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DEPARTMENT OF GEOGRAPHY
Lokmanya Tilak Bhavan,
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Date :_____

The following are initiatives regarding improving the carbon sequestration.

Biodiversity

1. **Miyawaki Garden, Butterfly Garden** has been developed with the funds received by Rotary Club, Mumbai and My Green Society
2. 500 saplings (indigenous species) have been planted in the Vidyanagari campus with the aim of ecological restoration and enhancement.
3. **Biodiversity Audit of the Vidyanagari Campus, Fort Campus and Marine Lines campus has been done in the year 2021**. Approximate figure on carbon sequestration has also been calculated. The annual carbon sequestration is equal to **18657795 Ibs (8463026 Kg) annually for 5351 trees having girth more than 10 cm**. canteens in the campus - wet waste production is more. (Biodiversity Audit Report)

Water Conservation

1. **Wetland conservation program :** A huge wetland is situated near Nanoscience and Nanotechnology building has been initiated in Vidyanagari Campus. The university has initiated a wetland conservation program in the year 2024. A nature trail to the wetland was organised on 19th January, 2024 for the students and faculties for generating awareness about wetlands followed by a national wetland conference on 2nd February, 2024. Floral and faunal identification, Wetland mapping, high flood line mapping, water testing and analysis has been completed. The conservation would be continued with identification of plants for plantations around and in the wetland for ecological restoration of wetland habitat. Wetland conservation is vital as they are one of the most vital elements in Carbon sequestration. The following figures and plates represent the biodiversity releted with the wetland.

Figure 1 : HFL Map – University Wetland

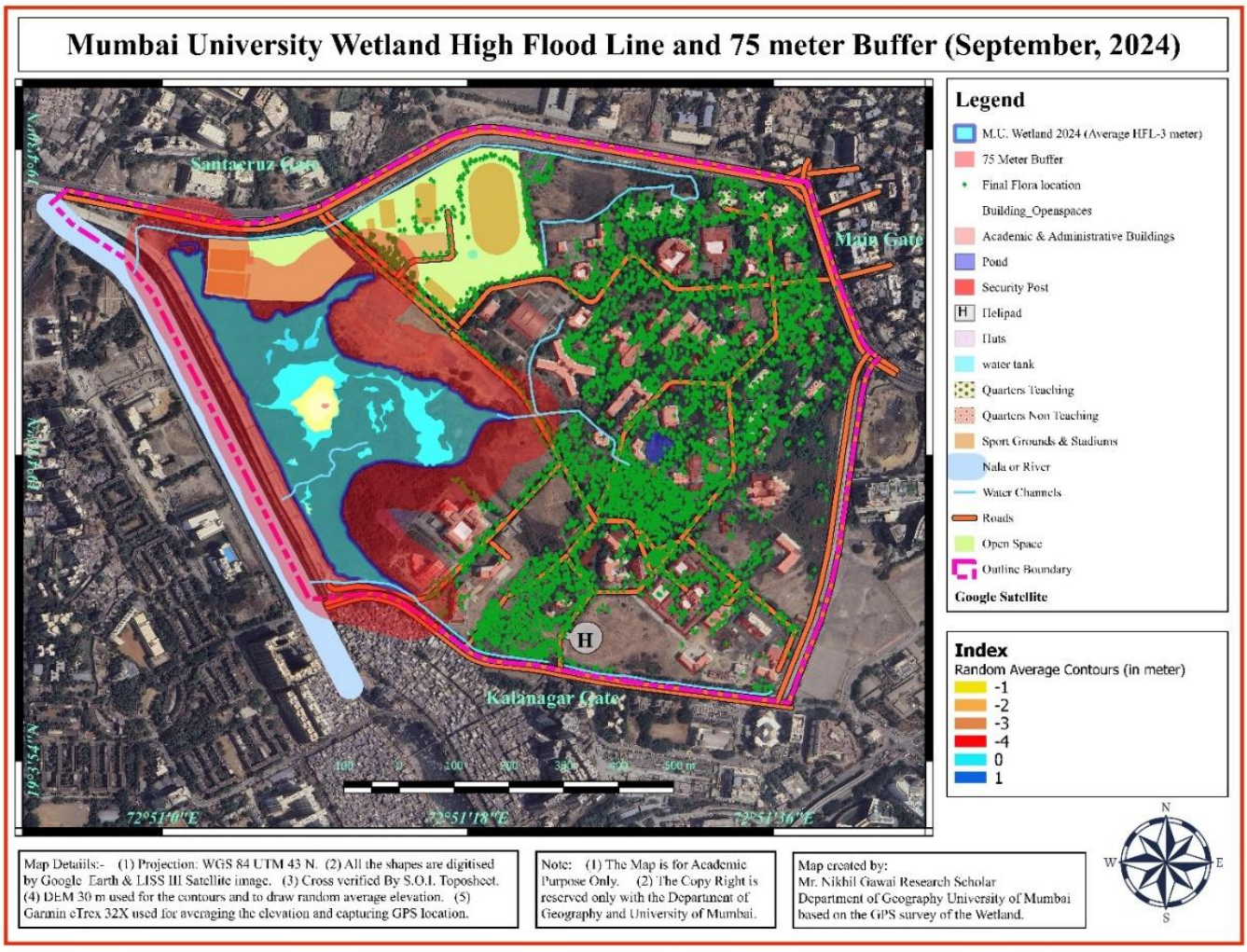
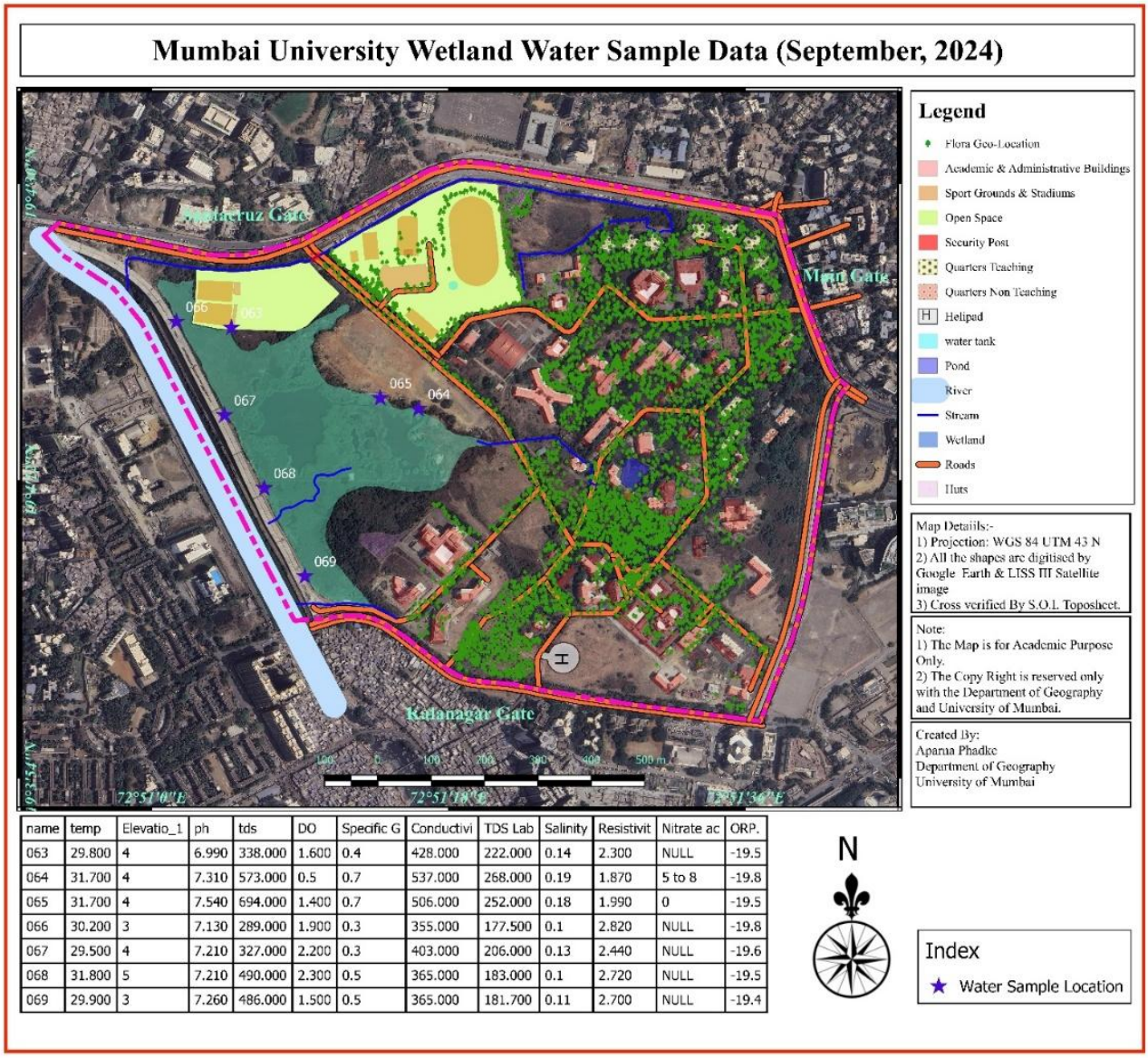


Figure 2 : Water Samples and Analysis



name	temp	Elevatio_1	ph	tds	DO	Specific G	Conductivi	TDS Lab	Salinity	Resistivit	Nitrate ac	ORP.
063	29.800	4	6.990	338.000	1.600	0.4	428.000	222.000	0.14	2.300	NULL	-19.5
064	31.700	4	7.310	573.000	0.5	0.7	537.000	268.000	0.19	1.870	5 to 8	-19.8
065	31.700	4	7.540	694.000	1.400	0.7	506.000	252.000	0.18	1.990	0	-19.5
066	30.200	3	7.130	289.000	1.900	0.3	355.000	177.500	0.1	2.820	NULL	-19.8
067	29.500	4	7.210	327.000	2.200	0.3	403.000	206.000	0.13	2.440	NULL	-19.6
068	31.800	5	7.210	490.000	2.300	0.5	365.000	183.000	0.1	2.720	NULL	-19.5
069	29.900	3	7.260	486.000	1.500	0.5	365.000	181.700	0.11	2.700	NULL	-19.4

Wetland visit had been organised as a part of training to the students on 25th January 2025 in association with Paryavaran Dakshata Manch. Students from various department had registered for the activity where they were guided for understanding the importance of the wetland as well as identification of flora and fauna.
Dr. Umesh Mundle, Dr. Rupali Shaiwale, Dr. Aparna Phadke were the experts who guided the students. Mr. Nikhil Gawai guided on wetland mapping.

1. **Identification of birds**
2. **Identification of flora**
3. **Geotagging of wetland species**

Plate 1 to 7 : Migratory birds spotted on the campus wetland on 19th January 2024
Photo Courtesy Dr. Umesh Mundley

Rainwater Harvesting Tank has been constructed in the Centre for Nanoscience and Nanotechnology with the capacity of 1,00,000 litres.

Plate 8. Rainwater Harvesting Tank at Centre of Nanoscience and Nanotechnology

All such efforts are basically towards reducing our carbon footprints.

Coordinator

Dr. Aparna Phadke
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