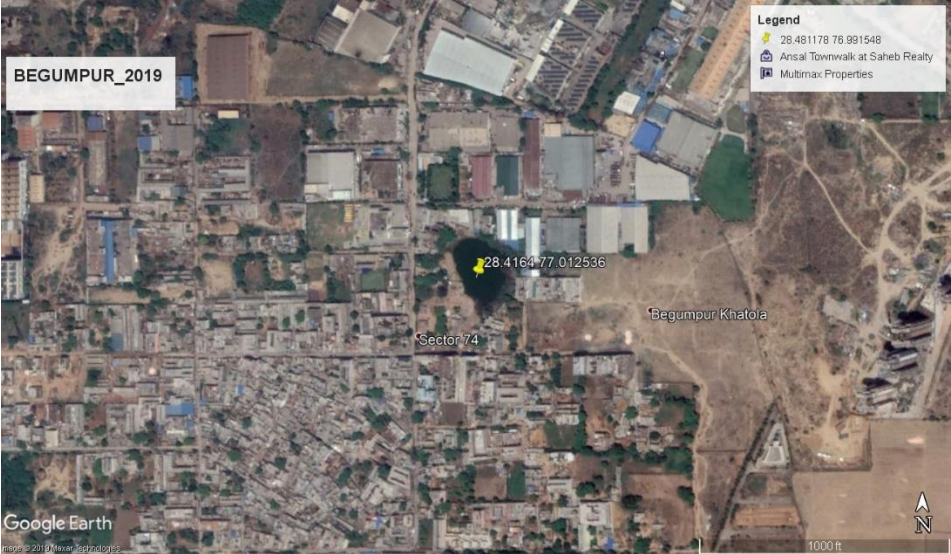


# BEGUMPUR KHATOLA POND PROFILING

## PHYSICAL DESCRIPTION

|                      |   |
|----------------------|---|
| Name of water body   | Begumpur khatola  |
| Location             | Begumpur khatola village near Boys Govt. school, Block – Gurugram   |
| Latitude & longitude | <b>28°41'64"Nand77°01'25.36"E.</b><br> |
| Area of water body   | 2.71 Acre   |

Site view of the water body



Maximum depth

Mean depth

Type of water body

Natural

Current status

- Dry
- Encroached
- Polluted

Currently, the pond is polluted due to continuous **discharge of sewage** and **effluent from factories** from the village.

Source of water inflow

- Rainfall
- Runoff
- River
- Drain(covered)
- Open drains
- Waste water drain
- Treated waste water from STP
- Others (specify)

Source of water/ inflow in the pond is **rainwater runoff** and **municipal waste** and **industrial effluents**.

Is there any outflow from the water body. If any, describe

During rainy season there is **no outflow** of the water from the pond.

|   |   |
|---|---|
| Water level Changes (annual) in meters  | There is approximately <b>.5 to 1</b> meters of the fluctuation in pond water level during the summer and the winter seasons. |
| Are there any river/canal/major open drain passes within a radius of 5-10 km of the water body? If so, outline the nature of their flow and distance from the water body. | There is <b>STP situated in behrampur at a distance of 2km</b>  |
| Groundwater level (Pre-monsoon and Post-monsoon)-   |   |
| Does the water dry out completely? <ul style="list-style-type: none"> <li>• Every year</li> <li>• During summer</li> <li>• Rarely</li> </ul>                              | During the summer season and when the rainfall is lower than the expected, pond <b>does not</b> gets dry out completely.      |
| Catchment area of the water body in sq.km   |   |
| Land use of the catchment area <ul style="list-style-type: none"> <li>• Urban</li> <li>• Agriculture</li> <li>• Forest</li> <li>• Mining</li> </ul>                       | Catchment area of the water body is <b>urban village</b> having <b>plain topography</b>                                       |
| Total Population  | 1022  |
| Is the water body used by animals for drinking and bathing?   | No  |
| Type of flora fauna found around the water body   | There is presence of mostly <b>kikar, reeds and neem</b> in surrounding areas.  |

Geo tagged image of water body



|  |   |
|--|---|
| Ownership of land  | MCG   |
| Khasra number  | 94/2  |
| Landscaping around water body                                      | <ul style="list-style-type: none"> <li>• Industrial and residential settlement around</li> <li>• Shrubs and keekar are common vegetation</li> <li>• Non biodegradable waste can be seen dumped around the area</li> </ul> |
| Free space around water body                                       | 600sqm  |
| Can the water body be used as active urban/public space            | Yes, the water body can be used as urban/public space.  |
| Are there any construction activities going on near the water body | There's construction of school building going on near the water body  |

## FUNCTIONS OF WATER BODY

|  |      |
|--|------|
| Is the water body used for :   | None |
| <ul style="list-style-type: none"> <li>• Drinking</li> <li>• Agriculture</li> <li>• Horticulture</li> <li>• Fisheries</li> </ul> |      |

|  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• Others</li> </ul>   |   |
| <p>Functions of water body:</p> <ul style="list-style-type: none"> <li>• Groundwater recharge</li> <li>• Flood mitigation</li> <li>• Tourism</li> <li>• Support biodiversity</li> <li>• Influence on microclimate</li> <li>• Socio cultural</li> <li>• Aesthetics</li> </ul> | <p>Currently, water body is used only for collection of waste generated from the village and also act as main source of <b>ground water recharge</b> and <b>flood mitigation</b>. It can also <b>support biodiversity, influence microclimate, socio-cultural</b> and <b>aesthetic</b>.</p> |

## MAJOR PROBLEMS

|  |   |
|--|---|
| <p>Major problems:</p> <ul style="list-style-type: none"> <li>• Reduction in area</li> <li>• Reduction in depth</li> <li>• Encroachment</li> <li>• Algal bloom</li> <li>• Aquatic weeds</li> <li>• Decline or loss of fisheries</li> <li>• Eutrophication</li> <li>• Organic pollution</li> <li>• Toxic pollution</li> </ul> | <p>The major problem associated with the water body is <b>reduction in depth of the water, encroachment, reduction in area, organic pollution</b> which cause the decline or <b>loss of aquatic life</b> in the water body.</p> |
|--|---|

## SOURCE OF POLLUTION

|   |   |
|---|---|
| <p>Does solid waste dumping takes place near the water body? (Organic/Non-Biodegradable)</p>                      | <p>Direct dumping of solid waste can be seen near the water body.</p>   |
| <p>Solid waste disposal in water body (religious offering/idol immersion)</p>                                     | <p>Since the pond is located inside the village and has continuous discharge of municipal and industrial waste it is <b>not used for any religious purpose</b>.</p> |
| <p>Source of pollution in water pollution</p> <ul style="list-style-type: none"> <li>• Municipal waste</li> </ul> | <p>Municipal waste, organic waste, industrial effluent</p>  |

- Industrial effluent
- Organic waste
- Non biodegradable waste
- Solid waste
- In pond human activity
- Cattle wadding
- Agriculture runoff

Nutrient level in water body

- Negligible
- Low
- High
- Very high

Due to continuous discharge of the sewage nutrient level i.e., **organic pollution and reeds** is very high in the water body.



## REMEDIAL MEASURES

|  |            |
|--|------------|
| Are local communities aware of the problem of water body | <b>Yes</b> |
| Are local communities interested in the restoration      | <b>yes</b> |
| Any measures taken in past to restore the water body     | <b>No</b>  |

|   |   |
|---|---|
| <p>Are there active local conservation group or NGO interested/involved in the water body</p>   | <p>No</p>   |
| <p>Is it possible to source good quantum of rainwater/treated water for maintaining water level throughout the year</p>   | <p>Yes, abetting residential society</p>  |
| <p>Restoration activities require:</p> <ul style="list-style-type: none"> <li>• Improvement of water quality by in-situ treatment</li> <li>• Diversion and treatment of sewage waste</li> <li>• Desiltation for removal of toxic sediments</li> <li>• Weed removal</li> <li>• Catchment treatment to check erosion</li> <li>• Confinement of pond land</li> </ul> | <ul style="list-style-type: none"> <li>• Improvement of water quality by in-situ treatment by diverting the sewage into the STP which can be built near the water body.</li> <li>• Catchment treatment to check erosion</li> <li>• Confinement of pond land</li> <li>• Desiltation to remove toxic sediments</li> </ul> |