park. The footpath and either side of the embankment should not allow to be encroached by commercial units.

Dr Anish Andheria expressed that the site is rich with dense mangroves and objective of the proposal to create awareness of mangroves and coastal environment for the visitors/ nature lovers. Hence, other activities like playground should be removed from the project. Since, such activities would make a site as a regular tourist spot and thereby degrading the pristine coastal environment. He further emphasized that construction methodology should be eco-friendly.

Consultant presented that all the necessary measure will be implemented to conserve and protect the mangrove area. No mangrove will be cut for the proposed activities.

Construction methodology will be eco-friendly.

The Authority noted that the project serves as educational and creating awareness among the people about the mangrove's ecology.

The Authority noted that as per para 5.1.1 CRZ IA, mangrove walks, nature trails etc is a permissible activity.

The Authority further noted as per para 7(iii) of the CRZ Notification, 2019 & OM dated 29<sup>th</sup> November, 2022, the proposal requires final CRZ clearance from the MoEF&CC, New Delhi. The said provision is reproduced as follows:

"For all other permissible and regulated activities as per this notification, which fall purely in CRZ-II and CRZ-III areas, the CRZ clearance shall be considered by the concerned Coastal Zone Management Authority and such projects in CRZ-II and III, which also happen to be traversing through CRZ-I or CRZ-IV areas or both, CRZ clearance shall, however be considered only by the Ministry of Environment, Forest and Climate Change, based on recommendations of the concerned Coastal Zone Management Authority"

#### DECISION:

In the light of above, the Authority after detailed discussion and deliberation decided to recommend the proposal from CRZ point of view to

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Shairperson

MoEF&CC, New Delhi, under CRZ Notification, 2019 subject to compliance of the following conditions:

- 1. The proposed project should be carried out strictly as per the provisions of CRZ Notification, 2019 (as amended from time to time) and guidelines/clarifications given by MoEF from time to time.
- 2. Prior High Court permission shall be obtained, as per the Hon'ble High Court order in PIL 87/2006, since the proposed project is affected by mangorve& its 50 m mangrove buffer zone area.
- 3. Forest Clearance under Forest (Conservation) Act, 1980, if applicable shall be obtained.
- 4. Site preparation and site restoration in CRZ area should be undertaken without damaging the coastal-geomorphological features.
- 5. Solid / liquid waste management plan should be in place during construction and operation phase of the project.
- 6. Construction methodology should be eco-friendly and bare minimum use of cement/concrete to be used for the construction.
- 7. Site is rich with dense mangroves and objective of the proposal to create awareness of mangroves and coastal environment for the visitors/ nature lovers. Hence, other activities like playground should be removed from the project.
- During operation phase of the project, there will be increase in footfall due to visitors to Mangrove Park. The footpath and either side of the embankment should not allow to be encroached by commercial units.
- Project proponent should implement Mitigation measures and Environment Management plan & Disaster Management Plan as suggested in the EIA report, effectively and efficiently to ensure that coastal environment is protected.
- 10. All other required permissions from different statutory authorities should be obtained prior to commencement of work

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Item No.14:

Development of Mangrove Park at Mandavi, Tal. Vengurla, Dist: Sindhudurg by Divisional Forest Officer, Mangrove Division South Konkan

#### **INTRODUCTION:**

The APCCF, Mangrove along with Consultant presented the proposal before the Authority.

The project is for development of Mangrove Park at Mandavi, Tal. Vengurla, Dist: Sindhudurg Project involves the mangrove elevated trail and Nature Interpretation Centre and other essetial facilities.

Sustainable measures proposed in the project:

- Trees integrated into the design through trimming and training
- Low-maintenance materials and precast/portable systems to reduce onsite work in sensitive areas
- Maximum natural light and ventilation
- Atmospheric Water Generator (AWG) for water supply
- Bio-digester system for waste management
- Solar panels and renewable energy use.

The project is led by SwaminiMahilaBachat Gat; focus on conservation, education, and sustainable livelihoods

#### **DELIBERATIONS:**

The Authority noted that, the PP has submitted the CRZ map in 1:4000 scale prepared by the IRS, Chennai. As per the said report of the IRS, the project site falls in Mangroves, 50 m mangrove buffer zone, Intertidal area and 500 m setback line from the Arabian Sea, as per approved CZMP, 2019. As per the IRS report: As per the IRS report:

Proposed activities	CRZ category	Length in meter	Total length
Proposed mangrove elevated trail	CRZ IA (50 m mangrove buffer zone)	7.17	26.33
·	CRZ IB	17.04	
	CRZ II	2.12	

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Proposed	floating	CRZ	ΙA	(50	m	173.17	204.85
Rail		mangr	ove	buf	fer		
		zone)					
		CRZ I	В			13.35	
		CRZ I	I			18.11	

The PP has submitted the EIA report as prepared by the Centre for Envotech& Management Consultancy Pvt. Ltd (NabetAcredited)

The EIA report states that, the project serves as educational and creating awareness among the people about the mangrove's ecology. During the Project execution trimming of the mangroves is required, which will not impact as the new branches will be developed on the trees. The attention for the regrown of the trimmed mangroves trees is to be done. The trimming of minimum impact during the execution is foreseen in the project. Noise, vibrations, and human activity during construction can disturb resident and migratory species, including birds, crabs, and fish temporarily. The project proposes the Development of Mangrove Park offers opportunities for ecological research, helping scientists understand mangrove ecosystems and their responses to environmental changes.

The Authority noted the anticipated impacts, mitigation measures as suggested in the EIA report. Certain mitigation measures are as follows:

- Construction related activities shall be restricted only to the necessary activity at site and maximum construction activities would be carried off site during preconstruction and construction stage.
- Care should be taken to ensure that the construction workers camp is not located on site & does not disturb the surrounding land use
- Sewage collection & treatment system shall be provided in the Nature
   Information Centre and only treated sewage shall be discharged in the
   creek. Siltation of soil into water bodies viz., sea water shall be
   prevented as far as possible by adopting soil erosion control measures as
   per MPCB
- guidelines / or as per the directions of PMC..
- During operation phase of the project, there will be increase in footfall due to visitors to Mangrove Park. The footpath and either side of the embankment should not allow to be encroached by commercial units.

Dr Anish Andheria suggested that construction footprint should be minimum and it should be restricted on landward side.

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The Authority noted that objective behind the project to create awareness about the mangroves and coastal ecology. As informed by the Mangrove Cell, project is led by Swamini Mahila Bachat Gat; focus on conservation, education, and sustainable livelihoods. Thus, the project will empower the local women's group.

### DECISION:

In the light of above, the Authority after detailed discussion and deliberation decided to recommend the proposal from CRZ point of view to MoEF&CC, New Delhi, under CRZ Notification, 2019 subject to compliance of the following conditions:

- 1. The proposed project should be carried out strictly as per the provisions of CRZ Notification, 2019 (as amended from time to time) and guidelines/clarifications given by MoEF from time to time.
- 2. Prior High Court permission shall be obtained, as per the Hon'ble High Court order in PIL 87/2006, since the proposed project is affected by mangroves & its 50 m mangrove buffer zone area.
- 3. Forest Clearance under Forest (Conservation) Act, 1980, if applicable shall be obtained.
- 4. Site preparation and site restoration in CRZ area should be undertaken without damaging the coastal-geomorphological features.
- 5. Construction footprint should be minimum and it should be restricted on landward side.
- 6. Solid / liquid waste management plan should be in place during construction and operation phase of the project.
- 7. Construction methodology should be eco-friendly and bare minimum use of cement/concrete to be used for the construction.
- 8. Project proponent should implement Mitigation measures and Environment Management plan & Disaster Management Plan as suggested in the EIA report, effectively and efficiently to ensure that coastal environment is protected.
- 9. All other required permissions from different statutory authorities should be obtained prior to commencement of work

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Chairperson

Item No.15: Development of Mangrove Park at JuveJaitapur, Tal.

Rajapur, Dist: Ratnagiri by Divisional Forest Officer,

Mangrove Division, South Konkan

### INTRODUCTION:

The APCCF, Mangrove along with Consultant presented the proposal before the Authority. The project is for development of Mangrove Park at Juve Jaitapur, Tal. Rajapur, Dist: Ratnagiri. Project component involves:

- Nature Interpretation Centre (NIC) with detailed plan.
- Elevated Mangrove Trail built on Jambha wood piles, teak beams.
- Watch Tower, Ticketing Tower, Floating Jetty.
- Decks & pause points.

### **DELIBERATIONS:**

The Authority noted that, the PP has submitted the CRZ map in 1:4000 scale prepared by the IRS, Chennai. As per the said report of the IRS falls in Mangroves, 50 m mangrove buffer zone and Kodavali River as per approved CZMP, 2019.

Hence, the proposed development of mangrove park and elevated trail in JuveJaitapur and Daulvali village falls partly in CRZ IA, CRZ IA(50 m mangrove buffer zone), CRZ III (NDZ) and remaining area inside CRZ IVB.

Proposed bund road from Dhaulvali to Mangrove park falls in CRZ IA (50 m mangrove buffer) and CRZ III (NDZ) whereas proposed jetty falls in CRZ IVB.

Expert Members observed that from the presentation it is apprehended that proposed structure of Nature Interpretation Centre (NIC) is covering largerfootprint in the mangrove area.

Officials from the Mangrove Cell submitted that, NIC centre is just covered board walk and mangrove will be replanted around the Centre.

Taking into consideration the dense thick mangrove vegetation at the site, the Authority opined that Mangrove Cell need to explore other alternatives for NIC.

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### **DECISION**

The Authority suggested Mangrove Cell to explore other alternative/options, in place of proposed NIC structure. The proposal need to be re-worked. Mangrove Cell agreed for the same. Accordingly, the matter was deferred.

Member Secretary

Shairperson

<u>Item No.16:</u> Proposed Development of Parking Space & Providing Other

Facilities at Bagmandla, Tal. Shrivardhan, Dist. Raigad,

Maharashtra by MMB

### INTRODUCTION:

The Chief Engineer, MMB along with Consultant presented the proposal before the Authority.

The MMB has proposed Development of Parking Space & Providing Other Facilities at Bagmandla, Tal. Shrivardhan, Dist. Raigad

MMB officials presented that existing Ro-Ro jetty provides connectivity between Bagmandla and Veshavi in Raigad and Ratnagiri District respectively. Majority of tourist Passage access this jetty with vehicles. There is no parking space near jetty due to which parking is not available for tourist at peak seasons it results into congestion of traffic on jetty while waiting for Ro Ro boat. Hence, there is requirement of parking space for resolving the traffic issue at the site.

Consultant presented that the site falls in CRZ IA (50 m buffer zone), CRZ IB and NDZ, as per approved CZMP, 2019 and proposed activity is permissible as per para 5.1.1. (ii), 5.1.2. (ii) and 5.3. (i) of CRZ notification 2019.

#### DELIBERATIONS:

The Authority noted that the PP has submitted the CRZ map in 1:4000 scale prepared by the IRS, Chennai. As per the IRS report, the proposed project falls in CRZ IA (50 m buffer zone), CRZ IB and NDZ.

CRZ	CRZ IA ( 50	CRZ IB	No
categorization	m mangrove	(Intertidal	Development
	buffer zone)	area)	Zone
Area in Sqm	300,20	279.33	263.86

The MMB has submitted the EIA report prepared by M/s Ecofootforward (Nabet accredited consultant). The Authority noted the observations of the EIA, anticipated impacts and mitigation measures suggested in the report.

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The Authority noted that as per the EIA report, the project area mainly shows the presence of mangrove species i.e., Avicennia marina which will be removed from the existing area for construction. Prior permission should be taken from the Forest Department.

During the deliberations, the Authority observed that parking space is proposed to be created into the intertidal area of the creek. Further, EIA report states about the presence of mangrove on the project site. Further, the name of project suggest development of other facilities.

The Authority after deliberation decided that MMB need to provide a clarification regarding the following issues-

- 1) MMB to explore the option of shifting the parking space on landward side
- 2) CRZ map shows the site is affected by 50 m mangrove buffer zone. However, as per the EIA report, there are mangroves in the project site which will be cut for construction. MMB to clarify the same whether project involves cutting of mangroves
- 3) If, MMB has proposed the development of parking space only, then, MMB need to change the project name.

#### DECISION:

The Authority after deliberation decided to defer the proposal for want of above stated information/clarification from the MMB.

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Chairperson

Item No.17:

Proposed creation of Temporary Ship Launching Facility at

Nhava Yard by Mazagon Dock Shipbuilders Limited (MDL).

#### INTRODUCTION:

The Officials from the Mazgoan Dock Shipbuilders Limited (MDL) along with Consultant presented the proposal before the Authority.

Officials presented that the MDL is a defense shippard under the Ministry of Defense, established in 1960 as a Defense Public Sector Undertaking (PSU).

MDL is currently constructing ships of the P17, P15A and P15B classes, along with six Scorpion-class submarines. MDL currently has construction orders for approx. 31 defense vessels for the Indian Navy and Coast Guard and is preparing to accommodate future orders, including those of next-generation destroyers and Landing Helicopter Decks Ships and aircraft carriers.

To support this growth, MDL is constructing a Floating DryDock at Bharuch, Gujarat, which would be assembled at its Nhava Yard near Navi Mumbai. Expansion aims to support timely delivery of existing and future naval orders. The proposed development would offset the lack of land based infrastructure and supplement the same with a Floating Dry Dock to be placed at MDL / ONGC Jetty at Nhava Yard of MDL.

The dimensions of the proposed temporary ship launch facility for assembly of Floating Dry Dock at Nhava Yard in Navi Mumbai, are as follows:

Total Land Area	13, 585 sq.m.
FDD Dimensions	Length 180 m, Outer Beam 44 m, Inner Beam
	32 m, draft 1.0 to 1.2m.
Ship Launch Facility	Length 247 m, Width 55 m, 2 m above CD
Dimensions:	

MDL intends to construct a temporary ship launching facility for assembly of Floating Dry Dock modules, to be dismantled post launching of a Floating Dry Dock (FDD) by Mar 2026, utilizing a part of the land area at the northern edge of Nhava Yard. The land area under existing condition is plain ground with no vegetation/trees and does not have any structure either temporary or permanent.

#### **DELIBERATIONS:**

The Authority noted that the CRZ map in 1:4000 scale prepared by the IRS, Chennai, superimposing the project layout has been submitted. The proposed construction falls in CRZ-II and CRZ-IB area as indicated in the said map. As per the said IRS report:

CRZ category	Area in Sqm
CRZ IB	180.09
CRZII	13404.91
Total	13585.00

The PP has submitted the EIA report prepared by the M/s WAPCOS Ltd (Nabet Accredited). The Authority noted the observations of EIA report along with anticipated impacts, mitigation measures and EMP for the project.

The EIA report observes that one of the important criteria for the launching facility to be located should be well protected from wave action. The project site at Nhava is having more or less ideal conditions for development of such type of facility in view of having the natural advantages of stable nature in respect of morphological processes and wave protection due to the presence of headland Elephanta. The site is expected to have negligible impact on the tidal regime or coastline and also does not have any mangrove vegetation in its vicinity. Sufficient land facility is also available. In view of the above, MDL is contemplating construction of FDD launching facility at Nhava Yard. The proposed site is located at the eastern edge of the yard, where the general ground level is varying between 5.0 to 6.5 m and the waterfront area is very shallow in a length of around 50m from the high water line with depths below 1.0m CD. The land area under existing condition is more or less flat ground with no vegetation/ trees and does not have any structure either temporary or permanent. Thus, the conditions at the proposed site of the Nhava yard are very ideal and suitable for development of the proposed FDD launching facility.

The EIA report states that, the tidal circulation in the JNPA navigation channel is relatively strong as the flood and ebb flows have to pass through the narrow channel between the Elephanta Island and the Nhava- Sheva landmass. The peak magnitude of the currents varied between 0.6 m/s to 1.0 m/s. The model for simulating the tidal circulation was setup with the bathymetry and

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boundary conditions of water levels (tide) and currents using the field data collected by WAPCOS during the Non-Monsoon and Monsoon seasons.

The EIA further report states that, in order to assess the impact of the implementation of the proposed facilities over the coastline near Nhava, a desk study on shore line changes has been carried out. This study also used the results obtained from model studies on wave transformation, hydrodynamic and siltation carried out separately. The Nhava Island also having large mangrove area but these are located away from the proposed Graving Dock at Nhava Yard. The development proposed is a very small footprint on the waterfront and major part is on the land after the High-Water line. Therefore, it is observed from the model studies and desk analysis that it will not modify the existing regime of tidal circulation in the mangrove area.

Consultant presented that, a desk-based shoreline change study near Nhava Island, using wave transformation, hydrodynamic and sedimentation models indicates that the coastline is stable due to its sheltered location behind Elephanta Island. As the proposed development lies mostly inland and away from sensitive areas, no adverse effects on the shoreline or mangrove regime are expected.

The Authority noted that, as per the para 5.1.2 (i) of the CRZ Notification, 2019, following is permissible in CRZ IB area:

- (a) foreshore facilities like ports, harbours, Jetties, wharves, quays, slipway, bridges, hover ports for coast guard, sea links, etc;
- (b) projects for defence, strategic and security purposes;

As per para 5.1.2 (ii) of CRZ Notification, 2019, following is permissible in CRZ IB area:

Activities related to waterfront or directly needing foreshore facilities such as ports and harbours, jetties, quays, wharves, erosion control measures, breakwaters, pipelines, lighthouses, navigational safety facilities, coastal police stations, Indian coast guard stations and the like.

As per para 5.2(i) of CRZ, 2019, Activities as permitted in CRZ-I B, shall also be permissible in CRZ-II area.

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The Authority further noted as per para 7(iii) of the CRZ Notification, 2019 & OM dated 29<sup>th</sup> November, 2022, the proposal requires final CRZ clearance from the MoEF&CC, New Delhi. The said provision is reproduced as follows:

"For all other permissible and regulated activities as per this notification, which fall purely in CRZ-II and CRZ-III areas, the CRZ clearance shall be considered by the concerned Coastal Zone Management Authority and such projects in CRZ-II and III, which also happen to be traversing through CRZ-I or CRZ-IV areas or both, CRZ clearance shall, however be considered only by the Ministry of Environment, Forest and Climate Change, based on recommendations of the concerned Coastal Zone Management Authority"

#### DECISION:

In the light of above, the Authority after deliberation decided to recommend the proposal to MoEF&CC, New Delhi under CRZ Notification, 2019 subject to following conditions

- 1. The proposed pipeline should be carried out strictly as per the provisions of CRZ Notification, 2019 (as amended from time to time) and guidelines/clarifications given by MoEF&CC from time to time.
- 2. Natural course of creek/river water should not be hampered due to proposed activities.
- 3. During construction phase, the project implementing agency should proactively implement all possible appropriate environmental measures to achieve minimum disturbance to coastal ecosystem.
- 4. The construction debris and dredged material should not be disposed off in the creek water to avoid any adverse impact on marine water quality.
- 5. PP to ensure that best industrial practices should be followed for fire safety measures and for conservation of coastal environment.
- Debris generated during the project activity should not be dumped in CRZ area. It should be processed scientifically at a designated place, as per MSW Rules, 2016.
- 7. PP to implement recommendations of the EIA / EMP report for mitigation of environment impacts.
- 8. The Project proponent should effectively implement the mitigation measure and Environment Management Plan during construction and operation phase of the project.

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- 9. This CRZ recommendation is subject to final outcome of Hon'ble NGT matter bearing OA No. 175/2024 (Paramparik Macchimar Bachao Samajik Kruiti Sammittee Vs MCZMA &Ors)
- 10. All other required permission from different statutory authorities should be obtained before starting construction at the site shall be ensured by Local Body.

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Item No. 18:

Construction of Groyne Bund, Jetty, Approach Road and Desilting of Existing Navigation Channel at Akshi Sakhar, Taluka Alibaq, District Raigad by MMB.

#### INTRODUCTION:

The Chief Engineer, MMB along with Consultant presented the proposal before the Authority.

The MMB has proposed Construction of Groyne Bund, Jetty, Approach Road and Desilting of Existing Navigation Channel at AkshiSakhar, Taluka Alibag, District Raigad.

Details of the proposed activities are as follows:

Sr No.	Proposed activity	Details
1	Jetty (2 nos.):	Length of the jetty - 80 m
		Width of the jetty - 20 m
2	Groyne bund:	Length of east side groyne bund-
		1125.00 m
		Length of west side groyne bund -
		1110.00 m
3	Approach road	Length of approach road – 1775 m
		Width of approach road - 7m
4	Reclamation area	11,033.4 sq m
5	Clearing of navigational	240000 Cum
	channel	

MMB officials presented that, proposed project is beneficial for fishermen. The proposed project will provide facilities for the fishermen to berth their boats safely protecting the boats from high sea waves, and safely land

#### **DELIBERATIONS:**

The Authority noted that the MMB has submitted the CRZ map in 1:4000 scale superimposing the project layout, as prepared by the NCSCM, Chennai. As per the said report:

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Proposed activities	CRZ IB (Sqm)	CRZ II (Sqm)	CRZ IV A (Sqm)	CRZ IVB (Sqm)	NDZ (Sqm)	Out of CRZ (Sqm)
Groyne Bund	79033.92	12.47	18592.44	-	-	-
Jetty	2382.06			915.87		
Reclaim area	10378. 91	205.00		449.49		
Approach Road	9040.75				11531.47	879.42

The PP has submitted the EIA report prepared by the Building enviro India Pvt Ltd (Nabet Accredited Pvt Ltd).

As per EIA report, the proposed project involves Construction of Groyne Bund, Jetty, Approach Road with allied facilities such as reclamation of land, protection bund and Desilting of Existing Navigation Channel at AkshiSakhar in Alibag Taluka of Raigad district of Maharashtra.

- 1) Gryone Bund- It is designed to protect the shoreline from erosion caused by wave action, tides, and storms. It interrupts the flow of water, reducing the energy of waves and preventing the loss of land. This stabilization is essential for preserving coastal areas Proposed southern and northern groyne bund length will be 856 m and 850 m in length respectively.
- 2) Jetties The proposed project involved construction of 2 jetty of dimension 80.00 m X 10.00 m. The jetty provides a secure docking point for vessels, as well as supporting the local fishing industry. It also serves as an essential infrastructure for tourism-related activities, such as recreational boating and ferry services.
- 3) Approach Road- The proposed approach road will connect the jetty to the main transportation network, ensuring easy access for vehicles transporting goods, people, and services. The dimension of approach road is 300.00 X 7.00 m.
- 4) Reclaiming land will create additional space for infrastructure development. This reclaimed land will be used as parking area. Reclamation will be done on both side of channel. Dimension of reclamation area is 250.00 X 50.00 m and 100.00 X 50.00 m respectively

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5) Desilting of the existing navigation channel is necessary to remove accumulated sediment, ensuring that the channel remains deep enough for vessels to navigate safely. This is important for maintaining the operational efficiency of the jetty and supporting the local fishing activity. The navigation channel will be 100 m wide.

The Authority noted the anticipate impacts, Mitigation measures and Environment Management Plan suggested in the EIA report. Certain Mitigation measure as suggested is as follows:

- Regular servicing and maintenance of construction equipment should be carried out. Also acoustic enclosures should be provided wherever applicable to the high noise generating machinery.
- Spillage of construction material into marine water should be strictly avoided to avoid contamination and turbidity. Skilled manpower should be deployed on site and construction should be carried out under supervision of site supervisor.
- On site generated construction waste should be stored at designated place and disposed to authorized agency.
- Hazardous waste generated if any should not be dumped into coastal area.
   The waste should be disposed to designated site through authorised agency.
- Storage of fuel and construction material should be done away from intertidal area to avoid contaminations from accidental spillages and entry into sea water.
- The proposed jetty and allied facilities will be used by the locals and visitors visiting the Akshi beach. Visitor and local activity may cause generation of the solid waste in the form of biodegradable waste such as food waste and non-biodegradable waste such as food wrappers, plastic bags, plastic water bottles, paper waste etc.

During the deliberation, the MMB submitted the IIT report also recommend the proposed project.

Dr.Rangnath, Expert member stated that creek is an inlet, hence, it is only during the High water, fishermen can enter into the creek. Proposed bund will facilitate the tidal water movement into the creek which will help fishermen to navigate through the creek. However, report of the IIT needs to be seen to understand the flow pattern of the creek. He further expressed that this bund would likely have impact on other side of the coast, which needs to be studied.

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Dr. Anish Andheria expressed a concern over the impact of long proposed bund on the surround coastline. He expressed that from hydrodynamic & Hydraulic point of view, the proposed bund may facilitate the navigation in the creek. However, such long structure on the shoreline would interfere with the sediment transport around the coast. This may have impact on other side of the coast, may in the form of erosion or accretion. MMB need to provide the study of impact of the long proposed bund. He further questioned the MMB regarding the necessity of the reclamation of the area near the mouth of the creek. MMB to submit study of impact of the long proposed bund and a technical note on necessity of the reclamation of the area near the mouth of the creek for further appropriate decision.

#### DECISION:

The Authority after deliberation decided to defer the matter for want of above information.

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<u>Item No. 19:</u> Proposed construction of Western Peripheral Corridor (WPC) by CIDCO

The CIDCO officials along with consultant presented the proposal before the Authority.

The CIDCO is developing off-site infrastructure essential for Navi Mumbai International Airport (NMIA). The proposed Western Peripheral Corridor (WPC) (2.84 km) starts from Targhar Village near NMIA's North boundary and continues south to Sonkhar, near the Navi Mumbai Special Economic Zone (NMSEZ). WPC runs between NMIA and Amra Marg crosses the Ulwe Coastal Road and Ulwe re-course channel

The WPC will establish independent peripheral road connectivity towards west of NMIA. Thiswill also help reduce direct traffic impediment on NH348A. The emergency exit gate at Navi Mumbai International Airport (NMIA) is a criticalinfrastructure component designed to ensure rapid emergency response and safeevacuation, particularly at the runway's end.

The proposed WPC ensures that emergency response operations can proceedunhindered, maintaining both airport and port operations' efficiently and safely.

CIDCO has proposed the development of Aerocity adjacent to the NMIA to support and enhance the airport's economic viability. For efficient vehicular movement between Amra Marg and the Aerocity, connectivity through the proposed Vehicular Underpass (VUP) is essential enabled only through the construction of this proposed road.

WPC will establish a direct road link between NMIA and the Aerocity is critical for seamless integration and access.

The project area falls under CRZ IA, IB and II and Non CRZ area, as per CRZNotification, 2019 and proposed activity is permissible as per 5.1.1 (iii), 5.1.2 (i)(c) and 5.2(i) of the CRZ Notification, 2019.

#### **DELIBERATIONS:**

The Authority noted that, the PP has submitted the CRZ map in 1:4000 scale prepared by the IRS, Chennai.

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CRZ category	Area in Sqm
CRZIA	40417.44
CRZ IA (50 m mangrove buffer zone)	59791.39
CRZIB	1616.83
CRZII	17180.89
Outside CRZ	209409.04
Total area	328415.60

The PP has submitted the EIA report prepared by M/s Aaditya Environmental Service Pvt Ltd The Authority noted the observations of EIA report along with anticipated impacts, mitigation measures and EMP for the project. Certain observations/ measures as mentioned in the EIA report is as follows:

- Total forest area diverted due to proposed activity will be 9.67 Ha. out of which 0.22 Ha. will be Reserved Forest, 3.38 Ha. will be Privet Forest (including 86 trees) and 6.07 Ha. will be Mangrove Forest (No mangroves are present). In addition to the above 146 trees are proposed to be cut and 44 to be transplanted. Owing to loss of trees, corresponding nesting/perching sites of birds in the area will be lost. Compensatory tree plantation will be done at suitable locations under the guidance of the social forestry division of the Department of Forest Government of Maharashtra. 1688 trees will be planted in the village of Belpada to offset the cutting of 146 trees within the alignment. CIDCO has applied for the Forest Clearance
- Improper handling of construction materials and used oils could lead to soil contamination, impacting the environment. Improper handling and storge of around 1,56,000 m3 excavated and hill cutting material generated during construction and approximately 200 m³ muck generated from installation of piles in URC, could lead to land contamination. The increased vehicle trips for transporting materials and manpower will likely contribute to traffic congestion and potential wear on the approach roads. The project does not impact local geology, as it does not involve disturbing geological formations. Construction team will be trained for collection, segregation and storage of construction waste and used oils at designated places and disposal as per standard practice by engaging authorized agencies/ MPCB authorized recyclers. The excavated material and hill cutting will be utilized for filling and leveling within the road alignment, while the topsoil will be applied for landscaping

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- The alignment is crossing URC various operations during construction in URC will temporarily increase turbidity in water column and can disturb the flow of the water which may lead to change in drainage pattern. The project does not impact local hydrology. Provision of a stormwater channel and stilt bridge over the URC to facilitate water flow with minimal disruption, preserving the natural drainage pattern and mangrove ecosystem.
- Cofferdam will be deployed in the creek area during construction to control sediment dispersion and prevent turbidity.

Expert Members suggested that CIDCO shall implemental all possible measures to have minimum mangrove loss due to proposed project. Mangrove Plantation plan as stipulated in CRZ Notification, 2019, shall be implemented in consultation with the Mangrove Cell. For mangrove cutting, Forest Clearance, Mangrove NoCetc, including prior High Court permission shall be obtained. Expert Members further suggested that indigenous species of terrestrial trees should be planted using Miyawaki method.

The Authority noted that the road will serve better connectivity between NMIA and nearby areas which will decrease travel time, save fuel, and reduce traffic congestion on the existing Amra Marg.

The Authority noted that as per para 5.1.1(iii) of CRZ, 2019, following is permissile in CRZ IA area:

"Construction of roads and roads on stilts, by way of reclamation in CRZ-I areas, shall be permitted only in exceptional cases for defence, strategic purposes and public utilities, subject to a detailed marine or terrestrial or both environment impact assessment, to be recommended by the Coastal Zone Management Authority and approved by the Ministry of Environment, Forest and Climate Change; and in case construction of such roads passes through mangrove areas or is likely to damage the mangroves, a minimum three times the mangrove area affected or destroyed or cut during the construction process shall be taken up for compensatory plantation of mangroves"

Further, the proposed activity is permissible as per para 5.1.2 (c) and 5.2(i) of the CRZ Notification, 2019.

The Authority further noted as per para 7(iii) of the CRZ Notification, 2019 & OM dated 29<sup>th</sup> November, 2022, the proposal requires final CRZ

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clearance from the MoEF&CC, New Delhi. The said provision is reproduced as follows:

"For all other permissible and regulated activities as per this notification, which fall purely in CRZ-II and CRZ-III areas, the CRZ clearance shall be considered by the concerned Coastal Zone Management Authority and such projects in CRZ-II and III, which also happen to be traversing through CRZ-I or CRZ-IV areas or both, CRZ clearance shall, however be considered only by the Ministry of Environment, Forest and Climate Change, based on recommendations of the concerned Coastal Zone Management Authority"

#### DECISION:

After deliberation, the Authority decided to recommend the proposal from CRZ point of view under CRZ Notification, 2019 to MoEF&CC New Delhi subject to compliance of following conditions:

- 1. The proposed project should be carried out strictly as per the provisions of CRZ Notification, 2019 as amended from time to time and with a commitment of protection and conservation of coastal environment.
- 2. CIDCO to ensure that the road design and construction method should be carried out with exercising extra caution with objective to have less impact on the mangroves and coastal ecology.
- 3. CIDCO shall use the eco concrete as cladding surface for the construction in marine/seawater environment for promoting biodiversity and thus reducing the environmental impact of construction.
- Prior High Court permission should be obtained by the PP as per Hon'ble High Court order dated 17<sup>th</sup> Sep, 2018 in PIL 87/2006, since the project involves cutting of mangroves.
- PP to obtain the prior Forest Clearance under Forest (Conservation) Act, 1980.
- NoC from the Mangrove Cell should be obtained by the PP. Compensatory
  mangrove plantation should be carried out in consultation with Mangrove
  Cell.
- PP shall undertake compensatory mangrove plantation in accordance with provisions of the CRZ Notification, 2019, in consultation with the Mangrove Cell.
- 8. Adequate measures should be implemented in order to mitigation fugitive dust emission during dredging activity. Periodic monitoring of air quality will be carried out and prompt remedial action should be undertaken in case deviations from NAAQS are recorded.

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- There shall be no disposal of solid or liquid waste in the coastal area.
   Solid waste management shall be as per Solid Wastes Management Rules,
   2016.
- 10. CIDCO to implement C & D waste management plan strictly as per Construction and Demolition Waste Management Rules, 2016.
- 11. During the construction phase, sustainable construction practices & exploration of other alternatives needs to be explored by the CIDCO to maintain the stability & integrity of the Coastal environment. Necessary training / awareness should be imparted to contractors & workers so that adequate environmental safeguards could be implemented on site, during execution of the project activities.
- 12. CIDCO to ensure that indigenous species of trees should be planted using Miyawaki method.
- 13.PP to ensure that noise and vibration level is within permissible limit during construction phase of the project. Noise barriers are erected at appropriate locations.
- 14. Project proponent should implement Environment Management plan for the project effectively and efficiently during construction and operational phase of the project to ensure that coastal environment is protected. It is also suggested to have a third-party monitoring/Audit of all such management initiatives by Govt agency during and after completion of project from time to time.
- 15. No labour camp are allowed in CRZ area & it should also be ensured that the waste water from these entities should not be released into sea
- 16. There shall be no disposal of solid or liquid waste in the coastal area. Solid waste management shall be as per Solid Wastes Management Rules, 2016.
- 17. Debris generated during the project activity should not be dumped in CRZ area. It should be processed scientifically at a designated place.
- 18. This CRZ recommendation is subject to final outcome of Hon'ble NGT matter bearigOA No. 175/2024 (Paramparik Macchimar Bachao Samajik Kruiti Sammittee Vs MCZMA &Ors)
- 19. All other required permissions from the concerned statutory authorities should be obtained prior to commencement of the work.

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Item No. 20: Proposed Maintenance Dredging Work for Navigational

Channel for Ro-Ro Service from Bhayander to Vasai,

District-Thane, Maharashtra by MMB

#### INTRODUCTION:

The Chief Engineer, MMB along with Consultant presented the proposal before the Authority.

The MMB has proposed maintenance Dredging Work to Generate Navigational Channel for Ro-Ro Service from Bhayander to Vasai, District-Thane.

The proposed project aims to ensure safe and efficient waterway transportation by maintaining an adequate depth for vessels. Project is important for Improving Navigability Ensuring Safe Passage, Channel Depth, Enhancing Transportation Efficiency Reducing Travel Time, Supporting Regular Service.

Consultant presented that, the project location falls under CRZ IA (50m Mangrove Buffer), CRZ IB (Intertidal Zone) and CRZ IVB (Waterbody) as per approved CZMP 2019. Project is permissible as per para 5.1.1. (ii), 5.1.2. (ii) & 5.4. (iii) of CRZ Notification 2019

#### DELIBERATIONS:

The Authority noted that the MMB has submitted the CRZ map in 1:4000 scale superimposing the project, as prepared by the NCSCM, Chennai. As per the said report:

CRZ category	Area in Ha.	
CRZIA	2.41	
CRZ IB	0.26	
CRZ IV B	278.54	

The MMB has submitted the EIA report prepared by the M/s Ecofootforward (NabetAcredited). The Authority noted the observations of the EIA report, anticipated impacts and mitigations measures proposed in the project.

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The Authority further discussed the probable impacts of the dredging on coastal environment. Dr Anish Andheria, Expert Member raised concern about the dispersion of huge volumes of silt and dredged material while carrying out the project activities by MMB. It is suggested that mechanism of dredging should be very precise that it has minimum destruction in non-target zone

Consultant presented that dredged quantity is estimated as 9233837 Cum. Silt will be dumped in the sea as per MbPT guideline/s / CWPRS recommended locations.

The Authority noted that the project is important for clearing of the waterway for navigation purpose of Ro-Ro Service from Bhayander to Vasai, District-Thane. All mitigation measures & Environment Management Plan as suggested in the EIA report should be followed in letter and spirit. MMB to ensure that excess dredged material is not removed from the creek / river bed. Controlled and Precision dredging to be exercised, in order to avoid the reckless and excessive dredging, which causes adverse impact on creek bed & coastal environment. Mangroves if any should not be cut for the project activities.

The Authority noted that, in CRZ IB area, "maintenance and clearing of waterways, channel" is a permissible activity as per the para as per the para 5.1.2(i) (e) of the CRZ Notification, 2019. Further, as per the para 5.4 (i)(d) of the CRZ Notification, 2019, the said activity is permissible in CRZ IV area.

The Authority further noted as per para 7(ii) of the CRZ Notification, 2019 & OM dated 29<sup>th</sup> November, 2022, the proposal requires final CRZ clearance from the MoEF&CC, New Delhi. The said provision is reproduced as follows:

"All development activities or projects in CRZ-I and CRZ-IV areas, which are regulated or permissible as per this notification, shall be dealt with by Ministry of Environment, Forest and Climate Change for CRZ clearance, based on the recommendation of the concerned Coastal Zone Management Authority"

#### DECISION:

In the light of above, the Authority after detailed discussion and deliberation decided to recommend the proposal from CRZ point of view to MoEF&CC, New Delhi, under CRZ Notification, 2019 subject to compliance of the following conditions:

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- 1. The proposed project should be carried out strictly as per the provisions of CRZ Notification, 2019 (as amended from time to time) and guidelines/clarifications given by MoEF from time to time.
- 2. MMB shall carry out strict monitoring of dredging activity to ensure that it is not sand mining driven activity and aims for clearing navigational channel by maintenance dredging.
- 3. MMB to ensure that dredging should be carried out in precision and controlled manner in order to avoid excessive dredging and adverse impact on coastal environment.
- 4. If the proposed activities are affected by Mangroves or its 50 m buffer zone, then prior High Court permission as per Hon'ble Court orders in PIL 87/2006 shall be obtained.
- 5. No dredging activity should be carried out in fish breeding sites, if any.
- 6. The Environment Management Plan & Environment Monitoring Plan should be implemented in letter and spirit and it should be inconsonance with the surrounding ecosystem. Specific budget should be allocated for the implementation of EMP.
- 7. All other required permissions from different statutory authorities should be obtained prior to commencement of work.

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Item No.21:

The Construction of Sloping Ramp & Approach Road, at

Sapad, Tal. Kalyan, Dist. Thane, Maharashtra by MMB

#### INTRODUCTION:

The Chief Engineer, MMB along with Consultant presented the proposal before the Authority.

MMB has proposed construction of Sloping Ramp & Approach Road, at Sapad, Tal. Kalyan, Dist. Thane. Slopping Ramp has length 24 meter & Width 5 meter. Approach Road has length 450 meter and width 4.00 meter.

Fishing and related activities are the primary sources of livelihood for the residents of Sapad village. Fishermen currently rely on temporary structures to launch their boats. There is no permanent facility for boat landing, causing difficulties during embarkation and disembarkation. To prevent accidents and ensure safe boat operations, it is necessary to construct a sloping ramp. The existing approach road to the sloping ramp is in poor condition and needs improvement

Consultant presented that the project site falls in CRZ IB, CRZ II and CRZ IVB as per the approved CZMP, 2019 and proposed activities are permissible as per para 5.1.2 (ii), 5.2 (i) & 5.4(iii) of the CRZ Notification, 2019.

#### **DELIBERATIONS:**

The MMB has submitted the CRZ map in 1:4000 scale superimposing the project layout, as prepared by the NCSCM, Chennai. As per the report of the NCSCM:

Proposed Activity	CRZ category	Area in Sqm
Slopping Ramp	CRZIB	1.96
·	CRZII	3.11
	CRZIVB	38.63
Approach Road	CRZ II	58.65

The MMB has submitted the EIA report prepared by the M/s Building Environment (India) Pvt Ltd. The Authority noted the observations of the EIA report, anticipated impacts and mitigations measures proposed in the project.

The Authority noted that as per para 5.1.2(i) (a) & 5.4 (ii) (a) of the CRZ Cortication, 2019, slopping ramp is permissible activity in CRZ IB & CRZ IV B area respectively.

As per para 5.2 (i) of the CRZ Notification, 2019, approach road is permissible in CRZ II area.

The Authority further noted as per para 7(iii) of the CRZ Notification, 2019 & OM dated 29<sup>th</sup> November, 2022, the proposal requires final CRZ clearance from the MoEF&CC, New Delhi. The said provision is reproduced as follows:

"For all other permissible and regulated activities as per this notification, which fall purely in CRZ-II and CRZ-III areas, the CRZ clearance shall be considered by the concerned Coastal Zone Management Authority and such projects in CRZ-II and III, which also happen to be traversing through CRZ-I or CRZ-IV areas or both, CRZ clearance shall, however be considered only by the Ministry of Environment, Forest and Climate Change, based on recommendations of the concerned Coastal Zone Management Authority"

#### DECISION:

In the light of above, the Authority after detailed discussion and deliberation decided to recommend the proposal from CRZ point of view to MoEF&CC, New Delhi, under CRZ Notification, 2019 subject to compliance of the following conditions:

- 1. The proposed project should be carried out strictly as per the provisions of CRZ Notification, 2019 (as amended from time to time) and guidelines/clarifications given by MoEF from time to time.
- 2. Construction of slopping ramp should be with minimum interference with tidal water flow, so that free flow of tidal water is not obstructed.
- 3. PP to ensure that during construction and operation phase, ecologically sensitive features like mangroves if any, should not be cut/damaged for the project.
- 4. During construction phase, the project implementing agency should proactively implement all possible appropriate environmental measures to achieve minimum disturbance to coastal ecosystem.
- 5. Debris generated during the construction activity should not be dumped in CRZ area. It should be ensured that debris is processed in a scientific manner at a designated site, as per MSW Rules, 2016.

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- 6. If the proposed activities are affected by Mangroves or its 50 m buffer zone, then prior High Court permission as per Hon'ble Court orders in PIL 87/2006 shall be obtained.
- 7. Project proponent should implement Mitigation measures and Environment Management plan as stipulated in the EIA report, effectively and efficiently during construction and operational phase of the project to ensure that coastal environment is protected.
- 8. All other required permission from different statutory authorities should be obtained before starting construction at the site shall be ensured by Urban Local Body.

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Item No.22:

Proposed construction of 10m Wide Alternate Nhava Road near Navi Mumbai Special Economic Zone (NMSEZ) in Gavhan Village, Navi Mumbai, Maharashtra by CIDCO

The CIDCO officials along with consultant presented the proposal before the Authority.

The CIDCO is developing off-site infrastructure for Navi Mumbai International Airport

(NMIA). The pace of development in Ulwe node is picked up along with development of NMIA, completion of Mumbai Trans Harbour Link (MTHL) and connectivity of MTHL with NMIA through ongoing Ulwe Coastal Road (UCR). Completion of UCR will pose vertical clearance restriction (2.5m) on existing Nhava road (where UCR overpasses existing Nhava road). This restriction will affect movement of heavy vehicles between Ulwe and Nhava. Hence, alternate access road is essential to provide connectivity. The ONGC Jetty at Nhava functions as a vital logistics hub, supporting offshoreoperations and critical supply chain activities essential for oil and gas exploration in the region. The only access to the ONGC facility at Nhava Village is via the existing NhavaRoad.

Further, the Road Top Level of Ulwe Coastal Road (UCR) was designed based on the levels of already constructed Shivajinagar Interchange & Toll Plaza on Atal Setu making restricted Vertical Clearance of 2.3 meters, thereby restricting the movement of taller vehicles, particularly those essential to ONGC's logistics and other vehicular access to Nhava village. As no feasible alternate routes exist, the proposed Alternate Nhava Road is the only viable and sustainable solution. The road will facilitate the smooth movement of essential freight, enhance overall logistics efficiency.

The length of the proposed road is about 768.45 m. The right of way is 10m (7.5m carriageway and footpath). It occupies an area of about 9430.91 sqm land.

The alignment is proposed on stilts with a single pedestal design, supported by a pile cap resting. The spacing between the two piers is maintained at 25 meters.

#### **DELIBERATIONS:**

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The PP has submitted the CRZ map in 1:4000 scale prepared by the IRS, Chennai. As per the said IRS report, road partly falls inside 50 m mangrove buffer zone, as per approved CZMP.

CRZ category	Length	Area (Sqm)
CRZ IA (50 m mangrove	675.32	7002.32
buffer zone)		
CRZ IB	33,68	376.15
CRZII	59.45	2052,04
Total	768.45	9430.31

Consultant presented that project involves cutting 203 trees and translocation of 5 trees. No Mangrove cutting is involved.

The PP has submitted the EIA report prepared by M/s Aaditya Environmental Service Pvt Ltd. The Authority noted the observations, anticipated impacts of the EIA report along with mitigation measures and Environment Management Plan. Certain observations/ measures as mentioned in the EIA report is as follows:

- Construction activities and vehicular movement will generate particulate
  matter whichwill increase dust load on leaves leading to decrease in
  primary productivity. Increase innoise levels will disturb fauna. Project
  activity may increase turbidity in water columnresulting in less
  penetration of light and decrease in primary productivity which
  overallhampers marine ecosystem. Noise, vibration and turbidity compel
  ichthyofauna to moveaway temporarily; sometimes increase in turbidity
  may even prove fatal due to gill choke. In addition to the above 5 trees
  are proposed to be transplanted and 203 trees are proposed to be cut.
  Owing to loss of trees, corresponding nesting/ perching sites of birds in
  the area will be lost.
- The road proposed on stilts to minimum footprint on mangrove buffer zone.
- Water sprinkling wherever possible to reduce particulate matter and its
  impact on the ecosystem. About 2100 trees will be planted at suitable
  locations under the guidance of the social forestry division of
  Department of Forest Government of Maharashtra. Appropriate traffic
  signages and speed governors will be provided to guide traffic and smooth
  movement. Regular maintenance of road to upkeep the good condition of
  road thereby ensuring quality of ride, safety, and comfort.

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• Surface runoff, accidental leakage/ spillage of oil/ fuel could lead contamination to nearby waterbodies. Construction activity near the creek area will be carried out mainly in non monsoon season.

Expert Members suggested that CIDCO shall implemental all possible measures to have minimumfootprint of proposed project in the 50 m mangrove buffer zone. CIDCO should obtain mangrove NoCincluding prior High Court permission shall be obtained, Expert Members further suggested that indigenous species of terrestrial trees should be planted using Miyawaki method.

The Authority noted that the construction of 10m Wide Alternate Nhava Road will be important public infrastructure project to reduce traffic congestion.

The Authority noted that as per para 5.1.1(iii) of CRZ, 2019, following is permissile in CRZ IA area:

"Construction of roads and roads on stilts, by way of reclamation in CRZ-I areas, shall be permitted only in exceptional cases for defence, strategic purposes and public utilities, subject to a detailed marine or terrestrial or both environment impact assessment, to be recommended by the Coastal Zone Management Authority and approved by the Ministry of Environment, Forest and Climate Change; and in case construction of such roads passes through mangrove areas or is likely to damage the mangroves, a minimum three times the mangrove area affected or destroyed or cut during the construction process shall be taken up for compensatory plantation of mangroves"

Further, the proposed activity is permissible as per para 5.1.2 (c) and 5.2(i) of the CRZ Notification, 2019.

The Authority further noted as per para 7(iii) of the CRZ Notification, 2019 & OM dated 29<sup>th</sup> November, 2022, the proposal requires final CRZ clearance from the MoEF&CC, New Delhi. The said provision is reproduced as follows:

"For all other permissible and regulated activities as per this notification, which fall purely in CRZ-II and CRZ-III areas, the CRZ clearance shall be considered by the concerned Coastal Zone Management Authority and such projects in CRZ-II and III, which also happen to be traversing through CRZ-I or CRZ-IV areas or both, CRZ clearance shall, however be considered only by the Ministry of

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Environment, Forest and Climate Change, based on recommendations of the concerned Coastal Zone Management Authority"

#### **DECISION:**

After deliberation, the Authority decided to recommend the proposal from CRZ point of view under CRZ Notification, 2019 to MoEF&CC New Delhi subject to compliance of following conditions:

- 1. The proposed project should be carried out strictly as per the provisions of CRZ Notification, 2019 as amended from time to time and with a commitment of protection and conservation of coastal environment.
- 2. CIDCO to ensure that the road design and construction methodshould be carried out with exercising extra caution with objective to have less impact on the coastal ecology.
- 3. Prior High Court permission should be obtained by the PP as per Hon'ble High Court order dated 17<sup>th</sup> Sep, 2018 in PIL 87/2006, since the project is proposed in 50 m mangrove buffer zone.
- 4. NoC from the Mangrove Cell should be obtained by the PP.
- 5. Adequate measures should be implemented in order to mitigation fugitive dust emission during dredging activity. Periodic monitoring of air quality will be carried out and prompt remedial action should be undertaken in case deviations from NAAQS are recorded.
- 6. There shall be no disposal of solid or liquid waste in the coastal area. Solid waste management shall be as per Solid Wastes Management Rules, 2016.
- 7. CIDCO to implement C & D waste management plan strictly as per Construction and Demolition Waste Management Rules, 2016.
- 8. During the construction phase, sustainable construction practices & exploration of other alternatives needs to be explored by the CIDCO to maintain the stability & integrity of the Coastal environment. Necessary training / awareness should be imparted to contractors & workers so that adequate environmental safeguards could be implemented on site, during execution of the project activities.
- CIDCO to ensure that indigenous species of trees should be planted using Miyawaki method.
- 10.PP to ensure that noise and vibration level is within permissible limit during construction phase of the project. Noise barriers are erected at appropriate locations.
- 11. Project proponent should implement Environment Management plan for the project effectively and efficiently during construction and

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operational phase of the project to ensure that coastal environment is protected. It is also suggested to have a third-party monitoring/Audit of all such management initiatives by Govt agency during and after completion of project from time to time.

- 12. No labour camp are allowed in CRZ area & it should also be ensured that the waste water from these entities should not be released into sea
- 13. There shall be no disposal of solid or liquid waste in the coastal area. Solid waste management shall be as per Solid Wastes Management Rules, 2016.
- 14. Debris generated during the project activity should not be dumped in CRZ area. It should be processed scientifically at a designated place.
- 15. This CRZ recommendation is subject to final outcome of Hon'ble NGT matter bearing OA No. 175/2024 (Paramparik Macchimar Bachao Samajik Kruiti Sammittee Vs MCZMA &Ors)
- 16. All other required permissions from the concerned statutory authorities should be obtained prior to commencement of the work.

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Item No.23:

Proposed construction of Proposed Sloping Ramp and

Retaining Wall at Kongaon, Thane, Maharashtra by MMB

#### INTRODUCTION:

The Chief Engineer, MMB along with Consultant presented the proposal before the Authority.

The MMB has proposed Construction of Proposed Sloping Ramp and Retaining Wall at Kongaon, Thane. Currently, there is no existing structure for safe access to boats. The proposed sloping ramp will facilitate safe and convenient embarkation and disembarkation in boat, while the retaining wall will safeguard nearby land during high tides

#### **DELIBERATIONS:**

The MMB has submitted the CRZ map in 1:4000 scale prepared by the NCSCM, Chennai. The Authority noted that the NCSCM map and report mentions about the project of jetty and allied facilities. Whereas, the proposal submitted by the MMB is for construction of Proposed Sloping Ramp and Retaining Wall.

During the MMB clarified that by mistakenly old CRZ map & report has been submitted, instead of map showing the proposed activities of sloping ramp and retaining wall.

#### **DECISION:**

The Authority opined that MMB need to submit the application with correct CRZ map showing the proposed activities. Accordingly, the Authority after discussion decided to defer the matter.

Member Secretary

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<u>Item No. 24:</u> Repairing of damaged Beacons Structures with New Platform

Constructed for Light Installation at Gorai - Borivali, Mumbai

Suburban by MMB

#### INTRODUCTION:

The Chief Engineer, MMB along with Consultant presented the proposal before the Authority.

MMB has proposed repairing of damaged Beacons Structures with New Platform Constructed for Light Installation at Gorai - Borivali, Mumbai Suburban

Proposed project is construction of 2 no. of Light Beacon and repair of 3 no. of existing Light Beacons. Proposed beacon 4 will be constructed on 600 mm pile reinforcement. Deck of dimension  $3.5 \times 2.5$  m will be constructed on piles. Bottom of deck will be 1.5m above highest toe level. Solar indicator light will be fitted on cylindrical mount constructed on the deck. Beacon no. 5 will be constructed on Dia.R.C.C pile

Consultant presented that, the proposed activities of 4 beacons (B2 to B5) are situated in CRZ IVA area mainly, as per approved CZMP, 2019. Repairing of damaged beacon structure-B1 is situated in No Development Zone area.

#### DELIBERATIONS:

The MMB has submitted the CRZ map in 1:4000 scale superimposing the project layout, as prepared by the NCSCM, Chennai. As per the report of the NCSCM:

Sr No.	Proposed Activities	Area in Sqm
1	Repairing of damaged beacon structure- B1	No Development Zone
2	Repairing of damaged beacon structure- B2	Waterbody- CRZ IVA
3	Repairing of damaged beacon structure- B3	Waterbody- CRZ IVA
4	New Platform- Light Installation- B4	Waterbody- CRZ IVA
5	New Platform- Light Installation- B5	Waterbody- CRZ IVA

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The MMB has submitted the EIA report prepared by the M/s Building Environment (India) Pvt Ltd. The Authority noted the observations of the EIA report, anticipated impacts and mitigations measures proposed in the project.

As per the EIA report, Gorai village is located on the west coast of the Arabian Sea and serves as a major fishing port in the Mumbai Suburban district. The navigational channel at Gorai port includes rocky areas that become submerged during high tide, creating a risk of boat accidents. There are currently three beacons in place to guide boats, but they are in dilapidated condition and two new beacons need to be constructed to avoid the accidents of boats in navigational channel. The project is necessary to improve navigational safety and reduce the risk of accidents for fishing and transport vessels.

Certain Mitigation measures as suggested in the EIA report is as follows:

- The sea bottom being rocky turbidity of the sea water is anticipated to be less.
- Carrying out piling during low tide may reduce sediment suspension and turbidity of water.
- Storage of the raw materials should be done beyond the intertidal region on mainland to avoid any spillage in marine environment.
- Deployment of trained workers can minimize chances of concrete spillage in work area.

The Authority noted that Beacons are critical tool in ensuring navigations safety for the boats which is a permissible activity in CRZ IV as per para 5.4 (iii) of the CRZ Notification, 2019. Further, as per para 5.1.2 (ii) and 5.3 (i) of the CRZ Notification, 2019, proposed activity is permissible in CRZ IB and CRZ III (NDZ) area respectively.

The Authority further noted as per para 7(ii) of the CRZ Notification, 2019 & OM dated 29<sup>th</sup> November, 2022, the proposal requires final CRZ clearance from the MoEF&CC, New Delhi. The said provision is reproduced as follows:

"All development activities or projects in CRZ-I and CRZ-IV areas, which are regulated or permissible as per this notification, shall be dealt with by Ministry of Environment, Forest and Climate Change for CRZ clearance, based on the recommendation of the concerned Coastal Zone Management Authority"

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#### **DECISION:**

After deliberation, the Authority decided to recommend the proposal from CRZ point of view under CRZ Notification, 2019 to MoEF&CC New Delhi subject to compliance of following conditions:

- 1. The proposed project should be carried out strictly as per the provisions of CRZ Notification, 2019 (as amended from time to time) and guidelines/clarifications given by MoEF&CC from time to time.
- 2. During piling activity, due precaution should be taken to avoid adverse impact on marine life. Paint used for the beacon should not be harmful to marine life.
- 3. On site generated construction waste should be stored at designated place and disposed to authorized agency
- 4. Storage of the raw materials should be done beyond the intertidal region on mainland to avoid any spillage in marine environment.
- 5. Project proponent should implement Mitigation measures and Environment Management plan as stipulated in the EIA report, effectively and efficiently during construction and operational phase of the project to ensure that coastal environment is protected.
- 6. All other required permission from different statutory authorities should be obtained before starting construction at the site shall be ensured by Urban Local Body.

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Member Secretary Chairperson

Item No. 25:

Proposed various infrastructure projects works within 12.5% scheme at Dronagiri, Navi Mumbai, Maharashtra by M/S City and Industrial Development Corporation of Maharashtra Ltd. (CIDCO)

The CIDCO officials along with consultant presented the proposal before the Authority.

The CIDCO has proposed various infrastructure projects works within 12.5% scheme at Dronagiri, Navi Mumbai. The proposal was earlier deliberated in considered in 165th Meeting of MCZMA dated 8 March 2023, wherein the Authority decided to recommend the project to MoEF&CC under CRZ Notification, 2011. Presently, the CIDCO re-submitted the project, in view of the CRZ Notification, 2019.

As CIDCO being the project planning authority of this area all the infrastructural facilities are being developed by CIDCO for the benefit of public in that area. The designated sectors have been developed as per the development plan only balance infrastructure works like Road and Bridges which interlinks the sectors as well as other infrastructural facilities like Sewage Treatment Plants, Sewage Pumping House, needs to be developed.

The project proposal is for developing infrastructure. The project will involve development of basic infrastructure such as roads, Bridges, sewer line and storm water network etc. Major activities proposed are as follows:

3	Construction of Sewage Treatment Plant 108 MLD at sector 56 & 59 at <u>Dronagiri</u>	56,59	18*52'8_20"N	72"57"26.29"E
2	Construction of Sewage Pump House 1 at sector 51A of Dronagiri Node	51A	18"52'17.56"N	72*57'54.03"E
3	Construction of Sewage Pump House 2 at sector 57 of Dronagiri Node	57	18"51"52.22"N	72°57'38.08"€
4	Construction of Bridge 1 across holding pond at sector 55, 56	55,56	18"51"54.75"N	72"57`43.06" <b>£</b>
5	Construction of Bridge 2 across holding pond at sector 51, 52	51, 52	18°52'15.14"N	72°57'52.89"E
6	Construction of 22 m wide channel in sector 15	15	18*53'29.25*N	72"57"52.58"E
7	Construction of 22 m wide channel in sector 41	41	18°52′58.32″N	72*57′34.27″E
8	Construction of Road and Services thereof in sector 15	15	18°53′30.13″N	77°57′52.40″E
9	Construction of Road and Services thereof in sector 15A	15 <b>A</b>	18°53′17.41°N	72°58′1.45″£
10	Construction of Road and Services thereof in sector 41	41	18°52'55.71"N	72*57*35.35*8
11	Construction of Road and Services thereof in sector 48	48	18°52'19.89"N	72°57°31.98″E
12	Construction of Road and Services thereof in sector 50	50	18"52'18.38"N	72°57'45.20"E
13	Construction of Road and Services thereof in sector 56	56	18"52"3.47"N	72"57'36.17"8
14	Construction of Road and services thereof in Sector 15 up to STP in Sector 15A	15A	18°53′18.71″N	72"57"47.42"8

Member Secretary

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15	Construction of Road and Services thereof in sector 27	27	18*53'30.55"N	72°57′20.82″E
16	De-silting of Channels in Sector 47	47	18°52'34.66"N	72°57′31.91″E
17	De-silting of Channel in Sector 48	48	18°52′24.60″N	72°57′31.37″E
18	De-silting of Channel in Sector 50	50	18°52′24.94″N	72°57′45.04″E
19	De-silting of Channel in Sector 51	51	18°52'24.03"N	72°57'55.05"E
20	De-silting of Channel in Sector 52	52	18°52′8.32″N	72°58′2.91″E
21	De-silting of Channel in sector 53	53	18°51'55.94"N	72°58′7.25″E
22	De-silting of Channel in Sector 54	54	18°51′52.41″N	72°57′53.85″E
23	De-silting of Channel in Sector 55	55	18°52"4.29"N	72°57′50.05″E

The 23 no. of Infrastructure project activities are identified in the scheme of 12.5%. All these activities are in Coastal regulation zone of CRZ IA, CRZ-IA (50m Mangrove Buffer Zone), CRZ-II, CRZ-IB and CRZ-IVB.

There are no agriculture and forest land except mangroves involved in this project. The mangroves damaged due to construction of bridges, road and sewer line are already surveyed by CIDCO.

#### DELIBERATIONS:

The CIDCO has submitted the CRZ map in 1:4000 scale prepared by the IRS, Chennai. As per the IRS report, the project site at Dronagiri, Navi Mumbai falls near creek. The proposed infrastructure in the project site at Dronagiri, Navi Mumbai falls in CRZ IA, CRZ IA (50 m mangrove buffer zone), CRZ IB, CRZ II, CRZ IVB and outside CRZ area as per CRZ Notification, 2019. Area details of the proposed project site is as follows:

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Description	CRZ - Classification	Area in Sq.m	Total Area in Sq.m
Construction of	CRZ - IA	59202.10	
Sewage Treatment Plant	CRZ - IA (50m Mangrove Buffer Zone) CRZ - II	13087.28 2649.33	74938.71
Construction of	CRZ-IA	3134.73	
2 Nos. of Sewege Pump	CRZ - IA (50m Mangrove Buffer Zone)	6896.56	10376.29
House	CRZ - II	345.00	
	CRZ - IA CRZ - IA (50m Mangrove Buffer	820.30	
Construction of	Zone)	6051.77	7650.15
2 Nos. Bridges	CRZ - IB	567.88	
	CRZ - IVB	210.20	
Construction of	CRZ - IB	237.48	
22m Wide	CRZ - II	253.59	2682.22
Channel	Outside CRZ	2191.15	
E .	CRZ - IA	37.75	
Construction of	CRZ - IA (50m Mangrove Buffer Zone)	19421.74	
Balance Roads	· ·	65.09	28864.77
	CRZ - II	1685.57	
	Outside CRZ	7654.62	
Providing laying and	CRZ - IA (50m Mangrove Buffer Zone)	3857.85	
Jointing	CRZ - IB	543.62	6913.91
Sewerage	CRZ - II	1714.96	30 13.0 1
Lines	Outside CRZ	797.48	
	CRZ - IA	25452.13	
	CRZ - IA (50m Mangrove Buffer		,
Desilting of	Zone)	35137.64	70042.40
Channels	CRZ - IB	5322.78	72943.16
	CRZ - II	1082.52	i
	Outside CRZ	5948.09	

The CIDCO has submitted the EIA report prepared by the M/s Manushrusti (Nabet Accredited). The Authority noted the observations, anticipated impacts of the EIA report along with mitigation measures and Environment Management Plan. Certain observations/ measures as mentioned in the EIA report is as follows:

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- Construction activities involve alterations in the local physiography and drainage patterns. The impacts on physiography may include destabilisation of slopes due to cut and fill operations. Cut and fills will be designed for improvement to the road geometry,
- The cutting filling will be carried out as per the soil investigation report and structural engineer recommendations with due care of local environment and social sensitivity. The excavation of soil shall be conducted as per the EMP and debris will be properly disposed of as per proper permission from the respective land authority and parallel cross drainage structures will be added to improve drainage. There would be no grading of the roadside area. Other than road infrastructure like drainage lines and STP will envisage the excavation.
- Adequate slope protection measures are proposed as part of engineering design.
   Removal of trees to facilitate construction will cause erosion problems until the proposed avenue plantation is established. Silt fencing to be provided to prevent eroded material from entering watercourses. The regular cleaning of the drains by the Contractor will ensure that these structures will not be overloaded or rendered ineffective due to overload. Unauthorised debris disposal will be restricted.

The Authority further noted that as per the EIA report, Loss of about 4920 mangroves trees occur in the proposed project. Compensatory afforestation shall be adopted to mitigate the loss and mangroves tree felling permission must be taken from concerned authority. No Presence of Endangered/ Schedule - I species in the project area confirm by site visitas well as consultation with community and Forest/Wildlife department. Apart from this, micro-ecosystems developed on the project site with the birds, animals and insects using the plantation over the years would be lost due to loss of their habitat.

Expert Members suggested that CIDCO shall implemental all possible measures to have minimum mangrove loss due to proposed project. Mangrove Plantation plan as stipulated in CRZ Notification, 2019, shall be implemented in consultation with the Mangrove Cell. For mangrove cutting, Forest Clearance, Mangrove NoCetc, including prior High Court permission shall be obtained. Expert Members further suggested that indigenous species of terrestrial trees should be planted using Miyawaki method.

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The Authority noted that various infrastructure project proposed by the CIDCO is necessary public interest utility projects for the Dronagiri Node of Navi Mumbai.

The Authority noted the permissibility of various infrastructure activities under CRZ Notification, 2019:

- 1) As per para 5.1.1(iii) of CRZ, 2019, following is permissible in CRZ IA area:
  - "Construction of roads and roads on stilts, by way of reclamation in CRZ-I areas, shall be permitted only in exceptional cases for defence, strategic purposes and public utilities, subject to a detailed marine or terrestrial or both environment impact assessment, to be recommended by the Coastal Zone Management Authority and approved by the Ministry of Environment, Forest and Climate Change; and in case construction of such roads passes through mangrove areas or is likely to damage the mangroves, a minimum three times the mangrove area affected or destroyed or cut during the construction process shall be taken up for compensatory plantation of mangroves"
- 2) As per para 5.1.1 (ii0 of the CRZ Notification, 2019, following is permissible in 50 mangrove buffer zone: "In the mangrove buffer, only such activities shall be permitted like laying of pipelines, transmission lines, conveyance systems or mechanisms and construction of road on stilts, etc. that are required for public utilities"
- 3) As per para 5.1.2(i)(c) of CRZ, 2019, in CRZ IB, following is permissible:
  - (a) foreshore facilities like bridges are permissible in CRZ IB area.
  - (c) road on stilts, provided that such roads shall not be authorised for permitting
- development on the landward side of such roads, till the existing High Tide Line...:
  - (d) maintenance and clearing of waterways, channels, ports and hover ports for coast guard;
  - (e) measures to prevent sand bars, installation of tidal regulators, laying of storm water drainsor for structure for prevention of salinity ingress and freshwater recharge.

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- (b) As per para 5.1.2(ix), "Treatment facilities for waste and effluents and conveyance of treated effluents" is permissible in CRZ IB
- (c) As per para 5.1.2(x), "Storm water drains" is permissible in CRZ IB
- (d) As per para 5.2(i) of the CRZ Notification, 2019, activities permissible in CRZ IB will be permitted in CRZ II area.

The Authority further noted as per para 7(iii) of the CRZ Notification, 2019 & OM dated 29<sup>th</sup> November, 2022, the proposal requires final CRZ clearance from the MoEF&CC, New Delhi. The said provision is reproduced as follows:

"For all other permissible and regulated activities as per this notification, which fall purely in CRZ-II and CRZ-III areas, the CRZ clearance shall be considered by the concerned Coastal Zone Management Authority and such projects in CRZ-II and III, which also happen to be traversing through CRZ-I or CRZ-IV areas or both, CRZ clearance shall, however be considered only by the Ministry of Environment, Forest and Climate Change, based on recommendations of the concerned Coastal Zone Management Authority"

#### **DECISION:**

After deliberation, the Authority decided to recommend the proposal from CRZ point of view under CRZ Notification, 2019 to MoEF&CC New Delhi subject to compliance of following conditions:

- 1. The proposed project should be carried out strictly as per the provisions of CRZ Notification, 2019 as amended from time to time and with a commitment of protection and conservation of coastal environment.
- 2. CIDCO to ensure that the road design and construction method should be carried out with exercising extra caution with objective to have less impact on the mangroves and coastal ecology.
- 3. Prior High Court permission should be obtained by the PP as per Hon'ble High Court order dated 17<sup>th</sup> Sep, 2018 in PIL 87/2006, since the project involves cutting of mangroves.
- 4. PP to obtain the prior Forest Clearance under Forest (Conservation) Act, 1980.
- 5. NoC from the Mangrove Cell should be obtained by the PP. Compensatory mangrove plantation should be carried out in consultation with Mangrove Cell.

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- 6. PP shall undertake compensatory mangrove plantation in accordance with provisions of the CRZ Notification, 2019, in consultation with the Mangrove Cell.
- 7. Adequate measures should be implemented in order to mitigation fugitive dust emission during dredging activity. Periodic monitoring of air quality will be carried out and prompt remedial action should be undertaken in case deviations from NAAQS are recorded.
- There shall be no disposal of solid or liquid waste in the coastal area.
   Solid waste management shall be as per Solid Wastes Management Rules,
   2016.
- 9. CIDCO to implement C & D waste management plan strictly as per Construction and Demolition Waste Management Rules, 2016.
- 10. During the construction phase, sustainable construction practices & exploration of other alternatives needs to be explored by the CIDCO to maintain the stability & integrity of the Coastal environment. Necessary training / awareness should be imparted to contractors & workers so that adequate environmental safeguards could be implemented on site, during execution of the project activities.
- 11. CIDCO to ensure that indigenous species of trees should be planted using Miyawaki method.
- 12. Project proponent should implement Environment Management plan for the project effectively and efficiently during construction and operational phase of the project to ensure that coastal environment is protected. It is also suggested to have a third-party monitoring/Audit of all such management initiatives by Govt agency during and after completion of project from time to time.
- 13. No labour camp are allowed in CRZ area & it should also be ensured that the waste water from these entities should not be released into sea
- 14. There shall be no disposal of solid or liquid waste in the coastal area. Solid waste management shall be as per Solid Wastes Management Rules, 2016.
- 15. Debris generated during the project activity should not be dumped in CRZ area. It should be processed scientifically at a designated place.
- This CRZ recommendation is subject to final outcome of Hon'ble NGT matter bearigOA No. 175/2024 (Paramparik Macchimar Bachao Samajikk ruiti Sammittee Vs MCZMA &Ors)
- 17. All other required permissions from the concerned statutory authorities should be obtained prior to commencement of the work.

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<u>Item No. 26:</u> Providing, lowering, laying and commissioning of pipeline below Patalganga Riverbed at Kharpada under Hetewane Water supply scheme in Raigad, Maharashtra by CIDCO.

#### INTRODUCTION:

The CIDCO officials along with Consultant presented the proposal before the Authority.

The CIDCO has prepared Navi Mumbai Development Plan (NMDP) covering 95 villages into 14 well planned and self-sustained nodes. CIDCO plays a key role in planning and developing Navi Mumbai, offering amenities such as housing, transportation, water supply and social infrastructure.

The CIDCO has commissioned Hetawane Water Supply Scheme in 2002. The scheme includes pipelines from Hetawane dam to various CIDCO nodes. The pipeline network includes a truss bridge over the Patalganga River which is lifeline of this network, and currently it is in a severely dilapidated condition

Hetawane Water supply scheme caters to need of around 170 MLD to ~18 lakhs population of various CIDCO nodes such as Kharghar, Dronagiri, Ulwe and various en-routed villages in Panvel&Uran Taluka. This is the only source ensuring uninterrupted and reliable water supply to the entire CIDCO jurisdiction area.

Patalganga River is one of the most important part of this scheme. The steel members of this bridge are corroded/rusted due to salty coastal atmosphere and in severely damage and critical condition, posing significant risk to uninterrupted water supply to the region.

#### DELIBERATIONS:

The CIDCO has submitted the CRZ map in 1:4000 scale prepared by the IRS, Chennai. As per the IRS report, the project site falls in CRZ IA (50 m mangrove buffer zone), CRZ IB, CRZ III (NDZ), CRZ IVB area.

CRZ category	Length	Area (Sqm)
CRZ IA (50 m mangrove	57.99	3215.80
buffer zone),		
CRZIB	32.19	1457.36

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CRZ III (NDZ),	124.46	4185.08
CRZ IVB	103.88	3637.57
Total area	318.52	12495.81

Consultant presented that structural audit carried out by the College of Engineering, Pune (COEP) mentioned that the system is suggested for temporary use. Thus, laying of proposed 1800mm dia. pipeline below riverbed is the only feasible emergency alternative to ensure uninterrupted water supply.

The PP has submitted the EIA report prepared by M/s Aaditya Environmental Service Pvt Ltd. The Authority noted the observations, anticipated impacts of the EIA report along with mitigation measures and Environment Management Plan.

Expert Members raised a concern that the laying of the pipeline below Patalganga Riverbed is proposed using the open excavation method. This will adversely impact the river hydrology and its ecosystem. Expert Members further observed that there is island in the river which will also get impacted adversely due to excavation.

Consultant responded stating that, two main methods were evaluated for reinstating the pipeline across the Patalganga River. The first option, open cut excavation with cofferdam construction is technically feasible and allows direct access for pipeline laying. The second option, micro-tunneling, poses significant challenges due to the riverbed's rocky composition, increasing risks of machine instability and misalignment. Considering these factors, technical feasibility, risk mitigation, cost, and timeline, the open excavation method was recommended as the safer, more practical, and cost-effective solution for reinstating the pipeline beneath the river.

Expert Members suggested that considering the adverse impact of open excavation in the river bed, CIDCO should explore the option of bridge across the river for laying of the pipeline, to minimize the impact on the river ecosystem& island present in the river. CIDCO officials agreed to explore other options.

#### DECISION:

In the light of above, the Authority decided that CIDCO need to re-work the proposal and explore other options like bridge across the river for laying of

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the pipeline, to minimize the impact on the river ecosystem& island present in the river. Accordingly, after deliberation, the Authority decided to defer the proposal.

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Item No.27:

Proposed construction of Storm Water Pumping Station (SWPS) 2 nos, along with construction of Gabion wall & RCC Retaining wall on the bank of Gadhi River Phase II at Old Panvel, Raigad by Panvel Municipal Corporation.

#### **INTRODUCTION:**

The Municipal Commissioner, Panvel Municipal Corporation along with consultant presented the proposal before the Authority.

The proposed project is of construction of Storm Water Pumping Station (SWPS) 2 nos, along with construction of gabion wall & RCC retaining wall on the bank of Gadhi River Phase II at Old Panvel falls under flood mitigation and hydraulic infrastructure development aimed at reducing flood risks and protecting nearby communities and infrastructure.

The MC, PMC explained that During July 2019 & 2020 monsoon, residents of Panvel faced significant difficulties due to waterlogging in many areas, particularly in the low-lying regions. It was also observed that although the rainfall intensity was lower compared to the heavy rainfall of July 25, 2005, the Sai Nagar area in Old Panvel experienced waterlogging approximately 4 to 5 feet. In response, the Panvel Municipal Corporation decided to conduct a study on flood protection measures.

The project aims to protect human life of old Panvel Area, local infrastructure, roads, buildings & businesses from flood-related water damage, especially in low-lying areas.

Consultant presented that the proposed activities falls in CRZ IA, CRZ IB and CRZ II area as per approved CZMP, 2019.

#### **DELIBERATIONS:**

The PP has submitted the CRZ map in 1:4000 showing the proposed activities, as prepared by the IRS, Chennai. As per the said IRS report, proposed work falls in CRZ IA, 50 m mangrove buffer zone area, CRZ IB and CRZ II as per CRZ Motivation, 2019. As per the IRS report, the CRZ categorization of the proposed work is as follows:

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# Minutes of the $181^{\rm st}$ Meeting of Maharashtra Coastal Zone Management Authority held on $11^{\rm th}$ & $14^{\rm th}$ July 2025

Table 2. The area details of Project site under various CRZ

Description	CRZ - Classification	Area in Sq.m	Total Area in Sq.m	
Proposed Approach	CRZ - 18	66.38	930.00	
Road	CRZ - H	863.62	950.00	
proposed pumping	CRZ - IA	404.28	650.00	
Station - 1	CRZ - IB	245.72	850.00	
8	CRZ - IA	299.71		
Proposed pumping Station - 2	CRZ - IB	223.32	650.00	
SEAUGH - Z	CRZ - U	126.97		
Proposed Approach	CRZ - IA	121.32		
Road (Earthen	CRZ - 18	1081,22	1240.00	
Embankment for Gabion wall)	CRZ-II	37.46		
Description	CRZ - Classification	Length in Meters	Total Length in Meters	
Protection Wall	CRZ - IB	21.47		
Gabion - 01	CRZ-II	653.53	675.00	
	CRZ - IA (50m Mangrove Buffer Zone)	169.99	4	
Protection Wall	CRZ - 19	22.19	285.00	
Gabion - 02:	CRZ - II	92.82		
Protection Walt	CRZ - IA	14.49		
			190.00	
Gabion - 03	CRZ - 18	175.51	1	
Gabion - 03 Protection Wall RCC -		175.51 143.42	<u> </u>	
	CRZ - 18  CRZ - 18  CRZ - 11	<del> </del>	590.00	
Protection Wall RCC - 01	CRZ - 18	143.42	590.00	
Protection Wall RCC - 01 Protection Wall RCC -	CRZ - IB CRZ - II	143.42 446.58		
Protection Wall RCC - 01	CRZ - IB CRZ - II CRZ - IA (50m Mangrove Buffer Zone)	143.42 446.58 101.76		
Protection Wall RCC - 01 Protection Wall RCC -	CRZ - IB CRZ - II CRZ - IA (50m Mangrove Buffer Zone) CRZ - IB	143.42 446.58 101.76 4.84	150.00	
Protection Wall RCC - 01 Protection Wall RCC - 02	CRZ - IB  CRZ - II  CRZ - IA (50m Mangrove Buffer Zone)  CRZ - IB  CRZ - II	143.42 446.58 101.76 4.84 43.40	150.00	
Protection Wall RCC - 01 Protection Wall RCC - 02 Protection Wall RCC -	CRZ - I8 CRZ - II CRZ - IA (50m Mangrove Buffer Zone) CRZ - IB CRZ - II CRZ - II	143.42 446.58 101.76 4.84 43.40 30.02	150.00	
Protection Wall RCC - 01 Protection Wall RCC - 02 Protection Wall RCC -	CRZ - IB CRZ - II CRZ - IA (50m Mangrove Buffer Zone) CRZ - IB CRZ - II CRZ - IB CRZ - II	143.42 446.58 101.76 4.84 43.40 30.02 4.98	150.00 35.00	
Protection Wall RCC - 01 Protection Wall RCC - 02 Protection Wall RCC - 03	CRZ - IB  CRZ - II  CRZ - IA (50m Mangrove Buffer Zone)  CRZ - IB  CRZ - II  CRZ - IB  CRZ - II  CRZ - II  CRZ - IA	143.42 446.58 101.76 4.84 43.40 30.02 4.98 36.71	150.00 35.00	
Protection Wall RCC - 01 Protection Wall RCC - 02 Protection Wall RCC - 03	CRZ - IB  CRZ - IA (50m Mangrove Buffer Zone)  CRZ - IB  CRZ - II  CRZ - IB  CRZ - II  CRZ - IB  CRZ - II  CRZ - IA  CRZ - IB  CRZ - IB	143.42 446.58 101.76 4.84 43.40 30.02 4.98 36.71 40.51	150.00 35.00	
Protection Wall RCC - 01 Protection Wall RCC - 02 Protection Wall RCC - 03	CRZ - IB  CRZ - II  CRZ - IA (50m Mangrove Buffer Zone)  CRZ - IB  CRZ - II  CRZ - IB  CRZ - II  CRZ - IA  CRZ - IA  CRZ - IA	143.42 446.58 101.76 4.84 43.40 30.02 4.98 36.71 40.51 292.78	590.00 150.00 35.00 370.00	

The PMC has submitted the EIA report prepared by the Yash Engineering Consultant Pvt Ltd and ACE Environment (Nabet Accredited).

The Authority noted the observations of the EIA report, mitigation measures, Environment Management Plan as suggested in the EIA report.

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Certain observations and mitigation measures proposed in the EIA report is as follows:

- To enhance flood resilience in the low-lying region adjacent to Sai Nagar, de-siltation of the holding pond is proposed. This measure aims to increase the water holding capacity of the pond, thereby reducing the hydraulic load on Storm Water Pumping Station 02 and preventing the lateral spread of stormwater into the nearby residential area. A total area of 1120 Sq.mt. will be desilted, involving the excavation of 1792 cubic meters of silt. The de-siltation activity will be undertaken while maintaining a 2.00 M buffer from the holding pond boundary to avoid structural disturbance. As a part of intervention, few mangroves may be required to cut for the execution of the work and to restore the hydraulic efficiency of the pond.
- In conjunction with de-siltation, a 370.00 M long retaining wall is proposed to be constructed along the approach road, extending from the residential boundary of Sai Nagar to SWPS 02. This stretch lies to the left of the BP Marine Academy and is particularly susceptible to flooding due to limited drainage and natural depressions. The retaining wall will serve to reinforce the pond boundary and contain excess water during peak rainfall, thereby channeling it effectively towards the pumping station. This structural addition is intended to work synergistically with the de-siltation measures to mitigate inundation risks, improve local drainage conditions and safeguard the surrounding residential community
- Storm water pumping stations are essential for draining areas where gravity-based drainage is ineffective due to the topography, such as low lying or tidal regions, or when the receiving water bodys level is higher than the outfall

Dr Anish Andheria asked consultant about the necessity of the Retaining wall. Consulate replied that proposed retaining wall help in improving the local drainage conditions and safeguard the surrounding residential community. Dr Anish suggested that hydraulic modelling study need to be carried out for understanding the maximum flowrate of the Gadi River and whether proposed retaining wall cause flooding in upstream area of the river.

Dr.Rangnath expressed that PMC should undertake the required studies from the expert agency like CWPRS to understand the flow conditions in the Gadi River. Proposed retaining wall should not hamper the free flow of water in the mangrove area present in the Gadi River at certain locations.

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The Authority observed that, walkway and pathway is also proposed within the High Tide of the Gadi River/ Creek which is tourism activity. Expert Members observed that, walkway and pathway would obstruct the free flow of Gadi River/ Creek. The Authority suggested the Panvel Municipal Corporation to remove the said component of the project, since the project aims to mitigate the flooding in the surrounding area and it is not a tourism project.

The Authority noted the permissibility of the project, as per CRZ Notification, 2019:

- 1. As per para 5.1.2 of CRZ Notification, 2019:
- "Activities shall be regulated or permissible in the CRZ-I B areas as under:-
- (i) Land reclamation, bunding, etc. shall be permitted only for activities such as,-
  - (f) measures to prevent sand bars, installation of tidal regulators, laying of storm water drains or for structure for prevention of salinity ingress and freshwater recharge.
  - (ii) Activities related to waterfront or directly needing foreshore facilities such as ports and harbours, jetties, quays, wharves, erosion control measures, breakwaters, pipelines, lighthouses, navigational safety facilities, coastal police stations, Indian coast guard stations and the like."
  - 2. As per para 5.2 of CRZ Notification, 2019:
    - "(i) Activities as permitted in CRZ-I B, shall also be permissible in CRZ-II, in so far as applicable."
  - 3. As per para 7(ii) of the CRZ Notification, 2019 (amended as on 24<sup>th</sup> November, 2022) & OM dated 29<sup>th</sup> November, 2022, the proposal requires final CRZ clearance from the MCZMA, being a standalong ramp (jetty).

"For all other permissible and regulated activities as per this notification, which fall purely in CRZ-II and CRZ-III areas, the CRZ clearance shall be considered by the concerned Coastal Zone Management Authority and such projects in CRZ -II and III, which also happen to be traversing through CRZ-I or CRZ-IV areas or both, CRZ clearance shall, however be considered only by the Ministry of Environment, Forest and Climate

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Change, based on recommendations of the concerned Coastal Zone Management Authority with the following exceptions, namely"

#### DECISION:

After deliberation, the Authority decided to recommend the proposal from CRZ point of view under CRZ Notification, 2019 to MoEF&CC, New Delhi subject to compliance of following conditions:

- 1. The Panvel Municipal Corporation shall ensure that the proposed construction should be carried out strictly as per the provisions of CRZ Notification, 2019 (as amended from time to time) and guidelines/clarifications given by MoEF&CC from time to time.
- 2. Panvel Municipal Corporation should strictly ensure that there is no reduction in the carrying capacity of Gadi River due to construction of Retaining wall.
- 3. There should not be Walkway and pathway which would obstruct the free flow of Gadi River/ Creek. Free flow of Gadi River should not be hampered.
- 4. Prior High Court permission should be obtained, as per Hon'ble High Court order dated 17<sup>th</sup> September, 2018 in PIL 87/2006, if proposed work is in mangroves or within its 50 m buffer zone area.
- 5. PP shall undertake compensatory mangrove plantation in accordance with provisions of the CRZ Notification, 2019, in consultation with the Mangrove Cell.
- 6. NoC from Mangrove Cell shall be obtained by the PP.
- 7. Forest Clearance under Forest (Conservation) Act, 1980, if applicable shall be obtained.
- 8. Panvel Municipal Corporation shall implement Silt/ Muck Disposal Plan with all the mitigation / suggestive measures as prescribed in the EIA report.
- 9. All the safety measures and Disaster Management Plan should be implemented during construction and operation phase of the project.
- 10. Project proponent should implement Mitigation measures and Environment Management plan as stipulated in the EIA report, effectively and efficiently during construction and operational phase of the project to ensure that coastal environment is protected.
- 11. Debris generated during the project activity should not be dumped in CRZ area. It should be processed scientifically at a designated place, as per MSW Rules, 2016.

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- 12. Solid waste generated should be properly collected and segregated. Dry/inert solid waste should be disposed of to the approved site for land filling after recovering recyclable materials.
- 13. All other required permission from different statutory authorities should be obtained before starting construction at the site shall be ensured by Urban Local Body

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## Minutes of the 181st Meeting of Maharashtra Coastal Zone Management Authority held on 11th & 14th July 2025

Item No. 28: Proposed Construction of Sloping Ramp and Approach Road at Kevani Diva, Tal. Bhiwandi, Dist. Thane, Maharashtra by MMB

The MMB during the meeting submitted that the current proposal is withdrawn. Hence, the Authority decided to delist the matter from the records of the MCZMA.

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<u>Item No. 29:</u> Proposed Construction of Sloping Ramp at Kevani Diva, Taluka-Bhiwandi, District-Thane, Maharashtra by MMB

#### INTRODUCTION:

The Chief Engineer, MMB along with Consultant presented the proposal before the Authority.

The MMB has proposed Construction of Sloping Ramp and Approach Road at Kevani Diva, Tal. Bhiwandi, Dist. Thane, Slopping Ramp has dimensions 23 meter  $\times$  5 meter.

MMB officials presented that Kevani Diva is a small fishing village in Bhiwandi near the Ulhas River, where most residents rely on fishing and related activities for their livelihood. Currently, fishermen use temporary structures to launch boats, as there is no permanent landing facility, making embarkation and disembarkation difficult. To enhance safety and prevent accidents during boat operations, constructing a sloping ramp is essential. The sloping ramp will enhance boat connectivity to nearby areas like Kharbao, Kasheli, Kolshet, and Waghbil, helping fishermen and other residents to save travel time and easing road traffic congestion.

Consultant presented that the project site is situated in CRZ IB and CRZ IV B, as per approved CZMP, 2019 and per para 5.1.2 & 5.4 of the CRZ Notification, 2019, the proposed activity of slopping ramp is a permissible activity.

#### DELIBERATIONS:

The Authority noted that the MMB has submitted the CRZ map in 1:4000 scale of the project site, as prepaid by the NCSCM, Chennai. As per the said report, the Slopping Ramp falls in CRZ IB (42.43 Sqm) and CRZ IVB (115.61 Sqm)

The MMB has submitted the EIA report prepared by the M/s Building Environment (India) Pvt Ltd. The Authority noted the observations of the EIA report, anticipated impacts and mitigations measures proposed in the project.

The Authority noted that per para 5.1.2(a) & 5.4(iii) (ii) of the CRZ Notification, 2019, the proposed activity of slopping ramp is a permissible activity.

The Authority further noted as per para 7(ii) of the CRZ Notification, 2019 (amended on 24<sup>th</sup> November, 2022) & OM dated 29<sup>th</sup> November, 2022, the proposal of slopping ramp which is a standalone jetty requires CRZ clearance from the MCZMA, . The said provision is reproduced as follows:

"All development activities or projects in CRZ-I and CRZ-IV areas, which are regulated or permissible as per this notification, shall be dealt with by Ministry of Environment, Forest and Climate Change for CRZ clearance, based on the recommendation of the concerned Coastal Zone Management Authority with the following exceptions namely-

Stand alone jetties, salt works, Slipways, Temporary structures and Erosion control measures (like bunds, seawall, Gryones, Breakwaters, Submerged reef, sand nourishment etc)

which shall be dealt by concerned Coastal Zone Management Authority"

#### DECISION:

After deliberation, the Authority decided to grant the clearance from CRZ point of view under CRZ Notification, 2019 subject to compliance of following conditions:

- The proposed project should be carried out strictly as per the provisions of CRZ Notification, 2019 (as amended from time to time) and guidelines/ clarifications given by MoEF&CC from time to time.
- 2. Construction of slopping ramp should be with minimum interference with tidal water flow, so that free flow of tidal water is not obstructed.
- 3. PP to ensure that during construction and operation phase, ecologically sensitive features like mangroves if any, should not be cut/damaged for the project.
- 4. During construction phase, the project implementing agency should proactively implement all possible appropriate environmental measures to achieve minimum disturbance to coastal ecosystem.
- 5. Debris generated during the construction activity should not be dumped in CRZ area. It should be ensured that debris is processed in a scientific manner at a designated site, as per MSW Rules, 2016.
- 6. Project proponent should implement Mitigation measures and Environment Management plan as stipulated in the EIA report, effectively and efficiently during construction and operational phase of the project to ensure that coastal environment is protected.

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7. All other required permission from different statutory authorities should be obtained before starting construction at the site shall be ensured by Urban Local Body.

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Item No. 30:

Rehabilitation and Upgradation of Revas-Reddi Coastal Highway MSH-04 to Four/Two lane with paved shoulder Package - IV, Stretch 1 from Ch: 395+420 of Kunkeshwar Village to Ch: 397+000 at Kathwaneshwar Village in Devgad Taluka, Sindhudurg District, Maharashtra by MSRDC

#### INTRODUCTION:

The officials from MSRDC along with Consultant presented the proposal before the Authority. The MSRDC has proposed upgradation of Revas-Reddi Coastal Highway MSH-04 to Four/Two lane with paved shoulder Package - IV, Bridge from Ch: 395+420 of Kunkeshwar Village to Ch: 397+000 at Kathwaneshwar Village in Devgad Taluka, Sindhudurg District,

The MSRDC has proposed the Kunkeshwar bridge forms part of the overall Maharashtra State Governments larger development plan of Rehabilitation and Upgradation of the Revas - Reddi Coastal Highway project. As per the development plan of the State Government, such bridges along the coastal stretch are proposed to be taken up for implementation initially. This will help develop the missing links and/or provide better connectivity along the existing coastal highway. Subsequently, remaining portions of the coastal highway shall be planned to be taken up for implementation.

The proposed Kunkeshwar Bridge passes adjacent to the Kunkeshwar Temple. The current access road network to the temple is very narrow with steep gradients and sharp winding curves. Movement of larger vehicles along this road section is extremely difficult, thereby causing inconveniences to larger vehicular movement (bigger cars, buses, trucks, etc.) in the area of the temple.

The proposed Kunkeshwar bridge will help avoid these inconveniences for vehicular movement in the area of the Kunkeshwar Temple. Also, bridge being planned to be developed as a Special/ Iconic Bridge structure (Cable Stayed), will help serve as a tourism feature in the area.

Consultant presented that, the project site falls within the CRZ IA, CRZ IB, CRZ III area and road on stilt is permissible activity as per the CRZ Notification, 2019.

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#### DELIBERATIONS:

The Authority noted that the PP has submitted the CRZ map in 1:4000 scale showing the alignment. As per the IRS report, the CRZ status details of the proposed alignment is tabulated as below:

Description	CRZ - Classification	Length in Metres	Total Length in Metres
Proposed Approach	CRZ 1B	19.43	880.00
Road	CRZ - III (No Development Zone)	643.72	
	CRZ - HIB (200m to 500m from HTL)	216.85	
Proposed Bridge	CRZ - JB	327.99	330.00
Structure	CRZ - III (No Development Zone)	2.01	
Proposed Road on Stilt	CRZ - IA	81.75	90.00
	CRZ - 1B	0.1	
	CRZ - III (No Development Zone)	8.15	
Merging on Existing Road	CRZ - IA	280.00	280.00
Description	CRZ - Classification	Area in Sq.M	Total Area in Sq.M
Proposed Approach	CRZ - IB	278.76	10560.13
Read	CRZ - III (No Development Zone)	7678.8	
	CRZ - IIIB (200m to 500m from HTL)	2602.57	
Proposed Bridge	CRZ - [B	5833.25	5940.00
Structure	CRZ - III (No Development Zone)	106.75	
Proposed Road on Stilt	CRZ - LA	982.28	1081.05
	CRZ - IB	24.06	
	CRZ - III (No Development Zone)	74.71	
Merging on Existing Road	CRZ - IA	3358.96	3358,96

The Authority noted that PP has submitted the EIA report prepared by the Nabet Accredited Consultant. The observations of the EIA report, anticipated impacts, mitigation measures and Environment Management Plan haven been noted. As per the EIA report, the proposed project involves construction of approach road, bridge and road on stilt. The project does not involve any reclamation. Therefore, the project would not lead to any impact on

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the landuse and land cover of the region during construction as well as operation phase of the project.

Proposed bridge construction activity may cause siltation due to excavations on banks of sea. Siltation in turn would affect water and sediment quality thereby affecting planktonic flora and fauna in it. Raw material storages near sea may be subjected to contamination due to accidental fall or spillage of raw material into water body which in turn may affect biological components in it. Piling activity may affect water quality and cause sedimentation of sea due to muck flushings from piles. Construction debris generated during various construction activities may fall in water. This may have impact on population of planktonic flora and fauna present in marine water and sediment.

Consultant during the meeting presented that, alternative alignment studies have been studied. It was further presented that, three (03) alignments were considered and a multi-criteria analysis has been carried out. Considering various merits and demerits of each alignment as per IRC SP 19:2020, an evaluation matrix was prepared and accordingly the most preferred alignment has been recommended

The attributes for analysis of prime importance are physical, economic, social and environmental ones. After considering all the major aspects, the alternative alignments have been evaluated with respect to the five (5) major criteria – a) Engineering Aspects, b) Socioeconomic Aspects, c) Environmental Aspects, d) Cost Aspects and e) Safety Aspects Evaluation for each criteria & Overall evaluation through Decision Matrix

- 1) Option 1: Alignment passing along coastal line;
- 2) Option 2: Alignment follows the proposed alignment of Coastal Highway along coast line then it will traverse towards west side through the green field area and reconnect to existing coastal Highway MSH-4;
- Option 3: Alignment starts on proposed alignment of coastal highway along coastline and then turns from open land towards west side and join near approach road of temple with the existing MSH-4.

Consultant during the meeting presented that, based on technical assessment, stakeholder inputs, and site conditions, Option 1 - Coastal Alignment with Iconic Bridge is strongly recommended as the most sustainable and culturally aligned solution. It ensures minimal disruption, supports religious

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tourism, avoids existing habitations, and meets long-term traffic and development needs. Based on the aspect-wise studies, findings from the evaluation of all alternative alignment options, and the matrix and rating conducted in accordance with IRC SP 19-2020, Alignment Option 1 is recommended for implementation for the following reasons:

- a) Alignment Option 1 has the least impact on Coastal Regulation Zone (CRZ) IA, ensuring compliance with environmental regulations.
- b) The alignment Option 1 on existing road minimizes its impact on existing urban areas, thereby simplifying the land acquisition process.
- c) Alignment Option 1 follows existing route of the coastal road from Ch. 395+420 onwards, optimizing connectivity and reducing the need for extensive new infrastructure.
- d) Alignment Option 1 is located on outskirts of existing habitation area, resulting in less habitation and, consequently, a smoother LA process compared to Options 2 & 3.
- e) Alignment Options 2 & 3 necessitates the dismantling of the existing built-up area. In both the options gradient will be more than 5% and several trees would require to be cut. In comparison, Option 1 presents a more practical and efficient solution.
- f) Considering, Alignment Evaluation Matrix as Per IRC SP 19:2020, Option 1 is scoring highest mark, and accordingly Option 1 is recommended as most preferred option.

The Authority noted that the site is passing through beach area which is a pristine area. The Consultant during the meeting presented that design of the bridge/road on stilt is such a way designed that it will have lesser impact on the beach. Foot print of the bridge on the beach is minimum. Consultant further presented that, there are no mangroves along/in the project development corridor. Turtle nesting sites have been identified near the project corridor; nearest being at Katvan which is about 500 m away from the end chainage (km 397+000) of the project corridor. As such, the turtle nesting sites do not fall within the project development corridor.

The Authority noted that the MSRDC to ensure that road on stilt on both side on beach stretch should be barricaded in order to avoid litter dumping on the beach. Considering the unique coastal environment, the MSRDC to take all necessary measures while construction and operation phase to mitigate the environment impact of the proposed project. MSRDC to ensure that ecologically

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sensitive features such as turtle nesting sites, sand dune etc should not be disturbed during the construction and operation phase of the project.

The Authority noted that, proposed project along with three land connectors is permissible, in the light of para 5.1.1 (i) (a) CRZ IA, 5.1.2 for CRZ-IB, 5.2 for CRZ-II, 5.3 for CRZ-III & 5.4 (ii) for CRZ-IV of CRZ Notification, 2019

The Authority further noted as per para 7(iii) of the CRZ Notification, 2019 & OM dated 29<sup>th</sup> November, 2022, the proposal requires final CRZ clearance from the MoEF&CC, New Delhi. The said provision is reproduced as follows:

"For all other permissible and regulated activities as per this notification, which fall purely in CRZ-II and CRZ-III areas, the CRZ clearance shall be considered by the concerned Coastal Zone Management Authority and such projects in CRZ-II and III, which also happen to be traversing through CRZ-I or CRZ-IV areas or both, CRZ clearance shall, however be considered only by the Ministry of Environment, Forest and Climate Change, based on recommendations of the concerned Coastal Zone Management Authority"

#### DECISION:

After deliberation, the Authority decided to recommend the proposal from CRZ point of view under CRZ Notification, 2019 to MoEF&CC New Delhi subject to compliance of following conditions:

- The proposed project should be carried out strictly as per the provisions of CRZ Notification, 2019 as amended from time to time and with a commitment of protection and conservation of coastal environment.
- MSRDC to ensure that proposed activities should be carried out with exercising extra caution with objective to have less impact on the beach and coastal ecology.
- MSRDC to ensure that road on stilt on both side on beach stretch should be barricaded in order to avoid litter dumping on the beach.
- 4. Considering the unique coastal environment, the MSRDC to take all necessary measures while construction and operation phase to mitigate the environment impact of the proposed project.
- MSRDC to ensure that ecologically sensitive features such as turtle nesting sites, sand dune etc should not be disturbed during the construction and operation phase of the project.

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- 6. The design criteria and engineering of the project should incorporate considerations for climate change factors. This ensures that the project is resilient and adaptable to the potential impacts of climate change.
- 7. The health, safety, and environmental compliance measures should be thoroughly documented. Additionally, periodic training must be provided at all levels. This training should also be meticulously documented to ensure effective implementation and adherence to standards.
- 8. There shall be no disposal of solid or liquid waste in the coastal area. Solid waste management shall be as per Solid Wastes Management Rules, 2016.
- 9. MSRDC to implement C & D waste management plan strictly as per Construction and Demolition Waste Management Rules, 2016.
- 10. During the construction phase, sustainable construction practices & exploration of other alternatives needs to be explored by the MSRDC to maintain the stability & integrity of the shorelines. Necessary training / awareness should be imparted to contractors & workers so that adequate environmental safeguards could be implemented on site, during execution of the project activities
- 11. PP to ensure that noise and vibration level is within permissible limit during construction phase of the project. Noise barriers are erected at appropriate locations.
- 12. Project proponent should implement Environment Management plan for the project effectively and efficiently during construction and operational phase of the project to ensure that coastal environment is protected. It is also suggested to have a third-party monitoring/Audit of all such management initiatives by Govt agency during and after completion of project from time to time.
- 13. There shall be no disposal of solid or liquid waste in the coastal area. Solid waste management shall be as per Solid Wastes Management Rules, 2016.
- 14. Debris generated during the project activity should not be dumped in CRZ area. It should be processed scientifically at a designated place.
- 15. All Hazardous material should be disposed of scientifically as per Hazardous material management Rules.
- 16.PP to ensure that best industrial practices should be followed for fire safety measures and for conservation of coastal environment
- 17. All other required permissions from the concerned statutory authorities should be obtained prior to commencement of the work.

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<u>Item No. 31:</u> Construction of GroyneType Bund, Protection Bund and

Clearing of Waterways near Bhatye Bridge at Rajiwada,

Taluka and District - Ratnagiri, Maharashtra by MMB

#### INTRODUCTION:

The Chief Engineer, MMB along with Consultant presented the proposal before the Authority.

The MMB has proposed construction of Groyne Type Bund, Protection Bund and Clearing of Waterways near Bhatye Bridge at Rajiwada, Taluka and District - Ratnagiri

Gryone Type Bund	Length (m)	1060
	Width (m) Widest Section	82.82
	Width (m) Narrowest Section	30
Protection Bund	Total length of proposed bund (m)	780
Clearing and desilting of	Length (m)	2100
waterways	Width (m)	90

Rajiwada creek supports the livelihoods of more than 5560 fishermen and 248 fishing vessels and the region produces annual fish catch of 1320 metric tonnes. Frequent siltation due to littoral drift and sediment deposition has reduced the depth and width of the navigational channel hindering boat movement and jetty access.

The project activities will include construction of a 1060 meter long Groyne type bund, strengthening and rebuilding the existing Protection bund and Desilting of navigational waterways. The wave transformation and sediment transport study was carried out by IIT Mumbai.

#### **DELIBERATIONS:**

The Authority noted that the MMB has submitted the CRZ map in 1:4000 scale of the project site, as prepaid by the NCSCM, Chennai. As per the IRS report, the CRZ categories of the proposed activities are as follows:

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Sl	Proposed	CRZ Categories (Area in m²)					
	Project Activity	CRZ IB (Intertidal	CRZ II (CRZ	No Development Zone	CRZIVA	CRZ IVB	
		Zone)	Landward of HTL)	zone	•		
1	Bund	14727.02	9344.46	<del>-</del>	-		
2	Dredging	348.51	-	-	125222.53	45913.50	
3	Groyne type Bund/Break water Wall	2617.10	-	2.34	41892.90	69.29	

The MMB has submitted the EIA report prepared by the MITCON consultancy and Engineering Services Pvt Ltd. Further, the MMB has carried out studies through IIT.

The Authority noted the observations of the EIA report, anticipated impacts, mitigation measures as suggested in the EIA report.

Certain observations of the EIA report is as follows:

- The Groyne-type bund is proposed to be constructed near the mouth of the Kalaji River on the edge of the bhatye Beach towards the sea ward side. Usually, Groyne -type bunds are constructed perpendicular to the sea shore near the mouth of the rivers which are prone to longshore drift and shifting of sand due to the tidal currents. Bhatye Beach is currently prone to these issues which have resulted in narrowing the mouth of the river due to sand shifting, deposition of sand in the river bed which negatively impacts the navigational ability of the river and erodes the beach. Hence the groyne-type bund is proposed on the said location. The activity is a location specific activity and could not have been proposed anywhere else since the activity aims to mitigate a location specific adversity caused due to the geographical and tidal influence exhibited by the location
- The method proposed for construction of the protection bund is widely accepted, environmentally sound and easily executable by the local contractors. The bund will be constructed using naturally occurring materials like stones and rubbles and no use of concrete is proposed. The design of the protection bund is simple yet purpose oriented and structurally sound durable and Long-lasting
- The Dredging activity will be carried out in the navigational channel near the mouth of the Kalaji River covering a length of approximately 2.1 km

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and widths varying from 65 meters to 100 meters. The said navigational channel is affected by the sand deposition due to the oceanic currents and tidal influence of the sea. Hence dredging is necessary to deepen the navigational channel and make it operational even in the low tide periods. Since the navigational channel near the mouth of the Kalaji River is negatively impacted and operational and navigational difficulties are being faced by the local fishing communities and sea-farers, the dredging gut is proposed in the said location and no other location was studied for the dredging activity.

- A protection bund is proposed along the coast of rajiwada which is
  adversely affected by coastal erosion due to tidal influence of the sea.
  the Bund will mitigate the erosion and protect the landward activities like
  housing and green cover. The existing bund is now dilapidated and needs
  reconstruction. This also is a location specific activity and is proposed to
  mitigate the adversities faced by the concerned location. Hence alternate
  locations were not analysed for the development of the protection bund.
- To deepen and maintain the navigational channel and render it operational
  even during low-tide conditions, the sea-bed sediments accumulated over
  time due to the erosion of the adjoining beach are needed to be
  excavated up to the desired depths. This activity will be carried out by
  employing dredgers which uses mechanical systems to scrap-off and
  collect the sediments from the sea bed.

Expert Members asked MMB about the disposal plan of the silt. MMB replied stating that silt will be disposed in the sea, in consultation with the expert agency. The Authority discussed that The project aims to improve the fisheries and maritime activities by preventing further siltation in the creek and de-silting of the navigational channel. MMB should implement all mitigation measures and Environment Management Plan as suggested in the EIA.

The Authority noted that, as per para 5.1.2 (i)(d) and para 5.4 (ii)(c), "measures for control of erosion" is a permissible activity in CRZ IB and CRZ IV area respectively.

Further, as per para 5.1.2 (i) (e) and 5.4 (ii) (d) of CRZ Notification, 2019, "maintenance and clearing of waterways" is a permissible activity in CRZ IB area.

The Authority further noted as per para 7(iii) of the CRZ Notification, 2019 & OM dated  $29^{\text{th}}$  November, 2022, the proposal requires final CRZ

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clearance from the MoEF&CC, New Delhi. The said provision is reproduced as follows:

"For all other permissible and regulated activities as per this notification, which fall purely in CRZ-II and CRZ-III areas, the CRZ clearance shall be considered by the concerned Coastal Zone Management Authority and such projects in CRZ-II and III, which also happen to be traversing through CRZ-I or CRZ-IV areas or both, CRZ clearance shall, however be considered only by the Ministry of Environment, Forest and Climate Change, based on recommendations of the concerned Coastal Zone Management Authority"

#### DECISION:

In the light of above, the Authority after detailed discussion and deliberation decided to recommend the proposal from CRZ point of view to MoEF&CC, New Delhi, under CRZ Notification, 2019 subject to compliance of the following conditions:

- The proposed project should be carried out strictly as per the provisions of CRZ Notification, 2019 (as amended from time to time) and guidelines/ clarifications given by MoEF from time to time.
- 2. Construction of protection bund should be with minimum interference with tidal water flow, so that free flow of tidal water is not obstructed.
- 3. MMB to ensure that dredging should be carried out in precision and controlled manner in order to avoid excessive dredging and adverse impact on coastal environment.
- 4. MMB should formulate and implement the silt disposal plan scientifically.
- 5. MMB should monitor and document the impact of the proposed bunds on surrounding coastline.
- PP to ensure that during construction and operation phase, ecologically sensitive features like mangroves if any, should not be cut/damaged for the project.
- 7. During construction phase, the project implementing agency should proactively implement all possible appropriate environmental measures to achieve minimum disturbance to coastal ecosystem.
- 8. Debris generated during the construction activity should not be dumped in CRZ area. It should be ensured that debris is processed in a scientific manner at a designated site, as per MSW Rules, 2016.
- 9. If the proposed activities are affected by Mangroves or its 50 m buffer zone, then prior High Court permission as per Hon'ble Court orders in PIL 87/2006 shall be obtained.

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- 10. Project proponent should implement Mitigation measures and Environment Management plan as stipulated in the EIA report, effectively and efficiently during construction and operational phase of the project to ensure that coastal environment is protected.
- 11. All other required permission from different statutory authorities should be obtained before starting construction at the site shall be ensured by Urban Local Body.

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<u>Item No. 32:</u> Proposed Construction of Elevated Road from NH4 to Katai Naka in Thane District, Maharashtra by MMRDA

MMRDA officials along with consultant presented the proposal before the Authority.'

The MMRDA officials presented that, at present commuters travel from Airoli to Shilphata via Mahapeand reach Katai Naka to go to toKalyan, Dombivli, Badlapur etc. covering distance of about 17km which takes more than 1 hour during peak hours.

In view of exponential increase in traffic on this route the MMRDA proposes to construct elevated road from NH-4 to KataiNakawhich connects Mumbra to Katai Naka. The project involves elevated road, Approach ramps, ROB, Major bridges, Minor Bridges

Length of Project is 6.71 km. Out of which, length falling in CRZ is 530.76 meter. As per the approved CZMP, the project activities such as road & minor bridge- 2 falls within CRZ IA (mangrove & its 50 m mangrove buffer zone), CRZ IB and CRZ II area.

#### DELIBERATIONS:

The MMRDA has submitted the CRZ map in 1:4000 scale and report prepared by the NCSCM Chennai. As per the NCSCM report, the area details of the proposed alignment as per the approved CZMP, 2019 is as follows:

SI, Proposed Project No Activities		Area in Sq. m					
	Mangroves - CRZ IA	50m Mangrove Buffer Zone - CRZ IA	Intertidal Zone - CRZ IB	CRZ Landward of HTL - CRZ II	Outside of CRZ Area	Total Area	
1	ROW	158.21	2382.87	7523.26	6215.57	3,02,318.19	318598.10
2	Major Bridge -1	-	_	909.22	1661.78	342.69	2913.69
3	Major Bridge -2	175.45	2099.4	2205.15	319.89		4799.89
4	RAMP - 2/RHS FILLED	-	-	-	-	3473.5	3473.5
5	RMAP - 2/LHS	-	-	-	-	3513.15	3513.15
6	RAMP - 1/RHS	-	-	_	-	1678.71	1678.71
7	RAMP - 1/LHS	7	-	•	-	1797.37	1.797.37

The PP has submitted the EIA report prepared by M/s Building Environment (India) Pvt Ltd. The Authority noted the observations, anticipated impacts of the EIA report along with mitigation measures and Environment

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Management Plan. Certain observations/ measures as mentioned in the EIA report is as follows:

- The project involves removal of 494 trees falling within the project ROW. The removal of trees in the right of way will lead to loss of terrestrial flora and habitats, which support a variety of fauna.
- The total mangrove forest area affected by the project as per survey by forest department is 2.8938 Ha.
- The clearance of the approach path will require the removal of mangrove vegetation along the proposed ROW, leading to the direct loss of mangroves and disturbance to associated fauna.
- Transportation and storage of raw materials can lead to accidental spillage or leakage of chemicals, fuel and construction materials, which can contaminate soil and water. Such contamination may negatively impact terrestrial plants, reduce soil fertility and harm aquatic organisms through toxic exposure or oxygen depletion.
- Piling activities in the mangrove area may result in sediment contamination and increased turbidity in the creek water, potentially impacting the flora and fauna of the creek ecosystem.
- Excavation and piling is expected to generate approximately 9,000 cubic meters of muck. The disposal of this muck in the creek region may affect the aquatic flora and fauna.
- Excavation and piling will disturb soil and sediment, damaging root systems of mangroves and altering the natural hydrology. Large volumes of muck generated from piling can smother both terrestrial and aquatic flora if improperly managed. In aquatic habitats, muck deposition can lead to sedimentation, reduced water quality, and loss of benthic organisms, while suspended solids can reduce light penetration and affect aquatic plants and filter-feeding fauna.
- Construction activities involve the use of chemicals, paints, and solvents which, if spilled or improperly disposed of, can contaminate soil and water, causing toxicity to plants, insects, and aquatic life.
- Noise and vibrations from machinery can disturb terrestrial and aquatic fauna, altering their natural behaviour and potentially displacing them from habitats.
- Improper waste disposal and sewage management from labour colonies can lead to contamination of nearby habitats. Organic waste and sewage may result in nutrient overloading in aquatic environments, causing eutrophication and oxygen depletion

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- Compensatory afforestation shall be carried out in coordination with forest department. The approach path to the piling area for the proposed elevated road project should be determined to minimize the loss of mangrove vegetation.
- The bridge design and construction method should be selected to require the least number of piles in the mangrove region, ensuring minimal disturbance to the mangrove ecosystem.
- Materials should be stored in designated, impermeable, and bunded areas away from sensitive habitats. Vehicles and machinery should be regularly maintained to prevent leaks, and spill control equipment should be readily available.
- Encasement piling should be implemented to reduce sediment contamination and minimize turbidity in the creek water.
- Muck should be collected, stored, and disposed of at designated, approved disposal sites, away from mangrove and creek areas. Temporary storage sites should be lined and covered to prevent leachate and runoff. Silt curtains and sediment traps should be installed in water bodies to prevent the spread of sediment. Disturbed mangrove areas should be restored through replantation post-construction. Piling methods causing minimal disturbance, such as pre-fabricated piling, should be prioritized.
- Use of eco-friendly, low-toxicity paints and solvents should be prioritized. All chemicals should be handled in contained environments with spill containment measures in place.
- Noise barriers should be installed near sensitive fauna habitats, and vibration-producing activities should be restricted to daytime hours.
- All transport vehicles should comply with emission standards and be regularly maintained. Construction materials should be covered during transport and stored in enclosed or covered areas to prevent wind-blown dust. Water sprinkling should be carried out regularly on haul roads and material
- Labour colonies should have proper waste management systems, including sewage treatment units and solid waste segregation. Discharge of untreated waste into nearby terrestrial or aquatic ecosystems must be strictly prohibited. Regular inspections and maintenance of sanitation facilities are essential.

The Project will further enhance connectivity of Airoli to Mumbra link which is under completion and will complete the connectivity from Airoli to Katainaka in totality. This new link will help smoothen traffic flows, shorten the

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travel distance between Airoli and Katai Naka to about 15 minutes. The commuters travelling to Kalyan, Dombivali, Badlapuretc will be benefitted.

The proposed elevated road is expected to Streamline Traffic flow, Reduce current travel time of more than 1 hour to about 15 minutes, Enhancing connectivity between Airoli and Katai Naka. This Project will minimize air pollution by decreasing vehicle idling time during traffic congestion.

The Authority is vital public infrastructure project and will alleviate the pressure on existing roads (Thane-Belapur road, Mahape Road, Shil-Kalyan Road).

The Authority noted that as per para 5.1.1(iii) of CRZ, 2019, following is permissile in CRZ IA area:

"Construction of roads and roads on stilts, by way of reclamation in CRZ-I areas, shall be permitted only in exceptional cases for defence, strategic purposes and public utilities, subject to a detailed marine or terrestrial or both environment impact assessment, to be recommended by the Coastal Zone Management Authority and approved by the Ministry of Environment, Forest and Climate Change; and in case construction of such roads passes through mangrove areas or is likely to damage the mangroves, a minimum three times the mangrove area affected or destroyed or cut during the construction process shall be taken up for compensatory plantation of mangroves"

Further, the proposed activity is permissible as per para 5.1.2 (c) and 5.2(i) of the CRZ Notification, 2019.

The Authority further noted as per para 7(iii) of the CRZ Notification, 2019 & OM dated 29<sup>th</sup> November, 2022, the proposal requires final CRZ clearance from the MoEF&CC, New Delhi. The said provision is reproduced as follows:

"For all other permissible and regulated activities as per this notification, which fall purely in CRZ-II and CRZ-III areas, the CRZ clearance shall be considered by the concerned Coastal Zone Management Authority and such projects in CRZ-II and III, which also happen to be traversing through CRZ-I or CRZ-IV areas or both, CRZ clearance shall, however be considered only by the Ministry of Environment, Forest and Climate Change, based on recommendations of the concerned Coastal Zone Management Authority"

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#### DECISION:

After deliberation, the Authority decided to recommend the proposal from CRZ point of view under CRZ Notification, 2019 to MoEF&CC New Delhi subject to compliance of following conditions:

- 1. The proposed project should be carried out strictly as per the provisions of CRZ Notification, 2019 as amended from time to time and with a commitment of protection and conservation of coastal environment.
- 2. MMRDA to ensure that the bridge design and construction method should be selected to require the least number of piles in the mangrove region, ensuring minimal disturbance to the mangrove ecosystem.
- 3. CIDCO to ensure that proposed activities should be carried out with exercising extra caution with objective to have less impact on the mangroves and coastal ecology.
- 4. CIDCO shall use the eco concrete as cladding surface for the construction in marine/seawater environment for promoting biodiversity and thus reducing the environmental impact of construction.
- 5. Prior High Court permission should be obtained by the PP as per Hon'ble High Court order dated 17<sup>th</sup> Sep, 2018 in PIL 87/2006, since the project involves cutting of mangroves.
- 6. PP to obtain the prior Forest Clearance under Forest (Conservation) Act, 1980.
- 7. NoC from the Mangrove Cell should be obtained by the PP. Compensatory mangrove plantation should be carried out in consultation with Mangrove Cell
- 8. PP shall undertake compensatory mangrove plantation in accordance with provisions of the CRZ Notification, 2019, in consultation with the Mangrove Cell.
- Adequate measures should be implemented in order to mitigation fugitive dust emission during dredging activity. Periodic monitoring of air quality will be carried out and prompt remedial action should be undertaken in case deviations from NAAQS are recorded.
- 10. There shall be no disposal of solid or liquid waste in the coastal area. Solid waste management shall be as per Solid Wastes Management Rules, 2016.
- 11. MMRDA to implement C & D waste management plan strictly as per Construction and Demolition Waste Management Rules, 2016.
- 12. During the construction phase, sustainable construction practices & exploration of other alternatives needs to be explored by the CIDCO to

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maintain the stability & integrity of the Coastal environment. Necessary training / awareness should be imparted to contractors & workers so that adequate environmental safeguards could be implemented on site, during execution of the project activities.

- 13. MMRDA to ensure that indigenous species of trees should be planted using Miyawaki method.
- 14.PP to ensure that noise and vibration level is within permissible limit during construction phase of the project. Noise barriers are erected at appropriate locations.
- 15. Project proponent should implement Environment Management plan for the project effectively and efficiently during construction and operational phase of the project to ensure that coastal environment is protected. It is also suggested to have a third-party monitoring/Audit of all such management initiatives by Govt agency during and after completion of project from time to time.
- 16. No labour camp are allowed in CRZ area & it should also be ensured that the waste water from these entities should not be released into sea
- 17. There shall be no disposal of solid or liquid waste in the coastal area. Solid waste management shall be as per Solid Wastes Management Rules, 2016.
- 18. Debris generated during the project activity should not be dumped in CRZ area. It should be processed scientifically at a designated place.
- 19. All other required permissions from the concerned statutory authorities should be obtained prior to commencement of the work.

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Item No. 33:

Proposed Construction Of Water Pipeline From Uttan Naka To Pali Rama Hotel (Macchimaar Society) Petrol Pump In Uttan, Pali And Chowk Villages, Bhayandar (W), Thane District, Maharashtra By M/S. Mira Bhayandar Municipal Corporation (MBMC).

#### INTRODUCTION:

The officials from the Mira Bhayandar Municipal Corporation (MBMC) and consultant presented the proposal before the Authority.

The MBMC has proposed construction of Water Pipeline Uttan Naka to Pali Rama Hotel (Macchimaar Society) Petrol Pump in Uttan, Pali and Chowk Villages, Bhayandar(W), Thane District.Length of the pipeline is 2341 m, Width is 1 m & Diameter is 0.5 m.

The proposed pipeline falls inside the 500m buffer from HTL of Arabian Sea and 50m buffer from Mangroves as per approved CZMP (Map No. MH-82). Hence, proposed water pipeline falls inside CRZ-IA (50m buffer from Mangroves) with remaining length inside CRZ-II as indicated in the local level CRZ map.

#### DELIBERATIONS:

The MBMC has submitted the CRZ map in 1:4000 scale, prepared by the IRS, Chennai. As per the said IRS report:

CRZ category	Length in meter
CRZ IA (50 m mangrove buffer zone)	506.21
CRZ II	1833,16
Total	2341.37

The MBMC has submitted the EIA report prepared by the M/s Mantec Consultants Pvt Ltd (NabetAcreditedconultant). The Authority noted the observations of the EIA, mitigation measures and Environment Management Plan as suggested in the EIA report. Certain mitigation measures as suggested in the EIA report is as follows:

Every care has to be taken to avoid damage to the top soil. It has to be
preserved and utilized. Problems could arise from dumping of
construction spoils (Concrete, bricks) waste materials (from contractor
camps), etc. causing surface and ground water pollution. However, it is

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proposed to have mix concrete directly from batching plant for use at site.

- Mitigation measures should include proper water supply, sanitation, drainage, healthcare and human waste disposal facilities. In addition to these, efforts need to be made to avoid water spills, adopt disease control measures and employment of local labour.
- proposed project is on plain area and thus the excavation would be limited to piers and their piling. The soil would be used for refilling at other site. If there would be some residual soil, it would be utilized by MBMC for internal use for refilling other sites and, if surplus, it would be disposedoff at designated locations as per Local Authority permission.

The Authority noted as per 5.1.1 (CRZ-IA) of CRZ Notification, 2019: "(ii) In the mangrove buffer, only such activities shall be permitted like laying of pipelines, transmission lines, conveyance systems or mechanisms and construction of road on stilts, etc. that are required for public utilities."

It was further noted, as per para 7(iii) of the CRZ Notification, 2019 & OM dated 29<sup>th</sup> November, 2022, the proposal requires final CRZ clearance from the MoEF&CC, New Delhi. The said provision is reproduced as follows:

"For all other permissible and regulated activities as per this notification, which fall purely in CRZ-II and CRZ-III areas, the CRZ clearance shall be considered by the concerned Coastal Zone Management Authority and such projects in CRZ-II and III, which also happen to be traversing through CRZ-I or CRZ-IV areas or both, CRZ clearance shall, however be considered only by the Ministry of Environment, Forest and Climate Change, based on recommendations of the concerned Coastal Zone Management Authority"

#### DECISION:

After deliberation, the Authority decided to recommend the proposal from CRZ point of view under CRZ Notification, 2019 to MoEF&CC New Delhi subject to compliance of following conditions:

- The proposed project should be carried out strictly as per the provisions
  of CRZ Notification, 2019 (as amended from time to time) and guidelines/
  clarifications given by MoEF&CC from time to time.
- 2. MBMC to explore & implement the options of HDD or caterpillar methodology of laying the water pipeline to minimize the impact on the CRZ area during the construction phase.

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- 3. Prior High Court permission should be obtained by the PP as per Hon'ble High Court order dated 17th Sep, 2018 in PIL 87/2006, since the proposed project is affected by 50 m mangrove buffer zone.
- 4. PP to obtain the NoC from the mangrove cell.
- 5. Project proponent should implement Mitigation measures and Environment Management plan as stipulated in the EIA report, effectively and efficiently during construction and operational phase of the project to ensure that coastal environment is protected.
- The construction debris and excavated material should not be disposed
  off in the mangrove area & creek water to avoid any adverse impact on
  mangroves and marine water quality.
- Debris generated during the project activity should not be dumped in CRZ area.
- 8. All other required permission from different statutory authorities should be obtained before starting construction at the site shall be ensured by Urban Local Body.

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<u>Additional item No.1:</u> Proposed Implementation of Automated Rapid Transit System in Bandra-Kurla Complex, District Mumbai by the MMRDA.

The MMRDA officials along with consultant presented the proposal before the Authority. Consultants presented that MMRDA has proposed the Proposed Implementation of Automated Rapid Transit System in Bandra-Kurla Complex, District Mumbai.

Consultant further presented that, Traditional mass transit systems in BKC are not well-suited for this role because they cannot match the convenience and flexibility of automobiles. Moreover, from an energy efficiency standpoint, these systems are often inefficient—especially outside of peak hours—since large vehicles must run on fixed schedules even when they are mostly empty. To achieve true sustainability the MMRDA is planning to implement a smart, on-demand transport solution that is both energy-efficient and zero-emission Automated Rapid Transit System (ARTS) within BKC.

Automated Rapid Transit (ART) is an electric-powered, autonomous transportation system designed to provide efficient, on-demand travel. It mimics the modular architecture of a car while avoiding the limitations of traditional bus and rail transit, without relying on fuel cells or advanced battery technology. Commonly referred to as a "pod car," this system features small automated vehicles

The proposed ART system includes 21 stations between Bandra and Kurla. These stations are designed to ensure accessibility for commuters, featuring user-friendly facilities such as ticket counters, escalators, and waiting areas. Length of proposed ARTS corridor will be 8.01 Km.

The pods, which are automated, driverless, electric vehicles, will be provided with charging stations. Advanced technology will be used including control systems, smart sensors, and a communication network for seamless operation and real-time data management. The BKC is located between Bandra and Kurla areas of Mumbai between 19° 3'10.39"N 72°50'52.48"E and 19° 4'14.46"N 72°52'20.07"E respectively.

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#### DELIBERATIONS:

The MMRDA has submitted the CRZ map in 1:4000 scale of the project site, as prepared by the NCSCM, Chennai. As per the said CRZ map, the project site falls in CRZ IA, CRZ IA(50 m mangrove buffer zone), CRZ IB and CRZ II area, under CRZ Notification, 2019.

Project Component	Area (in H2)				
	CRZ I(A)		CRZ I(B)	CRZ II	
	Mangrove	50m Mangrove buffer zone	Intertidal zone		
CRZ Permissibility Clause as per CRZ Notification 2019	5.1.1(ii)	5.1.1(ii)	5.1.2(j)(c)	5.2(i)	
Project ROW	0.14	1.9	0.02	0.21	
Rapid Transit Station		0.09			
Total	2.36				
Percentage of area falling in CRZ	8.09%				
Percentage of area falling in mangrove	0.48%				

#### Total Project Length in CRZ

Project Component	Length (in m)				
	CRZ I(A)		CRZ I(B)	CRZ II	
	Mangrove	50m Mangrove buffer zone	Intertidal zone		
Project alignment	58.48	723.47	18.47	17.16	
Total	817.58				
Percentage of length falling in CRZ	10.2%				
Percentage of length falling in mangrove	0.73%		· •		

Consultant presented the EIA report prepared by the M/s Building Environment (India) Pvt Lte (NabetAccredited consultant). The Authority noted the observations of the EIA, mitigation measures and Environment Management Plan as suggested in the EIA report.

The project alignment mostly pass over median of the existing roads in BKC in Mumbai. About 58.48 m of project alignment pass over mangrove area along its banks where 0.14 Ha of mangrove area may be affected as per CRZ mapping report given by NCSCM, Chennai.

The proposed project envisages cutting of 431 nos, of non mangrove trees situated within project ROW in urban area. Procedure for obtaining permission from Tree authority for cutting these trees is in process.

Mangrove trees to be cut mainly include Avicennia marina and mangrove associates such as Salvadorapersica species spreading over an area of 0.14 ha. The exact no. of mangrove trees to be cut will be derived during the joint site

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measurement of mangrove trees along with the competent authority (Mangrove Cell). Forest clearance application is submitted.

The Authority noted that the Rapid Transit System is a public infrastructure project and is a type of conveyance system. Permissibility of the proposed project, as per CRZ Notification, 2019:

- As per the para 5.1.1 (i) public utility projects are permissible in CRZ IA area
- As per para 5.1.1 (ii), conveyance system is permissible in CRZ IA (50 m mangrove buffer zone)
- As per the para 5.1.2(xv), conveyance system is permissible in CRZ IB area
- The para 5.2 (i) of the CRZ Notification, 2019, activities as permitted in CRZ IB shall also be permissible in CRZ II area.

It was further noted, as per para 7(iii) of the CRZ Notification, 2019 & OM dated 29<sup>th</sup> November, 2022, the proposal requires final CRZ clearance from the MoEF&CC, New Delhi. The said provision is reproduced as follows:

"For all other permissible and regulated activities as per this notification, which fall purely in CRZ-II and CRZ-III areas, the CRZ clearance shall be considered by the concerned Coastal Zone Management Authority and such projects in CRZ-II and III, which also happen to be traversing through CRZ-I or CRZ-IV areas or both, CRZ clearance shall, however be considered only by the Ministry of Environment, Forest and Climate Change, based on recommendations of the concerned Coastal Zone Management Authority"

#### DECISION:

After deliberation, the Authority decided to recommend the proposal from CRZ point of view under CRZ Notification, 2019 to MoEF&CC New Delhi subject to compliance of following conditions:

- The proposed project should be carried out strictly as per the provisions of CRZ Notification, 2019 (as amended from time to time) and guidelines/ clarifications given by MoEF&CC from time to time.
- 2. PP should exercise all possible mitigation measures so that during construction phase, there is less impact on mangrove and creek ecosystem. Since the pylons of the towers are close to the creek, the PP should exercise due caution & mitigations measures while construction phase so that creek flow is not obstructed and creek ecology is not disturbed

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- 3. Prior High Court permission shall be obtained, as per the Hon'ble High Court order in PIL 87/2006, since the project is affected by mangroves & 50 m mangrove buffer zone area.
- 4. PP shall undertake compensatory mangrove plantation in accordance with provisions of the CRZ Notification, 2019, in consultation with the Mangrove Cell.
- 5. NoC from Mangrove Cell shall be obtained by the PP.
- 6. Forest Clearance under Forest (Conservation) Act, 1980 shall be obtained.
- 7. Site preparation and site restoration in CRZ area should be undertaken without damaging the coastal-geomorphological features.
- 8. Construction debris and excavated material should not be disposed off in the mangrove area & creek water to avoid any adverse impact on mangroves and marine water quality.
- 9. All the safety measures and Disaster Management Plan should be implemented during construction and operation phase of the project.
- 10. Project proponent should implement Mitigation measures and Environment Management plan & Disaster Management Plan as suggested in the EIA report, effectively and efficiently during construction and operational phase of the project to ensure that coastal environment is protected.
- 11. All other required permissions from different statutory authorities should be obtained prior to commencement of work.

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#### Annexure I

List of members/officials present in the online meeting:

- 1. Mr. Pravinsingh Pardeshi, Chairman, BNHS, Member, MCZMA
- 2. APCCF, Mangrove Cell, Member, MCZMA
- 3. Shri. Mirashe, Representative from Industries Dept,
- 4. Dr. L. R. Ranganath, CWPRS, Expert Member, MCZMA
- Dr. Milind Sardesai, Savitribai Phule Pune University, Expert Member, MCZMA
- 6. Dr. Amit Bansiwal, Neeri, Expert Member, MCZMA
- 7. Dr. Anish Andheria, Wildlife Conservation Trust, Member MCZMA
- 8. Mr. Abhay Pimparkar, Director, Environment & CC and Member Secretary, MCZMA

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