

# MEMO

**Date:** September 21, 2015  
**To:** Dave Henderson and Victor Van Allen  
**From:** Joe Teusch and Tim Healy  
**Subject:** Cost Recovery – North Side Regional Lift Station and Force Main

The purpose of this memorandum is to determine a conveyance fee on a per acre basis to assess developers for new sanitary sewer service tributary to the North Side Regional Lift Station (NSRSL). The conveyance fees collected as development occurs would help to 'recover' the cost of constructing the NSRSL.

The NSRSL project cost per acre served is shown in **Table 1**.

**Table 1  
Project Cost per Service Acre**

Project Cost	
	Total
Design	\$361,300
Construction	\$2,793,000
Construction Inspection	\$706,800
<b>Total</b>	<b>\$3,861,100</b>

Area Served	
	Total
<b>Total (acres)</b>	<b>786</b>

**Cost of Project Per Service Acre = \$4,912 /Acre**

The NSRSL service area is shown in **Figure 1** and the area served is summarized in **Table 2**.

**Table 2  
Estimated Wastewater Flows**

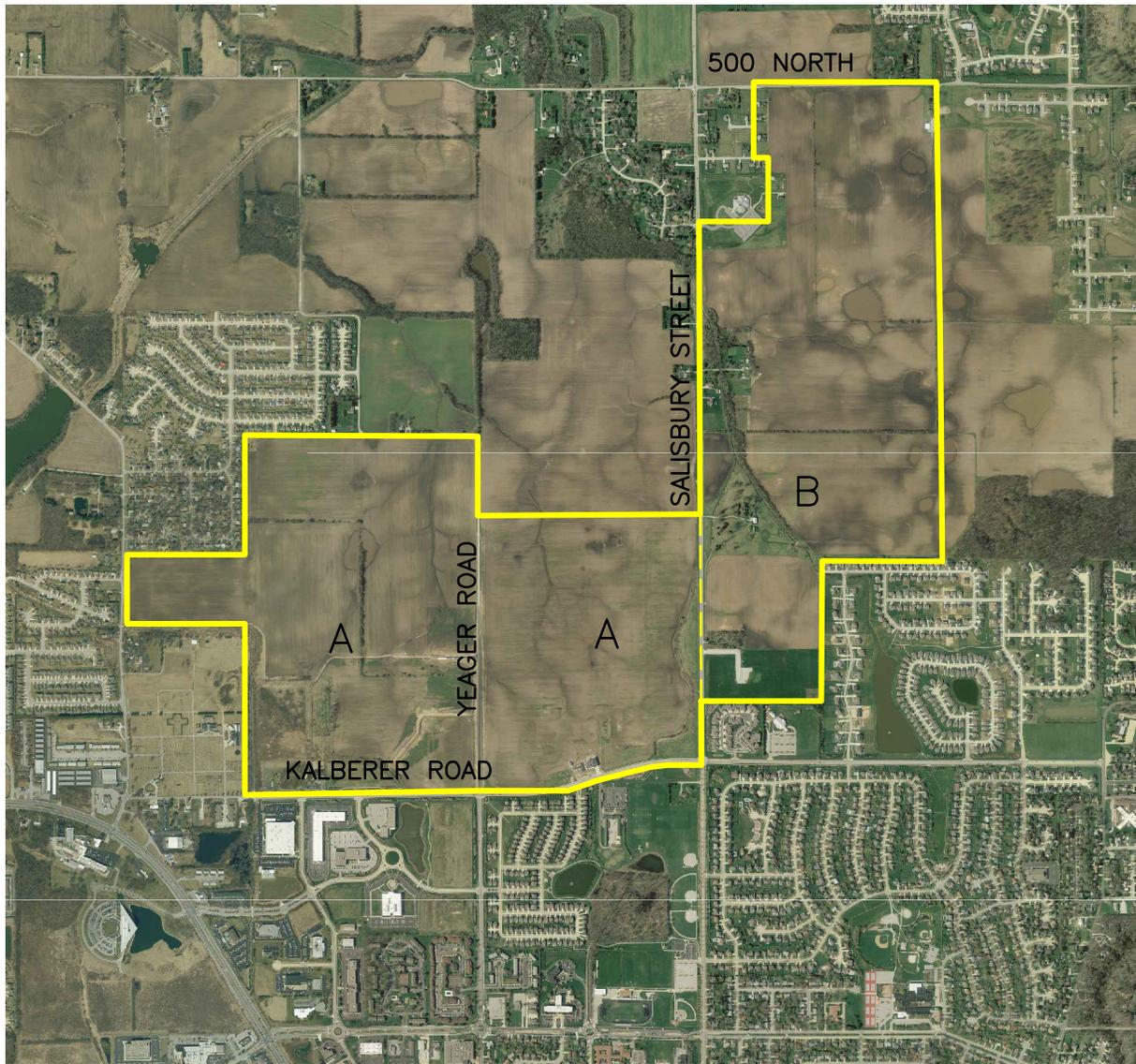
<u>Area<sup>(1)</sup></u>	<u>Gross Area (acres)</u>	<u>Land Use (Type)</u>	<u>Population <sup>(2)</sup> (capita)</u>	<u>Average Flow <sup>(3)</sup> (gpd)</u>	<u>Peak Flow <sup>(4)</sup> (gpd)</u>
A	432	Business	--	640,000	2,300,000
B	<u>354</u>	Residential	<u>2,689</u>	<u>330,000</u>	<u>1,130,000</u>
	786		2,689	970,000	2,900,000

(1) From Figure 1.

(2) Gross acres x 70 percent development rate x 3.5 units per net acre x 3.1 residents per home.

(3) For Residential → Population multiplied by 80 gallons per person per day + 250 gpd/net acre for infiltration.  
For Business → Gross acres x 85 percent development rate x 1,500 gpd/net acre + 250 gpd/net acre for infiltration.

(4) Average flow x the Babbitt Peaking Factor. Note: Peak flow to the lift station is less than the sum of the projected peak flows from each tributary area



# NORTH SIDE REGIONAL LIFT STATION

SCALE: 1"=2000'



**GREELEY AND HANSEN**

CITY OF WEST LAFAYETTE  
NORTH SIDE REGIONAL LIFT STATION  
AND FORCE MAIN IMPROVEMENTS