

GADALI KALAN POND PROFILING

PHYSICAL DESCRIPTION

Name of water body	Gadali kalan
Location	Gadali kalan near community centre, Block – Gurugram
Latitude & longitude	28°44'56.91" N and 76°97'43.76" E. 
Area of water body	2.3 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 municipal waste** 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** from the households.

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

During rainy season there is **no outflow** of the water from the pond which goes into wetland beside it.

Water level Changes (annual) in meters	There is approximately 1 to 1.5 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 badshahpur drain running at a distance of 250m
Groundwater level (Pre-monsoon and Post-monsoon)-	
Does the water dry out completely? <ul style="list-style-type: none"> • Every year • During summer • Rarely 	During the summer season and when the rainfall is lower than the expected, pond does not 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"> • Urban • Agriculture • Forest • Mining 	Catchment area of the water body is urban village and agriculture land having plain topography
Total Population	780
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 kikar, banyan and neem in surrounding areas.

Geo tagged image of water body



Ownership of land	MCG
Khasra number	195
Landscaping around water body	<ul style="list-style-type: none"> • Heavy banyan tree can be seen around the temple • Neem and kikar trees • Abetting agriculture land
Free space around water body	1850sqm
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 no construction going on near the water body

FUNCTIONS OF WATER BODY

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

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

MAJOR PROBLEMS

<p>Major problems:</p> <ul style="list-style-type: none"> • Reduction in area • Reduction in depth • Encroachment • Algal bloom • Aquatic weeds • Decline or loss of fisheries • Eutrophication • Organic pollution • Toxic pollution 	<p>The major problem associated with the water body is reduction in depth of the water, encroachment, reduction in area, organic pollution, eutrophication which cause the decline or loss of aquatic life in the water body.</p>
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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 not 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 waste it is not used for any religious purpose.</p>
<p>Source of pollution in water pollution</p> <ul style="list-style-type: none"> • Municipal waste 	<p>Municipal waste, organic waste.</p>

<ul style="list-style-type: none"> • Industrial effluent • Organic waste • Non biodegradable waste • Solid waste • In pond human activity • Cattle wadding • Agriculture runoff 	
<p>Nutrient level in water body</p> <ul style="list-style-type: none"> • Negligible • Low • High • Very high 	<p>Due to continuous discharge of the municipal waste, nutrient level i.e., eutrophication and organic pollution is very high in the water body</p> 

REMEDIAL MEASURES

Are local communities aware of the problem of water body	Yes
Are local communities interested in the restoration	yes
Any measures taken in past to restore the water body	No

<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 high rise residential society</p>
<p>Restoration activities require:</p> <ul style="list-style-type: none"> • Improvement of water quality by in-situ treatment • Diversion and treatment of sewage waste • Desiltation for removal of toxic sediments • Weed removal • Catchment treatment to check erosion • Confinement of pond land 	<ul style="list-style-type: none"> • Improvement of water quality by in-situ treatment by diverting the sewage into the STP which can be built near the water body. • Catchment treatment to check erosion • Confinement of pond land