EXECUTIVE SUMMARY

The City of Findlay has selected the presumption approach to develop a Long Term Control Plan (LTCP) for combined sewer overflows (CSO) discharges. This approach requires, as defined by the U.S. Environmental Protection Agency (EPA) CSO Policy, meeting one of the following criteria:

- no more than an average of four (4) overflow events per year from the combined sewer system (CSS).
- elimination or capture for treatment of no less than 85% of the combined sewage collected during precipitation events.
- removal of pollutant load equivalent to treatment of 85% of the combined sewage collected during precipitation events.

The goal of the recommended plan is to reduce overflow events to no more than four per year and/or provide for the elimination and capture for treatment of 85% of the flow generated by precipitation events.

Based on hydraulic modeling performed on the combined sewer system, it was determined that, under existing conditions, a rainfall rate of 0.1 inches/hour for two (2) hours will generate a system overflow. This is less than the 2-month recurrence interval rain event. During the 3-month recurrence interval storm event, the predicted overflow volume is 8.6 million gallons. With the improvements proposed by the LTCP, it is predicted that a rainfall rate of 0.3 inches/hour for two (2) hours, equivalent to approximately a two month recurrence event, will be needed to generate an overflow event. During the 3-month recurrence interval storm event the predicted overflow volume is 975,000 gallons. This represents an 89 percent reduction in the combined sewer volume.

The recommendations for the combined sewer system LTCP for the City of Findlay include actions for the collection system and the Water Pollution Control Center (WPCC). The following items comprise the Long Term Control Plan.

1. River Road WPCC expansion to 15 million gallons per day (mgd) average daily flow (ADF) and 40 mgd peak daily flow (PDF) at an estimated program cost of $13.8 million.

2. Construction of pump station to be located in the eastern portion of Findlay (Pump Station A) with a force main to divert sanitary sewer flows directly to the WPCC at an estimated program cost of $3.5 million.

3. Addition/renovation/replacement of one-way flow control devices at all outfalls subject to river intrusion at an estimated program cost of $100,000.

4. ongoing Installation of water-tight covers (or manhole inserts) on sewers located within the 100-year flood plain at an estimated program cost of $50,000.

5. ongoing Continuation of the sewer separation and I/I removal program at an estimated program cost of $3,832,000.

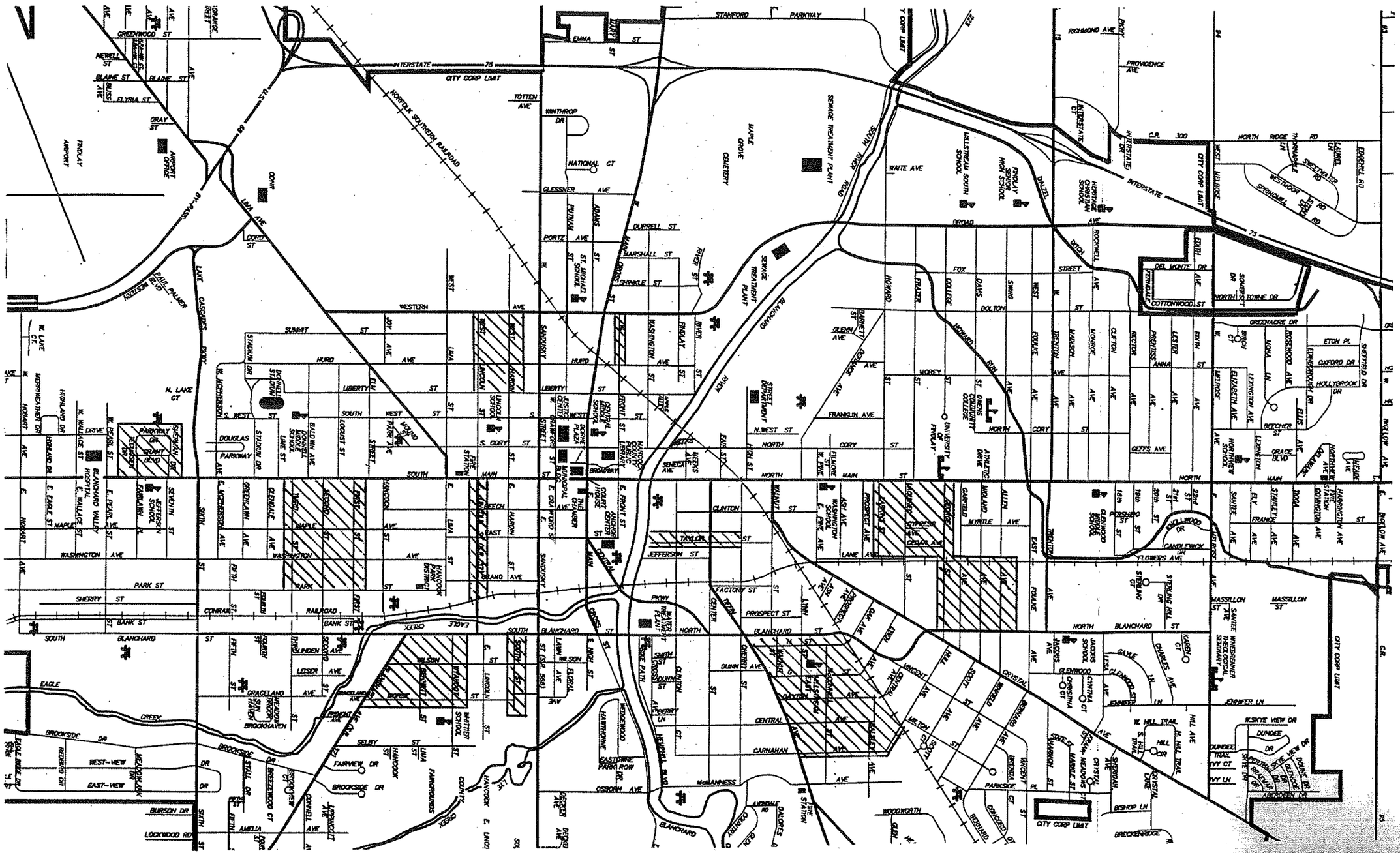
6. Raise manholes subject to overflow due to system surcharging at an estimated program cost of $20,000.

7. ✓ Raise weirs at CSOs 6 and 8 to provide additional collection system capacity at an estimated program cost of $10,000. Couldn't be done

8. ✓ Implement the remaining Nine Minimum Control measures, specifically the Public Notification Program.

Overflows from CSOs 2, 3, 4, 5, 6, 7, 8, 14 and 18 will be alleviated by the increase in WPCC capacity and the construction of Pump Station A. . Overflows from CSOs 1, 9, 10, 11, 12, 15, 16 and 17 will be alleviated by the sewer separation program and the I/I removal program.

It is anticipated that items comprising the Long Term Control Plan will be implemented by November 2000 and will result in full compliance with the CSO Control Strategy as defined by the City's National Pollutant Discharge Elimination System (NPDES) permit. If the actions of the Long Term Control Plan fail to achieve full compliance with the NPDES permit, the City will consider additional control measures.



AREAS UNDER STUDY

FIGURE 3
CITY OF FINDLAY
CSO LONG TERM CONTROL PLAN
AREAS FOR SEWER SEPERATION

URS Greiner
Engineering & Architecture at Cost Plus