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To
The Principal Secretary
Urban Development Department (UDD)
Government of Karnataka
Bengaluru 560 001.

Subject: Objection to UDD Notification – 468 MNJ 2025(E): Amendment of Rajakaluve (Storm Water Drain) Buffer Zones in Bengaluru

Dear Sir/Madam,

We submit this detailed objection to **Notification UDD 468 MNJ 2025(E)**, which proposes drastic reductions to buffer zones around Bengaluru's rajakaluves (stormwater drains).

Executive Summary:

- Buffer zones for Storm Water Drains recommended by international science are 100 to 500+ M, for full ecological balance.
- Traditionally, Rajakaluves in Bengaluru used to have nearly 500 to 1000 M of buffer zones on either sides.
- The present buffer zone norms of 50 m / 35 m / 25 m are themselves insufficient.
- In this grave scenario, the Govt has irresponsibly proposed to reduce the buffer zones further, between 5 to 15 M, which is grossly unreasonable, unscientific and unsustainable,
- This proposal, if carried out, will cause unimaginable damage to Bengaluru - will cause more flooding, increase water insecurity, destroy whatever little flora and fauna is left in Bengaluru, turning it into a concrete desert, upsetting its ecology, and making it unliveable, worsening the climate change impact.
- This proposed amendment of rules will be in contravention of central laws, and in violation of the constitution.
- We urge the Government to **withdraw this draft notification** and cancel it in the interest of the city and its residents, its ecology and water security.

The following are our strong objections:

1. Public Consultation Defective

- The draft notification fails to provide an **email ID or digital option** for objections, making it inaccessible to most citizens.
- This is undemocratic, especially in Bengaluru — the IT capital of India.
- No scientific study or expert consultation has been shared with public to support the proposed amendments.
- Since this was a serious oversight, the Government must **extend the consultation period** and issue a **fresh circular** allowing digital submissions.
- The Government must first publicly disclose the scientific studies and expert panel recommendations that the proposed amendments are based on.

2. Rajakaluves and Lakes Are an Integrated System

- Rajakaluves are the **arteries of Bengaluru's lakes**. Weakening their buffer zones directly harms lake health, water quality, biodiversity, and flood resilience.

3. Scientific and Traditional Buffer Norms Ignored

- In Bengaluru, buffer zones in the form of **marshes, greenery, and floodplains historically extended 500 m to 1 km on either side of rajakaluves, or more.** These natural spaces acted as sponges to absorb floods and as lungs for the city.
- International scientific research (Springer, ScienceDirect, and others) recommends **riparian buffer zones (RBZs) of up to 500+ meters**, depending on ecological context.
- **Up to 100+ m buffers** are required to sustain flora and fauna, habitat connectivity, and biodiversity.
- **100–300+ m buffers** are required for viable bird and mammal populations, broad ecological functions, floodplains, and landscape-scale resilience.
- Even the NGT's compromise standard of **50 m / 35 m / 25 m** (Primary/Secondary/Tertiary drains) is a **scientific minimum**.
- Reducing buffers to just **5–15 m** will make them **functionally zero** and eliminate their ecological role.

4. Converting "No-Development Zones" into Buildable Land

- Buffer zones are meant to be **no-construction safety buffers.** Allowing roads, layouts, and buildings inside buffers will:
    - Block drainage,

    - Trigger floods,
    - Destroy wetlands and trees,
    - Accelerate heat and pollution.
- This is nothing short of **land grab under the guise of planning**.

5. Large-Scale Ecological & Social Damage

- Bengaluru has nearly **1000 km of rajakaluves**. Reducing their buffers will devastate the city.
- **Tree Cover at Risk:** With a conservative estimate (35 m each side), **17,000 acres of land buffers will vanish**, threatening **85 lakh+ trees / potential tree vegetation.** Considering Bengaluru has only 2% tree cover left, this will cause unacceptable damage to Bengaluru's precarious green cover situation.
- **Flood Control Lost:** Buffers help in absorption and slow-release of rainwater. Without them, floods will increase. **Bengaluru is already facing extreme flooding during rains. This will worsen further!**
- **Biodiversity Destroyed:** Flora and fauna in rajakaluve corridors and lake ecosystems will lose habitat.
- **Water Quality Declines:** Pollutant filtration will stop, increasing lake pollution.
- **Water Quantity Declines:** Sedimentation will rise and groundwater recharge will collapse, this will lead to large scale water insecurity for the city.
- **Food & Livelihoods at Risk:** Farmers and fishermen relying on lakes and groundwater will face severe water shortages / water contamination, hitting lakhs of livelihoods.

6. Contradiction with Law and Policy

- **NGT (Forward Foundation v. State of Karnataka, 2016)** explicitly enlarged buffer zones. Diluting them amounts to **contempt of court**.
- The **Public Trust Doctrine** binds the State to safeguard lakes, drains, and wetlands for citizens and future generations.
- The amendment contradicts Bengaluru's **Climate Action & Resilience Plans**, exposing citizens to extreme rainfall risks.
- **Article 51-A(g) (Fundamental Duty):** This article states that it shall be the duty of every citizen to protect and improve the natural environment, including forests, lakes, rivers, and wildlife, and to have compassion for living creatures.
- **Article 48-A (Directive Principle of State Policy):** This article directs the State to endeavor to protect and improve the environment and to safeguard the forests and wildlife of the country.
- **Article 21 (Right to Life):** The Supreme Court has, through a liberal interpretation, linked the fundamental right to life and personal liberty with the right to a clean and healthy environment.

- **Article 14 (Right to Equality):** Environmental protection has also been addressed through the lens of the right to equality, especially concerning the disproportionate impact of climate change on vulnerable populations.
- **Right to be Free from Climate Change:** In a significant 2024 ruling, the Supreme Court recognized the "right to be free from the adverse effects of climate change" as integral to the fundamental rights under Article 21 and 14.
- **Article 39 (State Policy):** This article directs the state to ensure that the ownership and control of community resources serve the common good, which extends to water resources.
- **Article 47 (Duty to Improve Public Health):** This article places a duty on the state to raise the level of nutrition and the standard of living and improve public health, including access to water.
- **Article 51(c) & Article 253 -** Violation of international obligations for biodiversity conservation, like the Convention on Biological Diversity (CBD) and the Ramsar Convention (on Wetlands) to which India is a party, and it refers to in-situ conservation and buffer zones guidelines, respectively.
- **Environment (Protection) Act, 1986:** This umbrella act empowers the central government to take measures to protect and improve the environment. It's used to notify buffer zones, also known as eco-sensitive zones, around protected areas like national parks and wildlife sanctuaries, with these zones often extending up to 10 km.
- **Wetlands (Conservation and Management) Rules, 2010:** These rules regulate the conservation and management of wetlands. They specify that wetlands within protected or notified forest areas are governed by the Wildlife (Protection) Act, 1972, and the Forest (Conservation) Act, 1980, while those outside are regulated under the Environment (Protection) Act, 1986.
- **The Central Pollution Control Board (CPCB)** - "Indicative Guidelines for Restoration of Water Bodies" - prescribes Buffer Zone around a lake or pond (at least 50 to 100 m periphery) should be maintained as green belt zone or no activity zone and no activity is allowed within the buffer zone by the concerned Departments in the State/UT.
- **The Water (Prevention and Control of Pollution) Act, 1974**: This act, along with the Air Act, contains provisions and buffer zone guidelines that protect water bodies from industrial processing and pollution.
- **NGT rulings:** The NGT has issued landmark judgments that designate specific distances as "no-construction zones" around lakes and wetlands.

7. Public Interest & Democratic Opposition

- Similar opposition was expressed against the recent **lake buffer zone amendment**, and citizens will oppose this one just as strongly.
- Weakening rajakaluve buffers serves only **real estate interests**, not the public good.

8. Citations (Peer-reviewed & Authoritative Sources)

A) International Riparian Buffer Guidelines

- Mayer, P.M., Reynolds, S.K., McCutchen, M.D., & Canfield, T.J. (2007). *Meta-analysis of nitrogen removal in riparian buffers.* **Journal of Environmental Quality, 36(4): 1172–1180.**
  ➨ Shows effectiveness of riparian buffers in reducing pollution, with recommended widths ranging up to **300 m** depending on ecological context.
- Broadmeadow, S. & Nisbet, T.R. (2004). *The effects of riparian forest management on the freshwater environment: a literature review of best management practice.* **Hydrology and Earth System Sciences, 8(3): 286–305.**
  ➨ Summarises studies recommending **wide buffers up to 100+ m** for biodiversity, erosion prevention, and water quality.
- Sweeney, B.W. & Newbold, J.D. (2014). *Streamside forest buffer width needed to protect stream water quality, habitat, and organisms: a literature review.* **Journal of the American Water Resources Association, 50(3): 560–584.**
  ➨ Argues that **100–300 m** or more necessary for biodiversity and ecosystem resilience.

B) Flood & Wetland Functions

a) Mitsch, W.J. & Gosselink, J.G. (2015). *Wetlands.* **John Wiley & Sons.**
   ➨ Wetlands and floodplains extending **hundreds of meters** are critical for flood storage, nutrient absorption, and groundwater recharge.

b) Opperman, J.J. et al. (2010). *Ecologically Functional Floodplains: Connectivity, Flow Regime, and Scale.* **Journal of the American Water Resources Association, 46(2): 211–226.**
   ➨ Demonstrates that floodplains require **landscape-scale buffers (100–500 m or more)** to provide effective ecological services.

C) Indian Context

a) National Green Tribunal (NGT) – *Forward Foundation vs. State of Karnataka* (2016).
   ➨ Mandated **50 m (primary), 35 m (secondary), 25 m (tertiary)** rajakaluve buffer zones in Bengaluru as a minimum ecological safeguard.

b) Environmental Management & Policy Reports from Indian Institute of Science (IISc), Bengaluru — Prof. T.V. Ramachandra et al.
   ➨ Multiple studies highlighting that **wetlands around Bengaluru lakes and drains historically extended 500 m–1 km** and are essential for flood mitigation.

9. Endorsement of Objections raised by Mapping Malnad:

Further, we fully endorse the objections raised by Mapping Malnad in the open letter on this URL: https://mappingmalnad.com/open-letter-to-udd-on-drain-buffer-reductions/#

10. Conclusion

Buffer zones are not “surplus land” but **ecological safety nets** that protect Bengaluru from floods, recharge groundwater, and sustain biodiversity. Diluting them to 5–15 m is **scientifically indefensible, legally untenable, and socially unjust.**

We therefore strongly object to this amendment and request the Government to act in the **public interest** and withdraw it immediately.

11. Demands

We therefore demand that the Government:

1. **Immediately withdraw** Notification UDD 468 MNJ 2025(E).
2. **Retain and enforce NGT-mandated buffer widths** (50 m / 35 m / 25 m).
3. Recognise and integrate **lake + rajakaluve buffers** as one ecosystem.
4. **Stop/Ban/Demolish all development** (roads, layouts, buildings) **in buffer zones.**
5. **Map, demarcate, and fence** all Rajakaluve Buffer Zones to prevent encroachments.
6. Align buffer rules with **climate resilience, biodiversity, and water security goals.**

Yours sincerely,

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