

3.7. PALLIKKARANI MARSH

❖ **State / Union Territory:** Tamil Nadu

❖ **Name and address of person (s) compiling this information:**

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Section 1: Identification, Location and Jurisdiction

- 1.1 *Name of the Wetland:* Pallikkarani Marsh reserve forest
- 1.2 *Name of the Village (s), Tehsil (s), Municipal area (s):* Subramaniam Colony, Perungudi, Pallikkarani, Velachery
- 1.3 *Name of the District (s) in which Wetlands complex located:* Chennai
- 1.4 *Geographical coordinates:*
 - ▶ Latitude: 12°55'40" N
 - ▶ Longitude: 80°13'13" E
- 1.5 *Name of the Department/ Agency which has jurisdiction over Wetland/ Wetland complex:* Forest Department

Section 2: Site Characteristics

- 2.1 *Area of Wetland:* 1246 ha
- 2.2 *Wetland type:*

Category	Subcategory
✓ Natural (Inland)	☐ Permanent lakes ☐ Seasonal/ intermittent lakes ☐ Permanent streams/ creeks ☐ Seasonal/ intermittent streams/ creeks ☐ Oxbow ☐ River floodplain ☐ Permanent freshwater marshes ✓ Seasonal/ intermittent freshwater marshes ☐ Shrub-dominated Wetlands ☐ Tree-dominated Wetlands ☐ Geothermal Wetlands ☐ Karst and other subterranean hydrological

	systems
☐ Natural (Coastal)	☐ Coastal lagoon ☐ Estuary ☐ Intertidal mud, sand or salt flats ☐ Mangroves ☐ Coral reefs
☐ Human-made	☐ Aquaculture pond ☐ Tank ☐ Saltpan ☐ Dam/ Reservoir

2.3 *Depth (m):* Average - 0.5; Maximum - 2

2.4 *Elevation (m above mean sea level):* 1

2.5 *Water regimes*

a) Main source of water

- ☒ Rainfall inflow from river
- ☐ Groundwater
- ☒ Catchment runoff
- ☐ Direct/ indirect inflow from river
- ☐ Others, please specify
- ☐ Name of River/ Canal System

b) Water performance

- ☐ Mostly permanent
- ☒ Mostly intermittent

c) Destination of water from Wetland

- ☒ Feeds groundwater river to sea
- ☐ To downstream catchment

d) Water pH

- ☐ Acid (< 5.5)
- ☐ Circumneutral (5.5-7.4)
- ☒ Alkaline (> 7.4)

e) Water salinity

- ☒ Fresh (< 0.5 g/l)
- ☐ Brackish (0.5-30 g/l)
- ☐ Euhaline (30-40 g/l)
- ☐ Hypersaline (> 40 g/l)
- ☐ Not known

- f) Nutrients in water
- ☒ Eutrophic
 - ☐ Mesotrophic
 - ☐ Oligotrophic
 - ☐ Not known

2.6 *Climatic setting*

- a) Annual rainfall/ Snowfall (mm): 290.6
 b) Temperature (°C) Minimum 24.6 ; Maximum 39.25
 c) Humidity (%) Minimum 64.7 ; Maximum 70.9

2.7 *Area of zone of influence (in ha):* 6978 ha (with an irregular radius of 5.21km)

2.8 *Major land use within zone of influence*

Land Use	Percentage
Forest	: 0%
Vegetation (Plantation)	: 1%
Agriculture	: 4%
Settlements (Rural)	: 0%
Settlements (Urban)	: 84%
Industrial	: 0%
Waterbody	: 6%
Waste Land	: 5%

2.9 *Map of Wetland complex and zone of influence:* Enclosed as Annexure 3.7 (Fig. 3.7.1-3.7.2)

Section 3: Biodiversity

- 3.1 *Notable plant species present in Wetland:* The Wetland is home to a diverse range of plant species, totaling 72 species (refer to Table 3.7.1 in Annexure 3.7).
- 3.2 *Notable animal species present in Wetland:* The Wetland supports a variety of animal species, with a total of 151 recorded species. This includes 8 mammal species, 21 reptile species, 9 amphibian species, 101 bird species, and 12 species of butterflies (refer to Table 3.7.2-3.7.3 in Annexure 3.7).
- 3.3 *Species of conservation significance:* Highlighted in Table 3.7.1-3.7.3.
- 3.4 *Major plant invasive alien species:* The Wetland supports 14 plant invasive species (refer to Table 3.7.4 in Annexure 3.7).
- 3.5 *Major animal invasive alien species:* The Wetland supports 2 animal invasive species (refer to Table 3.7.5 in Annexure 3.7).

Section 4: Ecosystem Services

Importance	Relevance	Details
Source of drinking water for people living and around	☐ Yes ☒ No	
Source of water for agriculture	☐ Yes ☒ No	
Fisheries	☐ Yes ☒ No	
Cultivation of aquatic food plants	☐ Yes ☒ No	
For buffalo wallowing and use of domesticated animals	☐ Yes ☒ No	
Medicinal plants	☒ Yes ☐ No	Few Medicinal plants around the Wetland. Which is listed in Table 3.7.6 in Annexure 3.7
Is a recreational site	☐ Yes ☒ No	
Buffering communities from extreme events as floods and storms	☐ Yes ☒ No	
Groundwater recharge	☐ Yes ☒ No	
Water purification	☐ Yes ☒ No	
Acts as a sink for sediments	☒ Yes ☐ No	Substantial water flow from the surrounding watershed
Has significant cultural and religious values	☐ Yes ☒ No	
Is a site for recreation and tourism	☐ Yes ☒ No	
Supports noteworthy plants species	☐ Yes ☒ No	
Support noteworthy animal species	☐ Yes ☒ No	
Site of high congregation of migratory water birds	☒ Yes ☐ No	Provides a suitable site for the high congregation of migratory water birds.
Supports life cycle of fish or amphibians	☒ Yes ☐ No	Almost 9 variety of amphibians were surviving

Mining	☐ Yes ☒ No	
Any other	☐ Yes ☒ No	

Section 5: Pre-Existing Rights and Privileges

Nature of right and privilege	Relevant for the site	Does this negatively impact the Wetland's ecological health?	Brief description
Community Fishing (without any lease or permission from government department)	☐ Yes ☒ No	☐ Yes ☐ No ☐ Not assessed	
Fishing under lease from government department	☐ Yes ☒ No	☐ Yes ☐ No ☐ Not assessed	
Harvest of plants (without any lease or permission from government department)	☐ Yes ☒ No	☐ Yes ☐ No ☐ Not assessed	
Harvest of plants under lease from government department	☐ Yes ☒ No	☐ Yes ☐ No ☐ Not assessed	
Agriculture or horticulture within Wetland	☐ Yes ☒ No	☐ Yes ☐ No ☐ Not assessed	
Grazing	☒ Yes ☐ No	☐ Yes ☐ No ☒ Not assessed	Grazing has been observed while field visit
Religious practices	☐ Yes ☒ No	☐ Yes ☐ No ☐ Not assessed	
Withdrawal of water for domestic use	☐ Yes ☒ No	☐ Yes ☐ No ☐ Not assessed	

Withdrawal of water for agriculture or fisheries	☐ Yes ☒ No	☐ Yes ☐ No ☐ Not assessed	
Bathing or wallowing of domestic animals	☐ Yes ☒ No	☐ Yes ☐ No ☐ Not assessed	
Plying of boats	☐ Yes ☒ No	☐ Yes ☐ No ☐ Not assessed	
Any other	☐ Yes ☒ No	☐ Yes ☐ No ☐ Not assessed	

Section 6: Present and Potential Threats

Threat	Degree	Present/ Potential	Additional info.
Changes in water inflow and outflow	☐ High ☐ Medium ☐ Low	☐ Present ☐ Potential	
Pollution	☒ High ☐ Medium ☐ Low	☐ Present ☒ Potential	Unauthorized sewage and many kind of pollution is involved
Unsustainable harvest of biological resources	☐ High ☐ Medium ☐ Low	☐ Present ☐ Potential	
Mining	☐ High ☐ Medium ☐ Low	☐ Present ☐ Potential	
Siltation	☐ High ☐ Medium ☐ Low	☐ Present ☐ Potential	
Encroachment	☐ High ☐ Medium ☐ Low	☐ Present ☐ Potential	
Spread of invasive species	☐ High	☒ Present	Listed in Table 3.7.4-3.7.5 in Annexure 3.7

	☐ Medium ☒ Low	☐ Potential	
Any others	☐ High ☐ Medium ☐ Low	☐ Present ☐ Potential	

Section 7: Activities Proposed to Be Prohibited (other than those listed in Rule 4 (2) of Wetlands Rules and Regulated)

Activity	Whether prohibited or regulated	Regulation within Wetlands zone of influence	If regulated indicates the level of regulation	Name of department/ agency responsible for regulation/ prohibition	Additional info.
Withdrawal of water / impoundment/diversion or any other hydrological intervention		☐ Wetland/ Wetland complex boundary ☐ Zone of influence			
Harvesting of resources (living / non-living)		☐ Wetland/ Wetland complex boundary ☐ Zone of influence			
Grazing	Regulated	☒ Wetland/ Wetland complex boundary ☐ Zone of influence	Upto the boundary is well		
Discharge of treated sewage/ effluent / wastewater		☐ Wetland/ Wetland complex boundary ☐ Zone of influence			

Construction of boat jetties, and facilities for temporary use, as pantoon bridges		☐ Wetland/ Wetland complex boundary ☐ Zone of influence			
Aquaculture, agriculture and horticulture activities within the Wetland boundaries.		☐ Wetland/ Wetland complex boundary ☐ Zone of influence			
Any others		☐ Wetland/ Wetland complex boundary ☐ Zone of influence			

Section 8: Activities Proposed to be permitted

Activity	Relevance	Within Wetlands or zone of influence	Additional info.
		☐ Wetland/ Wetlands complex boundary ☐ Zone of influence	

Section 9: Listing of Available Scientific Resources Used

1. Arumugam, S., & Ramesh, K. (2009). Impact of urbanization on water quality in Palikaranai Marsh Reserve Forest. *Environmental Monitoring and Assessment*, 159(1-4), 287-298
2. Chandrasekar, N., & Kumar, S. (2010). Remote sensing and GIS applications for monitoring land cover changes in Palikaranai Marsh. *International Journal of Remote Sensing*, 31(22), 5857-5873.
3. Dhanarajan, S., & Subramanian, K. (2011). Assessment of Wetland vegetation in Palikaranai Marsh using satellite data. *Journal of Environmental Management*, 92(11), 2750-2759.
4. Gopal, B., & Sharma, A. (2012). Biodiversity and conservation challenges in Palikaranai Marsh. *Aquatic Ecosystem Health & Management*, 15(2), 173-182.

5. Jain, S., & Venkatesh, A. (2013). Hydrological impact of urban encroachment on the Palikaranai Marsh Reserve Forest. *Hydrological Sciences Journal*, 58(6), 1264-1276.
6. Kumar, P., & Rajendran, S. (2014). Evaluation of heavy metal pollution in sediments of Palikaranai Marsh. *Environmental Pollution*, 190, 119-127.
7. Lakshmanan, K., & Mani, K. (2015). Assessment of water quality and its impact on aquatic life in Palikaranai Marsh. *Marine Pollution Bulletin*, 101(1), 310-319.
8. Mani, K., & Ramesh, K. (2016). Influence of land use changes on the Palikaranai Marsh Reserve Forest ecosystem. *Ecological Indicators*, 67, 200-209.
9. Muthuswamy, R., & Nair, S. (2017). Remote sensing analysis of vegetation dynamics in Palikaranai Marsh. *Remote Sensing of Environment*, 199, 230-242.
10. Pandian, V., & Subramanian, K. (2018). Assessment of biodiversity and conservation measures in Palikaranai Marsh. *Biodiversity and Conservation*, 27(9), 2335-2350.
11. Rajasekaran, M., & Kumaravel, M. (2019). Climate change impacts on the hydrology of Palikaranai Marsh. *Climate Change Research*, 31(3), 275-289.
12. Ramesh, K., & Srinivasan, R. (2020). Management and restoration strategies for Palikaranai Marsh Reserve Forest. *Journal of Environmental Management*, 271, 110924.
13. Sathia Raj, S., & Rajendran, S. (2021). Evaluation of ecological health of Palikaranai Marsh using bioindicators. *Ecological Indicators*, 121, 107156.
14. Subashini, S., & Venkatesh, A. (2022). Impact of urbanization on the water resources of Palikaranai Marsh. *Urban Ecosystems*, 25(1), 123-139.
15. Venkatesh, A., & Rajendran, N. (2023). Assessing the impact of pollutants on the Palikaranai Marsh ecosystem. *Environmental Science & Policy*, 140, 56-65.

ANNEXURE 3.7

Fig. 3.7.1. Zone of Influence of Pallikkarani Marsh

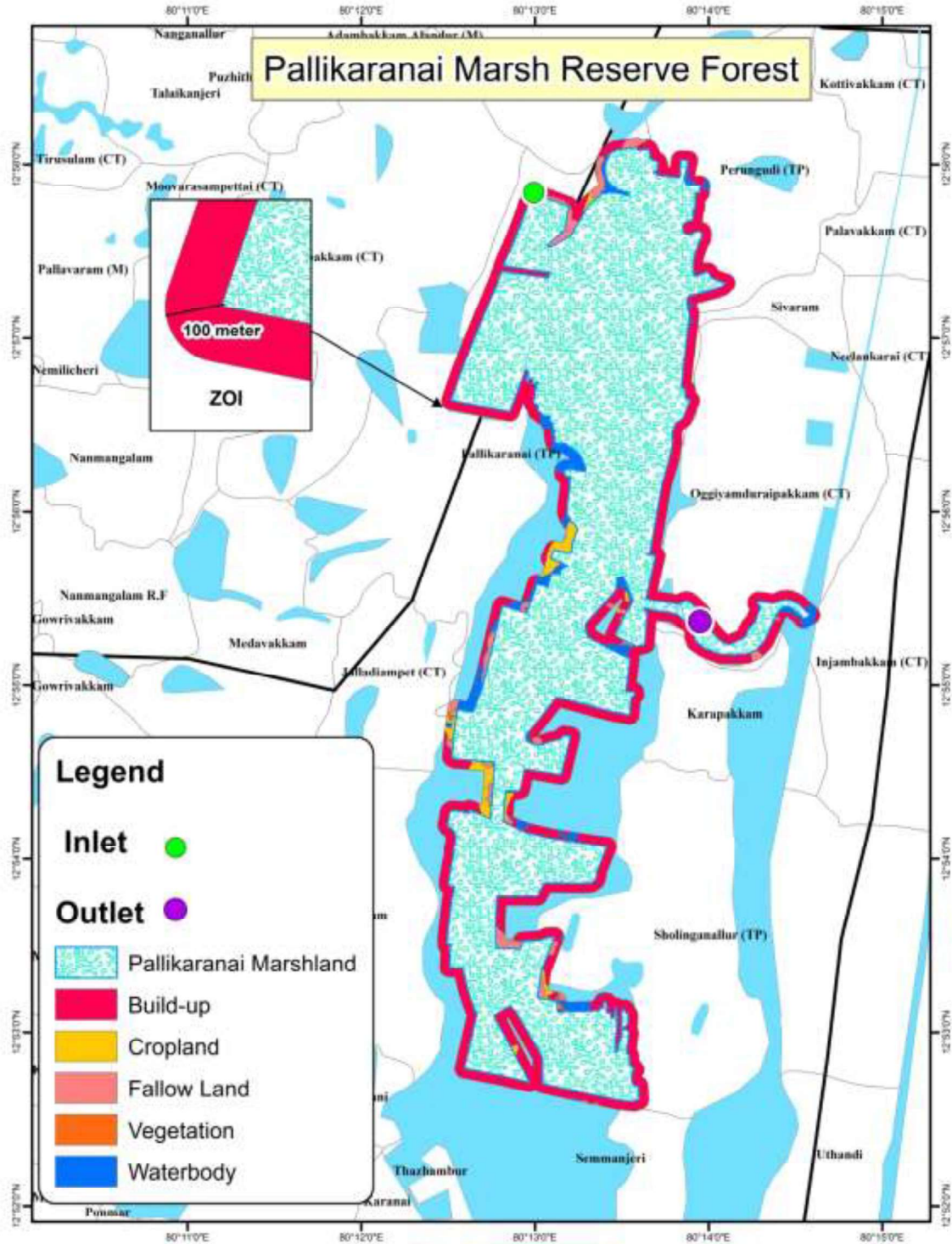
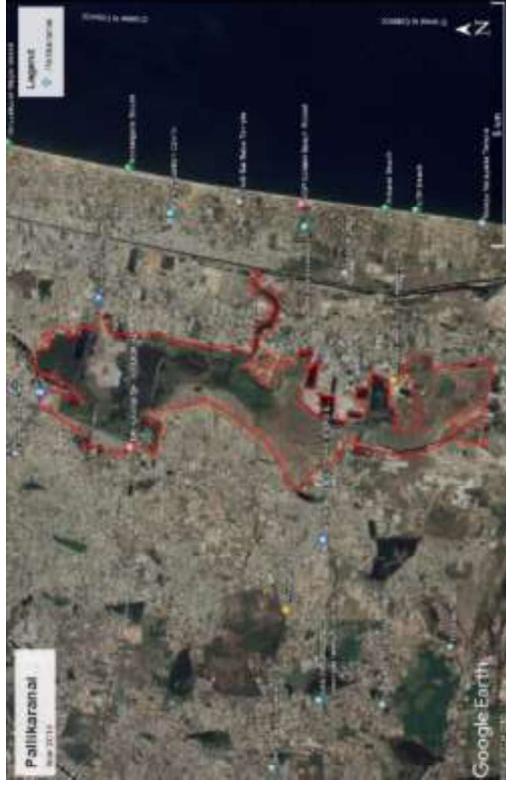
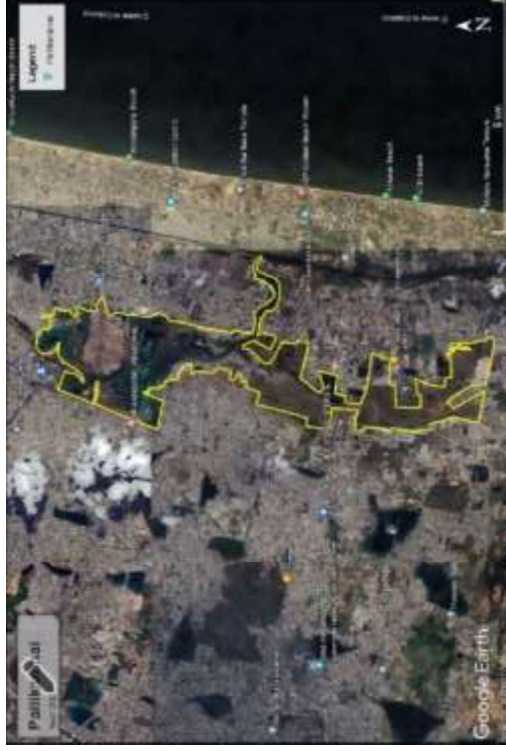


Fig. 3.7.2. Map (2014 vs. 2024) and Land Use/ Land Cover of Pallikarani Marsh

Map of the Wetland in 2014



Map of the Wetland in 2024



Land Use/ Land Cover of the Wetland

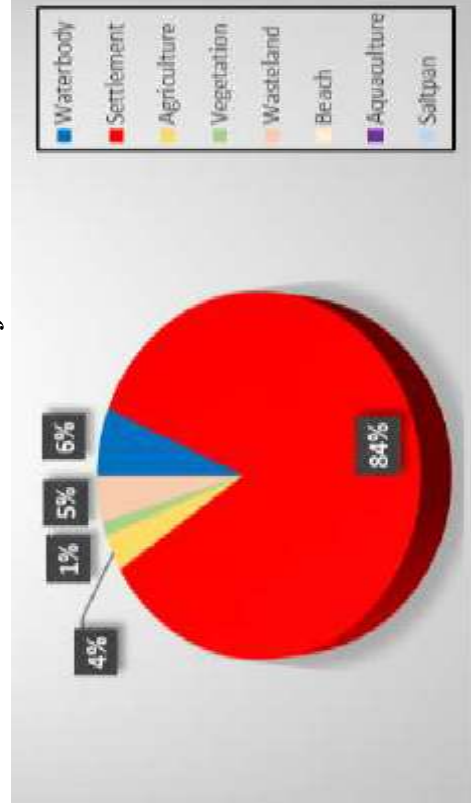


Table 3.7.1. IUCN Status of Floral Species in Pallikkarani Marsh

S. No.	Scientific Name of the Species	Family	Tamil Name	Habit	IUCN
1.	<i>Abrus precatorius</i>	Fabaceae	Kundumani	Climber	NE
2.	<i>Abutilon indicum</i>	Malvaceae	Thuthi	Shrub	LC
3.	<i>Acalypha ciliata</i>	Euphorbiaceae	Agal	Herb	LC
4.	<i>Acalypha fruticosa</i>	Euphorbiaceae	Sinni	Herb	LC
5.	<i>Acalypha indica</i>	Euphorbiaceae	Kuppaimeni	Herb	NE
6.	<i>Acanthospermum hispidum</i>	Compositae		Herb	NE
7.	<i>Achyranthes aspera</i>	Amaranthaceae	Nayurivi	Herb	NE
8.	<i>Aerva lanata</i>	Amaranthaceae	Peelai, Sirupeelai	Herb	NE
9.	<i>Aeschynomene indica</i>	Fabaceae	Kothiram	Herb	NE
10.	<i>Albizia lebbek</i>	Mimosaceae	Vaagai	Tree	LC
11.	<i>Alternanthera pungens</i>	Amaranthaceae		Herb	NE
12.	<i>Alternanthera sessilis</i>	Amaranthaceae	Ponnanganni	Herb	NE
13.	<i>Argemone mexicana</i>	Papaveraceae	Nai Kadugu	Herb	NE
14.	<i>Blumea mollis</i>	Compositae	-	Herb	LC
15.	<i>Boerhavia diffusa</i>	Nyctaginaceae	Mookarattai	Herb	NE
16.	<i>Brachiaria mutica</i>	Poaceae		Grass	NE
17.	<i>Calotropis gigantea</i>	Asclepiadaceae	Erukku, Arkkam	Shrub	NE
18.	<i>Cardiospermum halicacabum</i>	Sapindaceae	Mudakotthan	Herb	NE
19.	<i>Cassia fistula</i>	Caesalpiniaceae	Kondrai	Tree	LC
20.	<i>Chloris barbata</i>	Poaceae	Kodaipul	Grass	NE
21.	<i>Cleome viscosa</i>	Capparidaceae	Nai vaelai	Herb	NE
22.	<i>Commelina benghalensis</i>	Commelinaceae	Kanaangozhai	Herb	LC
23.	<i>Corchorus capsularis</i>	Tiliaceae	Sanal	Herb	NE
24.	<i>Cynodon dactylon</i>	Poaceae	Aruhampul	Grass	NE
25.	<i>Cyperus alternifolius</i>	Cyperaceae		Sedge	NE

26.	<i>Cyperus iria</i>	Cyperaceae		Sedge	NE
27.	<i>Datura metal</i>	Solanaceae	Karu Oomatthai	Herb	NE
28.	<i>Digitaria ciliaris</i>	Poaceae		Grass	NE
29.	<i>Eragrostis viscosa</i>	Poaceae	-	Grass	LC
30.	<i>Hyptis suaveolens</i>	Labiatae		Shrub	NE
31.	<i>Ipomoea carnea</i>	Convolvulaceae		Shrub	NE
32.	<i>Ipomoea pes-caprae</i>	Convolvulaceae	Attukkal	Climber	LC
33.	<i>Isachne miliacea</i>	Poaceae	-	Grass	LC
34.	<i>Ischaemum indicum</i>	Poaceae	-	Grass	LC
35.	<i>Jatropha gossypifolia</i>	Euphorbiaceae	Kaatu-amanakku	Shrub	NE
36.	<i>Justicia prostrata</i>	Acanthaceae		Herb	NE
37.	<i>Lannea coromandelica</i>	Anacardiaceae	Odhiya maram	Tree	LC
38.	<i>Lantana camara</i>	Verbenaceae	Unnichedi	Shrub	LC
39.	<i>Leptochloa fusca</i>	Poaceae	Mandaipul	Grass	LC
40.	<i>Leucas aspera</i>	Labiatae	Thumbai	Herb	LC
41.	<i>Ludwigia adscendens</i>	Onagraceae		Herb	NE
42.	<i>Martynia annua</i>	Martyniaceae	Thael Kodukku	Herb	NE
43.	<i>Mollugo cerviana</i>	Molluginaceae	Parpaadagam	Herb	NE
44.	<i>Morinda tinctoria</i>	Rubiaceae	Manjanathi	Tree	NE
45.	<i>Mukia leiosperma</i>	Cucurbitaceae		Climber	NE
46.	<i>Nymphaea pubescens</i>	Nymphaeaceae		Herb	LC
47.	<i>Ottelia alismoides</i>	Hydrocharitaceae		Herb	LC
48.	<i>Parthenium hysterophorus</i>	Compositae	Vishachedi	Herb	LC
49.	<i>Passiflora foetida</i>	Passifloraceae	Poonaipidukku	Climber	NE
50.	<i>Phyllanthus reticulatus</i>	Euphorbiaceae	Inki pazham	Shrub	LC
51.	<i>Pithecellobium dulce</i>	Fabaceae	Kodukkapuli	Tree	LC
52.	<i>Pongamia pinnata</i>	Fabaceae	Punga maram	Tree	LC

53.	<i>Pontederia crassipes</i>	Pontederiaceae	Agaya thamarai	Herb	LC
54.	<i>Ricinus communis</i>	Euphorbiaceae	Amanakku	Shrub	NE
55.	<i>Senna occidentalis</i>	Caesalpiniaceae	Thagarai	Shrub	NE
56.	<i>Senna siamea</i>	Fabaceae		Tree	LC
57.	<i>Senna tora</i>	Caesalpiniaceae	Oosi thagarai	Herb	NE
58.	<i>Solanum trilobatum</i>	Solanaceae	Thoodhuvalai	Herb	NE
59.	<i>Spermacoce hispida</i>	Rubiaceae	Nathaichoori	Herb	NE
60.	<i>Sphaeranthus amaranthoides</i>	Compositae	Siva karandhai	Herb	LC
61.	<i>Tephrosia purpurea</i>	Fabaceae	Kozhinji	Herb	NE
62.	<i>Terminalia arjuna</i>	Combretaceae	Maruthamaram	Tree	NE
63.	<i>Terminalia catappa</i>	Combretaceae	Natvadumai	Tree	LC
64.	<i>Thespesia populnea</i>	Malvaceae	Poovarasu	Tree	LC
65.	<i>Thevetia peruviana</i>	Apocynaceae	Ponnarali	Shrub	NE
66.	<i>Tinospora cordifolia</i>	Menispermaceae	Seendhil	Climber	NE
67.	<i>Trachys muricata</i>	Poaceae	-	Grass	LC
68.	<i>Trianthema portulacastrum</i>	Aizoaceae		Herb	NE
69.	<i>Tridax procumbens</i>	Compositae	Vettukkaaya poondu	Herb	LC
70.	<i>Tylophora indica</i>	Asclepiadaceae	Naippalai	Climber	NE
71.	<i>Typha angustifolia</i>	Typhaceae	Sambu	Herb	LC
72.	<i>Xanthium indicum</i>	Compositae	Marul oomatham	Herb	LC

Table 3.7.2. IUCN Status of Selected Fauna Species in Pallikkarani Marsh

S. No.	Scientific Name of the Species	Family	Common Name	IUCN
<i>A. Mammal</i>				
1.	<i>Axis axis</i>	Cervidae	Spotted deer	LC
2.	<i>Macaca radiata</i>	Cercopithecidae	Bonnet macaque	
3.	<i>Pipistrellus coromandra</i>	Vespertilionidae	Indian pipistrelle	LC
4.	<i>Funambulus palmarum</i>	Sciuridae	Three-striped	LC

			palm squirrel	
5.	<i>Bandicota bengalensis</i>	Muridae	Bandicoot	LC
6.	<i>Rattus rattus</i>	Muridae	House rat	LC
7.	<i>Urva edwardsii</i>	Herpestidae	Indian grey mongoose	LC
8.	<i>Canis aureus</i>	Canidae	Jackal	LC
<i>B. Reptile</i>				
1.	<i>Calotes versicolor</i>	Agamidae	Garden lizard	LC
2.	<i>Sitana ponticeriana</i>	Agamidae	Fan-throated lizard	LC
3.	<i>Mabuya carinata</i>	Scincidae	Common skink	LC
4.	<i>Lygosoma punctata</i>	Scincidae	Garden skink	LC
5.	<i>Lygosoma albopunctata</i>	Scincidae	White-spotted garden skink	LC
6.	<i>Varanus bengalensis</i>	Varanidae	Indian monitor lizard	NT
7.	<i>Hemidactylus brookii</i>	Gekkonidae	Spotted gecko	LC
8.	<i>Hemidactylus triedrus</i>	Gekkonidae	Termite-hill gecko	LC
9.	<i>Hemidactylus frenatus</i>	Gekkonidae	House gecko	LC
10.	<i>Hemidactylus leschenaultia</i>	Gekkonidae	Bark gecko	LC
11.	<i>Ramphotyphlops braminus</i>	Typhlopidae	Blind snake	LC
12.	<i>Amphiesma stolata</i>	Colubridae	Striped keel back	NE
13.	<i>Atretium schistosum</i>	Colubridae	Olive keel back	LC
14.	<i>Xenochrophis piscator</i>	Colubridae	Checkered keel back	LC
15.	<i>Ptyas mucosus</i>	Colubridae	Rat snake	NE
16.	<i>Ahaetulla nasuta</i>	Colubridae	Green vine snake	LC
17.	<i>Naja naja</i>	Elapidae	Cobra	LC
18.	<i>Bungarus caeruleus</i>	Elapidae	Krait	LC
19.	<i>Vipera russelli</i>	Viperidae	Russell's viper	LC
20.	<i>Melanochelys trijuga</i>	Geoemydidae	Pond turtle	LC
21.	<i>Lissemys punctata</i>	Trionychidae	Falps shell	VU

<i>C. Amphibian</i>				
1.	<i>Euphlyctis hexadactylus</i>	Agamidae	Indian pond frog	LC
2.	<i>Euphlyctis cynophlyctis</i>	Colubridae	Skipper	LC
3.	<i>Tomopterna rolandae</i>	Agamidae	Burrowing frog	LC
4.	<i>Hoplobatrachus crassus</i>	Colubridae	Jerdon's bull frog	LC
5.	<i>Limnonectes limnocharis</i>	Lacertidae	Paddy Field frog	LC
6.	<i>Kaloula taprobanica</i>	Agamidae	Painted frog	LC
7.	<i>Ramanella variegata</i>	Elapidae	Marbled frog	LC
8.	<i>Bufo melanostictus</i>	Bufonidae	Indian Toad	LC
9.	<i>Polypedates maculatus</i>		Common tree frog	LC
<i>D. Butterfly</i>				
1.	<i>Euploea core</i>	Nymphalidae	Common crow	LC
2.	<i>Catopsilia pomona</i>	Pieridae	Common Emigrant	NE
3.	<i>Melanitis leda</i>	Nymphalidae	Common evening brown	LC
4.	<i>Eurema hecabe</i>	Pieridae	Common grass yellow	LC
5.	<i>Papilio demoleus</i>	Papilionidae	Common lime	NE
6.	<i>Papilio polytes</i>	Papilionidae	Common mormon	NE
7.	<i>Junonia lemonias</i>	Nymphalidae	Lemon pansy	NE
8.	<i>Catopsilia pyranthe</i>	Pieridae	Mottled Emigrant	NE
9.	<i>Pseudozizeeria maha</i>	Lycaenidae	Pale Grass Blue	NE
10.	<i>Junonia almana</i>	Nymphalidae	Peacock pansy	LC
11.	<i>Danaus chrysippus</i>	Nymphalidae	Plain tiger	LC
12.	<i>Acraea violae</i>	Nymphalidae	Tawny coster	LC

LC – Least Concern; * - Yes

Table 3.7.3. IUCN Status of Bird Species in Pallikkarani Marsh

S. No.	Scientific Name of the Species	Common name	Habitat	IUCN
1.	<i>Accipiter badius</i>	Shikra	T	LC
2.	<i>Acridotheres tristis</i>	Common Myna	T	LC
3.	<i>Acrocephalus dumetorum</i>	Blyth's Reed Warbler	T	LC
4.	<i>Alauda gulgula</i>	Oriental Skylark	T	LC
5.	<i>Alcedo atthis</i>	Common Kingfisher	T	LC
6.	<i>Amaurornis phoenicurus</i>	White-breasted Waterhen	A	LC
7.	<i>Anas poecilorhyncha</i>	Spot-billed Duck	A	LC
8.	<i>Anastomus oscitans</i>	Asian Openbill	A	LC
9.	<i>Anthus richardi</i>	Richard's Pipit	D	LC
10.	<i>Anthus rufulus</i>	Paddy-field Pipit	D	LC
11.	<i>Apus affinis</i>	House Swift	T	LC
12.	<i>Ardea cinerea</i>	Grey Heron	A	LC
13.	<i>Ardea purpurea</i>	Purple Heron	A	LC
14.	<i>Ardeola grayii</i>	Indian Pond Heron	A	LC
15.	<i>Artamus fuscus</i>	Ashy Woodswallow	T	LC
16.	<i>Athene brama</i>	Spotted Owlet	T	LC
17.	<i>Bubulcus ibis</i>	Cattle Egret	D	LC
18.	<i>Burhinus oedicephalus</i>	Eurasian Thick-knee	A	LC
19.	<i>Burhinus recurvirostris</i>	Great Thick-knee	A	LC
20.	<i>Casmerodius albus</i>	Great Egret	A	LC
21.	<i>Ceryle rudis</i>	Pied Kingfisher	D	LC
22.	<i>Charadrius dubius</i>	Little Ringed Plover	A	LC
23.	<i>Chlidonias hybridus</i>	Whiskered Tern	A	LC
24.	<i>Chlidonias leucopterus</i>	White-winged Tern	A	LC
25.	<i>Ciconia episcopus</i>	Woolly-necked Stork	A	LC
26.	<i>Circus aeruginosus</i>	Eurasian Marsh Harrier	D	LC
27.	<i>Circus macrourus</i>	Pallid Harrier	T	LC
28.	<i>Circus melanoleucos</i>	Pied Harrier	T	LC
29.	<i>Cisticola juncidis</i>	Zitting Cisticola	T	LC

30.	<i>Clamator jacobinus</i>	Pied Cuckoo	T	LC
31.	<i>Columba livia</i>	Rock Pigeon	T	LC
32.	<i>Copsychus saularis</i>	Oriental Magpie Robin	T	LC
33.	<i>Coracias benghalensis</i>	Indian Roller	T	LC
34.	<i>Corvus macrorhynchus</i>	Large-billed Crow	T	LC
35.	<i>Corvus splendens</i>	House Crow	T	LC
36.	<i>Cypsiurus balasiensis</i>	Asian Palm Swift	T	LC
37.	<i>Dendrocitta vagabunda</i>	Rufous Treepie	T	LC
38.	<i>Dicrurus adsimilis</i>	Black Drongo	T	LC
39.	<i>Dinopium benghalense</i>	Black-rumped Flameback	T	LC
40.	<i>Dupetor flavicollis</i>	Black Bittern	A	LC
41.	<i>Egretta garzetta</i>	Little Egret	A	LC
42.	<i>Elanus caeruleus</i>	Black-shouldered Kite	T	LC
43.	<i>Eremopterix grisea</i>	Ashy-crowned Sparrow Lark	T	LC
44.	<i>Eudynamis scolopacea</i>	Asian Koel	T	LC
45.	<i>Falco tinnunculus</i>	Common Kestrel	T	LC
46.	<i>Francolinus pondicerianus</i>	Grey Francolin	T	LC
47.	<i>Fulica atra</i>	Coot	A	LC
48.	<i>Gallicrex cinerea</i>	Watercock	A	LC
49.	<i>Gallinula chloropus</i>	Common Moorhen	A	LC
50.	<i>Gelochelidon nilotica</i>	Gull-billed Tern	A	LC
51.	<i>Glareola maldivarum</i>	Oriental Pratincole	A	LC
52.	<i>Halcyon smyrnensis</i>	White-throated Kingfisher	D	LC
53.	<i>Haliastur indus</i>	Brahminy Kite	T	LC
54.	<i>Hierococcyx varius</i>	Common Hawk Cuckoo	T	LC
55.	<i>Himantopus himantopus</i>	Black-winged Stilt	A	LC
56.	<i>Hirundo rustica</i>	Barn Swallow	T	LC
57.	<i>Hirundo smithii</i>	Wire-tailed Swallow	T	LC
58.	<i>Hydrophasianus chirurgus</i>	Pheasant-tailed Jacana	A	LC
59.	<i>Ixobrychus cinnamomeus</i>	Cinnamon Bittern	A	LC

60.	<i>Ixobrychus sinensis</i>	Yellow Bittern	A	LC
61.	<i>Limosa limosa</i>	Black-tailed Godwit	A	LC
62.	<i>Lonchura malacca</i>	Black-headed Munia	D	LC
63.	<i>Merops orientalis</i>	Green Bee-eater	T	LC
64.	<i>Merops philippinus</i>	Blue-tailed Bee-eater	T	LC
65.	<i>Mesophoyx intermedia</i>	Intermediate Egret	A	LC
66.	<i>Milvus migrans</i>	Black Kite	T	LC
67.	<i>Motacilla flava</i>	Yellow Wagtail	D	LC
68.	<i>Motacilla maderaspatensis</i>	White-browed Wagtail	T	LC
69.	<i>Nectarinia lotenia</i>	Loten's Sunbird	T	LC
70.	<i>Nycticorax nycticorax</i>	Black-crowned Night Heron	A	LC
71.	<i>Oriolus oriolus</i>	Eurasean Golden Oriole	T	LC
72.	<i>Orthotomus sutorius</i>	Common Tailorbird	T	LC
73.	<i>Passer domesticus</i>	House Sparrow	T	LC
74.	<i>Pelecanus philippensis</i>	Spot-billed Pelican	A	LC
75.	<i>Phalacrocorax carbo</i>	Great Cormorant	A	LC
76.	<i>Phalacrocorax niger</i>	Little Cormorant	A	LC
77.	<i>Phalaropus lobatus</i>	Red-necked Phalarope	A	LC
78.	<i>Plegadis falcinellus</i>	Glossy Ibis	A	LC
79.	<i>Ploceus manyar</i>	Streaked Weaver	T	LC
80.	<i>Pluvialis squatarola</i>	Grey Plover	A	LC
81.	<i>Porphyrio porphyrio</i>	Purple Swampphen	A	LC
82.	<i>Prinia inornata</i>	Plain Prinia	T	LC
83.	<i>Prinia socialis</i>	Ashy Prinia	T	LC
84.	<i>Psittacula krameri</i>	Rose-ringed Parakeet	T	LC
85.	<i>Pycnonotus cafer</i>	Red-vented Bulbul	T	LC
86.	<i>Pycnonotus jocosus</i>	Red-whiskered Bulbul	T	LC
87.	<i>Rostratula benghalensis</i>	Greater Painted-snipe	A	LC
88.	<i>Saxicola caprata</i>	Pied Bush Chat	T	LC
89.	<i>Sterna aurantia</i>	River Tern	A	LC

90.	<i>Streptopelia chinensis</i>	Spotted Dove	T	LC
91.	<i>Sturnus pagodarum</i>	Brahminy Starling	T	LC
92.	<i>Tachybaptus ruficollis</i>	Little Grebe	A	LC
93.	<i>Threskiornis melanocephalus</i>	Black-headed Ibis	A	NT
94.	<i>Tringa glareola</i>	Wood Sandpiper	A	LC
95.	<i>Tringa stagnatilis</i>	Marsh Sandpiper	A	LC
96.	<i>Turdoides affinis</i>	Yellow-billed Babbler	T	LC
97.	<i>Tyto alba</i>	Barn Owl	T	LC
98.	<i>Upupa epops</i>	Hoopoe	T	LC
99.	<i>Vanellus indicus</i>	Red-wattled Lapwing	D	LC
100.	<i>Vanellus malabaricus</i>	Yellow-wattled Lapwing	D	LC
101.	<i>Zoothera citrine</i>	Orange-headed Thrush	T	LC

LC – Least Concern; * - Yes; T – Terrestrial; A – Aquatic; D – Dry/ desert; NT – Near Threatened

Table 3.7.4. IUCN Status of major plant invasive alien species in Pallikarani Marsh

S. No.	Species	Family	Tamil Name
1.	<i>Alternanthera pungens</i>	Amaranthaceae	
2.	<i>Alternanthera sessilis</i>	Amaranthaceae	Ponnanganni
3.	<i>Argemone Mexicana</i>	Papaveraceae	Nai Kadugu
4.	<i>Hyptis suaveolens</i>	Labiatae	
5.	<i>Ipomoea carnea</i>	Convolvulaceae	
6.	<i>Lantana camara</i>	Verbenaceae	Unnichi
7.	<i>Leptochloa fusca</i>	Poaceae	Mandaipul
8.	<i>Martynia annua</i>	Martyniaceae	Thael Kodukku
9.	<i>Parthenium hysterophorus</i>	Compositae	Vishachedi
10.	<i>Pithecellobium dulce</i>	Fabaceae	Kodukkapuli
11.	<i>Pontederia crassipes</i>	Pontederiaceae	Agayathamalai
12.	<i>Senna occidentalis</i>	Caesalpinaceae	Thagarai
13.	<i>Senna siamea</i>	Fabaceae	
14.	<i>Xanthium indicum</i>	Compositae	Marul oomatham

Table 3.7.5. IUCN Status of major animal invasive alien species in Pallikkarani Marsh

S. No.	Species	Family	Common name	IUCN
C. Mammal				
3.	<i>Rattus rattus</i>	Muridae	House Rat	LC
D. Reptile				
4.	<i>Hemidactylus Frenatus</i>	Gekkonidae	House gecko	LC

Table 3.7.6. IUCN Status of major medicinal plant species in Pallikkarani Marsh

S. No.	Species	Family	Tamil Name	Habit
1.	<i>Abrus precatorius</i>	Fabaceae	Kundumani	Climber
2.	<i>Abutilon indicum</i>	Malvaceae	Thuthi	Shrub
3.	<i>Acalypha ciliata</i>	Euphorbiaceae	Agal	Herb
4.	<i>Acalypha indica</i>	Euphorbiaceae	Kuppaimeni	Herb
5.	<i>Acanthospermum hispidum</i>	Compositae		Herb
6.	<i>Achyranthes aspera</i>	Amaranthaceae	Nayurivi	Herb
7.	<i>Aerva lanata</i>	Amaranthaceae	Peelai, Sirupeelai	Herb
8.	<i>Boerhavia diffusa</i>	Nyctaginaceae	Mookarattai	Herb
9.	<i>Calotropis gigantea</i>	Asclepiadaceae	Erukku, Arkkam	Shrub
10.	<i>Cardiospermum halicacabum</i>	Sapindaceae	Mudakotthan	Herb
11.	<i>Cynodon dactylon</i>	Poaceae	Aruhampul	Grass
12.	<i>Leucas aspera</i>	Labiatae	Thumbai	Herb
13.	<i>Ludwigia adscendens</i>	Onagraceae		Herb
14.	<i>Martynia annua</i>	Martyniaceae	Thael Kodukku	Herb
15.	<i>Mollugo cerviana</i>	Molluginaceae	Parpaadagam	Herb
16.	<i>Mukia leiosperma</i>	Cucurbitaceae		Climber
17.	<i>Nymphaea pubescens</i>	Nymphaeaceae		Herb
18.	<i>Solanum trilobatum</i>	Solanaceae	Thoodhuvalai	Herb
19.	<i>Tephrosia purpurea</i>	Fabaceae	Kozhinji	Herb
20.	<i>Tinospora cordifolia</i>	Menispermaceae	Seendhil	Climber
21.	<i>Tridax procumbens</i>	Compositae	Vettukkaaya poondu	Herb
22.	<i>Tylophora indica</i>	Asclepiadaceae	Naippalai	Climber

CHECK LIST

- ✓ Responsible agency has been clearly identified and details of contact person included
- ✓ Wetland/Wetlands complex boundary has been delineated using GIS and
firmed up by adequate ground truthing
- ✓ Wetland/Wetlands complex map has been provided at required scale
- ✓ Zone of influence has been delineated and included in Wetland map or a separate map
- ✓ Wetland zone of influence is sufficient to manage all activities
- ✓ Site's importance have been listed, and for major categories, justification provided
- ✓ Site's biodiversity values are listed, and for major categories, justification provided
- ✓ List of pre-existing rights and privileges provided
- ✓ Consistency or, inconsistency of pre-existing rights and privileges
indicated to be best of available knowledge
- ✓ Threats to site listed, and for major categories details provided
- ✓ Activities prohibited, beyond those already listed in Rule 4 (2) have been mentioned
- ✓ List of activities to be regulated within Wetlands and zone of influence is provided
- ✓ List of activities to be permitted is provided