

**EFFICACY OF *PHRAGMITES* BASED  
CONSTRUCTED WETLAND FOR THE REMOVAL OF  
PHOSPHATES FROM WASTEWATER**

**A PROJECT REPORT SUBMITTED IN PARTIAL FULFILMENT  
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**CERTIFICATE**

This is to certify that the research work embodied in this dissertation entitled “**Efficacy of *Phragmites* based Constructed Wetland for Removal of Phosphate from Wastewater**” has been carried out in the Department of Environmental Engineering, Delhi Technological University, New Delhi. This work is original and has not been submitted in part or full for any other degree or diploma to any university or institute.

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## **ABBREVIATIONS**

AG	Analytical Grade
AP	Available Phosphate
APHA	American Public Health Association
ATEA	Alternate Terminal Electron Acceptor
BOD	Biochemical Oxygen Demand
COD	Chemical Oxygen Demand
CW	Constructed Wetland
CWS	Constructed Wetland System
DAP	Di-ammonium Phosphate
EC	Electrical Conductivity
EW	Engineering Wetland
FWS	Free Water Surface
G	Specific Gravity
HF	Horizontal Flow
HRT	Hydraulic Retention Time
SSF	Sub-Surface Flow
TDS	Total Dissolved Solids
TKN	Total Kjeldahl Nitrogen
TP	Total Phosphate
VF	Vertical Flow