

Appendix 6-1

Initial Technology Screening Process

City of Terre Haute
CSO Program Management
Alternative Development Initial Screening
September 12, 2008

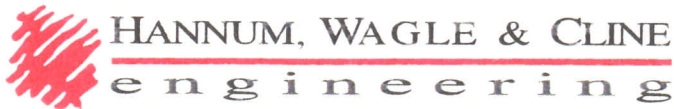
- I. Spruce/Chestnut Area (CSO's 009 and 010)
 - A. Combine Outfalls, Install Satellite Treatment Facility
 - 1. Combine w/007 and 008 via Relief Sewer
 - B. Storage*
 - 1. Spruce Storage
 - a. Tank
 - b. Caisson
 - 2. Chestnut Storage*
 - a. Tank*
 - b. Caisson
 - 3. Combined Storage*
 - a. Combined 009/010 at Chestnut Tank*
 - b. Combine w/007 and 008 via Relief Sewer
 - C. Tunnel from Spruce to the South*
 - 1. Main Lift Station Outlet*
 - 2. South End of Fairbanks Park Outlet*
 - D. Sewer Separation*
 - 1. Both Basins*
 - 2. Spruce Individually
 - 3. Chestnut Individually
- II. Fairbanks Park Area (CSO's 005, 006, 007, 008)
 - A. First Street Relief Sewer*
 - 1. CSO 008 To Hulman Street – Eliminating 005, 006, 007 and 008*
 - 2. Outlet at South End of Park (New CSO)
 - B. River Relief Sewer*
 - 1. CSO 008 To Hulman Street – Eliminating CSO's 005, 006, 007 and 008*
 - 2. Outlet at South End of Park (New CSO)
 - C. Park Storage (Relief Sewer Connecting Outfalls 005, 006, 007 and 008 (To Be Eliminated) to a New Storage Facility.*
 - 1. Tank
 - 2. Caisson*
 - D. Tunnel (From Spruce) to Store/Convey*
 - 1. Outletting To Main Interceptor at South End of Park*
 - 2. Outletting To Main Interceptor at Hulman Street*
 - 3. Outletting To Main Interceptor At Main Lift*
 - E. Relief Sewer to Spruce/Chestnut (Outfalls 007, 008 Only)*
 - F. 007 Remain in Service
 - G. Sewer Separation*
 - 1. All Basins*
 - 2. Each Basin Individually
- III. Hulman/Idaho Area (CSO's 004/011)
 - A. Storage (004/011)
 - 1. Tank*
 - 2. Caisson
 - B. Storage (Flow from 005, 006, 007, 008, 004/011) – Assumes Relief Sewer*
 - 1. Tank*

- 2. Caisson
 - C. Tunnel to Main Lift Station (Including with Flow from CSO's 010, 009, 008, 007, 006, 005 and 004/011)*
 - D. Conveyance to International Paper Site for Storage*
 - 1. Storage
 - a. CSO's 004/011 only*
 - b. CSO's 004/011 W/CSO's 005, 006, 007, 008*
 - c. All Outfalls North of International Paper Site*
 - d. CSO's 004/011 W/CSO's 005 & 006
 - 2. Satellite Treatment
 - a. CSO's 004/011 only*
 - b. CSO's 004/011 W/CSO's 005, 006, 007, 008*
 - c. All Outfalls North of International Paper Site*
 - E. New Pump Station at Hulman/Idaho directly to WWTF
 - F. Sewer Separation*
 - 1. Both Basins for additional CSO Flow Conveyance*
 - 2. Each Basin Individually
 - G. WWTF Capacity Upgrades*
- IV. Turner/Main Lift Station Area
- A. Storage*
 - 1. Tank*
 - 2. Caisson*
 - B. Tunnel from North CSO's*
 - C. Sewer Separation*
 - 1. Turner (003) Basin*
 - D. Satellite Treatment Facility (003 and Main Lift Station)
 - E. WWTF Capacity Upgrades for Additional CSO Flow Conveyance*
 - F. Conveyance to International Paper Site (could be eliminated as an alternative based on upstream reductions)

**City of Terre Haute CSO LTCP
Alternative Development
September 2008**

1. Combine outfalls of Chestnut and Spruce and construct storage tank at Chestnut, Construct storage caisson at south end of Fairbanks Park and relief sewer for conveyance and storage of flows from eliminated CSO's 005, 006, 007 and 008 located in the park, Construct storage tank at Hulman Street for combined flow from CSO's 004/011 Hulman and Idaho, and convey additional flow from Main Lift Station to the WWTF from the Turner area due to reduced or stored upstream flows and additional wet weather treatment capacity at the WWTF.
2. Construct Tunnel from CSO 010, Spruce, south to the Main Lift Station to convey and store flows from CSO's 010, 009, 008, 007, 006, 005, 004/011 and 003. Tunnel will be used for storage and conveyance and will outlet to the main interceptor at the main lift station.
3. Combine outfalls of Chestnut and Spruce and construct storage tank at Chestnut, Construct First Street or River Relief Sewer from Fairbanks Park to Hulman Street eliminating CSO's 005, 006, 007 and 008, Relief Sewer from Hulman Street to International Paper site for storage of flows from Fairbanks Park CSO Relief Sewer and Hulman/Idaho (CSO's 004/011) and convey additional flow from Main Lift Station to the WWTF from the Turner area due to reduced or stored upstream flows and additional wet weather treatment capacity at the WWTF. An additional CSO will be considered south of the park or use of the existing outfall at Hulman Street in lieu of conveyance of Fairbanks Park CSO's to International Paper.
4. Sewer separation of Spruce and Chestnut Basins (CSO's 009/010), sewer separation of all basins outletting to Fairbanks Park (CSO's 005,006, 007 and 008), Sewer separation of Hulman/Idaho basins (004/011) and Sewer separation of Turner Basin (CSO 003).
5. Combine outfalls of Chestnut and Spruce (CSO's 009 and 010) and construct satellite treatment facility at Spruce outfall, Install relief sewer to satellite treatment facility from CSO's 007 and 008 to eliminate two outfalls in Fairbanks Park, Construct First Street or River Relief Sewer from Fairbanks Park to Hulman Street eliminating CSO's 005 and 006, Relief Sewer from Hulman Street to International Paper Site for storage of flows from Fairbanks Park CSO Relief Sewer (CSO's 005 and 006) and Hulman/Idaho (CSO's 004/011) and convey additional flow from Main Lift Station to the WWTF from the Turner area due to reduced or stored upstream flows and additional wet weather treatment capacity at the WWTF. An additional CSO will be considered south of the park or use of the existing outfall at Hulman Street in lieu of conveyance of Fairbanks Park CSO's 005 nad 006 to International Paper.
6. Combine outfalls of Chestnut and Spruce and construct storage tank at Chestnut, Construct First Street or River Relief Sewer from Fairbanks Park to Hulman Street eliminating CSO's 005, 006, 007 and 008, Construct Storage tank at Hulman Street for storage of flows from eliminated CSO's 005, 006, 007 and 008 and flow from CSO's 004/011, and convey additional flow from Main Lift Station to the WWTF from the Turner area due to reduced or stored upstream flows and additional wet weather treatment capacity at the WWTF.

7. Construct Tunnel from CSO 010, Spruce, south to the South end of Fairbanks Park to convey and store flows from CSO's 010, 009, 008, 007, 006 and 005, Construct Storage Tank at Hulman Street for combined flow from CSO's 004/011 Hulman and Idaho, and convey additional flow from Main Lift Station to the WWTF from the Turner area due to reduced or stored upstream flows and additional wet weather treatment capacity at the WWTF.



City of Terre Haute
CSO Program Management
Technical Team Meeting Minutes
September 12, 2008

1. Attendees: Chuck Ennis, Larry Robbins, Mark Thompson, Fredric Andes, Gui DeReamer, Rebecca Schaefer, Eric Smith, Toni Presnell, Lon Gardner
2. Schedule Review
 - a. SJA Update – Fred updated the group and noted that City legal had reviewed and had no major comments regarding the document; the schedule needs to be finalized and the next steps include filing and settling outstanding issues; Fred will submit to IDEM for final review.
 - b. Task Breakdown/Regulatory Schedule – It was noted that to be in compliance with IDEM requirements, the regulatory schedule must be completed in two (2) years although Mark and Chuck would like to see the schedule accelerated if possible; Toni has received comments from Holly Zurcher-Sutton (IDEM), made amendments accordingly and forwarded to Fred for final review; Fred noted that keeping IDEM involved is key to success.
3. Alternative Development Discussion
 - a. CSO Elimination (005, 006, 011, 008, possibly 007)
 - b. CSO's to Remain (002, 003, 004, 009, 010, possibly 007)

It was discussed that in order to determine if CSO 007 could be eliminated, volumes and peak flows would need to be calculated in order to know pipe and/or storage sizes. A group exercise was performed to develop alternatives and results are included in the Alternative Development Discussion Notes and Alternative Development Initial Screening attachments. It was noted that initial screening should include technical review and that if an alternative is too costly, state it and say that it will not receive additional consideration. At the analysis level, the goal should be 3 or 4 alternatives instead of 1 or 2. It is acceptable to look at the alternatives by area and how areas interact with other areas.

The four areas identified were as follows:

- Spruce/Chestnut (CSO's 009-010)
- Fairbanks Park (CSO's 005, 006, 007, 008)
- Hulman/Idaho (CSO's 004/001)
- Turner/Main Lift Station (CSO's 003)

4. Work Plan Schedule
 - a. Accelerated Work Plan – Schedule is being finalized for internal/City review
 - b. Action Items/Assignments – Will be determined as the accelerated work plan is completed. The action items will be assigned after alternative screening is completed and evaluated begins.

5. Upcoming Meetings

- a. CAC – Initial screening to be complete by the end of October and CAC meeting will be scheduled accordingly
- b. Tech Team – TBD in two or three weeks to review comprehensive alternatives developed by team members.
- c. IDEM Meeting – to be scheduled for late October or first of November