

1.0 SUMMARY AND CONCLUSIONS

1.1 Project Purpose

Investigate the potential to reduce the risk of flooding property and economic damages due to flooding within the primary study area.

Investigate the potential to reduce the risk of adverse consequences of floods when they do occur within the primary study area.

Investigate the potential to improve stormwater quality, channels health, reliability, and stormwater storage within the primary study area.

Investigate the potential for conservation opportunities and identify environmentally sensitive areas within the primary study area.

Identify park and recreational opportunities within the primary study area.



Photo 1 – Bear Creek Railroad crossing at Nippers Park

1.2 Project Overview

The City of Hannibal has been experiencing a serious flooding problem associated with the Bear Creek Drainage Basin flowing through the south half of the City. There is a significant amount of development within the 100-yr floodplain of this drainage basin. The destructive capability of flooding was displayed in July, 2010 during a flash flood that caused significant damage, threatened lives and caused FEMA to declare a disaster area.

Furthermore, it is our understanding that this area is obviously threatened with regular nuisance flooding, and that periodic damaging floods and eventually catastrophic floods can cause tremendous damage and possible loss of life. As such, it is now, the intent of the City of Hannibal to engage Cochran and it's team to complete a feasibility study.

This study includes a plan to “fix the Bear Creek floodplain” by identifying properties in the flood plain and converting those areas into “Green Area”. These areas would include parks, hiking and bicycle trails, recreation areas for family outings and perhaps facilities for community activities, similar to Hannibal’s existing central park. The study included obtaining all GIS data

and identifies properties for demolition and/or relocation, conducting an analysis of the Bear Creek floodplain area and designing appropriate engineering solutions to minimize the negative effects of floods occurring in the zone.

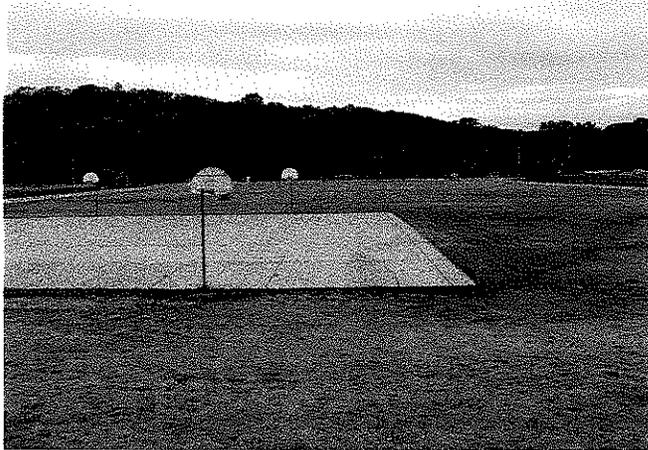


Photo 2 – Park along Warren Barrett Drive and S. 6th Street

1.3 Recommendations

The Bear Creek Feasibility Study includes an analysis of existing conditions and numerous suggested improvement plans for the course of action within the project limits. This section identifies potential priority improvement projects that should be implemented as funding becomes available.

- It is recommended that the City of Hannibal develop a watershed wide hydrologic and hydraulic model using current engineering software that may then be used by developers to evaluate the impacts of proposed water quantity management features.
- The City of Hannibal should adopt a stormwater management policy that addresses water quantity and quality in conjunction with the Stormwater Management Framework as addressed in the Hannibal Land Use Element.
- Prior to design stages that affect any proposed facilities within the wetlands, a wetland delineation must be performed.
- It is recommended that the Current Buyout Program be updated. Detailed buyout evaluation of suspect sites should include soil contamination testing (See Figure 1, Page 4).
- Additional survey is required to establish the invert elevations of the existing sanitary sewer system within the Bear Creek Feasibility Study area. Potential realignment of the sanitary line depends upon the invert elevations and further analysis is required to identify if a gravity system will maintain positive flow.
- Continue with the Greenway Development as addressed in the Hannibal Land Use Element.