Wetland City Accreditation Nomination Form

***Instruction for compilers**:*
i. Complete all yellow cells taking into account the specific limits on characters.
ii. Further information on the wise use of wetlands and cities is provided in Resolution XI.11 available at: http://www.ramsar.org/document/resolution-xi11-principles-for-the-planning-and-management-of-urban-and-peri-urban-wetlands;and on the Wetland City Accreditation process at: http://www.ramsar.org/document/resolution-xii10-wetland-city-accreditation-of-the-ramsar-convention.
iii. Completed Nomination Forms should be sent by the designated National Focal Point for Ramsar Convention matters in the Administrative Authority to: ramsar@ramsar.org
iv. Further guidance on how to compile the Nomination Form is available at: http://www.ramsar.org/news/wca-applications

1. Background information

			Notes – Also see Guidance Note for Cities
1a.	Country	Sri Lanka	
1b.	Name of city	Colombo City	*An eligible 'city' for the Wetland City Accreditation may be a city or any other type of human settlement according to the definition given by United Nations Centre for Human Settlement*
1c.	Geographical coordinates of the city	The administrative boundary of the Colombo city includes 6 local authorities, namely; Colombo Municipal Council, Sri Jayawardenapura Municipal Council, Dehiwala-Mount Lavinia Municipal Council, Kaduwela Municipal Council, Kolonnawa Urban Council and MaharagamaUrban Council. Coordinates of the Parliament (Centre point of the city): X – 6.88722966 Y- 79.799020811 The above six municipalities fall within the legal jurisdiction of the Urban Development Authority (UDA). The municipalities work closely with the UDA which is empowered to function as the key urban planning and implementing agency of the country. It was established by an act of parliament No.41, 1978 to promote integrated planning and implementation. See Annex 1A and 1C	
1d.	Administrative and wetland map	See Annexes 1A, 1B and 1C	*Tick box to confirm that a map delineating the administrative boundary of the city and indicating, as far as possible, all wetlands fully or partly situated in its territory or close vicinity, has been provided.*
1e.	Area of city	22680.17 ha	*Area in hectares within administrative boundary*
1f.	Approximate area of wetlands within the city	1900 ha	*Indication of the area of wetlands within the administrative boundaries, indicating, as far as possible, whether they are natural or human made*

	boundaries		
1.g	Define the types of wetland present within the city boundaries	See Annexes 2A, 2B, 2C and 2D and 6	*Use the Ramsar Classification of wetlands to describe the range of wetland types. See http://www.ramsar.org/sites/default/files/documents/pdf/lib/hbk4-17.pdf (Annex I on Ramsar Classification System for Wetland Type) or any classification recognized by your country*

***Instruction**: To be considered for formal accreditation the city must satisfy **ALL** of the following criteria. Please provide all necessary information in the yellow cells.Please note that the word limits will be strictly enforced. In addition, compilers may provide attached files or web-links to specific examples, plans, regulatory instruments, relevant reports, case studies or photographs etc.*

Group A: Criteria based on delivering the conservation and wise use of wetlands

A city can be considered for accreditation if it has one or more Ramsar Sites or other significant wetlands fully or partly situated in its territory or in its close vicinity, which provide(s) a range of ecosystems services to the city.

A.1	Name any Ramsar Site that is fully or partly in the city administrative boundaries	None at present.	*Use the official Ramsar Site name and number as described on the Ramsar Information Sheet (available on https://rsis.ramsar.org/). If none, state 'None'.*
A.2	Name any other significant wetland that is fully or partly in the city administrative boundaries	**Name**: Colombo Wetland Complex (CWC)(1900 ha). CWC comprises several contiguous wetland areas of which, wetlands of *Beddagna*, *Thalawatugoda, Kimbulawela, Madiwela, Kolonnawa*, *Crow Island*, *Talangama* lake, and *Beira* lake receive greater attention in the descriptions. **Legal Conservation Status**: Currently, selected wetland areas within the CWC have protected status. They are as follows; • *Talangama* lake and associated wetlands are designated as an "Environmental Protection Area (EPA)", by the Central Environmental Authority (CEA) under the National Environment Act (NEA), 1980. • Parliament lake and associated wetlands are designated as a Wildlife Sanctuary (*Sri Jayawardanepura Kotte* Sanctuary) by the Department of Wildlife Conservation (DWLC) under the Fauna and Flora Protection	*Specify its legal conservation status (national or local), if none state None.*

Ordinance(FFPO), 1937.

See Annexes 3 and 9A

A city can be considered for accreditation if it has adopted measures for conservation of wetlands and their services including biodiversity and hydrological integrity.

A.3. A city can be considered for accreditation if it can demonstrate that **development avoids degrading and destroying wetlands**. Describe the national and/or local **policy**, **legislative measures** and **regulatory instruments**, urban management plans etc. that are in use by the city to proactively prevent the degradation and loss of wetlands.

(This field is limited to 2500 characters)

A number of policy, legislative and regulatory instruments support wetland conservation amidst development, and are a testimony to the efforts the government is taking to safeguard the ecological integrity of the wetlands. They directly or indirectly address wetland issues and cover biophysical, hydrological, biodiversity, pollution, climate, socio-cultural, wise-use and institutional aspects. These instruments have been formulated by different institutions, over time, realizing the transformative nature of the wetlands, and the mandates of the respective institutions. To date, 5 policies, 6 strategies and action plans, 7 ordinances and acts; 3 regulatory instruments support wetland issues. The country is signatory to 8 international conventions, and Ramsar Convention (1971) is one of them. One of the key acts is the National Environment Act of 1980, which refers to the wise-use/sustainable use of natural resources in the country, and forms the basis for conservation of water infrastructure, among others. The Fauna and Flora Protection Ordinance No.2 of 1937 (FFPO), supports the protection of habitats for faunal and floral species, which encompasses and highlights the ecological integrity of ecosystems. The CWC is recognised for its flood control potential, and has been formalized by a special cabinet approval(1996). An area of 700 ha has been identified, and a clear management plan promotes the wise-use of the land. The National Wetland Policy and Strategy (2005) endorses the national commitment to conservation as a signatory to the Ramsar Convention on Wetlands. This was followed by the Wetland Management Zoning Plan for the Western Province, 2006, prepared by the UDA, providing the guidelines for zoning of wetlands during urban development in the Western Province. It recognizes Wetlands as a natural drainage network and green lungs for the city. Seven types have been classified for zoning and aims to facilitate environmentally & economically sustainable use of wetlands considering their intrinsic potential, their ecology and the needs of the surrounding population, while maintaining essential flood storage capacity and other environmental benefits. In 2016 a Wetland Management Strategy (WMS), specifically targeting the CWC, provides a comprehensive strategic approach to governance, management and monitoring of the wetlands in the CWC. This is currently being implemented.
While only some of the key instruments have been referred to in the text, many others are supportive and are being used in providing an integrated management plan for wetlands. All relevant policy, legislative and regulatory instruments are listed in Annex 5.

A city can be considered for accreditation if it has implemented wetland restoration and/or management measures.

A.4. A city can be considered for accreditation if it can demonstrate that it proactively encourages the **restoration or creation of wetlands** as elements of urban, and especially water management infrastructure. Provide specific examples (site and summary of implemented measures) of where wetlands have been created or restored within the city as elements of urban infrastructure, such as to control flooding, cool climate, improve water quality, provide recreation, etc.

(This field is limited to 2500 characters)

In 2015, the Government supported an extensive study of the CWC, complete with physical, ecological, socio-economic surveys, hydrological modelling, detailed assessment of wetland environmental services (ES) and an economic valuation of selected ES in a pilot wetland area (*Kolonnawa* marsh), which resulted in the development of the Wetland Management Strategy (WMS) 2016. It informs the current status of the CWC, its

future management as well as Government's on-going efforts towards restoring multiple wetland sites across the CWC. The wetlands of *Beddagana, Thalawatugoda, Kimbulawela* and the mangroves of Crow Island are specific examples where restoration of wetland habitats has been donetowards flood control, storm water management and other co-benefits. In *Beddagana* (18 ha) habitats were improved by creating wader scrapes, reed ponds, replanting of wetland trees and controlled removal of invasive trees. Restoration of *Thalawatugoda* wetlands (32 ha) included similar measures in addition to creating low lying grasslands and natural canal embankments. Both these wetlands have been developed into urban wetland parks complete with information centres, nature viewing, interpretational and other educational facilities for the purpose of recreation and wetland related communication, education, participation and awareness (CEPA) activities. In Crow Island, the mangroves, which are part of a larger beach park, were restored by re-establishing the hydrological connectivity with the sea, interception of sewer discharges, removal of garbage and controlled dredging of an associated saline pond. In Kimbulawela (26 ha), abandoned paddy farms(paddy accounts for nearly 50% of the wetlands in CWC) were revived with a model farm promoting the best practices for organic cultivation. The project underlies the Government's efforts to halt paddy lands from falling into disuse in Colombo and to discourage the use of inorganic chemicals that contribute to water quality problems in the CWC. The Beira Lake, which is a small urban lake and has a long history of receiving urban waste water, has been subjected to systematic dredging, interception of sewer inflows, resettlement of low income households located in the vicinity etc. in order to improve the lake water quality and the general lake environment. About 20 Km of walkways and jogging paths have been built around wetlands in the CWC, incorporating them as part of public infrastructure bringing the wetlands close to public life. Further, the Government spends about Rs 40 million annually to keep canals and wetlands free of aquatic invasive species so that a good water flow and connectivity between wetlands in the CWC are maintained. While restoration work continues, targeted short term monitoring of environmental responses have detected encouraging changes such as the return of many wetland fauna (such as birds, dragonflies)after many years.

See Annexes 4 and 9

A city can be considered for accreditation if it considers the challenges and opportunities of integrated spatial/land-use planning for wetlands under its jurisdiction.

A.5. A city can be considered for accreditation if it can demonstrate that it considers the importance of wetlands as elements of **spatial planning and integrated city management** (such as through Integrated River Basin Management, spatial zonation, water resource management, the development of transport infrastructure, agriculture production, fuel supply, poverty alleviation, pollution control, flood risk management, disaster risk reduction, etc.). Describe the measures (policies, procedures, guidance, legislation, etc.) that ensure that the importance of wetlands is considered fully as elements of spatial planning and integrated city management.

(This field is limited to 2500 characters)

The CWC has long been regarded as an indispensable element of the city's storm water management system. In 1996, the Greater Colombo Flood Control and Environmental Improvement Project identified an area of 405 ha within the CWC that were essential for flood retention and declared them as no-build zones. The importance of the CWC for flood risk management was further emphasized by the Storm Water Drainage Master Plan funded by JICA in 2003 and the comprehensive hydrological study that was carried out under the Metro Colombo Urban Development Project (MCUDP) funded by the World Bank. The MCUDP has shown that given the deep uncertainties brought about by climate change and increased pressure of urbanization, maintaining all the wetlands within the CWC is important to manage the risk of recurrent floods. Taking this important finding into consideration, discussions are underway at different levels of government to seek strategies as to how development processes and wetland conservation can co-exist. Through these initiatives, other key wetland co-benefits such as water purification and city cooling are also being preserved.

In 2006, Urban Development Authority (UDA) gazetted wetland zoning guidelines for the Western Province (WP) to facilitate environmentally & economically sustainable use of wetlands in land use planning. The guidelines categorise wetlands in the WP into five zones based on permitted uses. Accordingly, the CWC falls within the Wetland Protection, Wetland Nature Conservation and Wetland Agriculture zones and is compatible with the recommendations of the WMS. In addition, the UDA gazetted Public Outdoor Recreation Space (PORS) Standards (n.d.) that prescribe minimum outdoor recreational space that needs to be maintained in development planning. Accordingly, 0.75 ha of public outdoor recreation space per 1000 persons (city-dwellers) has to be maintained, and wetlands have been increasingly incorporated into public infrastructure development within Colombo to achieve these standards. Examples are the urban wetland parks and more than 20 Km of walking/jogging paths around wetlands that have been built within the city.

In 2015, the Government launched the Western Region Megapolis Plan (WRMP), which is its latest spatial development plan to promote economic growth in the Western Province. Within the WRMP, wetland ecosystems are identified as eco-zones. It has a special chapter on Environment and Waste Management which promotes the conservation of wetlands. Within Colombo, the recognition of wetlands as eco-zones is a positive outcome towards the conservation of the CWC. Further, the WRMP envisions the usage of Colombo's extensive canal network for public transportation within its overall public transportation improvement plan. A pilot passenger boat transportation project has already been initiated.

See Annex 5

A city can be considered for accreditation if it has delivered locally adapted information to raise public awareness about the values of wetlands, and encouraged the wise use of wetlands by stakeholders through, for example, establishing wetland education/information centres.

A.6. A city can be considered for accreditation if it can demonstrate that it has adopted the **principles of inclusivity, empowerment, and participation of indigenous and local communities and the civil society** in decision-making and city planning and management. Describe how indigenous and local communities have been engaged and participate in the management of wetland-related issues.

(This field is limited to 2500 characters)

There are several examples of wetland restoration initiatives across the CWC that exhibit elements of strong community participation in project design and implementation. The design, development and the management of the *Beddagana* Wetland Park is a good example of inclusivity and participation of local communities. Before the development of the park, locals regarded *Beddgana* wetland area as informal public space and used it at will for various recreational (and even illegal) activities. At the early design stage, officials of the UDA worked closely with neighbourhood communities through structured consultations, who were organised into CBOs, to discuss the proposed initiative and to invite community feedback. These consultations ensured the flow of certain benefits to the community through changes to the park design such as the designation of separate space for a community park/play area with unlimited access, creation of community livelihood opportunities etc. The UDA also worked closely with NGOs such as the Field Ornithology Group of Sri Lanka (FOGSL) who helped feed the designs with their expertise and knowledge of the wetland from years of birding observations.

Community members are part of the *Beddagana* Park Management Committee which comes under the jurisdiction of the UDA. The committee also includes two members from academia who are wetland scientists.The committee meets with local stakeholders periodically and others as necessary, and reports to the National Wetland Steering Committee (NWSC). As a result of community responsive design and operation, the park receives support from the local community which is reciprocated by the Park management via free excursions and awareness sessions to the locals.

Similarly, the development of the *Thalawatugoda* Biodiversity Park preceded consultations with the adjacent community via a structured survey questionnaire to obtain community concerns.

Another project undertaken in *Talangama*, to clean up a silted lake half covered by the invasive *Anonaglabra*is a classic demonstration of inclusion of stakeholders in the decision making process. *Talangama* is an environmentally protected, small-sized ancient lake that is used for irrigation, flood diversion as well as for bird watching. A project to enhance the flood diversion capacity of the lake was opposed by local paddy farmers for fear of losing irrigation capacity. Their concerns were addressed through a series of consultations spanning 2 years, outcomes of which were reflected as major changes to the project scope. Further, wide public input was sought for the revised project scope through an EIA. As a consequence, further enhancements to the methodological approach for lake improvement were made. Such as making a proposed access road discontinuous to discourage through traffic in order to protect neighbourhood privacy based on a specific request by the neighbourhood community.

See Annexes 4 and 9

A.7. A city can be considered for accreditation if it can demonstrate that it has **raised levels of public awareness about the values of wetlands**, and encouraged the wise use of wetlands by a diverse range of stakeholders and communities through, for example, establishing operational wetland education or information centres, regularly disseminating information on wetlands, establishing and implementing school education programmes, etc.

(This field is limited to 2500 characters)

The Government has established two wetland parks within the CWC with information centres and nature viewing facilities. *Thalawatugoda* Biodiversity Park, managed by the Sri Lanka Land Reclamation and Development Corporation (SLLRDC) and the *Beddagana* Wetland Park managed by the UDA have been playing a key role in disseminating information and raising awareness about wetland ecosystems to a wide audience. Since 2014, *Thalawatugoda* Biodiversity Park has held more than 40 awareness programs for a multitude of stakeholderssuch as schools, Government institutions, private companies, general public etc.through which it has reached out to about 4000 people. As the *Thalawatugoda* Biodiversity Park is designed for students to engage with wetland related practical studies,the Wetland Management Division of SLLRDC has actively promoted collaboration with local and foreign universities for wetland related research. So far, the park has provided nearly 100 students opportunities for undergrad/postgrad level research

projects, internships and service learning programs on wetlands.

Since opening in 2015, *Beddagana* park has held 20 school awareness programs reaching out to about 750 students and has hosted nearly 55,000 park visitors, both local and foreign. It has become a training ground for bird watching and nature photography. School Environmental Clubs as well as private companies have partnered with both parks to carry out various mini projects such as tree planting.

Further, the CEA and the Biodiversity Secretariat of the Ministry of Environment have conducted awareness programs on wetlands through workshops, field sessions and disseminationof awareness material. Of particular importance is the linking of the School Environmental Pioneer Program by the CEA, which is a national level merit award scheme for school students, to the two wetland parks.

Many conservation NGOs such as FOGSL, Young Zoologist Association, Butterfly Conservation Society of Sri Lanka and research programs such as the Urban Fishing Cat Project havecollaborated with the two wetland parks for raising awareness. Annual public events such as the Colombo Bird Race, Migrant Watch, Butterfly and Dragonfly Race are held within the CWC to expose the public to wetland life. Several wetland exploration workshops have been organised by the FOGSL specially targeting young kids. The Asia Regional Partnership Bird Fair 2016 was held at the *Thalawathugoda* Biodiversity Park on the 20th November with the participation of more than 14 member countries. The event received wide media publicity with over 500 attending the fair.

The importance of the CWC has been taken to the public through mass media as well. Since 2014, there have been 6 newspaper articles, 3 write ups in magazines, 2 TV documentaries on the wetlands in Colombo. Information dissemination is also widely taking place via social media tools such as Facebook pages for the two parks, Urban Fishing Cat Project and through personal walls.

See Annex 8 &9

A.8. A city can be considered for accreditation if it can demonstrate that it has proactively promoted events around **World Wetlands Day** (2 February) in order to raise awareness on wetlands and their importance to the city. Describe the types of events that have been delivered to celebrate World Wetlands Day in the city.

(This field is limited to 2500 characters)

World Wetland Day celebrations are held each year by the CEA and the DWLC and in the recent past by the SLLRDC's Wetland Management Division. Since 2014, wetland day celebrations have increasingly focused on the theme of 'urban wetlands' given the renewed interest and awareness of the wetlands in Colombo.

2017

The National Event was organized by the CEA and DWLC in Colombo. The event included an award ceremony for winners of a school art competition held on the theme of wetlands and the declaration of *Nandikadal* and *Nayaru* lagoons as two important nature reserves in Sri Lanka. In addition, the SLLRDC organized a workshop titled "Wetlands for all of us" at the *Thalawathugoda* Biodiversity Park for the staff of the institution including engineers, architects, and many middle level managers, to raise sensitivity towards wetlands in development planning. The UDA organized a training session for planners and other staff within the institution with the support of IUCN Sri Lanka on the theme "Wetlands for disaster Risk reduction".

2016

National Event - Wetland related Art Competition organized by the CEA in association with the DWLC, Department of Education and the private sector to encourage school students to learn about wetlands, threats on wetland habitats. The SLLRDC conducted a workshop for 60 school students in the *Thalawatugoda* Biodiversity Park where sessions were held to encourage practical learning of wetland ecology through lectures and pre-organised field experiments, particularly focusing on the CWC.

2015

SLLRDC in collaboration with the Fishing Cat Conservation Project organised a workshop for 75 school students at the Thalawatugoda Biodiversity Park where sessions were held about the fishing cat habitat and the importance of the CWC for the survival of the fishing cat in Colombo.

2014

The national event was jointly organised by the CEA and the DWLC and held in the Ministry of Environment with the participation of Hon Ministers. The event included prize giving for winners from an island wide cross word puzzle on wetlands. The SLLRDC held a workshop for 150 school students and 25 university students at the *Thalawatugoda* Biodiversity Park which included seminars on the importance of CWC, practical sessions on aquatic biology, wetland soil, water quality etc.

2013

CEA, DWLC and Department of Education organized national event at *Battaramulla*, with the participation of Hon Minister of Wildlife Resources, Hon Environment and Ramsar Asia and Oceania regional Senior Adviser Dr Lew Young. Award ceremony of school & Open poster art competition conducted in advance on wetlands day.Guest lecture on 'Ancient Hydrological systems & wetlands conservation of Sri Lanka" and poster art exhibition were the major events of the national ceremony.

2008

Shramadana Campaign (clean up program) and tree planting programme was carried out by the CEA at the *Thalangama* Lake within the Environmental Protection Area.

See Annex 8 & 9

A city can be considered for accreditation if it has established a local committee with appropriate knowledge and experience on wetlands and demonstrates representation of and engagement with stakeholders to support the Wetland City Accreditation, both through the submission of the Accreditation Form and the subsequent implementation of proper measures for fulfilling the obligations under the accreditation process.

A.9. A city can be considered for accreditation if it can demonstrate that it has **established a local committee** (or similar structure) to support and to further the aims of the Wetland City Accreditation. Such a committee should contain appropriate knowledge and experience on wetlands and should be representative of stakeholders and communities. Describe the committee, its members, mandate and operation.

(This field is limited to 2500 characters)

With more than 12 years of urban wetland management experience through various programs directed at urban wetlands as early as in 1995, it was considered that institutional cooperation was one of the biggest challenges in the management of urban wetlands in Sri Lanka. A number of conservation-directed and development-directed agencies were simultaneously developing plans for wetland areas which were incompatible with each other. In 1995, steps were taken to improve this situation and the National Wetland Steering Committee (NWSC) was formed by a decision of the cabinet. The NSWC, which is a top-level powerful coordinating committee, is operational to date.

The NWSC is chaired by the Secretary of the Ministry of Environment and is comprised of Secretaries in charge of the subjects of Finance, Lands, Forests, Construction, Irrigation, Wildlife Conservation, Provincial Councils, Chairman, CEA, Director General of the DWLC, Conservator of Forests, Survey General, Director General, Board of Investment, Chairman of the SLLRDC, Chairman of theUDA, Chairman of the National Aquatic Resources Agency, Director General of the Natural Resources, Energy and Science Authority, two Representatives from NGOs, two recognised experts on Wetland Conservation and Management, Director General, CEA (Convenor). Other stakeholders are invited to the committee as and when necessary.

Main objectives of the NWSC are, among others, (a) to bring together all agencies conservation and development of wetland resources, as well as country-wide NGOs in order to integrate development and conservation activities in wetland areas, (b) guide the formulation of wetland related policies and

regulations (c) advise and direct the implementation of wetland management plans (d) monitor and evaluate progress of the wetlands in the National Directory periodically. The key tasks of the NWSC are to (i) centrally co-ordinate activities between conservation and development agencies in wetlands that are considered nationally important (ii) resolve inter-agency conflicts and (iii) monitor activities

According to the National Wetland Policy, each wetland should be directly managed by a site management committee. In the absence of a specific committee for Colombo, the NWSC has provided oversight to the newly formed Wetland Management Unit of the SLLRDC which has assumed a significant role in the management of the CWC since 2013, and supervised the preparation of the WMS for the CWC. It has officially endorsed its findings and recommendations and has also consented to formulating a specific sub-committee under it tomonitor implementation of the WMS for the CWC. Members of the NWSC are based in Colombo and have a sound understanding and experience of the CWC to offer the needed guidance and oversight for management and monitoring activities and can help formulate policy at the highest level.

See Annexure 7

Group B: Complementary approaches

A city can be considered for accreditation if it has developed and applied appropriate standards regarding water quality, sanitation and management in the entire area under the city's jurisdiction.

B.1. A city can be considered for accreditation if it can demonstrate that it has applied **standards on water quality and sanitation, including waste management** facilities which include collection and treatment for solid waste and wastewater (industrial, domestic and stormwater). Describe the standards, policies and regulatory framework which ensures delivery on water quality and sanitation standards

(Each field is limited to 2500 characters)

The city of Colombo has standards and regulatory legislature on water quality, sanitation and waste management. The disposal of wastewater into ambient water is governed by the National Environmental Act number 47, of 1980 and its amendment in 1988. It mandates the polluter to obtain an Environmental Protection License for emission or disposal of waste. A similar license has to be obtained for the management and disposal of waste. The regulatory authority is the Central Environmental Authority. The discharge standards for Industrial wastewater into surface waters and into land for irrigation purposes, hydraulic loading for different soils, industrial and waste into marine coastal areas, are clearly stated in the Schedule I of the Act of 1980. The act specifies the discharge standards for rubber, tanning textile industries and discharge into sewers by tankers collecting sewage from other regions.

The National Water Supply and Drainage Board is responsible for the water supply and sewerage management and is governed by the National Water Supply and Drainage Board law No. 2 of 1974. It has its own standards set to the European standards for drinking water, and adheres to the rules and regulations set by the CEA.

Within the central city areas the waste management is handled by the Colombo Municipality and areas beyond that come under the jurisdiction of the local governments. As per the Part II of the National Environmental (Protection and Quality) Regulations No.1 of 2008, CEA has prepared the technical guidelines for waste management for the country. Other legislative instruments that govern waste management are,

The Board of Investment has its own environmental standards drawn up in conjunction with the CEA and Sri Lanka Standards Institute (BOI. 2011). Industrial standards have been further elaborated in a quick reference guide published by the CEA (2015). There is also the Environmental guidelines for SMEs in Sri Lanka prepared by the Ministry of Finance and Planning (n. d.)

Sri Lanka Standards Institute (SLSI) has prepared the Ambient Water Quality Standards. It describes the standards for bathing, drinking source water with simple treatment, drinking source water with conventional treatment, irrigation and aquaculture use and recreational use.

There are a number of wastewater treatment and disposal projects for the catchment which has been either

completed, on-going or planned to be commenced in the near future. Some of these are : The ADB/JICA funded Greater Colombo Waste Water Project, which is on-going, Capacity Development for Wastewater Management Services for Colombo, Jayawardenapura wastewater management and disposal project handled by the NWSDB which is to be started in the near future, Greater Colombo Water and Wastewater Management Improvement Program (Project 3) managed by the Colombo Municipal Council, Greater Colombo Water and Wastewater Management Improvement Program: Gender Action Plan deals with strategic plans for gender involvement.

See Annex 5

A city can be considered for accreditation if it recognizes and considers the socio-economic and cultural values, as well as the broader ecosystem services, of wetlands and has established good practices to consider and protect them in decision-making.

B.2. A city can be considered for accreditation if it can demonstrate that it **proactively recognises the ecosystem services** that wetlands provide and has integrated these multiple values into decision making. Where appropriate, special attention should be given to describing sustainable agriculture, forestry, fisheries, tourism and the cultural values of wetlands. Describe how the different provisioning, regulating, cultural and supporting ecosystem services are recognised and the benefits that they provide to human society are integrated into planning and decision-making. Where possible, illustrate with examples.

(Each field is limited to 1000 characters)

Provisioning services:
A detailed examination of ES was undertaken as part of the WMS including wide-ranging stakeholder assessments. Freshwater, food, fibre and fuel, natural medicines, genetic and ornamental resources, waste disposal, clay/mineral harvesting are the important provisioning services provided. Of these, food, freshwater and medicines are considered the most significant for Colombo. The CWC supports a significant urban agricultural sector which ensures a supplementary household income and delivers the city with food security and climate resilience. As per economic valuation conducted for *Kolonnawa* marsh, it is estimated that the total Net Economic Value (NEV) of paddy is around US$ 10,067 million per hectare annually. The Government recognizes the role of wetlands in the economic well-being of the people in Colombo. Paddy lands are thus protected through the Paddy Act of 1958. An urban agricultural policy has been formulated. It has promoted organic paddy through *Kimbulawela* model farm and has invested in rehabilitating irrigation waterways in *Talangama* and *Madiwela*. Following the WMS, Government is also discussing other strategies in which wetland conservation can co-exist with future development.

Regulatory services:
The regulating services of the CWC include regulation of air quality, local/global climate, water, natural hazards, pests, diseases of human and livestock, erosion, salinity, water purification, pollination, noise and visual buffering. Of these, regulation of flood and local climate are two of the most important. The CWC provides Colombo with effective protection from flooding with over 80% of its area making a significant contribution to the regulation of water and the management of flood risk within Colombo, storing up to 39% of the runoff. It is estimated that 98% of the annual NEV of selected range of ecosystem services for *Kolonnawa* Marsh, which is US$ 4.7 million, is accounted by flood attenuation and wastewater treatment services. The CWC also makes a significant contribution to human health through regulation of local climate. It is estimated that more than 50% of the city that falls within the catchment of the CWC benefits from this natural air conditioning making the city more livable. The CWC has been considered a key feature in various generations of city storm-water drainage plans while some if it has been declared as flood detention areas.

Supporting services:
Supporting services from the CWC include soil formation, primary production, nutrient recycling, water recycling, photosynthesis and provision of habitat. Of these, the highest significant positive contribution of the range of supporting ecosystem services identified for CWC is the provision of habitat. The wetlands contribute to a city rich in biodiversity. Over 250 plant species including 9 endemics, 9 nationally threatened

and 11 nationally near threatened have been recorded from the CWC. Similarly, 280 species of animals including 32 endemics have been recorded. The CWC support the tree climber *Aganope heptaphylla* which is a native critically endangered species recorded only from 3 sites in Sri Lanka. About 20 critically endangered faunal species also inhabit the CWC that include the Fishing Cat *Prionailurus viverrinus* and Otter *Lutra lutra*.

Cultural services:
Cultural services from the CWC include cultural heritage, recreation and tourism, aesthetic value, spiritual and religious value, inspiration for art, folklore and architecture, social relations, education and research. Of these, education and research, social relations and aesthetics are the more sought after ESs. They make strong contributions to vibrant social relations at the local level. The local Buddhist temple is a strong link within local communities and as such the role wetlands play in the worship and ritualistic practice is an important service. The CWC also has enormous potential for recreation and tourism activities which is largely untapped at present. The recreational potential for *Kolonnawa* wetland has been estimated to carry a NEV of US$ 76,923 per annum and the assessment of ecosystem services further states that the economic value of the CWC would increase by manifolds if they systematically and sustainably planned for recreational, cultural activities and tourism, as demonstrated by the pilot wetland centers in *Beddagana* and *Thalawatugoda*.

B.3. A city can be considered for accreditation if it can demonstrate that there is a **close link between local communities and the wetlands**. Describe how local communities are engaged with the wise use of wetlands and how the communities benefit from the services the wetlands provide.

(This field is limited to 2500 characters)

It has been elucidated through the detailed examination of ES that all the wetlands making up the CWC provide multiple benefits for the well-being of local communities and that 90% of these benefits remain within the Colombo city limits. The local communities who live around wetlands are linked with their environment in many ways.

Urban agriculture is one way in which local communities are actively linked to the wetlands. Rice cultivation in wetlands is a long established practice in Colombo and continues to date with over 50% of the CWC utilised for paddy cultivation. Wetlands such as *Thalangama* lake and many other small tanks as well as canals serve as the main sources of irrigation water for rice production in Colombo, and managed by the Department of irrigation. In addition, local people use wetlands for the cultivation of vegetables, edible herbs, yams and other crops when the water levels are low or during off-paddy seasons and for poultry/dairy farming where animals freely foraging on wetlands. In addition, water ways associated with wetlands are used for subsistence fishing. According to the WMS, over 87% of all the wetland areas currently provide food to the citizens of Colombo. For the urban poor, these provide not only an additional household income but also food for the families. It is known through the surveys of the WMS that a majority of households in and around the wetlands are less well-off and over 60% of these local households directly benefit from livelihoods and products derived from the wetlands. In paddy cultivation areas (ex: *Thalangama*), farmers are organised into Farmer Organizations (FOs) which are responsible for representing needs and interests of the farmer community. The Government consults the FOs for joint decision making with regard to on-going management of paddy lands.

Besides, the people of Colombo have long-benefitted from their knowledge of the curative powers of local plants. It is estimated that almost 80% of the wetland areas provide local communities with traditional natural medicines which are harvested and foraged for at no or limited cost to the individual households.

The wetland parks that have been built in *Thalawatugoda* and *Beddgana* have helped reinforce a cultural link between the local communities and wetlands through renewed interest in wetland bird watching and recreation. The local community in *Beddagana* is in fact part of the management approaches of the wetland park and are consulted as part of management decisions when needed.

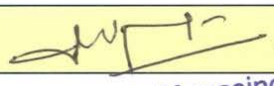
Wetlands play an important role in the ritualistic practice of Buddhism. Wetland products like lotus flowers are offered as part of the rituals, during prayers. The Government supports this practice as a livelihood, by providing stalls, where other wetlands products like yams, medicinal plants etc. can be sold.

All citizens in Colombo benefit directly or indirectly from numerous wetland services, a fact that the public is beginning to appreciate and learn more, as seen through the responses for various programs conducted.

See Annex 9

3. City approval

***Instruction**: An authorised representative of the city authority making the application needs to check and approve the accreditation form against the guidance provided. In the case of several cities making a joint submission,a representative of each authority needs to check and approve the form, and then send it to the country's Ramsar Administrative Authority who will formally submit it to the Ramsar Convention Secretariat (ramsar@ramsar.org) If more than three authorities are making the submission please insert further boxes.*

Name/Title:	Dr. Jagath Munasinghe		
Position:	Chairman, Urban Development Authority (UDA)		
Address	Urban Development Authority, 6th and 7th Floors, "Sethsiripaya", Battaramulla, Sri Lanka		
E-mail	chairmanudabm@gmail.com , jagathnm@gmail.com		
Date:	15.09.2017	Signature:	
Name/Title:	Dr. Jagath Munasinghe Chairman Urban Development Authority		
Position:			
Address			
E-mail			
Date:		Signature:	
Name/Title:			
Position:			
Address			
E-mail			
Date:		Signature:	

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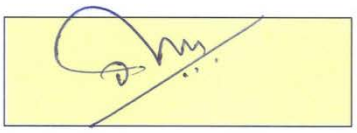
4. Endorsement by the Ramsar Administrative Authority

Instruction for the Ramsar Administrative Authority: Please check and endorse each application for City Accreditation in your country, before sending this form to the Ramsar Secretariat at (*ramsar@ramsar.org*). Please also consult *Wetland City Accreditation Guidance Note for Ramsar Administrative Authority*.

Name of Administrative Authority	Department of Wildlife Conservation of Sri Lanka
Name and title of Designated National Focal Point for Ramsar Convention matters	Manjula Amararathna Director (Operations)

Date: 26/09/2017

Signature of the Designated National Focal Point for Ramsar Convention matters:



Manjula Amararathna
Director (Operations)
Department of Wildlife Conservation
No. 811/A, Jayanthipura Road,
Battaramulla.

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