

Agenda Item: 10.

## MEMORANDUM

TO: Programs, Projects, and Operations Subcommittee

FROM: Eric Williams, Natural Resources Planner

SUBJECT: FY 2017 Long Range Implementation Plan (LRIP)

DATE: September 30, 2016

State statutes (see below) require NRDs to prepare and submit a "Long Range Implementation Plan" (LRIP) each year. A current LRIP needs to be on file with the state to make the District eligible for certain state cost share programs.

**"2-3277 - Districts; long-range implementation plans; prepare and adopt; contents; review; filing; department; develop guidelines.** Each district shall also prepare and adopt a long-range implementation plan which shall summarize planned district activities and include projections of financial, personnel, and land rights needs of the district for at least the next five years and specific needs assessment upon which the current budget is based. Such long-range implementation plan shall be reviewed and updated annually. A copy of the long-range implementation plan and all revisions and updates thereto as adopted shall be filed with the department, the Governor's Policy Research Office, and the Game and Parks Commission on or before October 1 of each year. The department shall develop and make available to the districts suggested guidelines regarding the general content of such long-range implementation plans.

**Source:** Laws 1978, LB 783, §3; Laws 1979, LB 412, §3; Laws 2000, LB 900 §61. Operative date July 1, 2000."

The draft LRIP (attached) is intended to summarize the planned activities in FY 2017 in terms of the various programs and projects and the intended accomplishments during the fiscal year, and projections for the next five fiscal years.

- **Management recommends that the proposed Fiscal Year 2017 Long Range Implementation Plan be approved.**

# Papio-Missouri River Natural Resources District

## Long Range Implementation Plan

Fiscal Year 2017



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Approved by the Board of Directors: October 13, 2016

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## **I. INTRODUCTION**

In recognition of the need to orderly develop and manage the State's natural resources, the 80<sup>th</sup> session of the Nebraska Legislature enacted LB 1357 creating natural resources districts (NRD). On July 1, 1972, over 150 special purpose districts were combined to form 24 NRDs covering the entire state (see Figure 1). These districts, bounded predominantly along hydrologic lines, are empowered to provide for effective planning, development, and management of natural resources.

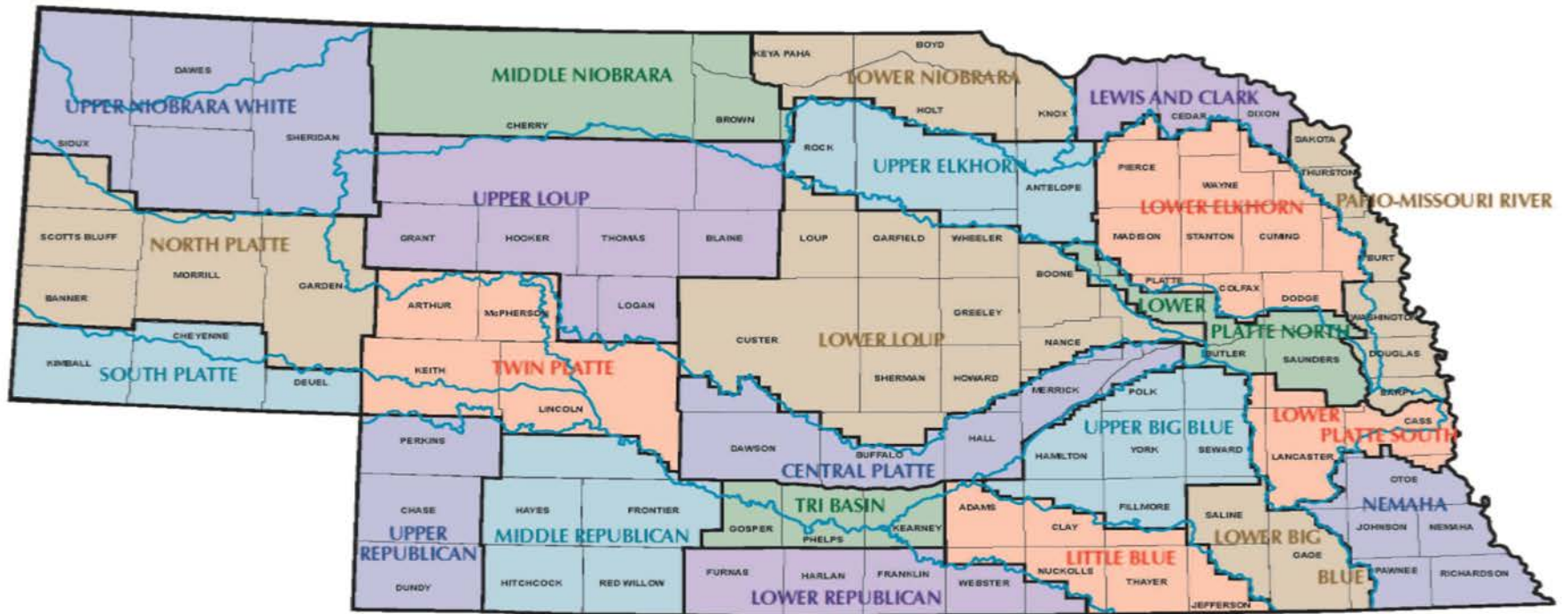
The Papio-Missouri River NRD was created on January 5, 1989 when the Papio and Middle Missouri Tributaries NRDs merged, leaving 23 NRDs in the state.

This Long Range Implementation Plan has been prepared according to state statutes (see below) to explain the District's programs and projects, activities planned for FY 2017, and activities planned for the next five fiscal years.

“2-3277        Districts; long-range implementation plans; prepare and adopt; contents; review; filing; department; develop guidelines. Each district shall also prepare and adopt a long-range implementation plan which shall summarize planned district activities and include projections of financial, personnel, and land rights needs of the district for at least the next five years and specific needs assessment upon which the current budget is based. Such long-range implementation plan shall be reviewed and updated annually. A copy of the long-range implementation plan and all revisions and updates thereto as adopted shall be filed with the department, the Governor's Policy Research Office, and the Game and Parks Commission on or before October 1 of each year. The department shall develop and make available to the districts suggested guidelines regarding the general content of such long-range implementation plans.

Source: Laws 1978, LB 783, §3; Laws 1979, LB 412, §3; Laws 2000, LB 900 §61. Operative date July 1, 2000.”

Figure 1



## **II. DESCRIPTION OF THE DISTRICT**

Located in eastern Nebraska, the Papio-Missouri River Natural Resources District consists of all of Sarpy, Douglas, Washington, and Dakota Counties, the eastern two-thirds of Burt and Thurston Counties, and a small portion of southeastern Dodge County (see Figure 2). The District is bounded on the east by the Missouri River, and the Platte River forms the boundary on the south and a portion of the west. Three major river basins (Missouri, Platte, and Elkhorn) are represented.

### **1. Board of Directors**

The District is governed by an elected Board of Directors. There are currently 11 members on the Board representing 11 sub-districts (see Figure 3) each containing approximately the same number of people.

Current Board Members are:

a. Fred Conley	Subdistrict 2
b. David Klug, Chairperson	Subdistrict 10
c. Richard Tesar, Secretary	Subdistrict 5
d. John Conley, Treasurer	Subdistrict 4
e. Patrick Bonnett	Subdistrict 9
f. Curt Frost	Subdistrict 3
g. Tim Fowler, Vice Chairperson	Subdistrict 8
h. Bill Rhea	Subdistrict 1
i. Patrick Leahy	Subdistrict 7
j. James Thompson	Subdistrict 6
k. Ron Woodle	Subdistrict 11

Figure 2 – Papio-Missouri River Natural Resources District

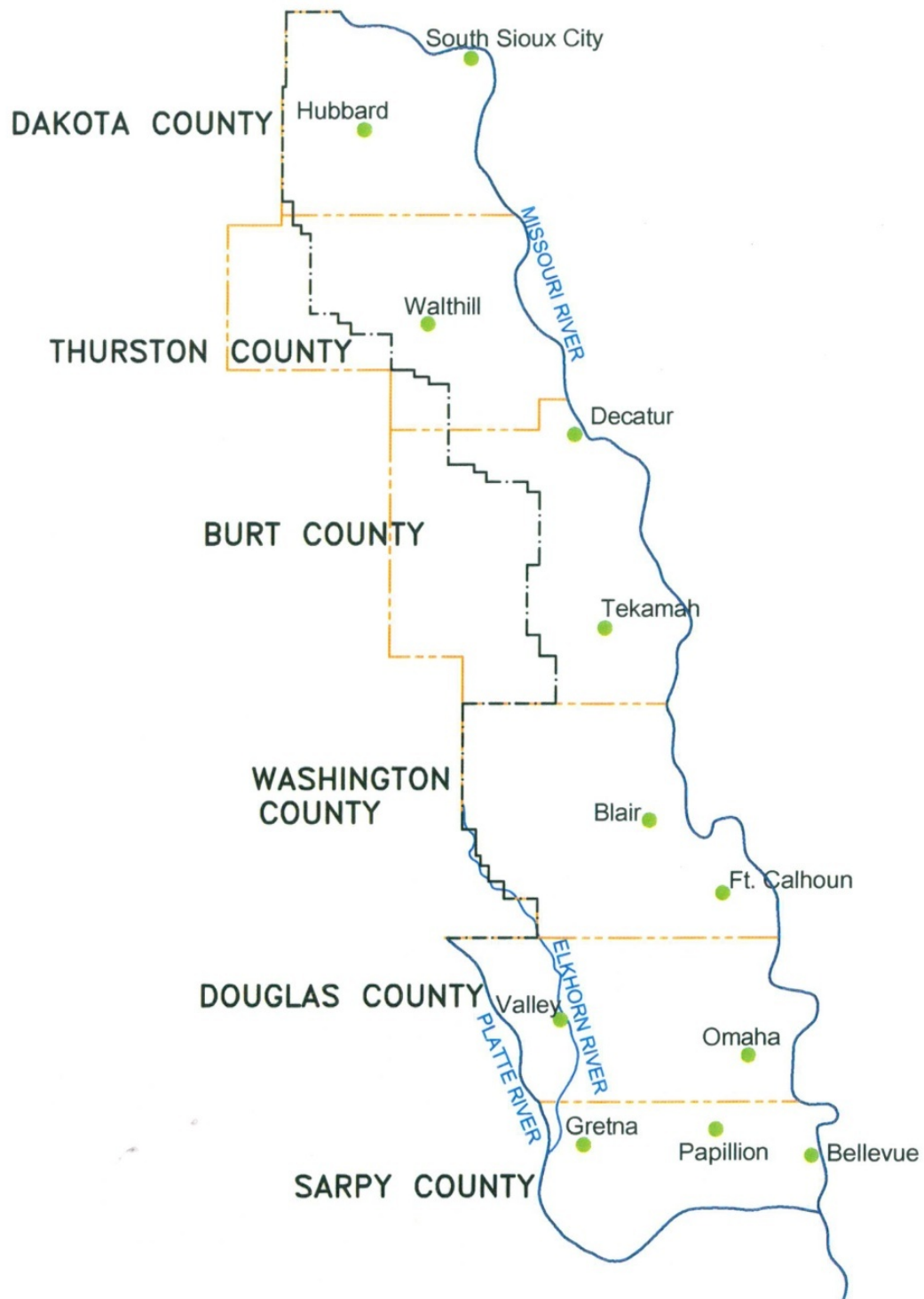
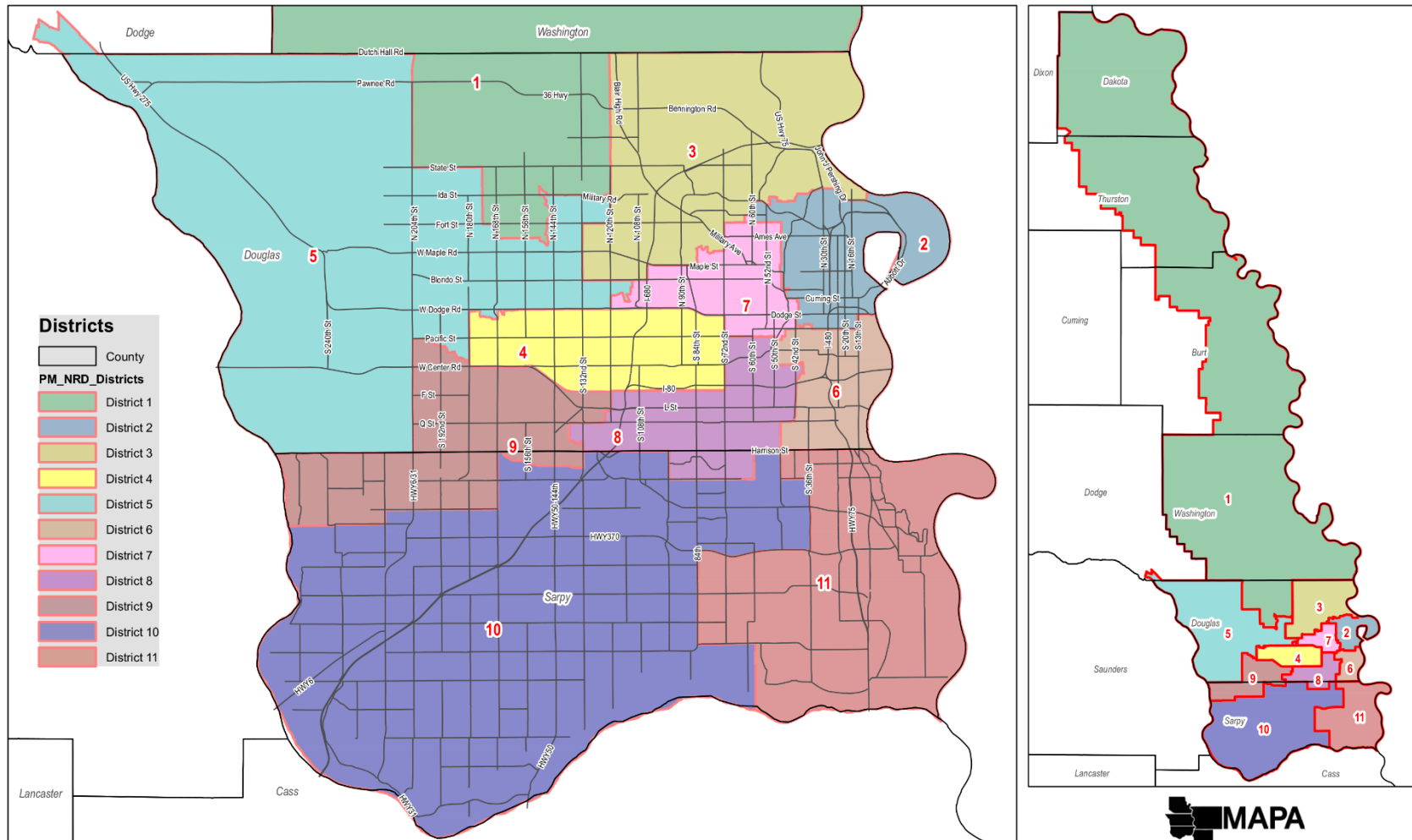




Figure 3 - NRD Sub-district Map

### Papio-Missouri River Natural Resources District - 2011 Sub-Districts



## 2. District Staff

A permanent staff is maintained to implement the District's various programs and projects. An Organizational Chart is attached, see Figure 4.

### Administrative Services:

John Winkler	General Manager
Jean Tait	Administrative Coordinator
Nicole Gust	Purchasing Agent/Files Administrator
Melanie Liebsack	District Secretary
Carey Fry	Senior District Accountant
Jolene Kohout	Accounting Assistant
Barbara Sudrila	District Accountant (part time)
Bill Brush	Information Technology Manager
Michael Grube	Information Technology Technician
Randy Lee	Natural Resources Center Building Manager

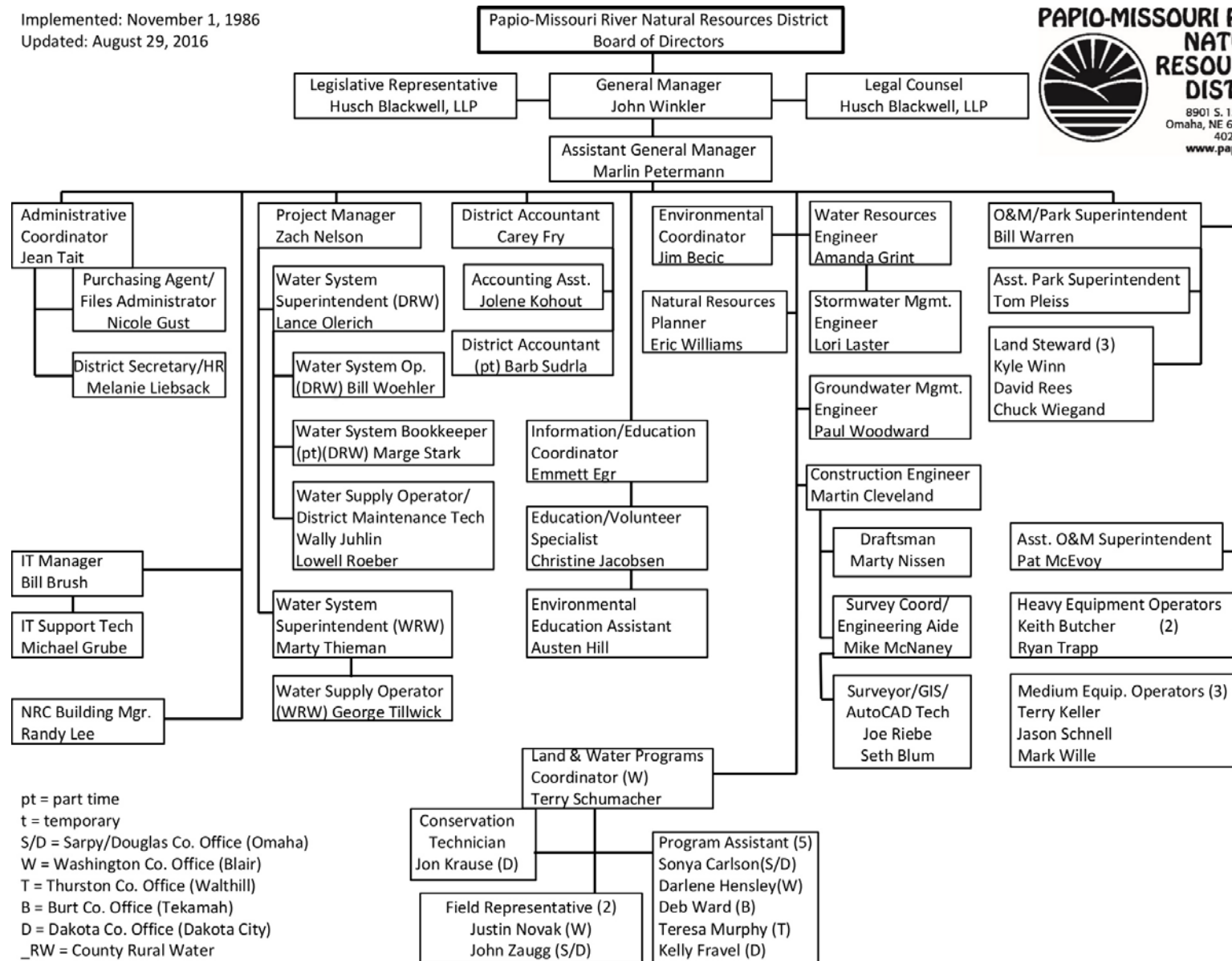
### Program and Project Services:

Marlin Petermann	Assistant General Manager
Jim Becic	Environmental Coordinator
Eric Williams	Natural Resources Planner
Amanda Grint	Water Resources Engineer
Lori Laster	Stormwater Management Engineer
Paul Woodward	Groundwater Management Engineer
Martin Cleveland	Construction Engineer
Mike McNaney	Survey Coordinator
Marty Nissen	Draftsman
Joe Riebe	Surveyor/GIS/AutoCAD Technician
Seth Blum	Surveyor/GIS/AutoCAD Technician
Terry Schumacher	Land and Water Programs Coordinator
Jon Krause	Conservation Technician
Justin Novak	Field Representative (Blair)
John Zaugg	Field Representative (Omaha)
Sonya Carlson	Program Assistance (Omaha)
Darlene Hensley	Program Assistant (Blair)
Deb Ward	Program Assistant (Lyons)
Teresa Murphy	Program Assistant (Walthill)
Kelly Fravel	Program Assistant (Dakota City)
Emmett Egr	Information/Education Coordinator
Christine Jacobsen	Education/Volunteer Specialist
Austen Hill	Environmental Education Assistant
Zachary Nelson	Project Manager
Lance Olerich	Water System Superintendent (Dakota City)
Bill Woehler	Water System Operator (Dakota City)
Marge Stark	Water System Bookkeeper (Dakota City)

Wally Juhlin	Water Supply Operator / District Maintenance Technician
Lowell Roeber	Water Supply Operator / District Maintenance Technician
Marty Thieman	Water System Superintendent (Blair)
George Tillwick	Water System Operator (Blair)
Bill Warren	Operations and Maintenance Superintendent
Tom Pleiss	Asst. Park Superintendent
Kyle Winn	Land Steward
David Rees	Land Steward
Chuck Wiegand	Land Steward
Pat McEvoy	Assistant Operation and Maintenance Superintendent
Keith Butcher	Heavy Equipment Operator
Ryan Trapp	Heavy Equipment Operator
Terry Keller	Medium Equipment Operator
Jason Schnell	Medium Equipment Operator
Mark Wille	Medium Equipment Operator

Figure 4 – District Staff

Implemented: November 1, 1986  
Updated: August 29, 2016



### **3. Authorities and Responsibilities**

Authority for the District's activities is found in Chapter 2-3229 of the Revised Statutes of Nebraska. It states:

“The purpose of natural resources districts shall be to develop and execute, through the exercise of powers and authorities contained in this act, plans, facilities, works and programs relating to,

- 1) erosion prevention and control,
- 2) prevention of damages from flood water and sediment,
- 3) flood prevention and control,
- 4) soil conservation,
- 5) water supply for any beneficial uses,
- 6) development, management, utilization and conservation of groundwater and surface water,
- 7) pollution control,
- 8) solid waste disposal and sanitary drainage,
- 9) drainage improvement and channel rectification,
- 10) development and management of fish and wildlife habitat,
- 11) development and management of recreational and park facilities, and
- 12) forestry and range management...”

The Papio-Missouri River Natural Resources District has consolidated these authorities into seven resource management needs. By priority for FY 2017, these include the need to:

1. Reduce flood damages.
2. Maintain water quality and quantity.
3. Reduce soil erosion and sedimentation damages.
4. Provide domestic water supply.
5. Provide outdoor recreation facilities
6. Develop and improve fish and wildlife habitat, and forest resources.
7. Participate in solid waste management and pollution control.

### III. PROGRAMS AND PROJECTS

This plan reviews the current status of the District's programs and projects which have been implemented to address the resource management needs previously outlined. District accomplishments over the past few years are listed. Additionally, this plan explains activities to be undertaken in the current budget year, and anticipated activities during the next five budget years.

The projected personnel and financial resources needed for each of these programs and projects for FY 2017 are summarized in Tables 2 and 3 of Section IV of this plan. Table 2, and Tables 4 and 5 in Section V summarize the projected personnel, expenditures, and revenues for the next five fiscal years.

#### 1. Project Maintenance – Channels & Levees

Upon completion, District projects are placed in the operation and maintenance category. The following channel and levee projects are operated and maintained by the District. These operations will continue into the future.

a. Missouri River Levee, Unit R-613

Missouri River Levee System Unit R-613, a component of the Missouri River Levee System Project, was authorized as part of the Flood Control Act of 1944 (Pick-Sloan Plan). The completed levee is located in southeastern Sarpy County adjacent to the Platte River, Missouri River, and Papillion Creek. The District has assumed operation and maintenance responsibility of the nearly thirteen miles of levees and appurtenant structures. Continued operation and maintenance of the project will be provided.

b. Missouri River Levee, Unit R-616

Part of the Missouri River Levee System, authorized by the Flood Control Act of 1944 (Pick- Sloan Plan), Unit R-616 is the right bank levee along the Missouri River from the mouth of the Papillion Creek north to Highway 370 in Bellevue. This 4.5-mile levee provides flood protection from high flows on the Missouri River and Papillion Creek for the area east and south of Bellevue. Continued operation and maintenance will be provided.

c. Union Dike

In 1976, the District assumed operation and maintenance of the completed Union Dike and Drainage District levee, which extends 9.5 miles along the left bank (east) of the Platte River from Fremont to west of Valley, Nebraska. In 1991, construction was completed on a levee improvement project. The District paid 10% of the costs with the remainder assessed to benefited properties. The project also created 24 acres of wetland habitat.

As a continuation of this project, the District improved an existing dike (No-Name Dike) along the Platte River between County Road 33 and the UPRR in Western Douglas County (approximately two miles in length). Construction was completed in 1993.

Operation and maintenance of the levee improvements will continue into the future.

d. Big Papillion Creek Channel Project

Construction of the channel improvements between Center and L Streets was completed in 1996. In 2001, construction of channel improvements on the Big Papillion Creek between Center and Blondo was completed. The District will provide operation and maintenance on the improved channel into the future.

e. Little Papillion Creek Channel Project

The Little Papillion Creek Channel Project was constructed by the Corps of Engineers between Pratt Street and the confluence with the Big Papillion Creek north of Q Street. Douglas County was the local sponsor of the project until 1996, when the District assumed operation and maintenance responsibilities for the project.

f. Bellevue/Offutt Drainageway Project

In 1998 and 1999, the City of Bellevue, Offutt Air Force Base, and the District undertook a project to improve the Bellevue/Offutt Drain from Modification Road eastward to Missouri River Levee R-616. The District will operate and maintain the project into the future.

## **2. Project Maintenance - Dams**

Upon completion, District projects are placed in the operation and maintenance category. The following structural projects are operated and maintained by the District. These operations will continue into the future.

a. Papillion Creek P.L. 566 Watershed

This project was established to address grade stabilization problems in the Papillion Creek Watershed in Douglas, Sarpy, and Washington Counties. 28 of 52 structures identified in the work plan have been completed and are operational. The District will continue to provide maintenance of completed structures.

In 2009, Structures S-27, S-31, and S-32 underwent rehabilitation by the Natural Resources Conservation Service (NRCS). In addition, Structure W-3 was rehabilitated in 2011.

b. Tekamah-Mud Creek P.L. 566 Watershed

All 15 of the structures identified in the work plan of this Burt County watershed have been installed and are operational. The largest of the structures created Summit Lake, which is operated by the Game and Parks Commission as a state recreation area. The District will continue to maintain completed structures.

c. Turtle Creek P.L. 566 Watershed

The Turtle Creek Watershed Project is located in south central Sarpy County. Both structures identified in the work plan have been built. The District operates and maintains the project. Turtle Creek #2 was evaluated by NRCS in 2006 for rehabilitation. The design of the improvements was completed in 2008, and construction completed in 2009.

d. Buffalo Creek Watershed

Buffalo Creek Watershed, located in southwest Sarpy County, experienced flooding, sediment, and erosion damage throughout the entire watershed. 10 grade stabilization structures were identified in the work plan, with all 10 having been built. Funding assistance was received from the Nebraska Department of Natural Resources (NDNR) through the Resources Development Fund (RDF). Maintenance of these structures will be performed as necessary.

e. Silver Creek Watershed

The Silver Creek Watershed Project was established in 1994 to reduce erosion and sedimentation rates in this Burt County watershed. Plans call for the installation of 26 grade stabilization structures, of which, 24 have been completed. In addition, terraces and other best management practices will provide significant off-site benefits through sediment reduction in the Burt-Washington Drainage District. Construction will continue until all structures identified in the work plan are installed. Construction on Site #11 was completed in 2011.

### **3. Thompson Creek Levee Rehabilitation**

The Thompson Creek Levee Improvement Project is located between 66th Street and 60th Street along Thompson Creek and south of Harrison Street in La Vista, NE. Thompson Creek is a tributary to Big Papio Creek, located along the right bank (looking downstream). These levees tie the Big Papio Creek Right Bank Levee back to high ground at 66th Street. The Thompson Creek levees are being improved by setting the levees back away from the creek and constructing stable side slopes. The existing steep side slopes are being eroded by Thompson Creek flows. The improvement project will allow the District to regain an “acceptable” rating for the project by US Corps of Engineers. The existing conditions have been considered unacceptable due to the steepness of the side slopes, which affects levee safety. The Improvement Project commenced in 2014 with completion of design and right-of-way acquisition. Utilities in the work area were relocated in spring 2015 and levee improvement construction began in spring 2015 as well. The construction is forecast to be completed by December 2016.

### **4. Papillion Creek and Tributaries Project**

On July 1, 1972, the District assumed responsibility for local coordination of the Papillion Creek and Tributaries Flood Control Project. Prior to that time, the Papio Watershed Advisory Board carried out this responsibility for the three county boards (Sarpy, Douglas, and Washington Counties).

Eight of twenty-one federally authorized flood control structures conceived in the late 1960's have been constructed; Site 16 (Standing Bear Lake), Site 11 (Cunningham Lake), Site 17 (Candlewood Lake), Site 18 (Zorinsky Lake), Site 20 (Wehrspann Lake), Site 21 (Walnut Creek Lake), Site 6 (Newport Landing), and Site 13 (Youngman Lake). After sites 16, 11, 17, 18 and 20 were completed, the large dam construction program was de-authorized by the federal government in the early 1980's. Since then, the District has pursued construction of large dams without federal funding, completing Dam Site 21 (Walnut Creek), Site 13 (Youngman Lake), Dam Site 6 (Newport Landing), and Shadow Lake Reservoir / Midland Lake Water Quality Basin.



In 2009, the District and local cities and counties joined together to form the Papillion Creek Watershed Partnership (PCWP) to pursue the construction of additional regional flood control and water quality structures. The plan included 14 flood control reservoirs and 12 water quality basins. Flood control reservoir WP-5 (along with 2 associated water quality basins) and the Zorinsky Basin #1 have been completed, and construction of flood control DS-15A (and 1 associated water quality basin) began in FY 2015.

Maintenance of the flood control structures at Sites 11, 16, and 18 is provided by the Corps of Engineers. The District maintains Candlewood Lake (built by private interests), Walnut Creek Lake (built and maintained by the District), and Site 13 (through a public/private partnership with the structure maintained by the District).

Recreation facilities are completed at Sites 11, 16, 18, 20 and 21. The City of Omaha is the sponsor of recreation operations at Sites 11, 13, 16, and 18, while the District has this responsibility at Site 20 (see Chalco Hills Recreation Area). By agreement, the City of Papillion operates Site 21 (Walnut Creek) and the City of Omaha operates Site 13 (Youngman Lake).

An automated flood warning system was also installed throughout the Papillion Creek basin as part of the channel improvement from L to Center Streets. This system was updated with new equipment in 2012 includes twenty-two rain gauges, and seventeen stream stage gauges. The flood warning system is maintained by the US Geological Survey through a contract with the District.

## **5. WP-5 Regional Detention Structure**

The West Papillion Regional Basin Number 5 (WP-5) is the first flood control structure proposed as part of the Papillion Creek Watershed Partnership's Watershed Management Plan. The reservoir is located on Westmont Creek, which is a tributary within the West Papillion Creek Watershed.

The project will:

- Address the immediate need for flood control in areas surrounding and including the City of Papillion
- Create a 135 acre lake with an additional 335 acres of park land
- Provide recreational opportunities such as "no wake" boating, fishing, 4 miles of hiking and biking trails, and picnic areas
- Protect highly erodible stream banks from further deterioration
- Improve water quality
- Create an aquatic ecosystem on the site
- Enhance and create wildlife habitat

WP-5 was re-named "Prairie Queen" in 2014, and opened for public recreation use in 2015.

## **6. Papio DS-15A Project**

Dam Site 15A is one of 15 proposed regional detention basins in the Papillion Creek Watershed Management Plan. Dam Site 15A, a 225-acre lake, is proposed to be located on the North Branch of West Papillion Creek in Douglas County near 168th and Fort Streets. The project will:

- Address the immediate need for flood control in the Omaha metropolitan area and areas downstream along West Papillion Creek.
- Provide recreational opportunities such as “no wake” boating, fishing, hiking and biking trails, and picnic areas.
- Improve water quality in the Papillion Creek Watershed.
- Introduce an aquatic ecosystem including fisheries.
- Enhance and create wildlife habitat.

## **7. WP-6 Regional Detention Structure**

Flood control WP-6 is included in the Papillion Creek Watershed Partnership’s Watershed Management Plan to provide flood control, prevent streambank erosion, provide aquatic habitat, and increase access to natural resources for recreation. Design began in FY 2016, with construction expected in 2018.

## **8. WP-7 Regional Detention Structure**

Flood control WP-7 is included in the Papillion Creek Watershed Partnership’s Watershed Management Plan. Design began in FY 2016, with construction to be completed in 2018.

## **9. Zorinsky Basin #2**

An additional sediment basins to improve and protect water quality in Lake Zorinsky is planned to be located south and west of 204<sup>th</sup> Street and West Center Road. Design and land acquisition are in process, with construction scheduled to begin in FY 2018.

## **10. Missouri River Levee Certification**

In 2010, the District began the process of accreditation of the R-613 and R-616 Levees for inclusion in the updated Digital Flood Insurance Rate Map (DFIRM) published by FEMA. The updated data for the maps are scheduled to be completed in 2015. Accreditation will involve the evaluation of the levee design under flood conditions, design of improvements to meet the revised FEMA criteria, and construction of those improvements. The operation and maintenance manual will also be updated. Construction of improvements for R-613 and R-616 is anticipated in 2017 and 2018.

## **11. Omaha Levee Certification**

The District has entered into an Interlocal Agreement to provide financial assistance to the City of Omaha for Omaha Levee certification to meet FEMA standards.

## **12. Floodplain Management Program**

Primary responsibility for implementing floodplain management programs rests with cities and counties having regulatory jurisdiction over floodplain lands. To assist in this regard, the District provides technical advice to entities of government on floodplain management efforts upon request. This includes comments on rezoning applications, building permits, and new developments.

In addition, the District assists with the implementation of flood insurance programs by providing information to agencies and individuals needing to know if a specific property is located within a

designated floodplain or floodway area. Information on the 100-year flood elevation and flood insurance zones is also provided upon request.

The District continues to work with local, state, and federal authorities to update and revise flood hazard studies for the District, on an as-needed basis, to permit cities and counties to utilize this information in their ongoing floodplain management program.

In 2003, the District became a cooperating technical partner with FEMA to provide leadership to update existing flood insurance studies in the District. Updates have been completed for the West Branch Papillion Creek in Douglas and Sarpy Counties, as well as Washington and Dakota Counties. Currently, the Papillion Creek Watershed is under re-study, the actual publication date for DFIRM maps has not been set.

### **13. Floodway Purchase Program**

The Floodway Purchase Program was established in 1993 and is designed to reduce flood damages through purchase of land and improvements in the designated floodway. It is intended to help remove obstructions in the floodway that were in place prior to the adoption of the federal flood insurance program.

Due to the extensive flooding along the Missouri River in 1993, federal funds through FEMA and the Nebraska Department of Economic Development (DED) became available. These funds enabled the District to implement this program in the Holub's Place and Elbow Bend areas of eastern Sarpy County. This voluntary program removed approximately 102 structures from the floodway. This project was completed in 1998.

The District continues to buyout structures in floodways including some of the remaining properties in Elbow Bend located in the Missouri River floodway in eastern Sarpy County, and other selected properties in cooperation with other units of governments in the District.

In 2009, the District received a Hazard Mitigation Grant to help purchase 14 properties in the King Lake area in western Douglas County. Purchase of three properties, along with the demolition of the residences was completed in 2012. With flooding that occurred in June, 2010, there has been renewed interest in additional buy-outs in the King Lake area. The District submitted a Hazard Mitigation Grant application in 2011 for the purchase of additional structures in this area. The Hazard Mitigation Grant application was approved in 2012. It is anticipated that these buy-outs will be complete by the end of 2015.

With the Missouri River flooding in 2011, there has been renewed interest in buy-outs along the Missouri River. In 2012, the District entered into an agreement with Sarpy County and the City of Bellevue to purchase 38 properties in the Elbow Bend and Iske Place neighborhoods. In 2012, a Hazard Mitigation Grant application was submitted to FEMA, and an application for Nebraska Environmental Trust assistance was also submitted. In 2013, both the Hazard Mitigation Grant application and the Nebraska Environmental Trust Fund application were approved. It is anticipated that these buy-outs will be complete in 2015.

Within the next five years, the District will continue to seek funding to aid in the purchase of residences located in the floodway, work with the City of Omaha to purchase residences along Cole Creek, and work with Douglas County and the City of Omaha to prepare a flood mitigation plan in the King Lake area along the Elkhorn River.

#### **14. Flood Mitigation Program**

In 2003, the District adopted the Flood Mitigation Planning and Mapping Assistance Program to assist National Flood Insurance Program communities, both technically and financially, to develop flood mitigation plans, and to update flood insurance studies. In 2004, the District cooperated with the City of Tekamah to update flood hazard information for their community.

In 2005, the District cooperated with the Cities of Blair, Valley, and Homer on flood mitigation plans and/or floodplain maps. Additionally, the District secured a grant from the Nebraska Emergency Management Agency (NEMA) to fund an All-Hazards Mitigation Plan for the entire District. The Corps of Engineers prepared the flood mitigation portion of the study, while the Nebraska Department of Natural Resources (NDNR) completed the remainder.

The District received a Hazard Mitigation Grant through FEMA to update the District's All Hazard Mitigation Plan in 2009. The updated plan was approved by FEMA and adopted by the District in 2011. Since the plan needs to be updated every five years, the District will commence that process in 2014.

#### **15. Western Sarpy/Clear Creek Levee Project**

The Western Sarpy Drainage District was organized in 1909 to address drainage and flooding problems in southwest Sarpy County. The drainage district encompasses approximately 7,540 acres of land along the Platte River from the mouth of the Elkhorn River to Interstate 80. The drainage district operates a series of drainage ditches and a flood control levee. In 1993, severe flooding along the Platte River damaged many of the district's facilities, which were subsequently repaired.

In 1999, the Western Sarpy Drainage District merged with the District, with the NRD taking over operation and maintenance of the project. The District is the sponsor of a Corps of Engineers Western Sarpy Clear Creek Flood Reduction Project with the Lower Platte North NRD and the Lower Platte South NRD to accomplish major renovation and improvement of the Western Sarpy and Clear Creek levees, which began in 2008, and will extend through 2014. The project has received over \$13 million in ARRA (American Recovery and Reinvestment Act) Stimulus funds for construction. The Western Sarpy Levee portion of the project was completed in 2012.

Upon completion of the levee renovation project, the District will operate and maintain the project into the future.

The drainage ditches currently in place will be maintained by means of an improvement project area, where operation and maintenance costs will be assessed against benefited lands in the drainage district.

## **16. Elk/Pigeon Creek Project**

On January 8, 1999, the Papio-Missouri River NRD and Drainage District #5 (Dakota County) merged. The area encompassed by the drainage district included the downstream portions of Pigeon and Elk Creek Watersheds. It is anticipated that improvements to the Pigeon Creek and Elk Creek levees will continue.

The first of two grade stabilization structures was constructed in the Elk Creek channel in 2004. The second structure was completed in 2006.

In 2008-2009, Elk Creek Levee repairs were made on a 650 foot segment of the levee to correct erosion and sloughing problem. In 2012, the District is sponsoring an Emergency Watershed Protection project, a program of the NRCS, to repair several areas of flood damage that occurred in 2011 on the Elk Creek Levee Project. It is anticipated that work will be completed in the fall of 2013.

Operation, maintenance, and repairs of the project will continue as needed. Benefiting landowners in the area are assessed an annual operation and maintenance fee for the project.

## **17. Pigeon-Jones Site 15 Project**

In 2007, the District was approved for funding under the Nebraska Resources Development Fund, the Nebraska Environmental Trust, Nebraska Game and Parks Commission, the Nebraska Department of Environmental Quality, and Dakota County for a multipurpose dam and reservoir that will provide both flood control and public recreation benefits. The recreation site will consist of 595 acres of parkland surrounding a 226 acre body of water. Construction began in 2010 and is anticipated for completion in 2013.

The project was originally called “Pigeon-Jones Site 15”, but the District renamed the project as the “Danish Alps Recreation Area” and the lake “Kramper Lake” in 2012.

## **18. Urban Stormwater Program**

This program was established in 1982 and was designed to encourage the regulation and wise management of stormwater systems in urbanized and developing areas. It is administered in conjunction with the Floodplain Management, Urban Stormwater, and Urban Conservation Programs. Accomplishments under this program include an inventory and prioritization of all open drainageways in the City of Omaha and surrounding areas of Douglas County, watershed master planning, and assistance with the City of Omaha’s NPDES Stormwater Permit application.

In 1997, the District and the Corps of Engineers entered into a cooperative agreement to conduct a study of the effects of urbanization on the West Branch Papillion Creek Watershed. Phase 2 of the study was recently completed and assessed the impact of regional storage reservoirs, and channel improvement projects.

The District is currently working with cities and counties within the Papillion Creek Watershed to regionally address water quantity and quality issues. In 2009, the Papillion Creek Watershed Partnership (PCWP) consisting of seven communities, one county, and the District, executed an interlocal agreement to continue the efforts of the partnership. The Watershed Management Plan

that accompanies the new interlocal agreement addresses water quality with basins for new and existing reservoirs, and adds two stormwater ordinance amendments for jurisdictions. The first requires control and treatment of the first one-half inch of stormwater runoff for all new developments, and significant redevelopments. The second requires a “no net increase” in runoff from the two-year storm event to help prevent stream degradation. The Plan addresses water quantity through a series of 15 regional detention structures. The PCWP will continue to address water quality and quantity issues, sediment and erosion control, and regulatory issues in efforts to implement NPDES (National Pollution Discharge Elimination System) Phase 2 permits in the watershed.

Following the Southern Ridge Wastewater Treatment Study in early 2016, Sarpy County, the cities of Bellevue, Gretna, Papillion and Springfield, and the District met to discuss stormwater management for new development in areas of Sarpy County draining directly to the Elkhorn or Platte Rivers. This group has been meeting regularly throughout 2016 to form initial policies for development in this area and to determine what the planning needs are for this watershed. Unlike the Papillion Creek Watershed, the Southern Sarpy Watershed has very little data with regards to hydrology, hydraulics, and water quality. The need to develop a comprehensive watershed management plan is the top priority of the new SSWP. Policies for the SSWP include; Water Quality Improvement, Peak Flow Reduction, Landscape Preservation, Restoration, and Conservation, Erosion and Sediment Control and Other BMPs, Floodplain Management, and Stormwater Management Financing. The District will be responsible for collecting annual contributions from each of the SSWP members and using those contributions for projects deemed necessary by the communities. Adoption of an Interlocal Agreement by all parties is expected in fall of 2016, with design work beginning in 2017.

### **19. Stormwater BMP Program**

In 2008, the District authorized a new program to provide technical and financial assistance to local units of government for the installation of innovative best management practices to control stormwater runoff and improve water quality.

Twenty-eight projects have been approved under this program, with 26 completed. This program has not been funded since FY 2013.

### **20. Urban Drainageway Program**

Initiated in 1987, this cost-share program was developed to address erosion and flooding problems on major urban drainageways. Completed projects are operated and maintained by the sponsors.

In 2013, projects in Omaha and Valley were completed. In FY 2014, the District approved projects in Omaha, Papillion, and LaVista. It is anticipated that this program will continue into the future.

### **21. Flood Preparedness/Ice Jam Removal**

The District’s flood control projects are monitored during actual and potential high water or high rainfall occurrences that may affect public safety and welfare. Local civil defense authorities are contacted if conditions warrant. Several programs relate to this function of the District.

The Emergency Flood Warning System was developed to assist emergency management agencies and the National Weather Service in providing the general public with advance warning prior to potential flood events, to provide hydrologic and hydraulic data for future use, and to provide assistance to District personnel during periods of flooding.

An automated flood warning system in the Papillion Creek Watershed was updated in 2012 and will be operated and maintained by US Geological Survey. The system consists of 22 gauging stations (rainfall and/or stream). Douglas, Sarpy, and Washington County Emergency Management Agencies provide funding to help offset maintenance costs.

The Stream Staff Gauge Program places and maintains gauges at various locations along the Platte and Elkhorn Rivers, and the Papillion and Bell Creeks to aid in determining stream flows and flood stage elevations. During intense storm events, visual observations of these gauges by emergency management professionals document stream stages that are used in flood forecasting. The system will continue to be upgraded.

The Rain Gauge Network is maintained by the District to develop a long term rainfall database and assist in flash flood warnings in the Papillion Creek Basin. Twenty-five (25) cooperators have been supplied with rain gauges and data report forms. This network allows the District to evaluate emergency operation needs while providing hydrologic data for future use.

The Emergency Bank and Dike Protection Program becomes operational during local flooding situations. It provides for temporary, emergency flood protection of public facilities. Also included is assistance in the reconstruction of levees and other damaged flood control structures. The District will continue to act as local sponsor of federal programs to provide timely assistance to local groups and individuals.

The Ice Jam Removal Program is operational each winter and spring as ice melts on the Platte and Elkhorn Rivers creating the possibility of ice jams. The District executed an agreement with the Lower Platte South NRD, Lower Platte North NRD, and Saunders, Sarpy, Cass, and Douglas Counties that allows for the removal of ice jams by any appropriate means, including explosives. The cost of the program is shared between the sponsoring agencies. In addition, the sponsoring agencies cooperate with NEMA and the National Weather Service to monitor ice conditions on the lower Platte and Elkhorn Rivers. In 2010, an amendment to the interlocal agreement was approved increasing the account balance to \$150,000 to meet provisions of the current contract.

## **22. Conservation Assistance Program**

This program is administered by the District and was established to provide financial assistance to landowners in the construction of soil and water conservation practices. These practices help to prevent soil erosion, control gullies, reduce downstream sedimentation, and help to control non-point pollution. Technical assistance for the design and construction inspection of projects is provided by the Natural Resources Conservation Service (NRCS).

The Pigeon-Jones Creek Watershed Project was approved in 2001. The District and NRCS developed a work plan to reduce sedimentation in this Dakota County watershed. The work plan includes the construction of twenty (20) flood control and grade stabilization structures. The first

structure was completed in 2003. Seven sites have been completed. Additional sites, as identified in the work plan will be constructed in the future.

### **23. Pigeon Creek Special Watershed**

Funding for two grade control structures, PJ-1 and PJ-16, has been provided by a Section 319 grant. Design for these structures is in process.

### **24. Nebraska Soil and Water Conservation Program**

In cooperation with the NDNR, financial assistance is also available from the state to encourage installation of best management practices. Funds are apportioned to NRDs, which administer the program on a local basis. Technical assistance is provided by NRCS.

The District will continue to utilize this funding source to provide cost share assistance to landowners applying conservation practices.

### **25. NRCS Assistance**

Public Law 46 established the Soil Conservation Service in 1935 (renamed the Natural Resources Conservation Service in 1996) to provide technical assistance to landowners through local conservation districts to help solve natural resources conservation problems. The District assists with this effort by providing personnel to NRCS to assist with their activities and to help administer District programs.

### **26. Road Structure Program**

The District budgeted and spent \$150,000 in FY 2014, but no new applications have been received since that year.

### **27. Urban Conservation Assistance Program**

This program provides cost share assistance to units of government to solve minor erosion and flooding problems. Three carry over projects from FY 2016 and eight new projects were included in the FY 2017 budget.

### **28. Elkhorn River 240<sup>th</sup> Street, Bank Stabilization Project**

The District cooperated with NRCS, Sarpy County, and Allbery Farms, Inc. to control streambank erosion on the Elkhorn River south of Harrison Street. The project utilized quarry rock to build hard points and windrow revetment along approximately 3,500 feet of streambank. The District will provide maintenance on the project into the future.

In 2012, the District in cooperation with Sarpy County, installed emergency bank protection on this same reach of the Elkhorn River due to flooding in 2010 that threatened 240<sup>th</sup> Street. In 2014, the District partnered with Sarpy County to design a permanent solution to this streambank erosion problem. The project was constructed in the beginning of 2016, and the new pilot channel became activated in April with final bank location development progressing as designed.

### **29. Erosion and Sediment Control Program**

The Nebraska Erosion and Sediment Control Act of 1986 (LB 474) provides for a complaint system whereby landowners whose land is damaged by sediment from soil erosion from adjacent



lands can get this erosion controlled. NRDs in the state have been assigned responsibility to administer this act.

The District adopted rules and regulations for the program in 1987. In the event that a complaint results in mandatory installation of permanent conservation measures, public cost share funds must be made available.

In 1995, the rules were revised to include urban development greater than two acres in size. These areas were specifically excluded from the original act.

### **30. Groundwater Management Program**

In 1984, the Nebraska Legislature enacted the Groundwater Management and Protection Act (GWMPA) which required each NRD to prepare a groundwater management plan. The plan was to provide a description of the groundwater reservoir, establish a reservoir life goal, and list District policies and programs designed to achieve this goal. The District's Groundwater Management Plan (GWMP) was approved in 1986 by the Department of Water Resources (now the Department of Natural Resources).

The plan was revised in 1993 so that quality and quantity issues received equal emphasis. The District's revised plan was approved in 1994.

An important part of the plan is the groundwater monitoring program. The District has been monitoring groundwater levels in wells since 1978 to get an indication of the quantity of groundwater. This program will be continually upgraded.

Water quality monitoring, begun in 1993, is accomplished through a cooperative effort with the USGS. Over 90 wells were identified and sampled by USGS covering the entire District and the four distinct groundwater areas (Missouri Valley, Platte and Elkhorn Valley, Upland, and Dakota). Each well is tested once every four years. The information will provide the benchmark for determining changes in quality, and as the basis for management decisions in the future.

In 1996, the Legislature created the Natural Resources Water Quality Fund. These funds are to be used by NRDs for water quality purposes. The District's share of this fund will be used to offset the costs of the water quality monitoring effort.

In 1999, the District cooperated with USGS in establishing nine "well nests" throughout the District to further aid in the water quality monitoring effort.

In 2009, the District implemented a stay on the expansion of groundwater irrigated acres. The stay was in response to NDNR's annual evaluation of the interconnectedness of surface and groundwater. The stay was imposed as a management tool to ensure that the District's groundwater basins will not become fully or over-appropriated over the next four years. NDNR also placed a limit on the annual surface water allocations allowed. In conjunction with the stay, the District began a process of certifying historically irrigated acres.

In 2012, the District began a voluntary Integrated Management Plan (IMP) in cooperation with NDNR for the Lower Platte River Basin. The plan will be developed over a two year period with extensive input from stakeholders in the region and the general public. Goals and objectives for the Lower Platte will be determined, and appropriate controls established to attain these goals and objectives. The plan will also describe any additional monitoring and reporting needed to measure the efficacy of the controls. The IMP will be a planning tool to assist the District and NDNR with the management of the surface and the interconnected groundwater in the basin.

### **31. Eastern Nebraska Water Resources Assessment Project**

In 2007, the District cooperated with the Lower Platte South, Lower Platte North, Nemaha, Lower Elkhorn and Lewis and Clark NRDs, NDNR, and the University of Nebraska on the Eastern Nebraska Water Resources Assessment Project (ENWRA). The first phase of the project conducted three pilot studies to test techniques to characterize the complicated hydrogeology of eastern Nebraska. The project will continue to collect and assess surface and groundwater data and eventually develop a comprehensive plan for use by the NRDs to manage groundwater resources.

### **32. Chemigation Certification Program**

In 1986, the Nebraska Legislature passed legislation to require irrigators who apply agricultural chemicals and fertilizers through their center pivot irrigation systems to acquire a permit from the local NRD. To obtain a permit, the irrigator must demonstrate that the required safety equipment has been installed and is operational.

### **33. Well Abandonment Program**

This program was established in 1996 and provides cost share assistance to landowners to properly decommission wells no longer in use. Potential groundwater contaminants, such as pesticides, fertilizers, and other contaminants can flow directly into the groundwater through these old wells threatening private or public water supplies. To date, nearly 1,000 wells have been properly abandoned under this program.

### **34. Lake Dredging Program**

In 2009, the District created the Lake Dredging Program to assist units of government in dredging of public recreation lakes in their communities. The first project approved under this program was a sediment basin clean-out with the City of Papillion at Walnut Creek Recreation Area.

In 2012, the District cost shared with West Bay Woods SID to remove accumulated sediment from a water quality basin. In FY 2014, the District provided cost share assistance to Savanna Shores SID on dredging projects. It is anticipated that other communities will submit additional projects for consideration under this program in the future. The FY 2017 budget includes cost share funding to the City of Omaha for Fontenelle Park Lagoon.

### **35. Lower Platte River Corridor Alliance**

In 1996, the Lower Platte River Corridor Alliance was formed between the District and the Lower Platte South NRD, Lower Platte North NRD, DWR, NNRC, Nebraska Game and Parks Commission (NGPC), DEQ, and the Nebraska Department of Health (DOH). The Alliance will

attempt to coordinate the development of land and water resources in the Lower Platte River Basin (downstream of Columbus).

Commencing in 1998, the Alliance and the District will cooperate with the Corps of Engineers who will conduct the Lower Platte River and Tributaries Feasibility Study. This study will investigate flood control, environmental restoration, water quality, and numerous planning and zoning issues.

The District, in cooperation with the Lower Platte South NRD and the Lower Platte North NRD, funded a project to remove pilings from abandoned bridges crossing the Platte River. Three of eleven bridge sites have been cleared from the river.

### **36. Lower Platte River Vegetation Management**

Formerly known as the “Lower Platte River Weed Management Area”, this program was organized in 2002 to assist landowners along the Platte River from Columbus, NE to the Missouri River in controlling invasive plant species in riparian areas. The program has been made possible with the cooperation of several NRDs, state and federal agencies, private companies, and landowners. This program will continue in the future.

### **37. NRD Recreation Areas**

The following recreation areas will be operated and maintained by the District into the future.

- a. Chalco Hills Recreation Area - In 1973, the District contracted with the Corps of Engineers to assume recreation sponsorship at Site 20 (Wehrspann Lake). The recreation master plan for the site was adopted in 1985. Recreation facilities were completed in 1987, and Chalco Hills Recreation Area was opened.
- b. Elkhorn Crossing Recreation Area - In 1989, the District opened a 23-acre recreation area along the Elkhorn River in northern Douglas County. The area was built in conjunction with the Elkhorn River Bank Stabilization Project. The area is open from April 1<sup>st</sup> to October 30<sup>th</sup> each year. The District will continue to operate and maintain the site.
- c. Platte River Landing Recreation Area - In 1992, the District opened the Platte River Landing Recreation Area on the south side of Highway 64 on the east side of the Platte River. The site will be operated and maintained by the District in the future.
- d. Prairie View Recreation Area - The District developed an 80-acre site upstream of Newport Landing near Bennington surrounding a water quality basin. The recreation facilities were completed in 2002, and the site opened to the public. The District will operate and maintain the site into the future.
- e. Elkhorn River Access Areas - In 2004, the District conducted a study of the Elkhorn River throughout the District to identify and evaluate potential sites for canoe access to the river. Of the three sites identified in the study, two have been constructed. In 2006, the West Maple Site located adjacent to Highway 64 near the Village of Waterloo was opened. The other site, called Graske Crossing, is located at Dodge Street and opened in 2008. An additional site is planned if an appropriate site can be identified.

### **38. Missouri River Corridor Project**

The Missouri River Corridor Project is a multi-objective endeavor to:

1. Renovate the decreasingly viable oxbow lakes and wetlands along the Missouri River for fish and wildlife habitat from South Sioux City (river mile 732) to the confluence with the Platte River (river mile 595),
2. Identify and establish cultural and historical interpretation centers along the route (i.e. Lewis and Clark, Audubon, Native Americans, etc.),
3. Provide, where appropriate, river and lake access and development for recreation.

Sites and priorities have been identified and initial engineering and design has been accomplished at several locations by the Corps of Engineers (COE) through Section 22 of PL 93-251 (Water Resources Development Act of 1974). This report was completed in October, 1989. Detailed designs, land rights and funding for specific sites may necessitate a cooperative effort with the District and the COE, NGPC, and other federal, state, local and/or private entities. Twelve (12) of the forty (40) sites investigated were given priority status for feasibility studies and possible implementation. Those sites were (in no particular order):

1. Blackbird Scenic Overview (Burt County)
2. Golden Spring (Burt County)
3. Boyer Chute (Washington County)
4. Lower Bullard Bend (Burt County, Nebraska and Harrison County, Iowa)
5. Glovers Point (Thurston County)
6. Hidden Lake Complex (Sarpy County)
7. California Bend (Washington County)
8. Hole-in-the-Rock (Thurston County)
9. Lower Decatur Bend (Burt County)
10. Missouri River Trails (District wide)
11. Omadi Bend (Dakota County)
12. Sandy Point (Washington County)

In 1992, the Blackbird Scenic Overview was completed and opened to the public. A maintenance agreement has been executed with the Omaha Tribe.

Construction of Boyer Chute was completed by the COE and the District in 1993 utilizing Section 1135 funding. Construction of public access facilities was completed by the District in 1995. The site was opened in 1996 and is now owned and operated by the U.S. Fish and Wildlife Service as the Boyer Chute National Wildlife Refuge. Handicap fishing piers were completed in 1997 by the District with funding support received from the Game and Parks Commission. FWS is working towards expanding the area to 10,000 acres from the original 2,000 acres. There are currently approximately 4000 acres in the refuge.

The restoration of Hidden Lake/Great Marsh area near Bellevue by the COE, the Fontenelle Forest Association, and the District was completed in 1997. Funding assistance has been received from the Nebraska Environmental Trust Fund.

In 2002, land acquisition was completed on the 215 acre California Bend Project located north of Blair, Nebraska. Construction of the project has been completed. A grant from the Nebraska Environmental Trust was used to fund the District's share of the construction costs. The City of

Blair and the District completed a master recreation plan for this site that will be implemented as funds are available.

Land acquisition was completed in 2006 for the Lower Decatur Bend restoration project. This site is approximately 275 acres in size and is located three miles southeast of Decatur, Nebraska. This Corps of Engineers' Section 1135 environmental restoration project has received significant funding from the Nebraska Environmental Trust. The project includes a chute, a lower and wider channel, and native prairie habitat. In addition, a partnership was formed with the NRCS's Wetland Reserve Enhancement Program (WREP) and the Nature Conservancy to assist with the completion of this project and to increase the size to approximately 750 acres. The District's portion of the project was completed in 2008.

In 2007, the District acquired the Sandy Point and Little Sioux Bend sites from the State of Iowa. These two sites located on the right bank of the Missouri River were subsequently sold (as was originally intended when purchased from the State of Iowa) to the Corps of Engineers in 2010 under their Missouri River Recovery Authority for restoration and future operation and maintenance as riverine habitat

The District is represented on the federally sanctioned Missouri River Recovery Implementation Committee (MRRIC). The committee has 70 members representing 28 tribes; 2 from each of 14 different "interest groups"; federal and state agencies, all within the 10 state Missouri River basin. The committee meets quarterly within the basin and is charged to make recommendations to the US Army Corps of Engineers (by consensus) on how to operate and manage the Missouri River regarding restoration of the river to a healthy and viable ecosystem.

### **39. Rumsey Station Wetland**

In the process of acquiring right-of-way for the West Branch Papio Project, a wetland site was identified. The Board authorized purchase of the site, located between 54<sup>th</sup> and 66<sup>th</sup> Streets on the south side of the creek near Rumsey Road, in 1994. The former West Branch channel will be preserved as a wetland for wildlife habitat. In 1995, additional lands were purchased utilizing Environmental Trust Funds. A concept plan for the entire site was completed in 1994. A biological survey and site master plan was completed in 2006 with a variety of recommendations to maintain and enhance the site.

In 2008, the District approved a "Development and Management Agreement" with the Green Hearts Institute for nature education at Rumsey Station. A master plan for the site was completed in 2010. The plan includes an educational building, wetlands, and trails. Green Hearts is currently raising funds for construction.

### **40. Heron Haven Wetland**

In 1992, the District entered into a cooperative agreement with the Omaha Chapter of the National Audubon Society to purchase and develop the Heron Haven Wetland located near 117<sup>th</sup> and West Maple Road. The District retained title to the land and the Audubon Society developed, operated, and maintained the site.

In 1996, an additional 1.4 acres of land was jointly acquired on the northeast corner of the site. Funds have been obtained from Section 319 and the Nebraska Environmental Trust Fund to assist the Audubon Society in developing the site. In 1997, the District completed topographic mapping of the site. In 1998, a wetland trail and boardwalk was completed.

In 2000, funds from the Nebraska Department of Environmental Quality were used to remove debris that had been dumped at the site in the past. Also, the area was re-graded and reseeded.

In 2005, the Friends of Heron Haven, a non-profit group, assumed operation and maintenance of the site from the Audubon Society.

In 2010, the Corps of Engineers completed a draft restoration plan for the wetland. The Corps entered into an agreement with the District to utilize Section 206 funds to improve the wetlands, and provide long-term protection of the wetlands. Funding and right-of-way have been secured and construction was completed in 2012.

#### **41. Wetlands Mitigation Bank**

Commencing in 1996, the District investigated the establishment of a wetlands mitigation bank. A major partner in the development of the bank is the COE Regulatory Branch who will determine debits and credits available.

In 2003, the District increased the size of the wetlands at Rumsey Station for use as a mitigation bank. A policy was developed governing the sale of credits in the bank. Monitoring of the wetland will continue for at least the next three years. In 2008, land was purchased west of Rumsey Station to expand the wetland bank. In 2010, the District acquired additional land adjacent to UNO's Allwine Prairie along Glacier Creek for a wetland and stream mitigation site. Other wetland mitigation sites being developed in 2012 are in the Silver Creek and Pigeon-Jones Watersheds.

In the future, additional wetland sites will be evaluated and developed for inclusion in the bank.

#### **42. Conservation Easement Program**

In 2001, the District established the Conservation Easement Program that provided the framework necessary for the acquisition of permanent conservation easements on privately owned land exhibiting unique natural features.

In 2006, the District entered into a cooperative agreement with the Nebraska Land Trust (NLT) to further the objectives of the program. In 2009, the District agreed to contribute \$30,000 per year for three years for the Lower Platte Valley Preservation Project. Subsequently, a three year extension of this agreement was approved by the District in 2012. The NLT, the only land trust in Nebraska, currently has nearly 9,000 acres in 20 easements within nine counties, and has also been officially accredited by the National Land Trust Accreditation Commission.

#### **43. Papio Trails Project**

In 1989, the District approved a plan to construct recreational trails on flood control levees maintained by the District. In addition, trails would be included on all future levee construction projects.

In 1990-98, the District cost shared with the City of Omaha in the construction of Phases 1-5 of the Keystone Trail. The trail is located along the east side of the Little and Big Papillion Creeks from Fort Street to 25<sup>th</sup> Street. Funding was received from the Nebraska Department of Roads (NDOR) through the Transportation Enhancement Program, which pays up to 80% of the costs of trail construction.

In 1991-99, Phase 1-3 of the Bellevue Loop Trail was completed. Upon joining the Keystone Trail, the longest (27 miles) trail in the metro area was created.

In 2001, construction was completed on the Chalco Hills Connector and Field Club Phase 2 Trails projects, and initiated on the Platte River Connection (between Highways 31 and 66 utilizing the former Rock Island Railroad Bridge).

In 2002, construction of the Platte River Connection Project was completed, and initiated on the Big Papio (Center to Blondo) Trail Projects. The Big Papio Trail project was completed in 2003.

In 2004, the construction was completed on the West Papio Trail between Papillion and Bellevue, between Oakbrook Meadows Park and Millard Avenue, and on the MoPac Trail (Springfield to the Platte River).

In 2005, federal funds were secured to construct a series of trails in Western Douglas County. The City of Valley and the District are cooperating on the project. Phase 1 between Valley and the Twin Rivers YMCA has been designed and is awaiting ROW acquisition. Phase 2 connecting Valle to Waterloo is under discussion with NDOR regarding design criteria for the project.

The District completed construction of an equestrian trail adjacent to the MoPac Trail between Springfield and the Platte River in 2007. In FY 2015, a new trail segment between Highway 50 and the Lied Platte River Bridge was completed.

In August 2015, a new segment of the West Papio Trail was completed and opened for public use. Plans for West Papio Trail, Giles Road to Millard Ave are being designed, with constructed expected during 2018.

South Omaha Trail, Phase 2 (Keystone to the Field Club Trails) is nearly completed. Project management has been carried out by the City of Omaha Parks Department, and the project is expected to be open for public use before the end of 2016.

#### **44. Trails Assistance Program**

In 2005, the District adopted the Trails Assistance Program to cost-share with communities on Transportation Enhancement Projects within the District. The local portion of the cost of trails construction is equally split between the sponsoring community and the District. Funding for Riverfront Trail Phase 4, Walnut Creek Connector, and Walthill Wellness Trail are all included in the FY 2017 budget.

#### **45. Recreation Area Development Program**

This program, initiated in 1990, cost shares with units of government in the establishment and improvement of recreation areas in the District. This on-going program will continue into the future. A new cost share project along the West Papio Creek is in process, the Pollinator Park is being designed on land donated to the City of Omaha Parks Department and is expected to be constructed in multiple phases over the next several years.

#### **46. Wildlife Habitat Program**

This program was formerly known as the “Nebraska WILD Program.” NGPC and NRDs throughout the state cooperate to create and improve wildlife habitat on private lands. The program provides for a portion of the revenue generated from the sale of habitat stamps to be used for payments to cooperating landowners that create or improve wildlife habitat areas.

#### **47. Tree Planting Program**

To encourage tree planting, the District maintains three tree planters, two of which are made available with a planting crew on a scheduled basis during the spring. The other planter is available to landowners on a rental basis.

Plantings were made to establish or improve windbreaks and shelterbelts, provide wildlife habitat, and other beneficial purposes.

#### **48. Western Sarpy Drainage Project**

The Western Sarpy Drainage District was organized in 1909 to address drainage and flooding problems in southwest Sarpy County. The drainage district encompasses approximately 7,540 acres of land along the Platte River from the mouth of the Elkhorn River to Interstate 80. The drainage district operated a series of drainage ditches and a flood control levee. In 1999, the Western Sarpy Drainage District merged with the District, with the NRD taking over operation and maintenance of the project.

#### **49. Elk/Pigeon Creek Drainage Project**

As a direct result of the merger between Drainage District #5 and the NRD, it has become a responsibility to maintain 15 miles of levees along both Pigeon Creek and Elk Creek. By agreement, capital improvements are equally shared between the NRD’s general fund and the revenue generated from a special assessment.

#### **50. Elkhorn River Breakout**

The Elkhorn Breakout Project is an authorized special improvement project of the District, in conjunction with the Lower Platte North Natural Resources District (LPNNRD). The LPNNRD is responsible for the design, construction, operation, and maintenance of the project. The benefited landowners in both districts shall be assessed for the operation and maintenance of this completed project.

#### **51. Elkhorn River Stabilization Project**

Severe streambank erosion along the Elkhorn River throughout the District prompted landowners to petition the District for assistance in solving the problem. An application for RDF assistance was prepared and submitted to NDNR for their consideration. RDF funding levels limited the



project to a seven-mile stretch of the Elkhorn River from Highway 36 downstream to King Lake in western Douglas County.

NDNR approved 75% cost sharing on the lesser project. The District paid 15% of the costs with the remaining 10% assessed to benefited landowners. In addition, operation and maintenance costs are assessed to benefited landowners. Construction was completed in 1989, with maintenance performed as needed.

In 2010, Elkhorn River flooding caused considerable damage to the rock revetment in the project area. Federal assistance through FEMA has been obtained to offset the costs of repair to the project. The project was completed in 2013.

## **52. Washington County Rural Water Supply Project**

The District has operated this system since 1980 to provide a dependable supply of quality water to 497 rural households and the City of Fort Calhoun. Treated water is purchased from the Metropolitan Utilities District in Omaha.

In 2005, a second rural water system (formerly Washington County Rural Water Supply Project #2) was completed. Water is purchased from the City of Blair serves 306 rural households and properties in southeastern Washington County. The system includes an interconnection that would allow water from either source (MUD or Blair) to serve these customers.

In 2013, the systems were merged together into one system.

## **53. Dakota County Rural Water Supply Project**

The District delivers high quality water to over 679 rural households in Dakota County. The system includes over 125 miles of pipeline that is maintained by the District. Treated water is purchased from Dakota City.

## **54. Thurston County Rural Water Supply Project**

This project supplies 145 rural households of Thurston County with high quality water. The 110 mile distribution system is located between the villages of Pender and Walthill, with treated water being purchased from the Village of Pender.

## **55. Solid Waste and Recycling Program**

The District is cooperating with the Nebraska State Recycling Association and MAPA (paint swap, etc.) on developing markets for recycled products and alternative means to solid waste disposal. The District also participates with the Cooperative Extension to recycle plastic pesticide containers. A major cooperative project established a household hazardous waste regional collection facility to serve residents of Douglas and Sarpy Counties.

## **56. Information and Education Programs**

In addition to the programs and projects described on the previous pages, the District also conducts a number of outreach activities as part of its Information and Education program. This is done to provide the public with accurate information on projects and programs and to develop an awareness and concern for natural resources conservation and management.

Major activities include:

- a. Program Brochures - Informative brochures on Papillion Creek Watershed Flood Control Efforts, Conservation Education, Conservation Cost-Sharing Programs, Chalco Hills, NRD Overview, Papio Trails, the Chalco Hills Nature Trail Guide, and the Chalco Hills Arboretum Guide have been published. These brochures will be updated and distributed as necessary.
- b. Newsletters - Publication of the SPECTRUM newsletter continues to be one of the District's main lines of communication. Over 9,000 copies are mailed to subscribers. CULTIVATION, a newsletter for schoolteachers and administrators, is also published. In addition, a teacher e-newsletter has been created and is distributed as needed throughout each year.
- c. Education Programs - The District is currently working with local teachers, environmental education specialists, and school administrators to provide outdoor education curricula and field trips at the Chalco Hills Recreation Area and in-classroom programming at schools in the District. Approximately 75,000 children visit Chalco Hills, or take advantage of other NRD-sponsored education programs each year. The District operates summer day camps for children aged 4-14 years old. These camps are planned and run by the NRD education staff. The District is also a major supporter of Earth Day and "World O! Water" celebrations. The District serves on the planning committee of numerous youth education programs, including Water Works for students in Douglas and Sarpy Counties, Conservation Field Days at Summit Lake, Aquafest for students in Dakota and Thurston Counties, and the Nebraska Envirothon, an environmental competition for high school students.
- d. Teacher/School Grants - Scholarships for \$200 are awarded annually to area teachers who wish to continue their education in conservation related subjects. The District also provides grants to develop outdoor classrooms at schools in the District.
- e. Speakers Bureau - In response to requests from various civic groups, approximately 20 presentations are made annually concerning resource management.
- f. Media Relations - Information is provided to the public, through the local media, by the District's media relations program. During the past year, articles appeared in the Omaha World-Herald and in local weekly papers. Also, contacts to radio and television stations resulted in coverage through those media.
- g. Web Site - Information about programs and projects is also provided through the District website [www.PapioNRD.org](http://www.PapioNRD.org). The website was redesigned in 2016. In addition, the District has an active Facebook, Twitter, YouTube, and Instagram account.
- h. The District has continued distribution of public service announcements (PSAs) for both radio and television highlighting District accomplishments.

- i. Interpretive signage highlighting the District's mission is used at recreation sites managed by the District including Chalco Hills, Prairie View, Elkhorn Landing, Graske Crossing, West Maple Site, and Platte River Landing. Signs detailing the NRD's funding of individual wildlife habitat sites have been developed and will be posted at appropriate locations.

Recent Highlights:

- The District's traveling display was set up and staffed at the Triumph of Agriculture, and the Omaha Boat Sports and Travel Show.
- Numerous outdoor recreation-related special events are co-sponsored at Chalco Hills.
- Sponsored the State Envirothon Competition, continued hosting of a regional contest.
- The District distributed over 10,000 tree seedlings and 35,000 wildflower seed packets.
- The District conducted four day-camps at Chalco Hills Recreation Area.
- The District chaired the group M.O.R.E. Nature to encourage families to play outdoors. Parent/child workshops, nature nights, community forums, and professional workshops. Additional information can be obtained at [www.MoreNature.info](http://www.MoreNature.info).

Activities Planned for Fiscal Year 2017 and Beyond: The District's Information and Education Program will continue to focus on established Information and Education programs as well as developing new efforts. Information programs will continue to bring information to the public about District activities through media contacts and on-line information. Education programs will focus on teacher training on environmental conservation, continuing the day-camps offered at Chalco Hills, and working with the M.O.R.E. Nature Initiative to offer natural resources programming to the greater Omaha area.

**57. General Administration**

In addition to the programs and projects described on the previous pages, the District also conducts a number of outreach activities as part of its Information and Education program. This is done to provide the public with accurate information on projects and programs and to develop an awareness and concern for natural resources conservation and management.

#### **IV. ASSESSMENT OF CURRENT NEEDS**

To implement the FY 2017 programs and projects as explained on the previous pages, the District has budgeted to provide the necessary financial and personnel resources. Tables 1 through 3 have been prepared to present this information in a simple manner.

Land rights needs for FY 2017 are presented in Table 1. Each project for which land rights are budgeted, the type of right to be acquired, and the estimated cost are listed. Easements are acquired by negotiated donation, with the budgeted amount used for associated expenses including title searches, recording fees, and filing fees.

Personnel needs have been estimated for FY 2017 and the following four budget years, shown in Table 2. Time requirements are projected in work-months. Although not specifically designated as “Program/Project Areas”, two additional headings, “Information and Education” and “General Administration”, have also been included to incorporate staff time not directly assigned to a specific program or project.

Table 3 reflects all expenditures contained in the FY 2017 Budget. Revenues for FY 2017 and the following four budget years are shown in Table 5.

#### **V. PROJECTED NEEDS**

The District has included projected personnel requirements (Table 2), projected expenditures (Table 4), and projected revenues (Table 5) for the next five fiscal years. Projected expenditures and revenues shown are with consideration for current bonding authority.

This material has been developed in an attempt to project activities of the District over the coming years. Undoubtedly, many new program ideas will be presented in this time frame through specific requests to the Board, new state or federal cost sharing programs, or other methods, which will result in new activities not presently anticipated.

As shown in Table 5, it is anticipated that general property tax will continue to be the primary source of revenues for District programs and projects. It is projected that property tax revenues will increase each year reflective of changes in property values in the District.

The information presented in these tables does not reflect budgetary obligations of the District. It is presented as a means to quantify District involvement with various programs and projects.

Table 1. Land Rights Needs, FY 2017 (x \$1,000)

<b>Program/Project</b>	<b>Type</b>	<b>Estimated Cost</b>
Project Maintenance - Channels & Levees	Easement	\$5.0
Project Maintenance - Dams	Easement	\$100.0
Thompson Creek Levee Rehabilitation	Fee Title/Easement	\$5.0
WP-6	Fee Title	\$3,000.0
WP-7	Fee Title	\$100.0
Zorinsky Basin #2	Fee Title	\$3,000.0
Missouri River Levee Certification	Fee Title	\$1,000.0
Floodway Purchase Program	Fee Title	\$171.0
Western Sarpy/Clear Creek Levee Project	Fee Title/Easement	\$5.0
Missouri River Projects	Fee Title/Easement	\$2,100.0
Rumsey Station Wetland	Fee Title/Easement	\$20.0
Western Sarpy Drainage Project	Easement	\$1.0
Washington Country Rural Water	Easement	\$0.2
Dakota Country Rural Water	Easement	\$1.0
<b>Total</b>		<b>\$9,508.2</b>

Table 2. Personnel Needs (work months)

Program/Project		2017	2018	2019	2020	2021
1	Project Maintenance - Channels & Levees	45.0	42.0	42.0	44.0	46.0
2	Project Maintenance - Dams	8.0	8.0	8.0	9.0	9.0
3	Thompson Creek Levee Rehabilitation	1.0	1.0	0.0	0.0	0.0
4	Papillion Creek and Tributaries Project	5.0	10.0	10.0	15.0	15.0
5	WP-5 Regional Detention Structure	0.0	0.0	0.0	0.0	0.0
6	Papio DS-15A Project	5.0	2.0	0.5	0.0	0.0
7	WP-6	1.0	1.0	0.5	0.0	0.0
8	WP-7	1.0	1.0	0.0	0.0	0.0
9	Zorinsky Basin #2	0.0	0.0	0.0	0.0	0.0
10	Missouri River Levee Certification	4.0	4.0	2.0	0.5	0.5
11	Omaha Levee Certification	1.0	1.0	1.0	1.0	1.0
12	Floodplain Management Program	4.0	4.0	4.0	4.0	4.0
13	Floodway Purchase Program	1.5	1.5	1.5	1.5	1.5
14	Flood Mitigation Program	0.6	0.6	0.6	0.6	0.6
15	Western Sarpy/Clear Creek Levee Project	6.0	1.0	1.0	1.0	1.0
16	Elk/Pigeon Creek Drainage	1.0	1.0	1.0	1.0	1.0
17	Pigeon-Jones Site 15 Project	3.0	1.0	1.0	1.0	1.0
18	Urban Stormwater Program	2.0	2.0	2.0	2.0	2.0
19	Stormwater BMP Program	0.1	0.1	0.1	0.1	0.1
20	Urban Drainageway Program	2.0	2.0	2.0	2.0	2.0
21	Flood Preparedness/Ice Jam Removal	7.5	7.5	7.5	7.5	7.5
22	Conservation Assistance Program	30.0	30.0	30.0	30.0	30.0
23	Pigeon Creek Special Watershed	3.0	4.0	4.0	1.0	1.0
24	Nebraska Soil & Water Conservation Prog.	0.2	0.2	0.2	0.2	0.2
25	NRCS Assistance	50.0	50.0	50.0	50.0	50.0
26	Road Structure Program	0.5	0.5	0.5	0.5	0.5
27	Urban Conservation Assistance Program	1.5	1.5	1.5	1.5	1.5
28	Elkhorn River 240th Street	4.0	0.5	0.5	0.5	0.5
29	Erosion & Sediment Control Program	0.1	0.1	0.1	0.1	0.1
30	Groundwater Management Program	6.0	6.0	6.0	6.0	6.0

Table 2. Personnel Needs (work months)

Program/Project		2017	2018	2019	2020	2021
31	Eastern Nebraska Water Resources Assess.	1.0	1.0	1.0	1.0	1.0
32	Chemigation Certification Program	0.5	0.5	0.5	0.5	0.5
33	Well Abandonment Program	1.0	1.0	1.0	1.0	1.0
34	Lake Dredging Program	0.1	0.1	0.1	0.1	0.1
35	Lower Platte River Corridor Alliance	3.0	3.0	3.0	3.0	3.0
36	Lower Platte River Vegetation Management	1.0	1.0	1.0	1.0	1.0
37	NRD Recreation Areas	76.0	78.0	80.0	80.0	80.0
38	Missouri River Projects	8.0	8.0	8.0	8.0	8.0
39	Rumsey Station Wetland	0.5	0.5	0.5	0.5	0.5
40	Heron Haven Wetland	1.0	1.0	1.0	1.0	1.0
41	Wetlands Mitigation Bank	1.3	1.3	1.3	1.3	1.3
42	Conservation Easement Program	0.5	0.5	0.5	0.5	0.5
43	Papio Trails System	6.0	6.0	6.0	6.0	6.0
44	Trails Assistance Program	0.5	0.5	0.5	0.5	0.5
45	Recreation Area Development Program	0.2	0.2	0.2	0.2	0.2
46	Wildlife Habitat Program	0.5	0.5	0.5	0.5	0.5
47	Tree Planting Program	6.0	6.0	6.0	6.0	6.0
48	Western Sarpy Drainage Project	4.5	4.5	4.5	4.5	4.5
49	Elk/Pigeon Creek Drainage Project	0.7	0.7	0.7	0.7	0.7
50	Elkhorn River Breakout	0.1	0.1	0.1	0.1	0.1
51	Elkhorn River Stabilization Project	1.0	1.0	1.0	1.0	1.0
52	Washington County Rural Water	34.0	34.0	34.0	34.0	34.0
53	Dakota County Rural Water	37.0	37.0	37.0	37.0	37.0
54	Thurston County Rural Water	6.0	6.0	6.0	6.0	6.0
55	Solid Waste/Recycling Program	1.5	1.5	1.5	1.5	1.5
56	Information/Education Programs	35.0	35.0	35.0	35.0	35.0
57	General Administration	225.0	225.0	225.0	225.0	225.0
Totals		645.9	637.4	633.4	635.9	637.9

Table 3. Fiscal Year 2017 Projected Expenditures by Program or Project (x \$1,000).

Program/Project		Personnel Costs	Operating Costs	Professional Services	Land Rights	Construction & Cost Share	Totals
1	Project Maintenance - Channels & Levees	\$384.0	\$455.0	\$910.0	\$5.0	\$4,867.8	\$6,621.8
2	Project Maintenance - Dams	\$179.0	\$120.0	\$58.9	\$100.0	\$115.0	\$572.9
3	Thompson Creek Levee Rehabilitation	\$66.0	\$223.0	\$30.0	\$5.0	\$87.0	\$411.0
4	Papillion Creek and Tributaries Project	\$32.0		\$2,500.0		\$1,906.8	\$4,438.8
5	WP-5 (Prairie Queen)			\$50.0		\$200.0	\$250.0
6	Papio DS-15A Project			\$328.0		\$10,961.1	\$11,289.1
7	WP-6			\$540.0	\$3,000.0		\$3,540.0
8	WP-7			\$540.0	\$100.0		\$640.0
9	Zorinsky Basin #2			\$465.2	\$3,000.0		\$3,465.2
10	Missouri River Levee Certification			\$1,050.0	\$1,000.0	\$6,000.0	\$8,050.0
11	Omaha Levee Certification					\$500.0	\$500.0
12	Floodplain Management Program	\$25.6					\$25.6
13	Floodway Purchase Program			\$9.0	\$171.0	\$25.0	\$205.0
14	Flood Mitigation Program			\$10.0		\$77.7	\$87.7
15	Western Sarpy/Clear Creek Levee Project			\$13.0	\$5.0	\$1,040.0	\$1,058.0
16	Elk/Pigeon Creek Drainage						\$0.0
17	Pigeon-Jones Site 15 Project		\$10.0	\$15.0		\$225.0	\$250.0
18	Urban Stormwater Program		\$90.0				\$90.0
19	Stormwater BMP Program					\$20.0	\$20.0
20	Urban Drainageway Program					\$1,161.7	\$1,161.7
21	Flood Preparedness/Ice Jam Removal			\$221.3		\$40.3	\$261.6
22	Conservation Assistance Program					\$707.0	\$707.0
23	Pigeon Creek Special Watershed			\$345.0		\$350.0	\$695.0
24	Nebraska Soil & Water Conservation Prog.	\$1.5					\$1.5
25	NRCS Assistance	\$375.0					\$375.0
26	Road Structure Program						\$0.0
27	Urban Conservation Assistance Program					\$272.2	\$272.2
28	Elkhorn River 240th Street						\$0.0
29	Erosion & Sediment Control Program	\$1.0					\$1.0
30	Groundwater Management Program			\$221.6		\$40.0	\$261.6



Table 3. Fiscal Year 2017 Projected Expenditures by Program or Project (x \$1,000).

Program/Project		Personnel Costs	Operating Costs	Professional Services	Land Rights	Construction & Cost Share	Totals
31	Eastern Nebraska Water Resources Assess.			\$280.0		\$30.0	\$310.0
32	Chemigation Certification Program		\$0.3				\$0.3
33	Well Abandonment Program					\$30.0	\$30.0
34	Lake Dredging Program					\$100.0	\$100.0
35	Lower Platte River Corridor Alliance		\$166.1				\$166.1
36	Lower Platte River Vegetation Management					\$30.0	\$30.0
37	NRD Recreation Areas		\$983.5				\$983.5
38	Missouri River Projects			\$5.0	\$2,100.0	\$750.0	\$2,855.0
39	Rumsey Station Wetland			\$75.0	\$20.0	\$50.0	\$145.0
40	Heron Haven Wetland					\$17.7	\$17.7
41	Wetlands Mitigation Bank			\$45.0		\$563.7	\$608.7
42	Conservation Easement Program					\$30.0	\$30.0
43	Papio Trails System			\$624.0		\$1,934.3	\$2,558.3
44	Trails Assistance Program					\$693.1	\$693.1
45	Recreation Area Development Program					\$102.5	\$102.5
46	Wildlife Habitat Program					\$30.0	\$30.0
47	Tree Planting Program		\$4.5			\$75.0	\$79.5
48	Western Sarpy Drainage Project	\$30.0	\$63.6	\$10.0	\$1.0	\$10.0	\$114.6
49	Elk/Pigeon Creek Drainage Project	\$67.2	\$147.5	\$1.5		\$0.0	\$216.2
50	Elkhorn River Breakout		\$6.6				\$6.6
51	Elkhorn River Stabilization Project	\$7.0	\$186.0	\$5.0			\$198.0
52	Washington County Rural Water	\$210.5	\$1,437.7	\$17.5	\$0.2		\$1,665.9
53	Dakota County Rural Water	\$160.0	\$676.4	\$6.5	\$1.0		\$843.9
54	Thurston County Rural Water	\$35.0	\$215.8	\$1.5			\$252.3
55	Solid Waste/Recycling Program	\$12.0					\$12.0
56	Information/Education Programs		\$253.5				\$253.5
57	General Administration	\$3,480.0	\$4,432.4	\$584.3			\$8,496.7
	a. Bond payment		\$4,459.0				\$4,459.0
	Totals	\$5,065.8	\$13,930.8	\$8,962.3	\$9,508.2	\$33,042.9	\$70,510.0

Table 4: Projected Expenditures by Program or Project - Fiscal Years 2017-2021 (x \$1,000)

Assumption: The bonding limit will remain at approximately \$75 million.

Program/Project		2017	2018	2019	2020	2021
1	Project Maintenance - Channels & Levees	\$6,621.8	\$3,500.0	\$3,500.0	\$3,500.0	\$3,500.0
2	Project Maintenance - Dams	\$572.9	\$550.0	\$575.0	\$600.0	\$625.0
3	Thompson Creek Levee Rehabilitation	\$411.0	\$300.0	---	---	---
4	Papillion Creek and Tributaries Project	\$4,438.8	\$1,000.0	\$13,750.0	\$7,750.0	\$7,100.0
5	WP-5 Regional Detention Structure	\$250.0	---	---	---	---
6	Papio DS-15A Project	\$11,289.1	\$1,461.2	\$50.0	---	---
7	WP-6	\$3,540.0	\$4,750.0	\$50.0	\$50.0	---
8	WP-7	\$640.0	\$3,950.0	\$50.0	\$50.0	---
9	Zorinsky Basin #2	\$3,465.2	\$4,250.0	\$50.0	\$50.0	\$50.0
10	Missouri River Levee Certification	\$8,050.0	\$8,475.0	\$8,475.0	---	---
11	Omaha Levee Certification	\$500.0	\$500.0	\$500.0	\$160.0	---
12	Floodplain Management Program	\$25.6	\$30.0	\$30.0	\$30.0	
13	Floodway Purchase Program	\$205.0	\$500.0	\$500.0	\$500.0	\$500.0
14	Flood Mitigation Program	\$87.7	\$50.0	\$50.0	\$50.0	\$50.0
15	Western Sarpy/Clear Creek Levee Project	\$1,058.0	\$50.0	\$50.0	\$50.0	\$50.0
16	Elk/Pigeon Creek Drainage	---	---	---	---	---
17	Pigeon-Jones Site 15 Project	\$250.0	\$500.0	\$50.0	\$50.0	\$50.0
18	Urban Stormwater Program	\$90.0	\$95.0	\$100.0	\$105.0	\$110.0
19	Stormwater BMP Program	\$20.0	\$50.0	\$50.0	\$50.0	\$50.0
20	Urban Drainageway Program	\$1,161.7	\$1,200.0	\$1,200.0	\$1,200.0	\$1,200.0
21	Flood Preparedness/Ice Jam Removal	\$261.6	\$350.0	\$360.0	\$370.0	\$380.0
22	Conservation Assistance Program	\$707.0	\$725.0	\$750.0	\$750.0	\$750.0
23	Pigeon Creek Special Watershed	\$695.0	\$1,650.0	\$400.0	\$350.0	\$350.0

Table 4: Projected Expenditures by Program or Project - Fiscal Years 2017-2021 (x \$1,000)

Assumption: The bonding limit will remain at approximately \$75 million.

Program/Project		2017	2018	2019	2020	2021
24	Nebraska Soil & Water Conservation Prog.	\$1.5	\$1.5	\$1.5	\$1.5	\$1.5
25	NRCS Assistance	\$375.0	\$380.0	\$385.0	\$390.0	\$395.0
26	Road Structure Program	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
27	Urban Conservation Assistance Program	\$272.2	\$200.0	\$205.0	\$210.0	\$215.0
28	Elkhorn River 240th Street	\$0.0	\$15.0	\$15.0	\$15.0	\$15.0
29	Erosion & Sediment Control Program	\$1.0	\$1.2	\$1.4	\$1.6	\$1.8
30	Groundwater Management Program	\$261.6	\$105.0	\$110.0	\$115.0	\$120.0
31	Eastern Nebraska Water Resources Assess.	\$310.0	\$30.0	\$30.0	\$30.0	\$30.0
32	Chemigation Certification Program	\$0.3	\$4.0	\$4.0	\$4.0	\$4.0
33	Well Abandonment Program	\$30.0	\$32.0	\$34.0	\$36.0	\$38.0
34	Lake Dredging Program	\$100.0	\$15.0	\$15.0	\$15.0	\$15.0
35	Lower Platte River Corridor Alliance	\$166.1	\$200.0	\$210.0	\$220.0	\$230.0
36	Lower Platte River Vegetation Management	\$30.0	\$65.0	\$65.0	\$65.0	\$65.0
37	NRD Recreation Areas	\$983.5	\$1,325.0	\$1,350.0	\$1,375.0	\$1,400.0
38	Missouri River Projects	\$2,855.0	\$150.0	\$150.0	\$150.0	\$150.0
39	Rumsey Station Wetland	\$145.0	\$51.0	\$52.0	\$53.0	\$54.0
40	Heron Haven Wetland	\$17.7	\$40.0	\$42.0	\$44.0	\$46.0
41	Wetlands Mitigation Bank	\$608.7	\$50.0	\$50.0	\$50.0	\$50.0
42	Conservation Easement Program	\$30.0	\$30.0	\$30.0	\$30.0	\$30.0
43	Papio Trails System	\$2,558.3	\$2,000.0	\$2,000.0	\$2,000.0	\$2,000.0
44	Trails Assistance Program	\$693.1	\$500.0	\$500.0	\$500.0	\$500.0
45	Recreation Area Development Program	\$102.5	\$125.0	\$130.0	\$135.0	\$140.0
46	Wildlife Habitat Program	\$30.0	\$25.0	\$25.0	\$25.0	\$25.0

Table 4: Projected Expenditures by Program or Project - Fiscal Years 2017-2021 (x \$1,000)

Assumption: The bonding limit will remain at approximately \$75 million.

Program/Project		2017	2018	2019	2020	2021
47	Tree Planting Program	\$79.5	\$80.0	\$80.0	\$80.0	\$80.0
48	Western Sarpy Drainage Project	\$114.6	\$130.0	\$130.0	\$130.0	\$130.0
49	Elk/Pigeon Creek Drainage Project	\$216.2	\$50.0	\$55.0	\$60.0	\$65.0
50	Elkhorn River Breakout	\$6.6	\$7.0	\$7.2	\$7.4	\$7.6
51	Elkhorn River Stabilization Project	\$198.0	\$160.0	\$165.0	\$170.0	\$175.0
52	Washington County Rural Water	\$1,665.9	\$1,800.0	\$1,900.0	\$2,000.0	\$2,100.0
53	Dakota County Rural Water	\$843.9	\$850.0	\$875.0	\$900.0	\$925.0
54	Thurston County Rural Water	\$252.3	\$192.0	\$194.0	\$196.0	\$198.0
55	Solid Waste/Recycling Program	\$12.0	\$12.0	\$12.0	\$12.0	\$12.0
56	Information/Education Programs	\$253.5	\$255.0	\$260.0	\$265.0	\$270.0
57	General Administration	\$8,496.7	\$8,624.2	\$8,753.5	\$8,884.8	\$9,018.1
	a. Bond payment	\$4,459.0	\$4,525.9	\$4,593.8	\$4,662.7	\$4,732.6
	Totals	\$70,510.0	\$55,966.9	\$52,970.4	\$38,498.0	\$38,003.6

Table 5 - Projected Revenues Fiscal Years 2017-2021

1. Total valuation in NRD will rise 1.5% each year, with a similar increase in property tax.
2. The bonding limit will remain at approximately \$75 million.

Project	2017	2018	2019	2020	2021
<b>Cash on hand (less bonds)</b>	\$ 13,605.0	\$ 14,292.3	\$ 13,112.9	\$ 3,682.4	\$ 5,007.0
<b>General Property Tax</b>	\$ 22,503.0	\$ 22,840.5	\$ 23,183.1	\$ 23,530.9	\$ 23,883.8
<b>Western Sarpy/Clear Creek</b>					
NRDF	\$ 489.2	-----	-----	-----	-----
Sarpy County	\$ 65.0	\$ 25.0	-----	-----	-----
LPSNRD	\$ 150.0	-----	-----	-----	-----
LPNNRD	\$ 63.5	-----	-----	-----	-----
<b>Floodplain Remapping</b>					
PCWP Contribution	\$ 150.0	-----	-----	-----	-----
<b>Missouri River Levee Certification</b>					
Water Sustainability Fund	\$ 4,750.0	\$ 4,750.0	\$ 4,200.0	-----	-----
City of Bellevue	\$ 750.0	\$ 750.0	\$ 750.0	\$ 750.0	-----
City of Omaha	\$ 750.0	\$ 750.0	\$ 750.0	\$ 750.0	-----
Sarpy County	\$ 750.0	\$ 750.0	\$ 750.0	\$ 750.0	-----
<b>Papio Site WP-5</b>					
GO Bonds 2013	\$ 181.3	-----	-----	-----	-----

Table 5 - Projected Revenues Fiscal Years 2017-2021

1. Total valuation in NRD will rise 1.5% each year, with a similar increase in property tax.
2. The bonding limit will remain at approximately \$75 million.

Project	2017	2018	2019	2020	2021
<b>Papio Site 15A</b>					
GO Bonds 2013B	\$ 7,892.1	\$ 1,461.2	-----	-----	-----
NGPC	\$ 425.0	-----	-----	-----	-----
City of Omaha & Douglas County	\$ 2,644.0	\$ 667.0	\$ 667.0	-----	-----
Sale of Asset	\$ 325.0	-----	-----	-----	-----
<b>WP-6</b>					
NDEQ	-----	\$ 300.0	-----	-----	-----
<b>WP-7</b>					
NDEQ	-----	\$ 200.0	-----	-----	-----
<b>Zorinsky Basin #2</b>					
NDEQ	-----	-----	\$ 300.0	-----	-----
<b>Pigeon-Jones Site 15</b>					
NRDF	\$ 2,364.9	\$ 800.0	\$ 800.0	-----	-----
<b>Papio Creek Partnership</b>					
Reimbursement	\$ 34.4	\$ 34.4	\$ 34.4	\$ 34.4	\$ 34.4
<b>Watershed Fund</b>					
Water Sustainabilty Fund (WP-6, WP-7)	\$ 2,508.0	-----	-----	-----	-----
Fees	\$ 1,500.0	\$ 4,000.0	\$ 4,000.0	\$ 4,500.0	\$ 4,500.0
Miscellaneous	\$ 168.3				

Table 5 - Projected Revenues Fiscal Years 2017-2021

1. Total valuation in NRD will rise 1.5% each year, with a similar increase in property tax.
2. The bonding limit will remain at approximately \$75 million.

Project	2017	2018	2019	2020	2021
<b>Channel Maintenance</b>					
Sarpy County, Elkhorn River 240th St	\$ 416.9	-----	-----	-----	-----
Omaha, Big Papio Culverts	\$ 350.0	-----	-----	-----	-----
Omaha, Hell Creek Stabilization	\$ 200.0	-----	-----	-----	-----
La Vista, Hell Creek Stabilization	\$ 200.0	-----	-----	-----	-----
Bellevue, Big Papio Culverts	\$ 25.6	-----	-----	-----	-----
<b>Flood Mitigation Program</b>					
FEMA	\$ 7.5	\$ 7.5	\$ 7.5	\$ 7.5	\$ 7.5
<b>Floodway Purchase Program</b>					
FEMA	\$ 370.4	-----	-----	-----	-----
Arlington	\$ 25.0	-----	-----	-----	-----
<b>Water Quality Programs</b>					
NDEQ	\$ 190.0	-----	-----	-----	-----
NRWQF	\$ 35.0	\$ 35.0	\$ 35.0	\$ 35.0	\$ 35.0
319 - City of Omaha	\$ 18.2				
<b>Pigeon Creek Special Watershed</b>					
NDEQ 319	\$ 210.0	-----	-----	-----	-----
<b>Lower Platte Weed Mgt.</b>					
LPSNRD	-----	\$ 20.0	\$ 20.0	\$ 20.0	\$ 20.0
LPNNRD	-----	\$ 20.0	\$ 20.0	\$ 20.0	\$ 20.0

Table 5 - Projected Revenues Fiscal Years 2017-2021

1. Total valuation in NRD will rise 1.5% each year, with a similar increase in property tax.
2. The bonding limit will remain at approximately \$75 million.

Project	2017	2018	2019	2020	2021
<b>Emergency Flood Warning</b>					
Douglas County	\$ 30.0	\$ 20.0	\$ 20.0	\$ 20.0	\$ 20.0
Sarpy County	\$ 14.0	\$ 4.0	\$ 4.0	\$ 4.0	\$ 4.0
Washington County	\$ 2.0	\$ 2.0	\$ 2.0	\$ 2.0	\$ 2.0
Omaha	\$ 8.0	\$ 4.0	\$ 4.0	\$ 4.0	\$ 4.0
<b>Trails</b>					
City of La Vista	\$ 90.0	-----	-----	-----	-----
City of Omaha	\$ 90.0	-----	-----	-----	-----
<b>Missouri River Projects</b>					
Nebraska Environmental Trust	\$ 1,600.0	-----	-----	-----	-----
<b>Improvement Project Areas</b>					
Washington County RW	\$ 1,665.9	\$ 1,690.9	\$ 1,716.3	\$ 1,742.0	\$ 1,768.2
Thurston County RW	\$ 252.3	\$ 256.1	\$ 259.9	\$ 263.8	\$ 267.8
Dakota County RW	\$ 843.9	\$ 856.5	\$ 869.4	\$ 882.4	\$ 895.6
Elkhorn Breakout	\$ 6.6	\$ 6.7	\$ 6.8	\$ 6.9	\$ 7.0
Elkhorn River	\$ 198.0	\$ 201.0	\$ 204.0	\$ 207.1	\$ 210.2
Elk/Pigeon	\$ 73.8	\$ 75.0	\$ 76.1	\$ 77.2	\$ 78.4
Western Sarpy	\$ 124.6	\$ 126.4	\$ 128.3	\$ 130.2	\$ 132.2
<b>Other Projects</b>					
Small District Projects	\$ 1,175.5	\$ 800.0	\$ 825.0	\$ 850.0	\$ 875.0
Rental Income	\$ 218.1	\$ 221.3	\$ 224.7	\$ 228.0	\$ 231.5
<b>Total Revenues</b>	\$ 70,510.0	\$ 55,966.9	\$ 52,970.4	\$ 38,498.0	\$ 38,003.6
<b>Total Expenses (From Table 4)</b>	\$ 70,510.0	\$ 55,966.9	\$ 52,970.4	\$ 38,498.0	\$ 38,003.6