The 180th meeting (Day -1) of the Maharashtra Coastal Zone Management Authority (MCZMA) was held under the Chairmanship of Principal Secretary (Environment and Climate Change), through Videoconferencing technology on Cisco WebEx platform on 10th December, 2024. List of members present in the meeting is attached as <u>Annexure-I.</u>

Item No. 1:

Proposed restoration of existing anti-sea erosion bund from Pachubandar to Lagebandar at Tal - Vasai, Dist - Palghar, Maharashtra by Harbour Engineer, Harbour Engineering Division (N), PWD

Introduction:

The project proponent along with Consultant presented the proposal before the Authority. The proposal is for restoration of existing anti-sea erosion bund from Pachubandar to Lagebandar at Tal - Vasai, Dist - Palghar

Consultant presented that, the existing coastal protection bund from Pachubander to Lagebander suffered damages due to higher waves action during the monsoon season which causes damages to the residential properties of the villagers. The existing sea condition have been vulnerable as compared to earlier, which causes higher assail waves impinging on the coast affect existing residential properties and farms of the villagers.

Therefore, PWD has proposed restoration of existing anti-sea erosion bund for 1000 m length & 8 m height from Pachubander to Lagebandar at village Pachubander, Dist - Palghar.

PP has submitted CWPRS report dated 22.12.2022 as per which, desk studies are conducted for evolving the design of restoration work based on the data supplied by project authority such as beach profiles, tides, waves, photographs and the existing site conditions. A typical cross-section are evolved as shown In Fig.1. High Water Level (HWL) of + 5.4 m and Low Water Level (LWL) of +0.0 m are considered for the design of restoration work. The wave period is between 10 to 12 seconds. The maximum waves in the shallow zone are breaking and design of coastal protection work is carried out considering maximum breaking wave height of 1.9 m at HWL in front of the structure. The cross-section consists of 0.5 t to 1.0 t stones in the armour placed on 1:2 slope in double layer from el. +3.0 m to el. +8.0 m. A 3.0 m wide crest is provided at el. +8.0 m. A 3.0 m wide toe-berm consisting of 0.5 t to 1.0 t stones with a sea side slope of 1:2 is

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provided at el. +3.0 m. Secondary layer consists of 100 to 200 kg stones. The following points may please be noted during the execution of work:

- 1) The gradation of stones as recommended in the armour, secondary, toe and core layer should be strictly adhered to.
- 2) Either heavier or lighter stones than the recommended should not be used in any layer of the seawall.
- 3) The stones should be laid in double layer and the double layer thickness as mentioned in the drawing should be strictly followed.
- 4) The minimum density of stones should be 2.60 t/cu.m. Use of flatter stones (except in the crest) should be avoided.
- 5) The slope of the armour layer of the bund should be strictly followed.
- 6) Roundhead should be provided at both the ends of seawall.

<u>Deliberations:</u>

The Authority noted the PP has submitted the CRZ map in 1:4000 scale & report prepared by IRS, Chennai as per approved CZMP 2019. As per IRS report, length statement of the strengthening of existing ant sea erosion bun in various CRZ:-

CRZ Classification	Length in m
CRZ-IA (50m Mangrove Buffer Zone)	194.34
CRZ-IB	624.73
Total	819.07

The Authority noted that, PP has submitted Environmental Impact Assessment (EIA) & Environment Management Plan (EMP) prepared by Mahabal Enviro Engineers Pvt Ltd (Nabet Accredited Consultant). As per EIA report, Pachubandar is situated very close to beach area. Due to low laying areas Pachubandar village is susceptible to flash floods during the monsoon. Project directly benefits to the local livelihood through the direct protection against flash floods during monsoon. To reduce sea water inclusion in low laying residential and agricultural areas of Pachubandar. The coastal protection work at Pachubandar in the form of detached bund (offshore) would be best practice to combat sea erosion problem. the present practice is beneficial to conservation of environment in and around the project location.

The Authority asked whether mangrove cutting involved in the project. Consultant presented that, no mangrove cutting involved in the project. However, some part of the anti sea erosion bund is situated in 50 m mangrove buffer zone. The Authority asked PP to ensure free flow of tidal water to reach

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mangrove vegetation by providing adequate size of opening at the bund. During the construction phase, the mangrove vegetation must be protected to the possible greatest extent and mangrove vegetation should not be disturbed.

The Authority noted that the mitigation measures and environment management plan as suggested in the EIA report should be strictly implemented by the PWD. During construction and operation phase, ecologically sensitive features like mangroves if any, should not be cut/damaged for the project.

The Authority noted that as per para 5.1.1 (CRZ-IA) of CRZ Notification, 2019: "These areas are ecologically most sensitive and generally no activities shall be permitted to be carried out in the CRZ-I A area, with following exceptions:-

(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."

The Authority noted that as per para 5.1.2 (CRZ-IB) 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."

The Authority noted that as per para 7 of CRZ Notification, 2019 (amended as on 24.11.2022):

CRZ clearance for permissible and regulated activities- Delegation:

"(ii) 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 the Central Government for Coastal Regulation Zone 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, Groynes, Breakwaters, Submerged reef, Sand nourishment, etc.) which shall be dealt by concerned Coastal Zone Management Authority.";

Member Secretary

Moreover, as per OM dated 29.11.2022 published by MoEF, New Delhi, Project activities such as Stand-alone jetties, Salt works, Slipways, Temporary structures and Erosion Control Measures (like Bunds, Seawall, Groynes, Breakwaters, Submerged reef, Sand nourishment, etc.) require clearance by the CZMA.

The Authority noted that proposed restoration of existing anti-sea erosion bund is required for residents of Pachubandar village and permissible activity as per CRZ Notification, 2019. However, Prior High Court permission should be obtained by the PP as per order dated 17^{th} Sep, 2018 in PIL 87/2006, since the part of proposed bund falls in 50 m mangrove buffer zone area.

Decision:

After deliberation, the Authority decided to recommend the proposal from CRZ point of view under CRZ Notification, 2019 to Concern Planning Authority subject to compliance of following conditions:

- 1. The concerned planning authority shall ensure that the proposed anti-sea erosion bund 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. Prior High Court permission should be obtained by the PP as per order dated 17th Sep, 2018 in PIL 87/2006, since the part of proposed bund falls in 50 m mangrove buffer zone area
- 3. Project proponent to ensure that project activities to be carried out as per recommendation of CWPRS report.
- 4. PP to ensure that during construction and operation phase, ecologically sensitive features like mangroves if any, should not be cut/damaged for the project.
- 5. During construction phase, the project implementing agency should proactively implement all possible appropriate environmental measures to achieve minimum disturbance to coastal ecosystem.
- 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.
- 7. 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.

Member Secretary

- 8. 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.
- 9. Safe disposal of the wastewater should be ensured.
- 10. All other required permission from different statutory authorities should be obtained before starting construction at the site shall be ensured by Urban Local Body.

Member Secretary

<u>Item No. 2:</u>
Proposed strengthening of existing anti-sea erosion bund and proposed construction of Anti Sea Erosion Bund at Uttan Village, Tal & Dist - Thane, Maharashtra by Harbour Engineer, Harbour Engineering Division (N), PWD

Introduction:

The project proponent along with Consultant presented the proposal before the Authority. The proposal is for strengthening of existing anti-sea erosion bund and proposed construction of Anti Sea Erosion Bund at Uttan Village, Tal & Dist - Thane

Consultant presented that, the existing coastal protection bund suffered damages due to higher waves action during the monsoon season which causes damages to the residential properties of the villagers. The existing sea condition have been vulnerable as compared to earlier, which causes higher assail waves impinging on the coast affect existing residential properties and farms of the villagers.

Therefore, PWD has proposed the followings at Uttan Village, Tal & Dist - Thane:

- i) Strengthening of existing 450 m Anti-sea erosion Bund
- ii) construction of new 2450 m Anti-sea erosion Bund

PP has submitted CWPRS report dated 23.11.2022 as per which, desk studies are conducted for evolving the design of cross-section of protection/restoration work using armour as tetrapods based on the data supplied by project authority such as beach profile, photographs, tides, waves and the existing site conditions. High Water Level (HWL) of + 5.4 m and Low Water Level (LWL) of +0.00 m are considered for the design of protection work. The proposed protection and restoration design of the coastal protection work are evolved. The details of both the stretches given below.

a) Design of Coastal protection work: - The design cross-section of coastal protection work consists of 2 t tetrapod in the armour placed on 1:2 slope in double layer from el. +4.0 m to el. +7.00 m. A 0.5 m thick P.C.C. crest slab of 3.5 m length having 1 m height parapet wall is provided at el. 7.0 m. In the crest 1 — 2 t stones are provided. A 3.0 m wide toe - berm is provided at el. +4.0 m consist of 1 - 2 t stones with a sea side slope of 1:2. Secondary layer consists of 100 Kg to 200 Kg stones (0.8 m thick) below the armour layer is provided. A core of 20 — 50 kg stones is provided

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below secondary layer. A geo-fabric filter layer is suggested at the bed level of seawall for separation and filtration purpose. A 0.15 m thick single layer of Gunny/Nylon bags filled with sand/stone grit (5mm) is provided for cushioning to the filter layer.

b) Restoration of existing protection work: - The design of restoration work consists of 2 t tetrapod in the armour placed on 1:2 slope in double layer from el. +4.0 m to el. +7.0 m. A 0.5 m thick P.C.C. crest of 3.5 m length having 1 m height parapet wall is provided at el. 7.0 m. A 3.0 m wide toe-berm is provided at el. +4.0 m, consist of 1 - 2 t stones with a sea side slope of 1:2. Secondary layer consists of 100 Kg to 200 Kg stones (0.8m thick) below the armour layer is provided. A geo-fabric filter layer is suggested at the bed level of seawall for separation and filtration purpose. A 0.15 m thick single layer of Gunny/Nylon bags filled with sand/stone grit (5mm) is provided for cushioning to the filter layer.

The following points may please be noted during the execution of work:

- 1) The gradation of stones as recommended in the armour, secondary, toe and core layer should be strictly adhered to.
- 2) Either heavier or lighter stones than the recommended should not be used in any layer of the seawall.
- 3) The stones should be laid in double layer and the double layer thickness as mentioned in the drawing should be strictly followed.
- 4) The minimum density of stones should be 2.60 t/cu.m. Use of flatter stones (except in the crest) should be avoided.
- 5) The slope of the armour layer of the bund should be strictly followed.
- 6) Roundhead should be provided at both the ends of seawall.

Deliberations:

The Authority noted the PP has submitted the CRZ map in 1:4000 scale & report prepared by IRS, Chennai as per approved CZMP 2019. As per IRS report, length statement of the strengthening of existing ant sea erosion bun in various CRZ:-

Description	CRZ Classification	Length in m
Proposed Anti Sea Erosion Bund	CRZ-IB	2472.14
Restoration of Existing Anti Sea Erosion Bund	CRZ-IB	423.68
	Total	2895.82

The Authority noted that, PP has submitted Environmental Impact Assessment (EIA) & Environment Management Plan (EMP) prepared by Mahabal Enviro

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Engineers Pvt Ltd (Nabet Accredited Consultant). As per EIA report, • UTTAN is situated very close to beach area. Due to low laying areas Uttan village is susceptible to flash floods during the monsoon. Project directly benefits to the local livelihood through the direct protection against flash floods during monsoon. To reduce sea water inclusion in low laying residential and agricultural areas. The coastal protection work at Uttan in the form of detached bund (offshore) would be best practice to combat sea erosion problem. The present practice is beneficial to conservation of environment in and around the project location.

The Authority asked whether mangrove cutting involved in the project. Consultant presented that, the proposed & restoration of existing anti sea erosion bund has not fall in mangrove and its 50 m buffer zone. The Authority observed that mangrove vegetation observed inside the creek let. The Authority asked PP to ensure free flow of tidal water to reach mangrove vegetation. During the construction phase, the mangrove vegetation must be protected and mangrove vegetation should not be disturbed. PP to ensure that there will be no violation of order dated 17th Sep, 2018 passed by Hon. High Court in PIL 87/2006.

The Authority noted that the mitigation measures and environment management plan as suggested in the EIA report should be strictly implemented by the PWD. During construction and operation phase, ecologically sensitive features like mangroves if any, should not be cut/damaged for the project.

The Authority observed that, small creeklet with mangrove vegetation present between the two anti sea erosion bunds. PP to ensure that construction of anti sea erosion bund should be along the High tide line, so that free flow of tidal water is not obstructed.

The Authority noted that as per para 5.1.2 (CRZ-IB) 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."

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The Authority noted that as per para 7 of CRZ Notification, 2019 (amended as on 24.11.2022):

CRZ clearance for permissible and regulated activities- Delegation:

"(ii) 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 the Central Government for Coastal Regulation Zone 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, Groynes, Breakwaters, Submerged reef, Sand nourishment, etc.) which shall be dealt by concerned Coastal Zone Management Authority.";

Moreover, as per OM dated 29.11.2022 published by MoEF, New Delhi, Project activities such as Stand-alone jetties, Salt works, Slipways, Temporary structures and Erosion Control Measures (like Bunds, Seawall, Groynes, Breakwaters, Submerged reef, Sand nourishment, etc.) require clearance by the CZMA.

The Authority noted that proposed restoration of existing anti-sea erosion bund is required for residents of uttan village and permissible activity as per CRZ Notification, 2019.

Decision:

After deliberation, the Authority decided to recommend the proposal from CRZ point of view under CRZ Notification, 2019 to Concern Planning Authority subject to compliance of following conditions:

- 1. The concerned planning authority shall ensure that the proposed anti-sea erosion bund 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 to ensure that there will be no violation of order dated 17th Sep, 2018 passed by Hon. High Court in PIL 87/2006.
- 3. Project proponent to ensure that project activities to be carried out as per recommendation of CWPRS report.
- 4. PP to ensure that during construction and operation phase, ecologically sensitive features like mangroves if any, should not be cut/damaged for the project.
- 5. PP to ensure that construction of anti sea erosion bund should be along the High tide line, so that free flow of tidal water is not obstructed.

Member Secretary

- 6. During construction phase, the project implementing agency should proactively implement all possible appropriate environmental measures to achieve minimum disturbance to coastal ecosystem.
- 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. 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.
- 9. 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.
- 10. Safe disposal of the wastewater should be ensured.
- 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.

Member Secretary

Item No. 3:

Proposed construction of Retaining Wall at Kongaon, Kalyan, Thane Maharashtra by Harbour Engineer, Harbour Engineering Division (N), PWD

Introduction:

The project proponent along with Consultant presented the proposal before the Authority. The proposal is for construction of Retaining Wall at Kongaon, Kalyan, Thane.

Consultant presented that, Harbour engineering department of Maharashtra government has taken this proposed construction of retaining wall as a part of anti - sea protection measures for the locals in the form of Seawall. Present work is proposed for the soil erosion. These measures have positive impacts, also it will help to protect agricultural land and human habitat close to bank of Ulhas Creek. Proposed construction of retaining wall of ht 7 m of m25 grade concrete.

<u>Deliberations:</u>

The Authority noted the PP has submitted the CRZ map in 1:4000 scale & report prepared by IRS, Chennai as per approved CZMP 2019. As per IRS report, the proposed anti sea erosion bund in Kongaon village length 978.29 m falls in CRZ-IB area.

The Authority noted that, PP has submitted Environmental Impact Assessment (EIA) & Environment Management Plan (EMP) prepared by Mahabal Enviro Engineers Pvt Ltd (Nabet Accredited Consultant). As per EIA report, the construction of a flood protection retaining wall in Kongaon village is an urgent necessity to mitigate the devastating consequences of recurrent flooding. It not only protects property but also safeguards lives, ensures economic stability and fosters the resilience of the community in the face of future climate-related challenges. This viral infrastructure project demands immediate attention to provide the people of Kongaon with a safer and more secure environment to live and prosper.

The Authority asked whether mangrove cutting involved in the project. Consultant presented that, the proposed & restoration of existing anti sea erosion bund has not fall in mangrove and its 50 m buffer zone. PP to ensure

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that there will be no violation of order dated 17^{th} Sep, 2018 passed by Hon. High Court in PIL 87/2006.

The Authority noted that the mitigation measures and environment management plan as suggested in the EIA report should be strictly implemented by the PWD. During construction and operation phase, ecologically sensitive features like management management as suggested in the EIA report should be strictly implemented by the PWD.

The Authority observed that, two small creeklets are present between the anti sea erosion bunds. PP to ensure that construction of anti sea erosion bund should be along the High tide line, so that free flow of tidal water is not obstructed.

The Authority noted that as per para 5.1.2 (CRZ-IB) 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 quard stations and the like."

The Authority noted that as per para 7 of CRZ Notification, 2019 (amended as on 24.11.2022):

CRZ clearance for permissible and regulated activities- Delegation:

"(ii) 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 the Central Government for Coastal Regulation Zone 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, Groynes, Breakwaters, Submerged reef, Sand nourishment, etc.) which shall be dealt by concerned Coastal Zone Management Authority.";

Moreover, as per OM dated 29.11.2022 published by MoEF, New Delhi, Project activities such as Stand-alone jetties, Salt works, Slipways, Temporary structures and Erosion Control Measures (like Bunds, Seawall, Groynes, Breakwaters, Submerged reef, Sand nourishment, etc.) require clearance by the CZMA.

Member Secretary

The Authority noted that proposed retaining wall is required for residents of Kongaon village and permissible activity as per CRZ Notification, 2019.

Decision:

After deliberation, the Authority decided to recommend the proposal from CRZ point of view under CRZ Notification, 2019 to Concern Planning Authority subject to compliance of following conditions:

- 1. The concerned planning authority shall ensure that the retaning wall 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 to ensure that there will be no violation of order dated 17th Sep, 2018 passed by Hon. High Court in PIL 87/2006.
- 3. Project proponent to submit CWPRS report and ensure that project activities to be carried out as per recommendation of CWPRS report.
- 4. PP to ensure that during construction and operation phase, ecologically sensitive features like mangroves if any, should not be cut/damaged for the project.
- 5. PP to ensure that construction of anti sea erosion bund should be along the High tide line, so that free flow of tidal water is not obstructed.
- 6. During construction phase, the project implementing agency should proactively implement all possible appropriate environmental measures to achieve minimum disturbance to coastal ecosystem.
- 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. 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.
- 9. 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.
- 10. Safe disposal of the wastewater should be ensured.
- 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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Item No. 4: Proposed construction of New Anti Sea Erosion Bund at Usarni Village, Tal & Dist - Thane, Maharashtra by Harbour Engineer, Harbour Engineering Division (N) PWD

Introduction:

The project proponent along with Consultant presented the proposal before the Authority. The proposal is for construction of New Anti Sea Erosion Bund at Usarni Village, Tal & Dist - Thane.

Consultant presented that, proposed construction of Anti Sea Erosion Bund of 250 m at Usarni, Thane. Present work is proposed for the coastal protection from the sea erosion. These measures have positive impacts also; it will help to protect agricultural land and human habitat close to beach.

PP has submitted CWPRS report dated 06.12.2022 as per which, desk studies are conducted for evolving design of cross-section of coastal protection work using armour stones based on the data received such as beach profiles, waves, tides, photographs and the existing site conditions. High Water Level (HWL) of + 5.8 m and Low Water Level (LWL) of +0.00 m are considered for the design of protection work. The wave period is between 10 to 12 seconds. The maximum waves in the shallow zone are breaking and design of coastal protection work is carried out considering maximum breaking wave height of 2.7 m at HWL in front of the structure. The design cross-section of coastal protection work consists of 1.5 to 2 t stones in the armour placed on 1:2 slope in double layer from el. +4.5 m to el. +8.0 m. A 3.0 m wide crest is provided at el. +8.0 m, consists of 1.5 t to 2.0 t stones. A 3.0 m wide toe - berm is provided at el. +4.5 m, consist of 1.5 t to 2.0 t stones with a sea side slope of 1:2. Secondary layer consists of 100 Kg to 200 Kg stones (0.8m thick) below the armour layer. Core layer of 20 - 50 kgstones provided below secondary layer. A geo-fabric filter layer is suggested at the bed level of seawall for separation and filtration purpose. A 0.15 m thick single layer of Gunny/Nylon bags filled with sand/stone grit (5mm) is provided for cushioning to the filter layer.

The following points may please be noted during the execution of work:

- 1) The gradation of stones as recommended in the armour, secondary, toe and core layer should be strictly adhered to.
- 2) Either heavier or lighter stones than the recommended should not be used in any layer of the seawall.

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- 3) The stones should be laid in double layer and the double layer thickness as mentioned in the drawing should be strictly followed.
- 4) The minimum density of stones should be 2.60 t/cu.m. Use of flatter stones (except in the crest) should be avoided.
- 5) The slope of the armour layer of the bund should be strictly followed.
- 6) Roundhead should be provided at both the ends of seawall.

Deliberations:

The Authority noted the PP has submitted the CRZ map in 1:4000 scale & report prepared by IRS, Chennai as per approved CZMP 2019. As per IRS report, the proposed anti sea erosion bund in Usarani village falls in CRZ-IB area.

The Authority noted that, PP has submitted Environmental Impact Assessment (EIA) & Environment Management Plan (EMP) prepared by Mahabal Enviro Engineers Pvt Ltd (Nabet Accredited Consultant). As per EIA report, Usarni is situated very close to beach area. Due to low laying areas Usarni village is susceptible to flash floods during the monsoon. Project directly benefits to the local livelihood through the direct protection against flash floods during monsoon. To reduce sea water inclusion in low laying residential and agricultural areas of Madh. The coastal protection work at Usarni in the form of detached bund (offshore) would be best practice to combat sea erosion problem. The present practice is beneficial to conservation of environment in and around the project location.

The Authority asked whether mangrove cutting involved in the project. Consultant presented that, the proposed anti sea erosion bund not falls in mangrove and its 50 m buffer zone. PP to ensure that there will be no violation of order dated 17th Sep, 2018 passed by Hon. High Court in PIL 87/2006. The Authority noted that the mitigation measures and environment management plan as suggested in the EIA report should be strictly implemented by the PWD. During construction and operation phase, ecologically sensitive features like mangroves if any, should not be cut/damaged for the project.

The Authority observed that, PP to ensure that construction of anti sea erosion bund should be along the High tide line, so that free flow of tidal water is not obstructed.

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The Authority noted that as per para 5.1.2 (CRZ-IB) 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."

The Authority noted that as per para 7 of CRZ Notification, 2019 (amended as on 24.11.2022):

CRZ clearance for permissible and regulated activities- Delegation:

"(ii) 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 the Central Government for Coastal Regulation Zone 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, Groynes, Breakwaters, Submerged reef, Sand nourishment, etc.) which shall be dealt by concerned Coastal Zone Management Authority.";

Moreover, as per OM dated 29.11.2022 published by MoEF, New Delhi, Project activities such as Stand-alone jetties, Salt works, Slipways, Temporary structures and Erosion Control Measures (like Bunds, Seawall, Groynes, Breakwaters, Submerged reef, Sand nourishment, etc.) require clearance by the CZMA.

The Authority noted that proposed retaining wall is required for residents of Usarani village and permissible activity as per CRZ Notification, 2019.

Decision:

After deliberation, the Authority decided to recommend the proposal from CRZ point of view under CRZ Notification, 2019 to Concern Planning Authority subject to compliance of following conditions:

1. The concerned planning authority shall ensure that proposed anti sea erosion bund should be carried out strictly as per the provisions of CRZ

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Notification, 2019 (as amended from time to time) and guidelines/clarifications given by MoEF&CC from time to time.

- 2. PP to ensure that there will be no violation of order dated 17th Sep, 2018 passed by Hon. High Court in PIL 87/2006.
- 3. Project proponent to ensure that project activities to be carried out as per recommendation of CWPRS report.
- 4. PP to ensure that during construction and operation phase, ecologically sensitive features like mangroves if any, should not be cut/damaged for the project.
- 5. PP to ensure that construction of anti sea erosion bund should be along the High tide line, so that free flow of tidal water is not obstructed.
- 6. During construction phase, the project implementing agency should proactively implement all possible appropriate environmental measures to achieve minimum disturbance to coastal ecosystem.
- 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. 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.
- 9. 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.
- 10. Safe disposal of the wastewater should be ensured.
- 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. 5:</u> Proposed redevelopment of Navi Mumbai Municipal

Corporation School No. 02, at Sector 14, Diwale Village, CBD Belapur, Navi Mumbai by Navi Mumbai Municipal Corporation

Introduction:

The project proponent along with Consultant presented the proposal before the Authority. The proposal is for redevelopment of Navi Mumbai Municipal Corporation School No. 02, at Sector 14, Diwale Village, CBD Belapur, Navi Mumbai.

Consultant presented that, there is a existing ground structure having BUA of 402.613 Sq.Mt. which will be demolished and proposed structure of Ground + 2^{nd} floors will be constructed on site under reference.

As per DP Remarks, the plot under reference is reserved for NMMC School & School lay Ground

Plot area is 3696.32 Sqm, FSI area is 1863.608 sqm, Non FSI area is 1191.262 Sqm, Total Construction area is 3054.87 Sqm

Deliberations:

The Authority noted the PP has submitted the CRZ map in 1:4000 scale & report prepared by IRS, Chennai as per approved CZMP 2019. As per IRS report, the project site falls in CRZ-II area and non CRZ area. The area details in various CRZ:

CRZ Classification	Area in sqm
CRZ-II	3577.58
Outside CRZ	118.74
Total	3696.32

Consultant presented that site under reference is situated on landward side of existing road.

The Authority noted that mangrove vegetation observed in the vicinity of the project site. Consultant presented that project site is away from mangroves & its 50m buffer zone. The concerned Planning Authority to ensure that there will be no violation of order dated 17^{th} Sep, 2018 passed by Hon. High Court in PIL 87/2006.

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Member Secretary

The Authority noted that as per para 5.2 (iv) CRZ-II of the CRZ Notification, 2019, (iv) Reconstruction of authorized buildings shall be permitted, without change in present land use, subject to the local town and country planning regulations as applicable from time to time, and the norms for the Floor Space Index or Floor Area Ratio, prevailing as on the date of publication of this notification in the official Gazette.."

The Authority noted that proposed reconstruction of building in CRZ II area is permissible subject to without change in present land use and FSI as per Town and Country planning regulations existed as on date of the CRZ Notification, 2019 i.e. 18th January, 2019. The concerned planning authority should strictly ensure that the proposed construction is within the limit of permissible FSI as per DCR existed as on 18th January, 2019.

Decision:

After deliberation, the Authority decided to recommend the proposal from CRZ point of view under CRZ Notification, 2019 to concerned Planning Authority subject to compliance of following conditions:

- 1. The concerned Planning Authority shall ensure that the proposed redevelopment 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. The concerned Planning Authority should strictly ensure that the proposed redevelopment is without change in present land use and within the limit of permissible FSI as per Town and Country planning regulations existed as on 18th January, 2019 before issuing commencement certificate to the project.
- 3. The concerned Planning Authority to ensure that there will be no violation of order dated 17th Sep, 2018 passed by Hon. High Court in PIL 87/2006.
- 4. 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.
- 5. 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.
- 6. Safe disposal of the wastewater should be ensured.

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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.

Member Secretary

Item No. 6:

Proposed construction of Missing link major bridge at Dattatray Tandel Marq, Sector 50, Belapur, Navi Mumbai by

Navi Mumbai Municipal Corporation

Introduction:

The project proponent along with Consultant presented the proposal before the Authority. The proposal is for construction of Missing link major bridge at Dattatray Tandel Marg, Sector 50, Belapur, Navi Mumbai.

Consultant presented that, rapid development in Navi Mumbai, especially in the CBD Belapur Node, has increased traffic flow on Dattatray Tandel Marg and the Seawoods Railway Over Bridge during peak hours. The existing bridge creates a bottleneck, causing difficulties and congestion for road users. The proposed bridge will enhance safety for traffic, road users, and nearby residents while improving connectivity between Sector 50 Belapur and Seawoods. The area of proposed bridge is 1222.40 Sq. Mt. and the area of proposed road is 864.64 Sq. Mt. which is affected by CRZ areas.

The proposed bridge is of 15 M Width & 75 M Length with 5 spans, 3 lanes having width of 10.5 m of carriageway with median of 2.0 m and footpath of 3.0 m. 35 M length Road & 30 M length Road on both the sides of the bridges.

Deliberations:

The Authority noted that PP has submitted the CRZ map in 1:4000 scale & report prepared by IRS, Chennai as per approved CZMP 2019. As per IRS report, propose bridge falls in CRZ-IA. Area details in various CRZ

Description	CRZ - Classification	Area in Sq.m	Area in sqm
Duanagad Duidag	CRZ - IA	702.16	1222.40
Proposed Bridge	CRZ - IA (50m Mangrove Buffer Zone)	520.24	1222.40
Proposed road	CRZ - IA (50m Mangrove Buffer Zone)	864.64	864.64

The Authority noted that, PP has submitted Environmental Impact Assessment (EIA) & Environment Management Plan (EMP) prepared by M/s. ACE Environment (Nabet Accredited Consultant). As per EIA Report, The proposed missing link bridge will enhance connectivity and reduce travel time, driving regional development, while the Environmental Impact Assessment (EIA) ensures that the project is carried out responsibly. By identifying potential

Member Secretary

environmental effects and implementing mitigation measures, the EIA ensures the bridge is built sustainably, minimizing harm to local ecosystems and communities. This process balances development needs with environmental protection, ensuring the project's long-term benefits are realized without compromising ecological integrity. The present impact assessment study gives details on various aspects of the proposed project. It highlights need of the project. Significant environmental impacts of the proposed project have been evaluated along with recommendation of mitigation measures and environment management plan. Effective implementation of mitigation measures is recommended for development of proposed project.

Consultant presented the Anticipated Impacts And Mitigation Measures :

	 	Impacts And Mitigation Measures:	
Impact	Construction Phase	Mitigation Measure	Operation Phase
	be temporarily modified by vegetation removal and addition of increased pavement	compensated by plantation of trees on approach roads. It must be noted that the impact is unavoidable.	there during operation phase.
Physiography, Terrain and Drainage	changes in the natural drainage pattern at immediate vicinity of the site. This impact would be substantially further reduced as the proposed major bridge will have safe height from drainage channel and will be	road will also have supportive components like footpath, CD works, etc. to prevent the runoff and stabilizing the embankment. The storm water drains will be implemented on the road. Thus, will improve the	there during operation phase.

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Chairman

Minutes of the $180^{\rm th}$ Meeting (Day-1) of Maharashtra Coastal Zone Management Authority held on $10^{\rm th}$ December, 2024

Borrow Areas	The borrow areas disturbs Borrow pits will be backfilled No impact willbe
	top soil containing with rejected construction there during
	high nutrients. wastes and will be given apperation phase.
	The soil erosion for vegetative cover.
	borrow areas leads to If this is not possible, then
	sedimentation along the excavation slopes will be
·	adjacent lands. benched and depression will
	The borrow areas also be provided with an
	triggers impact on safety embankment with approach
	of humans and animals to the pit at one location,
	During excavation, the so that it can serve as a
	excavator emanates rainwater harvesting to
	dust with a fine organic recharge the ground water.
	silt content between 2
	to 10 microns which
	affects nearby
	communities.

Impact	Construction Phase	Mitigation Measure	Operation Phase
Quarry Areas	with the requires statutory clearances have been recommended for the project.	Though the quarry materials are to be transported over long distances to the construction sites, almost all the quarries identified have proper access roads, therefore, no major impacts during the hauling of materials is envisaged	there during operation phase.
Soil Erosion	embankments along the bridges and the bridge approaches would be vulnerable to erosion and need to be provided proper slope protection measures to prevent erosion.	Silt fencing to be provided to prevent eroded material from entering watercourses. The project has taken care of this issue at the engineering design stage itself, the slopes of the embankments are perceived to be stable.	envisaged when the road is in operation as all the slopes and embankments of the project road shall be stabilized through sound engineering

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	Compaction of soil will occur This		
	in the pre-construction be th		
	stage (particularly during ROW		
	site clearance stage) due to ensur		
	movement of heavy adver		
	machinery and vehicles. comp		
·	Similarly, compaction will than	the ROW, where	function of
	take place during setting up		
	of construction camps and 1	rain infiltration	sub base
	and stockyard. will to	ake place	
Soil	During construction the Const	truction activity should	During the operation
Contamination	major impacts on soil would be Th	ne topsoil shall be	stage, soil pollution
1	occur due to excavation, strip		
	compaction due toof 1	5 cm at all locations	vehicle spills or leaks
	movement of heavy opens	ed up for	is a low probability as
	equipment and levelling as const	ruction. The stripped	one of the main
	well as pollution due to topso	il shall be carefully	objectives of the
	addition of murmur.	opiled at suitable	project is to reduce
	acces	ssible locations	accidents, but
	appro	oved by the NMMC	potentially disastrous
	Engin	eer.	to the receiving
			environment should
			they occur.

Impact	Construction Phase	Mitigation Measure	Operation Phase
Water Resources	drainage structures are proposed to be constructed to maintain the natural flow of the water along the proposed project. The creek water might be subject to adverse impacts due to the various construction activities as well as during	During the progress of work the contractor will remove obstructions that may cause any temporary flooding of local drainage channels during construction. No spoil or construction mateial will be stored outside the proposed RoW or at places obstructing the natural drainage system All the diversion and bunds shall be removed such that there should be minimum amount of sediment generation	does not make a demand on the available water resources apart from time-to-time requirement during works such as maintenance of road side tree plantations. Local authority water supply will be utilized all for this purpose.

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,	Due to tree felling soils The engineering design shall No impact will be
(Creek)	around the water bodies ensure protection of there during
	and surface drainage embankment slopes. operation phase.
	channels will be exposedHowever, water quality
	during the pre- may be impacted due
	construction stage, during to accidental spillage of
·	which, the suspended from vehicles, solid waste
	sediments and the thrown, which may
	associated pollutants canbelend up reaching into local
	washed in to these waterwater bodies.
	sources. The impacts due to Excavated material should
	the increased sediment be stockpiled away
	load will be significant from waterbody and
	to some extent disposed to designated site
	Contamination of regularly.
ľ	groundwater is another
ł	likely impact of road
l	construction and allied
	activities. The
	groundwater recharge
	areas may be reduced due
	·
	to an increase in impervious
	layers due to the
	construction.

Impact	Construction Phase	Mitigation Measure	Operation Phase
Air Quality	located in near vicinity	quality as suggested in Construction stage monitoring program Regular maintenance and pollution check is proposed for construction vehicles and machineries No bad quality fuel shall be used in construction vehiclesand machinery	on air quality during operation stage shall not be as significant as that of construction stage. No fugitive dust is





Noise	Site clearing activities, The plants and equipment Smooth and safe
Levels	movement of man and used for construction traffic because of
	machineries, crusher & mixing shall strictly conform to good road will reduce
	plants operation, etc. are existing noise norms noise levels
	likely to increase the The noise level from any considerably in
	noise level of project item of plants (measured at operation phase.
	region. one meter from the edge of Tree Plantation will
	the equipment in free field) reduce considerable
	such as compactors, rollers, noise levels along
	front loaders, concrete the approach roads.
	mixers, cranes, vibrators
	and saws shall not exceed 75
1	dB (A), as specified in the
	Environmental Protection
	Rules, 1986.
	Regular Monitoring of Noise
-	levels as suggested in
	Construction stage
	monitoring programme.

Impact	Construction Phase	Mitigation Measure	Operation Phase
and Aesthetic	Impact on land use and aesthetics is expected to be from vegetation clearance for approach road construction, excavation on land and in creek area for bridge construction, levelling and grading of the site. As the land requirement for each drill site for pile construction is quite small thus there would be insignificant change to land use.	enhanced because of smooth road, well designed and implemented infrastructure. Cleanliness because of good road infrastructure dust generation will be reduced considerably.	operation phase.

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Social	No project affected	Local people will be	No impact during
Environment	properties/families.	employed for skilled and	operation phase.
	Other than this no issue is	non-skilled works.	
	envisaged related to	Social life will be	
:	Project execution. People are	enhanced because of	
	strongly demanding the	smooth and safe transport	
	project as soon as	infrastructure.	
	possible for smooth traffic	The improved connectivity	
	safety and better	to existing Seawoods	
	connectivity.	Railway bridge	
		and Palm beach road will	
		reduce	
		traffic congestion. This will	
		reduce vehicular emission	
	·	as well as prevent	
		accidents. Thus, the	٠
		proposed bridge will have	
		positive social impact.	

Expert Members asked consultant about whether mangrove cutting involved in the project. Consultant presented that, project site is situated in mangrove & its 50m buffer zone. NMMC has requested Mangrove Cell for site visit and details of cutting of mangroves present at site under reference.

Consultant further presented that for cutting of trees, Total 14 nos of trees to be cut & Compensatory trees will be planted along the same road to maintain the microclimate of the area as per the guidelines from NMMC Garden department. For mangroves, a separate application for the site visit of Mangrove cell department officer has been made. We will ensure that all required environmental regulations are followed and appropriate measures are taken.

The Authority noted that as per para 5.1.1(CRZ-IA) of CRZ Notification, 2019: "These areas are ecologically most sensitive and generally no activities shall be permitted to be carried out in the CRZ-I A area, with following exceptions:-

- (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."
- (iii) 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

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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."

The Authority noted that as per para 7 of CRZ Notification, 2019: "CRZ clearance for permissible and regulated activities- Delegation:

(iii) 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"

The Authority noted the proposed missing link is important necessary to public interest project would serve as connectivity between Seawoods Bridge at the end towards Seawoods Railway Station and it can be allowed with prior CRZ clearance from MoEF&CC, New Delhi. Further, Prior High Court permission should be obtained by the PP as per order dated 17th Sep, 2018 in PIL 87/2006, since the proposed construction of bridge & road falls in mangrove & its 50 m buffer zone areas.

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 bridge & road 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. Prior High Court permission should be obtained by the PP as per order dated 17^{th} Sep, 2018 in PIL 87/2006, since proposed bridge & road falls within mangrove & its 50 m buffer zone areas.
- 3. PP to ensure that mangroves cutting should be restricted to minimum.
- 4. Minimum three times the mangrove area affected or destroyed or cut during the construction process shall be taken up for compensatory plantation of mangroves, as per CRZ Notification, 2019.
- 5. PP to obtain the NoC from the mangrove cell.

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- 6. PP to obtain the Forest clearance under Forest (Conservation) Act, 1980 for diversion of the forest land, if applicable.
- 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. 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.
- 9. 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.
- 10. Safe disposal of the wastewater should be ensured.
- 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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Item No. 7:

Proposed providing, laying and commissioning of 900 mm dia PN-6 class HDPE treated effluent disposal pipeline in Vashi creek from BPT to Revised point of treated effluent disposal suggested by National Institute of Oceanography (NIO) by MIDC

Introduction:

The project proponent along with Consultant presented the proposal before the Authority. The proposal is for providing, laying and commissioning of 900 mm dia PN-6 class HDPE treated effluent disposal pipeline in Vashi creek from BPT to Revised point of treated effluent disposal suggested by National Institute of Oceanography (NIO).

Consultant presented that, Maharashtra Industrial Development Corporation (MIDC) established a Trans Thane Creek Industrial area at Thane - Belapur Road, Navi Mumbai in 1963 which is also known as TTC Industrial Area. The TTC industrial area is located along Thane Belapur Road towards northern side of the road and total area of the estate is around 2560 hectare (ha).

The existing disposal point in the creek was finalized by Central Water and Power Research Station (CWPRS), Pune in the year September, 1998. Maharashtra Industrial Development Corporation (MIDC), Mahape, Navi Mumbai approached CSIR-NATIONAL INSTITUTE OF OCEANOGRAPHY (CSIR-NIO) for fixing revised effluent disposal point in Thane-Vashi creek. To continue an environmentally safe disposal of the treated waste water, the new proposed pipeline would be laid in lieu of to the existing pipeline with similar design parameters. Proposed pipeline is via Vashi Creek.

Consultant further presented that, MIDC has laid an 900mm dia. HDPE (treated effluent disposal pipeline) in the year 1998 and it requires immediate repair and replacement to accommodate the discharge of 27MLD treated effluent from MIDC Mahape CETP to achieve the safe environmental conditions. Approximately 800m straight length of pipeline along with the diffuser system has been broken and found uprooted from the desired & designated location. This entire segment is missing and as a result of the same the effluent discharge is not taking place at the desired & designed location. The balance section of existing pipeline is also found in damaged condition at multiple locations and has caused treated effluent to pool around the affected areas, posing significant environmental risks to marine life in the eco sensitive zone and causing damage to the environment at large. As this is a buried pipeline and

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Chairman

almost 27 years old now, it is very difficult to salvage the pipeline and although some temporary repair works are being undertaken, the condition of the pipeline cannot be restored to its pristine conditions.

Sr. No	Particulars	Details	
1	Location of intake/ outfall	Thane creek	
2	Depth of outfall point	5.5 m MSL	
3	Length of pipeline	3.6 Km	
4	Length traversing CRZ area	3511.60 m	
5	Depth and width of excavation	Depth - 2.16 m; Width - 6.34 m	
6	Length of pipeline from shore to deep sea/creek	3.6 Km	
7	Depth of outfall point from surface of water	5.5 m MSL	
8	Depth of water at disposal point	5.5 m MSL	
9	BOD, COD, NH4	BOD: 30 mg/L, COD: 250 mg/L, NH4: 0.306 mg/L	

The MIDC has proposed replacing the existing pipeline with a new 900mm diameter HDPE pipeline for treated effluent disposal to the location prescribed by the National Institute of Oceanography (NIO).

<u>Deliberations:</u>

The Authority noted that PP has submitted the CRZ map in 1:4000 scale & report prepared by IRS, Chennai as per approved CZMP 2019. As per IRS report, various CRZ categories of proposed effluent discharge ppipeline:-

CRZ Classification	Length in Meters		
CRZ-IA	1811.88		
CRZ-IA (50 m Mangrove buffer zone)	98.10		
CRZ-IVB	1601.62		
Total	3511.60		

Project Site Coordinates:

Description	Label	Latitude	Longitude
BPT Point	BPT Point	19 ⁰ 5'38.161"N	72 ⁰ 59'08.423"E
Disposal Point	Disposal Point	19 ⁰ 4'06.707"N	72 ⁰ 57′56.509"E
Proposed Effluent Discharge	Α	19 ⁰ 5'13.316"N	72 ⁰ 58'48.882"E
Pipeline	В	19 ⁰ 4'38.377"N	72 ⁰ 58'21.398"E

The Authority noted that, PP has submitted Environmental Impact Assessment (EIA) & Environment Management Plan (EMP) prepared by M/s. M/s. SAGE (Sustainable Approach for Green Environment) LLP (Nabet Accredited Consultant). As per EIA Report, The existing treated waste water pipeline has been in operations since 1998. Since the pipeline is guite old, leakage was observed in the pipeline, which damages the creek environment and also obstructs in smooth operation of the plant. To continue an environmentally safe disposal of the treated waste, the new pipeline is proposed. This project will ensure another 10 to 20 years of proper disposal of treated wastewater without disrupting the marine ecosystem and without impacting the sea water and subsequently the groundwater. It Will also help in improving the livelihood of the local fishermen and fisher women. The proposed project is about laying of new pipeline, as a substitute for the old damaged pipeline, for disposal of treated wastewater into the Thane Vashi Creek from point BPT to disposal point as suggested by NIO. It can be concluded that after the implementation of the mitigation measures and environmental management plans, the project activities during the construction and operation phase would be manageable & largely reversible impacts on the environment, and on balance, the project would be beneficial to surrounding communities and the region. Also the proposed project activity will lead to positive environmental impact on environment.

Expert Members asked consultant about whether mangrove cutting involved in the project. Consultant presented that, the proposed pipeline extends up to 3.60 km. Considering ROW 6, the affected CRZ 1A area is 10871.28 m2 or 1.087 ha. However, during the execution period, the mangrove area affected on account of working space will be approximately 250 m X 30 m, i.e. 750 m2, or 0.75 ha only. This will result in loss of certain vegetations in the form of mangrove and associated plants, viz. Avicennia marina, Sonneratia alba, Rhizophora mucronata, Acanthus ilicifolius, Cupers sp, Alternanthera sessilis etc. Mangrove plantation in an area of 5.435 ha may be carried out as committed against CRZ 1A area of 10871.28 m2 of 1.087 ha of mudflats/mangroves.

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Expert members asked consultant about mitigation measures on impact on birds & benthic fauna in mudflats due to proposed activities. During construction phase may have negative impacts on birds and fauna of the respective area. However, these impacts will be limited period and reversible. PP will implement strict pollution prevention measures, including regular monitoring of water quality.

The Authority noted that as per para 5.1.1(CRZ-IA) of CRZ Notification, 2019: "These areas are ecologically most sensitive and generally no activities shall be permitted to be carried out in the CRZ-I A area, with following exceptions:- (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." (iii) 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."

The Authority noted that as per para 5.4 (CRZ-IV) of CRZ Notification, 2019: "Activities shall be permitted and regulated in the CRZ IV areas as under:- (vii) Facilities for discharging treated effluents into the water course. (xiii) Pipelines, conveying systems including transmission lines."

The Authority noted that as per para 7 of CRZ Notification, 2019: "CRZ clearance for permissible and regulated activities- Delegation:

(ii) 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."

The Authority noted the proposed project of release of treated effluent in the aimed at improvement in the environmental condition of the creek and it can be allowed with prior CRZ clearance from MoEF&CC, New Delhi. Further, Prior High Court permission should be obtained by the PP as per order dated 17th Sep, 2018

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Member Secretary

in PIL 87/2006, since the proposed treated effluent disposal pipeline falls in mangrove & its 50 m buffer zone areas.

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 treated effluent disposal 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. Prior High Court permission should be obtained by the PP as per order dated 17th Sep, 2018 in PIL 87/2006, since proposed treated effluent disposal pipeline falls within mangrove & its 50 m buffer zone areas.
- 3. PP to ensure that mangroves cutting should be restricted to minimum.
- 4. Minimum three times the mangrove area affected or destroyed or cut during the construction process shall be taken up for compensatory plantation of mangroves, as per CRZ Notification, 2019.
- 5. PP to obtain the NoC from the mangrove cell.
- 6. PP to obtain the Forest clearance under Forest (Conservation) Act, 1980 for diversion of the forest land, if applicable.
- 7. PP to ensure Original contours of the creek banks should not be disturbed.
- 8. PP to ensure that treated sewage is diffused through scientifically designed diffuser system.
- 9. 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.
- 10. MIDC to prepare and implement the on-site emergency plan and disaster control plan for wastewater disposal pipeline to deal with emergency situation arising out of human negligence and natural calamities. Plan should have preventive measures so that such emergency situations do not arise as far as possible.
- 11. PP to ensure that best industrial practices should be followed for fire safety measures and for conservation of coastal environment
- 12. Extra care to be taken to avoid leakages or spillages and its discharge should not be into coastal water body.
- 13. PP to restore the sites after completion of the project activities.

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- 14. 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.
- 15. 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.
- 16. Safe disposal of the wastewater should be ensured.
- 17. All other required permission from different statutory authorities should be obtained before starting construction at the site shall be ensured by Urban Local Body.

Member Secretary

Item No. 8:

Proposed Construction of Remaining Bund and Restoration of Bund with Pedestrian Path between Mandvi to Rajiwada Tal & Dist Ratnagiri by PWD

Introduction:

The project proponent along with Consultant presented the proposal before the Authority. The proposal is for Construction of Remaining Bund and Restoration of Bund with Pedestrian Path between Mandvi to Rajiwada Tal & Dist Ratnagiri.

Consultant presented that, during high tide and in monsoon, the seawater enters the landside, which causes damage to existing structures including houses, roads, agriculture land, etc. In view of the above and at more sensitive locations, local population have demanded protective measures such as ASEB/Protection wall, etc. The old protection work has suffered damages at several places over the decades due to the higher wave action especially in the monsoon season and recently increasing cyclonic conditions. The proposed restoration work is about 1320 m long and new construction of 150 m remaining bund i.e. totalling 1470m ASEB from Mandvi to Rajiwada Bhatye Bridge. The objective is the restoration work to protect properties and farms at the shore of Mandavi village.

PP has submitted CWPRS report dated 31.05.2023 as per which, desk studies are conducted for evolving the design cross-section of restoration work in the form of seawall based on the data such as beach profiles, tides, waves and the existing site conditions. A typical cross-section is evolved at Ch. 780 m. High Water Level (HWL) of + 3.40 m and Low Water Level (LWL) of +0.00 m are considered for the design of coastal protection work. The wave period is between 10 to 12 seconds. The maximum waves in the shallow Zone are breaking and design of coastal protection works is carried out considering maximum breaking wave height of 1.7 m at HWL in front of the structure. The design of coastal protection work was evolved based on the desk studies. The design is based on empirical formulae, existing conditions at the site & previous in house wave flume studies conducted at CWPRS for hydraulic stability of marine structures.

The design cross-section of the restoration work is evolved. The cross section consists of 0.5 t to 1.0 t stones in the armour placed on 1.2 slopes in double layer from el. +1.0 m to el. +5.0 m. A 3.0 m wide crest is provided at el. +5.0 m. A

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walkway in the form of PCC slab of 0.35 m thick is provided at el. 5.35 m. A 3.0 m wide toe - berm consists of 300-400 Kg stones with a seaside slope of 1:2 are provided at el. +1.0 m. Secondary layer consist of 50 to 100 kg stones (0.6m thick)

The following points may be noted during the execution of work:

- 1) The gradation of stones as recommended in the armour, secondary, toe and core layer should be strictly adhered.
- 2) Either heavier or lighter stones than the recommended should not be used in any layer of the sea wall.
- 3) Wherever suggested, the stones should be laid in double layer and the double layer thickness as mentioned in the drawing should be strictly follow.
- 4) The minimum density of stones should be 2.60 t/cu.m. Use of flatter stones (except in the crest) should be avoided.
- 5) The slope of the armour layer of the structure should be strictly followed.
- 6) The slope of armour layer of seawall is 1:2, where 1.0 is for vertical and 2.0 is for horizontal measurement.
- 7) The rubble mound structures are flexible structures and it is essential to monitor and maintain them regularly. Therefore, the periodic survey and maintenance of the seawall as and when damage occurs may be undertaken.
- 8) Proper rounding of the seawall to be ensured at the junction of nallah/creek or at bridge pier thereby allowing the flow of the existing channel.

Deliberations:

The Authority noted the PP has submitted the CRZ map in 1:4000 scale & report prepared by IRS, Chennai as per approved CZMP 2019. As per IRS report, length proposed construction in various CRZ:-

CRZ Classification	Length in m
CRZ-II	43.82
CRZ-IB	1426.18
Total	1470.00

Member Secretary

The Authority noted that, PP has submitted Environmental Impact Assessment (EIA) & Environment Management Plan (EMP) prepared by M/s. Enviro Resources (Nabet Accredited Consultant). As per EIA report, the proposed ASEB project is approx. 1470 m long and 20m wide. The EIA study has been carried out, all the impacts likely to have an effect on the environment have been identified, and efficient/adequate mitigation measures have been proposed for the same. Based on the environmental assessment, the associated potential adverse environmental impacts can be mitigated to an acceptable level by adequate implementation of the measures as stated in the EIA and EMPs. Employment generation due to the proposed project is also considered positive impact on the socio-economic environment. Looking at the overall project scenario, it can be predicted that the proposed project will have positive impact on the environment; it will be beneficial for both social and environment. All the relevant safety norms with latest technology have been incorporated in the proposed project. Hazards and associated risks, safety and security provision associated with the project activities appear to be acceptable. Hence, the project in totality may be considered environmentally safe.

The Authority asked whether mangrove cutting involved in the project. Consultant presented that, the proposed anti sea erosion bund has not fall in mangrove and its 50 m buffer zone. PP to ensure that there will be no violation of order dated 17th Sep, 2018 passed by Hon. High Court in PIL 87/2006. The Authority noted that the mitigation measures and environment management plan as suggested in the EIA report should be strictly implemented by the PWD. During construction and operation phase, ecologically sensitive features like mangroves if any, should not be cut/damaged for the project.

The Authority observed that, small creeklet present at proposed anti sea erosion bund. PP to ensure that construction of anti sea erosion bund should be along the High tide line, so that free flow of tidal water is not obstructed.

The Authority noted that as per para 5.1.2 (CRZ-IB) 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,

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breakwaters, pipelines, lighthouses, navigational safety facilities, coastal police stations, Indian coast guard stations and the like."

The Authority noted that as per para 5.2 (CRZ-II) of CRZ Notification, 2019: "(i) Activities as permitted in CRZ-I B, shall also be permissible in CRZ-II, in so far as applicable."

The Authority noted that as per para 7 of CRZ Notification, 2019 (amended as on 24.11.2022):

CRZ clearance for permissible and regulated activities- Delegation:

"(ii) 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 the Central Government for Coastal Regulation Zone 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, Groynes, Breakwaters, Submerged reef, Sand nourishment, etc.) which shall be dealt by concerned Coastal Zone Management Authority.";

Moreover, as per OM dated 29.11.2022 published by MoEF, New Delhi, Project activities such as Stand-alone jetties, Salt works, Slipways, Temporary structures and Erosion Control Measures (like Bunds, Seawall, Groynes, Breakwaters, Submerged reef, Sand nourishment, etc.) require clearance by the CZMA.

The Authority noted that proposed restoration of bund to protect properties and farms at the shore of Mandavi village and permissible activity as per CRZ Notification, 2019.

Decision:

After deliberation, the Authority decided to recommend the proposal from CRZ point of view under CRZ Notification, 2019 to Concern Planning Authority subject to compliance of following conditions:

- The concerned planning authority shall ensure that the proposed anti-sea erosion bund 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 to ensure that there will be no violation of order dated 17th Sep, 2018 passed by Hon. High Court in PIL 87/2006.

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- 3. Project proponent to ensure that project activities to be carried out as per recommendation of CWPRS report.
- 4. PP to ensure that during construction and operation phase, ecologically sensitive features like mangroves if any, should not be cut/damaged for the project.
- 5. PP to ensure that construction of anti sea erosion bund should be along the High tide line, so that free flow of tidal water is not obstructed.
- 6. During construction phase, the project implementing agency should proactively implement all possible appropriate environmental measures to achieve minimum disturbance to coastal ecosystem.
- 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. 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.
- 9. 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.
- 10. Safe disposal of the wastewater should be ensured.
- 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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Item No. 9:

Proposed construction of Office Building, Marathi Bhasha Bhavan, Gallery and Auditorium on plot bearing C.S. No. 1736 of Girgaum Division, at Marine Drive, Netaji Subhash Chandra Bose Marq, in 'D' ward, Mumbai by PWD

Introduction:

The project proponent along with Consultant presented the proposal before the Authority. The proposal is for construction of Office Building, Marathi Bhasha Bhavan, Gallery and Auditorium on plot bearing C.S. No. 1736 of Girgaum Division, at Marine Drive, Netaji Subhash Chandra Bose Marg, in 'D' ward, Mumbai.

Consultant presented that, there is one existing building comprising of Ground floor structures 1^{st} to 2^{nd} Upper floor on plot bearing CTS No. 1736 which is standing on site and proposed to be demolished.

The proposal is for redevelopment to a new office building, Marathi Bhasha Bhawan Gallery and Auditorium, comprising of Two Basements Ground Floor 1 st floor 5 th upper floor having total height 24.00 mt from general ground level up to terrace level. The development is proposed only in the NON CRZ Portion of the plot under reference.

The proposal has received Hon MC's concessions vide no P 10473 2022 1736 (D Ward/ GIRGAUM/ 337 1 /Amend dated 11.10.2024. The Provisional CFO NOC has been issued on 22.05.2024

As per D P Remarks 2034 the plot under reference is situated in Residential zone and reserved under EO-2.1 +RO-3.1 (Government Office Disaster Management Facilities) (Part of larger existing amenities).

Plot area is 3732.47 Sqm, FSI area is 9626.84 sqm, Non FSI area is 5817.42 Sqm, Total Construction area is 15444.26 Sqm

Deliberations:

The Authority noted the PP has submitted the CRZ map in 1:4000 scale & report prepared by IRS, Chennai as per approved CZMP 2019. As per IRS report, the project site falls in CRZ-II area and non CRZ area. The area details in various CRZ:

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CRZ Classification	Area in sqm
CRZ-II	644.06
Outside CRZ	6109.62
Total	6753.68

Consultant presented that site under reference is situated on landward side of existing road.

The Authority observed that plot area in the submission is 3732.47 Sqm and as per IRS survey is 6753.68 sqm. The Consultant presented that the MCGM has vide letter dated 09.09.2024 approved the amalgamation and subdivision of Plots bearing CTS No. 1736 and 1/1736 and accordingly IRS has carried out CRZ survey for the both plots. However, present proposal is only for CTS No. 1736 with plot is 3732.47 Sqm under consideration.

Consultant further presented that, the development is proposed only in the NON CRZ Portion of the plot under reference.

The Authority noted that activities proposed beyond CRZ areas as per approved CZMP, 2019 are outside the ambit of CRZ Notification, 2019. There shall not be impact on CRZ area, from any activities proposed to be carried out in Non CRZ area. The concerned Planning Authority i.e. MCGM shall strictly ensure the same.

Decision:

After deliberation, the Authority decided to recommend the proposal from CRZ point of view under CRZ Notification, 2019 to concerned Planning Authority subject to compliance of following conditions:

- 1. The concerned Planning Authority shall ensure that the proposed construction should be carried out strictly in non CRZ area as per the approved CZMP under CRZ Notification, 2019.
- 2. The concerned Planning Authority shall ensure that, there shall not be impact on CRZ area, from any activities proposed to be carried out in Non CRZ area.
- 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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- 4. 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.
- 5. Safe disposal of the wastewater should be ensured.
- 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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Item No. 10:

Proposed Construction of Water Pipeline from Netaji Subhashchandra Bose Water Tank to Murdhe Khadi Gyanjyoti Savitribai Phule Baal Udyaan in Murdhe and Bhayandar Villages, Bhayandar (W), Thane District, Maharashtra by M/s. Mira Bhayandar Municipal Corporation (MBMC).

Introduction:

The project proponent along with Consultant presented the proposal before the Authority. The proposal is for Construction of Water Pipeline from Netaji Subhashchandra Bose Water Tank to Murdhe Khadi Gyanjyoti Savitribai Phule Baal Udyaan in Murdhe and Bhayandar Villages, Bhayandar (W), Thane District.

Consultant presented that, Murdhe and Bhyandar Village, like many other areas in Mira-Bhayandar, may face challenges in accessing a reliable supply of clean and safe drinking water. A dedicated water pipeline project can help address these challenges by ensuring a steady, continuous supply of potable water, reducing the dependence on irregular and unsafe sources.

Mira Bhayandar Municipal Corporation (MBMC) has proposed construction of Water Pipeline having Length-347 m, Width- 1 m and Diameter 0.5m from Netaji Subhashchandra Bose Water Tank to Murdhe Khadi Gyanjyoti Savitribai Phule Baal Udyaan in Murdhe and Bhayandar Villages, Bhayandar (W), Thane District.

Project Site Coordinates:

Label	Latitude	Longitude
A	19° 17' 58.034" N	72° 49' 57.572" E
В	19° 17' 56.245" N	72° 50' 20.819" E
C	19° 17' 56.725" N	72° 50' 27.203" E

Deliberations:

The Authority noted that PP has submitted the CRZ map in 1:4000 scale & report prepared by IRS, Chennai as per approved CZMP 2019. As per IRS report, proposed water pipeline falls in CRZ-II area.

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The Authority noted that, PP has submitted Environment Management Plan (EMP) prepared by Mantec Consultant Private Limited (Nabet Accredited Consultant). As per EMP Report,

	Environmental components	Potential Impacts	Potential Source of Impact	1	Impact Evaluation	Remedial Measures
1.	Ground Water Quality	Ground Water Contamination	ł	Water will be reused as per the requirement	significant	No depressions will be leftover on the <i>G</i> L.
		groundwater quality (chemical contamination,	Phase: Leaking pipelines, improper	quality monitoring , proper sealing	moderate impact with regular monitoring.	Immediate leak repair, treatment of affected groundwater, installation, of containment systems.
2	Surface water Quality	water Contamination	runoff from site during construction activity.	collection of water in pits and trenches	No onsite impact envisaged as no surface water receiving body is present in the core zone.	Used water will not be discharges into the surface bodies.
		leaks	Phase: Corrosion, improper	of non-	with good management practices.	Routine inspection and maintenance containment and treatment of surface water discharge.





3	Air Quality	Dust (Construction	Suitable control	Not significant	During
	,	I I		measures will be		_
		1 F		adopted for		
		I I		mitigating the	- ·	•
				$PM_{2.5}$ & PM_{10}	•	
				level in the air		
		1 1			l i	for the labors.
		!!		pollution control		101 1110 100010.
			17		techniques.	
4	Noise	Disturbance	Construction	Noise barriers,	High noise in	Limit working
	Environment	to F	<u>hase:</u>	equipment with	close proximity	hours, noise
		communities	Operation of	noise	to	attenuation, use of
		-	ieavy :	suppression,	Construction	quieter machinery.
		l r	nachinery,	scheduling	activities	
1		+	rucks and	work during		
ĺ		l e	guipment.	daytime hours		
			· ·	•		
<u> </u>					,	
5	Land	Soil				Storage area of
	Environment	Contamination	Phase:	debris will be	impact. Impact	the construction
			Disposal	collected and	will be local, as	material shall be at
			of	suitably used	lwaste	adequate distance
			construction	on site as per	generated will	from the coastal
			debris	the solid waste	be reused for	(Marine/CRZ) area
•				management	filling of low	
			-	plan for	lying areas,	chances of
				construction	etc.	contamination of
				phase		coastal/marine
						environment as well
						as to facilitate
						proper/ efficient
						construction
						work.
6	Socio-	Overall	Construction	<u>n</u> Project will	Beneficial	-
	Economic	positive	<u>Phase:</u>	provide	impact	
	Environment	impact	Site	employment		
			Operation	opportunities		
		÷		to the local	I	
				people in terms	;	
				of labor		
				during	Ì	
				construction.		
			<u> </u>	construction.	<u> </u>	L

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7	Traffic	Increase	Construction	Heavy	No negative	Traffic rerouting,
	Pattern		Phase:	l	, ,	road
		vehicular	Heavy	movement will	1 '	repairs, speed
		traffic, road	vehicular	be restricted		reduction zones,
		damage	movement	to		safety awareness
			during	daytim		campaigns
			construction	e only and		
				adequate		
				parking		
	•			facility will be		
				provided.		
9	Energy	Increased	Pumps,	Energy-	No significant	Implementation of
	Consumption	energy use,	treatment	efficient	impact.	renewable energy,
	during	potential	plants,	pumps,		optimization of
	operation	emissions	pressurizati	renewable		energy use,
			on	energy sources,		regular
			equipment	energy audits		maintenance.

The Authority observed that mangrove vegetation present in the vicinity of project site. Expert Members asked consultant about whether mangrove cutting involved in the project. Consultant presented that, the proposed pipeline not falls in mangroves and its 50 m buffer zone as per approved CZMP under CRZ Notification, 2019. Proposed pipeline fully falls in CRZ-II area.

The Authority asked PP to ensure that during the construction phase, the mangrove vegetation must be protected and mangrove vegetation should not be disturbed. PP to ensure that there will be no violation of order dated 17^{th} Sep, 2018 passed by Hon. High Court in PIL 87/2006. PP to obtain the NoC from the Mangrove Cell.

The Authority noted that as per para 5.1.2(CRZ-IB) of CRZ Notification, 2019: "(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.

(xv) Pipelines, conveying systems including transmission lines."

The Authority noted that as per para 5.2 (CRZ-II) of CRZ Notification, 2019: "(i) Activities as permitted in CRZ-I B, shall also be permissible in CRZ-II, in so far as applicable."

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Member Secretary

The Authority noted that as per para 7 of CRZ Notification, 2019: "CRZ clearance for permissible and regulated activities- Delegation: (iii) 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."

The Authority noted the proposed Water pipeline provides reliable drinking water supply to local communities. Further, PP to ensure that there will be no violation of order dated 17th Sep, 2018 passed by Hon. High Court in PIL 87/2006. PP to obtain the NoC from the Mangrove Cell.

Decision:

After deliberation, the Authority decided to recommend the proposal from CRZ point of view under CRZ Notification, 2019 to concerned Planning Authority subject to compliance of following conditions:

- 1. The proposed water pipeline should be carried out strictly as per the provisions of CRZ Notification, 2019 (as amended from time to time) and quidelines/ clarifications given by MoEF&CC from time to time.
- 2. PP to ensure that there will be no violation of order dated 17th Sep, 2018 passed by Hon. High Court in PIL 87/2006.
- 3. PP to obtain the NoC from the Mangrove Cell.
- 4. Project proponent should implement Mitigation measures and Environment Management plan as stipulated in the report, effectively and efficiently during construction and operational phase of the project to ensure that coastal environment is protected.
- 5. PP to restore the sites after completion of the project activities.
- 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. 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.
- 8. Safe disposal of the wastewater should be ensured.
- 9. All other required permission from different statutory authorities should be obtained before starting construction at the site shall be ensured by Urban Local Body.

Member Secretary

Item No. 11:

Proposed Construction of Water Pipeline from Dongri Kumbharda Datta Mandir Bus Stop to Dongri Pumping Station, Left Side Road in Dongri Village, Bhayandar (W), Thane District, Maharashtra by M/s. Mira Bhayandar Municipal Corporation (MBMC).

Introduction:

The project proponent along with Consultant presented the proposal before the Authority. The proposal is for Construction of Water Pipeline from Dongri Kumbharda Datta Mandir Bus Stop to Dongri Pumping Station, Left Side Road in Dongri Village, Bhayandar (W), Thane District.

Consultant presented that, Dongri Village, like many other areas in Mira-Bhayandar, may face challenges in accessing a reliable supply of clean and safe drinking water. A dedicated water pipeline project can help address these challenges by ensuring a steady, continuous supply of potable water, reducing the dependence on irregular and unsafe sources.

Mira Bhayandar Municipal Corporation (MBMC) has proposed construction of Water Pipeline having Length-255 m, Width- 1 m and Diameter 0.5 m from from Dongri Kumbharda Datta Mandir Bus Stop to Dongri Pumping Station, Left Side Road in Dongri Village, Bhayandar (W), Thane District.

Project Site Coordinates:

Label	Latitude	Longitude
Α	19° 17' 29.572" N	72° 48' 12.098" E
В	19° 17' 24.670" N	72° 48' 26. 799" E

Deliberations:

The Authority noted that PP has submitted the CRZ map in 1:4000 scale & report prepared by IRS, Chennai as per approved CZMP 2019. As per IRS report, proposed water pipeline falls in CRZ-II area & Non CRZ area. Length of water pipeline in various CRZ:-

S. No.	CRZ-Classification	Length (in Meters)
1	CRZ-II	419.76
2	Outside CRZ	58.1
	Total	477.86

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The Authority noted that, PP has submitted Environment Management Plan (EMP) prepared by Mantec Consultant Private Limited (Nabet Accredited Consultant). As per EMP Report,

1	Environmental components	Potential Tmnacts	Dotantial	_	- 1	Remedial Measures
1.	Ground Water Quality		Phase: Waste water	Water will be reused as per the requirement	significant	No depressions will be leftover on the GL.
		of	Operation Phase: Leaking pipelines, improper disposal of wastes.	quality monitoring , proper sealing	moderate impact with regular	Immediate leak repair, treatment of affected groundwater, installation, of containment systems.
2	Surface water Quality	Surface water Contamination		water in pits and trenches	impact envisaged as no surface water receiving body is present ir the core zone.	
		Surface water Contamination From pipeline leaks	L	1 /		Routine inspection dand maintenance containment and treatment of surface water discharge.

Member Secretary

3	Ain Quality	Nust	Canatanatian	Cuitable control	Not significant	Nunina
l ₂	Air Quality	I I				
		I		neasures will be		
ļ				•	generation will	•
					be temporary	
		ļ •			and will settle	
			and	evel in the air	fast due to	facilitate masks
		1	vehicular	as per air	dust	for the labors.
			movement	pollution control	suppression	
			l'		techniques.	
4	Noise	Disturbance	Construction	Voise barriers,	High noise in	Limit working
	Environment	ı			close proximity	
		communities		• •	i ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	attenuation, use of
			, ,		1	quieter machinery.
			machinery,		activities	quierei macininei y.
			, ,	work during	1	
 				5		
			equipment.	daytime hours		
5	1	Soil	IC		Na sianifiaant	Storage area of
ြ	Land			n Construction		
	Environment	Contaminatio				the construction
			Disposal	l)		material shall be at
			of of			adequate distance
	•		l l			from the coastal
			debris	the solid waste		(Marine/CRZ) area
			1	management	filling of low	
				plan foi	r lying areas,	chances of
				construction	etc.	contamination of
				phase		coastal/marine
			i	ľ	ļ	environment as well
						as to facilitate
						proper/ efficient
					l .	construction
					l l	work.
_	Caria	Overell	Canatanatia	Dunai a a t		WOI N.
1	Socio-	Overall	Constructio	7 .	Beneficial	[
	Economic	positive	Phase:	provide	impact	
	Environment	impact	Site	employment		
			Operation	opportunities		
				to the loca		
		İ		people in terms	s	
				of labor		
		i		during		
		İ		construction.	1	
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7	Traffic	Increase	Construction	Heavy	No negative	Traffic rerouting,
	Pattern	of	Phase:	Vehicular	impact	road
		vehicular	Heavy	movement will		repairs, speed
		traffic, road	vehicular	be restricted		reduction zones,
		damage	movement	to		safety awareness
		•	during	daytim		campaigns
			construction	eonly and		
				adequate		
				parking		
				facility will be		
				provided.		
9	Energy	Increased	Pumps,	Energy-	No significant	Implementation of
	Consumption	energy use,	treatment	efficient	impact.	renewable energy,
	during	potential	plants,	pumps,		optimization of
	operation	emissions	pressurizati	renewable		energy use,
	i		on	energy sources,		regular
			equipment	energy audits		maintenance.
			·		1 1 4	
					<u> </u>	

The Authority observed that mangrove vegetation present in the vicinity of project site. Expert Members asked consultant about whether mangrove cutting involved in the project. Consultant presented that, the proposed pipeline not falls in mangroves and its 50 m buffer zone as per approved CZMP under CRZ Notification, 2019. Proposed pipeline falls in CRZ-II & Non CRZ area.

The Authority asked PP to ensure that during the construction phase, the mangrove vegetation must be protected and mangrove vegetation should not be disturbed. PP to ensure that there will be no violation of order dated 17^{th} Sep, 2018 passed by Hon. High Court in PIL 87/2006. PP to obtain the NoC from the Mangrove Cell.

The Authority noted that as per para 5.1.2(CRZ-IB) of CRZ Notification, 2019: "(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.

(xv) Pipelines, conveying systems including transmission lines."

The Authority noted that as per para 5.2 (CRZ-II) of CRZ Notification, 2019: "(i) Activities as permitted in CRZ-I B, shall also be permissible in CRZ-II, in so far as applicable."

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Member Secretary

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The Authority noted that as per para 7 of CRZ Notification, 2019: "CRZ clearance for permissible and regulated activities- Delegation: (iii) 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."

The Authority noted the proposed Water pipeline provides reliable drinking water supply to local communities. Further, PP to ensure that there will be no violation of order dated 17^{th} Sep, 2018 passed by Hon. High Court in PIL 87/2006. PP to obtain the NoC from the Mangrove Cell.

Decision:

After deliberation, the Authority decided to recommend the proposal from CRZ point of view under CRZ Notification, 2019 to concerned Planning Authority subject to compliance of following conditions:

- 1. The proposed water 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. PP to ensure that there will be no violation of order dated 17th Sep, 2018 passed by Hon. High Court in PIL 87/2006.
- 3. PP to obtain the NoC from the Mangrove Cell.
- 4. Project proponent should implement Mitigation measures and Environment Management plan as stipulated in the report, effectively and efficiently during construction and operational phase of the project to ensure that coastal environment is protected.
- 5. PP to restore the sites after completion of the project activities.
- 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. 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.
- 8. Safe disposal of the wastewater should be ensured.
- 9. All other required permission from different statutory authorities should be obtained before starting construction at the site shall be ensured by Urban Local Body.

Secretary

<u>Item No. 12:</u> Proposed Crude Oil Terminal and Product Tanks at MPA, Jawahar Dweep Island, Mumbai by Hindustan Petroleum Corporation Limited

Introduction:

The project proponent along with Consultant presented the proposal before the Authority. The proposal is for Crude Oil Terminal and Product Tanks at MPA, Jawahar Dweep Island, Mumbai.

Consultant presented that, Jawahar Dweep is an island located within Mumbai Harbour and is under jurisdiction of Mumbai Port Authority (MPA). It is having multiple operational Jetties to load/unload Crude and Petroleum Product parcels. Presently, Jetties J1, J2 & J3 are for Product movement and J4 & J5 are for Crude Oil receipt. HPCL is planning to set up new 280 TMT (Pumpable Capacity) Crude storage tanks, product tanks, transfer and associated facilities at this location

HPCL envisages construction of 12 Nos. of crude storage tanks, 4 Nos. Of MS/Naphtha storage tanks, temporary jetty, 2 Nos. Of Crude/Water Drain Tanks and associated facilities such as laying cables, pumps, basket filters, UG Vessels, drainage system etc. Power will be sourced from State Grid and the same will laid from refinery to Jawahar Dweep through sub-sea trenches.

Environmental Clearance is not applicable for this project as per EIA Notification, 2006, for this category which is mentioned as "Isolated Storage & Handling of Hazardous Chemicals". However, the proposed project is located within CRZ area for which CRZ recommendation is required from MCZMA and CRZ Clearance from MoEFCC.

The proposed project is located at Jawahar Dweep Island, which is within Mumbai Port Authority (MPA) limits and approximate coordinates of the locations are: 18°57'36"N & 72°54'12"E.

Details of Proposed Storage Tanks:

	Capaci	ty (m3)	Prod	duct
Tank no.	Existing	Proposed	Existing	Proposed
1001	0	33180	N/A	Crude Oil
1002	0	33180	N/A	Crude Oil

Member Secretary

Fruk Chairman

1003	0	33180	N/A	Crude Oil
1004	0	33180	N/A	Crude Oil
1005	0	33180	N/A	Crude Oil
1006	0	33180	N/A	Crude Oil
1007	0	3500	N/A	Crude Water
2001	0	33180	N/A	Crude Oil
2002	0	33180	N/A	Crude Oil
2003	0	33180	N/A	Crude Oil
2004	0	33180	N/A	Crude Oil
2005	0	33180	N/A	Crude Oil
2006	0	33180	N/A	Crude Oil
2007	0	3500	N/A	Crude Water
3001	21000	21000*	MS/Naphtha	MS/Naphtha
3002	21000	21000*	MS/Naphtha	MS/Naphtha
3003	10000	10000*	MS/Naphtha	MS/Naphtha
3004	10000	10000*	MS/Naphtha	MS/Naphtha

^{*}Existing tanks will be dismantled and new tanks with same capacity will be installed.

Deliberations:

The Authority noted the PP has submitted the CRZ map in 1:4000 scale & report prepared by IRS, Chennai as per approved CZMP 2019. The area of proposed facilities in various CRZ zones:

CRZ - Classification	Area in Sq. meters
CRZ - IB	95952.48
CRZ - III (NDZ)	20817.54
CRZ - IVA	60415.50
Total Area	177185.52

PP has submitted Environmental Impact Assessment (EIA) Report prepared by M/s. Engineers India Ltd (Nabet Accredited Consultant). Details of the marine environmental impacts and mitigation measures:

1) Marine Water:-

Construction Phase Impacts: Accidental spills and leaks from construction machinery and existing facilities will release. crude oil into marine waters, leading to immediate contamination of marine water.

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Crude oil contains various toxic compounds, including hydrocarbons and heavy metals, which will degrade marine water quality. Improper storage and handling of construction waste will result in its dispersion into the water column, consequently elevating the concentration of suspended solids in the water. Increased suspended solids can degrade water quality by reducing water clarity and light penetration.

Mitigation Measures: Implement spill prevention measures such as regular maintenance and infrastructure inspection during construction phase. Operational spillages by machinery/equipment/vehicles will be prevented by regulations supported by an effective enforcement program and provision of adequate reception facilities. Ensure that construction waste materials will be stored securely in designated areas away from marine water. Implement proper containment measures such as barriers or covers to prevent runoff and leaching of waste into nearby marine waterways.

Operation Phase Impacts: During the operational phase, crude oil will be spilled in the COT area due to some operational failure, corrosion effect, or natural hazards like storms, earthquakes, tsunamis, etc Discharges of bilge water, oily wastewater, and sewage from terminal operations can pollute marine waters.

Mitigation Measures: The COT system must have all facilities to contain the oil spill occurring in the COT area and prevent it from spreading towards the marine water. An oil spill contingency plan as per ERDMP of MPA is in place and is mentioned above in section 7.2.4.6 under Emergency response and Disaster Management Plan section of this chapter. Furthermore, a specific oil spill contingency plan is elaborated in the marine impact assessment report attached as Annexure-IV carrying oil spill modelling and contingency plan.

2) Marine sediment:

Construction Phase Impacts: Raw material and construction waste if not properly stored and handled will get dispersed in the water column thereby increasing the suspended solids and turbidity in water. The increased suspended solids will settle onto the seafloor, leading to sedimentation. This sedimentation may alter the composition and structure of marine sediment layers. Runoff from construction sites may contain pollutants such as oil, grease, and chemicals (to be used during construction activities), which will contaminate sediment.

Mitigation Measures: Implement sediment and erosion control measures such as silt fences, sediment traps, and erosion control blankets to

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minimize sedimentation and turbidity in marine waters. Raw material and waste (any kind) should be stored in a covered place to avoid seepage inthe sediment during rainy and windy conditions.

Operation phase Impacts: Minimal impact on marine sediment is anticipated due to project activities in the operation phase.

Mitigation Measures: Further, enforce spill prevention measures by conducting routine maintenance and inspections of project infrastructure.

3) Marine Ecology:

Construction Phase Impacts: Oil spills are an unlikely phenomenon of fuel leakage from the machinery/equipment, if this spillage comes in contact with the coastal area, it may block light penetration reduce primary production, and lead to mass mortality of plankton, benthic communities, fish, etc. Project site land run-off may enter the marine water and increase the water turbidity by causing disturbance to fish. Solid waste or any debris dumping in coastal or marine water will impact marine ecology by reducing their density and diversity.

Mitigation Measures: An oil spill contingency plan needs to be prepared to reduce the impact of oil spillage which may occur due to vessel movements, and oil lubricants. Regular monitoring for corrosion and leak detection to be carried out. The construction schedule should be strictly followed, and no overruns should be ensured. Brief the workers and contractors on the importance of the coastal environment and restricting unwanted damage. Construction waste shall not be allowed to be dumped in the coastal or intertidal area. Program and management of ship trips should be properly maintained according to the tide schedule so that if any turbidity develops it will be dispersed with time. The contractor should take care to stop run-off water from entering the intertidal area. Well-maintained equipment, skilled workforce, and proper technique will be adopted to reduce chances of accidental oil spillage, and other construction material mixed into seawater.

Operation Phase Impacts: During the operational phase, crude oil can be spilled due to some operational failure, corrosion effect, or natural hazards like storms, earthquakes, tsunamis, etc. The oil spill will impact the water, sediment, and aquatic life. The spill prevents light penetration and thus reduces primary production, and leads to mass mortality of plankton, benthic communities. Proposed project site wastewater consists mainly of tank bottom draining and contaminated storm water runoff, including water from tank leaks and spills. If the wastewater is discharged directly into the marine water around the COT it will cause

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adverse impacts on the marine ecology i.e. plankton, fishes, benthic organisms, etc. The primary production will be affected by limiting the light penetration due to oil spread in the water surface and turbidity. Transport of oil through pipelines can cause accidental oil spills due to breakage or leakage of the pipeline. This spillage if takes place in marine water, it will impact the density of marine aquatic ecology.

Mitigation Measures: Identification of areas in and around the project site that are sensitive to oil spillages. However, an emergency contingency plan should be prepared outlining authority and responsibility for dealing with oil spills. All storage tanks shall be Designed, Fabricated, Erected and Tested as per API-650/ IS-803 Standard, (American Petroleum Institute), 11th Edition and CCTV cameras will be set up. The wastewater generated from the project site will be sent to soak pits so marine water quality will not be contaminated, and marine biotic components are not affected. Regular maintenance will be carried out. The used oils and lubricants will be collected in drums from the equipment such as diesel engines; compressors etc. and either re-used or sent to MPCB-authorized recyclers. Waste management can be practiced at the project area and waste disposal within the confines of the project site will be actively prohibited.

4) Avifauna Impacts: Oil spills are widely known to cause harm to marine fauna. Oil spills affect the buoyancy and water-repellent properties of pelagic birds. Such a scenario can eventually lead to birds avoiding the area for migration in the future. Presence of oil can also affect the prey species of such species which can lead to disruption in the local ecosystem. The main source of disturbances to the fauna could be the movement and operation of heavy machinery during the operational phase. Acoustic disturbances in the aquatic environment could negatively affect the movement and behavior of fish, crustaceans, and other smaller organisms which constitute primary dietary components of water birds. Mitigation Measures: An oil spill mitigation plan should be prepared to minimize the impact of any oil spill during the operation phase. Noise-making construction activities will be avoided between the periods of 06.00 PM to 07.00 AM to minimize potential disturbances to the local flora and fauna.

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The Authority observed that the project site has already reclaimed and asked PP to submit permissions for the reclamation carried out at site under reference. PP submitted that, Mumbai Port Trust has obtained Environmental & CRZ clearance dated 25.05.2016 and amended on 20.05.2018 & 16.11.2018 for contrition of fifth oil berth. Mumbai Port Trust has offered the 15 hectare land, which includes reclaimed land about 13 hectare, to HPCL/BPCL on 30 years lease basis for setting up new 280 TMT (Pumpable Capacity) Crude storage tanks, transfer and associated facilities at this location. Rest of the area has been carved out from existing land already available with HPCL on lease. HPCL is planning to set up a Crude Oil Terminal (COT) along with associated facilities on this Jawahar Dweep Island in order to increase the storage capacity as well as reduce the Crude offloading and Product loading time.

The Authority further asked whether PP has proposed reclamation in this project. Consultant presented that project is already reclaimed by Mumbai Port Trust after obtaining necessary permissions and no further reclamation envisaged in this project.

The Authority further asked about PESO NoC. Consultant presented that PP will obtained PESO NOC.

Expert members asked details about mangrove vegetation present near site. Consultant presented that, Mangrove vegetation present beyond 50 m from the project site. No mangrove cutting involved in the project. The Authority observed that there shall not be impact on mangrove area, from any activities proposed to be carried out on site under reference.

Expert members asked about Oil Spill Contingency Plan. Consultant presented that a contingency plan is established to aid plants in managing accidental oil spills. Its main objective is to initiate the required steps to halt or reduce the spill and lessen its impact.

Expert Members further asked about temporary jetties. Consultant presented that two nos. of temporary jetties will be used for construction activities thereafter it will be dismantled.

The Authority noted as per para 5.1.2 (CRZ-IB) of CRZ Notification, 2019, "Activities shall be regulated or permissible in the CRZ-I B areas as under:(iv) Transfer of hazardous substances from ships to Ports, terminals and refineries and vice versa.

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Member Secretary

(v) Facilities for receipt and storage of petroleum products and liquefied natural gas as specified in Annexure-II to this notification, subject to implementation of safety regulations including guidelines issued by the Oil Industry Safety Directorate in the Ministry of Petroleum and Natural Gas and guidelines issued by the Ministry of Environment, Forest and Climate Change, provided that such facilities are for receipt and storage of fertilizers and raw materials required for fertilizers, like ammonia, phosphoric acid, sulphur, sulphuric acid, nitric acid, etc.

(vi) Storage of non-hazardous cargo i.e. edible oil, fertilizers and food grains in notified Ports"

The Authority noted as per para 5.3 (CRZ-III) of CRZ Notification, 2019 "(i) - Activities as permitted in CRZ-IB shall also be permissible in CRZ-III."

The Authority noted as per Annexure-II of CRZ Notification, 2019, "List Of Petroleum and Chemical Products Permitted for Storage in CRZ, Except CRZ-I A: (i) Crude oil; (ii) Liquefied Petroleum Gas; (iii) Motor spirit; (iv) Kerosene; (v) Aviation fuel; (vi) High speed diesel; (vii) Lubricating oil; (viii) Butane; (ix) Propane; (x) Compressed Natural Gas; (xi) Naphtha; (xii) Furnace oil; (xiii) Low Sulphur Heavy Stock; (xiv) Liquefied Natural Gas; (xv) Fertilizers and raw materials for manufacture of fertilizers; (xvi) Acetic acid; (xvii) Mono ethylene glycol; (xviii) Paraxylene; (xix) Ethane; (xx) Butadine; (xxi) Methanol; (xxii) Caustic; (xxiii) Bitumen."

The Authority noted as per para 7 of CRZ Notification, 2019,

"(iii) 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."

The Authority noted the proposal of Crude Oil Terminal and Product Tanks can be allowed with prior CRZ clearance from MoEF&CC, New Delhi.

Decision:

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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 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. PP to ensure that Petroleum and Chemical Products listed in Annexure-II of CRZ Notification, 2019 shall be only permitted for Storage in the CRZ area.
- 3. PP to ensure that there will be no violation of order dated 17th Sep, 2018 passed by Hon. High Court in PIL 87/2006.
- 4. PP to ensure that free flow of tidal influence water should not be hampered.
- 5. PP to ensure that proposed project strictly conform to norms / regulations specified in Oil Industry Safety Directorate (OISD) as may be applicable.
- 6. An emergency Response and Disaster Management Plan as per Petroleum and Gas Regulatory Board shall be in place before commissioning of project.
- 7. PP to obtain PESO NOC and ensure all safety measures as recommended in guidelines of Petroleum & Explosives Safety Organization (PESO).
- 8. 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.
- 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.
- 10. 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.
- 11. Safe disposal of the wastewater should be ensured.
- 12. 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.13: Amendment in CRZ clearance for construction of Versova

Bandra Sea Link, Mumbai by Maharashtra State Road

Development Corporation (MSRDC)

INTRODUCTION:

The MSRDC officials along with consultant presented the proposal before the Authority. Proposal is for amendment in CRZ clearance for construction of Versova Bandra Sea Link, Mumbai.

Officials of MSRDC presented that, the project earlier received CRZ clearance from the MoEF&CC vide letter dated 9^{th} January, 2013 valid upto 6^{th} January, 2020. Subsequently, validity of said clearance was extended till 7^{th} Jan, 2023 vide letter dated 7^{th} Feb, 2019. The project is ongoing and earlier clearance is expired, the fresh CRZ clearance has been obtained vide letter dated 18.08.2023 from MoEF&CC New Delhi. Present proposal is for amendment in CRZ clearance for construction of Versova Bandra Sea Link, Mumbai.

The MSRDC has sought amendment in the CRZ Clearance based on following reasons:

- 1) MoEF&CC New Delhi suggested that the Grade separator should be provided at all junctions in order to facilitate the decongestion of traffic.
- 2) Government Resolution (GR) published by the Government of Maharashtra (GoM) dated 25th July 2024 as per which Demand from Local fishermen for realignment of Juhu Connector and To establish the connection of Juhu and Versova connector to Western Express highway for better traffic dispersal

Accordingly, the MSRDC proposes following amendments:

- 1) Bifurcation and Extension of Versova Connector with 1 cable-stayed bridge for better traffic disbursal (to minimize impacts on mangroves and reduce traffic congestion at earlier proposed connector end)
- 2) Relocating (100m) two navigational spans (120m) on main alignment and adding two new navigational spans of 120m on Juhu connector.
- 3) Extension of Juhu Connector towards western Express Highway for better traffic disbursal

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Minutes of the $180^{\rm th}$ Meeting (Day-1) of Maharashtra Coastal Zone Management Authority held on $10^{\rm th}$ December, 2024

Consultant presented the comparison of Original and Amendment Proposal as follow:

Sr. No.	Components	Original Proposal as per CRZ Clearance dated 16 th Aug 2023		Proposal after Amendment
1.	Main alignmer	nt (Bandra to Versova)		
	Length	9.80 km (4+4 Lane)	No Change	9.80 Km (4+4 lane)
	1 Cable Stayed Bridge	150m navigation span	No Change	1 – Cable Stayed Bridge – 150 m Navigational span
	3 Balance Cantilever Spans		l.	spans as demanded by local fishermen.
	Toll Plaza	12+12 lanes	12 + 4 lanes	Toll plaza (12+4 lanes due to Free flow entry)

2.	Bandra Con	nector		
	Length	2.25 km (2+2 Lane)	No Change	2.25 km (2+2 Lane)
3.	Carter Roa	d Connector		
	Length	2.57 km (3+3 Lane)	No Change	2.57 km (3+3 Lane)
	Toll Plaza	9+9 Lanes	9+3 Lanes	Toll Plaza (9+3 Lanes due to Free flow entry)
4.	Juhu Conne	ctor		1

Member Secretary

Length	3.54 km (2+2 Lane)	3.19 km (revised connector	Total length 4.45
		length due to realignment) +	km (2+2
		1.26km extension), (2+2 lanes).	lanes)
		Two nos. additional	(due to
		navigational spans (120m)	realignment,
		proposed as demanded by	navigational span
		local fishermen.	and extension)
		Extension of Juhu Connector towards western express	
·		highway for better traffic disbursal.	
		1-Cable stayed bridge proposed, to avoid pier in existing nallah which will affect flow of water.	
a) Toll Plaza	6+6 Lanes	6+3 Lanes	Toll Plaza (6+3 Lanes due to Free flow entry)

5.	Versova Connector	Versova Connector					
	Length	2.72 km (3+3 Lane)	2.98 km (3+3 lanes) + 1.31Km (2+2 lanes)	Total length 4.29 km (3+3 lanes;			
	Cable- stayed bridge		1 cable-stayed bridge in Extension of Versova Connector towards western express highway to minimize impacts on mangroves and for better traffic disbursal	2+2 lanes) and 1 cable-stayed bridge			
	a) Toll Plaza	9+9 Lanes	9+3 Lanes	Toll Plaza (9+3 Lanes due to Free flow entry)			
6.	Project Cost						
	Total project Cost in INR	11,332.82 Cr	6,788.14 Cr	18,120.96 Cr			
	Construction Cost	6993. 99 <i>C</i> r	10,895.14 <i>C</i> r	-			

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Deliberations:-

The Authority noted that the MSRDC has submitted the CRZ map in 1:4000 scale as per approved CZMP, 2019 & report (Oct 2024) prepared by IRS, Chennai (MoEF authorized agency). As per CRZ report, area statement of the proposed road in various CRZ:-

Description	CRZ - Classification	Area in Sq.m	Total Area in Sq.m		
Main Alignment	CRZ - IVA	637843.08	637843.08		
Main Alignment - Temporary Platform	CRZ - IVA	9931.17	9931.17		
	CRZ - IB	1245.86			
	CRZ - II	4081.69]		
Bandra Connector	CRZ - III (NDZ - within CRZ-II - Greater Mumbai)	4017.46	140019.32		
	CRZ - IVA	125755.29	1		
	Outside CRZ	4919 02	1		
	CRZ - IB	607.67			
	CRZ - II	101.76			
Bandra Connector - Temporary Platform	CRZ - III (NDZ - within CRZ-II - Greater Mumbai)	18.39	7025.72		
	CRZ - IVA	6297.90			
	CRZ - IA	902.18			
Carter Road	CRZ - IA (50m Mangroves Buffer Zone)	3945.19	169227.47		
Connector	CRZ - IB	41316.84			
	CRZ - IVA	123063,26			
Carter Road	CRZ -IA (50m Mangroves Buffer Zone)	412.48			
Connector Temporary	CRZ -1B	2226.30	3765.70		
Platform	CRZ - IVA	1126.92			
,	CRZ - IA	15770.57			
Versova Connector	CRZ - IA (50m Mangroves Buffer 4084.98		195721,44		
	CRZ - IB	12728.66	1		
	CRZ - IVA	163137.23			
Versova Connector - Temporary Platform	Γ		6411.34		
	CRZ - IA	4042.40			
Versova Connector - Extension	CRZ - IA (50m Mangroves Buffer Zone)	11848.54	35805.58		
	CRZ - II	430.33			

Member Secretary

	Outside CRZ	19484.31	
Juhu Connector	CRZ - IVA	59146.31	59146.31
	CRZ - IA (50m Mangroves Buffer Zone)	7970.40	
	CRZ - IB	39634.60	
Juhu Connector -	CRZ - II	20775.88	
Realignment & Extension	CRZ - Ill (NDZ - within CRZ-II - Greater Mumbai)	3841.81	187776.00
	CRZ - IVA	83711.62	
	Outside CRZ	31841.69	

The Authority noted the CRZ status of the alighment:-

CRZ IA (50m Mangroves Buffer Zone)	CRZ IA (Mangroves)	CRZ IB	CRZ II	NDZ within CRZ II greater Mumbai	CRZ IVA	Outside CRZ
28261.59	20715.15	97759.93	25389.66	7877.66	1216424.12	56,245.02

The MSRDC has submitted the EIA/ EMP report prepared by Aaditya Environmental Services Pvt Itd (Nabet Accredited consultant). The Authority noted the observations of the EIA report along with its mitigation measures and environment management plan. As per EIA report, the project proponent and appointed contractor undertakes to take efforts to save the environment and ecology of the surrounding area. Benefits of the project include generation of opportunities, development of infrastructural employment improvement in quality of life etc. which is essential for sustainable development. The proposed and recommended mitigation measures for the project are sufficient. If implemented, all negative impacts, during and post construction can be properly mitigated and no comprehensive, broad, diverse or irreversible adverse impacts will be generated. In view of this, it may be concluded that the project of VBSL presents no major environmental and ecological concerns.

Expert Members asked about the impact of the project on mangroves. The consultant presented that at Versova Connector Forest area involved at Versova connector is 4916.71 Sq.m. The survey from mangrove cell has been conducted and issued a letter dated 3rd May 2024. Out of 4916.71 Sq.m. active mangrove area involved is 3250 Sq.m (66%). Number of mangroves affected are 142 which includes Avicennia marina, Rhizophora sp. along with 73 mangroves associate viz. Salvadora persica (Miswak). At Juhu Connector, the realignment at Juhu

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Connector involves forest area (non-mangrove) of 12983.07 m². MSRDC has obtained permission from Hon. High Court vide Order dated 08.02.2019

The MSRDC officials further presented that the land for Compensatory mangrove plantation at Charkop, Mumbai Suburban in lieu of the mangrove cut is handed over to Forest Department, GoM.

The Authority noted that the project has received earlier CRZ clearance dated 16.08.2023 from the MoEF&CC, New Delhi. Currently, the project is ongoing and Present proposal is for amendment in CRZ clearance granted by MoEF&CC, New Delhi. All conditions stipulated in CRZ clearance, Environment Clearance, Forest Clearance, Consent to Establish are being complied.

The Expert Members prescribed that the MSRDC shall implement all adequate measures in order to mitigation the impact of proposed project on coastal environment. During construction phase, necessary training and environment awareness programme should be carried out for the contractors and labours. MSRDC should strictly ensure that Noise and vibration level should be kept within prescribed limits. All mitigation measures & Environment Management Plan as suggested in the EIA report should be followed in letter and spirit. Conditions / observations of the various permissions obtained from different statutory authorities including Hon'ble High Court order shall be followed in letter and spirit.

The Authority noted that as per para 5.1.1(CRZ-IA) of CRZ Notification, 2019: "These areas are ecologically most sensitive and generally no activities shall be permitted to be carried out in the CRZ-I A area, with following exceptions:-

- (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."
- (iii) 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."

The Authority noted that as per para 5.1.2 (CRZ-IB) 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,-
- (a) foreshore facilities like ports, harbours, Jetties, wharves, quays, slipway, bridges, hover ports for coast guard, sea links, etc;
- (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: Provided that the use of reclaimed land may be permitted only for public utilities such as mass rapid or multimodal transit system, construction and installation of all necessary associated public utilities and infrastructure to operate such transit or transport system including those for electrical or electronic signaling system, transit stopover of permitted designs; except for any industrial operation, repair or maintenance;"

The Authority noted that as per para 5.2 (CRZ-II) of CRZ Notification, 2019: "(i) Activities as permitted in CRZ-I B, shall also be permissible in CRZ-II, in so far as applicable."

The Authority noted that as per para 5.4 (CRZ-IV) of CRZ Notification, 2019: "Activities shall be permitted and regulated in the CRZ IV areas as under:(ii) Land reclamation, bunding, etc to be permitted only for activities such as.(a) foreshore facilities like ports, harbours, Jetties, wharves, quays, slipway,

The Authority noted that as per para 7 of CRZ Notification, 2019:

bridges, sea links and hover ports for coast guard ,etc;"

"CRZ clearance for permissible and regulated activities- Delegation:

(iii) 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"

The Authority noted the project is in the Western suburbs of Mumbai and is designed to improve connectivity along a major North-South commuting corridor. The VBSL is expected to relieve traffic along major arterial roads such as SV road and the western express highway, leading to saving time and fuel. It can be allowed with prior CRZ clearance from MoEF&CC, New Delhi. Further, Prior High Court permission should be obtained by the PP as per order

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dated 17^{th} Sep, 2018 in PIL 87/2006, since the proposed construction of falls in mangrove & its 50 m buffer zone areas.

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 activity 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. At mangroves location, Culverts/pipes should be provided & maintained for the free movement of water to the mangrove present on both side of the propsoed sea link.
- 3. As per submission, MSRDC has obtained the permission from the Hon'ble High Court for cutting of mangroves. Conditions / observations, if any of Hon. High Court should be followed in letter and spirit
- 4. PP to implement Compensatory mangrove plantation at Charkop, Mumbai Suburban site with the help of Mangrove Cell
- 5. PP to strictly ensure that during construction phase, all possible measures should be implemented to lessen the footprint of the bridge on the mangrove area.
- 6. PP to comply the prior Forest Clearance under Forest (Conservation) Act, 1980.
- 7. PP to ensure that activities of local fishermen/ fishing should not be hampered due to proposed activities. NoC from the office of Commissioner, Fisheries should be obtained by the PP.
- 8. PP to ensure that ambient air quality specifically conncentration of particulate matter i.e PM_{10} & $PM_{2.5}$ should be maintained during construction Phase.
- 9. PP to ensure Noise level should be maintained as per Ambient Noise Quality standards.
- 10.PP to ensure that Muck Disposal Plan should be implemented and dewatered muck along with construction waste is being disposed in Non CRZ area, as proposed.
- 11. PP to ensure that free flow of the creek water is not obstructed.
- 12.PP to ensure that both Malad & Bandra casting yards of this project are located outside CRZ area as per approved CZMP 2019.

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- 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. During the construction phase, all possible efforts/ measures should be taken to maintain the coastal ecology and biodiversity.
- 15.PP 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.
- 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. Mobile toilets with mobile STPs to be provided in work front area.
- 17. All other required permission from different statutory authorities should be obtained before starting construction at the site shall be ensured by Urban Local Body.

Member Secretary

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Item No. 14:

Request for revision in Coastal Zone Management Plan of Mumbai (Sheet No. E43 16/SE, MH 76 and Sheet no. E43 G13/NE, MH 73) by BPCL

Introduction:

The project proponent along with consultant presented the proposal before the Authority. The proposal is for revision in Coastal Zone Management Plan of Mumbai (Sheet No. E43 16/SE, MH 76 and Sheet no. E43 G13/NE, MH 73) by Bharat Petroleum Corporation Limited (BPCL).

Deliberation:

Officials of BPCL presented that, as per earlier CZMP (1991), only a small portion of the Refinery landarea (<5%) was fallinging CRZ-II area. As per CZMP of 2011 & 2019, nearly 45 % of the Refinery area falls under CRZ which makes any upgradation projects of Mumbai Refinery very challenging due to paucity of space

Officials of BPCL further presented that similar mudflats and mangrove growth, Thane creek area near Sewri and Mahul are demarcated as open seashore i.e. CRZ IV-A. The coastal morphological features such as mudflats and mangrove beds of Sewri and Mahul area are similar to that of Thane creek in upstream region up to Airoli Bridge. This part of Thane creek is demarcated as CRZ IV-B. Hence, BPCL requested to consider revision in CZMP Sheet No. E 43 A 16 / SE and CZMP sheet E 43 G 13/ NE) as CRZ IV-B and demarcate Thane creek near Sewri mudflat area as CRZ IV-B.

The Authority noted that, the MoEF& CC, New Delhi vide letter dated 28.10.2024 forwarded the matter for examination as per provisions of CRZ Notification, 2019.

The Authority noted that the as para 7 of the Annexure IV of the CRZ Notification, 2019 provides for the revision of the CZMP, as per which, matter where of revision in CZMP shall be referred to NCSCM who shall the examine the matter. It was observed that the matter may be referred to NCSCM for examination of the matter through MoEF&CC, New Delhi

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Decision:

After deliberation, the Authority decided to refer the matter to NCSCM, Chennai through MoEF&CC, New Delhi for examination of the matter, in accordance with provisions of the CRZ Notification, 2019

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Item No. 15:

Request for revision in Coastal Zone Management Plan of Raigad District (Sheet No. E43 H1/SW, MH 70) by correction in HTL at S. No. 16, 17 & 18 at village Kacharepada (Khopta) Uran Dist Raigad by M/s. All Cargo Logistics

Introduction:

The project proponent along with consultant presented the proposal before the Authority. The proposal is for revision in Coastal Zone Management Plan of Raigad District (Sheet No. E43 H1/SW, MH 70) by correction in HTL at 5. No. 16, 17 & 18 at village Kacharepada (Khopta) Uran Dist Raigad

Deliberation:

Applicant presented that, M/s All Cargo Logistics Limited has a plot area 52,477.66 sqm in Survey Nos. 16, 17 and 18 at Village Kachrepada (Khopta), Uran Dist Raigad, the boundary of the said plot is 50 m away from the adjacent creek. As per CZMP 2019 (MAP No. MH 70); the HTL of the adjacent creek is marked along the boundary of the plot. Area between the creek and plot boundary has not been flooded by tidal waters at any given point of time more than a decade. Local villagers are using it as a pathway to reach the adjacent lands. The intermittent land parcel is covered mostly with terrestrial vegetation and grasses. In the present case NDZ of about 50 m is delineated due to the marking of HTL along the plot boundary instead of the actual HTL which is along banks of the creek. Hence, Applicant requested to consider revision in Coastal Zone Management Plan of Raigad District (Sheet No. E43 H1/SW, MH 70) by correction in HTL at S. No. 16, 17 & 18 at village Kacharepada (Khopta) Uran Dist Raigad

The Authority observed that construction of warehouses has been carried out at project site. The Authority asked Applicant to submit permissions obtained for the construction of ware houses at site under reference. Applicant submitted the copies of Environment Clearance dated 02.01.2013, Consent to Establish dated 25.09.2006, Consent to Operate dated 08.12.2022, 04.05.2023 & MCZMA letter dated 27.01.2020.

Applicant further submitted the Idenmity Bond dated 12.12.2024 stating that, in the context of the above-mentioned Approvals, we project proponent and architect here by indemnify the MCZMA/Environment and climate change

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Department Maharashtra that, they have not violated any requirement of CRZ notification 2011/2019 amended from time to time and if any such violation is observed/detected will be solely responsible.

The Authority noted that, the MoEF& CC, New Delhi vide letter dated 20.11.2024 forwarded the matter for examination as per provisions of CRZ Notification, 2019.

The Authority noted that the as para 7 of the Annexure IV of the CRZ Notification, 2019 provides for the revision of the CZMP, as per which, matter where of revision in CZMP shall be referred to NCSCM who shall the examine the matter. It was observed that the matter may be referred to NCSCM for examination of the matter through MoEF&CC, New Delhi

Decision:

After deliberation, the Authority decided to refer the matter to NCSCM, Chennai through MoEF&CC, New Delhi for examination of the matter, in accordance with provisions of the CRZ Notification, 2019

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Chairman

Item No. 16: Proposed Connectivity of Thane Bhiwandi Link Bridge and

Approach Roads from Gaimukh to Payegaon in Palghar and

Thane Districts, Maharashtra by MMRDA

Introduction:

The project proponent along with Consultant presented the proposal before the Authority. The proposal is for Connectivity of Thane Bhiwandi Link Bridge and Approach Roads from Gaimukh to Payegaon in Palghar and Thane Districts.

Consultant presented that, Considering the growth of the Local and cargo traffic due to cotton Industry in and around area of Bhiwandi, Bhiwandi Notified Surrounding Area (BNSA) is proposed by MMRDA, upcoming proposed projects like Textile cum Industrial Park and Proposed Multi Modal Corridor etc. traffic congestion will be sever issue in Bhiwandi. Therefore, it is necessary to take up the additional new infrastructure development with creek crossing bridges, which connects, proposed in DP alignments. Hence, considering the above scenario, creek link between Gaimukh Thane to Payegaon is proposed.

The proposed bridge from Gaymukh to Payegaon and its approach road is approximately 6.425km long and has Trumpet type Interchange inclusive with ramps are most important structures proposed along corridor. The creek bridge over Vasai creek is the most important and major river crossing structure under saline environment. The total land area to be acquired is approx. 27.62 Ha and the proposed length of the four-lane bridge is approx. 6.42km. The proposed right of way is between 45m as the proposed road is Four Lane Bridge. Start point at Gaimukh: 19°17'21.03"N, 72°56'55.77"E, End point at Payegaon: 19°19'5.46"N, 72°57'1.98"E

Deliberations:

The Authority noted that PP has submitted the CRZ map in 1:4000 scale & report prepared by IRS, Chennai as per approved CZMP 2019. As per IRS report, propose bridge falls in CRZ-IA, CRZ-IB, CRZ-II, CRZ-III (NDZ), CRZ-IVB and non CRZ. Area of the proposed bridge in various CRZ:-

CRZ - Classification	Area in Sq.m
CRZ - IA	12140.31
CRZ - IA (50m Mangroves Buffer Zone)	49395.12

Member Secretary

- Inak Chairman

CRZ - IB	4078.34
CRZ - II	2383.11
CRZ - III (NDZ)	4537.79
CRZ - IVB	29396.92
Total area in CRZ	101931.6
Outside CRZ	174279.87
Total	276211.46

The Authority noted that, PP has submitted Environmental Impact Assessment (EIA) & Environment Management Plan (EMP) prepared by M/s. Enviro Resources (Nabet Accredited Consultant). As per EIA report, the EIA study has been carried out with respect to the Standard TORs. All the impacts likely to have an effect on the environment have been identified and efficient/adequate mitigation measures have been proposed for the same. Based on the environmental assessment, the associated potential adverse environmental impacts can be mitigated to an acceptable level by adequate implementation of the measures as stated in the EIA and EMPs. Further, the proponent also undertakes CER activities which shall have beneficial impacts on the socioeconomic environment. Employment generation due to the proposed project is also considered positive impact on the socio-economic environment. Measures like energy conservation and greenbelt development are also noteworthy. Looking to the overall project scenario, employment potential and allied development plans; it has been noticed that the proposed project would significantly help in the improvement of the society and nation at large. All the relevant safety norms with latest technology have been incorporated in the proposed project. Hazards and associated risks, safety and security provision associated with the project activities appear to be acceptable. Hence the project in totality may be considered environmentally safe.

Expert Members asked consultant about whether mangrove cutting involved in the project. Consultant presented that, Mangrove vegetation found at the edge of Ulhas estuary towars Payegaon village at Ch. 01+310, Ch. 01+850. The Mangrove vegetation dominated by species like Sonneratia apetala and Rhizophora sp. Sparce Vegetation is found at Ch. 1+900 to Ch. 2+200 approach road of the proposed bridge, the vegetation is dominated by Holarrhena pubescens, Morinda coreia etc. Area of 1.21 ha. falls under mangroves and approx. 97 mangrove trees needs be cut for proposed project.

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Chairman

The Authority noted that the commencement of the mangrove densification plan in collaboration with the Mangrove cell should take place before the project begins. It is recommended that by the time the project is commissioned, the newly planted mangroves should have grown substantially. Additionally, MMRDA should allocate suitable land near the project site and provide the necessary funds to the Mangrove Cell as part of the Environmental Management Plan(EMP).

The Authority noted that as per para 5.1.1(CRZ-IA) of CRZ Notification, 2019: "These areas are ecologically most sensitive and generally no activities shall be permitted to be carried out in the CRZ-I A area, with following exceptions:-

- (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."
- (iii) 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."

The Authority noted that as per para 5.1.2 (CRZ-IB) 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,-
- (a) foreshore facilities like ports, harbours, Jetties, wharves, quays, slipway, bridges, hover ports for coast guard, sea links, etc;
- (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: Provided that the use of reclaimed land may be permitted only for public utilities such as mass rapid or multimodal transit system, construction and installation of all necessary associated public utilities and infrastructure to operate such transit or transport system including those for electrical or electronic signaling system, transit stopover of permitted designs; except for any industrial operation, repair or maintenance;"

The Authority noted that as per para 5.2 (CRZ-II) of CRZ Notification, 2019: "(i) Activities as permitted in CRZ-I B, shall also be permissible in CRZ-II, in so far as applicable."

The Authority noted that as per para 5.3 (CRZ-III) of CRZ Notification, 2019: "(i) Activities as permitted in CRZ-I B, shall also be permissible in CRZ-III, in so far as applicable."

The Authority noted that as per para 5.4 (CRZ-IV) of CRZ Notification, 2019: "Activities shall be permitted and regulated in the CRZ IV areas as under:-

- (ii) Land reclamation, bunding, etc to be permitted only for activities such as.-
- (a) foreshore facilities like ports, harbours, Jetties, wharves, quays, slipway, bridges, sea links and hover ports for coast guard ,etc;"

The Authority noted that as per para 7 of CRZ Notification, 2019: "CRZ clearance for permissible and regulated activities- Delegation:

(iii) 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"

The Authority noted the proposed bridge is important necessary to public interest project would serve as connectivity between Thane & Bhiwandi and it can be allowed with prior CRZ clearance from MoEF&CC, New Delhi. Further, Prior High Court permission should be obtained by the PP as per order dated 17^{th} Sep, 2018 in PIL 87/2006, since the proposed construction of bridge falls in mangrove & its 50 m buffer zone areas.

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 bridge & road should be carried out strictly as per the provisions of CRZ Notification, 2019 (as amended from time to time) and quidelines/ clarifications given by MoEF&CC from time to time.
- 2. Prior High Court permission should be obtained by the PP as per order dated 17^{th} Sep, 2018 in PIL 87/2006, since proposed bridge & road falls within mangrove & its 50 m buffer zone areas.
- 3. PP to ensure that mangroves cutting should be restricted to minimum.

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- 4. Minimum three times the mangrove area affected or destroyed or cut during the construction process shall be taken up for compensatory plantation of mangroves, as per CRZ Notification, 2019.
- 5. PP to obtain the NoC from the mangrove cell.
- 6. The number and area of mangroves to be planted should be determined based on the carbon sequestration potential of the entire ecosystem. Monitoring of the mangroves should be carried out using aerial reality models created every three months by third-party institutions, such as IIT Bombay. Additionally, independent and reputable institutes should conduct periodic environmental audits of the project to ensure continuous compliance and assess the effectiveness of the implemented measures.
- 7. The Authority noted that the commencement of the mangrove densification plan in collaboration with the Mangrove cell should take place before the project begins. It is recommended that by the time the project is commissioned, the newly planted mangroves should have grown substantially. Additionally, MMRDA should allocate suitable land near the project site and provide the necessary funds to the Mangrove Cell as part of the Environmental Management Plan(EMP).
- 8. PP to ensure Comprehensive carbon footprint assessment for the project should be meticulously documented. It is the responsibility of the Project Management Consultant (PMC) to analyze and record all activities undertaken by contractors, ensuring that their carbon footprint is thoroughly documented. All feasible measures and techniques should be implemented to minimize the carbon footprint of the project.
- 9. PP to obtain the Forest clearance under Forest (Conservation) Act, 1980 for diversion of the forest land, if applicable.
- 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.
- 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. Safe disposal of the wastewater should be ensured.

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14. 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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Annexure I

List of members/officials present in the online meeting:

- 1. Dy. Ch.E. DP MCGM, Member, MCZMA
- 2. Mr. M. K. Mirashe, Representative of Industries, Member, MCZMA
- 3. Mr. Maruti Kudale, Expert Member, MCZMA
- 4. Dr. Mahesh Shindikar, Expert Member, MCZMA
- 5. Smt. Reshma Pitale, BNHS, Expert Member MCZMA
- 6. Mr. Abhay Pimparkar, Director, Environment & CC and Member Secretary, MCZMA