

# Southern Sarpy County Sewer Master Plan Phase II



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Management and Financial Plan

Final Report

October 2007



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## TABLE OF CONTENTS

### EXECUTIVE SUMMARY

### INTRODUCTION

<b>I. PHASE II OVERVIEW .....</b>	<b>7</b>
A. Boundary Conditions .....	7
B. Key Understandings and Assumptions .....	9
C. Needs and Obstacles Assessment .....	15
D. Development Zone Concepts Visioning Exercise .....	15
E. Timing of Growth .....	18
F. Recommendations .....	23
<b>II. MANAGEMENT ALTERNATIVES .....</b>	<b>24</b>
A. Super SID .....	24
B. Dominant Public Agency .....	24
C. Sarpy County Sewer Authority .....	25
D. Alternatives Analysis .....	25
E. Interlocal Cooperation Master Agreement .....	28
F. Disclosures, Audits and Legal Review .....	28
G. Build-Through Acreage (BTA) Development Policy .....	30
H. Management Recommendation .....	32
<b>III. FINANCIAL PLAN .....</b>	<b>34</b>
A. Updated Capital Cost Estimate .....	34
B. Scenario Analysis .....	39
C. Financial Recommendations .....	43
<b>IV. NEXT STEPS .....</b>	<b>44</b>
A. Finalize Master Interlocal Agreement .....	44
B. Initiate Detailed Interlocal Cooperation Agreements (Case-by-Case Basis) .....	44
C. Integrate Commercial, Industrial, Recreational Land Uses into the Sewer Fee .....	44
D. Design, Construction and Operations .....	45
E. Design Standards .....	45
F. Rate Study .....	45
G. Initiate Land and ROW Acquisition .....	45

### LIST OF TABLES

Table 1: Developable Acres Summary .....	22
Table 2: Management Alternative Summary .....	26
Table 3: Management Alternative Advantages and Disadvantages .....	27
Table 4: Basic Range of Duties for Dominant Public Agency .....	29
Table 5: Operational Responsibilities for the Dominant Public Agency .....	32
Table 6: Summary of Estimated Interceptor Sewer and Treatment Costs .....	36
Table 7: Breakdown of Proposed Impact Fee (2006 Dollars) .....	42

**LIST OF FIGURES**

Figure 1: 2006 Southern Sarpy County Growth Centers .....6  
Figure 2: Boundary Conditions .....8  
Figure 3: Policy Tiers and Development District Map .....11  
Figure 4: Land Use Growth Plan.....16  
Figure 5: City of Gretna Population Growth.....19  
Figure 6: City of Gretna Housing Starts.....19  
Figure 7: Developable Geographic Areas .....20  
Figure 8: Build-Through Development Example.....31  
Figure 9: Graphic of Recommended Management Structure.....33  
Figure 10: Funding Scenario 1 .....37  
Figure 11: Funding Scenario 2 .....38  
Figure 12: Funding Scenario 3 .....39  
Figure 13: Recommended Funding Scenario .....40

**LIST OF APPENDICES**

A Meeting Notes  
B Stakeholder Work Group Memorandum of Understanding  
C Needs and Obstacles Assessment  
D Development Zone Maps  
E Sarpy County Commissioners Road Improvement Policy  
F Letter from County Board Chair  
G Interlocal Cooperation Master Agreement  
H Residential Development Decision Matrix  
I Updated Cost Estimates

## EXECUTIVE SUMMARY

The communities of Sarpy County, Nebraska have experienced explosive growth in recent years. The vast majority of that growth has occurred in the Papillion Creek drainage basin, where public water supplies and municipal sewerage systems are available. Future growth and land use is expected to occur in the Platte River basin. The basic premise of this study is that the sanitary sewers needed to serve future growth must be publicly-owned and operated systems. This premise assumes that Sarpy County and the local municipal governments possess the interest, political will and vision necessary to lead and control the development of a regional sanitary sewer system outside of the Papillion Creek watershed.

***It is estimated to take twenty (20) years for the Papillion Creek drainage basin to become 90 percent full.*** While twenty years is a best guess estimate, it is also a typical planning window and should not be considered an inordinately long period of time. This estimate is subject to many variables (e.g., economic cycle, unemployment rates, interest rates, etc.), but one thing is for certain: ***growth is going to happen.***

## MANAGEMENT STRUCTURE

Currently, there is no MANAGEMENT STRUCTURE in place to design, build, own and operate sanitary sewer systems for residential purposes in southern Sarpy County. There are three management alternatives considered as part of this study. Those include:

- 1) Super SID
- 2) Dominant Public Agency
- 3) Sarpy County Sewer Authority

Each of the three management alternatives was analyzed based on three major criteria including:

- management driver,
- legal authority, and
- growth management style.

The description of each alternative and a summary definition of the evaluation criteria is shown in the following table.

EVALUATION CRITERIA	MANAGEMENT ALTERNATIVE		
	SUPER SID	DOMINANT PUBLIC AGENCY	SARPY CO. SEWER DISTRICT
MANAGEMENT DRIVER	Two or more developers (residential, commercial, industrial)	Municipalities	Sarpy County
LEGAL AUTHORITY	The Super SID has the same powers as the individual SIDs	Interlocal agreement with each agency performing to the full extent of their authorized power	State legislation required
GROWTH MANAGEMENT	Sarpy County has the legal authority to approve or disapprove an SID created within the County	Plan adoption with policies to guide where, how much, and when development occurs	Development to occur only in areas with county-supplied sewer service

SIDs (by virtue of the fact that they are political subdivisions) have the right and authority to develop sewerage systems, but on a limited scale. SIDs generally are not focused on the regionalization of sewerage systems. In addition, SIDs will be faced with constructing system infrastructure that will satisfy ultimate build-out, which places a significant financial burden on them. The SUPER SID has many disadvantages in the context of a REGIONAL wastewater system.

The Sarpy County Sewer District alternative appears to provide many advantages including centralized administration, improved staffing, uniform design standards, and the ability to lead from a REGIONAL perspective. However, Sarpy County does not have legislative authority to manage sewerage systems for residential purposes and would require an agreement with municipal jurisdictions. Therefore, the Sarpy County Sewer District is not recommended at this time.

The management option recommended is the **Dominant Public Agency**, which provides a reasonable balance of power and will require that balance to be established by INTERLOCAL AGREEMENT between cities and the county. It is important to note that the success of forming Interlocal Agreements and moving forward with a Sewer Master Plan is dependent upon the political will and efforts to be made by the various city councils and the Sarpy County Board. It is recommended that each Board and Council approve the idea of working together (by Interlocal Agreement) to cooperatively construct a publicly-owned and operated sanitary sewerage system.

#### **INTERIM MEASURE – BUILD THROUGH POLICY**

Given the expected timing of urban density residential growth in the southern half of Sarpy County, there is an opportunity to conditionally allow some less-dense development. The condition of less-dense development will be described as part of a “**Build-Through Development**” (BTD) policy, as drafted by the Sarpy County Planning Department in conjunction with the Planning & Zoning Commission. The BTD policy provides a mechanism to permit short-term large lot development in portions of the Sarpy County planning jurisdiction that will receive urban services within a relatively long-term future.

A BTD must be a minimum of 40 acres to qualify. Landowners developing a BTD shall set aside sixty percent (60%) of the property for future urban development. The 60 percent set aside shall have a deed restriction disallowing any further subdivision of the parcel until community water and sewer is provided to the property. The 40% to be developed into large lots shall be allowed the density permitted in Matrix Table 4.11 of the Sarpy County Comprehensive Development Plan. A subdivision within the Build-Through designation shall provide future sanitary sewer trunk line easements and construction easements for the sewer as designated using the most recent final report of the Study Report on Water Quality Issues Related to Water and Wastewater Systems.

#### **FINANCIAL PLAN**

The financial plan includes an updated capital cost estimate, development of a sewer charge (i.e., impact fee) and funding scenario analysis. The capital cost estimate for this phase has been increased from the previous Phase I study to account for additional future wastewater treatment capacity at the REGIONAL TREATMENT PLANT. The previous capital cost estimate has been increased to approximately \$180,800,000 (2006 dollars). The financial plan does not include operating and maintenance costs.

The **impact fee** for each drainage basin was also derived. Zweibel Creek (ZC) has the highest capital cost and is the smallest basin (by area). The impact fee for ZC would be \$9,550 per acre. Buffalo Creek (BC) has a small capital cost and has the largest area. The impact fee for BC would be \$4,429 per acre. The impact fee for Springfield Creek would be \$6,443. If an impact fee is assessed on a ‘*per basin*’ basis, development might be unfairly skewed. ***Therefore, a uniform impact fee is recommended.*** If the estimated capital cost for all sewer work in the study area is divided into an updated number of ‘developable’ acres, the impact fee would be a **minimum of \$6,250 per acre** (2006 dollars) to fund capital costs only.

The financial plan also considered how funds might ‘flow’ from developer to what is referred to as the ‘lead agency’ (that authority empowered by interlocal agreement to manage the sanitary sewer system **Design, construction (i.e., Build), Ownership and Operation (D/B/O/O)**). Three funding scenarios were considered including:

- 1) developer D/B and pays 100 percent impact fee at platting,
- 2) developer D/B and pays 50 percent impact fee at platting and builder pays 50 percent impact fee at permit, and
- 3) lead agency D/B/O/O and developer pays 100 percent impact fee.

In all scenarios the design and construction is completed in accordance with the Sewer Master Plan. In the first two scenarios, the developer deeds ownership and operation to the lead agency. In Scenario 1, the developer is reimbursed the cost of the project, if less than the amount of the impact fee. In Scenario 2, the developer is reimbursed the amount of the fee and must wait on the builder for complete reimbursement. Under Scenario 3, the lead agency collects all fees and is responsible for all D/B/O/O functions.

## **CONCLUSIONS, RECOMMENDATIONS and NEXT STEPS**

In addition to adopting the Dominant Public Agency form of Management, the study findings recommend the implementation of funding Scenario 1, whereby an impact fee is charged for all future developments. Other findings and recommendations include:

- **Transportation Coordination.** The study findings recommend completion of traffic studies to coordinate growth and sewer development with transportation needs.
- **Acceptance of the Sewer Master Plan.** It is recommended that each jurisdictional authority in Sarpy County adopt the **Sewer Master Plan**, to make it a policy and to take the management responsibility for a publicly-owned sewer system.
- **Coordinated Local Control.** It is important that growth be coordinated between cities and the county and that control of development be maintained at the local level. Each community ought to be able to allow growth to occur in accordance with existing planning and zoning regulations and the Sewer Master Plan.

### **Next Steps.**

Approve the idea of working together (by Interlocal Agreement)

Begin development of Design Standards

Consider a rate study to determine operation and maintenance costs

## INTRODUCTION

This study and report has been commissioned by Sarpy County and a group of public partners (i.e., stakeholders) including the Metropolitan Area Planning Agency, Metropolitan Utilities District, the Papio-Missouri River Natural Resources District, the City of Springfield, the City of Bellevue, the City of Gretna and the City of Papillion. While this study has been commissioned by informal partnerships, it is important to note that members of this group have varying interests and objectives. This study report is written without bias toward any single member of the stakeholder group and is intended ultimately to serve all citizens of Sarpy County.

The communities of Sarpy County, Nebraska have experienced explosive growth in recent years. However, the vast majority of that growth has occurred in the Papillion Creek drainage basin, where public water supplies and municipal sewerage systems are available. Future growth and land use is expected to occur in the Platte River watershed, as shown in Figure 1. The push of growth over the ridge and into the Platte River watershed is imminent, causing decision-makers to question how and when to facilitate the construction of public water and municipal sewerage systems.

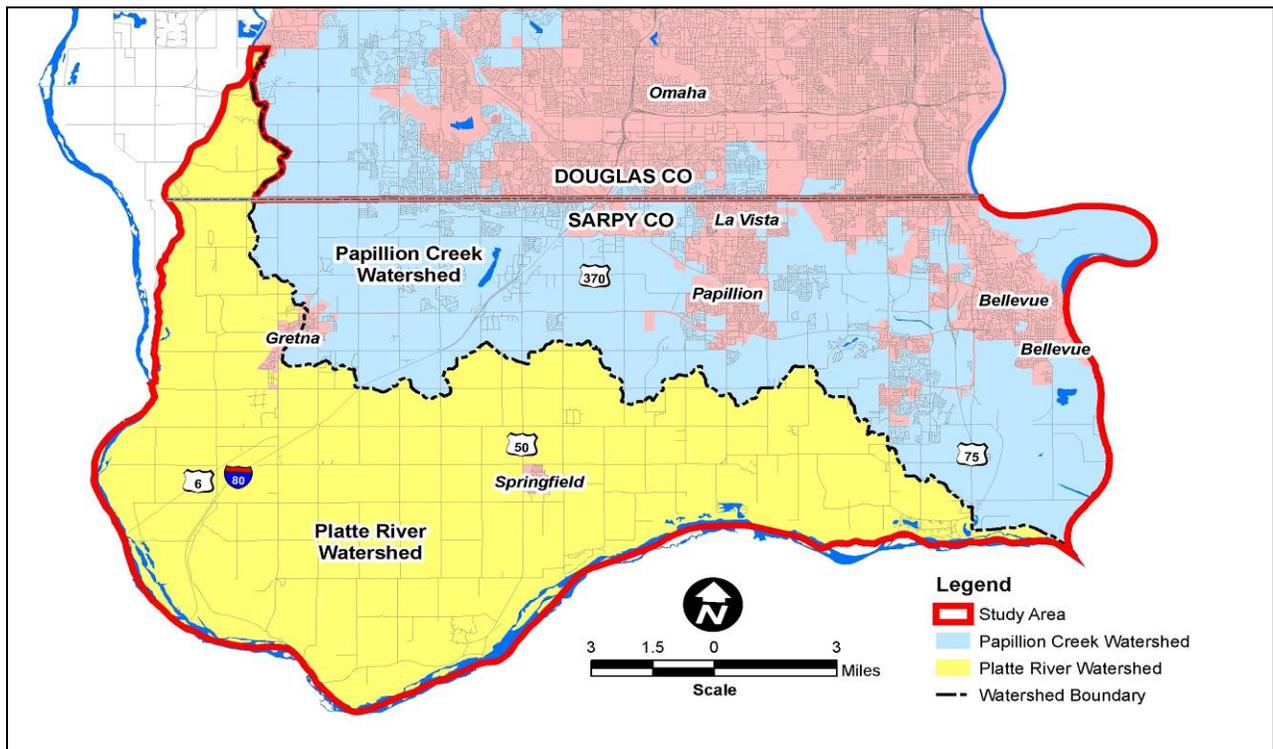


Figure 1: 2006 Southern Sarpy County Growth Centers

Central to the sewerage discussion is the question of jurisdictional authority and fiscal responsibilities. This study and report will attempt to answer these questions. This document is intended to present a process to facilitate the orderly construction of sanitary sewer interceptors and treatment systems in southern Sarpy County. This study will provide the general framework for City and County governments to cooperatively manage inevitable growth outside of the Papillion Creek watershed.

## **I. Phase II Overview**

The first phase of the study process involved gathering existing water and wastewater data for the southern half of Sarpy County, performing a preliminary engineering analysis to size sanitary sewer interceptor sewers and treatment systems and the preparation of a sanitary sewer Master Plan. This phase was completed in April 2006 with the submittal of a Study Report on Water Quality Issues Related to Waster & Wastewater Systems to Sarpy County and the public stakeholders.

The scope of this second phase was originally intended to focus on development of a management structure and financial plan to serve the needs of western Sarpy County. With the growth pressures experienced in the Zweibel Creek basin (south of Papillion), the scope of this phase has been expanded to seek management and financing solutions for all of southern Sarpy County.

Phase II, therefore, is focused primarily on finding ways for the public sector agencies to agree to manage and pay for the construction of publicly-owned sanitary sewerage system. This system will support residential development and, in turn, provide for economic growth in the southern half of Sarpy County.

In addition, this section of the study report will:

- describe boundary conditions of the study area,
- introduce key understandings and assumptions made,
- present specific needs and obstacles identified by the public partners,
- evaluate the concept of development zones, and
- consider the timing of growth.

### **A. Boundary Conditions**

The major boundary conditions for this study include geographic features (i.e., rivers), and jurisdictional boundaries (i.e., Douglas County). The study area is further subdivided by transportation features that will help define the current and future flow of people into and out of the study area.

The geographic boundary conditions are important to understand water quality issues and energy needs. Drainage basin definition provides the basic framework from which wastewater can either flow by gravity flow or be pumped. The jurisdictional boundary conditions are important to understand the limitations or constraints between one governmental authority and another.

Sarpy County is geographically bounded by the Platte River on the west and south and the Missouri River on the east. Omaha (Douglas County) is the adjacent neighbor on the north. Sarpy County is the smallest county in the State of Nebraska with only 241 square miles (154,240 acres), but has the third largest population.

The county is divided into two approximately equal halves (N43%:S57%) by a ridge line. The ridge line extends from north of Gretna, through Gretna and to the southeast corner of the county. The ridge line can be seen in Figure 2. North of the ridge line is the Papillion Creek watershed. The area south of the ridge line drains to the Platte River.

The area is also bisected by Interstate 80 and several major transportation corridors. The major roadways that bisect the area include Highway 50 and Platteview Road, which intersect at Springfield and 84<sup>th</sup> Street. The Interstate at Highway 370 provides a logical jurisdictional boundary or barrier between the City of Papillion and the City of Gretna. This jurisdictional issue has not been completely resolved in the County Courts, however, it is understood that each municipal community has significant interest in protecting the future planning, development and taxing authority.

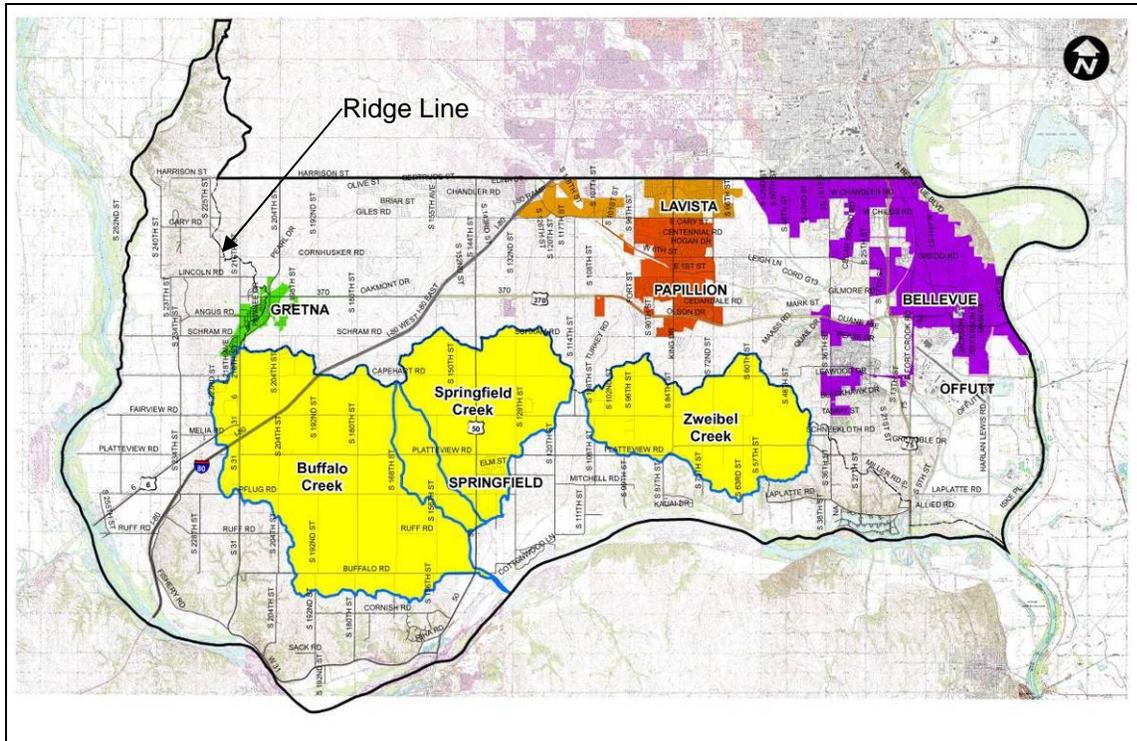


Figure 2: Boundary Conditions

The focus of this report is on the 87,704 acres on the south side of the ridge line that drains to the Platte River. Moreover, of the 87,704 gross acres, approximately only 33 percent (28,900 acres) are developable. The concept of developable acres will be discussed further later in this report.

The 28,900 acres of developable land is divided into three drainage basins. Those include Buffalo Creek (south of Gretna) with approximately 13,800 acres, Springfield Creek (which includes Turtle Creek) with approximately 8,000 acres and Zweibel Creek, south of Papillion, with approximately 7,100 acres. In each of these basins, over the ridge pumping is not necessary, nor recommended in the short or near-term.

Ultimately, all of the sanitary sewer generated in the southern half of the county will be treated at a single location (south of Springfield), which will require pumping from the Zweibel Creek basin to the Springfield Creek basin.

The Platte River is a natural boundary condition. This river separates Sarpy County and Cass County. The population centers in Cass County include Plattsmouth and Louisville, which are adjacent (or very near) to the Platte River. Both communities operate their own wastewater treatment plants. These plants have not been included in this or past studies to treat sanitary sewer from Sarpy County. Both plants have excess capacity, but the real questions are:

1. What is the treatment capacity of the Louisville treatment plant?
2. Does it make economic sense to pump Sarpy County wastewater across the river?

The City of Louisville does have excess wastewater treatment capacity. The plant capacity at Louisville is 250,000 gallons per day and the current average daily flow is between 80,000 and 110,000 gallons (approximately 45% of capacity).

But, since there is a wastewater treatment system at Springfield with similar capacity and growth in the Buffalo Creek basin is likely to occur at the top of the basin, the need for wastewater treatment across county boundaries (i.e., the Platte River) does not appear to be feasible. Therefore, without the economic incentive to pump across the river, this alternative will not be discussed further in this study report.

## **B. Key Understandings and Assumptions**

Early in this phase of the study process, a stakeholder work group (SWG) was created. As part of the effort to develop management and fiscal solutions, the SWG participated in eight meetings. The notes from these eight meetings are presented in Appendix A.

The stakeholder work group consisted of at least one representative from the public partnership. The work group developed a Memorandum of Understanding (MOU) to work together to devise a wastewater management solution for the entire county. The solution is intended to outline a long-term wastewater management plan as well as interim steps needed to address continued growth pressures while the long-term solution is being implemented. The MOU is shown in Appendix B.

The SWG considered many concepts associated with community development and growth in Sarpy County during the course of this eight-month study. The key understandings and assumptions considered also form the basis of the overall study process.

Some of the key assumptions and understandings considered by the stakeholder work group include:

- Publicly-Owned Sewerage Systems & Political Will,
- Coordination with the Sarpy County Comprehensive Plan,
- Affect of Land Prices on Development,
- Importance of Following a Sewer Master Plan,
- Dependency on a Public Water Supply, and
- Integration of a Sewer Master Plan with a Transportation Plan.

Each of the six key assumptions and understandings has merit independent of the others and will be considered separately. This section of the Phase II report will briefly describe these key understandings and assumptions considered.

## 1. Publicly-Owned Sewerage Systems and Political Will

The first key understanding is that growth requires both public and private leadership. The private sector provides the entrepreneurial investment and demand and the public sector provides the resources for the common good of all people.<sup>1</sup> A key assertion here is that, over time, an extensive system of interceptor sewers will follow the existing drainage ways across southern Sarpy County, as required to serve private real estate development.

One of the findings and recommendations developed as part of the Phase I study is that it would be undesirable to allow package wastewater treatment plants to dot the country-side. Multiple wastewater plants (serving individual developments) are believed to be an inefficient use of resources and potentially threatening to the environment. Therefore, it is recommended that the jurisdictional authorities plan now for the responsibility of managing the sanitary sewer system.

The first step in this process is for those jurisdictional authorities to clearly understand the technical issues. Then, those authorities must have a firm grasp of the administrative, financial and economic requirements. Once those pieces of the puzzle are in place, it would be recommended that each jurisdictional authority in Sarpy County adopt the Sewer Master Plan and to make it a policy to take the management responsibility for a publicly-owned and operated treatment works (POTW) system.

The basic premise of this study is that the sanitary sewers needed to serve future growth must be publicly-owned and operated systems. This basic premise assumes that the public (i.e., Sarpy County and the local municipal governments) possess the interest, political will and vision necessary to lead and control the development of a regional sanitary sewer system outside of the Papillion Creek watershed.

In addition, a publicly-owned and operated treatment system is expected to be maintained at a higher standard of performance. Privately owned treatment works (or even treatment works owned and operated by Sanitary & Improvement Districts (S&IDs)) often times do not appropriate sufficient resources to properly manage their facilities.

Publicly-owned treatment works are able to maintain a higher standard of performance because there are specific resources (budgets and labor) to carry out the day-to-day operations of the sewers and treatment facilities. A public agency typically possesses the administrative tools to make available the resources necessary to keep a POTW in good standing with the regulatory agencies. The operational side of a public utility, such as a wastewater treatment plant, is typically funded with user fees. A small sewer use fee is charged to all water customers (typically by assessing a rate based on the number of gallons of water metered).

Much of the technical discussion associated with a sanitary sewerage system may be found in the Phase I report. The Phase I report describes the recommended sizing of interceptor sewers and the associated treatment plants and also provides a preliminary plan to locate such systems.

This report will lay out the administrative, management and fiscal options considered by the SWG and will present recommendations assuming there is the political will of the public sector electorate.

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<sup>1</sup> THE MISSION of the Papio-Missouri River NRD is to wisely Conserve, Manage and Enhance our soil, water, wildlife, and forest resources for the good of all people residing within the District's boundaries.

## 2. Coordinated with the Sarpy County Comprehensive Plan

The Sarpy County Board adopted “The Sarpy County Plan”, a comprehensive development plan for Sarpy County, Nebraska in April 2006. At the time, the County Board expressed some concern that the comprehensive plan might be “set in stone” and would not allow for flexible growth. Indeed, the comprehensive plan is not set in stone. The comprehensive plan does provide development guidelines, but is a flexible document and may be altered if needed.

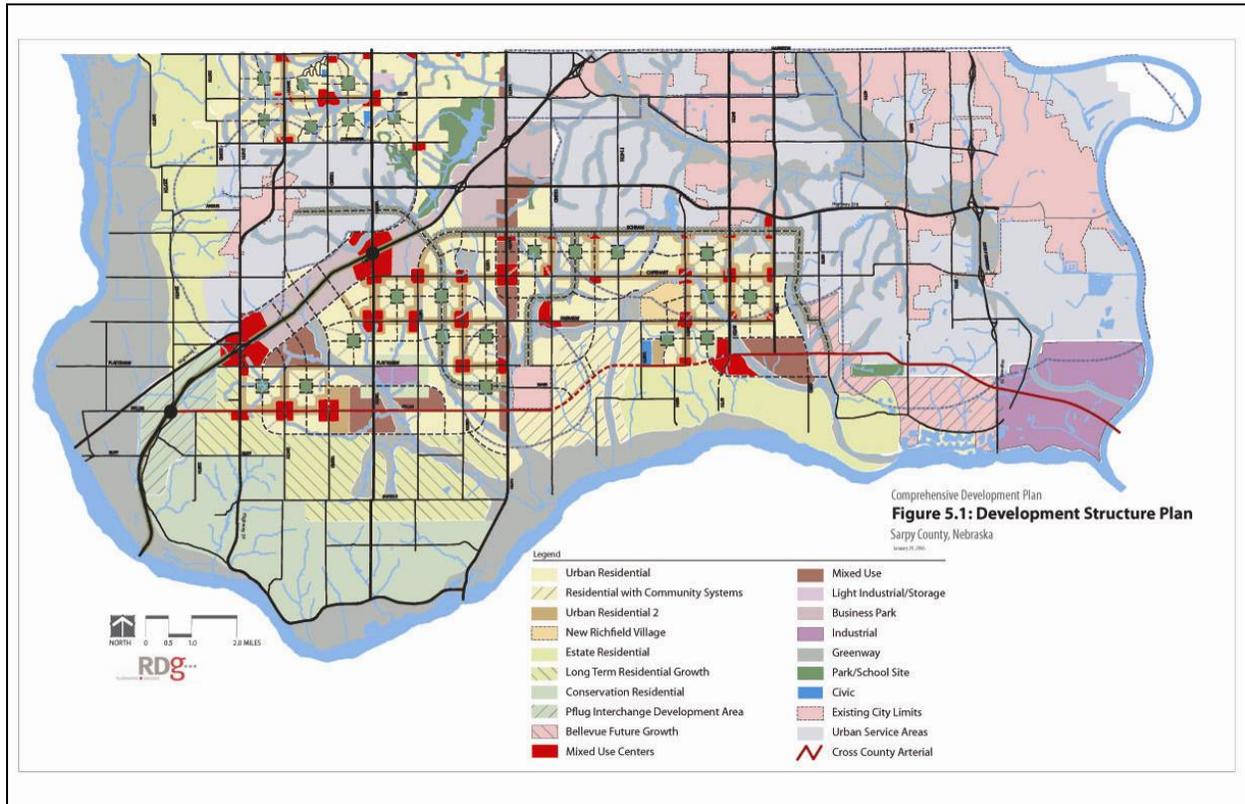


Figure 3: Policy Tiers and Development District Map

It is understood that Sarpy County is rapidly growing. Since the predominant land use in Sarpy County is currently agricultural and there is no publicly-owned wastewater treatment system (except at Springfield), there is an expectation that demand will be for large lot acreages. Some large lot development will be allowed, but the Comprehensive Plan and the Sewer Master Plan identify higher-density residential growth as a goal for the County.

Given the expected timing of high-density residential growth in the southern half of Sarpy County, there is an opportunity to conditionally allow some less-dense development. The condition of less-dense development will be described further in the “**Build-Through Development**” section of this report.

### **3. Attractive Land Prices**

Another key understanding identified during the course of this study is that the price of unsewered land in the southern half of the County may be 30 to 50 percent of the cost of sewer land currently available in the northern half of the County. Obviously, the current lack of public water, paved roads, and sanitary sewers limits the asking price of land and the current ability to support large populations. With the advent of utilities and roads, the land prices will increase.

The undeveloped-land parcels are expected to sell at undeveloped-land prices and will, in turn, be sold by developers at prices that include their cost of providing the necessary utilities and amenities, plus profit.

With the inclusion of infrastructure costs, developed land in the southern half of Sarpy County is expected to ultimately increase to pricing levels found in the Papillion Creek drainage basin. The market forces and public demand will ultimately determine the asking price of developed land and, in turn, the level of risk to the development community.

### **4. Based on the Phase I Sewer Master Plan**

The Sewer Master Plan was prepared to provide technical guidance to the communities and Sarpy County on how the sanitary sewer component might develop, over time with increasing residential pressures. The Sewer Master Plan continues to be coordinated with and follows the general plan guidance outlined in the Sarpy County Comprehensive Plan, and like the comprehensive Plan, the Sewer Master Plan must also have the ability to be flexible and expandable as growth pressures ebb and flow over time.

Simply stated, a key understanding is that the Sewer Master Plan establishes a basic regional system of interceptor sewers and a limited number of treatment plants to accommodate urban density (i.e., 4 dwelling units/acre) residential growth. Without the Sewer Master Plan, the jurisdictional authorities are left to allow development to occur randomly.

#### **a. Regionalization**

The Phase I study determined that sanitary sewers constructed on a regional basis provide the greatest economy, efficiency and environmental protection. To be economically competitive, sewage, in general, must flow by gravity. The options are whether the collection system is connected to a larger interceptor system or serves only the smaller, immediate needs of the particular development.

A system of interceptor sewers has been planned to follow the major creeks in southern Sarpy County. The interceptors are intended to flow, by gravity, to a interim treatment plant planned for the Buffalo Creek basin.

The interceptor sewers in the Springfield Creek basin are planned to extend the City of Springfield and be connected to the existing sanitary system owned and operated by the City. Interceptor sewers in the Zweibel Creek basin, south of Papillion, are planned to flow by gravity to two interim treatment plants.

The purpose of limiting the number of interim treatment plants to three has been to optimize economics, provide for efficient treatment operations and to protect the environment. Each and every treatment plant will require expenditure for land, equipment, power, water supply, personnel and an operating permit from the State of Nebraska. It makes sense, therefore, to have the fewest number of (i.e., more regional) treatment sites.

In the early stages of growth into the Platte River basin, there is expected to be pressure from developers to construct wastewater treatment systems that are higher up in the basin as a cost-cutting measure. Allowing treatment systems higher up in the basin would not support the regional concept. The cost of the interim treatment plant and the associated interceptor sewers in Buffalo Creek (as proposed in the Sewer Master Plan) may deter near-term growth.

Despite the challenges of following the Sewer Master Plan recommendations in Buffalo Creek, the idea of regionalization of sewerage systems is still valid. Ultimately, the plan will be to construct a single, regional wastewater treatment plant at the confluence of the Buffalo and Springfield Creeks to serve the entire southern half of Sarpy County.

#### **b. Characteristics of the Sewer Master Plan**

The Sewer Master Plan is just that...a “Plan”. It is important to recognize that this Plan is flexible and can be changed. As previously described, development challenges to the Sewer Master Plan in Buffalo Creek are expected and some interim steps may be necessary to accommodate the proposed development.

The Buffalo Creek basin is especially challenging because development pressure will likely occur at the top of the basin first, which is counter to the concept of constructing treatment systems at the lowest possible location in the basin.

*Indeed, to strictly follow the Sewer Master Plan in the Buffalo Creek basin may encourage non-continuous development patterns, which is contrary to the more desirable concentric growth pattern.*

This is one debatable characteristic of the Sewer Master Plan. To overcome this issue in Buffalo Creek, developers may seek agreements with the owners of the Flying J and/or the Nebraska Crossing outlet mall to connect onto their wastewater treatment systems. This connection is not addressed in the long-term Sewer Master Plan, but could serve the larger community on an interim basis.

Another important characteristic of the Sewer Master Plan is that the Plan cannot dictate development. Development will be market driven. The decision-making performed by the developer will, in large part, be based on economic forces and not necessarily in strict accordance with the Sewer Master Plan. Therefore, it should be clear that the Sewer Master Plan is simply a guide to development and is not intended to be a rigid, absolute and inflexible strategy to follow.

#### **c. Design Reserve Capacity and Oversizing**

Reserve capacity is both a physical issue and an economic issue. The economics associated with reserve capacity is directly related to timing, rates of growth and the market demand. The economics of constructing wastewater treatment reserve capacity is such that excessive financial investment should be carefully evaluated and only spent when there are clear demand indicators. Then, the physical capacity of a treatment system may be expanded to meet the anticipated sanitary loading.

Oversizing is a term applied to both the interceptor sewer system and the treatment system. For the interceptor sewers, oversizing implies that the system (as provided for in the Sewer Master Plan) is constructed without significant deviation.

The treatment works, however, would be constructed with only a limited amount of excess capacity. If, for example, a development proposed 150 single-family lots and 90 percent of the lots could be filled in 5 years, the average day sanitary flow would be calculated as follows:

$$150 \text{ lots} \times 2.6 \text{ persons/lot} \times 100 \text{ gpcd} = 39,000 \text{ gallon per day}$$

For this example, a treatment plant with approximately 40,000 gallons per day capacity would satisfy the demand. However, a close look at market forces should be considered and if there appears to be continual growth and demand, then additional treatment capacity should be constructed.

Constructing a treatment plant oversized by 10 to 25 percent is not unreasonable and would be recommended. For this example, a plant with 50,000 gallons per day of treatment capacity represents a 25 percent oversizing and could be justified assuming near-term market growth pressures.

#### **5. Dependency on Public Water Supply (PWS)**

A public water supply is essential to meet the needs of the anticipated residential developments. Certainly, a community water supply (i.e., typically an independent well) can be provided to serve a particular development, but the key understanding is that the existing public water suppliers (i.e., Metropolitan Utilities District (MUD), the City of Papillion, the City of Gretna and the City of Springfield) will expand their systems as necessary and appropriate to meet development needs.

An important understanding associated with the expansion of the MUD system is that the cost of expansion is born completely by the developer. If a developer needed an eight-inch water distribution line to serve a project, but the long range plans suggest a 24-inch transmission main, then the developer funds the project and is reimbursed by subsequent users.

#### **6. Integrated with Transportation Plan**

There has been considerable discussion on the importance of economics in the decision-making process. And while the cost of interceptor sewers and treatment plants to serve a burgeoning population can be significant; growth also demands improved roadways that can easily outpace the cost of sewers and water systems.

While the location of interim treatment plants and interceptor sewers is typically dictated by topographic conditions, the demand for new residential housing is reliant on the ease of traffic flow to and from the places of employment. Therefore, the plan to expand into a new area must not only take into consideration how to construct and pay for the sewerage and water systems, but also how the traffic needs will be met with increased population.

The cost associated with construction of improved roadways is beyond the scope of this project; however, separate transportation studies that are integrated with sewer and water plans are recommended.

### **C. Needs and Obstacles Assessment**

During the course of the study, each public partner has had the opportunity to enumerate specific areas where emphasis should be made to prepare for the impending growth over the ridge (into the Platte River valley). In addition, members of the SWG have identified specific obstacles to growth. The list of needs and obstacles is provided in Appendix C.

The list of “needs” was varied, but a couple of generalizations may be made from the SWG responses. Nearly two-thirds of the SWG members noted that having “coordinated growth” is needed and essential. The coordination efforts resulting from this study are critical to the overall success of any future Sewer Master Planning process. Coordination implies having some understanding of the timing necessary to prepare for the growth and an understanding of the agreements that must be in place prior to the occurrence of the development push. Therefore, the key need going forward is having a coordinated (i.e., managed) development plan and a fiscal plan in place.

The list of “obstacles” to growth also varied widely. When asked to list what the SWG members felt were obstacles to growth, answers ranged from adequate sizing challenges to sustainability (i.e., long-term operation) and operational concerns to financing solutions. Since the characteristic of each member is uniquely varied, what is viewed as an obstacle may be interpreted differently from one member to another. The key obstacles to growth include topography (i.e., ridgeline) and the lack of sanitary sewers and public water supplies.

### **D. Development Zone Concepts Visioning Exercise**

Development zones are described as specific undeveloped areas that are suitable for development in the future. As part of this study, SWG members were asked to identify areas or zones where growth would be likely to occur. The members generally indicated growth and development patterns based on those shown in the Comprehensive Plan or from patterns further developed during this study. The SWG believes that the key growth areas of Sarpy County include:

- the top of the Buffalo Creek basin,
- north of Springfield, and
- the area near 84<sup>th</sup> and Platteview Road.

The majority of SWG members identified the areas south of Gretna and south of Papillion as two of the most likely areas to develop. In addition, there is a zone of development expected along Highway 50 near Springfield and growth nodes anticipated along Highway 370, between Gretna and Papillion. The SWG identified other possible areas of growth, but the timing of that growth is more difficult to predict. The development zone maps generated by the stakeholder work group are shown in Appendix D. The result of this visioning exercise is shown as the Land Use Growth Plan in Figure 4.

In Omaha, the City planning department uses the development zone concept, in accordance with the Urban Development Policy, to control and manage growth in the far upper reaches of the Papillion Creek basin. Only when the City determines that it can accommodate an expansion is an additional sector of land opened for residential and commercial expansion.

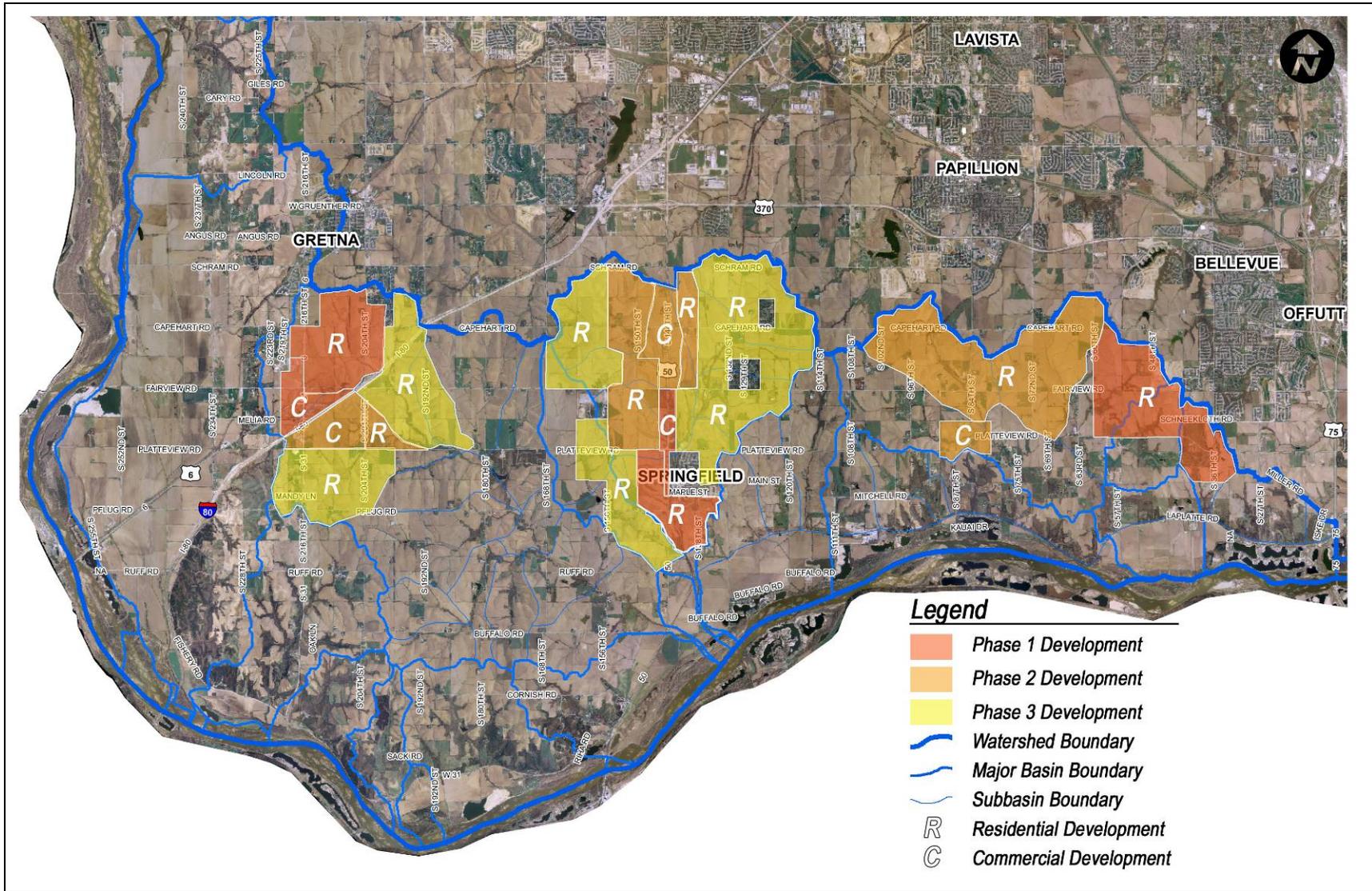


Figure 4: Land Use Growth Plan

The following is an excerpt from the City of Omaha's Master Plan, Urban Development Policy:

*In the period since World War II, the country has experienced unprecedented rates of both economic and physical growth. Omaha has experienced its share of this growth. For the most part, Omaha's past growth has been positive and healthy for both the city as a whole and its residents. It has resulted in increased employment, educational, cultural, recreational, business, and industrial opportunities for everyone in the metropolitan area.*

*In addition, most of the new residential development built during this period has been in the form of high quality, reasonably priced, fully improved neighborhoods with a full complement of paved streets, city sewers, parks and utilities. However, past growth has presented the city with potential problems. Our expansion in the last 30 years has resulted in a doubling of the city's size and consequent doubling of its service area.*

*In the natural course of suburban development, many parts of the inner-city have been partially or wholly abandoned and ignored, while scattered tracts of land inside of our developing fringe have been left vacant and unproductive. This situation not only results in the unnecessary waste of valuable natural resources, but also in a costly and inefficient urban services system.*

*These conditions have brought Omaha to a benchmark in its development cycle. In order to continue to provide the high quality of public services the people of Omaha have come to expect and to ensure that our future new development will sustain the high standards of the past, the City must begin to explore areas in which cost efficiencies may be achieved.<sup>2</sup>*

There is no existing system to preserve, abandon or ignore in southern Sarpy County, with the exception of the sewer system at Springfield. This citation from the City of Omaha Urban Development Policy is presented as an example of how Omaha grew over time. The Omaha policy demonstrates how there became a significant need to manage the growth in order to avoid the unnecessary waste of valuable natural resources and the cost of an inefficient urban services system.

Likewise, the SWG has considered the possibility of using development zones to control and manage growth in their particular jurisdictions. And since the southern half of Sarpy County is made up of three different drainage basins, utilizing the idea of development zones should be applied (if necessary) by the local municipal authority.

As previously stated, development will occur as a function of market-driven forces. If a development is proposed, then the cost of the development will include necessary water supplies, interceptor sewers and treatment. If the development is located beyond what is economically reasonable, then the development should not, and likely will not, proceed.

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<sup>2</sup> Omaha Master Plan. Urban Development Policy. Omaha Planning Department, Report No. 277, October 1997

If, on the other hand, the development is located in close proximity to an interim treatment site, such that the length of interceptor sewer is economically reasonable, then the development is likely to and may proceed. In either case, market forces dictate to the developer the cost of the project and the decision-makers are not required to provide any additional direction.

Consequently, the concept of development zones before a system is established has been determined to be unnecessary. Rather, local control with a coordinated effort to follow the Sewer Master Plan is recommended. Once treatment is in place, local jurisdictions will have the ability to set development zones, as necessary.

### **E. Timing of Growth**

Sarpy County is Nebraska's third largest county by population, but has experienced the fastest growth rate of any county in the state during the past ten years. This growth has turned this once agricultural county into a growing portion of the Omaha metropolitan area<sup>3</sup>

Indeed, Sarpy County has grown at a rate of 16.3% from 2000 to 2006, which is approximately five times faster than the State average. The rapid growth in Sarpy County is largely attributable to the phenomenal growth in Gretna (154%) and Papillion (30%) over the same six year period.

This growth generally means that the Omaha metropolitan area is expanding as the number of existing agricultural acres declines as can be seen in the photo to the right.



In Gretna, for example, the population growth rate over the past six years has been consistently increasing. And there was a record number (275) of new, single-family housing starts in 2003. Since then, the number of new housing starts has declined and fluctuated. With falling or declining rates, it is

important to stay focused on trends and the need to have the infrastructure plan in place to accommodate whatever the future brings.

<sup>3</sup> The Sarpy County Plan, A Comprehensive Development Plan for Sarpy County, Nebraska, December, 2005

The Gretna population and number of housing starts are shown in the following graphs.

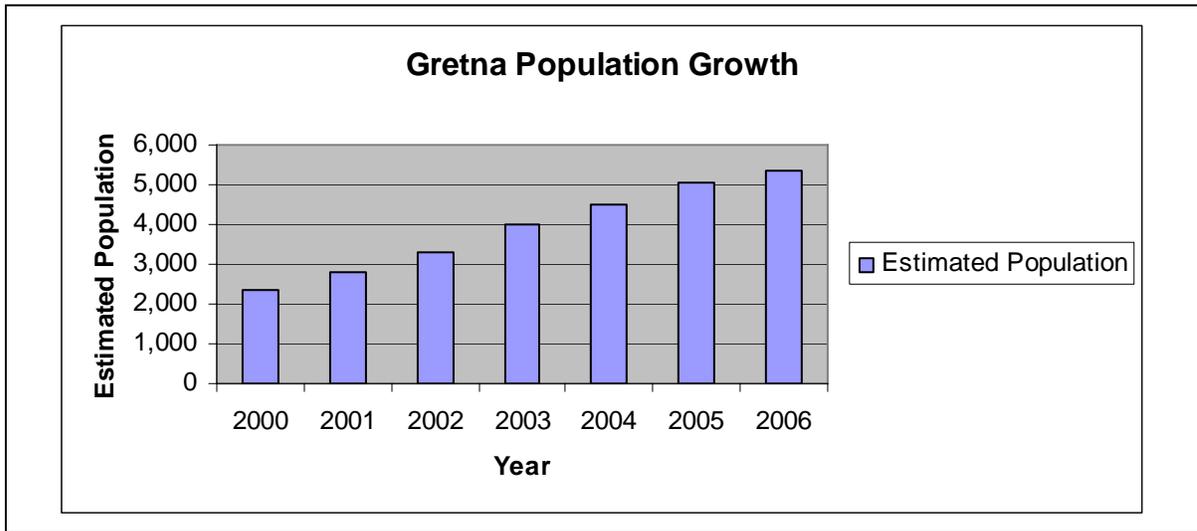


Figure 5: City of Gretna Population Growth



Figure 6: City of Gretna Housing Starts

In Papillion, the population has steadily increased and the number of new, single-family residential housing starts peaked in 2004 at 433. The number of housing starts has also declined in Papillion with 417 recorded in 2005 and 365 in 2006. Assuming an annual population growth rate of 3.8%, it will take approximately 20 years for Papillion's population to reach 50,000. If the rate of growth is 5.3%, the population could approach 70,000 in 20 years.

Because the rate of growth is dependent on many factors, it is difficult to predict the timing of growth not only in the Papillion Creek watershed, but also the Platte River watershed.

It is not necessary to precisely know the rate the growth, but to understand that, over the long-term course of time, there will be a demand for new housing and the associated infrastructure (including roads, a public water supply, and the sanitary sewer system) that supports it.

Despite the difficulty in making predictions about the timing of growth, several generalizations can be made. First, there are a large, but limited, number of developable acres in both the Papillion Creek and Platte River watersheds.

The following graphic shows the various municipal extraterritorial jurisdictions (ETJs) and county ETJ in Sarpy County. The graphic uses alpha characters to break the mass into easily identifiable sectors.

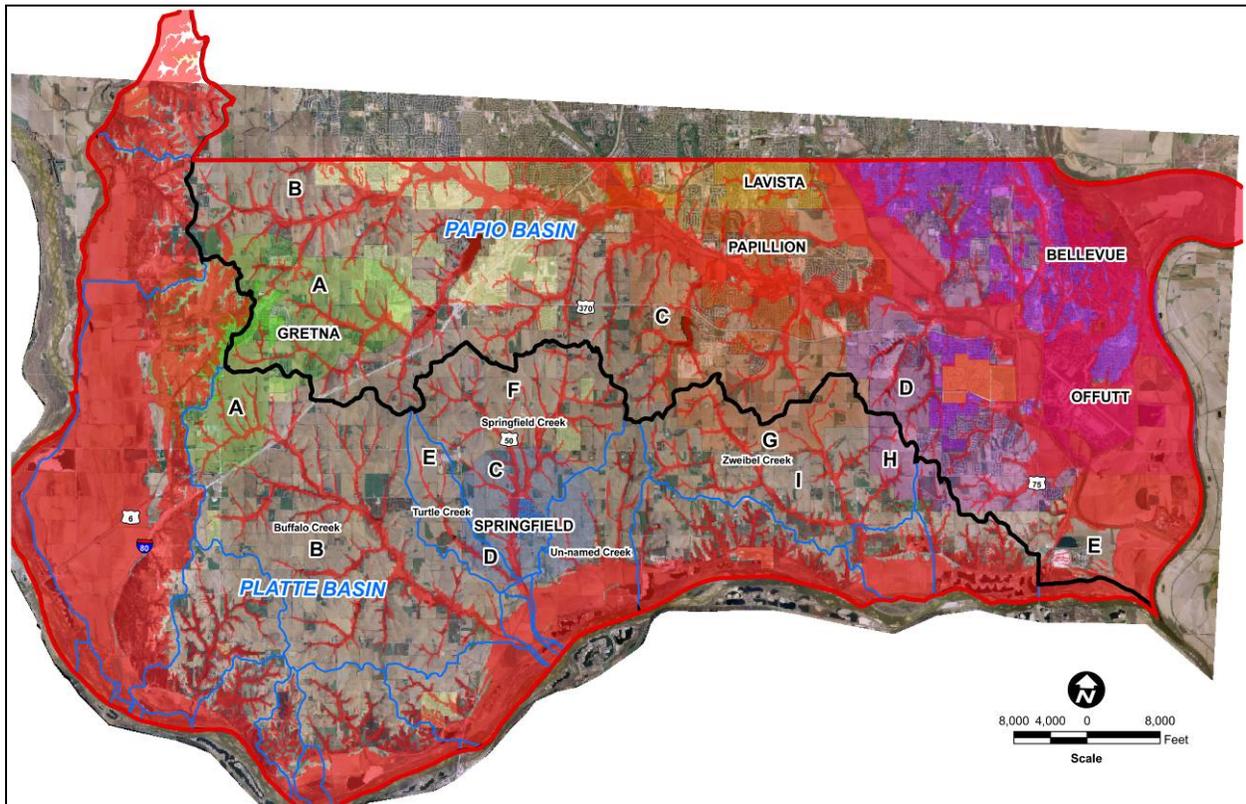


Figure 7: Developable Geographic Areas

Figure 7 shows all of Sarpy County divided into the Papio Basin and the Platte Basin. The figure also shows the ridge line the separates each of the two major watersheds and the drainage basin located in the Platte Basin.

The areas not suitable for urban density development has been determined (as part of the Phase I study) using McHargian analysis and are also shown in Figure 7. The figure is a graphical representation of the land area that is currently available in the county and the relationship with municipal extraterritorial jurisdictions.

There are approximately 34,379 acres of land in the three basins that drain to the Platte River. This area does not include the “un-named” creek located between Springfield Creek and Zweibel Creek. With a decision to pump all sanitary sewage in the southern half of the county to the regional treatment plant (located south of Springfield), this un-named creek could support urban density populations. However, for this study, it is assumed that the “un-named” creek is not included as part of the urban area, in accordance with the Comprehensive Plan.

There are an estimated 5,453 environmentally sensitive acres in the southern half of the county. By subtracting the environmentally sensitive acres from the total, the remaining 28,926 acres is referred to as “suitable for development” at urban densities. The map depicts a large area in the Platte Basin that is suitable for development. The precise number of acres available in each municipal jurisdiction and the county jurisdiction is shown in Table 1.

At this time, there are approximately 6,902 acres of land available for development in the municipal jurisdictions. This represents approximately 25 percent of the total number of developable acres in southern Sarpy County. There are approximately 22,024 developable acres in the County’s jurisdiction. This represents approximately 75 percent of the total number of developable acres in southern Sarpy County.

**...it is estimated to take twenty years for the Papillion Creek watershed to become 90 percent full.**

It is expected that most (if not all) of the growth will occur on the Papillion Creek side of the ridge until such time as there is an adequate public water supply and sanitary sewerage system. There are an estimated 23,000 acres of land available for development in the Papillion Creek drainage basin.

Assuming a density of 2.8 dwelling units (du) per developable acre (equivalent to urban residential density of 4 du/gross acre) and a family size of 2.6 persons per dwelling unit, it is estimated to take twenty (20) years for the Papillion Creek watershed to become 90 percent full.



While twenty years is a best guess estimate, it is also a typical planning window and should not be considered an inordinately long period of time. This is only one estimate and, as such, is subject to many variables (e.g., economic cycle, unemployment rates, interest rates, etc.). The estimate could easily be short or it could be long. Many variables will affect this estimate, but one thing is for certain: ***growth is going to happen.***

		<b>Total Area Sq. Miles</b>	<b>Total Area (Acres)</b>	
<b>Description</b>				
<b>Northern Half of Sarpy County</b>		<b>74</b>	<b>47,542</b>	
<b>Southern Half of Sarpy County</b>		<b>54</b>	<b>34,379</b>	
<b>Total Area Sarpy County</b>		<b>128</b>	<b>81,921</b>	
<b>PAPIO BASIN</b>				
<b>AREA</b>	<b>Description</b>	<b>Total Area (Acres)</b>	<b>McHargian Area (Acres)</b>	<b>Developable Area (Acres)</b>
A	Gretna ETJ	4,842	812	4,030
B	County between Gretna ETJ and Papillion ETJ	12,679	2,722	9,957
C	Papillion ETJ	9,144	3,137	6,007
D	Bellevue ETJ	16,208	9,998	6,210
E	County south of Bellevue ETJ	4,669	3,369	1,300
<b>TOTALS</b>		<b>47,542</b>	<b>20,038</b>	<b>27,504</b>
<b>PLATTE BASIN</b>				
<b>AREA</b>	<b>Description</b>	<b>Total Area (Acres)</b>	<b>McHargian Area (Acres)</b>	<b>Developable Area (Acres)</b>
A	Gretna ETJ in Buffalo Creek	2,034	271	1,763
B	Sarpy County in Buffalo Creek	14,310	2,319	11,991
C	Springfield ETJ in Springfield Creek	2,416	517	1,899
D	Springfield ETJ in Turtle Creek	470	102	368
E	Sarpy County in Turtle Creek	1,506	153	1,353
F	Sarpy County in Springfield Creek	5,212	768	4,444
G	Papillion ETJ in Zweibel Creek	2,424	310	2,114
H	Bellevue ETJ in Zweibel Creek	837	79	758
I	Sarpy County in Zweibel Creek	5,170	934	4,236
<b>TOTALS</b>		<b>34,379</b>	<b>5,453</b>	<b>28,926</b>
<b>DEVELOPABLE ACRES BY BASIN</b>				
<b>BASIN</b>	<b>Developable Acres</b>			
Buffalo Creek	13,754			
Springfield Creek	8,064			
Zweibel Creek	7,108			
<b>TOTALS</b>	<b>28,926</b>			

Table 1: Developable Acres Summary

## **F. Recommendations**

There are several preliminary conclusions and recommendations that may be made from the overview of this Phase II study. The basic conclusions are that residential growth pressures in the currently undeveloped southern half of Sarpy County will increase over time. The future growth will be dependent upon a public water supply and sewerage system.

Study findings suggest that the jurisdictional authorities adopt a Sewer Master Plan, yet maintain local control for how and when development occurs. The final significant finding from this sewer planning process is that the transportation element be integrated into the growth plan by completing a study of the major growth corridors. Beyond these basic conclusions and recommendations, this study report will present findings and recommendations to manage and fund a future sewerage system.

### **1. Acceptance of the Sewer Master Plan**

Despite the fact that there is currently no sanitary sewer system in southern Sarpy County (except at Springfield), it is recommended that the jurisdictional authorities plan now for the responsibility of managing a future sanitary sewer system.

The first step in this process is for those jurisdictional authorities to clearly understand the technical issues. Then, those authorities must have a firm grasp of the administrative, financial and economic picture. Once there is a clear technical and administrative understanding, it would be recommended that each jurisdictional authority in Sarpy County adopt the Sewer Master Plan and to make it a policy to take the management responsibility for a publicly-owned and operated treatment works (POTW) system.

### **2. Coordinated Local Control**

A key discovery made during this phase of the study is that there is no current need to implement the concept of formal development zones. While it is important that growth be coordinated between cities and the county, it is also imperative that control of development be maintained at the local level. Each community ought to be able to allow growth to occur in accordance with existing planning and zoning regulations.

Therefore, local control with a coordinated effort to follow the Sewer Master Plan is recommended in lieu of adopting specific Development Zones.

### **3. Study Transportation Systems**

During the course of this Phase II study, development projects were explored in the vicinity of Interstate 80 and Highway 31 (south of Gretna) and the intersection of 84<sup>th</sup> and Platteview Road (south of Papillion). The future of both of these corridors is uncertain, but as part of this analysis, it has been discovered that understanding traffic flow is essential to the development of a site specific sewer plan.

Therefore, it is recommended that separate transportation studies be completed. The studies could be completed by city or county staff at a specific location or completed by contract, if the scope is to understand traffic patterns on a more regional level.

## **II. Management Alternatives**

The stakeholder work group (SWG) has worked to find ways to provide sanitary sewer service for the future residential population of the Platte River basin in southern Sarpy County. Before a sanitary sewer system can be constructed, decisions must be made about when to build, how much to build, who will own the system and who will operate (i.e., MANAGE) the sanitary sewer system.

Currently, there is no MANAGEMENT STRUCTURE in place to design, build, own and operate sanitary sewer systems for residential purposes in southern Sarpy County. There are three management alternatives considered as part of this study. Those include:

- 1) Super SID
- 2) Dominant Public Agency
- 3) Sarpy County Sewer Authority

There is also always a “Do Nothing” alternative. But doing nothing implies the status quo, which leaves every development to provide a community sewerage system for itself. The status quo will lead to the construction of multiple “development-sized” community treatments systems, which is an inefficient use of resources and may lead to undesirable environmental issues.

### **A. Super SID**

This management alternative requires the agreement of two or more SIDs. As part of this alternative, SIDs would cooperatively design, build, own and operate sanitary sewer infrastructure. The Super SID is authorized under the Interlocal Cooperation Act, but the County would have the authority to approve or not approve the permit for SID construction.

No new jurisdictional authority is necessary, and neither the County nor other municipal government would be required to use their taxing authority. Finding a mix of developers willing to invest in the infrastructure may make this alternative difficult and bonding capacity would be limited due to the lack of collateral and the size of the project, which would be the immediate needs rather than the regional perspective.

### **B. Dominant Public Agency**

This management alternative may be formed by Interlocal Cooperative Agreement between two or more public agencies (i.e., County and Municipal government). Each agency performs to the full extent of their authorized power. No new jurisdictional authority is necessary.

The Dominant Public Agency alternative could be relatively simple to create and would provide local control, but the success of this alternative would depend on the spirit of cooperation between parties. The word “dominant” implies that the “agency” formed by interlocal agreement would be the ultimate (i.e., dominant) authority on public sanitation in the region.

Each agency that is party to the interlocal agreement must agree to financing terms (debt and fee structure), and specific risk sharing considerations, such as roles and responsibilities (ownership and operation). Growth is managed by adoption of a plan whereby policies guide where, how much, and when growth and development occur.

An example of the Dominant Public Agency would be the Mile High Compact. Although much broader in scope, the Mile High Compact is a voluntary agreement among Denver metro area cities and counties to manage growth throughout the region by adhering to the principles outlined in Metro Vision. The landmark agreement, unique in the nation, was achieved through a joint effort of the Metro Mayors Caucus and DRCOG in 2000. Metro Vision, the Denver region's long-range growth plan, identifies where transportation investments will be made, where growth is expected to occur and how the region will attain water and air quality standards over the next 20 years.

### **C. Sarpy County Sewer Authority**

This management alternative is designed to provide a centralized sanitary sewer construction authority throughout Sarpy County and would require legislative authority to create. Sarpy County has attempted (during the 2006 Legislative Session) to obtain authority to own and operate sanitary sewers for residential purposes. Currently, however, Sarpy County does not have the Legislative authority to own and operate sanitary sewers for residential purposes.

A County-owned and operated sewer authority would be responsible for financing sanitary sewer collection system and treatment system construction and could apply an acceptable fee structure through water rates and billing practices to recover capital and operating costs (e.g., Johnson County Wastewater – Olathe, Kansas).

Costs could also be distributed across the entire County population to improve financial feasibility. This alternative has the potential to offer superior administrative function because of the unilateral system, which may simply be an expansion of the County's current authority, but may be unpopular with local jurisdictions because of loss of control.

### **D. Alternatives Analysis**

Each of the three management alternatives was analyzed based on three major criteria including:

- management driver,
- legal authority, and
- growth management style.

Management driver simply defines the party or entity responsible for the administrative and operational decision-making for a sanitary sewerage system on a day-to-day basis. The range of acceptable management driver options includes: SIDs, city/county partnerships or the County as an independent authority.

Legal authority is defined as those powers granted by the Nebraska legislature or those powers provided in accordance with the Interlocal Cooperation Act.

Growth management style describes the process by which growth is controlled.

The description of each alternative and a summary definition of the evaluation criteria are shown in Table 2.



EVALUATION CRITERIA	MANAGEMENT ALTERNATIVE		
	SUPER SID	DOMINANT PUBLIC AGENCY	SARPY CO. SEWER DISTRICT
MANAGEMENT DRIVER	Two or more developers (residential, commercial, industrial)	Municipalities	Sarpy County
LEGAL AUTHORITY	The Super SID has the same powers as the individual SIDs	Interlocal agreement with each agency performing to the full extent of their authorized power	State legislation required
GROWTH MANAGEMENT	Sarpy County has the legal authority to approve or disapprove an SID created within the County	Plan adoption with policies to guide where, how much, and when development occurs	Development to occur only in areas with county-supplied sewer service

Table 2: Management Alternative Summary

There are varying advantages and disadvantages associated with each Management Alternative. The analysis of the Management Alternatives can be quite subjective and complex; however, several generalizations may be made from a simple review of Table 2.

The first generalization is that 2 of the 3 alternatives require an Interlocal Agreement. The only alternative not requiring an agreement is the Sarpy County alternative, which is perceived to be an advantage. The second generalization is that 2 of the 3 alternatives currently have legal authority to manage sanitary sewerage systems (for residential purposes). Only the Sarpy County alternative does not, which is a disadvantage for the Sarpy County Sewer District option. The third generalization is that 2 of the 3 alternatives have growth management styles that may be characterized as having an unbalanced **division of power**. This implies that Sarpy County can control growth under the Super SID and the Sarpy County Sewer District Alternative. Only under the Dominant Public Agency alternative is there a more balanced decision-making structure which would suggest a more balanced division of power.

Clearly, SIDs (by virtue of the fact that they are political subdivisions) have the right and authority to develop sewerage systems, but generally on a limited scale. SIDs generally are not focused on the regionalization of sewerage systems. In addition, SIDs will be faced with constructing system infrastructure that will satisfy ultimate build-out, which places a significant financial burden on them. Sarpy County would likely apportion the cost to design, construct and operate a sanitary sewerage system to the SID group. The precedence for apportioning cost has been established by Sarpy County in 2003 as part of the Road Improvement Policy. A copy of this policy is shown in Appendix E. The SUPER SID has many disadvantages in the context of a REGIONAL wastewater system.

The Sarpy County Sewer District alternative appears to provide many advantages including centralized administration, staffing efficiencies, uniform design standards, and the ability to lead from a REGIONAL perspective. However, Sarpy County does not have legislative authority to manage sewerage systems for residential purposes and would require an agreement with municipal jurisdiction. Therefore, the Sarpy County Sewer District is not recommended at this time. The advantages and disadvantages of each alternative are summarized in Table 3.

<b>ALTERNATIVE</b>	<b>SUPER SID</b>	<b>DOMINANT PUBLIC AGENCY</b>	<b>SARPY Co. SEWER DISTRICT</b>
<b>ADVANTAGES</b>	Has legal authority to manage sewerage systems	Simple  Local Control  No new jurisdictional authority  Limited Risk Sharing  Costs are predictable  No formal Contracts	Centralized administration  Uniform design standards  Improved bonding capacity and bond ratings  Better enforcements capabilities  Potentially more staff and support resources.
<b>DISADVANTAGES</b>	Requires agreement with other SIDs  Remains subject to Sarpy County for approval.  Financing of systems become the responsibility of the SID group.  Financing is subject to approval and fiscal rules set by bonding companies.	Limited Financing Powers  Politically influenced  No new jurisdictional authority required.  Potentially difficult to achieve agreement.  May have limited assurance of service availability.  Risk sharing could be problematic on large or complex technical issues.	Currently lacks legislative authority for residential construction.  Requires cooperative interlocal agreements for all projects with overlapping ETJs  Uniform development zones and connection fee structure must be universally adopted.

Table 3: Management Alternative Advantages and Disadvantages

The management option recommended is the **Dominant Public Agency**, which provides a reasonable balance of power and will require that balance to be established by INTERLOCAL AGREEMENT between cities and the county. A letter from the Chairman of the Sarpy County Board of Commissioners was sent to each of the Mayors potentially impacted by this recommendation. A copy of the letter is provided in Appendix F. Overall, the concept of Interlocal Agreements was well received by the City Councils. A legal interpretation of how the Interlocal Agreements might work is described in the following section.

## **E. Interlocal Cooperation Master Agreement**

The Sarpy County attorney's office has prepared a draft MASTER INTERLOCAL COOPERATION AGREEMENT (i.e., Master Agreement). This Master Agreement is the initial agreement necessary to establish a basic working relationship between the County and a municipal government or other acceptable political subdivision. The "Master" Interlocal Cooperation Agreement requires the parties to the agreement to recognize an established sewer service area (SSA), agree to adopt the Sewer Plan for the SSA, adopt a sewer development charge, account for fees collected in a segregated fund. The parties further agree that any sewer fees collected or sewer system constructed shall, after an otherwise lawful annexation, be subject to City control.

The Master Agreement states simply that one political subdivision will agree to work in good faith with another political subdivision. Theoretically, Sarpy County and other Platte Basin municipalities must agree upon the growth in their respective jurisdictions, and to collect a uniform connection and user fees throughout the region. The draft Master Agreement is shown in Appendix G.

More detailed and specific agreements will be necessary subject to the size and location of a particular project. The details of the specific agreements will be necessary to lawfully outline the roles and responsibilities of each party to the publicly-owned and operated sewer system agreement. The details of specific agreements are outlined in the following section.

## **F. Disclosures, Audits and Legal Review**

In Nebraska, counties only have those powers expressly conferred by statute, and those powers necessary to carry out the duties imposed upon them by law. *Sperr v. Kratzenstein*, 143 Neb. 310, 12 N.W.2d 360(1943). The Nebraska Legislature granted counties the power to build and maintain sanitary sewers by the adoption of the *County Industrial Sewer Act* as found at Neb. Rev. Stat Sec. 23-3601 to 23-3637. That grant of power is limited to serve the "future needs of planned commercial or industrial users."

The county may also allow residential use of a sewer built or operated under the act, but only after going through a process that allows the appropriate city to approve the residential connection, as described in Neb. Rev. Stat. Sec. 23-3629 to 3635. The county may not build a sanitary sewer within the corporate limits of a city (Neb. Rev. Stat. Sec. 23-3604(2)).

Once the county proposes a project, the appropriate cities are assigned future growth and development areas within the project (Neb. Rev. Stat. Sec. 23-3607 to 2612). The proposed project may be rejected by a supermajority vote of the appropriate city (Neb. Rev. Stat. Sec. 23-3614). The funding mechanisms for sewer construction and operation include a property tax of up to 3.5 mills (23-3616), revenue bonds (23-3618), connection and usage fees (23-3618) and general obligation bonds (23-3620.). Cities of the first and second class have provisions that allow for the construction of sewer systems, the collection of taxes or the issuance of bonds, and the condemnation of property for those systems.

The Interlocal Cooperation Act (Act), found at Neb. Rev. Stat. Sec. 13-801 to 13-827, allows public agencies in Nebraska to act jointly. Under the Act, the public agencies may agree to collaborate in a particular manner or form a new separate entity for a specific purpose.

If a new entity is formed, that entity is restricted to only those acts which each of the participating agencies could perform. If no new entity is formed, each agency could perform to the full extent of their authorized power (opinion of the Nebraska Attorney General, No. 97011).

Clearly, Sarpy County may build a sanitary sewer for commercial or industrial users. This would include providing for sewers in areas designated for future industrial or commercial use. Residential uses may be allowed, but the initial construction must be for an anticipated non-residential user, with city approval of a residential connection. Cities of the first and second class may also build sewers, but are not restricted to just industrial and commercial uses. There seems to be no restriction on a city’s ability to build a sewer system outside of its corporate limits.

If an agreement is entered into pursuant to the Interlocal Cooperation Act, and no new entity is formed, a careful ***division of duties*** among the parties would make possible many scenarios for the providing sewer service. A broad range of duties or responsibilities associated with designing, building and operating a sanitary sewerage system for commercial and residential use is listed in Table 4. Agreements must identify or address which agency:

Controls growth/approves developments
Collects connection fees
Collects user fees
Holds permits
Is responsible for construction
Manages, operates and owns treatment facilities and sewer system
Provides upfront financing
Pays for over-sizing and facility expansion
Identifies and secures treatment location
Establishes design guidelines
Defines the level of regulations or minimum standards
Defines development type/lot size
Develops cross jurisdictional agreement on standards

Table 4: Basic Range of Duties for Dominant Public Agency



As a hypothetical situation, assume that a residential development is proposed in the Springfield Creek basin that is located in the County’s zoning jurisdiction. There is no current sanitary sewer outfall servicing that area. The County could not construct a sewer to serve the residential development. But, the City of Springfield could.

By entering into an Interlocal Agreement that uses the city’s ability to construct sewers for residential use and by identifying potential future commercial areas to be served by the sewer, the sewer may be legally constructed.

## **G. Build-Through Acreage (BTA) Development Policy**

The Sarpy County Planning Department in conjunction with the Planning & Zoning Commission has drafted and approved the following BTA Overlay District Development Policy.

The purpose of this section is to provide a mechanism that permits short-term acreage development in portions of the Sarpy County planning jurisdiction that will receive urban services within a relatively long-term future.

It is intended to allow property owners the opportunity to realize a reasonable return on their property and to accommodate a continuing demand for acreage development in Sarpy County, without obstructing future urban development. It also provides for the eventual transition of the previously developed acreage subdivision to higher densities when the extension of urban services occurs.

The BTA District is intended to be a zoning overlay district, and will generally be used in combination with the AGR Agricultural Residential, RE2 Residential Estates II, or RE1 Residential Estates I zoning districts.

### **Application**

All property designated as BT per the Sarpy County Comprehensive Development Plan Residential Development Decision Matrix shall be required to develop under this overlay district. The Build-Through Acreage development plan should incorporate easements for **trails and transportation** into the plan.

### **Development as Build-Through Acreages**

All new subdivisions developed under this chapter shall be developed as BTA Build-Through Acreages, in accordance with the provisions and requirements of this Section and the Subdivision Regulations.

### **Permitted Uses**

Uses permitted in a BTA Overlay District are those permitted in the underlying zoning district.

### **Acreage Development**

A BTA Development must be a minimum of 40 acres to qualify.

Landowners developing a BTA Development shall set aside sixty percent (60%) of the property for future urban development.

The 60 percent set aside shall have a deed restriction disallowing any further subdivision of the parcel until community water and sewer is provided to the property. While community water and sewers are acceptable for the build-through purposes, they are not acceptable for the long-term urban density application.

Additionally, new construction of any structure on the set aside is prohibited until community water and sewer is provided to the property. However, additions may be allowed onto existing structures within the set aside provided any addition meets the zoning regulation and building code requirements.

The 40 percent to be developed into acreages shall be allowed the density permitted in Matrix Table 4.11 of the Sarpy County Comprehensive Development Plan. The residential development decision matrix (Table 4.11) from the Comprehensive Plan is shown in Appendix H.

A subdivision within the Build-Through designation shall provide future sanitary sewer trunk line easements and construction easements for the sewer as designated using the most recent final report of the Study Report on Water Quality Related to Water and Wastewater Systems. An example application of the Build-Through policy is show graphically in Figure 8.

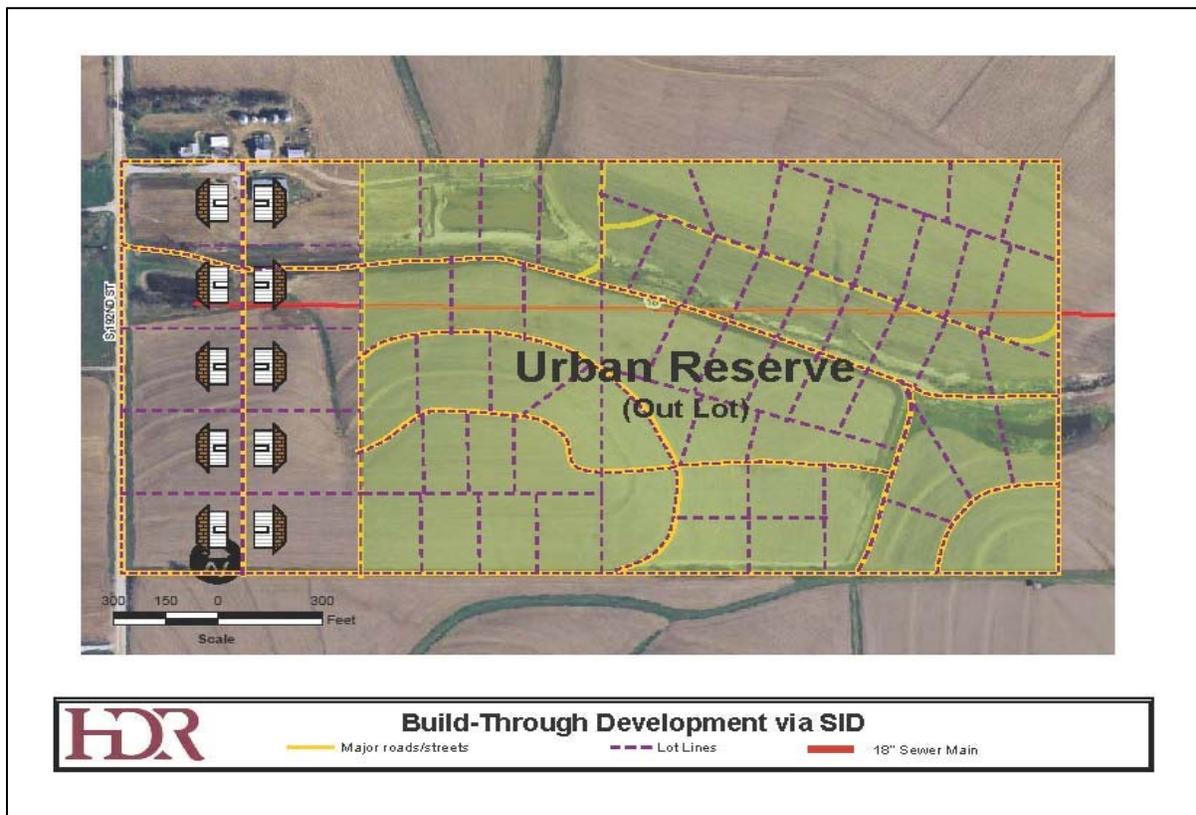


Figure 8: Build-Through Development Example

If the study does not indicate any trunk line easements, the engineers for the project shall determine the future locations of any sanitary sewer trunk lines or outfall sewers and provide easements along with the necessary construction easements for them.

### Forms and Elements of the Development Plan Within the BTA Overlay

All new residential developments in the BTA Overlay District must be approved as a legally binding development plan. All applications for preliminary and final plats shall also follow the requirements and procedures set forth by the Sarpy County Subdivision Regulations.

## H. Management Recommendation

The creation of a Management Authority responsible for the design, construction and day-to-day operations of a public sanitary collection and treatment system will be a complicated, but necessary, endeavor. Based on a review of alternatives that included Super SIDs and a Sarpy County Sewer District, the finding of the Stakeholder Work Group is to form a Dominant Public Agency through Interlocal Agreements. It is important to note that the success of forming Interlocal Agreements and moving forward with a Sewer Master Plan is dependent upon the political will and efforts to be made by the various city councils and the Sarpy County Board.

### 1. Roles and Responsibilities

A broad range of responsibilities for the Dominant Public Agency must be determined as part of the Interlocal Agreement and presented in Table 4. However, as the Dominant Public Agency is created, specific operational roles and responsibilities must be addressed. The role and responsibilities for each of the parties to the agreement will be widely varying, but some of the basic *operational* roles to be determined through interlocal agreement (in addition to those shown in Table 4) are listed in Table 5.

Monitor and enforce design guidelines and minimum standards.
Maintain accounting principles to ensure future funding of regional WWTP.
Maintain and submit operating permits.
Plan to execute plant expansion, as necessary and appropriate for demand.
Perform periodic rate analysis to ensure adequate funds are collected.

Table 5: Operational Responsibilities for the Dominant Public Agency

This list is a recommendation only. The determination of specific roles and responsibilities is well beyond the scope of this project, but the magnitude of the responsibility should be realized by all of the public stakeholders. The precise definition of partner roles and responsibilities will take tremendous leadership, energy and good faith negotiation.

### 2. Approval of Management Plan

A central theme to this study is cooperation between the county and the cities in Sarpy County. It is understood that the cities have specific agendas to expand their respective tax bases in order to improve the ability to deliver services to their communities. However, for the county to prosper in an organized fashion, it is imperative that common ground be established. Common to all public stakeholders is the adoption of a MANAGEMENT PLAN.

It is recommended that each Board and Council approve the idea of working together (by Interlocal Agreement) to cooperatively construct a publicly-owned and operated sanitary sewerage system.

The interlocal agreement may be shown graphically as in Figure 9. As depicted in Figure 9, the interlocal agreements between cities and the county satisfy the interim solution. The future solution crosses all of the basin boundaries and integrates the entire sewerage system under one umbrella. For now, this will be referred to as a COMPACT, and must be developed after the formation of the other municipal agreements.

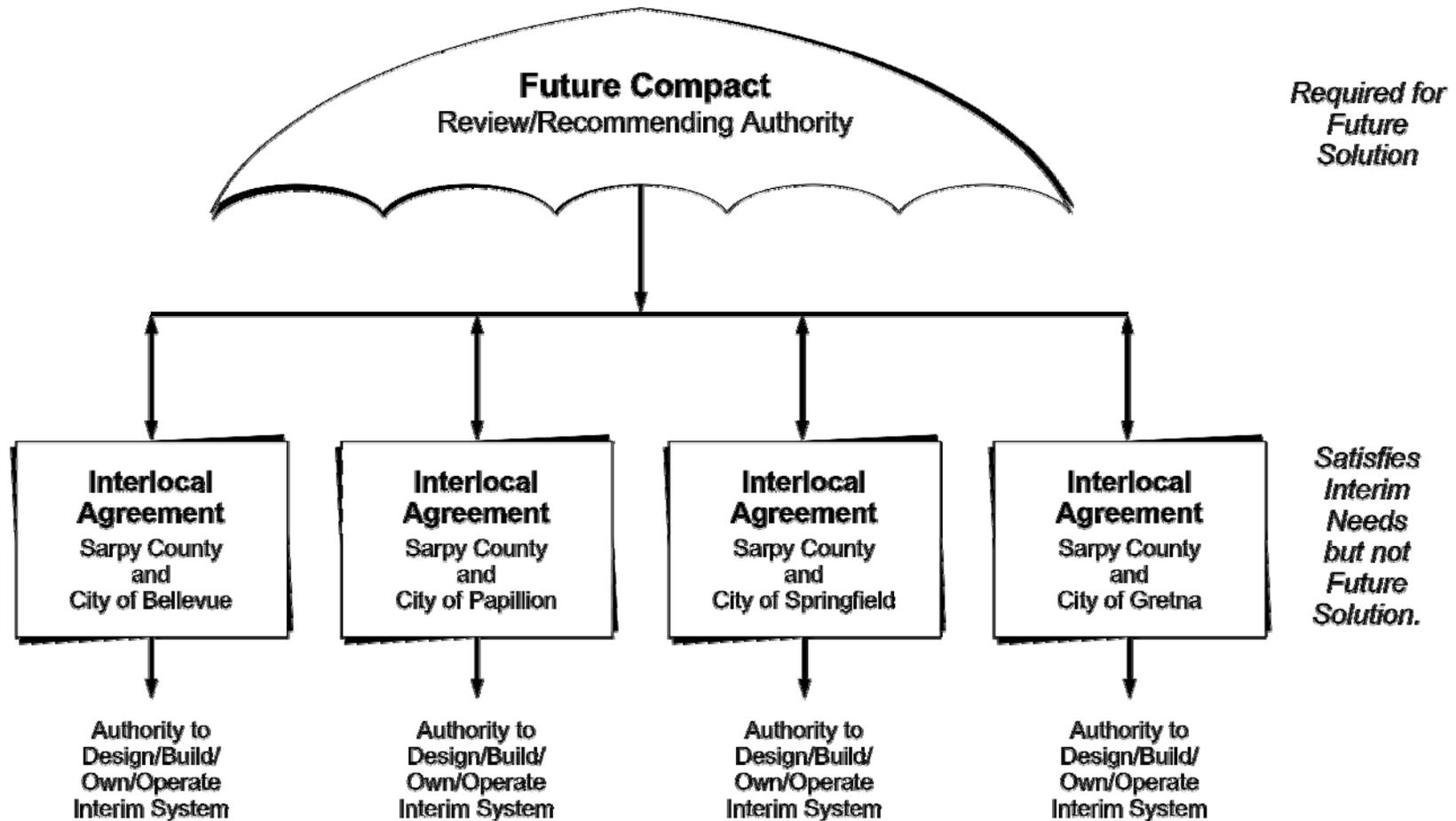


Figure 9: Graphic of Recommended Management Structure

### **III. Financial Plan**

In addition to the Sewer Master Plan, a detailed financial plan will be developed to guide the funding for the sewer projects. The financial plan will provide benefits to governments, developers, and residents through:

- Establishment of financial policies. Financial policies (i.e., cost estimates) support sound management, fiscal stability, and equitable pricing.
- Analysis of capital funding scenarios. Capital funding scenarios target completion of near-term projects and provide a planned approach to addressing long-term system investments. Having a strategy for capital needs helps to avoid shock to future taxes and rates and allows the utility to plan more effectively for future project financing.
- Determination of current revenue needs. This will ensure that rates and fees can fully recover today's costs of service and projection of longer-term revenue requirements. A revenue assessment will also enable measured rate strategies, which phase-in any higher levels of funding needed.

The finance plan can, therefore, be broken into the following three basic steps:

STEP 1 - Analysis of desired financial policies,

STEP 2 – Funding scenario analysis,

STEP 3 – Setting of fees.

#### **STEP 1 – Financial Policy**

This step sets the basic limits on capital funding requirements as determined by completion of a capital cost estimate. Each project should include a separate, detailed cost estimate. But, for purposes of discussion, the total estimated cost of sewers and treatment (broken only into interim and ultimate systems) is presented.

##### **A. Updated Capital Cost Estimate**

According to the Sarpy County sanitary sewer study completed in April 2006, the total capital cost to construct all of the interceptor sewers and intermediate and final treatment plants was estimated to be approximately \$144,000,000 (in 2006 dollars).

This includes a plan to construct a pump station and force main from the Zweibel Creek basin to the City of Omaha's Papillion Creek Wastewater Treatment Plant (PCWWTP). The cost estimate only included capital to construct and did not include the long-term operation and maintenance cost or the fees for treatment required by the City of Omaha.

After review of this preliminary plan to utilize the Papillion Creek wastewater treatment plant, it was felt that another plan might be more feasible. The logistics of physically getting into the PCWWTP was daunting. And the cost of treatment at the PCWWTP makes consideration of another alternative desirable.

Therefore, it is recommended that the Zweibel Creek wastewater be pumped to the REGIONAL WWTP proposed to be constructed at the confluence of the Buffalo Creek and Springfield Creek. There is still a capital expense for a force main and pump station, and an additional cost for expansion of the REGIONAL WWTP.

The total additional capital requirement to pump and treat Zweibel Creek wastewater at the new Regional WWTP is approximately \$36,000,000. Execution of this plan would make the new total sanitary sewerage cost \$180,800,000, assuming 2006 dollars.

The updated capital cost estimate is provided in Appendix I. While there is considerable cost for the added treatment capacity at the new regional WWTP, this plan is feasible because it involves new infrastructure. The additional capacity requirements could be accommodated to allow for future expansion requirements.

There must also be consideration for timing of development. As indicated earlier in this report, the build-out of the Papillion Creek basin may take 20 years.

In light of this, it is important to note that the construction of the ultimate (i.e., full build-out) system will be many years away. However, in order to pay for the full build-out system, it is recommended that a sewer fee (i.e., impact fee) be collected and invested for future use.

Recognizing that the cost of future construction will be much higher than today, the funds collected should be appropriated and earmarked for use only to meet specific sewerage needs.

Cash Flow Statement Company XYZ FY Ended 31 Dec 2003	
all figures in USD	
<b>Cash Flow From Operations</b>	
Net Earnings	2,000,000
<i>Additions to Cash</i>	
Depreciation	10,000
Decrease in Accounts Receivable	15,000
Increase in Accounts Payable	15,000
Increase in Taxes Payable	2,000
<i>Subtractions From Cash</i>	
Increase in Inventory	(30,000)
<b>Net Cash from Operations</b>	<b>2,012,000</b>
<b>Cash Flow From Investing</b>	
Equipment	(500,000)
<b>Cash Flow From Financing</b>	
Notes Payable	10,000
<b>Cash Flow for FY Ended 31 Dec 2003</b>	<b>1,522,000</b>

It is estimated that the total cost to construct sewer infrastructure could easily exceed \$200,000,000 by the turn of the decade.

The total breakdown of estimated costs to construct the intermediate interceptor sewers, intermediate treatment systems, the interceptor sewers beyond the intermediate treatment and the future regional treatment plant are shown in Table 6, on the following page.

Basin	Interceptor to Int Tmt	Intermed. Tmt. (IT)	Interceptor beyond IT	Regional Treatment	Total Estimated Cost of Sewer System <sup>(3)</sup>	Estimated Gross Developable Acres <sup>(4,5)</sup>
Buffalo Creek	\$4,620,000	\$4,020,000	\$14,600,000	\$37,670,000	\$60,900,000	13,754
Springfield Creek	\$5,400,000	\$4,640,000	\$7,700,000	\$34,220,000	\$52,000,000	8,064
Zweibel Creek <sup>(6)</sup>	\$8,640,000	\$8,040,000	\$5,050,000	\$46,150,000	\$67,900,000	7,108
<b>TOTALS</b>	<b>\$18,660,000</b>	<b>\$16,700,000</b>	<b>\$27,350,000</b>	<b>\$118,040,000</b>	<b>\$180,800,000</b>	<b>28,926</b>

Annual Inflation Rate =	4.00%				
2007 Dollars	\$19,406,400	\$17,368,000	\$28,444,000	\$122,761,600	\$188,032,000
2008 Dollars	\$20,182,656	\$18,062,720	\$29,581,760	\$127,672,064	\$195,553,280

**SUMMARY OF SYSTEM DEVELOPMENT CHARGES (2006 Dollars)**

Basin	Interceptor Sewer Charge (per acre)	Treatment Charge (per acre)	Total Charge (per acre)
Buffalo Creek	\$1,397	\$3,031	\$4,429
Springfield Creek	\$1,625	\$4,819	\$6,443
Zweibel Creek	\$1,926	\$7,624	\$9,550

**OVERALL AVERAGE CHARGE (per gross developable ac. 2006 dollars) = \$6,250**

**2007 Dollars \$6,500**

**2008 Dollars \$6,760**

- (1) Construction costs are based on 2006 dollars.
- (2) Costs are based on high-density residential development and are not broken into commercial/industrial or multi-family land uses.
- (3) Sewer System includes interim treatment, interceptor sewers, manholes, and future regional treatment plant.
- (4) Gross developable acres are the total land area in the basin less the environmental factors area (i.e. McHargian area).
- (5) There are 87,700 acres of land in the southern half of Sarpy County, with 33,245 acres developable (RDG, 2006).
- (6) Zweibel Creek regional treatment includes pump station, added FM and 5.83 MGD of treatment in the Buffalo/Springfield basin.

Table 6: Summary of Estimated Interceptor Sewer and Treatment Costs

## STEP 2 – Funding Scenario Description

This phase of the Sarpy County Sewer study progressed through Step 1 (Financial Policy) and began progress toward completion of Step 2. In Phase II, three funding scenarios were evaluated for efficiency and desirability. The funding scenario analysis considers the fee mechanism (impact fees and when they should be collected), the ideal flow of funds, who bears financial responsibility for funding, and who bears the risk of funding.

The first scenario assumes that a project developer pays a set platting charge (i.e., impact fee) and constructs the project plus any necessary oversizing. Under this first scenario, the developer is reimbursed through a fee credit up to the amount of the fee. Any overage will be reimbursed through subsequent user payments. The first scenario is shown graphically in Figure 10.

As part of the first scenario, the developer is responsible for constructing the sewer infrastructure in accordance with the Sewer Master Plan, but the lead public agency assumes the risk when they reimburse the developer for the project costs or the fee, whichever is less. It is assumed that the developer will deed over the infrastructure to the public sewer authority for operation and maintenance. Any loans required as part of this scenario will be obtained if there are insufficient funds (i.e., cash reserve) available. The collateral for the loans are assumed to be any of the unsold lots.

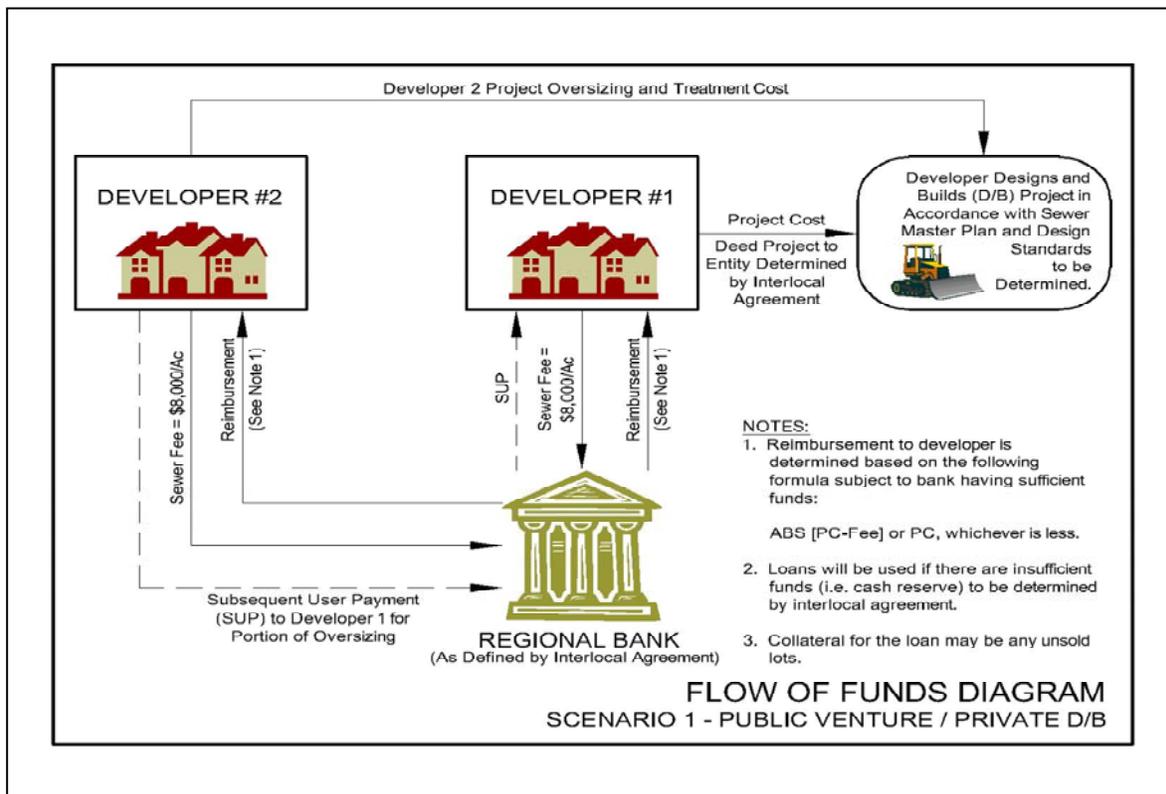


Figure 10: Funding Scenario 1

The second scenario provides an alternative capital funding approach assumes that the developer pays a fee at the time of platting and the builder pays a fee at the time the building permit is taken at the city or county office (depending on the jurisdictional authority). The fee paid at the time of platting is assumed to be approximately one-half of the fee paid at the time the building permit is obtained. In this scenario, the developer has less at risk up front. The developer designs and constructs the interim sewer facilities needed for the development (plus any designated amount of oversizing), in accordance with the Sewer Master Plan. The developer is reimbursed for oversizing through subsequent user payments. The second scenario is show graphically as Figure 11.

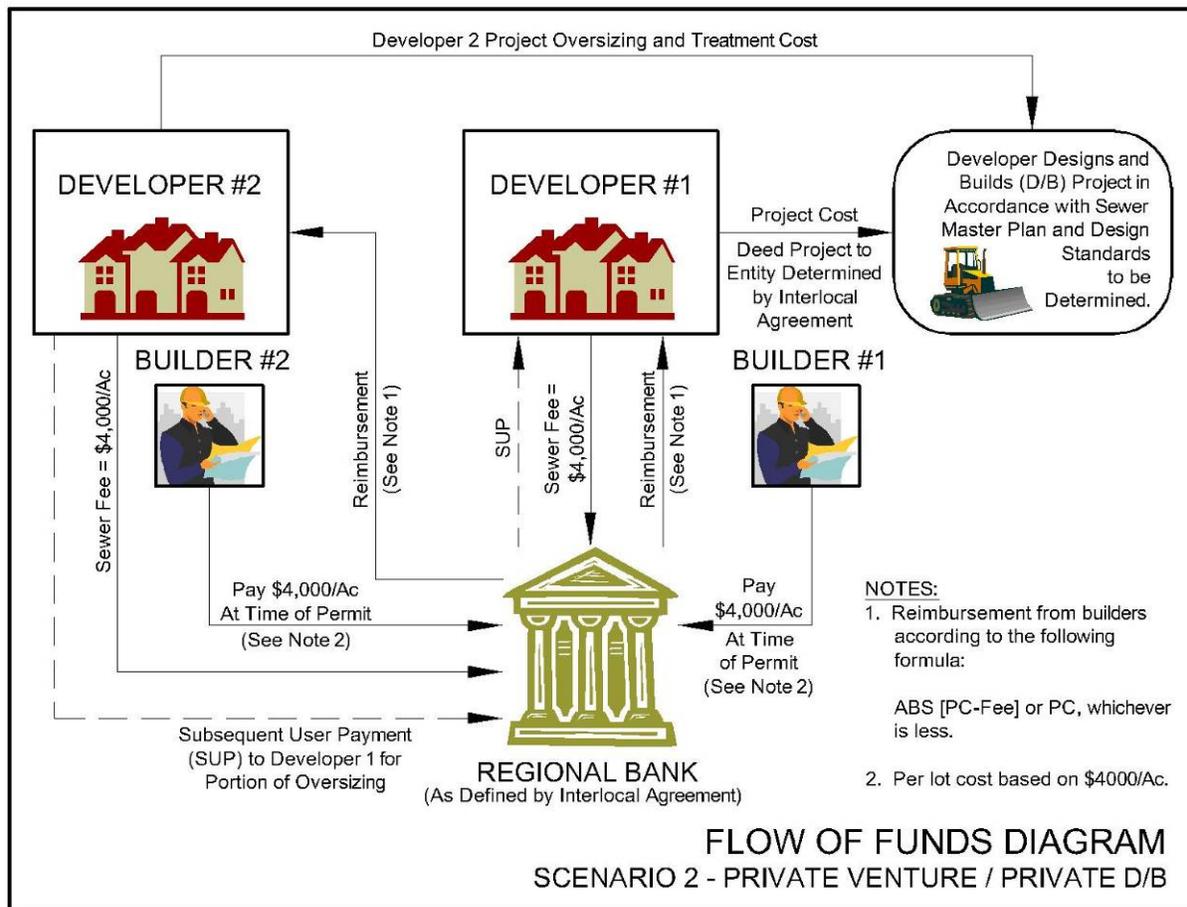


Figure 11: Funding Scenario 2

A third scenario was considered by the SWG which requires the lead public agency to design and construct the necessary sewer infrastructure to meet development demand. The sewer constructed would satisfy the interim needs required and would be completed in accordance with the Sewer Master Plan. Under this scenario, each developer would pay the same fee, which has been established by the sewer authority. The third scenario is show graphically as Figure 12.

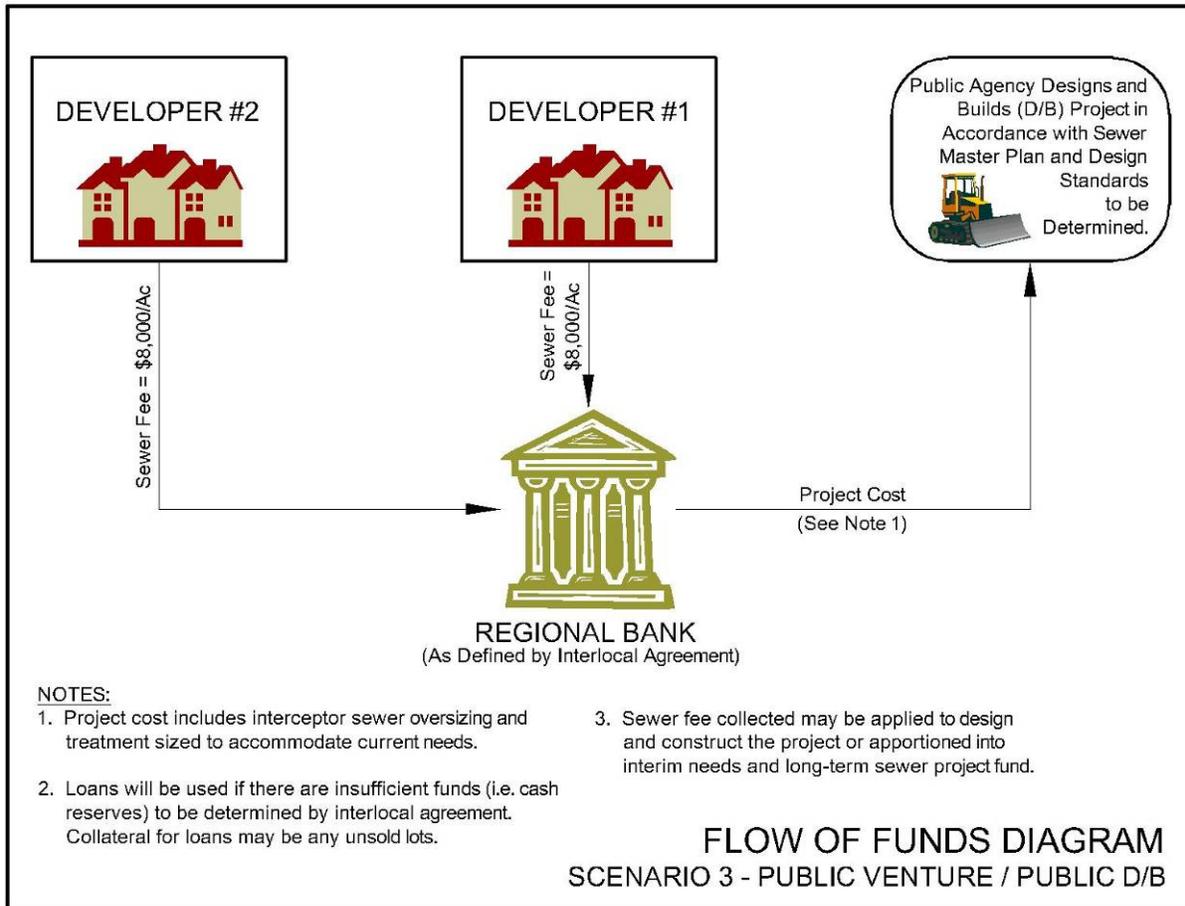


Figure 12: Funding Scenario 3

## B. Scenario Analysis

Each of the scenarios was presented to the stakeholder work group. From this presentation the group determined that Scenario 1 would provide the best funding approach going forward. This Scenario requires private investment and cooperation with the Dominant Public Agency. The Dominant Public Agency (also referred to as Regional Bank) is referred to as the Lead Public Agency in the updated Scenario 1 shown in Figure 13.

Scenario 2 requires only a partial payment for sewer infrastructure and does not fully fund the cost of the ultimate sewer system. Scenario 2 also requires the builder to pay for approximately one-half of the total sewer fees, which again pushes the risk of loss onto the public stakeholders.

Scenario 3 places the entire burden of design, land acquisition, construction and operation of the sewer system on the lead public agency. The opinion of the SWG is that this burden ought to be shared by the developer since the developer would likely profit from the ability to develop land.

Based on stakeholder meetings with the county, municipalities, bonding agents, and developers, the most desired and efficient funding mechanism is an **impact fee** which would be collected at the time of platting of subdivisions.

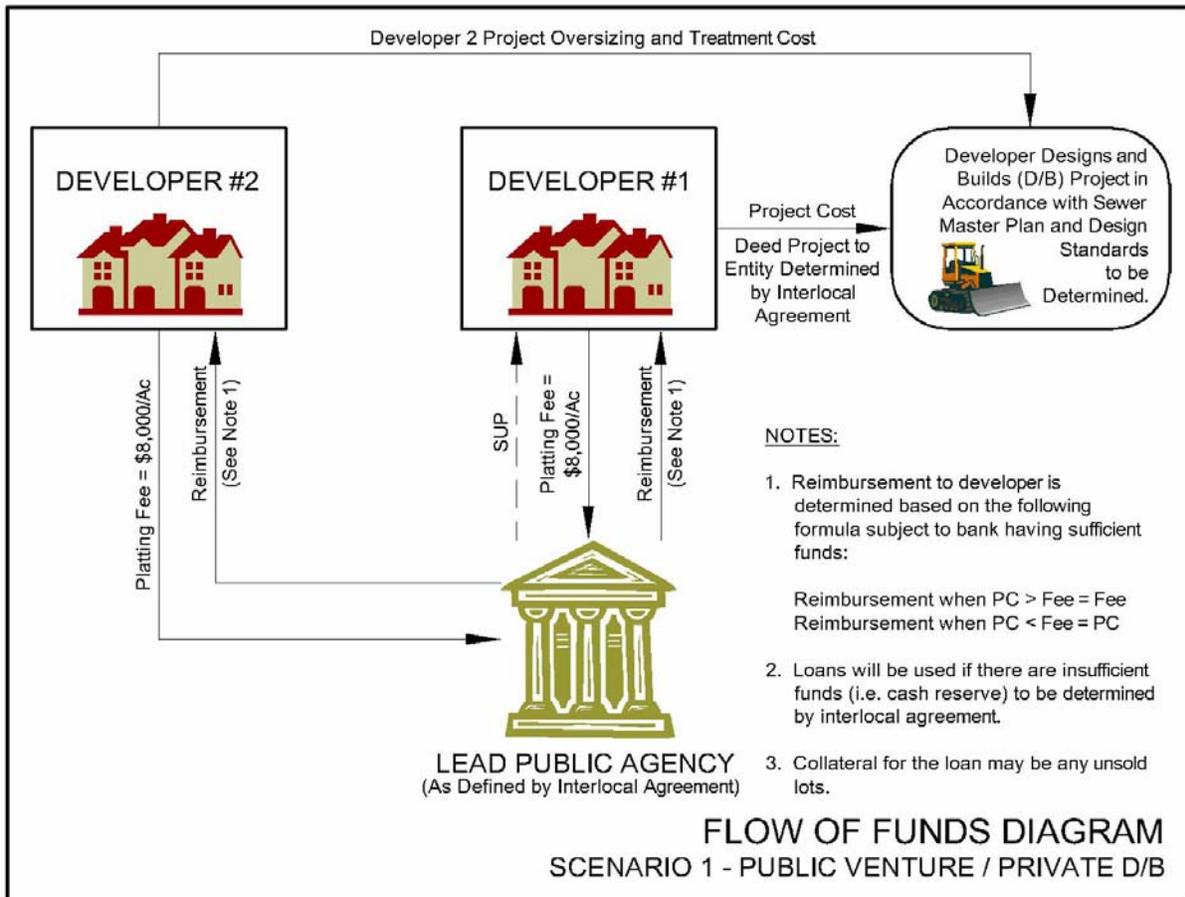


Figure 13: Recommended Funding Scenario

The advantages of using an impact fee instead of a tax levy include:

- the facilitation of growth by expediting development approvals,
- reducing citizen opposition to new growth, and
- reducing pressure on local residents to raise taxes and fees

With new development paying for its own infrastructure needs (i.e., impact fee), any current funds that have been designated to pay for those projects can be shifted to the more immediate needs of existing residents, such as for facility maintenance and rehabilitation.

Establishment of an impact fee will require funds to be earmarked into dedicated accounts for usage specifically to fund the sewer projects. The ordinance establishing the **impact fee** will need to include provisions for when the fee is collected, the fee methodology, definition of areas in which collected fees must be spent, any offsets or credits, updating frequency, spending limits on projects, phasing and indexing, and independent fee studies.

A Dominant (i.e., Lead) Public Agency will be defined by Interlocal Agreement and will be responsible for collecting fees. Developers pay impact fees to the lead agency managing the fund. The developer is responsible for construction of the project.

The lead public agency reimburses the developer for cost of project up to the amount of fee. If the project cost is more than the allotted amount for the project under the capital improvement program (i.e., CIP) then, the developer is only reimbursed up to the estimated amount.

When the project cost is greater than the fee, the developer will be reimbursed the additional amount through future rates charged by residents for usage of the wastewater treatment system, otherwise known as **subsequent user payments**.

With this flow of funds setup, the short-term financial responsibility for funding is born by the developer. The longer-term funding burden and responsibility is managed by the lead agency. Risk is also shared in the same way, with the developer taking on the initial risk of the build-out, but long-term risk is managed by the lead agency. The lead agency should have the backing of additional public funds to augment fund imbalances.

### **STEP 3 – Setting of Fees**

The impact fee must be set at a level to cover the near-term cost of intermediate treatment and interceptor sewers. Plus, there must be sufficient funds collected to pay for the future sewers and the Regional treatment facility. Table 6 shows the estimated total cost (in 2006 dollars) for the complete interceptor, pump station and treatment at approximately \$180,800,000. Assuming a 4 percent rate of growth in capital cost, the estimated total cost (in 2007 dollars) is \$188,032,000.

As shown in Table 1, there are approximately 28,926 acres of developable land available in the three basins south of the ridge line. This number is derived by simply subtracting the approximate number of environmentally-sensitive acres in the basin (i.e., McHargian Analysis) from the total acres. The true number of acres actually available for residential housing would be less due to the allowance for street and utility right-of-way. However, for this phase of the study, the total number of acres less that for the McHargian environmental factors is used to estimate the impact fee.

By considering an impact fee for each of the three drainage basins, the fee for development in Buffalo Creek would be the least due to the lower relative cost of infrastructure (\$60,900,000) to the higher number of acres available for development (13,754 acres). This yields a per acre cost of \$4,429. The ‘per acre’ cost in Springfield Creek is estimated to be \$6,443. Since Zweibel Creek has the highest infrastructure cost (\$67,900,000) and the smallest area (7,108 acres), the impact fee for development here is estimated to be \$9,550. A complete breakdown of the proposed impact fee is shown in Table 7.

Considering the overall cost of the infrastructure in 2006 dollars at \$180,000,000 and distributing this cost across all of the “developable” acres yields an average infrastructure cost of \$6,250 per acre. If the lead agency assessed impact fees based on the basin in which the development occurs, then, as the lowest cost, there will likely be a rush to develop Buffalo Creek.

Conversely, the cost of development in Zweibel Creek (which is more than twice the cost of development in Buffalo Creek) would likely limit residential growth. Re-analysis of the sources and uses of funds, capital improvement plan, and fee level will be performed every three (3) years to keep the financing on pace with development and inflationary trends. However, for now, the fee breakdown is recommended to follow the 80/20 rule whereby 80 percent of the total dollars collected is set aside for future wastewater improvements and the 20 percent used for interim (immediate) needs.

<b>Basin</b>	<b>Total Charge (per acre)</b>	<b>Interim Cost</b>	<b>Percent of Total</b>	<b>Future Cost</b>	<b>Percent of Total</b>
Buffalo Creek	\$4,429	\$8,640,000	14.19%	\$52,270,000	85.83%
Springfield Creek	\$6,443	\$10,040,000	19.31%	\$41,920,000	80.62%
Zweibel Creek	\$9,550	\$16,680,000	24.57%	\$51,200,000	75.41%
<b>Totals</b>	<b>\$6,250</b>	<b>\$35,360,000</b>	<b>19.56%</b>	<b>\$145,390,000</b>	<b>80.41%</b>
<b>Basin</b>	<b>Total Charge (per acre)</b>	<b>Interim Cost</b>		<b>Future Cost</b>	
Buffalo Creek	\$4,429	\$628		\$3,801	
Springfield Creek	\$6,443	\$1,244		\$5,194	
Zweibel Creek	\$9,550	\$2,346		\$7,201	
<b>Totals</b>	<b>\$6,250</b>	<b>\$1,222</b>		<b>\$5,026</b>	

Table 7: Breakdown of Proposed Impact Fee (2006 Dollars)

## **C. Financial Recommendations**

The Phase I study has outlined the proposed Sewer Master Plan, which includes preliminary sizing and locations for interceptor sewers and wastewater treatment facilities. The county and its stakeholders should understand that the Sewer Master Plan is flexible and locations of treatment facilities may be changed (especially ahead of any real development work that actually takes place) until land acquisition efforts are implemented. Once the land acquisition process is initiated, the surrounding land uses will be set, and the developer community must consider the distance to the treatment site into their financial analysis.

Land prices in southern Sarpy County are lower than land prices in the Papio Creek Basin and Douglas County due to the current lack of paved roads, public water supplies, and sanitary sewer systems. Paved roads, public water supplies and sanitary sewerage systems are essential to growth, but can not be provided without private investment. The developer community is expected to invest in southern Sarpy County. With the private investment, the public sector must be willing to control growth through the planning and platting process and must also be willing to invest public service financial resources to own, operate and maintain the infrastructure.

### **1. Approval of Sewer Fee**

The entire study has been focused on finding solutions to management strategies and funding scenarios to enable the anticipated growth in southern Sarpy County. The growth expected is based on urban density residential development, but will undoubtedly include a proportionate share of commercial/industrial/recreational investment.

This study has updated the expected capital cost to design and construct the interceptor sewers and associated wastewater treatment for the southern half of the county, and has presented a recommended “impact” fee or sewer fee to be paid at the time of platting. The study has not, however, integrated the commercial, industrial and recreational uses into the equation. This should be completed as part of the next phase of work.

The impact fee (i.e., sewer fee) recommended is \$6,250 (in 2006 dollars) and should be collected by the Dominant Public Agency at the time of platting. The Dominant Public Agency must be cautious about extending sanitary services to minimize risk and must not become the financier by carrying debt to the time of permit. At this time, this sewer fee should be considered a minimum until further analysis is completed to account for the commercial, industrial and recreational land uses. The fee collected should be split based on the 80/20 Rule to set aside 80 percent of the funds into an account for future sewer construction.

### **2. Approval of Funding Scenario 1**

Funding Scenario 1 is recommended and requires the developer to design and construct the sewerage system in accordance with the Sewer Master Plan. This assumes also that the design and construction of the sewerage system is subject to review and approval by the Dominant Public Agency (DPA). The developer must agree to deed over the sewerage infrastructure to the DPA for operation and maintenance. The DPA will limit risk to the public by controlling the expansion of the treatment facilities and overseeing the operation of the sanitary sewer system.

## **IV. Next Steps**

At the conclusion of this phase of study, a general framework should be understood for City and County governments to cooperatively manage inevitable growth outside of the Papillion Creek watershed. There should be a reasonable expectation that cities and county government cooperate to **champion** the creation of a publicly-owned wastewater treatment system for the ultimate benefit of the citizens of Sarpy County.

Yet this is just the beginning of decades of work to be done. Beyond the policy-making and day-to-day effort to guide the developers and their engineers in the quest to capitalize on lower land prices, there are some additional, administrative steps to consider. Some of the more immediate **“next steps”** include negotiations to determine roles and responsibilities and to forge a spirit of cooperation, integrate and update the sewer fee to include commercial, industrial and recreational land uses, develop design standards, perform rate studies (including O&M costs) and initiate the process of acquiring land for construction and easements. Some administrative assistance will be necessary to accomplish these steps. The County and its public stakeholders should consider retaining a team of qualified professionals to facilitate the following next steps.

### **A. Finalize Master Interlocal Agreement**

This study includes a preliminary Master Interlocal Agreement. This document has not been signed by the city or county representatives. The first step must be to complete this Master Agreement. This step will require additional legal and administrative negotiation. The county currently has in place a moratorium on construction. This moratorium is in effect until January 22, 2008. The Master Interlocal Agreement should be approved and authorized before this moratorium expires so that the development community has a clearer picture and understanding of how the platting, planning and construction of sanitary services will be developed.

### **B. Initiate Detailed Interlocal Cooperation Agreements (Case-by-Case Basis)**

The key elements for detailed agreements between cities and the county have been identified. The lists provided in this study are not to be assumed to be all inclusive, rather a point of beginning and should be referred to as such.

The actual details of each agreement will take considerable negotiation and should, therefore, be conducted by a consortium of legal and technical professionals, as the next step after completion of the Master Interlocal Agreement is in effect. The cities and county ought to therefore consider retaining legal and technical representation to assist in the creation and negotiation of each detailed agreement.

### **C. Integrate Commercial, Industrial, Recreational Land Uses into the Sewer Fee**

The recommended minimum sewer impact fee is \$6,250 (2006 dollars). This fee could be reduced if the estimated number of acres for commercial, industrial and recreational (i.e., non-residential) land uses is included. There is not an exact number of acres for these uses, but estimates may be made based on the recommendations presented in the Comprehensive Plan and the Sewer Master Plan (i.e., Phase I Study). Following the review of the non-residential land uses the impact fee recommended may be revised.

## **D. Design Standards**

Each development is expected to have a different view of how the sanitary sewerage system should be constructed. Typically, this would entail the design and construction of the system at the least possible cost. Design and construction standards should not be minimized. The result, if allowed, would be expensive operational and maintenance activity. Therefore, the DPA must consider the development of minimum design standards and should retain a qualified technical professional to assist with this project.

The design standards ought, as a minimum, to follow the guidelines presented by the State of Nebraska in their Rules and Regulations (Title 123) and the Recommended Standards for Wastewater Facilities (i.e., the Ten States Standards).

## **E. Design, Construction and Operations**

The next steps will lead closer to the actual design, construction and operations of the planned sanitary sewerage system. The actual construction is expected to be completed by the developer, in accordance with the recommendations made in the Sewer Master Plan.

The design and construction efforts are subject to review and approval by the Dominant Public Agency. As part of the detailed agreement negotiation, therefore, the DPA should determine and assign responsibility for the review and approval of developer plans. Upon completion of the construction, the DPA must determine who will operate and maintain the sanitary sewer infrastructure, in accordance with State of Nebraska Rules and Regulations.

## **F. Rate Study**

A detailed study must be completed to determine the rate for sewer use. To this point, only the impact sewer fee has been estimated to account for the capital expense of the interim and future sanitary sewerage system. The rate study will provide the guidance necessary for the DPA to set rates based on:

- Operation and Maintenance (Use Fee)
- Determine Revenue Requirements
- Cost Allocation

## **G. Initiate Land and ROW Acquisition**

Finally, the DPA should begin the process of identifying and acquiring necessary parcels of land for the construction of the interceptor sewers and sanitary sewage treatment. The initial effort should focus on land north of (or in the vicinity of) Platteview Road.

Efforts to secure land for sewerage construction and easements beyond the Interim System are not essential at this time, but will have greater importance as development begins.

The DPA should consider retaining a technical professional, therefore, to assist with the easement and initial acquisition process. The actual effort (as performed by the DPA) should be a part of the detailed Interlocal Agreement process.

**Appendix A**  
**Meeting Notes**

**Southern Sarpy Sanitary Sewer  
Master Plan Presentation and Review Meeting  
Papio-Missouri River NRD  
June 21, 2007  
1:30 to 3:30**

**DISCUSSION NOTES**

Project Goal: Implement near term and long-term regional sewer plan to optimize development and minimize negative environmental impact by identifying a management and financial structure

Management Framework

- The management framework is based on the assumption that planning for a long-term regional wastewater solution will result in :
  - √ the most efficient investment of resources in the wastewater system;
  - √ maximized development potential in southern Sarpy County; and
  - √ environmentally sound wastewater management.
- In areas designated for urban growth in the comprehensive plan, the County is drafting 'build through' options that would allow for partial development of large parcels in the near-term with the remainder reserved for urban density development in the long-term.
- MUD has been involved in the sewer master planning process. Sewer provisions would not affect current MUD water provision policies.
- Current state law does not allow for County ownership of residential sewers. Past attempts to change the state law have failed. The County has no plans to obtain the legislative authority to own and operate sanitary sewers for residential purposes.
- Interim and regional sewer facilities would be administered through interlocal agreements. A master agreement between the County and municipalities would be required. The master agreement would state that the parties agree to follow the Sarpy County Sewer Master Plan, agree to levy a uniform sewer system development charge and agree to set aside the funds for regional sewer system expenses only. Each individual project would likely require a separate more detailed agreement specifically for the jurisdictions involved.
- Under this management framework, development would largely be driven by developers. The market would determine which projects would be feasible given sewer system development costs.
- Interim treatment plants should have the capacity to treat at least 10 years of projected growth.

- The proposed regional plant will include wastewater flow from the Zweibel Creek Basin. The original plan (2006) was to pump wastewater to the City of Omaha's Papio plant. Physical difficulties associated with getting into the Omaha plant appear to make pumping to a Sarpy County Regional Plant a better solution. The distance to the regional plant is slightly farther, but building treatment capacity into a new plant is more feasible than adding load to the existing Omaha plant.
- Spreading the costs for the proposed Sarpy County regional wastewater treatment plant to additional population (outside of the Platte Basin) would make the plant more affordable. However, there may be political issues associated with funding a regional plant (e.g. cost) if not receiving a direct benefit. The cost of the future regional plant will be the financial burden of the population that is connected.
- Interim wastewater treatment plant operations will be governed by interlocal agreement. The cost of plant operations and maintenance would be paid by user fees. In the case of an initial/early development; user fees could be insufficient to cover operations costs. These costs must be estimated and accounted for during initial engineering and planning. Ultimately, the operations and maintenance costs will be paid by users (likely through SID interlocal agreement).

### Financial Framework

- It is assumed that the lower land prices in south Sarpy County will offset the system development charge. Recent land sales in the Papio Basin ~ \$40,000 – \$55,000/acre versus \$6,000 /acre in the Platte Basin.
- Other funding sources for wastewater construction are limited: The State Revolving Fund (SRF) offers lower rate financing for wastewater system improvements. Federal assistance is unlikely. The County or cities could raise sewer use rates or institute a tax.
- According to Sarpy County policy, interest is not included in the subsequent user reimbursements paid to initial developers.
- System development charges will be uniform throughout the Platte Basin.
- Current SID funding practices do not allow for covering the cost of oversizing. This cost would have to be a developer responsibility.

Southern Sarpy Sanitary Sewer  
Master Plan Presentation and Review  
June 21, 2007

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Dave Sack	OSSON	938-2455	dsack@ORCONSULTING.COM
Ted Soderlin	Soderlin Co.	937-6156	TESS@SODERLIN.COM
Marty Groat	Oman PM	444-5225	mgroat@ci.oman.mn.us
Rick Houck	Sarpy Co	593-4169	rhouch@sarpy.com
Lyle Christensen	HRD Inc.	(402) 399-1329	lyle.christensen@hrdinc.com
Jim Wells	HDR Inc	(402) 399-1021	jim.wells@hdrinc.com
Tony Bagwell	HDR	(512) 912-5163	tbagwell@hdrinc.com
Bob Stubble	City of Omaha	444-5228	rstubble@ci.omaha.ne.us
Terry Atkins	Lamp Reproduction Assoc.	496-2498	terry.atkins@LRA-INC.COM
Brett Wauers	Lamp Reproduction	496-2498	Brett.Wauers@LRA-INC.COM
Nandy Leach	Seldin Co.	434-6459	nandy@selphin.com
Art Boeard	TID <sup>2</sup>	330-8860	aboecard@tid2co.com
Gary Sasse	TID <sup>2</sup>	873-6766	gsasse@tid2co.com

Southern Sarpay Sanitary Sewer  
Master Plan Presentation and Review  
June 21, 2007

Name	Organization	Phone	Email
Brian Hansen	Sargy County	593-2349	bhansen@sarpay.com
Jeff Elliott	EFA Consulting Group	895-4700	jelliott@ecg.com
Jeff Forney	Olsson Associates	938-2413	jforney@oacconsulting.com
John Bachman	Financing Program	397-5500	jbachman@phelblaw.com
Patrick J. Sullivan	ADAMS & SULLIVAN, P.C.	339-9550	sullivan@adamsandsullivan.com
Gerry Bowen	P-MNRD	444-6222	gbowen@papiraud.org
Marlin Petermann	"	"	mpetermann@papiraud.org
Michelle Bowls	Sargy County	593-2277	msmith@sarpay.com
Colleen Laury	City of Gretna	338-3336	colleen@cityofgretna.com
Donna Stigge	"	"	donna@cityofgretna.com
Kear Horn	Douglas County	444-6362	khorn@co.douglas.ne.us
Steven Perry	Olsted & Perry	399-8552	step@olstedperry.com
DOG GIBBS	SEN. GAIL KOPPLIN	402-471-2627	dgibbs@neb.leg.gov
James Bartels	MUD	504-7912	james-bartels@unl.edu
MARK SUTARMA	PAPILION	597-2060	msutarma@papilion.org
DAVID NIELSEN	Olsson Associates	341-1116	dnielsen@oacconsulting.com
Don Grafton	Olsson Associates	341-1116	dgrafton@oacconsulting.com

**Southern Sarpy Sanitary Sewer  
Master Plan Presentation and Review Meeting  
Papio-Missouri River NRD  
June 21, 2007  
1:30 to 3:30**

**AGENDA**

- |                                |                                |
|--------------------------------|--------------------------------|
| I. Welcome and Introductions   | Ellen Fitzsimmons<br>HDR, Inc. |
| II. County Perspective         | Mark Wayne<br>Sarpy County     |
| III. Sewer Master Plan Process | Randy Stahmer<br>HDR, Inc.     |
| IV. Funding Scenarios          | Tony Bagwell<br>HDR, Inc.      |
| V. Discussion                  | Ellen                          |
| VI. Next Steps and Adjourn     | Mark                           |

Subject: Sarpy Sewer Work Group Meeting #6	
Client: Sarpy County	
Project: Sewer Master Plan - Phase II	Project No: 53073
Meeting Date: 06/07/07	Meeting Location: HDR Engineering
Notes by: Randy Stahmer, Lyle Christensen and Ellen Fitzsimmons	

**Attendees:**

Ellen Fitzsimmons	HDR	Mark Wayne	Sarpy County
Jeremy Cook	HDR	Phil Lorenzen	D.A. Davidson & Co.
Lyle Christensen	HDR	Kurt Kitson	D.A. Davidson & Co.
Randy Stahmer	HDR	John Bachman	Pansing, Hogan Ernst & Bachman
Jim Wells	HDR		
Brett Wawers	Lamp, Rynearson & Associates		
Brian Hanson	Sarpy County		

**Topics Discussed:**

1. Opening remarks by Randy Stahmer. See **attached Agenda and Attendance List**.
2. Randy provided an overview of the Phase I Study results including Land Use Areas and the Development Structure Plan from the Sarpy County Comprehensive Plan.
3. Randy presented the phasing proposed for the Sewer Master Plan.
4. Randy presented an overview of the estimated Capital Costs. The capital costs have increased to approximately \$181M due to a decision to keep all of the sewerage from the Platte River Basin in that basin. The wastewater generated in Zweibel Creek will be pumped to the Regional WWTP located south of Springfield rather than to the Papio Creek WWTP.
5. There was a presentation and discussion by the group on DEVELOPABLE ACRES. Randy defined developable acres as the total number of acres in a particular basin (i.e. Buffalo Creek, Springfield Creek, or Zweibel Creek) less the land considered to be environmentally sensitive.
6. Randy introduced several options to pay for future sewers, including:
  - a. Sewer Tax Levy
  - b. Usage Fees
  - c. Revenue Bonds
  - d. General Obligation Bonds
7. There was considerable discussion on the idea of financing and associated risk. It comes down to “who’s going to guarantee the note?”
8. Interlocal Agreements are a good idea, but must decide who’s responsible for the “seed” money.

9. Jim Wells pointed out that the land cost per acre is currently much lower in the Platte River Basin. John Bachman argued that the difference in cost per acre (from the Papio Creek Basin to the Platte River Basin) won't be so large until the debt associated with the sewers is paid for.
10. The finance community needs a coverage factor on the enterprise activity. The coverage factor helps to mitigate risk and generates dollars to pay for future capital projects.
11. The group felt that the Interlocal Agreements between City's and the County to form a Joint Public Agency would work.

Comments from this discussion:

- Fees could limit or constrain growth
  - Westmont paid all of their own infrastructure costs
  - The finance community (i.e. banks and bond houses) are used to seeing a fee structure
  - SID's are not willing to take risk
  - SID's cannot afford to put costs in SID world
  - SID's cannot finance oversizing
  - Finance community would prefer to see Sarpy County take the lead
  - Builders don't like the Sarpy County School District
  - Everyone understands that you can't have multiple treatment plants
  - Concern with availability of water supply
  - Plant at 192<sup>nd</sup> and Platteview encourages urban sprawl
  - Consider allowing to fill available capacity at Flying J and Nebraska Crossing first
  - The County would prefer to have the City's lead
  - The problem is that farmers are becoming developers
  - Need build-through development policy
  - Joint Public Agency (JPA) could be created. An SID issues debt and the County issues debt that is delivered to the JPA. Agency has revenue stream from debt payments to pay their debt
  - Developer must guarantee payment (fee) at platting
  - No problem with sewer impact fee, if we stay around what developers pay right now.
  - Developer industry has agreed to pay up front for a long time. Developer pays and passes on to lot buyer.
12. The next meeting will be a DEVELOPER MEETING planned for June 21, 2007 at the offices of the Papio-Missouri River NRD.

# Sarpy Sewer Master Plan Financial Strategy June 7, 2007

Ellen Fitzsimmons

HDR

Jim Wells

HDR

Jeremy Cook

HDR

Brett Waters

Lamp Pyperison & A's

Mark Wayne

SARPY Co.

Brian Hanson

Sarpy County

Phil Lorenzen

D.A. Davidson & Co, Roads

Kurt Kitson

D.A. Davidson & Co

John Bachman

Pansing Hogan Ernst & Bachman

Lyle Christensen

HDR

**Sarpy Sewer Master Plan – Phase II**  
**Financial Strategy Meeting**  
**HDR Engineering, Inc.**  
**June 7, 2007**

**AGENDA**

I. Sewer Master Plan (Phase I) Overview

II. Sewer Master Plan (Phase II)

III. Overview of Sewerage Capital Costs

IV. Definition of Developable Acres

***Lunch will be delivered at 11:45. Work through.***

V. Financing Options

Sewer Tax Levy (limited to \$03.5/\$100 valuation ~ \$70 on \$200,000 home)  
Usage Fees (sufficient to pay O&M, principle and interest on Rev Bonds)  
Revenue Bonds  
General Obligation Bonds

VI. Sewerage Development Charges

VII. Financing Discussion

VIII. Questions.

Subject: Sarpy Sewer Work Group Meeting #5	
Client: Sarpy County	
Project: Sewer Master Plan - Phase II	Project No: 53073
Meeting Date: 05/17/07	Meeting Location: Papio Missouri River NRD
Notes by: Randy Stahmer, Lyle Christensen and Ellen Fitzsimmons	

**Attendees:**

Ellen Fitzsimmons	HDR	Sandi Shotkoski	City of Springfield
Gary Sasse	JEO/City of Springfield Engineer	Paul Mullen	MAPA
Mark Stursma	City of Papillion	Rick Houck	Sarpy County
Marlin Petermann	P-MRNRD	David Goedeken	City of Bellevue
Gerry Bowen	P-MRNRD	James Bartels	MUD
Jim Wells	HDR	Lyle Christensen	HDR
Donna Stigge	City of Gretna	Steven Perry	City of Gretna/Olmsted & Perry
Mark Wayne	Sarpy County	Randy Stahmer	HDR

**Topics Discussed:**

1. Opening remarks by Randy Stahmer. See attendance list and **attached** AGENDA.
2. Reviewed past management options: (e.g. Super Sanitary & Improvement District (SID), Managing Public Agency (i.e. Interlocal Agreements), and County Wastewater Authority). Consensus to date has pointed toward Interlocal Agreements. Interlocal Agreements will involve Sarpy County, municipalities, and SIDs.
3. Brief discussion on the Development Zone (DZ) concept. Development Zones would dictate location and order of development, which (given the topography of the three basins in southern Sarpy County) would not perform as they do in the City of Omaha and the Papio Basin. Jim Wells cited examples of why a DZ is difficult to work with in southern Sarpy County (economics being the principal driver for a developer). While DZs may be more appropriate at the local level and suitable once a sewer system is in place to guide development; the SWG agrees that the concept of Development Zones will not be promoted at this time.
4. Randy read a list of roles and responsibilities that need to be assigned to a public agency as part of an interlocal agreement. This list was prepared by Ellen Fitzsimmons, HDR Planning. The list is **attached** for reference and included items like: who controls growth, who collects fees, who holds permits, and who established design guidelines.
5. Randy handed out a paper showing an estimate of a possible sewer use fee. The paper is **attached** for reference and showed the estimated capital cost of interceptor sewers and treatment for each of the three basins and the associated number of “developable acres”. The overall “rounded” cost of interceptor sewers and treatment for southern Sarpy County is estimated to be approximately \$5000/developable acre. This cost per developable acre is approximately equivalent to the \$2,670/lot presented in the Phase I report (designed to serve a future population of approximately 140,000); and is expected to influence development density to be more in accordance with the Sarpy County Comprehensive Plan.

6. There was considerable discussion on what the term, “developable acres” means. Randy explained that the term “developable acres” is based on the gross area of the basin less the areas characterized by floodplains, steep slopes, wetlands, etc (i.e. environmental factors identified using the McHargian Analysis). The number of developable acres in each basin needs to be refined further to discount the number of acres needed for streets, right-of-way, easements, outlots, etc. But until this is completed the term “developable acre” will be revised to “gross developable acres”. Lyle Christensen suggested that an allowance of 80 percent be included to account for that land that could be taken out for easements, outlots, and streets.
7. Rick Houck has prepared a Build-Through Development (BTD) proposal and has met with HDR separately to review BTD proposal language. The BTD proposal simply states that a subdivision located in an area with a Build Through designation shall 1) provide easements for future sanitary sewers, storm sewer infrastructure, water mains and streets and 2) pay a sewer connection fee. The BTD proposal is **attached** for reference.
8. Rick distributed a copy of the BTD proposal. As part of the BTD proposal, HDR prepared two development approaches overlaid on aerial photos. The two approaches are **attached** for reference and have been derived from the Transitional Standards text presented in Chapter 4 of the Comprehensive Plan.  

One approach illustrates Urban Transitional Development (UTD). The UTD approach assumes the entire parcel is developed, but the project is designed for conversion to urban services when extended. A second approach is the Build-Through Development approach. This approach assumes that a smaller portion of a larger parcel is developed with a balance of the parcel maintained as an outlot for future urban density development.
9. There was discussion on providing language in the BTD proposal stating that a developer (i.e. SID) received a credit for the cost of sewer infrastructure constructed by the developer so long as the sewer infrastructure were designed and constructed in accordance with the provisions of the Sewer Master Plan.
10. There was discussion on how fees would be earmarked. Mark Wayne raised the issue about having different fees for each basin. A fee estimate has been prepared for each basin with a larger fee in Springfield Creek basin due to the current plan to construct a REGIONAL WASTEWATER TREATMENT PLANT (RWWTP) here. The fee distribution is likely to change as decisions are made on the service area of the RWWTP.
11. Rick Houck said that O&M/ownership for interceptor sewers would have to lie with the parties to the interlocal agreement, same thing with the treatment plant. The SWG agreed that fees collected would be retained in accounts specific to the basin in which the sewer infrastructure is constructed. The only exception may be that Springfield and Buffalo Creek basins could be combined.
12. The SWG agreed that fees must be paid at the time of the FINAL PLAT; not the PRELIMINARY PLAT.
13. There was discussion on requiring one-half of the fee at platting and one-half of the fee at the time that the building permit is applied for. Fees must be collected up front. If fees are not collected up front, then the public may be at risk for the subdivision development and the associated infrastructure and the payment of debt.

14. Fees are set to pay for the essential interceptor sewer pipe, interim treatment (if any) and to pre-pay for the future, ultimate sewer interceptor and treatment system in the basin. The fee structure may also be broken down by interceptor sewer and treatment.
15. There was discussion on the issue of General Obligation (GO) debt. There are some questions on what fees can be paid with GO financing (e.g. bond). It is assumed that PLATTING FEES can be paid using a General Obligation bond and that BUILDING PERMIT FEES would not be paid using GO debt.
16. Some work needs to be done on financing sewer infrastructure beyond the basic premise that the developer (i.e. SID) pays all of the upfront costs. Some issues to resolve include:
  - establishment of policy of payment for sewers larger than necessary for a specific subdivision development,
  - reimbursement policy, and
  - determine the financial risk (if any) to the cities/county as part of an Interlocal Agreement with an SID.
17. Lyle Christensen asked, "Who is the keeper of the cash"? There was some discussion on how best to manage the collection of fees. Mark Wayne offered using the County Treasurer as the repository of funds collected for sanitary sewer infrastructure. For all subdivision development work outside of a municipal extraterritorial jurisdiction (ETJ), Sarpy County is the common denominator and will always be a party to any Interlocal Agreement.
18. The SWG and the legal representatives need to fashion a "boiler plate" Interlocal Agreement that lists the common requirements and a few examples of what may be unique to a particular SID. Also need a Master Interlocal Agreement that defines how funds will be managed. Jim suggested that all common elements be included also. HDR is directed to get solicit input from respective legal counsels on Interlocal Agreements before going to development community.
19. The meeting with the Developer/Financial Community is scheduled for 21 June 2007 in the P-MRNRD Board Room at 1:30 pm. Information to present for that meeting includes:
  - BTD Proposal,
  - Example Maps,
  - Definition of Developable Acres,
  - Estimate of Cost and Example Debt Calculation, and
  - Notice of Intent to adopt the Sewer Master Plan and Fee Structure.The Sarpy County Board has placed a moratorium on residential acreage developments until this Study is complete and a fee structure has been adopted.
20. Mark Wayne asked if the group (i.e. municipalities) could support the idea of Interlocal Agreements and if we were going down the right path. All municipal representatives indicated that they could support Interlocal Agreements on sewer fees or would be willing to talk about the specifics of an agreement.

May 17th Sarpy Sewer Work group

Ellen Fitzsimmons

Sandi Shoykoski Spfd

GARY SASSÉ JEO Consulting Group - Spfg City Eng.

Paul Mullen MAPA.

MARK STURMA PAPILLON

Rick Houck Sarpy Co.

Marlin Petermann P-MRNRD

DAVID GOEDEKEN CITY OF BELLEVUE

Gerry Bowen P-MRNRD

James Bantels MUD

JIM WELLS HDR

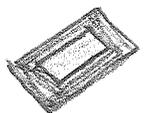
Lyle Christensen HDR

Donna Stigge Gretna

Steven Perry City of Gretna / Almsted & Perry

Mark Wayne Sarpy Co.

Randy Stahmer



**Western Sarpy Sewer Master Plan – Phase II  
Stakeholder Workgroup Meeting  
Papio-Missouri River NRD  
May 17, 2007**

**AGENDA**

- |   |                                |
|---|--------------------------------|
| I. Welcome and Progress Synopsis        | Randy Stahmer<br>HDR, Inc.     |
| II. Proposed Sewer Fees                 | Randy                          |
| III. Build Through Development Proposal | Rick Houck<br>Sarpy County     |
| IV. Interlocal Agreements               | Mike Smith<br>Sarpy County     |
| V. Next Steps and Adjourn               | Ellen Fitzsimmons<br>HDR, Inc. |
- Development/Financial Meeting  
June 21<sup>st</sup> 1:30, Papio NRD*

Subject: Sarpy Sewer Work Group Meeting #4	
Client: Sarpy County	
Project: Sewer Master Plan - Phase II	Project No: 53073
Meeting Date: 04/11/07	Meeting Location: Papio Missouri River NRD
Notes by: Randy Stahmer, Lyle Christensen and Ellen Fitzsimmons	

**Attendees:**

Ellen Fitzsimmons	HDR	Sandi Shotkoski	City of Springfield
Gary Sasse	JEO/City of Springfield Engineer	Randy Stahmer	HDR
Lyle Christensen	HDR	Rick Houck	Sarpy County
Steve Perry	Olmsted & Perry	David Goedeken	City of Bellevue
Gerry Bowen	P-MRNRD	James Bartels	MUD
Jim Wells	HDR		
John Winkler	P-MRNRD		
Mark Wayne	Sarpy County		

**Topics Discussed:**

1. Opening remarks and welcome by Randy Stahmer. See **attached Agenda and Attendance List**.
2. Mark Wayne presented information from Paul Cook regarding the letter to city mayors and request for comment on the preferred Management Alternative. The letter was sent on March 23, 2007.
3. The mayors at least recognize some merit in having Interlocal Agreements. Kennebec subdivision may be the first test case (i.e. willing to construct wastewater treatment off-site in accordance with the location shown in the Sewer Master Plan).
4. But questions about Interlocal Agreements remain, including:
  - Who approves developments?
  - Who controls growth?
  - Who collects connection fees assessed to builder when permits issued
  - Who collects user fees?
  - Who holds permits?
  - Who does construction?
  - Who manages the treatment facilities? Who performs operations and maintenance?
  - Who provides initial, upfront financing?
  - What is the timeframe to recoup expenses?
  - Who pays for over-sizing? Are facilities designed for expansion?
  - Who identifies treatment location? Arranges for easements?
  - Development type/lot size must be clearly defined
  - Who establishes design guidelines? Cross jurisdictional agreement on standards
  - Ownership of system
  - Definition of levels of regulations, minimum standards

5. There was discussion on current development projects. Some of the projects mentioned include:
  - a. Car dealership on Hwy 31/I-80
  - b. Springfield Business Park
  - c. Kennebec
  - d. Pflug Road
  - e. Clear Water Falls West – Bellevue
  
6. There was continued discussion on development zones. In order to adapt the Omaha model of Development Zones to the Platte Basin, the following conditions must exist:
  - a. Sarpy County and other Platte Basin municipalities must agree upon development zone model, and uniform connection and user fees throughout the basin
  - b. Accurate, agreed upon growth estimate for Platte Basin for 3 year ‘present development zone’ and 4 – 10 year ‘future development zone’
  - c. Representative body to set development zones and review every 3 years
  - d. Treatment Facilities
  - e. Estimate of cost to provide sewer service for basin
  - f. Fee structure to meet immediate/interim needs as well as long-term regional needs
  - g. County Board and Joint Planning Commission approval
  - h. Policy for areas that are not sewerable
  - i. Mechanism to direct growth back toward the cities
  
7. It was discussed that city representatives would report on their opinion regarding the concept of development zones at the next SWG meeting.
  
8. There was discussion led by Lyle Christensen on the idea of establishing a “sinking fund”. Other funding ideas include: user fees, taxes, and privatization.
  
9. If a developer(s) is outside a present development zone (PDZ), then the developer pays the entire (100%) front cost for collection and treatment of sanitary wastewater.
  
10. The concept of a “build-through acreage” development was discussed. Rick Houck will begin to prepare the policy language for BTA development.
  
11. The next SWG meeting is planned for May 9, 2007 to be held at the offices of the Papio-Missouri River NRD.

Carpy County Sewer Plan  
4/11/07

Ellen Fitzsimmons

Lyle Christensen

John Winkler P-MRNRD

Jim Wells - HDR

Gerry Bowen P-MRNRD

Sandi Shatkaski Springfield

Gary Sasse - JEO Consulting Group, Inc - Springfield

James Bantels - MVD

Paul Mullen - MAPT.

Mark Wayne - Carpy Co

Rick Houck - Carpy Co

Steve Petty - City of Grotnq

DAVID GOEDEKEN - CITY OF BELLEVUE

Randy Stahmer - HDR

**Western Sarpy Sewer Master Plan – Phase II  
Stakeholder Workgroup Meeting  
Papio-Missouri River NRD  
April 11, 2007**

**AGENDA**

- I. Welcome
- II. Review of Comments Received
- III. Discussion of Interlocal Agreement Issues
- IV. Discussion of Current Development Projects
- V. Refinement of Development Zone Concept
- VI. Preliminary Discussion of Funding Alternatives
- VII. Next Steps & Adjourn

Subject: Sarpy Sewer Work Group Meeting #3	
Client: Sarpy County	
Project: Sewer Master Plan - Phase II	Project No: 53073
Meeting Date: 02/22/07	Meeting Location: Papio Missouri River NRD
Notes by: Randy Stahmer, Lyle Christensen and Ellen Fitzsimmons	

**Attendees:**

Ellen Fitzsimmons	HDR	James Bartels	MUD
Gary Sasse	JEO/City of Springfield Engineer	Lyle Christensen	HDR
David Goedecken	City of Bellevue	Steven Perry	City of Gretna/Olmsted & Perry
Gerry Bowen	P-MRNRD	Randy Stahmer	HDR
Jim Wells	HDR		
Sandi Shotkoski	City of Springfield		
Mark Wayne	Sarpy County		

**Topics Discussed:**

1. Opening remarks by Mark Wayne. See **attached Agenda and Attendance List**.
2. Ellen Fitzsimmons led a review of past meetings held in January. Ellen handed out:
  - a. Final Memorandum of Understanding (attached)
  - b. Summary of the Needs/Obstacles Assessment (**attached**)
  - c. Map of the Land Use Growth Exercise (**attached**)
3. Randy Stahmer led a discussion on Build-Out Timeframes (**see attached map**). This map graphically depicts Sarpy County in two distinct areas (i.e. Papio Creek Basin and the Platte River Basin). Each of the two basins is subdivided into jurisdictional boundaries. In the Papio Creek Basin there are five (5) areas. In the Platte River Basin there are nine (9) areas. The geographic area for each has been determined using GIS and McHargian Analysis, which leaves a total “developable” area in each basin.
4. Based on current growth rates, the Papio Creek Basin may achieve 90% build-out in approximately 20 years.
5. Mike Smith prepared a memorandum explaining the legal framework of the Industrial Sewer Act and Interlocal Cooperation Act (**see attached**). Mike was not able to attend this meeting, so Mark Wayne presented the information. The following are excerpts from Mike Smith email on the subject, dated February 22, 2007.
  - a. When a project is proposed under the Industrial Sewer Act the County passes a resolution of intent to proceed with the development with specific plans. Future growth areas are established by the County Board, with input from municipal government. If more than 50% of the proposed project is in the future growth area of a city, that city is presented with the proposal. That city then has a public hearing, in which they may, by supermajority, veto the project, using criteria of 23-6314.

- b. Interlocal Cooperation Act. Case law states that when two entities set a separate entity, the entity can only have the powers that “each” participant can exercise. “Both” would also be correct, but if one of the parties cannot exercise a power, the separate entity cannot either. That is why an interlocal that doesn’t set a separate entity may be preferable. You can delegate the particular power or task to the participant that has the authority to exercise the power or task.
6. Jim Wells presented general information about the **SUPER SID** as one Management Alternative. Key advantages of this alternative are that no new jurisdictional authority is required and project size is limited, thereby limiting or eliminating the need for county or municipal taxing authority. The key disadvantages of this alternative are finding the right mix of developers that will work together and lack of regional vision or interest.
7. Lyle Christensen presented general information about the **Sarpy Count Sewer Authority** as one Management Alternative. Key advantages of this alternative include centralized administrative function and broad funding capability. The key disadvantage of this alternative is that legislative authority is required and authorization is not presently sought.
8. Randy presented general information about that **Managing Public Agency** (which has evolved into the Dominant Public Agency) as one Management Alternative. The key advantage of this alternative is that more broad powers are allowed by Interlocal Agreement. However, the disadvantage is the process of developing terms of the agreement(s).
9. The group discussed each of these management alternatives in length. Then, Mark Wayne suggested sending a synopsis of the management alternatives under consideration to the Mayors of each city. A letter (signed by Paul Cook) was sent to each mayor with a request for comment on the Management Alternatives. The **summary of the management alternatives** and **a copy of the letter from P. Cook** are attached for reference.
10. There was discussion on the creation of a FINANCE COMMITTEE, and several ideas were presented including: Trenton Magid, Jeff Beals, Brian Hanson, John Bachman, John Kuehl, and John Fullencamp. After discussion, it was decided that a formal committee is not necessary at this time.
11. The next SWG meeting will be April 11, 2007

# Western Sarpy Sewer Master Plan

February 22, 2007

Ellen Fitzsimmons	HDR
Steve Perry	Eretna City Engineer
Sandie Shotkoski	Springfield
GARY <del>SASSE</del>	JEO - Springfield City Engineer
Jim Wells	HDR
Randy Stahmer	HDR
Lyle Christensen	HDR
James Bartels	MUD
MARK Wayne	SARPY Co.
Gerry Bowen	P-MRNRD
DAVID GOEDEKEN	CITY OF BELLEVUE

**Western Sarpy Sewer Master Plan – Phase II  
Stakeholder Workgroup Meeting  
Papio-Missouri River NRD  
February 22, 2007**

**AGENDA**

- I. Welcome .....Mark Wayne
- II. Review of January Meeting..... Ellen Fitzsimmons
  - A. MOU
  - B. Needs/Obstacles
  - C. Development Zone Exercise
- III. Discussion of Build-Out Timeframes ..... Randy Stahmer
- IV. Explanation of Legal Framework ..... Mike Smith
- V. Review and Discussion of Management Options
  - A. Super SID ..... Jim Wells
  - B. Dominant Public Agency ..... Randy Stahmer
  - C. Sarpy County Sewer Authority..... Lyle Christensen
- VI. Identification of Finance Committee Members..... Ellen Fitzsimmons
- VII. Next Steps & Adjourn .....Randy, Ellen, Mark

Subject: Sarpy Sewer Work Group Meeting #2	
Client: Sarpy County	
Project: Sewer Master Plan - Phase II	Project No: 53073
Meeting Date: 01/31/07	Meeting Location: Papio Missouri River NRD
Notes by: Randy Stahmer, Lyle Christensen and Ellen Fitzsimmons	

**Attendees:**

Ellen Fitzsimmons	HDR	Sandi Shotkoski	City of Springfield
Gary Sasse	JEO/City of Springfield Engineer	Paul Mullen	MAPA
Mark Stursma	City of Papillion	Rick Houck	Sarpy County
Marlin Petermann	P-MRNRD	David Goedeken	City of Bellevue
Gerry Bowen	P-MRNRD	James Bartels	MUD
Jim Wells	HDR	John Winkler	P-MRNRD
Donna Stigge	City of Gretna	Brett Anderson	NDEQ
Mark Wayne	Sarpy County	Randy Stahmer	HDR

**Topics Discussed:**

1. Introductions by Mark Wayne. See **attached Agenda and Attendance List**.
2. Ellen Fitzsimmons conducted some housekeeping, including a recap of the "Kickoff" meeting held at HDR offices on January 17, 2007.
3. Ellen distributed a copy of the Memorandum of Understanding (**see attached**) and discussed the importance of this document to address long-term planning concerns as they apply to the Stakeholder Work Group (SWG).
4. Ellen discussed SWG roles and responsibilities, action plan and schedule.
5. Ellen led the group in a discussion of Stakeholder NEEDS and OBSTACLES (**see attached summary**).
6. Randy led a powerpoint presentation entitled, "**Development Zone Concepts and Consensus**". This powerpoint presentation is attached for reference.
7. As part of the understanding of development zones, HDR invited the group to participate in an exercise to help identify area that might develop first. The SWG sketched concepts on aerial mapping provided. HDR will draft the sketches into an updated "LAND USE GROWTH PLAN", to be presented at the next SWG meeting.
8. The next SWG meeting is planned for February 22, 2007 to be held at the offices of the Papio-Missouri River NRD.

# SIGN - IN

Name	Org	Phone	Email
Randy Stahmer	HDR	399-4916	randy.stahmer@hdrinc.com
Gerry Bowen	P-MRNRD	444-6222	gbowen@papiourd.org
Gary Sasse	JEO Consulting Group (City of Springfield)	873-6766	gsasse@jeo.com
Sandie Shatkosti	City of Spfld	253-2211	sandiesayers@yahoo
Jim Wells	HDR	399-1021	Jim.wells@hdrinc.com
John Winkler	P-MRNRD	616-2457	vwinkler@papiourd.org
Brett M. Anderson	NDEG	595-1766	bretanderson@ndeg.state.nv.us
Marlin Petermann	P-MRNRD	444-6222	mpetermann@papiourd.org
Donna Stigge	Gretna	332-3336	donna@cityofgretna.com
Paul Mullen	MAPA	444-6866 ext 214	paul.mullen@mapacog.org
James Bantels	MUD	504-7912	james-bantels@mudnebr.com
Mike Smith	Sarpy Co.	593-2237	msmith@sarpy.com
Mark Wayne	SARPY Co.	593-2347	markw@sarpy.com
Rick Houck	Sarpy Co.	593-4169	rhouck@sarpy.com

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MARK STURAMA	PAPILLION	597-2077	msturama@papillion.org
DAVID GOEDEKEN	BELLEVUE	293-3030	DAVEGT@BELLEVUE.NET

**Western Sarpy Sewer Master Plan – Phase II  
Stakeholder Workgroup Meeting  
Papio NRD  
January 31, 2007**

**AGENDA**

- |   |                            |
|---|----------------------------|
| I. Introductions                                      | Mark Wayne<br>Sarpy County |
| II. Housekeeping                                      | Ellen Fitzsimmons<br>HDR   |
| A. Recap of January 17 <sup>th</sup> Kick-Off Meeting |                            |
| B. Action Items                                       |                            |
| C. Memo of Understanding (MOU)                        |                            |
| D. Establishment of Meeting Dates                     |                            |
| III. Discussion of Stakeholder Needs                  | Ellen Fitzsimmons          |
| IV. Introduction of Development Zone Concept          | Randy Stahmer<br>HDR       |
| V. Adjourn  | Mark Wayne                 |

Subject: Sarpy Sewer Master Plan Kickoff (Meeting #1)	
Client: Sarpy County	
Project: Sewer Master Plan - Phase II	Project No: 53073
Meeting Date: 01/17/07	Meeting Location: HDR Offices
Notes by: Randy Stahmer, Lyle Christensen and Ellen Fitzsimmons	

**Attendees:**

Ellen Fitzsimmons	HDR	Sandi Shotkoski	City of Springfield
Gary Sasse	JEO/City of Springfield Engineer	Paul Mullen	MAPA
		Rick Houck	Sarpy County
Marlin Petermann	P-MRNRD	Stephanie White	HDR
Gerry Bowen	P-MRNRD	James Bartels	MUD
Jim Wells	HDR	Lyle Christensen	HDR
Donna Stigge	City of Gretna	Steven Perry	City of Gretna/Olmsted & Perry
Mark Wayne	Sarpy County	Randy Stahmer	HDR

**Topics Discussed:**

1. Opening remarks by Randy Stahmer. The focus of this “kickoff” meeting was to:
  - introduce the scope of the PROJECT to the stakeholders,
  - connect the 2006 wastewater study to the Comprehensive Plan,
  - provide a technical briefing, and to
  - form the Stakeholder Work Group (SWG).

See attendance list, **attached** AGENDA and handouts.
2. The group in attendance agreed also to become the Stakeholder Work Group. The purpose of the SWG is to lead the decision-making associated with development of a Sewer Master Plan. The group decided to meet monthly during this phase of the study.
3. The goal identified by the group included formation of clear policy, position, and message regarding new development. Challenges include:
  - Developer expectation
  - Public perception
  - County management, administration, expense, etc.
4. The group discussed the inventory of existing policy and practice, including:
  - MUD Pioneer Policies
  - Reserve capacity agreements (Gretna)
  - Development zones
  - Current municipal and county comprehensive plans
  - Existing partnerships/agreements

5. Critical issues determined to require integration included:
  - MUD extension integration
  - Coordination with other infrastructure – roads, interstate exits, etc.
  - Integration of Buffalo Creek public treatment plant
  - Existing facilities' life spans/obsolescence
  - When will Omaha system no longer accept Sarpy wastewater?
  
6. There was discussion on interim issues ranging from 6 months to 5 years. Issues defined were:
  - How to coordinate/administer multiple water providers
  - Existing agreements
  - Temporary solutions – Omaha system, small facilities, decommission agreements
  - Integration of Buffalo Creek public treatment plant
  
7. Additional stakeholder group input will require participation from:
  - The City of Bellevue
  - The City of Papillion
  - NDEQ
  - Legal and public works expertise. as needed
  
8. The group decided that when the project scope is more clearly defined, invitations should be extended to:
  - Three development community representatives (financial, legal, commercial residential, engineering)
  - Nebraska Land Trust

# Sign-in sheet

	Name	Organization	E-mail
1.	Stephanie White	HDR	stephanie.white@HDRINC.COM
2.	Donna Stigge	Gretna	donna@cityofgretna.com
3.	Lyle Christensen	HDR	lyle.christensen@hdrinc.com
4.	Mark Wayne	SARPY Co.	MWayne@SARPY.COM
5.	Jim Wells	HDR	jim.wells@hdrinc.com
6.	Richard Houck	Sarpy Co.	rhouch@sarpy.com
7.	James Bartels	MUD	james_bartels@mudnebr.com
8.	Paul Mullen	MAPA	paul-mullen@mapa.org
9.	Gerry Bowen	P-MRNRD	gbowen@papiound.org
10.	Mawlin Petemann	P-MRNRD	mpetemann@papiound.org
11.	Steven Perry	City of Gretna <sup>Olmsted</sup> & Perry	sterep@olmstedperry.com
12.	Gary Sasse	City of Springfield - <sup>JEO</sup> Consult.	gsasse@jeo.com
13.	Sandie Spothoski	Sppl City Council	SandieSayers@yahoo
14.	Randy Stahmer	HDR	randy.stahmer@hdrinc.com
15.			
16.			
17.			
18.			
19.			
20.			

**WESTERN SARPY  
SEWER MASTER PLAN – PHASE II**

**PUBLIC AGENCY STAKEHOLDER KICK-OFF MEETING**

January 17, 2007  
(2:30 pm – 4:30 pm)

**AGENDA**

- 1 Introductions
- 2 Background and Technical Briefing
  - a) Updated Sarpy County Comprehensive Plan (Handouts)
  - b) Water/Wastewater Infrastructure Study (April 2006)
- 3 Phase II Study (Summary Handout)
  - a) Objectives
    - i) Create clear lines of communication and foster consensus
    - ii) Develop a preferred management plan
    - iii) Develop a preferred cash flow plan
  - b) Schedule
- 4 Stakeholder Work Group (SWG) Definition and Formation
  - a) Define mission and goals for Stakeholder Work Group
  - b) Identify Potential SWG Members or Representative Groups
    - i) Group Formation Process
  - c) Preliminary Schedule of SWG Meetings

**Southern Sarpy Sanitary Sewer  
Stakeholder Work Group Final Meeting  
Sarpy County Administrative Conference Room  
August 3, 2007  
8:30 to 10:00**

**AGENDA**

- |                                  |                          |
|----------------------------------|--------------------------|
| I. Welcome                       | Ellen Fitzsimmons        |
| II. County Perspective           | Mark Wayne               |
| III. Phase II - In Review        | Randy Stahmer            |
| Needs Assessment                 |                          |
| Development Zone Concepts        |                          |
| Build-Out Timing                 |                          |
| Management Options               |                          |
| Master Agreement                 |                          |
| Build-Through Development Policy |                          |
| Updated Cost Estimates           |                          |
| Proposed Sewer Fees              |                          |
| Developer Meeting                |                          |
| IV. Scenario Analysis            | Randy Stahmer/Jim Wells  |
| Regional Vision with Local Focus |                          |
| Management Agreements            |                          |
| Funding (Public vs. Private)     |                          |
| Schematics (Handout)             |                          |
| V. Discussion                    | Ellen Fitzsimmons        |
| VI. Next Steps and Adjourn       | Randy Stahmer/Mark Wayne |

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Job #: FINAL SWG MTG.	No:	

Sarpy County Sewers  
8/3/07

Ellen Fitzsimmons

Mark Weyer

Gerry Bowen

James Bartels

Brian Hanson

Paul Cook

Paul Mullen

Donna Stigge

Rick Houck

KEN TEX

Steven Perry

Jeremy Cook

Jim Wells

Randy Stahmer

Lyle Christensen

Subject: Sarpy Sewer Work Group Final Meeting #8	
Client: Sarpy County	
Project: Sewer Master Plan - Phase II	Project No: 53073
Meeting Date: 08/03/07	Meeting Location: Sarpy County Administrative Conf Rm
Notes by: Randy Stahmer, Lyle Christensen and Ellen Fitzsimmons	

**Attendees:**

Ellen Fitzsimmons	HDR	James Bartels	MUD
Jeremy Cook	HDR	Lyle Christensen	HDR
Brian Hanson	Sarpy County	Steven Perry	City of Gretna/Olmsted & Perry
Gerry Bowen	P-MRNRD	Randy Stahmer	HDR
Jim Wells	HDR	Paul Cook	Sarpy County
Ken Tex	Sarpy County	Donna Stigge	City of Gretna
Mark Wayne	Sarpy County	Rick Houck	Sarpy County
Paul Mullen	MAPA		

**Topics Discussed:**

1. Opening remarks by Ellen Fitzsimmons and Randy Stahmer. See **attached Agenda and Attendance List**.
2. Mark Wayne provided an overview of the Phase II project from the County's perspective.
  - a. Kennebec Estates could be the first project built in accordance with the Sewer Master plan, but will not be the usual case.
  - b. The cities and the county need to develop policies to fit a broad range of cases.
  - c. The cities and the county need to get Interlocal Agreements in place. Attorneys are waiting for a fee structure that can be approved by the County Board and the City Council's.
3. Randy provided a Phase II in Review. Highlights include:
  - a. The problems in the southern half of the county are not so much technical as they are administrative in nature.
  - b. Needs Assessment: Only 20% of stakeholders identified funding as a key restriction.
  - c. The SWG elected to use 'market drive' development zones to be managed at the local level.
  - d. Timing to build-out of the Papio Creek Basin is expected to be approximately 20 years.
  - e. The study considered the County as the Regional Authority, but the process has evolved into an Interlocal Agreement mechanism.
  - f. The County has prepared a "Build-Through" development policy to be presented to the Planning Commission on August 15, 2007.

- g. The estimated capital cost for all sewerage infrastructure has been updated to \$181M (2006 dollars).
  - h. Developer Meeting presented \$8,000/acre impact (i.e. sewer) fee concept.
4. Randy Stahmer opened a discussion on the three funding scenarios considered, that include the following:
    - a. Scenario 1 – Developer designs and builds the sewerage system (including any necessary oversizing), deeds the infrastructure over to the Public Agency, pays an impact fee and is reimbursed by the Public Agency for the cost of the project or the fee, whichever is less.
    - b. Scenario 2 – Developer designs and builds the sewerage system (including any necessary oversizing), deeds the infrastructure over to the Public Agency, and pays one-half of the impact fee at the time of platting. The other half of the impact fee is paid by the builder when a permit is applied for. The developer is reimbursed for the cost of the fee or the project, whichever is less.
    - c. Scenario 3 – The Public Agency designs, builds, owns and operates the sewerage system and assesses an impact fee at the time of platting.
  5. The SWG selected Scenario 1 to be the funding mechanism for future development in the southern half of Sarpy County. Scenario 1 limits public risk and exposure, and requires private investment to be successful.
  6. Paul Cook pointed out that there needs to be a different rate for commercial/industrial customers.
  7. Lyle Christensen indicated that there could also be a charge for a “special” waste.
  8. The plan currently includes Interlocal Agreements between cities and the county, but ultimately the City should acquire ownership. However, since ownership could cross several jurisdictional boundaries, it would be better to ultimately form a ‘COMPACT’ between the Sarpy County cities and the county.
  9. The role of the County is to put the plan in place that makes sense irrelevant of time.
  10. This completes the Phase II schedule of meetings. HDR will present the findings of this study to the Planning Commission, Sarpy County Board and the Coalition of Cities.

## **Appendix B**

### **Stakeholder Work Group Memorandum of Understanding**

## Stakeholder Workgroup Memorandum of Understanding

Development in Sarpy County is outpacing the County's and municipalities' ability to effectively administer existing wastewater management policies. Current wastewater needs are met through a variety of practices, depending on the local infrastructure and management agreements. These practices will not be able to withstand future growth pressures. The varying methods of managing wastewater throughout the county also present administrative and public perception difficulties, offering no clear guiding precedence or policy for managing growth or addressing immediate development requests that might be at odds with effective long-term planning.

To address these long-term planning concerns, Sarpy County invited representatives from surrounding communities, utilities and related government agencies to form a stakeholder workgroup. The workgroup, made up of representatives of Sarpy County, City of Gretna, City of Springfield, City of Bellevue, City of Papillion, Metropolitan Utilities District, Papio/Missouri River Natural Resource District, Nebraska Department of Environmental Quality (NDEQ) and Metropolitan Area Planning Agency (MAPA), will work together to devise a wastewater management solution for the entire county. The solution will outline a long-term wastewater management plan as well as interim steps needed to address continued growth pressures while the long-term solution is being implemented.

The process of formulating a long-term solution for Sarpy County wastewater management begins with an inventory and evaluation of current wastewater management practices including: pioneer policies, reserve capacity agreements, municipal and county comprehensive plans, future development zones, and existing partnerships or agreements. The engineering team will then conduct an independent evaluation of other countywide wastewater management alternatives such as a super SID, dominant public agency or Sarpy County Sewer District. Finally, the engineering team will establish and formulate alternative funding scenarios for presentation to the stakeholder workgroup.

The alternative solutions presented to the stakeholder group will address short-term and long-term issues critical to the formulation of a wastewater master plan for Sarpy County.

### **Critical Short-Term Issues**

- Coordination/administration of multiple providers and existing agreements
- Identification of partnership opportunities
- Clarification of Omaha wastewater system usage and future availability
- Introduction of temporary facility decommission agreements

### **Critical Long-Term Issues**

- Integration of a Buffalo Creek Basin public treatment plant into Sarpy County wastewater management practices
- Coordination of MUD and municipal water supply expansion
- Implications of related infrastructure on wastewater system (roads, interstate exits, etc.)

Based on the information provided by the engineering team, the Stakeholder Workgroup will review alternatives and select a long-term solution that:

- Outlines a defensible strategy for managing wastewater related growth issues in the county and municipalities
- Is in accordance with current state law and authority granted to the county and municipalities
- Safeguards critical environmental areas and follows all applicable environmental regulations
- Supports continued investment and appropriate development in Sarpy County
- Provides uniform and predictable guidance to developers and landowners when considering development
- Equitably assigns responsibility and benefit to Sarpy County and individual municipalities

### *Stakeholder Workgroup Roles and Responsibilities*

The goal of the Workgroup is to involve representatives of all key Sarpy County wastewater stakeholder groups in the evaluation and selection of a long-term wastewater management plan for the county. Workgroup members will provide input and pertinent data needed to understand current wastewater management practices and future wastewater needs. Workgroup members will represent their agency or municipality interests while providing countywide leadership for the long-term solution.

Stakeholder Workgroup members are asked to attend five working meetings with the HDR engineering team and three public presentations. Members may be asked to provide relevant wastewater management information or invite local technical representatives to ensure all necessary information is available. Members are also expected to review and comment on draft study report prior to public presentation.

The Stakeholder Workgroup will select representatives from the Sarpy County financial and development community to discuss the perceived advantages and disadvantages of proposed funding scenarios. With input from financial and development representatives, the Stakeholder Workgroup will evaluate ways for cash to flow from the owner (developer, land owner or lot owner) to an entity legally authorized to own, operate and manage sewerage systems for residential, commercial and industrial purposes. Ultimately, the Stakeholder Workgroup will select a single funding scenario that may be applied to the short list of wastewater management alternatives.

*Action Plan and Schedule*

<b>Meeting Number</b>	<b>Date</b>	<b>Purpose</b>
1	January 17, 2007	<ul style="list-style-type: none"><li>• Purpose of Phase II</li><li>• Stakeholder Group Formation</li></ul>
2	January 31, 2007	<ul style="list-style-type: none"><li>• Memo of Understanding</li><li>• Stakeholder Needs Assessment</li><li>• Development Zone Introduction</li></ul>
3	February 22, 2007	<ul style="list-style-type: none"><li>• Existing Legal Framework</li><li>• Preliminary Alternatives Analysis</li><li>• Identification of Special Finance Committee Members</li></ul>
4	March 14, 2007	<ul style="list-style-type: none"><li>• Preliminary Discussion of Funding Scenarios</li></ul>
5	April 4, 2007	<ul style="list-style-type: none"><li>• Stakeholder Work Group Selection of Single Funding Scenario</li></ul>
6	April 25, 2007	<ul style="list-style-type: none"><li>• Presentation &amp; Review of Draft Study Report</li></ul>

## **Appendix C**

### **Needs and Obstacles Assessment**

<b>MUD</b>	
NEEDS	<ul style="list-style-type: none"> <li>• WHAT/WHERE/WHEN: COMMUNICATION COORDINATION WITH GREYTN, SPRINGFIELD, BENNINGTON</li> <li>• LEAD TIME – PROACTIVE</li> <li>• NOT RURAL SUPPLIER</li> </ul>
OBSTACLES	<ul style="list-style-type: none"> <li>• EXPENSE</li> <li>• LONG TERM</li> </ul>

<b>MAPA</b>	
NEEDS	<ul style="list-style-type: none"> <li>• MEETING GROWTH</li> <li>• COST EFFECTIVE/EFFICIENCY</li> <li>• ADJACENT DEVELOPMENT: HWY/I-80 DEV.</li> <li>• REGIONAL BASIS</li> </ul>
OBSTACLES	<ul style="list-style-type: none"> <li>• GROWTH IS TOP DOWN</li> </ul>

<b>PAPILLION</b>	
NEEDS	<ul style="list-style-type: none"> <li>• CONTIGUOUS GROWTH</li> <li>• CITY → OUTWARD</li> <li>• COORDINATED GROWTH</li> <li>• TIMING</li> <li>• DISINCENTIVES</li> </ul>
OBSTACLES	<ul style="list-style-type: none"> <li>• CHEAP RURAL LAND</li> </ul>

<b>SPRINGFIELD</b>	
NEEDS	<ul style="list-style-type: none"> <li>• PLANT EXPANSION</li> <li>• MEET HWY 50 NEEDS</li> <li>• CONNECTION TO LIFT STATION</li> </ul>
OBSTACLES	<ul style="list-style-type: none"> <li>• GROWTH AT EDGES</li> <li>• BOTTLENECKS PUMP STATION</li> </ul>

<b>PNRD</b>	
NEEDS	<ul style="list-style-type: none"> <li>• WATER QUALITY: PLATTE/TRIBUTARIES</li> <li>• NO SEPTIC</li> <li>• ORGANIZED GROWTH</li> <li>• ADMIN STRUCTURE</li> <li>• MINIMIZE # INDIVIDUAL TREATMENT PLANTS</li> <li>• DO NOT WANT TO SERVE SARPY – LESS DENSE OPTION</li> </ul>
OBSTACLES	FUNDING

<b>BELLEVUE</b>	
NEEDS	<ul style="list-style-type: none"> <li>• PUMPING TO OMAHA</li> <li>• INCENTIVES</li> </ul>
OBSTACLES	<ul style="list-style-type: none"> <li>• OVERLOADING EXISTING</li> <li>• DIFFICULT TO BUILD TREATMENT</li> <li>• LAND FILLING UP</li> <li>• SEPTIC</li> </ul>

<b>SARPY COUNTY</b>	
<b>NEEDS</b>	<ul style="list-style-type: none"> <li>• ENFORCEMENT</li> <li>• REGULATIONS/REQUIREMENTS TYING TO EXISTING SYSTEM</li> <li>• DEVELOPMENT ZONE OMAHA SYSTEM</li> <li>• FEE STRUCTURE</li> <li>• CITY COORDINATION</li> <li>• OPTIONS FOR DEVELOPER</li> </ul>
<b>OBSTACLES</b>	<ul style="list-style-type: none"> <li>• I-80 COMMERCIAL PRESSURE</li> <li>• NO LEGAL AUTHORITY FOR RESIDENTS</li> <li>• LOTS OF AVAILABLE LAND</li> </ul>

<b>NDEQ</b>	
<b>NEEDS</b>	<ul style="list-style-type: none"> <li>• CLEAN WATER ACT</li> <li>• NPDES</li> <li>• EDUCATION</li> <li>• COMPLETE SID AGREEMENTS</li> <li>• -HOW-</li> <li>• REGIONAL TREATMENT</li> </ul>
<b>OBSTACLES</b>	<ul style="list-style-type: none"> <li>• AGED INFRASTRUCTURE</li> <li>• TRAINING</li> <li>• INDUSTRIES' CONTRIBUTION</li> <li>• PROPER SIZE</li> <li>• REGULAR MAINTENANCE UPGRADES</li> <li>• SIZE OF TREATMENT FACILITIES</li> </ul>

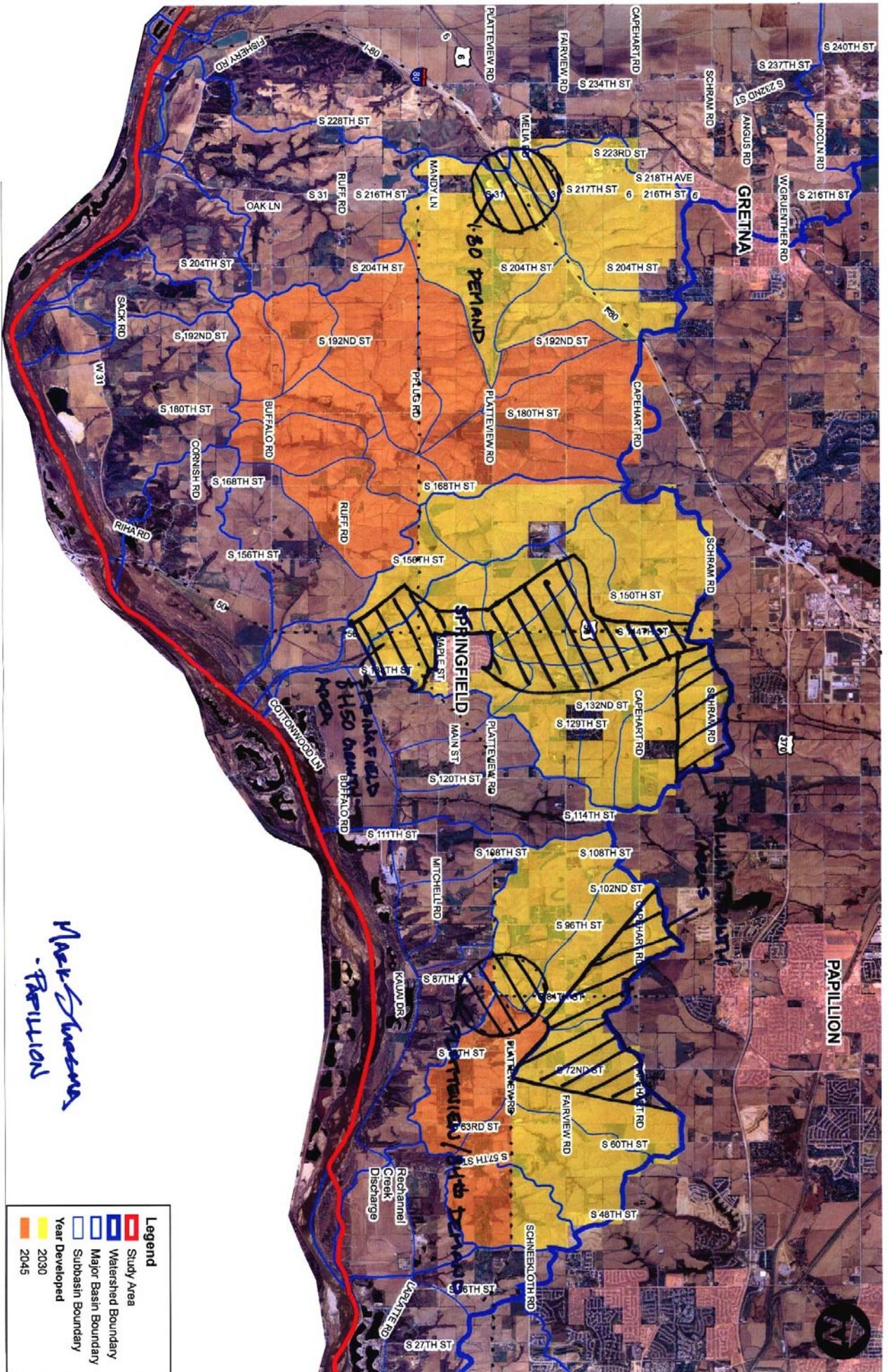
<b>GRETNA</b>	
<b>NEEDS</b>	<ul style="list-style-type: none"> <li>• CONTIGUOUS GROWTH</li> <li>• WEST/SOUTH GROWTH FACILITIES</li> <li>• PARTNERSHIPS</li> </ul>
<b>OBSTACLES</b>	<ul style="list-style-type: none"> <li>• RIDGELINE</li> <li>• EXISTING SEPARATE FACILITIES</li> <li>• CAPACITY</li> </ul>

NEXT SWG MEETING: FEBRUARY 22, 2007 AT PMRND

**Appendix D**  
**Development Zone Maps**





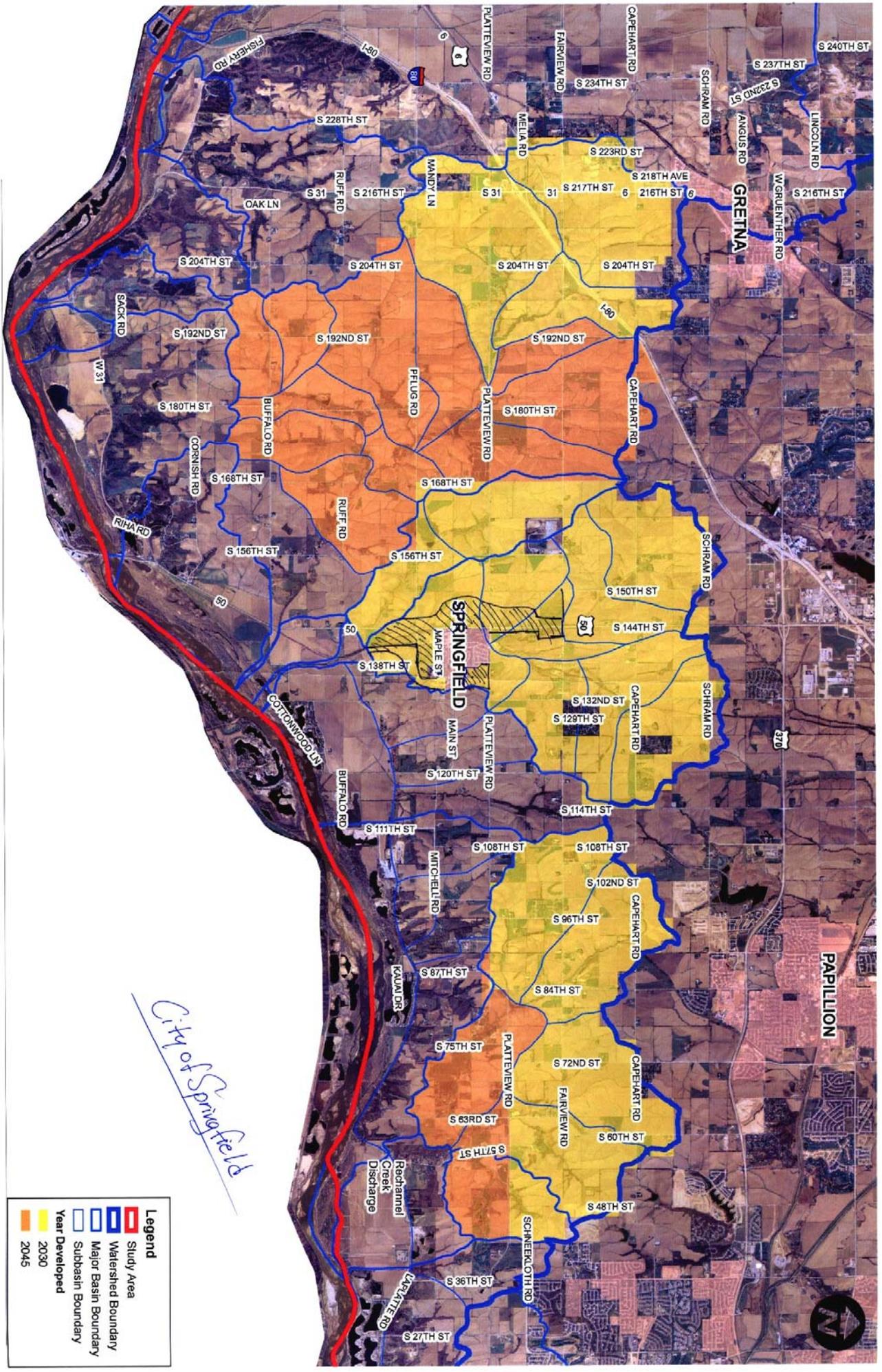


*Mark Stuewa  
- Papillion*

Legend	
	Study Area
	Watershed Boundary
	Major Basin Boundary
	Subbasin Boundary
	Year Developed
	2030
	2045



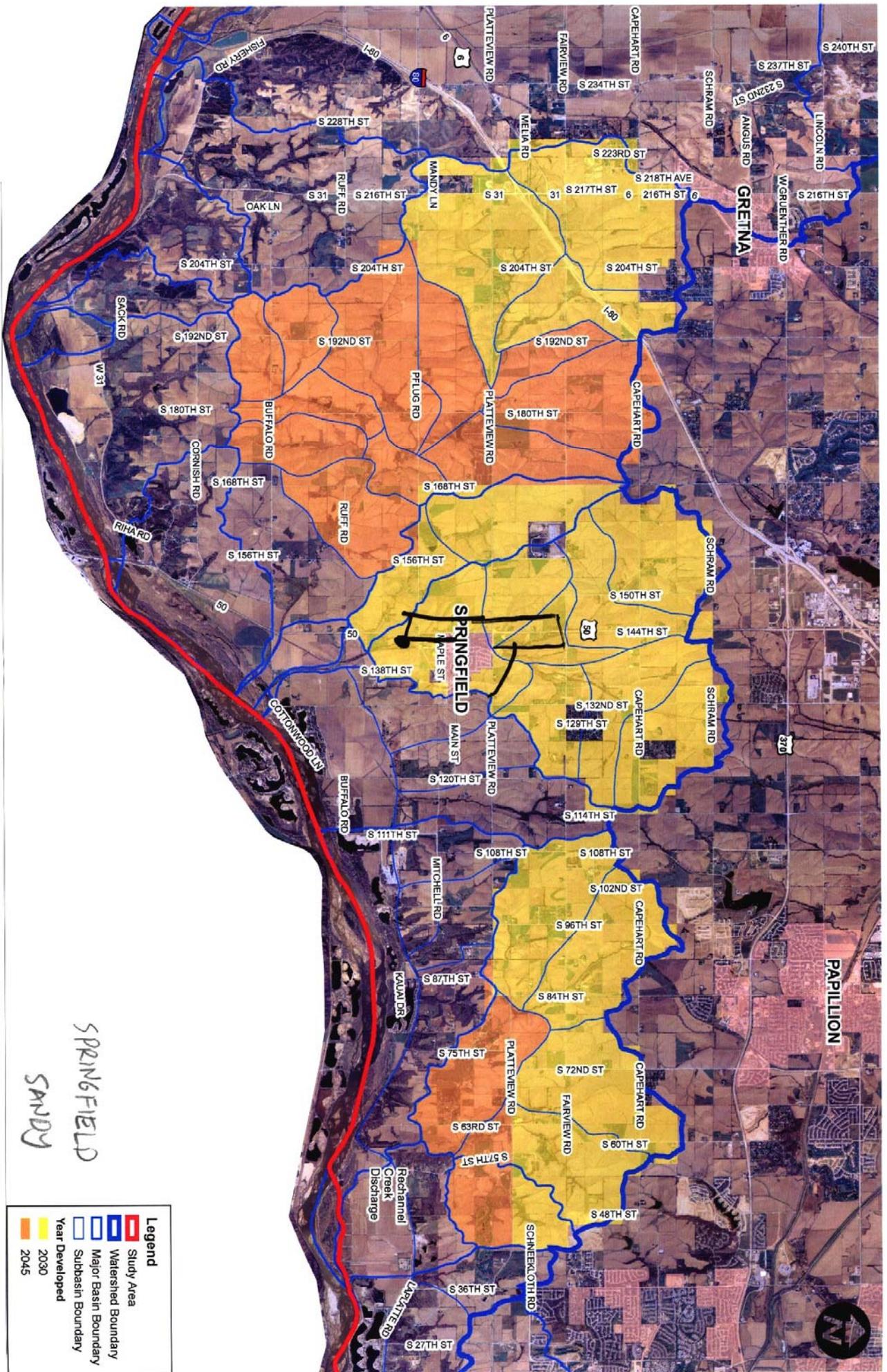


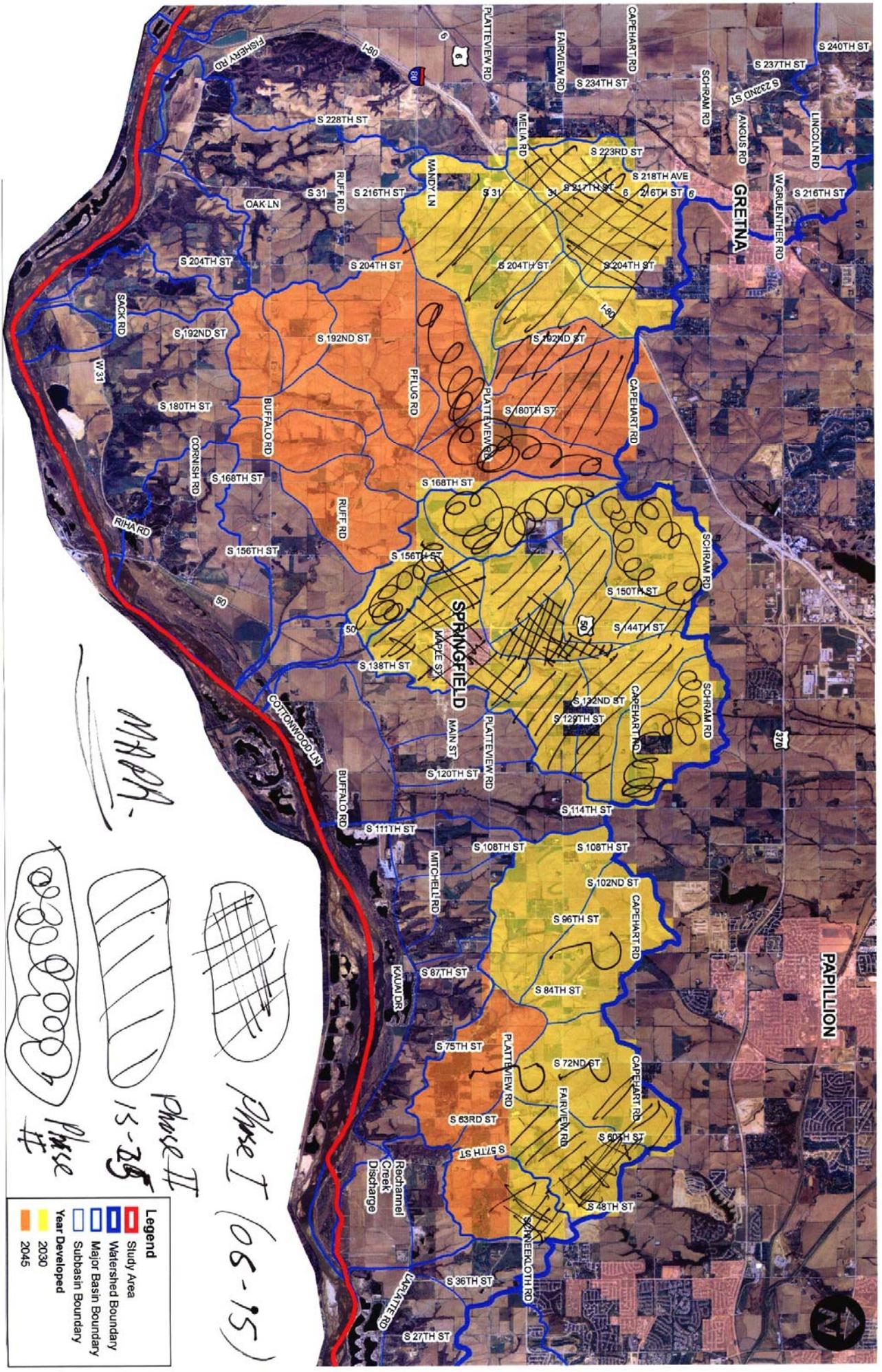


*City of Springfield*

Legend	
	Study Area
	Watershed Boundary
	Major Basin Boundary
	Subbasin Boundary
	Year Developed
	2030
	2045







*MAP*

*Phase I (05-15)*

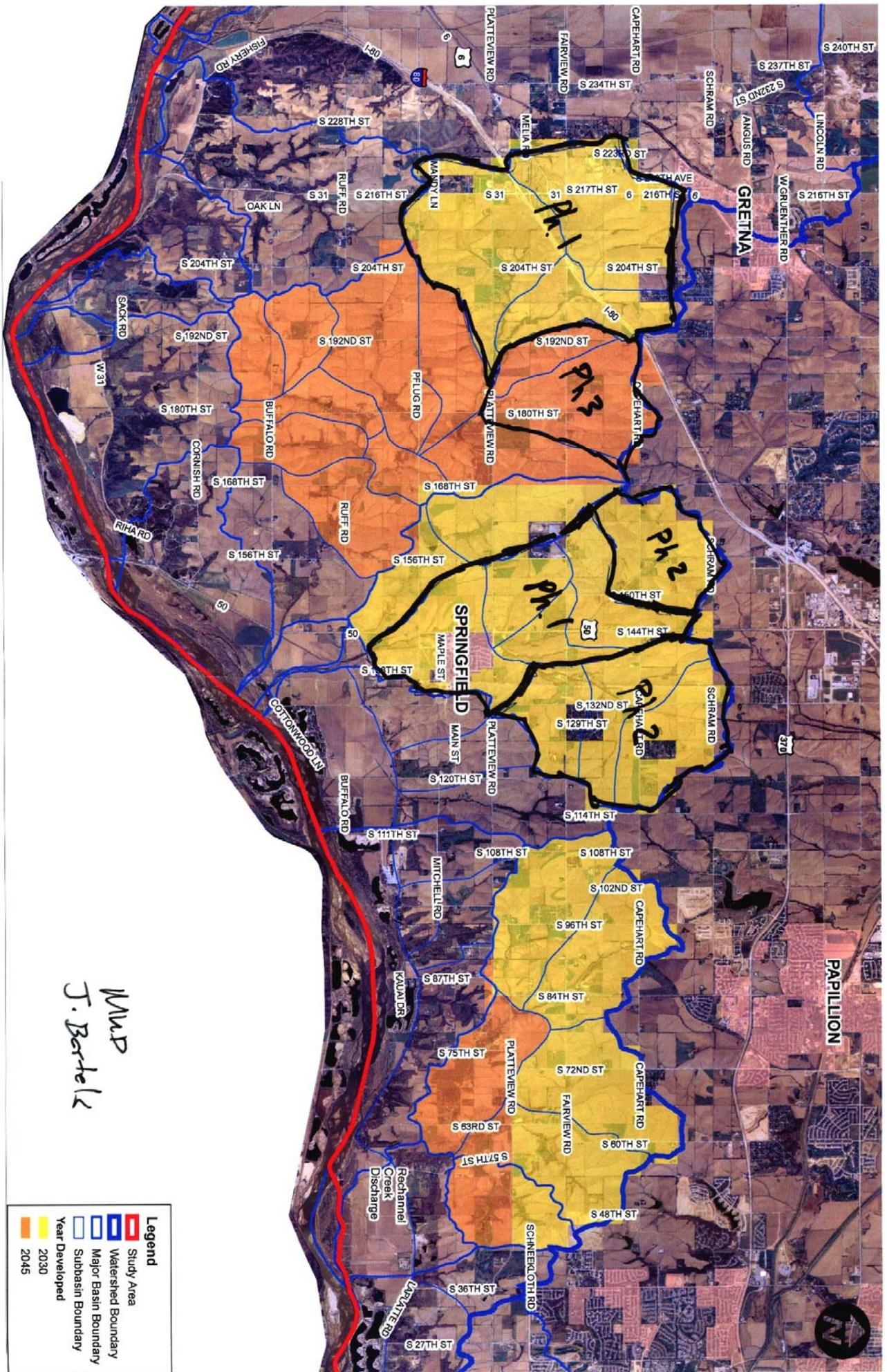
*Phase II (15-20)*

*Phase III*

Year Developed	Color
2005	Yellow
2030	Orange
2045	Red

**Legend**

- Study Area
- Watershed Boundary
- Major Basin Boundary
- Subbasin Boundary



WWD  
 J. Bertel

Legend	
	Study Area
	Watershed Boundary
	Major Basin Boundary
	Subbasin Boundary
	Year Developed
	2030
	2045



## **Appendix E**

### **Sarpy County Commissioners Road Improvement Policy**

**BOARD OF COUNTY COMMISSIONERS**  
**SARPY COUNTY, NEBRASKA**  
**RESOLUTION ADOPTING ROAD IMPROVEMENT POLICY**

WHEREAS, pursuant to Neb. Rev. Stat. §23-104(6) (Reissue 1997), the County has the power to do all acts in relation to the concerns of the county necessary to the exercise of its corporate powers; and,

WHEREAS, Neb. Rev. Stat. §39-1402 (Reissue 1998) grants to the County Board authority for the improvement, maintenance and general supervision of public roads; and,

WHEREAS, the rapid growth in Sarpy County has placed increasing demands on public funds for road improvements; and,

WHEREAS, in order to better allocate and prioritize the available funds, the Sarpy County Board desires to establish guidelines regarding Sarpy County's contribution to various road improvement projects.

NOW, THEREFORE, BE IT RESOLVED by the Sarpy County Board of Commissioners that the Road Improvement Policy, a copy of which is attached hereto, is herewith adopted, and shall be considered in evaluating future road improvement projects.

BE IT FURTHER RESOLVED any previous policies are hereby rescinded.

DATED this 19<sup>th</sup> day of August, 2003.

Moved by Tim Gay, seconded by Trey Boyd, that the above Resolution be adopted. Carried.

YEAS:

NAYS:

ABSENT:

[Signature]

none

none

[Signature]

\_\_\_\_\_

\_\_\_\_\_

[Signature]

\_\_\_\_\_

ABSTAIN:

[Signature]

\_\_\_\_\_

none

Aldona V. Doyle

[Signature]  
County Clerk



<b>Distributed to:</b>	
<input type="checkbox"/>	County Board _____
<input checked="" type="checkbox"/>	Administrator <u>M. Wayne</u>
<input checked="" type="checkbox"/>	Fiscal Admin. <u>B. Hanson</u>
<input checked="" type="checkbox"/>	Co. Atty. <u>M. Smith</u>
<input checked="" type="checkbox"/>	Elected Official(s) <u>J. Lynam Hwy.</u>
<input type="checkbox"/>	Dept. Head(s) _____
<input type="checkbox"/>	Check here for ALL Elected Officials/Dept. Heads
<input type="checkbox"/>	Other: Dept./Employee _____
<input checked="" type="checkbox"/>	FILE: Road Improvement Policy - GEN.

**SARPY COUNTY COMMISSIONER'S  
ROAD IMPROVEMENT POLICY**

**BY THE AUTHORITY CONFERRED UPON THE SARPY COUNTY BOARD OF COMMISSIONERS FOR THE IMPROVEMENT, MAINTENANCE AND GENERAL SUPERVISION OF THE PUBLIC ROADS, AS SET FORTH IN NEB. REV. STAT. §39-1402 (REISSUE 1998) AND AS THAT SECTION MAY, FROM TIME TO TIME BE AMENDED, THE FOLLOWING ROAD IMPROVEMENT POLICY IS HEREBY ADOPTED BY THE SARPY COUNTY BOARD OF COMMISSIONERS, UNLESS OTHERWISE PROVIDED.**

1. Road improvements will be made in accordance with the six-year plan adopted by Sarpy County, as required by Neb. Rev. Stat. §39-2115(Reissue 1998).
  
2. In the event that the owner or developer of residential property desires that the improvement of an adjacent county road be made at an earlier time than proposed by the six-year plan, the participation of the owner or developer will be required. Sarpy County's contribution will be limited in the following manner:
  - a. If the proposed road improvement is not on the six-year plan, the County's participation shall not exceed 25% of the cost of the improvement.
  - b. If the proposed road improvement is on the six-year plan, the County's participation shall not exceed 33 1/3 % of the cost of the improvement.
  - c. If the proposed road improvement had previously been scheduled to be improved within the next 24 months, the County may consider increasing the County's participation, but in no event shall the County's contribution exceed 50% of cost of the improvement.
  
3. Whenever possible, the County would encourage the participation of multiple parties in a road improvement project, and will seek to apportion the cost not paid by the County based upon the road frontage of the other participants.
  
4. When a road improvement project is undertaken by sanitary and improvement districts ("SID")

the costs of the contribution by those SIDs are then borne by those districts, regardless of the benefit to other adjoining properties. Accordingly, it shall be the policy of Sarpy County, Nebraska to require future subdivisions utilizing SID financing to pay a portion of the improvement costs for the improved road (based on frontage of that portion of the road improved) that had previously been paid by other subdivisions for abutting roads. Future subdivision agreements shall include provisions for such reimbursements of the SID's pro-rata share of the improvement costs based on frontage, and require a reimbursement agreement prior to recording of any plat for such subdivisions. Payment shall be made to the primary SID that paid for the Costs for such improved road per interlocal agreement with Sarpy County, Nebraska, or to Sarpy County.

5. As used in this policy, any reference to the cost of improvements, however phrased, shall only refer to the costs of design, engineering and construction of the road improvement. Any costs associated with the financing of the road improvement, including interest, legal, and the cost of bonding, are specifically excluded, and shall not be used in determining the County's contribution. The costs of improvement shall also be limited to those necessary to improve a road to the standards typically used by Sarpy County. Additional improvements or amenities, primarily of an aesthetic nature, will not be considered in determining the County's contribution.

## **Appendix F**

### **Letter from County Board Chair**

## INTERLOCAL COOPERATION AGREEMENT

This Interlocal Cooperation Agreement is made by and between the City of \_\_\_\_\_ (hereinafter referred to as "City") and the County of Sarpy, Nebraska, a body politic and corporate (hereinafter referred to as "County").

WHEREAS, County, pursuant to the Nebraska County Industrial Sewer Construction Act (Neb. Rev. Stat. § 23-3601, *et seq.*, Reissue 1997), is given the authority to own, construct, equip and operate a sewerage disposal system and plant or plants for the treatment, purification and disposal, in a sanitary manner, of liquid and solid wastes for the purpose of meeting the future needs of planned commercial and industrial users; and

WHEREAS, County is exercising that authority in order to develop economic opportunities for large commercial or industrial businesses, which in turn will create economic opportunities which will benefit all residents of the County; and

WHEREAS, City wishes to plan for adequate infrastructure in to accommodate orderly growth as City expands; and,

WHEREAS, pursuant to the Interlocal Cooperation Act, Neb. Rev. Stat. §13-801, *et seq.* (Reissue 1997), the Parties wish to permit their local governmental units to make the most efficient use of their powers by enabling them to cooperate with each other on a basis of mutual advantage and thereby to provide services and facilities in a manner and pursuant to forms of governmental organization that will best accord with geographic, economic, population, and other factors influencing the needs and development of local communities;

NOW, THEREFORE, THE PARTIES HEREBY AGREE AS FOLLOWS:

1. For the purposes of administration of this agreement, a Sewer Service Area (SSA) will be established. Said SSA shall be initial established as shown on Exhibit "A" attached hereto. Said SSA may be modified from time to time by agreement of the parties, which may be by an informal administrative procedure authorized by their respective governing bodies.

2. The County and the City agree to adopt the Sewer Plan for the SSA, a copy of which is attached hereto as Exhibit "B". The purpose of said plan is to identify the size and location of the outfall sewer lines and other associated facilities within the SSA. The Parties agree that any development within the SSA must connect with the sewer system described in Exhibit "B". The Parties agree to use their best efforts to obtain the dedication of the sewer easements and other necessary real estate shown on Exhibit "B" as a part of the zoning and subdivision process within their respective jurisdictions.

3. Each party agrees to take the appropriate action to adopt a sewer development charge ("sewer fee") of \$5850 per acre. This charge shall be required as a condition of any plat or subdivision within the SSA, or for any connection to the system described in Exhibit "B". Each party also agrees to take such action as necessary to require connection to the sewer system shown in Exhibit "B" when said system is reasonably available to a user.

4. Any sewer development charge or connection fee collected within the SSA by a party to this agreement shall be kept in a segregated fund by that party. Said funds may only be used for the purposes of developing the sewer system shown in Exhibit "B", and may not be borrowed, transferred or used for any other purpose. Each party agrees to provide a quarterly report to the other party describing any fees collected, the real estate to which said fees apply, and the current balance of the fees collected within the SSA.

5. The development of the system described in Exhibit "B" may occur in whole or in interim phases at some indefinite future date. Said development may be undertaken independently by either party pursuant as allowed by law, or by future agreement jointly by the parties, as well as with other entities not a party to this agreement.

6. In the event any portion of the system described in Exhibit "B" is lawfully constructed without the agreement of a party to this agreement:

A. The sewer fees collected by a party within the SSA, while still restricted to the uses and areas described herein, are not required to be paid toward the new construction without further agreement;

B. The party constructing said sewer system shall not be required to allow connection without the payment of sewer fees for collected by the non-participating party.

7. The parties hereby agree that any sewer fees collected or sewer system constructed shall, after an otherwise lawful annexation, be subject to City control pursuant to the provisions of Nebraska County Industrial Sewer Construction Act (Neb. Rev. Stat. § 23-3601, *et seq.*, Reissue 1997).

8. Both City and County shall and do hereby save and hold each other harmless, and their officers, employees, and agents from any and all claims and/or liability whatsoever due to or arising out of any acts, conduct, omissions, or negligence of each to the other or to another person or persons, trust or trustee, estate, partnership, corporation, business, company, political subdivision, or property thereof. Such covenant is to include each party's officers, employees, agents, or others acting by, for or under the direction of the City and/or County.

EXECUTED in duplicate this \_\_\_\_\_ day of \_\_\_\_\_, 2007.

CITY OF \_\_\_\_\_

\_\_\_\_\_ SEAL

Mayor

ATTEST:

\_\_\_\_\_  
City Clerk  
a Body Politic and Corporate

COUNTY OF SARPY, NEBRASKA,

SEAL

\_\_\_\_\_  
Chairman, Board of Commissioners  
of Sarpy County, Nebraska

ATTEST:

\_\_\_\_\_  
Sarpy County Clerk

Exhibit "A" Map of sewer service area

Exhibit "B" Map of proposed sewer system

## **Appendix G**

### **Interlocal Cooperation Master Agreement**

**Table 4.11 Residential Development Decision Matrix**

Density	Utility Systems	A Platte River Environmental	B Gretna West Estates	C Gretna South	D I-80 Mixed Use	E Buffalo North	F 180th and Pflug Crossroads
<b>Conventional Development (Densities shown are gross densities for the platted portion of the development)</b>							
20+ acres/unit	Individual water and sewer	P	I		I	I	I
10-20 acres/unit	Individual water and sewer		P		I	I	I
5-10 acres/unit	Individual water and sewer		P			BT	
3-5 acres/unit	Community/local area water and/or sewer		P	BT		BT	
2-3 acres/unit	Community/local area water and sewer			BT,T		BT,T	
1-2 acres/unit	Community/local area water and sewer			BT,T		BT,T	
1-2 acres/unit	Municipal water and sewer			P		P	
20,000 SF-1 acre/unit	Community/local area water and sewer			T		T	
20,000 SF-1 acre/unit	Municipal water and sewer			P		P	
10,000-20,000 SF/unit	Community/local area water and sewer			T	T	T	T
10,000-20,000 SF/unit	Municipal water and sewer			P	P	P	P
Less than 10,000 SF/unit	Community/local area water and sewer			T	T	T	T
Less than 10,000 SF/unit	Municipal water and sewer			P	P	P	P
<b>Conservation Development (Densities shown are gross densities for the entire development)</b>							
20+ acres/unit	Individual	P	P				
5+ acres/unit	Individual or community/local area water and/or sewer		P	BT		BT	
3-5 acres/unit	Community/local area water and/or sewer		P	BT,T		BT,T	
1-3 acres/unit	Community/local area water and sewer		P	T	T	T	
1-3 acres/unit	Municipal water and sewer			P	P	P	
20,000 SF-1 acre/unit	Community/local area water and sewer			T	T	T	T
20,000 SF-1 acre/unit	Municipal water and sewer			P	P	P	P
Under 20,000 SF/unit	Community/local area water and sewer			T	T	T	T
Under 20,000 SF/unit	Municipal water and sewer			P	P	P	P

- P** – Permitted
- I** – Permitted only as an interim use, for eventual development at a higher density
- BT** – Permitted only within Build Through Acreage developments
- T** – Permitted only with provision for mandatory transition to full urban services with extension of municipal water and/or sewer
- Blank** – Not Permitted



**Table 4.11 Residential Development Decision Matrix**

Density	Utility Systems	G Buffalo South	H Schram Park	I Springfield Far West	J Springfield West	K Highway 50 Mixed Use	L Springfield East
<b>Conventional Development (Densities shown are gross densities for the platted portion of the development)</b>							
20+ acres/unit	Individual water and sewer	I	P	I	I		I
10-20 acres/unit	Individual water and sewer	I	Note 1	I	I		I
5-10 acres/unit	Individual water and sewer	BT	Note 1	BT			
3-5 acres/unit	Community/local area water and/or sewer	BT,T		BT	BT		
2-3 acres/unit	Community/local area water and sewer	BT,T		BT	BT		
1-2 acres/unit	Community/local area water and sewer	P		T	T		T
1-2 acres/unit	Municipal water and sewer	P		P	P		P
20,000 SF-1 acre/unit	Community/local area water and sewer			T	T		T
20,000 SF-1 acre/unit	Municipal water and sewer			P	P		P
10,000-20,000 SF/unit	Community/local area water and sewer			T	T	T	T
10,000-20,000 SF/unit	Municipal water and sewer			P	P	P	P
Less than 10,000 SF/unit	Community/local area water and sewer			T	T	T	T
Less than 10,000 SF/unit	Municipal water and sewer			P	P	P	P
<b>Conservation Development (Densities shown are gross densities for the entire development)</b>							
20+ acres/unit	Individual	P	P				
5+ acres/unit	Individual or community/local area water and/or sewer	P	P	BT			
3-5 acres/unit	Community/local area water and/or sewer	P		BT,T	BT		
1-3 acres/unit	Community/local area water and sewer	P		T	T		
1-3 acres/unit	Municipal water and sewer	P		P	P		
20,000 SF-1 acre/unit	Community/local area water and sewer			T	T	T	T
20,000 SF-1 acre/unit	Municipal water and sewer			P	P	P	P
Under 20,000 SF/unit	Community/local area water and sewer			T	T	T	T
Under 20,000 SF/unit	Municipal water and sewer			P	P	P	P

**P** – Permitted

**I** – Permitted only as an interim use, for eventual development at a higher density

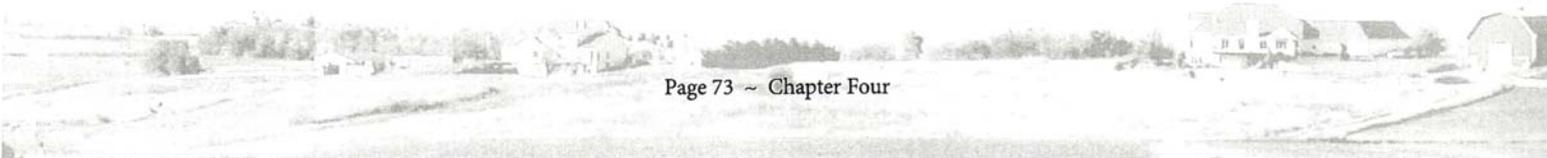
**BT** – Permitted only within Build Through Acreage developments

**T** – Permitted only with provision for mandatory transition to full urban services with extension of municipal water and/or sewer

**Blank** – Not Permitted

Note 1: Conventional development at this density is permitted for parcels on which 15% or less of the land area is constrained by one of the following factors: slopes over 9%; tree canopy; wetlands; water areas or drainageways; native prairie sites; or floodplains. Modification of a site to remove environmental features existing on the site prior to filing a development application will make the site ineligible for this density provision.

Drainageways shall mean any depression two feet or more below the surrounding land serving to give direction to a current of water less than nine months of the year, having a bed and well-defined banks; watercourse or drain way, it shall be presumed to be a watercourse.



**Table 4.11 Residential Development Decision Matrix**

Density	Utility Systems	M Springfield Urban Service	N Mid-creek	O Platteview South	P Zweibel West	Q Zweibel Center	R Zweibel East
<b>Conventional Development (Densities shown are gross densities for the platted portion of the development)</b>							
20+ acres/unit	Individual water and sewer		I	P	I	I	I
10-20 acres/unit	Individual water and sewer		I	P	I	I	I
5-10 acres/unit	Individual water and sewer			P			
3-5 acres/unit	Community/local area water and/or sewer			P	BT		
2-3 acres/unit	Community/local area water and sewer		P	P	BT		
1-2 acres/unit	Community/local area water and sewer		P		T	T	T
1-2 acres/unit	Municipal water and sewer	P			P	P	P
20,000 SF-1 acre/unit	Community/local area water and sewer		P		T	T	T
20,000 SF-1 acre/unit	Municipal water and sewer	P			P	P	P
10,000-20,000 SF/unit	Community/local area water and sewer		P		T	T	T
10,000-20,000 SF/unit	Municipal water and sewer	P			P	P	P
Less than 10,000 SF/unit	Community/local area water and sewer		P		T	T	T
Less than 10,000 SF/unit	Municipal water and sewer	P			P	P	P
<b>Conservation Development (Densities shown are gross densities for the entire development)</b>							
20+ acres/unit	Individual			P			
5+ acres/unit	Individual or community/local area water and/or sewer		P	P			
3-5 acres/unit	Community/local area water and/or sewer		P	P	BT		
1-3 acres/unit	Community/local area water and sewer		P		T	T	T
1-3 acres/unit	Municipal water and sewer	P			P	P	P
20,000 SF-1 acre/unit	Community/local area water and sewer		P		T	T	T
20,000 SF-1 acre/unit	Municipal water and sewer	P			P	P	P
Under 20,000 SF/unit	Community/local area water and sewer		P		T	T	T
Under 20,000 SF/unit	Municipal water and sewer	P			P	P	P

**P** – Permitted

**I** – Permitted only as an interim use, for eventual development at a higher density

**BT** – Permitted only within Build Through Acreage developments

**T** – Permitted only with provision for mandatory transition to full urban services with extension of municipal water and/or sewer

**Blank** – Not Permitted



**Table 4.11 Residential Development Decision Matrix**

Density	Utility Systems	S Zweibel Crossroads	T Zweibel Far East	U Bellevue South	V Bellevue Industrial
<b>Conventional Development (Densities shown are gross densities for the platted portion of the development)</b>					
20+ acres/unit	Individual water and sewer	I	I	I	
10-20 acres/unit	Individual water and sewer	I	I	I	
5-10 acres/unit	Individual water and sewer				
3-5 acres/unit	Community/local area water and/or sewer				
2-3 acres/unit	Community/local area water and sewer	BT			
1-2 acres/unit	Community/local area water and sewer	BT			
1-2 acres/unit	Municipal water and sewer				
<hr/>					
20,000 SF-1 acre/unit	Community/local area water and sewer	T			
20,000 SF-1 acre/unit	Municipal water and sewer	P	P	P	
10,000-20,000 SF/unit	Community/local area water and sewer	T	T	T	
10,000-20,000 SF/unit	Municipal water and sewer	P	P	P	
Less than 10,000 SF/unit	Community/local area water and sewer	T	T	T	
Less than 10,000 SF/unit	Municipal water and sewer	P	P	P	
<hr/>					
<b>Conservation Development (Densities shown are gross densities for the entire development)</b>					
20+ acres/unit	Individual				
5+ acres/unit	Individual or community/local area water and/or sewer				
3-5 acres/unit	Community/local area water and/or sewer				
1-3 acres/unit	Community/local area water and sewer	T			
1-3 acres/unit	Municipal water and sewer	P			
<hr/>					
20,000 SF-1 acre/unit	Community/local area water and sewer	T	T	T	
20,000 SF-1 acre/unit	Municipal water and sewer	P	P	P	
Under 20,000 SF/unit	Community/local area water and sewer	T	T	T	
Under 20,000 SF/unit	Municipal water and sewer	P	P	P	

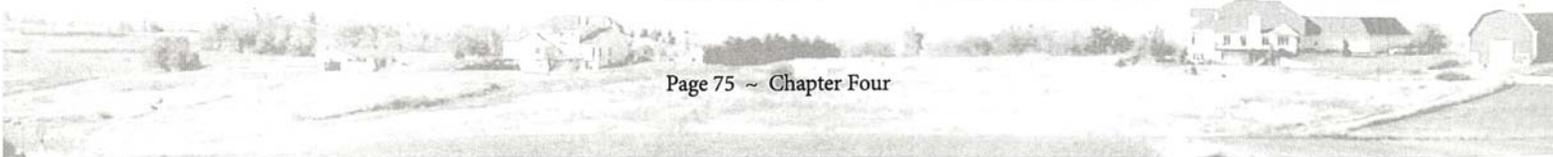
**P** – Permitted

**I** – Permitted only as an interim use, for eventual development at a higher density

**BT** – Permitted only within Build Through Acreage developments

**T** – Permitted only with provision for mandatory transition to full urban services with extension of municipal water and/or sewer

**Blank** – Not Permitted



## **Appendix H**

### **Residential Development Decision Matrix**

March 23, 2007

Mayor Ed Babbitt  
City of Bellevue  
210 W. Mission  
Bellevue, NE 68005

Dear Mayor Babbitt:

Sarpy County has been working with all of Sarpy cities having ETJ in the Platte River Basin as a partnership for the last two (2) years. We all sponsored the HDR Water and Wastewater Phase I Study which laid the groundwork for determining where wastewater sewers should be required and it proposed a long term implementation program.

The Phase II Wastewater Study has begun work on the details of implementation as subdivisions are proposed in areas that should require urban water and wastewater services. The cooperation of the cities is critical to this study and I ask for your support. In order to move forward with the Study it is imperative that we know which cities are willing to assist in developing the rules, regulations, approval process, fee structures and other organization details of a wastewater system. I am proposing that these details be worked out in the Study and attached either to a joint Interlocal Agreement with all jurisdictions and the County or individually between a city and the County.

Obviously there are many details to work out so today I am merely asking for a positive or negative response to this idea from each Mayor.

I truly believe we must be able to work together to control growth in the cities future growth area and setting regulations for water and wastewater is a start. The Study Partnership meets again April 11 at 1:30 PM at the Papio-Missouri NRD. I would appreciate a response prior to the meeting so that they know which cities are interested in working on the policies and regulations. If you have questions please feel free to contact Mark Wayne at 593-2347.

Thank you for your cooperation

Sincerely,

Paul Cook, Chairman  
Sarpy County Commissioners

## **Appendix I**

### **Updated Cost Estimates**

# Southern Sarpy County Sewer Master Plan - Phase II

## Opinion of Probable Capital Cost Wastewater Collection and Treatment Zweibel Creek Revision

HDR Project No.: 53073  
Oct-07

The original (Phase I) capital cost estimate (April 2006) = **\$143,864,108**

This estimate did not include the capital cost to treat wastewater generated in Zweibel Creek.

The Phase I study assumes that Zweibel Creek wastewater is treated at the Papio Creek Wastewater Treatment Plant (WWTP).

### REVISION TO 2006 CAPITAL COST ESTIMATE

Pump all wastewater generated in Zweibel Creek to the new Regional WWTP located at the confluence of Springfield Creek and Buffalo Creek (south of Springfield, Nebraska).

Distance to Regional WWTP site is approximately **8,500** FT farther than the distance to the Papio WWTP.

Assume the unit price for the force main to the new Regional WWTP site = **\$100** per LF

**Additional cost for longer forcemain = \$850,000**

From "Zweibel Creek Basin Preliminary Sewer Sizing" (Appendix D - Phase I Final Report)  
the AVERAGE WASTEWATER FLOW RATE = **4,048** gpm  
**5,829,120** GPD

Assume the unit price for the additional treatment capacity at the Regional WWTP  
(including allowance for contingency, O&P, and engineering = **\$6.18** per GPD

**Additional cost for treatment capacity = \$36,037,951**

**Total Cost Revision to treat Zweibel Creek wastewater at the Regional WWTP = \$36,887,951**

**REVISED TOTAL PROJECT COST (2006 DOLLARS) = \$180,752,059**