

WASHINGTON TOWNSHIP

The township is located in the northwest central area of Sandusky County and the 2010 census stated that 1,795 people live in the unincorporated portions of the Township. The total land area is 48.6 square miles at an elevation of 636 feet. The Village of Lindsey is the only incorporated community that is entirely in the Township. Portions of Elmore, Gibsonburg, and Helena are located within the Township. There are 46 people/square miles which includes the Village of Lindsey. The unincorporated community of Hessville is located southwest of the Village of Lindsey.

The Village of Lindsey is located in the northeast portion of Washington Township. The Village's 2010 Census listed the population at 446 and its total land area is at 1.56 square miles at an average elevation of 620 feet. There are 286 people per square mile. Additional demographic and population projections for both Washington Township and the Village of Lindsey are as follows:

	2010 Census	Square Mile	Population/ Square Mile	MHI	LMI %
Washington Township	1,795	47.04	38.15	\$55,568	31.5
Village of Lindsey	446	1.56	286	\$58,500	28.3

	2010 Population	2010 Estimated Water Demand (100 gpcd)	2010 Estimated Water Demand/ Square Mile	2030 Population Estimate**	2030 Estimated Water Demand (100 gpcd)	2030 Estimated Water Demand/ Square Mile
Washington Township*	1,795	17,950 gpd	3,816 gpd	1,689	168,900 gpd	3,591 gpd
Village of Lindsey	446	44,600 gpd	28,590 gpd	420	42,000 gpd	26,923 gpd
* Water demand without Lindsey						
** Ohio Department of Development - Sandusky County Projected Rate of Change - .059% to 2030						

Groundwater Resources - Washington Township's carbonate aquifer is beneath a thin glacial drift which may yield as much as 100 gpm at depths of less than 200 feet. Water quality is considered good for hardness, dissolved solids, and sulfates. The Village of Lindsey has two (2) wells each rated at 150 gpm.

Surface Water Resources - Muddy Creek is the largest stream in Washington Township. The creek flows northeast through the Village of Lindsey then into Rice Township. There are no streams in Washington Township that would provide sufficient water for a public or regional water system.

Public Water Systems - The Village of Lindsey is the only community in Washington Township that provides municipal public water. The treatment process includes two (2) wells, disinfection, corrosion control. The treatment facility is designed to provide 0.216 mgd. The current average daily flow is at 0.026 mgd. There are ten (10) private public water systems throughout the Township.

Wastewater Treatment Systems - The Village of Lindsey owns and operates an NPDES permitted wastewater treatment plant that discharges into Muddy Creek. The treatment facility is designed for an average daily flow at .215 mgd and it provides secondary treatment.

Sycamore Hills Golf Club owns and operates a 7,500 gpd packaged treatment plant. The treatment facility is located at 3728 West Hayes Avenue (US Route 6) and discharges into Muskellunge Creek.

Proposed Water Service

The Toledo Edison Lindsey Service Center operates a non-transient non-community water system that provides softening and pressure tanks at a rated capacity of 2,600 gpd. In 2008 and 2011, the facility exceeded the action for lead. There are no planned or discussed future water service needs for areas within Washington Township.

Critical Sewage Areas:

The Sandusky County Health Department, Ohio EPA, and TMACOG has identified Critical Sewage Areas which would include failed or failing onsite sewage systems. System failures could lead to surface and/or groundwater contamination or public health nuisances. These areas have been determined to be places where onsite sewage problems cannot be solved by conventional system

upgrade or replacement. These areas became a priority for the Health Department and Ohio EPA to conduct sanitary surveys and general plans for providing public sanitary collection system and treatment alternatives.

The Critical Sewage Areas in Washington Township are Hessville (SA-12) and Wooded Acres Campground (SA-20). Hessville is an unincorporated community located southwest of Lindsey on U.S. Route 20 (west of 590). The second area is identified as Wooded Acres Campground which is located southeast of the Village of Lindsey on County Road 106 adjacent to the Northcoast Inland Bike Path. Both critical sewage areas are located in the Village of Lindsey's 208 Planning Area.

Proposed Sanitary Sewer Service

Hessville consists of approximately 75 single-family residential homes and covers 80 acres. Population trends for Sandusky County and the 2010 Census indicated 2.31 persons per household. Using Ohio EPA's design standard of 100 gallons per capita per day, the current average daily sanitary flow is estimated at 17,325 gpd (75 residents x 2.31 persons/household x 100 gpcd). Due to the low projected decrease in the county's growth rate, no adjustment is being made to the projected flows. The peak daily flow rate is estimated at 86,625 gpd or 60 gpm.

Wooded Acres Campground currently has an on-site system. Their drinking water system is designed and rated at 2,000 gpd. The peak sanitary flow rate is estimated at 10,000 gpd or 7 gpm.

The Village of Lindsey, if considered a regional treatment facility for Hessville and Wooded Acres, will need to increase capacity of its existing wastewater treatment facility and will also need to consider facility upgrades. The Village currently is having problems meeting water quality standards as established in their NPDES permit.

Creek Bend Farm currently has an on lot treatment system. The farm is owned by the Sandusky County Park District and currently operated by the Sandusky County Sanitary Engineer's Office. Future consideration for the park which is in Lindsey's 208 Planning Area may require connection to Lindsey.



- Proposed Pump Station
- Lindsey WWTP proposed
- Hessville P.S. proposed
- Proposed MH
- Proposed Sewers
- - - Proposed F.M.



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4/27/2014
PDG JOB# 3185-039
FILE: S\3185-039\SEWERS\PLATE26.MXD

CRITICAL AREA- SA-12/SA-20
WASHINGTON TOWNSHIP
SANDUSKY COUNTY, OHIO
PLATE J-1

SANDUSKY COUNTY
COMPREHENSIVE WATER & SEWER
GENERAL PLAN



Estimated construction costs for sanitary sewer service are listed as follows:

TABLE J-1 HESSVILLE AREA SA-12 CONVENTIONAL GRAVITY SEWERS					
Item No.	Description	Quantity	Unit	Unit Cost	Total Cost
1	8" Gravity Sanitary Sewers	8,370	L.F.	\$65	\$544,050
2	6" Sanitary Laterals	81	Each	\$1,300	\$105,300
3	Manholes	27	Each	\$3,500	\$94,500
4	Asphalt Pavement Replacement	286	S.Y.	\$40	\$11,440
5	Driveway Replacement	1,143	S.F.	\$45	\$51,435
6	Seeding, Mulching, & Rest.	1	L.S.	\$25,000	\$25,000
7	Storm Sewer Replacement	2,000	L.F.	\$11	\$22,000
8	16" Casing Pipe	110	L.F.	\$1,400	\$154,000
9	6" Force Main	10,200	L.F.	\$30	\$306,000
10	Pump Station	1	L.S.	\$225,000	\$225,000
11	Preconstruction Video	1	L.S.	\$2,500	\$2,500
12	Traffic Maintenance	1	L.S.	\$7,500	\$7,500
13	Mobilization and Bonds	1	L.S.	\$27,000	\$27,000
	SUBTOTAL				\$1,575,725
	Contingencies (10%)				\$157,573
	TOTAL OPINION OF CONSTRUCTION COST				\$1,733,298
	Other Fees (20%) Legal, Design, Engineering, Financing, Construction Observation, Testing, Interest During Construction, and Review Fees				\$315,145
	TOTAL OPINION OF PROBABLE COSTS				\$2,048,443
	Notes: Project estimate assumes no rock excavation required and abandonment of septic tanks is the responsibility of the homeowner				

TABLE J-2
SA-20
WOODED PUMP STATION TO LINDSEY

Item	Cost
Pump Station	\$217,500
Fencing 8' High	\$3,625
Grading/Site Work/Drive	\$3,625
6,110' of 4" Force Main (at \$30/L.F.)	\$183,300
Preconstruction Video	\$1,500
Traffic Maintenance	\$3,000
Mobilization and Bonds	\$15,000
SUBTOTAL	\$427,550
Contingencies (10%)	\$42,755
TOTAL	\$470,305