

APPENDIX C

**PUBLIC MEETING PRESENTATION
MATERIALS AND MEETING
SUMMARIES**

Public Meeting Cool Creek Watershed Management Plan

May 21, 2002



City of Carmel



Town of Westfield

Hamilton County



Agenda

- Project Purpose/Scope Review
- Progress Review/Findings to Date
- Upcoming Activities
- Input on Drainage Problem Areas



Project Purpose

- Identify and solve existing stormwater flooding problems (focus on regional problems associated with Cool Creek and its tributaries)
- Prevent future stormwater problems due to rapid development



Growth...



Planning is key to town's growth

■ Master plan gives officials map to follow to ensure that town expansion is smooth.

By Phil Dunlap

As Hamilton County grows, investment in technology and expanding infrastructure are topics of discussion for Westfield officials these days. They're all signs of a growing community.

This month, the town is preparing to annex about 364 acres on top of 362 acres annexed in December. An additional 300 acres are being considered for

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"It's all driven by our 2020 Comprehensive Plan." The town requires written agreements with developers that their subdivisions will become part of Westfield once the municipal limits are contiguous with their developments. The new 340-acre Centennial subdivision built by the Frutiger Co., south of 156th Street between Spring Hill and Dutch roads, falls under these guidelines and will become part of the town when annexation reaches it. The new 290-acre Bridgewater Club, a planned-unit development with a golf course, residential, commercial and residential areas, also is expected to become

part of the town. For growth to progress logically, the water, sewer and road infrastructure must be in place. "We've had a water and sewer master plan completed since last January, and have received a special sewer grant with the help of U.S. Rep. Dan Burton's office to help open up the westside of U.S. 31 to economic development... particularly the (230-acre) Thunder Island property," Johnson said.

This year, Westfield Utilities bought the portion of Hamilton Western Utilities that served

See Growth, Page B1B

Growth

■ Town growth is estimated at 1,300 people a year.

From B1B

Washington and Noblesville neighborhoods. Their parts of Hamilton Western originally were built by Westfield. Development nearly 30 years ago to serve its own subdivision. The annex substantially increases Westfield's wastewater infrastructure.

Johnson said the Town Council also has set a goal of a comprehensive plan for the Plan Commission to review over the next few months.

He said officials have made roads a priority out of necessity "because existing, we now gain about 1,300 people a year in our town. That's quite a population jump — and along with that come vehicles." From cell phone towers and wireless technology to flood systems, Johnson says it's up to the community to plan and make certain technology is available. "We need to package Westfield to be successful in its economic development, decide which areas we want to target and have competitive assets, and we need to understand that we can't just settle for anything," he says.



Project Scope

- Inventory & Problem Identification
- Problem Analysis
- Solution Development
- Recommendations and Implementation
- Watershed Management Plan



Inventory & Problem Identification

- Maps, Plans, Reports

Inventory & Problem Identification

- Hamilton County online mapping

Inventory & Problem Identification

- Standards, Ordinances, Policies
- Interviews

Inventory & Problem Identification

- Public Input

PROJECT IDENTIFICATION	PROJECT DESCRIPTION
15th Street and Day Road	Severe street-level erosion on Coal Creek between 15th St. and Day Road
Dredging Coal Creek and Washburn	Coal Creek bank erosion into yard (may have been reported)
151st Street and Oak Road	Owner of property at Northeast corner of intersection concerned with increased flooding after Oak Road bridge reconstruction
Coal Creek Park	Erosion problems and flooding of roadways in and around park
171st Street at Washburn/Whelan Facility	Coal Creek between Greasy Branch and 171st Street contains severe debris, uncontrolled flooding
180th Street and Greasy Branch Road	Domestic concern after Greasy Branch Road is widened that debris will be too close to road
101st Street and Pappas Road	Parking water in Northeast corner of intersection in park
Mary Wilson Drain	Drain needs to be reconstructed
Anna Kendall Drain	Street-level erosion and backups on Street south of drain

Inventory & Problem Identification

- Field Investigation

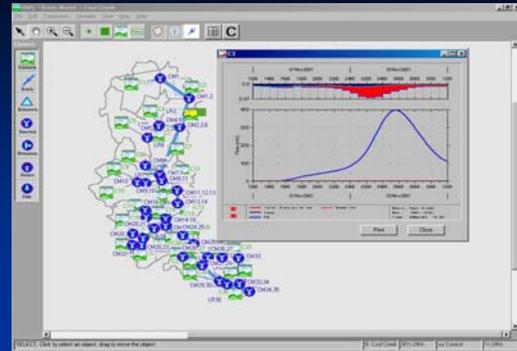
Hydrologic/Hydraulic Analysis

The image shows two Excel spreadsheets. The left spreadsheet is titled 'Soil Data' and contains a table with columns: Sub-basin, Area (A), Area (B), Area (C), Soil Type, R, C, B, and Checkpoint. The right spreadsheet is titled 'Rainfall Data' and contains a table with columns: Date, Time, Rainfall, and other columns.

Sub-basin	Area (A)	Area (B)	Area (C)	Soil Type	R	C	B	Checkpoint
C1	82,338,134	1,021.3	1.982	GA, B, W, GA, MARE, MARE, PL, CL, SA	50%	40%	2%	81
C2	32,882,888	754.4	1.181	GA, MARE, GA, B, W, MARE, MARE, PL, CL, SA	50%	40%	2%	81
C3	31,744,283	729.7	1.14	GA, B, W, MARE, GA, PL, CL, MARE, PL, SA	75%	24%	1%	80
C4	24,879,249	588.5	0.889	GA, PL, B, MARE, CL, SA	45%	55%	0%	80
C5	54,495,339	1,051.1	1.96	GA, MARE, B, SA, PL, CL, SA	45%	50%	5%	75
C6	11,838,222	253.4	0.402	CL, GA, MARE, SA	50%	50%	0%	77

- Soil & Rainfall Data

HEC Modeling



Stream Sampling Locations

- 116th Street Crossing
- 146th Street Crossing
- Grassy Branch Road North of SR 32



Sampling Results

The image shows a screenshot of an Excel spreadsheet titled 'Sampling Data.XLS'. The spreadsheet contains a table with columns: Parameter, NURP, 116th St Crossing, 146th St Crossing, and Grassy Branch Road.

		NURP	116th St Crossing	146th St Crossing	Grassy Branch Road
3	BOD	mg/L	12	5	5
4	COD	mg/L	80	10	10
5	Nitrogen, Kjeldahl	mg/L	2	2.3	2.1
6	Nitrogen, Nitrate	mg/L	0.9	0.9	1.2
7	Nitrogen, Ammonia	mg/L	NR	0.88	5.1
8	Suspended Solids	mg/L	175	120	61
9	Dissolved Solids	mg/L	NR	280	290
10	E coli	/100 mL	NR	900	300

Solution Development & Recommendations

Solution Development

- Modifications to ordinances, standards, and policies
- Preliminary design solutions for local and regional problems (size, location, etc.)
- Meet with developers and public



Recommendations/Implementation

- Finalize policy and watershed improvements
- Prepare final report
- Funding alternatives



Upcoming Activities

- Solution development
- Continue stream sampling
- Continue public input
- Watershed Management Plan
- Hamilton County Website

www.co.hamilton.in.us/news/Public.htm





Westfield Public Meeting Summary

Project: Cool Creek Watershed Management Plan
Date: May 21, 2002
Staff Attendees: Kent Ward, Tricia Banta – Hamilton County
Surveyor's Office
David Johnston – Town of Westfield
Dale Tekippe, Hans Peterson,
Wes Christmas – Clark Dietz

The meeting was held as a public information meeting for the Cool Creek Watershed Management Plan. Approximately 40 people attended the meeting. A listing of the people who signed in at the meeting is attached (not all attendees signed in). A brief summary of comments/questions was prepared by Wes Christmas of Clark Dietz, Inc. Please forward any comments or corrections on to him or Hans Peterson. The meeting discussions are summarized as follows:

David Johnston and Kent Ward kicked off the meeting by introducing the project and the consultant preparing the management plan, Clark Dietz.

Hans Peterson gave a presentation covering the scope of the project, description of the findings to date, and the upcoming activities pertaining to the project. Following the presentation the floor was opened to questions and/or comments from the public. The following were the general concerns mentioned:

- Several residents expressed concern with filling or development taking place within the floodplain.
- A general desire was expressed to maintain the aesthetic value of the creek, including preservation of riparian areas.
- Concerns about water quality were discussed. Residents showed interest in continued sampling and monitoring of the quality of water in the creek. Residents would also like to see sampling results compared to target values rather than national averages. There was interest in dry weather sampling as well as wet weather sampling of the creek. Comments were expressed that we should strive to improve the water quality, not just maintain it.
- Concern was expressed regarding the amount of native plant growth residing in the riparian areas adjacent to the creek and the invasion of non-native plants. It was suggested that a bio-diversity assessment of the creek/watershed system be considered.

Meeting Minutes

Westfield Public Meeting Summary

Cool Creek Watershed Management Plan

Page 2

- General concern was expressed regarding blockages in the creek. Kent Ward discussed which drains were regulated and maintained and which were private and did not have maintenance access.
- Interest was expressed to have information available on the Internet, including the presentation slides. The County Surveyor's web site was included in the handout packet and residents were encouraged to check the site for updates.

Four stations with watershed maps were setup and occupied by project personnel to discuss individual problems, concerns, or questions. Several individual concerns were recorded.



Carmel Public Meeting Summary

Project: Cool Creek Watershed Management Plan
Date: May 22, 2002
Staff Attendees: Kent Ward, Tricia Banta – Hamilton County
Surveyor's Office
Kate Weese – City of Carmel
Dale Tekippe, Hans Peterson,
Wes Christmas – Clark Dietz

The meeting was held as a public information meeting for the Cool Creek Watershed Management Plan. Approximately 30 people attended the meeting. A listing of the people who signed in at the meeting is attached (not all attendees signed in). A brief summary of comments/questions was prepared by Wes Christmas of Clark Dietz, Inc. Please forward any comments or corrections on to him or Hans Peterson. The meeting discussions are summarized as follows:

Kate Weese kicked off the meeting by introducing the project and the consultant preparing the management plan, Clark Dietz.

Hans Peterson gave a presentation covering the scope of the project, description of the findings to date, and the upcoming activities pertaining to the project. Following the presentation the floor was opened to questions and/or comments from the public. The following were the general concerns mentioned:

- There were some questions regarding the future expansion of US 31 and its impact on the watershed. Kate Weese discussed that bridges under US 31 are generally sized for at least the 100-year event and that existing bridges are usually extended to accommodate additional lane expansions. Hans Peterson discussed that we did not have detailed information on the plans for the expansion incorporated into the hydrologic model because this information is not yet available. Following the meeting, it was discussed that environmental data (fish and wildlife habit, wetlands, native species, etc.) may be available in conjunction with some of the planning work being performed by INDOT's consultant. We will follow up to determine the availability of this data.
- Residents displayed interest in performing channel clean out, erosion control, streambank stabilization, and general creek maintenance. It was discussed that creek maintenance on private property is the responsibility of the landowner. John South of the Hamilton County SWCD mentioned that the SWCD provides permitting and technical assistance to property owners with stream maintenance concerns.

Meeting Minutes

Carmel Public Meeting Summary

Cool Creek Watershed Management Plan

Page 2

- Residents showed interest in Rule 5 compliance within the watershed. Kent Ward indicated he was not aware of any significant violations in the watershed. We will check with the state to determine the status of any Rule 5 violations in the watershed.
- Several complaint/concerns were voiced regarding construction and filling taking place in the floodplain.
- Some residents expressed concern regarding the formation of sandbar islands that change the direction of the creek and cause erosion. Kate Weese discussed how channel movement and sandbar formation is often a natural process. We will follow up on some specific locations mentioned.
- General concern was expressed regarding flooding and erosion along the creek adjacent to Cool Creek Drive.
- Interest was expressed to have information available on the Internet, including the presentation slides. The County Surveyor's web site was included in the handout packet and residents were encouraged to check the site for updates.

Four stations with watershed maps were set up and occupied by project personnel to discuss individual problems, concerns, or questions. Several individual concerns were recorded.

Study looks at reasons for flooding

By Phil Dunlap
Correspondent

Flooding — and how to prevent it — was on the minds of a group of about 50 residents who met this week at Westfield Town Hall.

At the center of discussion

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was a \$150,000 Cool Creek Watershed Management Study enlisted to identify storm water flooding problems along Cool Creek and its tributaries and propose possible solutions.

Officials hope that by identifying potential flood areas early, communities can find ways to solve problems before they begin.

Hans Peterson, vice president of Clark Dietz, Inc., the firm hired to do the study, said modifying ordinances and policies will be a part of the effort.

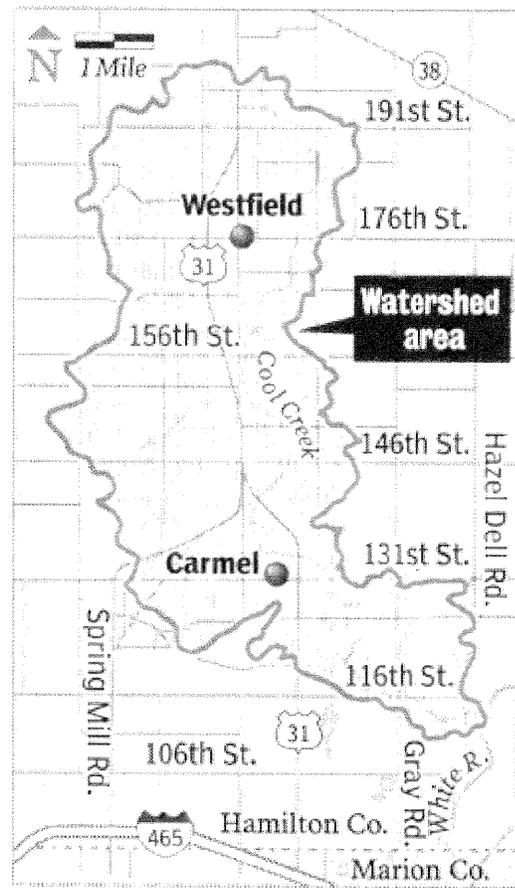
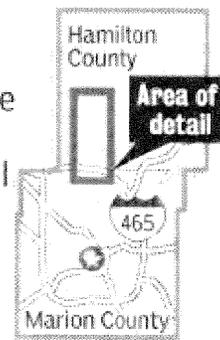
Peterson noted that, beginning in March, communities will see much stricter federal regulations on water management.

He suggested that totally avoiding development in sensitive areas is a possibility.

“Any town over 10,000 people

Watershed studied

Officials of Carmel, Westfield and Hamilton County are looking at flooding potential in the Cool Creek watershed in hopes of heading off problems in the future.



Staff graphic

will have to develop programs to address these issues.”

Hamilton County Surveyor Kent Ward led the presentation and said having the study in hand puts the county ahead of the new Environmental Protection Agency regulations.

Increased interest in the pres-

See Flooding, Page NA2

Flooding

■ Banning development in some areas may be needed.

From NA1

entation was likely sparked by recent heavy rains and significant flooding.

The cost of the study was borne by Carmel, Westfield, and Hamilton County, all of which are affected by the 14.7 mile tributary to White River.

The watershed accommo-

dates drainage to more than 23 square miles of land.

An idea from biologist Dawn Stelts peaked considerable interest.

She said too many invasive plants, not native to Indiana, have been allowed to proliferate along the creek and in watershed areas.

She suggested that a program to reintroduce native plant species could help filter and absorb more of the impurities in runoff water, and be beneficial to wildlife.

The need to identify potential

drainage problems when proposals come in from developers was a repeated theme.

Westfield Town Council President Mike McDonald said the Plan Commission is sensitive to that issue, having recently denied a petition for a large shopping center at 161st Street and U.S. 31.

"A big consideration for rejecting their proposal was that they (wanted to) fill in a flood plain area," said McDonald.

"Westfield has been pretty strict with how drainage impacts the region."