


Papillion Creek Watershed Partnership **Watershed by Design** Green Watershed Clean Watershed Safe Watershed

Available Information Stations

- #1 Stormwater Management Financing
- #2 Peak Flow Reduction
- #3 Pollution Control
- #5 Erosion and Sediment Control
- #4 Preservation, Restoration, and Conservation
- #6 Floodplain Management


6:00 P.M. to 7:00 P.M.



Papillion Creek Watershed Partnership **Watershed by Design** Green Watershed Clean Watershed Safe Watershed

Public Forum Review Watershed by Design Stormwater Policies July 20, 2006

Papillion Creek Watershed Partnership www.papillogapartnership.org



Introduction of Presenters and Officials

- Marlin Petermann, P.E., Papio-Missouri River NRD
- Lyle Christensen, P.E., HDR Engineering, Inc.
- P-MRNRD Board Members
- Other Elected Officials

Tonight's Agenda

Time	Activity
6:00- 7:00 p.m.	Information Stations
7:00 p.m.	Presentation
7:45- 8:45 p.m.	Public Comment with Panel Members
8:45- 9:00 p.m.	Information Stations

Purposes of Forum

- Provide Another Opportunity for Public Input – Final Policies Debuted March 2, 2006
- Address Public and Councils/Boards Concerns as Policies are Presented to Jurisdictions for Adoption

Comment and Question Cards for Audience Participation

- Jot Down Your Questions/Comments During the Presentation
- Please Indicate Whether or Not You Would Like to Speak – Your Name will be Called Later
- If You Prefer Not to Speak, then the Questions/Comments will be Read Aloud

Presentation Outline

- Introduction and Background
- Policy Development Process
- Stormwater Policy Overview
- What Happens Next?

Papillion Creek Watershed Partnership (PCWP) Members



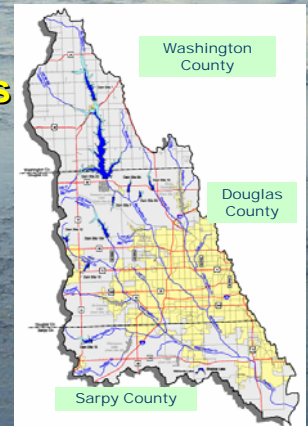
Papillion Creek Watershed Partnership's Mission

*“Address issues related to water quality and storm water quantity in the Papillion Creek Watershed by establishing **regionally common goals and standards** for the development of the watershed through 2040.”*

Established August 2001

Papillion Creek Watershed Facts

- 402 square miles
- 3 Counties
- 11 Cities
- 3 Major Streams
- 8 Major Reservoirs
- Over 1/3 of the State Population



Papillion Creek Watershed Management Drivers

- Accommodating Growth in the Watershed
- Regulatory Obligations
 - NDEQ Stormwater Phase I and Phase II Permits
 - Water Quality Impairments in Area Streams & Lakes
 - Combined Sewer Permit for Omaha
- Flooding Potential in Major Tributaries
- Aesthetics and “Quality of Life” Issues

August 2006 Requirements

- Revise Stormwater Design Manual to Include Post-Construction Water Quality BMPs
- Establish Local Ordinances & Regulations to Include Controls on Runoff During and After Development
- Develop and Adopt Stormwater Policies

Watershed by Design Formula

Green Watershed +
Clean Watershed +
Safe Watershed =
Watershed Master Plan

... Initiatives will make-up a Watershed Master Plan

Green, Clean, and Safe Watershed

- In a **Green Watershed** urban greenways and trail corridors connect city parks, open spaces, and recreational areas.
- A **Clean Watershed** enhances water quality, supports community recreation, and helps protect wildlife.
- A **Safe Watershed** manages stormwater runoff and protects residents, businesses, and industries from the damaging impacts of floods.

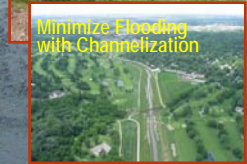
Green Watershed Strategies

- Enhance Greenways and Recreational Areas: Robert's Park
- Restore Stream Corridors and Wetlands: Rumsey Station
- Additional Landscaping and Open Space
- Merge Water-Based Aesthetics with Economic Development: Newport Landing
- Purchase Flood-Prone Properties: Cole Creek

Clean Watershed Strategies

- Adopt Additional BMPs for Water Quality and Erosion Control
- Create Water Quality Improvement Projects: Wehrspann Lake, June 2000
- Manage Combined Sewer Overflows: A sign for 'COMBINED SEWER OVERFLOW' with instructions to call 444-3968.

Safe Watershed Strategies



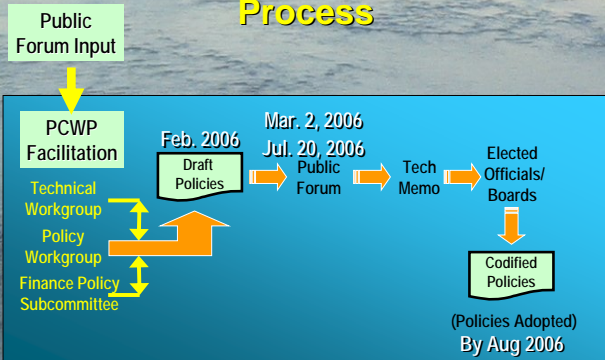
Big Paplo Creek, Happy Hollow Golf Course



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Stormwater Policy Development Process



Public Forum Input

Completed	Overview	Nov. 17, 2004
Completed	Green Watershed	Jan. 20, 2005
Completed	Clean Watershed	Feb. 17, 2005
Completed	Safe Watershed	Mar. 23, 2005
Completed	Update	June 16, 2005
Completed	Watershed Finale	Mar. 2, 2006
	Policy Review	Jul. 20, 2006

Workgroup Roles

Technical Workgroup (16 members)

- Analyze and Review Technical Issues
- Provide Alternatives and Guidance to Policy Workgroup

Policy Workgroup (16 members)

- Review Information Prepared by Technical Workgroup
- Recommend Stormwater Policies for Adoption

Finance Policy Subcommittee (16 members)

- Subcommittee to Policy Workgroup for Expertise in Developing Regional Detention Fee Framework

Workgroup Meetings

- 1 Joint Technical and Policy Workgroup
- 5 Technical Workgroup
- 6 Policy Workgroup
- 2 Financial Policy Subcommittee

14 Total Workgroup Meetings

Technical Workgroup Members

Name	Organization	Name	Organization
Terry Atkins	LRA	John Royster	Big Muddy Workshop
Verlon Barnes	NRCS	Dave Rus	USGS
Marty Grate	City of Omaha	Pat Slaven	City of Omaha
Selma Kessler	KM	Joe Soucie	City of LaVista
Karen Klein	City of Omaha	John Stansbury	UNO
Paul Gonzales	Schemmer	Randy Winter	NG&PC
Suzanne Moore	HWS	Paul Woodward	P-MRNRD
Pat O'Brien	NDEQ	Matt Wray	USACE

Policy Workgroup Members

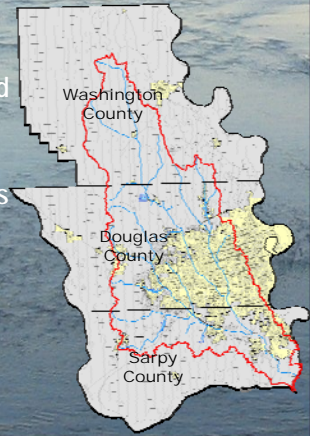
Name	Organization	Name	Organization
Ron Abdouch	Neighborhood Center for Greater Omaha	Paul Mullen	MAPA
John Bachman	Pansing, Hogan, Ernst & Bachman	Steve Oltmans	P-MRNRD
Toby Churchill	Sarpy County Economic Development Corp	Bill Pospichal	Zorinsky Lake Watershed Council
John Fullenkamp	Fullenkamp, Doyle & Jobeun	Dave Sands	Nebraska Land Trust
Kent Holm	Douglas County	Connie Spellman	Omaha by Design
Steve Jensen	City of Omaha	Gerald Torczon	BHI Develop. Inc
Randall Lenhoff	Seldin Co.	Mark Wayne	Sarpy County
Mike McMeekin	LRA	Mark Westergard	E&A

Finance Policy Subcommittee Members

Name	Organization	Name	Organization
John Bachman	Pansing, Hogan, Ernst & Bachman	Randall Lenhoff	Seldin Co.
Bob Doyle	Fullenkamp, Doyle & Jobeun	Jay Lerner	Lerner Company
John Fullenkamp	Fullenkamp, Doyle & Jobeun	Mike Meckna	E&A
Rich Harman	Ameritas	Mike McMeekin	LRA
Steve Jensen	City of Omaha	Harry Owen	City of Omaha
David Kuehl	Kuehl Capital	Steve Oltmans	P-MRNRD
John Kuehl	Kirkpatrick Pettis	Gerald Torczon	BHI Develop. Inc
Loren Johnson	Celebrity Homes, Inc.	Mark Westergard	E&A

Policy Coverage Area

- All Jurisdictions Located Within Papillion Creek Watershed in Douglas and Sarpy Counties (including each County's extra-territorial jurisdiction (ETJ))
- Stormwater Policies Would Not Apply to Washington County or its Communities



Presentation Outline

- Introduction and Background
- Policy Development Process
- **Stormwater Policy Overview**
- What Happens Next?

Stormwater Policy Overview

Group

- #1 Stormwater Management Financing
- #2 Peak Flow Reduction
- #3 Pollution Control
- #4 Landscape Preservation, Restoration, and Conservation
- #5 Erosion and Sediment Control
- #6 Floodplain Management

#2: Peak Flow Reduction

Root Policy: Maintain or reduce stormwater peak discharge during development and after full build-out

Sub-Policy: 1) Regional stormwater detention facilities located in general conformance with Watershed Drainage Plan

Advantages of Regional Detention

- Achieves No Net Increase in Runoff for Development
- Provides Downstream Flood Control
- Provides Water Quality Benefits
- Enhances Public Open Space and Habitat
- Enhances "Quality of Life"
- Minimizes Operation and Maintenance (O&M)

Site Location Process

- Includes Planned Multi-Reservoir Sites in Douglas and Sarpy Counties
- Areas Not Currently Urbanized
- Located on a Stream
- Drainage Areas Greater than 500 acres
- Water Quality Basins Derived from Lake Watershed Plans

Draft Watershed Drainage Plan

- Plan for Douglas and Sarpy Counties
 - 17 Regional Detention Sites
 - 12 Water Quality Basin Sites
- Dam Sites 1 and 3C Excluded from Plan



Examples of Regional Detention Structures



Walnut Creek
Regional Detention



Whitehawk Water
Quality Basin

Draft Watershed Drainage Plan

- No Net Increase in General Conformance with Policy
- Estimated Construction Cost of \$282.5 million
- Requires Additional Technical Study, Public Involvement, and Scheduling Prior to Implementation



Land Acquisition Process

- Development Creates a Need – Similar to Park Plan
- Most Land Acquired by Developer/Builder as Development Occurs
- P-MRNRD/Developer Inter-local Agreements
- Lakes and Shoreline will be Public
- Eminent Domain is a Last Resort for Needed Project Land

#1: Stormwater Management Financing

Root Policy: Create a dedicated, sustainable funding mechanism to accommodate new development and significant redevelopment

Sub-Policies:

- 1) Adequate earmarked funds
- 2) Regional Detention Fee established.
- 3) Framework for fee classifications, cost apportionments, inter-local agreements for funds handling, public-private partnerships at detention sites, and 3-year review cycle.

Regional Detention Fee Recommended Framework

- Developer/Builder Detention fees (Private)
 - Account for Approx. 1/3 of Cost (\$94 Million) Over 40-Year Build-Out
 - "Low-Density Residential" Fee - \$500/lot
 - "High Density" Fee - \$2,625 per developable acre
 - Paid to Local Zoning Jurisdiction with Building Permit Applications
 - Only Applies to Papio Basin in Douglas and Sarpy Counties

Regional Detention Fee Recommended Framework

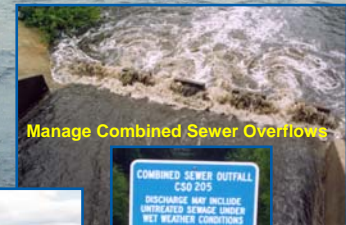
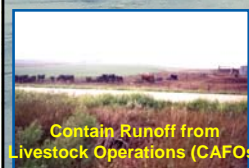
- P-MRNRD (Public)
 - Accounts for Approx. 2/3 of Cost (\$188 Million)
 - P-MRNRD Tax Levy
 - P-MRNRD to Pay for Necessary Land Rights and Build Detention Structures Using Pooled Accumulated Funds
 - P-MRNRD Needs G.O. Bonding Authority to Provide Necessary Development Flexibility

#3: Pollution Control

Root Policy: Reduce pollution from contributing sources including, but not limited to agricultural activities and combined sewer overflows.

- Sub-Policies:
- 1) Protect surface resources from contamination
 - 2) Preserve, protect and mitigate wetlands
 - 3) Support NDEQ in TMDL development
 - 4) Implement BMPs

#3: Pollution Control Examples



#4: Landscape Preservation, Restoration, and Conservation

Root Policy: Utilize landscape preservation, restoration, and conservation techniques to meet stormwater management objectives

- Sub-Policies:**
- 1) Incorporate stormwater strategies
 - 2) Define natural resources
 - 3) Encourage low-impact development
 - 4) Dedicate a creek setback (3:1 plus 50')
 - 5) Minimum creek setback (3:1 plus 20')

#4: Landscape Preservation, Restoration, and Conservation Examples



#5: Erosion & Sediment Control

Root Policy: Promote uniform erosion and sediment control measures, including adoption of the Stormwater Design Manual and implement consistent rules for regulatory compliance

- Sub-Policies:**
- 1) Both erosion and sediment controls
 - 2) Consideration of permanent BMPs
 - 3) Sediment storage upstream of regional detention facilities

#5: Erosion & Sediment Control Examples

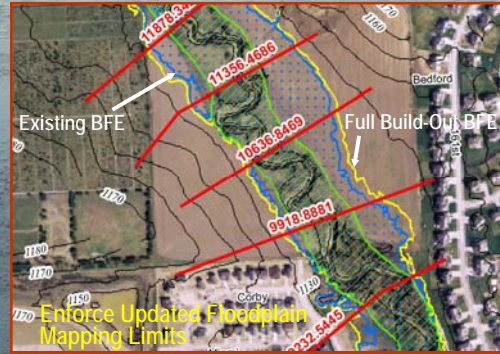


#6: Floodplain Management

Root Policy: Update floodplain mapping and enforce floodplain regulations to full build-out, base flood elevations (BFE)

- Sub-Policies:
- 1) Coordination between jurisdictions and P-MRNRD required
 - 2) Updated mapping developed with current and full-build out land use conditions
 - 3) Encroachments less than 1-foot of the full-build out BFE

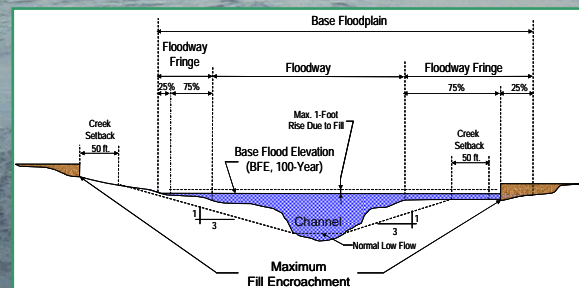
#6: Floodplain Management Example



#6: Floodplain Management (Cont'd.)

- Sub-Policies:
- 4) Development in floodway fringe limited to 25% of plan area
 - 5) Bridge low chord at 1-foot above full-build out BFE
 - 6) Lowest first floor elevation of building upstream of regional detention facilities at 1-foot above 500-yr pool elevation

#6: Floodplain Management (Cont'd.)



What the Policies Do

- Provide a Comprehensive Approach to Stormwater Management, Addressing Both Water Quality and Water Quantity Issues
- Promote Comprehensive and Regionally Consistent Stormwater Management
- Satisfy Requirements of NPDES Permits

What the Policies Do (Cont'd)

- Reflect a Cooperative Effort by a Broad Cross Section of Diverse Regional Technical and Policy Stakeholders Gained through 14 Half-Day Workgroup Meetings
- Include a Conceptual Plan for Regional Detention Structures and Water Quality Basins.
- Provides a Conceptual Financing Strategy
- Require Additional Studies and Approvals by Elected Officials Prior to Implementation

What the Policies Do NOT Do

- Commit Anyone to the Construction of Any Specific Dam, Detention Structure, or Water Quality Basin
- Prevent Additional Forums for Public Participation and/or Policy Revision

Presentation Outline

- Introduction and Background
- Policy Development
- Stormwater Policy Overview
- **What Happens Next?**

Next Steps

- Jurisdictions Need to Adopt and Incorporate Stormwater Policies, Ordinance/Regulations and Drainage Manual with the Understanding that There Will Be ...
 - Additional Public Involvement
 - Additional Technical Data on Some of The Potential Detention Sites and Water Quality Basins
 - An Appropriate Implementation Strategy Determined – Again, With Appropriate Public Involvement
 - Coordination With Development and the Logical Extension Of Infrastructure

Next Steps (Cont'd.)

- Collaborate on Inter-Local Agreements to Initiate Collection of Fees
- Match Current Development Needs with Watershed Drainage Plan
- Fine Tune Watershed Drainage Plan
- Seek General Obligation Bonding Authority for P-MRNRD

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Panel Members and Presenters

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- Lyle Christensen, P.E., HDR Engineering, Inc
- Marty Grate, Manager, Omaha Public Works Environmental Services
- Kent Holm, Director, Douglas County Environmental Services
- Steve Jensen, Director, Omaha Planning Department
- John Fullenkamp, Fullenkamp, Doyle & Jobeun
- Terry Atkins, Lamp, Rynearson and Associates

Available Information Stations

**#1 Stormwater Management Financing &
#2 Peak Flow Reduction**

**#3 Pollution Control &
#5 Erosion and Sediment Control**

**#4 Preservation, Restoration, and Conservation &
#6 Floodplain Management**

