

### **9.3.2 Deficiency of the system**

After the major flood in the year 1973, the drains were totally damaged and in spite of major repairs and construction of the new drains, they are working properly in the present day situation since the existing watercourses are heavily silted and weeded resulting the considerable reduction in cross sectional area. The drains were also found to be invariably carrying sewage and sullage flow in the absence of branch and trunk sewers thereby increasing the quantity of flow in the drains. All the major Drains terminate their journey either in the Gumania drain, or in non-perennial Ayad River.

The major causes for this system to become ineffective are:

- ~~///~~ Haphazard expansion of the settlement.
- ~~///~~ Encroachments on the drains with unauthorized construction
- ~~///~~ Logging of drains due to uncontrolled and haphazard disposal of solid waste
- ~~///~~ Garbage into the drains
- ~~///~~ High rate of siltration.
- ~~///~~ Absence of integrated drainage network in the new layouts.
- ~~///~~ Poor motivation, lack of regulation and poor public awareness

### **9.3.3 Industrial Waste**

There are two industrial areas namely Madri and Bhuwana. The major industrial units are located in Madri known as Mewar Industrial Estate. It covers an area of 544.19 ha, whereas Bhuwana covers an area of 80.62 ha. All the drains within these industrial areas are constructed and maintained by RIICO.

### **9.3.4 Major Bottle Necks**

The major bottlenecks for smooth functioning Storm Water Drainage in Udaipur can be listed as follows:

- ~~///~~ Encroachments in various stretches;
- ~~///~~ Flooding of low-lying areas / inadequately drained urban pockets during storm;
- ~~///~~ Silting and weeding of drains;
- ~~///~~ Partial/haphazard lining of drains;



Flow of sewage and disposal of solid wastes in drains. Silting and blockage of secondary



and tertiary drains.

**TABLE 9.3.2: MAJOR EXISTING PRIMARY DRAINS IN UDAIPUR CITY**

			<b>Status</b>
	Transport Nagar to Road to Pragati Ashram.	300	Natural watercourse and unlined
	Goverdhan Vilas tank to Savina Mutt.	2675	Natural watercourse but lined in some areas.
	Nehla Tank to Savina Mutt.	1950	Unlined drain which carries the overflow from Nehla Tank to Sa
	Savina Mutt to Panerio ki Madri	1950	These two existing natural watercourses meet at Savina Mutt.
	Panerio ki Madri to Azad Nagar Kachi Basti.	2250	It is totally unlined natural watercourse. On its way it meets a dr
	Azad Nagar Kachi Basti to Ayad River at Dore Nagar	800	It originates at Roadways Bus-stand and meets Ayad river near
	Hiran Magari Sector 4 to Manwa Khera	1800	These two tributaries meet at Divine Child Public School.This is
	Central area to Panerio ki Madri	900	It originates from Central area and passes through Gariawas up and covered.
	Roadways Bus Stand to Azad Nagar (Kachi Basti)	2025	It originates from Gulab Bagh area and its vicinity. It meets a fe
	Abhinandan Complex to Ayad River.	1350	It is on University road and passes through Gokulpura and finall
	Roopsagar to Abhinandan Complex	725	It starts from the overflow of Roopsagar and meets at Abhinanc
	Chitrakoot Nagar – Roop Sagar	1400	It serves as the outfall drain from Chitrakoot Nagar before disc
	Sobhagpura – Abhinandan Complex	1400	It originates from the culvert on Shobhagpura and terminates at unlined.
	Hathi Pole to Ayad River	2500	It originates from Swaroop Sagar Lake and drains into Ayad riv
	Arora Nagar to Pancharatna Complex (Ayad River)	500	It originates from the hill slope of Neemuch Mata. The outfall po
	Siphon Choraha to Ayad River	700*	Constructed by UIT
	Gumania Drain	350	Originates at Fateh Sagar Lake and meets Ayad river near Alip dumped into it.
	New townships	1500	It originates from Sector 9.
	Savina Katchi Basti	615	It originates from Savina Kachi Basti and moves toward east to
	Gupteswar Nagar	500	It starts from the junc. D-16 & D-17 and meets D-19
	Near Shiv Colony on Banswara Road	425	It is the outfall drain of Shiv Colony.
	Behind Railway Culvert No. 193	2430	It flows towards Ayad River along Bypass
	On NH8 opposite Udaipur Railway Station	30	It is totally unlined. It originates from the campus of Udaipur Rai
	On NH8 near Sindhu Dham	300	It is totally unlined. It originates from the valley on NH8 opposite
	Veena Nagar	425	It is the outfall drain of Veena Nagar Colony. It starts from the F Road.

### 9.3.5 Major Water Bodies

As already discussed in previous chapters, a large number of water bodies exist in Udaipur such as Goverdhan Vilas Tank, Fateh Sagar, Pichola & Swaroop Sagar, Bada Madar, Chhota Madar, Lakhawali Tank, Nandeshwar Badi Tank and Udaisagar. Besides these, there are Roop Sagar, Nehla Tank, Titardi Tank & Jogi ka Talao. The detail of Major water bodies is in following table:

**TABLE 9.3.3: MAJOR WATER BODIES**

	Goverdhan Villas Tank	Near Dungarpur Road (5 Km from city)	2.6	0.25
2	Fateh Sagar Lake	Within main city	35.9	12.08
	Pichhola & Swaroop Sagar Lake	Within main city	143.4	13.67
	Bada Madar (Big)	Udaipur – Gogunda Road (16 Km from city)	79.4	2.37
5	Chhota Madar (small)	Near Bada Madar	20.5	0.85
6	Lakhawali	10 km away from city	15.4	2.07
7	Nandeshwar	12 km away from city	53.8	3.96
	Badi tank	7 km away from city	15.4	10.47

Source: RUIDP Estimates



**Lake Fateh sagar**



**TABLE 9.3.4: SHOWING THE MAJOR FLOOD PRONE AREAS IN UDAIPUR CITY**

	Transport Nagar	New area under development by U.I.T. Absence of outfall drains	Construction of a
	Choti /FutaTalao	The drain coming form Goverdhan Vilas Tank is unlined in its initial stages. Some part of it is already constructed near the Housing Board Colony.	De-silting and de- Construction of lin
	Gariawas	The drain carries storm water form Hiran Magri to Kachhi Basti. This drain is partly lined. It is full of silt & weeds.	De-weeding, de-si Repairing of broke Construction of a
	In front of DCP School Gayatrinagar,	Two drains coming from Telecommunication colony get stagnated	A lined drain along
	Roadways Bus stand	This existing drain is a lined drain in part and is covered with no provision for maintenance	De-weeding, de-si Construction of lin Construction of su
	Delhi Gate/ LIC/ Collectorate	This area is the heart of the city. The existing drain is a covered lined drain with poor maintenance. It is heavily silted.	De-weeding & de- Openings for peric
	Sobhagpura Abhinandan Complex	A small stretch of the drain is lined behind Bhairoji ka Temple and is totally unlined up to Abhinandan complex.	De-weeding & de- Lined drain culvert Complex.
	Mahaveer Nagar	Both the sides of the drain are encroched.	Construction of lin
	Pancharatna Complex	Originates from Neemachmata hill slope and meets Ayad through Pancharatna Complex.	Construction of lin Clearing of silt & v
	Down stream of Maha Satya	Originates from Abhinandan Complex and is partly lined with sidewalls in broken condition.	De-weeding, de-si Construction of lin Repair of broken j
	Both banks of Ayad River	Brick kilns near Bedla causeway, Heavy silting & weeding, Encroachment and Dumping of solid waste, rubbish etc on the banks of the river causes water stagnation.	To be de-silted an Avoid solid waste Both banks shoul Raised culverts or the slab.
	Bohra Ganesh, Jayashree Colony, Bahubali Colony	This area is under development. Water logged is the problem due to absence of drainage system.	Construction of a
	Near Savina Mutt	To unline drains meet at Savina Mutt near causeway and it is choked and the water is flooded.	Construction of tw Cleaning silt & we
	Panchawati Colony	It is situated near Gumania drain which meets Ayad river near Alipura. Partially silted and solid waste is thrown from the adjacent residential areas.	The Gumania drai The masonry on b The area should b

### **9.3.6 Development Planning for Ahar River**

#### **Construction of new Drains**

- ✍ Goverdhan Villas to Sector 13 via Krishi mandi, Gayariyawas, Nokha to Ayad River.
- ✍ Savina Khera to Krashi mandi via Rajputana resorts.
- ✍ Manva khera (Sector 4,5) to Ayad River.
- ✍ Shobhag pura to Ayad via Roop sagar, Kashav Nagar, Maha sathiya.
- ✍ CTAI College to Bhora Ganesh Temple, Ganesh Jain Hostel.
- ✍ Kharol colony to Purana Chungi Naka, Panchratna Complex.
- ✍ Back side of Badla to Bhuvana, Bhuvana to Ayad.
- ✍ Fateh sagar out fall to UIT Bridge.
- ✍ Nelha Talab to Sector 13,14.

#### **Development Planning for Ahar River**

- ✍ Encroachment should be removed from both side of river bank (At least 130 feet each side).
- ✍ The mason wall should be constructed on both side of riverbank.
- ✍ Green belt should be developed on both side of the riverbank (each side 100 feet) paraller to the riverbank.
- ✍ The cleaning of the riverbank should be properly done because the plant leaves can pollute the water.
- ✍ The special type of plants (e.g. various type of flower plants) should be developed near the riverbank.
- ✍ The road should be constructed on the both sides of the riverbank (each side 30 feet) Paraller to the riverbank.

## **9.4 SOLID WASTE MANAGEMENT**

### **9.4.1 Introduction**

Solid waste is an obligatory function of Municipal Council of Udaipur. However, this service is not properly performed, resulting in problems of health, sanitation and environmental degradation. Major factors for poor solid waste management is as follows:

- ✍ Lack of financial resources
- ✍ Institutional weakness

- ~~///~~ Improper choice of technology
- ~~///~~ Improper site of solid waste
- ~~///~~ Lack of trained manpower
- ~~///~~ Lack of local capacity to plan a proper system and
- ~~///~~ Poor public participation and cooperation

Udaipur city is not an exception and different from other cities in terms of solid waste management. With the growth of population and huge influx of the tourists in the town, the problem of solid waste is getting deteriorated.

The city on an average generates about 160 metric tones of solid wastes daily at present out of which UMC claims 120 metric tones waste is collected and disposed off daily.