# LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT



# **DIRECTOR NOTEBOOK**

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Section 1 District Information

## Nebraska's Natural Resources Districts



#### LOWER PLATTE SOUTH NRD RESOURCES & STATISTICS

- 1. Land cover (1,069,098 Acres) See Map 22<sup>nd</sup> Largest NRD (2017)
  - 57.7% cropland
  - 21.6% pasture / grass
  - 9.8% developed
  - 8.2% forestland
  - 1.9% open water
  - 0.8% wetlands
- 2. Thirty-one communities 2<sup>nd</sup> most populated
  - Lincoln 258,379 (2010 census)
  - Plattsmouth 6,502
  - Waverly 3,277
  - Ashland 2,453
- 3. Surface Water
  - Fifty creeks / rivers
    - 1. Missouri River 26 miles
    - 2. Platte River 26 miles
    - 3. Salt Creek 45 miles
  - Lakes / reservoirs
    - 1. Branched Oak Lake 1,800 ac.
    - 2. Pawnee Lake 700 ac.
    - 3. Beaver Lake & Capital Beach 325 ac. (est.)
- 4. Groundwater 6,884 active wells 12<sup>th</sup> highest among NRDs (2018)
  - 3,606 domestic wells (2<sup>nd</sup>)
  - 1,306 monitoring wells
  - 453 irrigation wells (23<sup>rd</sup>)
  - 70 commercial (8<sup>th</sup>)
  - 134 public water supply wells w/spacing protection
  - 109 public water supply wells w/o spacing protection
  - 1,206 other (injection, recovery, livestock, groundwater heat exchange, heat pump, agriculture, pit (excavation), etc.)

COUNTY	VILLAGE/CITY	2018 VALUATION	2010 POPULATION	%TOTAL
Butler		187,683,710	687	0.22%
	Brainard		330	0.10%
	Unincorp.		357	0.11%
Cass		3,449,021,450	24,441	7.77%
	Plattsmouth		6,502	2.07%
	Weeping Water		1,050	0.33%
	Eagle		1,024	0.33%
	Louisville		1,106	0.35%
	Cedar Creek		390	0.12%
	Elmwood		634	0.20%
	Murray		463	0.15%
	Greenwood		568	0.18%
	Murdock		236	0.07%
	Nehawka		204	0.06%
	Union		233	0.07%
	Avoca		242	0.08%
1	Manley		178	0.06%
	Alvo		132	0.04%
	South Bend		99	0.03%
	Unincorp.		11,380	3.62%
Lancaster		26,082,868,455	281,901	89.57%
	Lincoln		258,379	82.10%
	Waverly		3,277	1.04%
	Hickman		1,657	0.53%
	Malcolm		382	0.12%
	Hallam		213	0.07%
	Denton		190	0.06%
	Raymond		167	0.05%
	Davey		154	0.05%
	Sprague		142	0.05%
	Roca		220	0.07%
	Unincorp.		17,120	5.44%
Otoe		163,865,330	318	0.10%
	Unincorp.		318	0.10%
Saunders		703,393,224	5,439	1.73%
	Ashland		2,453	0.78%
	Ceresco		889	0.28%
	Valparaiso		570	0.18%
	Unincorp.		1,527	0.49%
Seward		405,156,967	1,936	0.62%
	Pleasant Dale		205	0.07%
	Garland		216	0.07%
	Unincorp.		1,515	0.48%
_		TOTALS		
	URBAN		282,505	89.76%
	UNINCORP.		32,217	10.24%
	TOTALS	30,991,989,136	314,722	100.00%











### Section 2 Board of Directors Information





#### LOWER PLATTE SOUTH NRD BOARD OF DIRECTORS

Subdistrict	Director / e-mail	Address	Phone
4	Gary Aldridge	7112 South 45 <sup>th</sup> Street	(402) 421-3564
	galdridge.nrd@outlook.com	Lincoln, NE 68516	
	usawoodtoys@yahoo.com		
10	Karen Amen	3220 Joy Court	(402) 423-3220
	kamen.nrd@outlook.com	Lincoln, NE 68502	Cell – (402) 499-7930
9	Bob Andersen	4941 S. 73 <sup>rd</sup> Street	Cell – (402) 483-5455
	bandersen.nrd@outlook.com	Lincoln, NE 68516	
	bobandersen47@gmail.com		
3	Vern Barrett	1909 County Road E	(402) 443-3437
	vbarrett.nrd@outlook.com	Ceresco, NE 68017	
	lbarrett2@unl.edu		
6	Deborah Eagan	2021 Indigo Ct.	(402) 435-6616
	deagan.nrd@outlook.com	Lincoln, NE 68521	Cell – (402) 730-8936
8	Tom Green	710 Wedgewood Dr.	(402) 580-3341
	tgreen.nrd@outlook.com	Lincoln, NE 68510	
1	Gary Hellerich	2854 County Road A	Cell – (402) 560-8508
	ghellerich.nrd@outlook.com	Valparaiso, NE 68065	
	ghellerich@inebraska.com		
1	Don Jacobson	2523 West "A" Street	(402) 477-2523
	djacobson.nrd@outlook.com	Lincoln, NE 68522	Cell – (402) 430-351
5	Bruce Johnson	254 West Lakeshore Drive	(402) 435-3336
	bjohnson.nrd@outlook.com	Lincoln, NE 68528	Cell – (402) 310-1585
	johnsonbb28@gmail.com		
7	Chelsea Johnson	1709 Bedloe Court	Cell - (402) 274-7623
	cjohnson.nrd@outlook.com	Lincoln, NE 68505	
8	Christie Lamberty	7506 Whitestone Dr.	(402) 525-1593
	christielamberty@gmail.com	Lincoln, NE 68506	
At-Large	David Landis	4810 South 44 <sup>th</sup> Street	(402) 466-9352
	dlandis2@unl.edu	Lincoln, NE 68516	Cell – (402) 817-8179
9	Lisa Lewis	6024 Cross Creek Road	(402) 540-5985
	Idlewis3@gmail.com	Lincoln, NE 68516	
2	Ron Nolte	5700 Church Road	(402) 298-8500
	ronwnolte@yahoo.com	Plattsmouth, NE 68048	
7	Luke Peterson	2520 "R" Street, Apt. #1	308-991-5751
	lpeterson.nrd@outlook.com	Lincoln, NE 68503	
4	Larry Ruth	11500 Van Dorn	Cell – (402) 430-9299
	larry.lynn.ruth@gmail.com	Walton, NE 68461	(402) 488-6681
6	Anthony Schutz	6811 NW 8 <sup>th</sup> Street	(402) 466-1380
	aschutz2@gmail.com	Lincoln, NE 68521	
2	Mark Spangler	9426 – 12 <sup>th</sup> Street	(402) 235-2296
	mspangler.nrd@outlook.com	Murray, NE 68409	Cell - (402) 298-1307
10	Ray Stevens	3411 Hanson Ct.	(402) 423-6471
	stevensjr@prodigy.net	Lincoln, NE 68502	Cell – (402) 432-124
3	Kenneth Vogel	7744 Erin Court	(402) 613-8245
	VogelKP61@neb.rr.com	Lincoln, NE 68507	
5	John Yoakum	330 N.W. 13 <sup>th</sup> Street	(402) 890-5060
	johnyoakum@aol.com	Lincoln, NE 68528	
General Man	ager: Paul Zillig, Lower Platte South	NRD	
	P.O. Box 83581, Lincoln, NE 6	8501-3581	
	(402) 476-2729		

### Section 3 Staff Information

## **EMPLOYEE DIRECTORY** & ORGANIZATIONAL STRUCTURE



# LOWER PLATTE SOUTH natural resources district

### ORGANIZATIONAL STRUCTURE OF THE LOWER PLATTE SOUTH NRD



### PAUL ZILLIG

#### **General Manager**

Manage district operations and supervise all district employees Provide guidance and assistance to Board of Directors Coordinate programs with government and private agencies Coordinate project development with staff Employed at LPSNRD since 1979

### **DAVID POTTER**

#### Assistant General Manager

Assist general manager in District Operations Coordinate conservation cost-share programs Administer Watershed Structure Rehabilitation Program Employed at LPSNRD since 2016

### JOHN ALBERT

#### Resources Technician (Lancaster County NRCS Office)

Conservation practices survey, design and layout Conservation cost-share applications, payment claims and conservation plans Contact for NRD programs/inquiries Employed at LPSNRD since 1990

### MCKENZIE BARRY

### Environmental Education/

#### **Communication Coordinator**

Facilitate and coordinate NRD Environmental Education programs
 Manage all district social media
 Coordinate NRD nitrogen certification and ground water allocation trainings
 Earth Wellness Festival coordinator
 Employed at LPSNRD since 2001









#### VACANCY

#### Social Media Assistant

Promote programs, projects and events on social media Track impact of LPSNRD social media Program and project video production Staff podcast production

### **CONNIE DAMROW**

#### Bookkeeper

Accounts payable Assist with District finances Grants management Alliance financial support Employed at LPSNRD since 2009

### DICK EHRMAN

#### Water Resources Specialist

Develop and manage ground and surface water monitoring programs Coordinate ground water/geologic data gathering for district Assist with implementaton of Ground Water Management Plan Assist with ground water programs Employed at LPSNRD since 2009

### **CONNIE HANSEN**

#### Field Office Secretary (Lancaster Co. NRCS Office)

Contact for NRD programs/inquiries Conservation cost-share applications/claims General office duties Employed at LPSNRD since 1990







### **KATHY HAUSCHILD**

**Receptionist/Secretary** 

Office receptionist Coordinate office and staff schedules and NRD meetings & rooms General office duties and secretarial support Employed at LPSNRD since 2017

### TRENT HENRY

#### **Maintenance Technician**

Prairie Corridor on Hannes Branch operation and maintenance Manage LPSNRD Weed program Assist with woody vegetation management on wildlife management areas Employed at LPSNRD since 2020



LOWER P

### **STEVE HERDZINA**

#### Water Resources Compliance Specialist

Implements compliance guidelines for Ground Water Rules and Regulations Manages certified irrigated acres Administers water meter cost-share program Oversees 319 Water Quality management Plan Employed at LPSNRD since 2008

### **BRYCE JENSEN**

#### **Operation/Maintenance Technician**

Urban channel inspection and maintenance, including Antelope Valley Coordinate hiker/biker trail maintenance NRD building maintenance Vehicle purchase and maintenance Employed at LPSNRD since 2014





### ARIANA KENNEDY

#### **Resources Conservationist**

Trail development, inspections and management Manage and inspect buffer strip and filter strip program Assist with NRD lakes and wetlands Conduct conservation easement inspections Employed at LPSNRD since 1998

### NATHAN KUHLMAN

#### Information Systems Administrator

Design, implement and operate information systems architecture Analyze information and technology needs Ensure computer networks are operational, backed up and secure Employed at LPSNRD since 2010





#### JAN KUSH Field Office Secretary (Cass County NRCS Office)

Contact for NRD programs/inquiries Conservation cost-share applications/claims General office duties Employed at LPSNRD since 2020



### AL LANGDALE

#### **Operation and Maintenance Coordinator**

Coordinate operation and maintenance staff Salt Creek Levee project inspections, operation and maintenance Salt Creek project (non-levee) operation and maintenance As-built project construction plan organization and archives Employed at LPSNRD since 1986



### MIKE MASCOE

#### **Public Information Specialist**

Produce all informational materials and NRD newsletter Coordinate media and promotional activities Responsible for web design and content Coordinate special events Employed at LPSNRD since 1998

### CRAIG MATULKA

#### **Operation/Maintenance Technician**

Manage Weed Control Program Perform general operation and maintenance duties Conduct dam safety inspections Maintanin NRD dam database Employed at LPSNRD since 2004





### **MIKE MURREN**

#### **Projects Coordinator**

Assist with planning, design, landrights, contract preparation, construction and maintenance of district projects Supervise Stormwater Floodplain Specialist and operation and maintenance staff Develop and promote urban stormwater programs Coordinate construction of flood control dams, channel restorations and flood reduction projects Employed at LPSNRD since 2019

### JARED NELSON

#### **District Engineer**

Coordinate Deadmans Run Section 205 Flood Reduction Study Provide engineering support for NRD projects Coordinate Salt Creek Levee project improvements Evaluate operation of NRD projects Employed at LPSNRD since 2018





### LPSNRD STAFF DREW RATKOVEC

#### **Maintenance Technician**

Maintenance on NRD projects and properties Manage Weed Control Program Operate and maintain NRD equipment Platte River ice monitoring Employed at LPSNRD since 2019

### **DONNA REID**

#### **District Office Secretary/Program Assistant**

Filing systems and maintaining electronic data storage Administer NSWCP conservation cost-share programs Purchase supplies and equipment for office Provide secretarial support Employed at LPSNRD since 1994





### SHAULA ROSS

#### **GIS Specialist**

Build and maintain GIS data and projects Gather, analyze and integrate spatial information from vatrious sources Design and create maps Troubleshoot GIS issues Employed at LPSNRD since 2004

### DAN SCHULZ

#### **Resources Coordinator**

Coordinate implementaton of Ground Water Management Plan Liason for Saline Wetland Conservation Partnership, NE Forest Service, NE Land Trust and Prairie Corridor on Haines Branch Coordinate and manage public access properties Supervise various staff and temporary employees Employed at LPSNRD since 1982





### MACLANE SCOTT

Water Resources Technician

Ground water monitoring, sampling and water levels Well permits Chemigation permits Well decommissioning cost-share Employed at LPSNRD since 2019

### **EVAN SISEL**

**Resources Technician** 

#### (Lancaster County NRCS Office)

Conservation practices survey, design and layout Conservation cost-share applications, payments and plans Contact for NRD programs/inquiries Employed at LPSNRD since 2018

### KATHY SPENCE

#### Administrative Assistant

Payroll Accounting of district finances Wellness Program coordinator Supervise clarical staff Recording secretary for monthly board meetings Employed at LPSNRD since 1980, retiring February, 2021

### **CINDY SPILINEK**

Resources Technician (Cass County NRCS Office)

Conservation practices survey, design and layout Conservation cost-share applications, payment claims and conservation plans Contact for NRD programs/inquiries Employed at LPSNRD since 1990







### ADAM SUTTON

#### **Environmental Educator**

Assist in education presentations, programs and field trips Assist with Family nature Nights and afterschool clubs Coordinate Test Your Well Nights Employed at LPSNRD since 2010

### **CHRIS WITTHUHN**

#### Water Resources Conservationist

Develop and implement ground water monitoring activities Manage ground water database and reports Ground water best management practices cost-share programs Employed at LPSNRD since 2008

### TRACY ZAYAC

#### Stormwater/Watershed Specialist

Provide technical assistance for stormwater and floodplain management and erosion and sediment control Coordinate Urban Water Quality Program Coordinate NRD Community Assistance Program NRD/City of Lincoln project liaison Employed at LPSNRD since 2019

### **KATIE CAMERON**

#### Eastern Nebraska Water Resources Assessment

Plan, manage and administer the Eastern NE Water Resources Assessment (ENWRA)
Perform and coordinate technical duties
Provide hydro geologic consultation
Employed at LPSNRD since 2013









# JOINT PARTNERSHIP EMPLOYEES

#### VACANCY

**Corrections Crew Supervisor** 

Employed by the Nebraska Department of Corrections

### SAM GROVE

#### **Corrections Crew Supervisor**

Employed by the Nebraska Department of Corrections Employed at LPSNRD since 2017



### TOM MALMSTROM

#### Saline Wetlands Conservation Partnership

Coordinates shared interests between partnership entities Employed at LPSNRD since 2003



### JAY SEATON

#### **NRD Forester**

Oversee NRD conservation tree seedling program Coordinate Community Forestry grant program Provide technical forestry and tree planting assistance to public Provide tree planting designs and plans to interested public Employed at LPSNRD since 2012



## **TEMPORARY MAINTENANCE STAFF**

### WHITNEY GAPPA

UNL Senior (Class of 2021), majoring in Fisheries Ecology and Management, minoring in Water Science

### **JORDAN SPRINGER**

UNL Senior (Class of 2021), majoring in Grassland Ecology and Fish & Wildlife, minoring in Water Science and Environmental Restoration Science



UNL Senior (Class of 2021), majoring in Fisheries & Wildlife: Conservation Biology, minoring in Urban Forestry







LAST NAME	FIRST NAME	TITLE	BRIEF DESCRIPTION OF JOB
Albert	John	Resources Technician (Lancaster County NRCS)	Conservation practices survey, design and layout, conservation cost-share applications, payments and conservation plans and contact for LPSNRD programs / inquiries
Barry	McKenzie	Environmental Education / Communication Coordinator	Facilitate and coordinate LPSNRD Environmental Education Programs, plan all environmental education events and coordinate & manage all District communication & social media
Cameron	Katie	Eastern Nebraska Water Resources Assessment (ENWRA) Project Coordinator	Plan, manage and administer the Eastern Nebraska Water Resources Assessment (ENWRA), perform and coordinate technical duties and provide hydro geologic consultation
Damrow	Connie	Bookkeeper	Accounts payable, assist with district finances, grants management and Alliance financial support
Ehrman	Dick	Water Resources Specialist	Develop and manage ground and surface water monitoring programs, coordinate groundwater /geologic data gathering for district and assist with implementation of Groundwater Management Plan Assist with groundwater programs
Hansen	Connie	Field Office Secretary (Lancaster County NRCS)	Contact for LPSNRD programs/inquiries, conservation cost-share applications/claims and general office duties
Hauschild	Kathy	Receptionist / Secretary	Office receptionist, coordinate office and staff schedules and LPSNRD meetings/rooms and general office duties and secretarial support
Henry	Trent	Maintenance Technician	Prairie Corridor on Haines Branch operation and maintenance, manage LPSNRD Weed Program and assist with woody vegetation management on wildlife management areas
Herdzina	Steve	Water Resources Compliance Specialist	Implement compliance guidelines for Groundwater Rules and Regulations, manage Certified Irrigated Acres, administer Water Meter Cost-Share Program and oversee 319 Water Quality Management Plan

LAST NAME	FIRST NAME	TITLE	BRIEF DESCRIPTION OF JOB
Jensen	Вгусе	Operation and Maintenance Technician	Urban channel inspection/maintenance, including Antelope Valley, Coordinate hiker/biker trail maintenance, LPSNRD building maintenance and vehicle purchase and maintenance
Kennedy	Ariana	Resources Conservationist	Trail development, inspections and management, manage and inspect buffer strip and filter strip program, assist with LPSNRD lakes and wetlands and conduct conservation easement inspections
Kuhlman	Nathan	Information Systems Administrator	Design, implement and operate information systems architecture, update and maintain network system, analyze information and technology needs and ensure computer networks are operational, backed-up and secure
Kush	Jan	Field Office Secretary (Cass County NRCS)	Contact for LPSNRD programs/inquiries, conservation cost-share applications/claims and general office duties
Langdale	Alan	Operation and Maintenance Coordinator	Coordinate operation & maintenance staff, Salt Creek Levee Project inspections, operation & maintenance, Salt Creek Project (non-levee) operation & maintenance and As-Built Project construction plan organization and archives
Mascoe	Mike	Public Information Specialist	Produce all informational materials & LPSNRD Newsletter, coordinate media and promotional activities, responsible for website design and content and coordinate special events
Matulka	Craig	Operation / Maintenance Technician	Manage weed control program, perform general operation & maintenance duties, conduct dam safety inspections and maintain LPSNRD dam database
Murren	Mike	Projects Coordinator	Assist with the planning, design, land rights, contract preparation, construction and maintenance of district's projects, supervise Stormwater/Floodplain Specialist and Operation/Maintenance Coordinator, develop & promote urban stormwater programs and coordinate construction of flood control dams, channel restorations and flood reduction projects

LAST NAME	FIRST NAME	TITLE	BRIEF DESCRIPTION OF JOB
Nelson	Jared	District Engineer	Coordinate Deadmans Run Flood Reduction Project, provide engineering support for LPSNRD projects, coordinate Salt Creek Levee Improvements and evaluate operation of LPSNRD projects
Potter	David	Assistant General Manager	Assist general manager in district operations, coordinate conservation cost- share programs and administer Watershed Structure Rehabilitation Program
Ratkovec	Drew	Maintenance Technician	Maintenance on LPSNRD projects and properties, manage Weed Control Program, operate/maintain LPSNRD equipment and Platte River ice monitoring
Reid	Donna	District Office Secretary / Program Assistant	In charge of filing systems and maintaining electronic data storage, puts agenda/agenda items, board and subcommittee minutes on web page, purchase supplies & equipment for office, assist with conservation cost- share programs, recording secretary for monthly board meetings and provides secretarial support
Ross	Shaula	GIS Specialist	Build and maintain GIS data and projects, gather, analyze and integrate spatial information from various sources, design and create maps and troubleshoot GIS issues
Schulz	Dan	Resources Coordinator	Coordinate implementation of Groundwater Management Plan, liaison for Saline Wetland Conservation Partnership, Nebraska Forest Service, Nebraska Land Trust and Prairie Corridor on Haines Branch, coordinate and manages public access properties and supervise various staff and temporary employees
Scott	Maclane	Water Resources Technician	Groundwater monitoring, sampling and water levels, well permits, chemigation permits and well decommissioning cost-share
Seaton	Jay	NRD Forester	Oversee LPSNRD Conservation Tree Seedling Program, coordinate LPSNRD Community Forestry Grant Program, provide technical forestry & tree planting assistance to public and provide tree planting designs & plans to interested public

LAST NAME	FIRST NAME	TITLE	BRIEF DESCRIPTION OF JOB
Sisel	Evan	Resources Technician (Lancaster County NRCS)	Conservation practices survey, design and layout, conservation cost-share applications, payments and conservation plans and contact for LPSNRD programs / inquiries
Spence	Kathy	Administrative Assistant	Payroll, accounting of district finances, Wellness Program coordinator and supervise clerical staff
Spilinek	Cindy	Resources Technician (Cass County NRCS)	Conservation practices survey, design and layout, conservation cost-share applications, payments and conservation plans and contact for LPSNRD programs / inquiries
Sutton	Adam	Environmental Educator	Assist in education presentations, programs & field trips, assist with Family Nature Nights and afterschool clubs and coordinate Test Your Well Nights
Vacancy		Social Media Strategist	Promote programs, projects and events on social media, program and project video production and staff podcast production.
Witthuhn	Chris	Water Resources Conservationist	Develop and implement groundwater monitoring activities, manage groundwater database & reports and groundwater best management practices cost-share programs
Zayac	Tracy	Stormwater / Watershed Specialist	Provide technical assistance for stormwater & floodplain management and erosion & sediment control, coordinate LPSNRD Urban Water Quality Program, coordinate LPSNRD Community Assistance Program and LPSNRD / City of Lincoln Project Liaison
Zillig	Paul	General Manager	Manage district operations & supervise all district employees, provide guidance & assistance to board of directors, coordinate programs with government & private agencies and coordinate project development with staff.

Updated 12/3/2020

Section 4 Operating Policies **OPERATING POLICIES** 

#### LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT

ADOPTED May 14, 1998

**REVISED December 16, 2020** 

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- D-4: Information and Education Subcommittee
- D-5: Land Resources Subcommittee
- D-6: Recreation, Forestry, & Wildlife Subcommittee
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# Click Here to view entire set of Operating Policies

Section 5 Personnel Policies **PERSONNEL POLICIES** 

## LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT

ADOPTED JUNE 17, 1998

**Revised December 16, 2020** 

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# Click Here to view entire set of Personnel Policies

Section 6 Cooperating Agencies

## COOPERATING AGENCIES WITH THE LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT

### Section 2-3235 (1) R.R.S. 1943 states:

"Each District shall have the power and authority to cooperate with or to enter into agreement with, and within the limits of appropriations available, to furnish financial or other aid to any cooperator, agency, governmental or otherwise, or any owner or occupier of lands within the District, for the carrying out of the projects for the benefit of the District as authorized by this act, subject to such conditions as the Board may deem necessary to advance the purpose of this act."

The Interlocal Cooperation Act, as contained in Sections 23-2201 through 23-2207 R.R.S. 1943, applies also to Natural Resources Districts.

## I. FEDERAL GOVERNMENT

1. United States Department of Agriculture (USDA) (Memorandum of Understanding)

#### A. Natural Resources Conservation Service (NRCS) (Mutual Agreement) (Cooperative Working Agreement)

- 1. Technical assistance for soil and water conservation - provide technical assistance through NRD to individual landowners, groups, organizations, local and state agencies
- 2. Watershed planning, construction, financing and rehabilitation (PL556)
- 3. Design and layout of conservation measures
- 4. Soil surveys
- 5. Studies and inventories
- 6. Administers federal cost-share programs, including (EQIP) for conservation measures, Wetlands Reserve Program, Wildlife Habitat Incentives Program, Forestry Incentives Program, Grassland Incentives Program, Conservation Security Program

## B. Farm Services Agency (FSA)

1. Administers USDA's farm program, Conservation Reserve Program, Conservation Reserve Enhancement Program, and Price support program disaster assistance to farmers.

## C. Forest Service (FS)

- 1. Management of public lands in national forests and grasslands.
- 2. State and Private Forestry programs.
  - a. Forest Health protection
  - b. Cooperative Forestry
  - c. Urban and Community Forestry

#### D. Rural Development

1. Rural water and wastewater grants and loans

## 2. Safe Drinking Water Act (SDWA)

- a. Water quality standards
- b. Source Water Protection (SWP)
- c. Public Drinking Water Systems Programs

## 3. Wastewater Management

- a. Animal Feeding Operations
- b. Stormwater Program

### 4. Wetlands and Watersheds

## 5. Department of Commerce (DOC)

1.

### A. National Oceanic and Atmospheric Administration (NOAA)

- National Weather Service (NWS)
  - a. Weather information/flood warnings

## 6. Department of Homeland Security (DHS)

- A. Federal Emergency Management Agency (FEMA)
  - 1. National Flood Insurance Program (NFIP)
    - a. Flood Insurance
    - b. Floodplain mapping
    - c. Cooperating Technical Partners
  - 2. National Dam Safety Program (NDSP)
  - 3. Mitigation Grants Program
    - a. Hazards Mitigation Grant Program (HGMP)
    - b. Flood Mitigation Assistance Program (FMA)

## 7. Department of Transportation (DOT)

- A. Federal Highway Administration (FHWA)
  - 1. Surface Transportation programs
    - a. Enhancement Funds (Trails)
    - b. Recreation Trails Program (Trails)
- **B.** Surface Transportation Board (STB)
  - 1. Rail abandonment/rail banking

## II. STATE GOVERNMENT

## 1. Nebraska Department of Natural Resources (NDNR)

- (Code Agency)
  - 1. Specific responsibilities for soil and water conservation, flood prevention and control, flood plain management and regulations, and state water planning and has jurisdiction over matters pertaining to rights to the use of water in all natural streams, for irrigation, power and other useful purposes.
  - 2. Provides staff assistance for the Natural Resources Commission (27 members, 13 from NRDs and 14 Governor appointees).
  - 3. Lead agency in State Water Planning.
  - 4. Issues, administers, and cancels appropriation permits for surface water.
  - 5. Examines and approves plans for all proposed dams.
  - 6. Cooperates with COE in dam safety inspections

- 7. Registers water wells
- 8. Ground Water Management Act responsibilities.
- 9. State programs of assistance to NRDs or others:
  - a. Well Decommissioning Fund
  - b. Water Quality Fund
  - Small Watershed Flood Control Funds (LB71) A "quasi" revolving fund with grants to local sponsors to assist in ROW acquisition for various watershed and flood control projects.
  - d. Nebraska Water Sustainability Fund
    - 1. Grant and/or loan of state funds to assist in development and wise use of the states water and land resources.
    - 2. Eligible projects can be local projects, federal or state sponsored projects.
    - 3. Structural or non-structural measures for the purpose of flood control, fish and wildlife enhancement and mitigation, pollution abatement, outdoor recreation, irrigation development or rehabilitation, ground water recharge, water supply, streambank stabilization, erosion control, flood damage, reservation of lands for future projects.
  - e. Nebraska Soil and Water Conservation Program (NSWCP)
    - State program administered by NRDs to cost-share with individual landowners on construction of eligible water conservation measures – including terraces, waterways, dams and irrigation reuse pits.
  - f. Provides some engineering and survey assistance to NRDs for special projects.
  - g. Administers Nebraska's flood plain regulations act, and provides coordination of the federal flood insurance program.

## 2. Department of Environmental Quality (DEQ)

- (Code Agency)
- 1. Environmental Control Council
- 2. General supervision over prevention, abatement, and control of all water, land and air pollution, both point and non-point sources, solid and hazardous waste.
- 3. Enforces air and water quality standards
- 4. Administers EPA wastewater construction grant program
- 5. Ground water quality protection strategy
- 6. Chemigation

## 3. Game and Parks Commission (G&PC)

(Not a Code Agency)

- 1. Governed by a 8 member commission
- 2. Purpose: husbanry of state's wildlife, park and outdoor recreation resources in the best long-term interest of the people.
- 3. Assists in the management of waters that can provide public fishing including stocking, inventories, research and investigation of surface water quality affecting fishing waters.
- 4. Assists NRDs, other agencies, and private landowners in establishing and managing wildlife habitat.
- 5. Administers habitat program and funds

- a. Development on state lands and roadside seeding.
- b. Acquisition and management of wildlife management areas
- c. Cost-share with NRDs, WHIP and Wild Nebraska
- 6. Enforcement of fish and game regulations
- 7. Owns and/or manages public use areas, including State Parks, Historical Parks, Recreation Areas, Wayside Areas, Wildlife Refuges, Wildlife Areas.
- 8. Information and education programs
- 9. Administers Land and Water Conservation Fund
- 10. Administers Recreation Trails Program and Nebraska Trails Development Act funds.
- 11. Funds for fishery enhancement, boating and angler access.

### 4. Department of Health (DOH)

- 5. Institute of Agriculture and Natural Resources, University of Nebraska Lincoln (IANR-UNL)
  - A. College of Agriculture
  - **B.** Agricultural Experiment Stations

### C. Cooperative Extension Service (CES)

- 1. Information and education arm of UNL - 4-H
- 2. Workshops, seminars on conservation topics, e.g. conservation tillage, irrigation water management, pesticide, chemigation training.
- 3. Produces and disseminates "NebGuides" and other materials

#### D. Conservation and Survey Division

- 1. State Geologist
- 2. Conducts geologic and natural resources survey, ground water information, materials, soil surveys, land use inventories
- E. Water Center
- F. Department of Forestry, Fisheries and Wildlife
- 6. University of Nebraska
  - A. College of Engineering
  - B. College of Architecture
- 7. Department of Transportation (NDOT)
- 8. State Historical Society
- 9. State Board of Educational Lands and Funds (BELF)
- **10.** State Department of Education

## 9. NE Emergency Management Agency (NEMA)

## III. LOCAL GOVERNMENTS

- 1. Counties
  - 1. Various offices and departments, e.g. County Boards, Clerk, Assessor, Highway Department, Weed Districts, Emergency Management, Health Department, Planning Department
  - 2. Road structures
  - 3. Roadside seeding
  - 4. Flood control and warning
  - 5. Drainage improvement
  - 6. Zoning
  - 7. Flood Plain Management Regulations
  - 8. Recreation
  - 9. Tax collection

## 2. Townships

## 3. Cities and Villages

- 1. Zoning
  - 2 Flood control
  - 3. Flood Plain Management Regulations
  - 4. Drinking Water Supply & Protection
  - 5. Surface Water Quality Protection
  - 6. Drainage improvement
  - 7. Recreation
- 5. School Districts
- 6. Rural Fire Departments
- 7. County Historical Societies
- 8. NRDs

#### IV. ORGANIZATIONS AND ASSOCIATIONS

- 1. Nebraska Association of Resources Districts (NARD)
  - 1. A nonprofit corporation to which all 23 NRDs belong as members (one representative on NARD Board from each District).
  - 2. Represents the Districts on matters of common interest and concern involving resources development and management.
  - 3. Lobbying and liaison with legislature, Congress and other agencies.
  - 4. Information and education
  - 5. Direct district services.
    - a. Administration of employee benefit programs
- 2. National Association of Conservation Districts (NACD)
- 3. Nebraska Water Resources Association (NWRA)

- 4. National Water Resources Association (NWRA)
- 5. Soil and Water Conservation Society (SWCS)
- 6. Nebraska Land Improvement Contractors Associations (NLICA)
- 7. Lincoln Chamber of Commerce
- 8. Nebraska Wildlife Federation
- 9. American Water Resources Association
- 10. League of Municipalities
- 11. Nebraska Association of County Officials
- 12. Nebraska Land Trust
- 13. Lower Platte River Basin Water Management Plan Coalition
- 14. Lower Platte River Consortium

Section 7 Master Plan

LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT



Lower Platte South NRD PO Box 83581 3125 Portia Street Lincoln, NE 68521 402-476-2729 www.lpsnrd.org



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## INTRODUCTION

## AUTHORITY AND RESPONSIBILITIES

The Lower Platte South Natural Resources District (LPSNRD) is one of 23 natural resources districts created in 1969 with the passage of LB1357 by the Nebraska Unicameral. Since its formation in 1972, LPSNRD has been assisting people in the Lower Platte River Basin in the development and protection of our soil and water resources.

The natural resources districts have been given statutory responsibility outlined in Section 2-3229, R.R.S. 1943. This section states that "The purposes of the 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 NRD is authorized to levy taxes on property to generate funds to fulfill the mission of the NRD. The Lower Platte South NRD has a 21–member Board that, in addition to approving a budget and setting a tax levy, also sets policy, establishes priorities, and makes decisions related to the NRD's work. The Lower Platte South NRD includes the City of Lincoln and contains parts of six counties. Overall the NRD includes slightly more than one million acres and approximately 350,000 residents.

The NRD has a staff of approximately 30 employees that operate and maintain close to 200 floodcontrol dams, 13 miles of levees, approximately 12 miles of urban stream channels, 50 miles of trails, 13 wildlife management areas, 12 community/public wetlands, and monitors groundwater quantity and quality. The NRD also provides project planning and management for additional projects/studies, environmental education, and administers programs that provide annually over \$1M in cost-share assistance to landowners to install best management practices (terracing, tree seedlings, meters, buffer strips, well decommissioning, etc.) to improve our water quality and protect our natural resources.

The successful implementation of these programs and projects is due in large part to a commitment of cooperation and collaboration with other local, state, and federal agencies and private organizations and individuals. This NRD has a history of innovation and leadership; for example, being among the first of the NRDs to utilize conservation easements as a resources protection tool, to develop and manage recreation trails, to acquire and restore wetlands, and to partner with the City of Lincoln in stormwater quality and quantity management.

## **VISION STATEMENT**

A vision statement for LPSNRD is a picture of the district's future. It becomes the framework for all of the district's strategic planning. A vision statement has more to do with the future and describes what the district plans or hopes to be in the future. A vision articulates a view of a realistic, creditable, attractive future for the organization, a condition that is better in some important ways than what now exists. During the February 2018 planning retreat, the directors were asked to prepare a vision statement for LPSNRD that identified the district and clearly demonstrate the district's goals to all stakeholders. The following overall vision statement has been adopted for LPSNRD:

## "Protecting our natural resources for future generations."

## **MISSION STATEMENT**

The primary difference between a vision and mission statement is the timeline. A mission statement defines what an organization is currently doing, while a vision statement is a goal of what they'd like to accomplish. The mission is what people do to achieve the vision.

A mission is different from a vision in that the former is the cause and the latter is the effect; a mission is something to be accomplished whereas a vision is something to be pursued for that accomplishment. A mission statement is the day-to-day focus and describes how the district plans on achieving our objectives. This is a statement to directors, staff, and the public with interest in the district that clearly articulates what the district is doing, how it's going to do it, and ultimately why it's doing it. The mission statement for LPSNRD is:

*"Maintain a sustainable environment through the conservation of land, water, and wildlife."* 

## MASTER PLAN

The Master Plan for LPSNRD was prepared by the district staff under the direction of the Master Plan Ad Hoc Subcommittee, recommended by Finance and Planning Subcommittee, and approved by the District Board of Directors on December 12, 2018. It replaces a similar Master Plan adopted in January 2009.

The purpose of this plan is to identify where we've been, what we're doing now, and where we want to be. The Plan will expand the mission and vision statements into goals, desired outcomes and objectives of LPSNRD for the next 10 years (2019-2029). The goals reflect the responsibilities and authorities contained in state statutes as outlined above. The listed objectives are included in the district's *Long-Range Implementation Plan* for the next five years, which is updated each year. The *Long-Range Implementation Plan* and the annual budget are the primary tools for implementing the Master Plan. Included in this plan are sections on the district's background, present projects and programs, and a direction forward.

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## BACKGROUND

## LOWER PLATTE SOUTH PAST AND PRESENT

Upon settlement of the area, in the mid-1850s, that is now the Lower Platte South NRD, flooding quickly became a primary concern. Floods that occurred were often fatal. The development of land and conversion to cropland only increased the frequency and severity of flooding. The first political response to the problem in the Lincoln area came in 1891, with the organization of Sanitary District #1 of Lancaster County. Under the district's authority, work was started to straighten Salt Creek through Lincoln hoping that increased flow velocity would reduce flooding.

On July 6, 1908, a major flood in the Salt Valley took many lives and efforts to straighten and deepen Salt Creek took on new urgency. Work resumed with greater vigor in 1909. At the same time,



Images of historical flooding in rural (left) and urban (right) areas of LPSNRD

landowners of a large area drained by Weeping Water Creek were having similar problems. Residents of an area in Cass and Otoe counties were losing large amounts of fertile soil almost annually due to flooding. Then in the 1930s, dust bowl conditions brought erosion concerns to the national forefront. Congress created the Soil Erosion Service (SES) in 1933. The Soil Conservation Service was created in 1935, which absorbed the SES. Finally, in 1937, a Standard Act to create Soil Conservation Districts was passed by Congress. The State of Nebraska adopted the act immediately and there were soon soil conservation districts throughout the state.

Severe flooding persisted and by 1945, public response to channel straightening had turned negative. That year, Sanitary District #1 was informed by federal authorities they would likely not assist those channel projects in the future.

In May of 1950, a major flood in the area killed nine people and damage to the land was extensive. In response, the Salt-Wahoo Watershed Association was formed, with the goal to bring all landowners and people in the area the benefits of water conservation, erosion control, flood abatement, recreation and wildlife development. The association included both rural and urban interests. Many other similar groups were formed across Nebraska, including the soil and water conservation districts in 1959 which followed county boundaries. Then in 1960, the Salt-Wahoo Watershed District was formed to sponsor a U.S. Army Corps of Engineers (USACE) project to construct ten major flood control structures, channel improvements, and levee construction. By the late 1960s, state government leaders recognized a need to reorganize these groups under a single authority and combine the responsibilities of some 154 special purpose districts. Nebraska's natural resources districts (NRDs) were gaveled into existence by the Legislature in 1969 and started in 1972. These 24 (now 23) locally elected boards were organized according to river basin boundaries and had statutory authority to manage local natural resources and to levy property tax.

The Lower Platte South NRD inherited the Upper Salt Watershed Project and the Oak-Middle Watershed Project from the local county soil conservation districts and the Salt Creek Levee Project from the Salt Valley Watershed District. Flood reduction projects since 1972 have included the Weeping Water Watershed Project, Stevens Creek Watershed Project, the Antelope Creek Flood Reduction Project, Deadman's Run Flood Reduction Project, and many more. Over the years, the district's approach to flood management has shifted from flood control to flood damage reduction, utilizing techniques such as terracing and other land improvements, limiting development in floodplains, upgrading high hazard dams, and developing early-warning systems. Likewise, the district has become a

leader in the management of groundwater, stormwater, wetlands and rare saline wetlands, in providing recreation and in educating the public about conservation. The multipurpose nature of the Lower Platte South NRD makes it well-equipped to respond to increasing public conservation needs. Some of those response actions are outlined in the CURRENT RESPONSES chapter.

## **Governing Body**

The Lower Platte South Natural Resources District is governed by a 21-member Board of Directors (see Table 1). Directors are elected at the general election for four-year terms with half of the members up for election every two years. Directors are elected by their sub-district's voters. To allow balanced representation across the district, the area is divided into ten subdistricts, all with approximately equal population. Two board members represent each of the ten sub-districts. Also, one board member is elected at large every four years. Each year a Board Chair, Vice-Chair, Secretary, Treasurer, Nebraska Association of Resources Districts (NARD) representative, and a NARD alternate are elected by the board from among the directors.

LPSNRD operates with four standing subcommittees, two administrative subcommittees, and four ad hoc subcommittees. Other ad hoc committees, commissions, coalitions, boards, etc. are formed as needed. At present the standing subcommittees are Land Resources; Water Resources; Urban; and Recreation, Forestry and Wildlife. The administrative subcommittees are Executive and Finance and Planning. The four ad hoc subcommittees include: Information and Education; Platte River; Integrated Management; and MoPac East-Lied Connector. The NRD Board operates according to a set of operating policies which are kept on file at the district headquarters in Lincoln, Nebraska.

Proposals for board action are first taken before an appropriate subcommittee for review. The subcommittee makes a recommendation to the board and the board votes to adopt or reject the proposal. When the board adopts a policy,

## Table 1: 2018 LPSNRD Board of Directors

SUB-DISTRICT	DIRECTOR	LOCATION
Sub-district 1	Don Jacobson	Lincoln
Sub-district 1	Gary Hellerich	Valparaiso
Sub-district 2	Mark Spangler	Murray
Sub-district 2	Sarah Wilson	Waverly
Sub-district 3	Vern Barrett	Ceresco
Sub-district 3	Mike DeKalb	Lincoln
Sub-district 4	Larry Ruth	Walton
Sub-district 4	Gary Aldridge	Lincoln
Sub-district 5	Bruce Johnson	Lincoln
Sub-district 5	Greg Osborn	Lincoln
Sub-district 6	Anthony Schutz	Lincoln
Sub-district 6	Deborah Eagan	Lincoln
Sub-district 7	Chelsea Johnson	Lincoln
Sub-district 7	Richard Bolte	Lincoln
Sub-district 8	Dan Steinkruger	Lincoln
Sub-district 8	Ron Svoboda	Lincoln
Sub-district 9	Milt Schmidt	Lincoln
Sub-district 9	Robert Andersen	Lincoln
Sub-district 10	Ray Stevens	Lincoln
Sub-district 10	Karen Amen	Lincoln
At-large	David Landis	Lincoln

approves a project or program, or otherwise issues a directive through voting, it is the responsibility of the district staff to carry out those actions.

At the discretion of the board, citizen advisory groups may also be formed to assist the board in considering specific projects or activities. Members are appointed and represent a group of people or businesses with particular interest in the project or activity.

#### **NRD Staff**

The Lincoln office staff currently consists of 29 full-time employees. LPSNRD also staffs three full-time resources technicians and two district secretaries in the Natural Resources Conservation

Service county offices located in Lincoln and Weeping Water. As of December 2018, the Lower Platte South NRD consists of the 33 full-time staff members listed in Table 2.

In addition to the listed full-time positions, interns and seasonal employees are hired to assist with water programs and maintenance of NRD projects. LPSNRD also contracts with State Correctional System for two supervisors for work crews to perform maintenance on a number of our NRD properties.

## **DESCRIPTION OF THE DISTRICT**

## Location

LPSNRD is located in southeastern Nebraska. It encompasses the southern portion of the Lower Platte River Basin and a portion of the Nemaha River Basin (Weeping Water Watershed). The district covers approximately 1,069,803 acres and stretches from the Missouri River westward to six miles into Seward County, a distance of 64 miles at the widest point. The greatest north-south distance is 48 miles from locations north of Highway 92 in Butler and Saunders counties down to southern Lancaster County.

The district borders on five other NRDs: the Papio-Missouri River and the Lower Platte North NRDs to the north; Upper Big Blue NRD to the west; and the Lower Big Blue and Nemaha NRDs to the south. The district also spans parts of six counties: Lancaster, Cass, Saunders, Seward, Butler, and Otoe.

There are 31 municipalities within the district. The largest of these is Lincoln, followed by Plattsmouth, Waverly, Ashland, Hickman, Louisville, Weeping Water, and Eagle. Other communities in the district include Brainard, Valparaiso, Ceresco, Raymond, Davey, Malcolm, Denton, Sprague, Hallam, Roca, Pleasant Dale, Garland, South Bend, Murray, Elmwood, Cedar Creek, Union, Nehawka, Avoca, Manley, Alvo, Greenwood, and Murdock.

## Table 2: 2018 Lower Platte South NRD Staff

ADMINISTRATIVE	
General Manager	Paul Zillig
Assistant General Manager	David Potter
Administrative Assistant	Kathy Spence
CLERICAL	
District Office Secretary/Program Assistant	Donna Reid
Receptionist/Secretary	Kathy Hauschild
District Field Office Secretary (Lancaster Co. NRCS Office)	Connie Hansen
District Field Office Secretary (Cass Co. NRCS Office)	Jean Ulrich
TECHNICAL	
Operation & Maintenance Coordinator	Al Langdale
Operation & Maintenance Technician	Craig Matulka
Resources Technician (Lancaster Co. NRCS Office)	John Albert
Resources Technician (Lancaster Co. NRCS Office)	vacant
Resources Technician (Cass Co. NRCS Office)	Cindy Spilinek
Stormwater/Floodplain Specialist	Kyle Hauschild
Resources Coordinator	Dan Schulz
Resources Conservationist	Ariana Kennedy
Environmental Education Specialist	McKenzie Barry
Public Information Specialist	Mike Mascoe
Water Resources Conservationist	Steve Herdzina
Water Resources Specialist	Dick Ehrman
Projects Coordinator	Ed Ubben
Information Systems Administrator	Nathan Kuhlman
GIS Specialist	Shaula Ross
Water Resources Technician	Chris Witthuhn
Operation & Maintenance Technician	Bryce Jensen
Maintenance Technician	Trent Henry
Environmental Education Assistant	Adam Sutton
ENWRA Project Coordinator (with UNL)	Katie Cameron
Bookkeeper	Connie Damrow
Water Resources Compliance Specialist	Ryan Rezac
District Engineer	Jared Nelson
Forester (with Nebraska Forest Service)	Jay Seaton
Planner	vacant
Corrections Crew Supervisor (Dept. of Corrections)	Doug Cheney
Corrections Crew Supervisor (Dept. of Corrections)	Sam Grove
Saline Wetlands Conservation Partnership (with Lincoln Parks)	Tom Malmstrom



## **Topography and Soil**

Since the recession of glaciers from the region, the relatively flat plain which the district outlines has been carved by numerous streams. The plain is also covered by a layer of loess, which is wind-transported silt of glacial origin. Loess in this area is generally only a few feet deep. However, in some areas it is up to 90 feet in depth. This loess is easily eroded if not covered by vegetation. Variations in the loess result in many kinds of soils within the district, all with different characteristics and capabilities. The soils are high in mineral content and are relatively fertile.

Surface layer soils are the most susceptible to various types of erosion. These layers are relatively unconsolidated and are more easily eroded than older layers, which are consolidated bedrock. Although some erosion will always occur, good management practices can slow the natural processes. These practices will also allow the resources to be utilized for long periods of time.

### Climate

The Lower Platte South NRD is located in eastern Nebraska and considered as part of the Humid Continental Climate type as classified in the Koppen Climate Classification System. This climate is typified by great seasonal differences in temperature, and with some precipitation throughout the year. Summers are generally hot, with temperatures often topping 100 degrees Fahrenheit. Winters are cold and dry, with temperatures as low as -29 degrees Fahrenheit.

The average annual rainfall is about 30 inches and the greatest precipitation occurs between April and September. Monthly averages range between 0.64 and 4.35 inches. Average snowfall is 26 inches but can vary greatly from year to year. The average length of snow cover is 42 days. Average monthly temperatures range from a low of 24.6 degrees in January to a high of 77.6 degrees in July. The growing season (the average period between the last spring and the first fall frosts) is 162 days. The relatively high summer temperatures allow for substantial evaporation. Small lakes and ponds in the district average 45 inches evaporation loss per year.

### Vegetation

The district is in an area of prairie biome, with bluestem as the dominant native species. Along the stream courses, stands of hardwoods are common, with the two main associations being oak-hickory and cottonwood-willow.

Reports from early travelers such as Lewis and Clark in 1804 and Wislezenus in 1839 give some indication of vegetative conditions before settlement. "Along the rivers and streams, woodlands of burr oak, bitternut hickory, slippery elm, sumac, ash, box elder, hackberry, black walnut, mulberry and basswood thrived. Willow and cottonwood sprouted in many places where sandy, wet conditions existed. The prairie itself was dominated by bluestem, indiangrass and switchgrass, with many wild flowers such as sunflower, goldenrod and prairie clover."

During the process of settlement, most of the native vegetation was removed and replaced by such cultivated plants as corn, sorghum, alfalfa, soybeans, and wheat. Much of the woodlands were cleared for agricultural and firewood purposes.

Today, remnants of the original prairie can be found in scattered plots and along railroad and highway right-of-ways. Participation in the Conservation Reserve Program has helped return thousands of acres to permanent vegetation approaching its original vegetative state. Woodlands persist along stream courses, especially on the bluffs above the Platte and Missouri rivers, and in planted shelterbelts.

Saline wetlands are also located in the district. Nebraska's saline wetlands are only found within the Salt Creek Watershed that encompasses much of Lancaster and Saunders counties, and flows generally southwest to northeast before converging with the Platte River near Ashland. In an area shaped by Salt Creek and its floodplain, the saline wetlands contain a diverse mixture of habitats including saline marsh and meadows,



Whitetail deer (left) and ring-necked pheasant (right) are some of the most prevalent animals in the district

salt flats, and spring and seep fed wetlands, bisected by streams and surrounded by tallgrass prairie. Salt-loving plants found in the wetlands include sea blite, saltmarsh aster, and saltwort.

## Wildlife

Three basic habitat types exist in the district and allow for a variety of wildlife. They are grasslands, woodlands, and wetlands.

Very few native prairies remain today, and a relatively small amount of woodland has persisted. Nevertheless, there are certain animals which can and do survive in this habitat. Some of the most prevalent are the whitetail deer, ring-necked pheasant, bobwhite quail, cottontail rabbit, fox squirrel, gray squirrel, coyote, turkey, and several kinds of ducks and geese. These species exist in lesser numbers: muskrat, beaver, raccoon, red fox, gray fox, badger, striped skunk, spotted skunk, opossum, weasel, blacktail jackrabbit, mink, crows, mourning doves, and occasionally eagles, hawks, and owls.

Wetlands within the district are home to many birds and insects. More than 250 species of migrating and residential birds have been documented since around 1900 in the district's unique Saline Wetlands. In addition, thousands of species of insects and other invertebrates, many of them adapted for a life among saline soils, can be found in the Saline Wetlands, including the federally endangered Salt Creek tiger beetle.

## Land Use

LPSNRD contains 1,069,803 acres, or approximately 2.16 percent of Nebraska's land mass (49,479,833 acres). As shown in Figure 2, the majority of the land in the district is used for crops (approximately 57.7 percent). The remaining acres comprise pasture/range, forest, and other land uses. Most of the district remains rural, as area in Lincoln's city limits (94 square miles) and other communities represent only a small percentage of the overall district. Table 3 provides a general breakdown of the district's land use based on 2017 USDA estimates.

## **Table 3: District Land Use Estimates**

LAND USE	# ACRES	% OF DISTRICT
Cropland	617,148	57.7%
Pasture/Grass	231,098	21.6%
Forest	88,406	8.2%
Water/Wetlands	28,311	2.7%
Urban/Other (Developed)	104,840	9.8%
Total	1,069,803	100%

Agriculture will remain the predominant land use in LPSNRD, transitional agriculture is planned around Lincoln and in Cass County in areas adjacent to transportation corridors and along the river bluffs overseeing the Platte and Missouri Rivers. In Cass County mining will continue to expand where limestone deposits exist near Louisville, Wabash-Weeping Water-Nehawka.



Figure 2: LPSNRD Land Use Map

Lower Platte South NRD 2019 Master Plan

Public and quasi-public recreational use will continue, and likely expand in the Ashland-Louisville area along the Platte River.

#### Water Resources

The water resources of the district take two forms: surface water resources in wetlands, lakes, and streams and groundwater resources stored in permeable sand, gravel, and rock formations beneath the surface.

#### Surface Water

The quality of water in streams within the district is judged by the Nebraska Department of Environmental Quality (NDEQ), according to how well the water meets three goals, called "beneficial uses." All streams in the basin are assigned the beneficial uses of Aquatic Life Support, Agricultural Water Supply, and Aesthetics and Public Health. Studies have indicated that while a "significant percentage of surface waters are listed as not fully supporting" beneficial uses, there has been much improvement "in reducing point source pollution, such as pollution originating from wastewater treatment facilities." Reports also state that "it would be unrealistic for the public to believe that water quality degradation from nonpoint source pollution, such as stormwater runoff and streambank erosion, will ever be fully eliminated. Great strides have been made in addressing nonpoint source pollution, but much work remains to be done."

The district operates an estimated 200 flood-control dams, the USACE operates ten multi-purpose flood control dams, and landowners operate hundreds of private dams. The resulting ponds and lakes along with streams in the district are most severely threatened by nonpoint source pollution, or storm runoff that carries sediment and harmful chemicals into virtually all surface water bodies. Given Nebraska's heavy orientation toward agriculture, drastic improvements in surface water quality will be difficult. However, the NRD along with other agencies, has learned that some improvements can be made. In 2017, the district began developing a districtwide Water Quality Management Plan to look more closely at the quality of water. Together with NDEQ, the plan will be developed to identify additional priority areas with the district that future projects and best management practices can be implemented to reduce the pollution in our lakes, rivers, streams, and wetlands. In the fall of 2018, Antelope Creek was removed from the impaired water bodies list for *E coli*. This milestone is a great indicator that best management practices and projects through the district, in cooperation with other partners, is making a difference.

#### Groundwater

Groundwater is an important source of water in the NRD, especially for domestic uses. The District has identified six manageable groundwater reservoirs which are described in the Groundwater Management Plan.

The groundwater resources in the Platte River Valley represent the major source of drinking water for Lincoln and other communities. Recharge of groundwater supplies beneath the Platte River is affected by the amount of water flowing in the river. Continued withdrawals of stream water from the Platte and its tributaries upstream could possibly reduce the amount of water available in the aquifer for use by Lincoln and other communities in the future.

Anticipated growth in the district will require domestic water supplies. Rural water districts provide this service to nearly all of Cass and Otoe counties, and a large portion of southeast Lancaster County. Adequate domestic water supplies can be found in many of the other portions of LPSNRD. There has been some interest in new rural water districts (NRD improvement project areas) and its anticipated that interest will grow, but to this point, such systems have not proven to be economically feasible.

## Population

The current population of LPSNRD is estimated at 345,000 (314,000 as of the 2010 census). The 2040 projected population is estimated to reach 443,000, an increase of 98,000 or approximately 4,210 people/year. Lancaster County projects an increase of 4,000 people per year with 90% (3,600 people/year) of that growth residing in Lincoln, 6% (240 people/year) of the growth will reside in rural/unincorporated areas, and 4% (160 people/year) will reside in the other communities. Cass County plans for growth of 210 people/year or a 0.7% annual growth.

Lincoln is the largest community in the district. Table 4 lists communities in the district with populations over 1,000, according to 2010 U.S. Census data.

### Table 4: Population of Communities in District

District Community	Population
Lincoln	258,379
Plattsmouth	6,502
Waverly	3,277
Ashland	2,453
Hickman	1,657
Louisville	1,106
Weeping Water	1,050
Eagle	1,024

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## **CURRENT RESPONSES**

LPSNRD currently offers many programs and is involved in projects that help support the regulatory authority given to the NRDs by the legislature. Some of the programs are cost-share incentives, while others are educational and public awareness. District projects vary from flood-control structures to levees, and from city-NRD and joint agency interlocal agreement projects to projects solely funded by LPSNRD. In addition to the 12 NRD purposes, other regulatory acts later adopted by the legislature also guide the district in some of the programs offered and projects undertaken.

## **REGULATORY ACTS**

There are three regulatory acts that direct the NRDs in their programs and projects.

#### Groundwater Management and Protection Act

This act defines broad policy goals concerning the utilization and management of groundwater, and encourages local implementation of these goals. The Act grants enough groundwater to landowners to meet reasonable and beneficial use needs, and grants authority to local Natural Resources Districts to regulate groundwater use. The Act also discusses the required contents of groundwater and integrated management plans, groundwater management areas, groundwater contamination, allocation, and permitting requirements.

#### **Erosion and Sediment Control Act**

This act represents a commitment by the State of Nebraska to reduce erosion of Nebraska lands and to reduce sedimentation and other problems that result from that erosion. The purpose of the Erosion and Sediment Control Act is to strengthen the already existing erosion and sediment control efforts of the individual landowners and of the federal, state and local governments. The Act's purpose will be accomplished by:

- Establishment of a system for the filing and processing of complaints concerning land where erosion is exceeding the soil loss limits established in accordance with the Act and whose sediment is causing damage to the complainant.
- The State and each Natural Resources District is to develop comprehensive and coordinated erosion and sediment control programs.

#### Nebraska Chemigation Act

The goal of this act is to protect the groundwater and surface waters of the State from contamination by fertilizers or pesticides. To accomplish this goal, the Act provided the legal requirements for the future use of chemigation as a means of nutrient or pesticide application.

The Nebraska Department of Environmental Quality (NDEQ) developed and implemented the rules and regulations necessary for irrigators to utilize the practice. Under the NDEQ rules, the natural resources districts were given the responsibility to manage the chemigation permit component that ensures that proper safety equipment is present and functioning properly.

## **GROUNDWATER MANAGEMENT**

#### **Groundwater Management Plan**

Nebraska law requires each of the state's 23 natural resources districts (NRD) to have an active and operational Groundwater Management Plan. The Lower Platte South Natural Resources District (LPSNRD) Groundwater Management Plan is a detailed publication with information about the district, its geology, needs related to groundwater, programs, and plans.

The Groundwater Management Plan identifies three levels or phases pertaining to quality and quantity. In 1997, the entire district was declared and remains a designated Phase I Groundwater Management Area. It means LPSNRD is responsible for offering educational information to constituents about maintaining the guality and quantity of our groundwater. LPSNRD Board of Directors has designated eight Phase II Groundwater Management Areas in the district. Elevated levels of nitrates from nonpoint sources prompted all of the designations. The Elmwood Community Water System Protection Area (CWSPA) was designated a Phase III Groundwater Management Area in 2009 and is the only Phase III area in the district. Landowners or operators who make nitrogen management decisions within designated Phase III or Phase II areas may be required to attend a Nitrogen Certification Class every four years. LPSNRD will determine who needs to attend.



Irrigation is important in the district



Groundwater monitoring

LPSNRD designated the Dwight-Valparaiso-Brainard Special Management Area in 2012. The special management area designation by LPSNRD Board of Directors was in response to seasonal water level declines. There was a moratorium placed on new irrigated acres and an allocation for irrigation was adopted. The Dwight-Valparaiso-Brainard Advisory Group was formed and meets annually to discuss new information, research, and restrictions.

The various programs pertaining to the district's Groundwater Management Plan include:

- Chemigation
- Nitrogen Certification
- Reporting
- Well Permits
- Meters
- Irrigation Certification

## Monitoring/Inventory

The district contracted to do our first airborne electromagnetic (AEM) flights in 2007 as the administrative agency for the Eastern Nebraska Water Resources Assessment's (ENWRA) initial pilot study program. The area covered was Firth-Hickman. Then in 2009, the district contracted to get the Sprague Area flown. The data gathered in AEM surveyed areas provided extensive information about the area's geology, aquifer characteristics, and water in storage. In 2013, Exploration Resources International (XRI), under contract with LPSNRD, gathered airborne



Airborne electromagnetic (AEM) flight over LPSNRD

electromagnetic (AEM) data in the northwestern part of the district. The project area included 99-square miles within a larger area, now called the Dwight-Valparaiso-Brainard Special Management Area. Two more AEM flights were done in 2015 (district-wide) and in 2016 (eastern portion of the district focusing on several CWSPAs).

LPSNRD's use of the AEM data is on-going. The information is intended to help landowners in project areas access data showing the depth to aquifer material, the thickness of the aquifer, and other basic information. Additional AEM planning and evaluation efforts are underway in hopes to provide more information on groundwater and the aquifers. The current 2018 project through the Eastern Nebraska Water Resources Assessment (ENWRA) is a multi-district project and is partially funded through the Water Sustainability Fund covering the western portion of the district at a one-to-two-mile grid spacing with a focus on CWSPAs and areas showing new development.

## **INTEGRATED MANAGEMENT**

## Hydrologically Connected Area

The Department of Natural Resources has identified and mapped those areas in the district where the surface water supplies are considered to be hydrologically connected to the groundwater. The current extent of these areas is generally the alluvium along Salt Creek from Waverly to the Platte River and along the Platte to the Missouri River, totaling approximately 70-square miles. Seven public water suppliers (Lincoln Water System, Ashland, Louisville, Waverly, Metropolitan Utilities District (MUD), Cass County RWD 1, and Cass County SID #5) have wells in the hydrologically connected areas.

### **Integrated Management Plan**

LPSNRD and the Nebraska Department of Natural Resources (NeDNR) have taken a proactive, comprehensive approach to sustaining the future water needs in the district through adoption of a voluntary Integrated Management Plan (IMP). Two other studies that provided development of the plan included the *Lower Platte South NRD Water Balance Study* and *Water for the Future: Stakeholder Perspectives*.

Some integrated management plans in Nebraska focus on management of the hydrologically connected ground and surface waters, however, the Lower Platte South plan is focused on integrating the management of all of the water supplies and uses within the entire district. Agriculture irrigation is an important water use in those areas of the district where sufficient groundwater is available but is not expected to expand significantly in the near future. With a growing urban and suburban population, domestic and commercial water uses will be both critical and challenging to satisfy.



The 2014 Integrated Management Plan and 2017 Annual Integrated Management Plan Report

The three goals in the Integrated Management Plan are to achieve a sustainable water supply, to manage the supply and make it available whenever and wherever needed, and to support water use and conservation that optimizes benefits. With limited surface water sources, highly erodible groundwater supplies and the geographic reality of the downstream location in the river basin, the IMP includes the anticipated need to look outside district boundaries to collaborate and cooperate on future water supply expansion.

The Integrated Management Plan requires an annual report of activity over the last year related to IMP goals and objectives. It also requires an annual review by LPSNRD and NeDNR of the entire plan to be held as a public meeting, where public comment on the plan is encouraged.

#### Lower Platte River Basin Water Management Plan

The Lower Platte River Basin is defined as all surface areas that drain into the Lower Platte River, including those areas that drain into the Loup River and the Elkhorn River and all aquifers that affect surface water flows of the basin. The total area of the Lower Platte River Basin is approximately 25,400-square miles, which encompasses both the Loup River subbasin and the Elkhorn River sub-basin. NRDs with significant area in the basin include Lower Platte South NRD, Lower Platte North NRD, Upper Elkhorn NRD, Lower Elkhorn NRD, Upper Loup NRD, Lower Loup NRD, and Papio-Missouri River NRD (NeDNR 2017). See Figure 3.

Together with NeDNR, the seven NRDs in the Lower Platte River Basin entered into an Interlocal Cooperative Agreement in April 2013 to form the Lower Platte River Basin Water Management Plan Coalition (Coalition). The Coalition recognizes the interrelation of water resources inherent within the basin and has embarked on a critical mission to manage new uses while protecting and sustaining the longterm balance between the water uses and water supplies throughout the basin within the seven represented NRDs.


### Figure 3:

The Lower Platte River Basin, as depicted in the 2017 Lower Platte River Basin Water Management Plan

In 2017, the Lower Platte River Basin Coalition, which includes the seven NRDs in the Loup, Elkhorn, and Lower Platte River Basins, and NeDNR, adopted the Lower Platte River Coalition Basin Water Management Plan. The plan sets criteria for managing new water development in the Lower Platte River Basin. The plan implements goals and objectives that work to protect the existing domestic, agricultural, and industrial water uses in the basin. This planning effort for the LPRDCP followed the development of the Lower Platte River Coalition Basin Water *Management Plan* to further address drought periods and address those specific times when peak demands overlap periods of low stream flows due to natural variability in the hydrologic cycle.

### Lower Platte River Drought Contingency Plan

Beginning in 2016, the Lower Platte South Natural Resources District (NRD), Papio-Missouri River NRD, Lower Platte North NRD, Metropolitan Utilities District (MUD), Lincoln Water System (LWS), and NeDNR, collectively referred to as the Lower Platte River Consortium (Consortium), embarked on an effort to develop a drought contingency plan for the Lower Platte River Basin in Nebraska (*Lower Platte River Drought Contingency Plan* [LPRDCP]).

The drought-driven risks are diverse and the alternatives for resolving them were developed through this planning effort. The Lower Platte River serves approximately 80 percent of

Nebraska's population, thousands of businesses and industries, more than two million irrigated acres. The Lower Platte River provides stream flows for threatened and endangered species.

The six water management agencies that comprise the Consortium worked together to develop regional solutions to improve the water supply reliability and drought resilience of the Lower Platte River. The primary focus of the LPRDCP is to refine the Consortium's collective understanding of drought vulnerabilities, while developing more robust monitoring and forecasting tools coupled with timely triggers, new mitigation strategies, and responsive actions to create a sound, operational framework and to improve critical water supply needs of the area through drought periods.

### **Drought Emergency Response Plan**

The district adopted the *Drought Emergency Response Plan* in March 2015. The purpose of the plan is to assist LPSNRD develop strategies to respond to and manage impacts of a multi-year drought. The plan was developed by the district as part of its IMP with input from communities and stakeholders within the district. The plan includes methods for the district, localities, agricultural, and recreational users to reduce demand during times of drought.

### ASSISTANCE/COST-SHARE PROGRAMS

The Lower Platte South Natural Resource District (LPSNRD) helps landowners pay for improvements designed to enhance conservation of natural resources through our cost-sharing programs. Each year, LPSNRD cost-shares with approximately 250 landowners who make improvements to reduce soil erosion. These include creating terraces and grassed waterways on their fields, constructing sediment basins and more. These measures lead to better quality surface water. In order to provide these costsharing programs, we work with several other government agencies including:

- Natural Resources Conservation Service (NRCS): Formerly called the Soil Conservation Service, the NRCS is a part of the United States Department of Agriculture (USDA), a federal agency with an office in most counties. NRCS provides technical assistance with installing conservation practices, such as design and layout of projects.
- Nebraska Department of Natural Resources (NeDNR): The NeDNR is a state agency that allocates state funds to each Natural Resource District for cost-sharing on conservation practices. LPSNRD will forward some cost-share claims on to NeDNR for payment.

The amount of LPSNRD cost-sharing varies from program-to-program. Occasionally the district designates targeted areas where the costsharing is even higher than the listed amount to encourage best management practices in those areas.

### Groundwater

There are several groundwater cost-share programs offered by the district. Whether a landowner is eligible for an LPSNRD cost-sharing program depends on the location of the land they want to improve. If the land is within a Phase II or Phase III groundwater management area (GWMA) designated by the district or a community water system protection area (CWSPA), the available cost-sharing programs and terms may be different than if the land is outside those areas. Programs relating to groundwater include the following:

- Irrigation Management Assistant Program (pivot nozzles, re-use pits, etc.)
- Meter Program
- Fertilizer Flow Meter Program
- Soil Sampling Program
- Well Decommissioning Program

### Land Treatment

Similar to groundwater, the district offers many programs to assist landowners in land treatment. Some of these treatments provide an opportunity for cost-share between the property owner and the district. Those land treatment programs include:

- Cover Crop
- Farm Pond
- Filter and Buffer Strips
- Flood Control Structure
- Surface Water Quality Best Management Practices (terraces, grassed waterways, etc.)

### FORESTRY AND TREE SEEDLINGS

The Lower Platte South NRD offers two tree programs. Through our, Conservation Forestry Program, LPSNRD landowners can purchase seedling trees and shrubs for spring planting suitable for windbreaks, wildlife habitat, and many other uses. The District Community Forestry Program offers cost-sharing to various groups to buy trees to plant in communities.



Seedings from the Conservation Forestry Program

### **ENVIRONMENTAL EDUCATION**

The Lower Platte South NRD offers youth education services to promote and encourage curiosity about nature and the outdoors. The district provides various classroom presentations, programs, field trips, and resources.

### **Classroom Presentations**

To help facilitate and integrate environmental education into classrooms, LPSNRD offers classroom presentations on a variety of natural resource topics. Fun activities raise environmental awareness and stress the importance of conservation. Our presentations are aligned to fit curriculum and state standards.

### **Field Trips**

The Lower Platte South NRD offers four field trip options that allow students to apply classroom learning to nature. We provide field trips to Eastern Saline Wetlands, Nebraska Prairies, Water Quality Testing, and Platte River State Park. Each field trip is designed to fit educational curriculum while allowing students to experience first-hand what they have been learning about in the classroom.

### Nature Clubs and Nights

LPSNRD understands the importance of encouraging students to learn about and explore nature, the environment, and natural resources. To help foster this belief, we offer Nature Clubs in several of our District schools. These clubs meet after school and provide students time to be actively engaged in hands-on activities while learning about nature. Nature Club activities include making bird feeders, dissecting owl pellets, and embarking on nature scavenger hunts.

The success of the Nature Clubs has led to Family Nature Nights each fall and spring in schools across the district. These free evening events are designed for students and families to experience and connect with nature. All students in the school and their families are welcome to attend and participate in activities like potting plants, making paper, art projects, and chances to interact with live animals. Nature nights are an excellent way for a school to engage student and family learning while increasing knowledge of Nebraska's natural resources. The number of Nature Nights we can organize each year is limited.

### **Earth Wellness Festival**

LPSNRD participates in the earth wellness festival each year. The earth wellness festival is an annual event offered to fifth-grade students of Lancaster County, Nebraska. Students attending earth wellness festival experience science as an essential and exciting part of their lives. The festival is a culminating event, reinforcing concepts introduced to students through current environmental curriculum like 4-H school enrichment.



LPSNRD offers youth education services to promote and encourage curiosity about nature and the outdoors

### Programs

The many programs offered by the district are designed to benefit students and help educators meet their curriculum needs. Those programs include:

- Environmental Education Programs (Kindergarten Native Seed Kits, First Grade Worms, Second Grade Butterflies, Third Grade Trees, Fifth-Grade Earth Wellness Festival, Seventh-Grade Earth Day Kits, Seventh-Grade & High School Biology Field Trips, High School Environmental Studies Mini-Grant Program)
- Outdoor Classrooms
- Scholarship and Support
- Test Your Well Nights

### SALT CREEK FLOOD REDUCTION PROJECT (SALT CREEK LEVEE)

The Salt Creek Levee System was built as part of the Salt Creek and Tributaries Flood Project in the 1960s and continues to provide risk reduction for Lincoln neighborhoods and businesses to this day. This project consists of 13.5 miles of levee along Salt Creek in Lincoln. LPSNRD is the local sponsor, which operates and maintains this (USACE) levee project. USACE inspections completed over the last few years have identified some deficiencies and maintenance needs. As a result, LPSNRD has developed a System-Wide Improvement Framework (SWIF) to address the levee system's needs over the short and long term. This effort will result in continued flood risk reduction to Lincoln's residents and businesses.

### BANK STABILIZATION -URBAN CHANNELS

More than 12 miles of district stream banks have required stabilization using rip rap, gabions, concrete liners, or bio-engineering methods. The district has completed projects in Lincoln, Plattsmouth, Hickman, Ashland, and other areas of LPSNRD.



Urban stream improvement

The **1965 Agreement with Lincoln and Lancaster County** provides direction to what streams within the city and county are the responsibility of LPSNRD. According to the agreement, "the District shall be responsible for, and its responsibility within the city limits shall be limited to, the following major drainage channels (but not the tributaries thereof): Salt Creek, Beals Slough, Deadmans Run, Lynn Creek, Antelope Creek and in addition those portions of the following channels which in the future may lie within the city limits: Middle Creek, Haines Branch, Cardwell Branch, Little Salt Creek, and Stevens Creek."

### FLOOD CONTROL WATERSHED PROJECTS

This project includes building dams that reduce flood damage providing flood storage and grade stabilization benefits, with 124 dams constructed so far. Partners include U.S. Department of Agriculture and the Natural Resources Conservation Service, Natural Resources Development Foundation, and the Department of Natural Resources. The many flood-control watershed projects include:

- Upper Salt
- Plattsmouth
- Oak-Middle
- North Oak
- Weeping Water
- Stevens Creek
- Camp Creek (land treatment)





*Top: Aerial view Waverly/LPSNRD's Ash Hollow Dry Dam Bottom: Union Plaza of Antelope Creek* 

### FLOOD CONTROL NON-WATERSHED PROJECTS

These projects consist of 60 dams, primarily flood control dams that replace inadequate bridges on county roads through the NRD's Road Structure Program and individual flood control structures. Partnering counties include Cass, Saunders, Seward, Butler, Lancaster, and Otoe.

### STREAM INTERVENTIONS

Stream interventions consist of 25 sites that utilize cost-sharing to stabilize streams. This is done by installing rock rip rap "riffle" areas to allow water to flow without causing additional erosion and bank stability problems. LPSNRD has partnered with the City of Lincoln on many of these projects as we identify sites through the basin master planning effort.

### ANTELOPE CREEK FLOOD REDUCTION PROJECT

The Antelope Creek Flood Reduction Project includes a new, vegetated water conveyance channel which will contain and convey the Antelope Creek 100-year flood flows. LPSNRD is the local sponsor that operates and maintains this USACE project. Partners for this project include University of Nebraska-Lincoln and City of Lincoln, with additional funding assistance from the State through the NRCS, Natural Resources Development Foundation, and NeDNR.

### LOWER PLATTE RIVER CORRIDOR ALLIANCE

The Platte River is one of the great natural resources of Nebraska. It is the feature that attracted settlers to our State and guided the wagon trails. Today, we look at the Platte River much differently. It is a water source for cities like Lincoln and Omaha, a haven for wildlife, and a place for recreation. As development along the corridor increases, concerns related to flooding, ice jamming, endangered species, and recreation also increase.

To help address major issues and concerns along the Platte River, LPSNRD became a joint partner of the Lower Platte River Corridor Alliance in 1996. Alliance members also include Papio-Missouri River NRD and six state agencies. The Lower Platte North NRD was an original member but had recently chosen to no longer be an official member. The Alliance's primary focus is the lower portion of the Platte River that basically runs from Columbus to Plattsmouth. It winds past or through towns and cities such as Bellwood, Fremont, Waterloo, Ashland, South Bend, Cedar Creek, and Louisville. One of the Alliance's primary goals is to build a coalition between counties. communities. businesses and individuals concerned with preservation of the Platte River. Notable projects completed by the Alliance include the Water Quality Management Plan, Sandbar Dynamics Study, Cumulative Impact Study, and Platte River Obstruction Removal Projects.

### RECREATION

Based on the statutory responsibility outlined in Section 2-3229, R.R.S. 1943, LPSNRD is allowed to develop and manage recreational and park facilities. These facilities include community wetlands, trails, lakes, and wildlife management areas.

### **Community Wetlands**

Wetlands within the district include Lincoln Saline Wetlands Nature Center, Little Salt Fork Marsh Preserve, Little Salt Springs WMA, Marsh Wren Saline Wetland, and Whitehead Saline Wetland.

### **Trail Corridors**

Completed multi-use trail projects, consisting of nearly 50 miles, include the Mopac East, Oak Creek, and Homestead recreational trails and the Lied Bridge – Platte River Connection.

### Lakes and Wildlife Management Areas

The district owns eight recreational lakes and manages seven of them. The recreational lakes include Cottontail Lake, Meadowlark, Merganser, Red Cedar, Tanglewood, Timber Point, Wild Plum, and Wildwood Lake. The Nebraska Game and Parks Commission currently manages Wildwood Wildlife Management Area. Little Salt Springs Wildlife Management Area is also classified as one of the district's community wetlands.

### PUBLIC INFORMATION AND AWARENESS

The district provides public information through many avenues. LPSNRD website, LPSNRD.org, provides information on programs and projects, public use areas, the Board of Directors, staff, the fiscal budget, statutes and more. Since November of 2017, audio recordings of board meetings have been made available on the website. The district's "Know Your NRD" newsletter is published three times yearly and distributed to nearly every household in the district. Programs and projects are featured in print, radio and television advertisements throughout the year and the district maintains good working







Top: Whitehead Saline Wetlands overlook in Lincoln, NE Middle: Oak Creek Trail near Valparaiso, NE Bottom: Wildwood Lake

relationships with traditional media news outlets. Social media accounts, including Facebook and Instagram, are attracting a growing number of followers. A high percentage of those are youths and young adults. Social media podcasts featuring LPSNRD staff have recently become popular and are seen by staff as an effective way to promote programs and projects.

### ADDITIONAL PLANNING

Other planning by the district provides direction for many LPSNRD projects and programs. Those additional plans include the hazard mitigation plan, erosion and sediment control program, and basin master planning.

### **Hazard Mitigation Plan**

LPSNRD adopted the district's first Multi-Jurisdictional Hazard Master Plan in 2010. The district then updated the plan in 2015. The purpose of the plan update was to identify hazards; assess the vulnerability of each participant to the various hazards; determine potential losses associated with the hazards; examine the capabilities in place, and develop sound mitigation alternatives to reduce these vulnerabilities. Currently, the district is again in the process of updating the plan with an expected adoption date of March 2020.

### **Erosion and Sediment Control Program (Plan)**

The district's current Erosion and Sediment Control Program was adopted in 1987 and amended in 1995 and again in 2016. LPSNRD describes in its program what it intends to do to implement the state program, including the state's goals. The district's program includes soil-loss limits for the various types of soils in the district, recommended erosion or sediment control practices and soil and water conservation practices which are suitable for controlling erosion and sediment within the district and the program procedures and methods to implement the State Erosion and Sediment Control Program.

### **Basin Master Planning**

The City of Lincoln and LPSNRD developed a Comprehensive Watershed Management Plan for the City of Lincoln and its future growth areas. The comprehensive watershed plan was developed basin by basin, through the completion of watershed master plans for individual basins. Watershed master plans are used as planning tools to be referenced in conjunction with proposed development and as a guide in the preparation of future capital improvement projects. To date, the master plans developed together with the City of Lincoln include:

- Beal Slough
- Stevens Creek
- Southeast Upper Salt
- Deadman's Run
- Little Salt Creek
- Antelope Creek
- Haines Branch Watershed
- Middle Creek Watershed
- South Salt Creek Watershed
- Lynn Creek Watershed
- Oak Creek Watershed
- North Salt Creek Watershed

Additional basin master plans with other communities in the district include the *Waverly Watershed Master Plan*.

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### **DIRECTION FORWARD**

### **FUTURE NEEDS**

The Lower Platte South Natural Resources District is committed to flood protection and soil and water conservation and will not forget its origin in the two areas of flood control and soil conservation. Protecting the soil resources from abuse and erosion, whether the soils are put to agricultural, urban, recreational or industrial uses, will continue to be a priority focus of the district's technical, educational, and financial resources. Likewise, reducing the threats to property and lives from flooding will remain a top priority. The NRD , among local and state governments, is ideally structured to effectively address these critical natural resources issues. But, times have changed and will continue to change, and the NRD will evolve accordingly. Soil conservation is an urban as well as a rural problem, and the nature of the problem has expanded from maintenance of crop-growing productivity to one of nonpoint source pollution by sediment, nutrients and chemicals. This nonpoint pollution threatens to contaminate both surface and groundwater, to fill lakes and streams with sediment, to impair recreation and fish and wildlife habitats and to cause property damage. Future district efforts must include education, financial assistance, technical assistance on the latest and most effective best management practices, and a mixture of both voluntary and regulatory application.

The traditional approaches to controlling floods with dams, channel improvements, and levees will continue to be considered where justified, but the array of nonstructural approaches will more frequently be the tools implemented. The focus on flooding problems has moved toward flood management, accepting that floods are likely to occur and developing strategies and programs to reduce property losses and threat to lives. Successful implementation of these programs require long-range planning, cooperation with other local governments, use of good science, technical assistance, education, and financial assistance.

Soil conservation and flood management, along with other resource issues, are better addressed on a more comprehensive basis -- that of regional watershed basins. Many resources issues are interrelated and can be most effectively approached with programs and projects that recognize these relationships. Flexibility and adaptation by the district will be needed to have successful programs.

The population of the district will continue to increase, with even greater percentages of the population living in the urban centers, in suburban areas, and on nonfarm acreages. The stresses and conflicts over land uses will increase, making comprehensive, long-range planning all the more necessary. The district will be involved with communities and counties in



As population growth continues, management of our natural resources remains a priority

managing these land use conflicts, developing strategies such as buffering, or clustering of uses and in impact assessments.

Most of the anticipated growth is east of Lincoln to Stevens Creek and south of Lincoln to the planned south beltway. Additional growth areas are north and west of Lincoln, infill lots in Lincoln, growth in Waverly, Hickman and Ashland, and along transportation corridors (Hwys 75 and 50 and Interstate 80 Exits 420 at Greenwood and 426 at Mahoney State Park) in Cass County, and communities such as Louisville and Plattsmouth that are in close proximity to the Omaha metro area. Incorporated communities currently occupy 109 square miles, with Lincoln occupying 95 square miles and annexing an average of 400 acres per year (0.625 sq. mi/yr).

It is anticipated that due to the 2040 Lincoln/ Lancaster County Comprehensive Plan projections, LPSNRD can anticipate:

- Increased water use for domestic purposes
- The need for additional measures to protect water quality
- Major stream channels will likely require stabilization as the areas develop
- Protecting limited agricultural land will increase in priority
- Additional population will desire additional NRD assistance



LPSNRD's multi-use trails provide wildlife habitat and year-round recreational opportunities

As land use conflicts increase, threats to unique resource areas will also increase. The district alone, but more often in collaboration with other private and government organizations, is wellsuited to provide protection to wetlands, native prairies, woodlands and stream corridors. Flood plain easements, conservation and preservation easements, acquisition, and local zoning regulations are some the tools available to protect such unique areas.

The demand for open space and outdoor recreational opportunities increase as the population increases. While the state and communities within the district provide many of these opportunities, the district provides for a number of recreational areas, and has the authority to develop and manage area and regional recreational spaces. Preservation of flood plains and stream corridors provide open space, woodland and wetland protection, recreational use, and reduction of future flood damages. Trails and other linear resources corridors also provide multiple opportunities.

Protection of both the quantity and quality of the district's groundwater resources will continue to be important and be of even greater importance in the future. The district will strive to ensure everyone, everywhere in LPSNRD, will have access to adequate water supplies of appropriate quality. Protection of community water supplies from depletion or contamination will continue to

be a priority focus of the district's efforts, along with maintenance of the agricultural irrigation industry. Provisions for rural water supplies and distribution systems will increase in importance as the nonagricultural, rural population grow in number and in quantity demands.

Interagency cooperation and collaboration with the private sector will be the rule rather than the exception in the future, just as it is today. Effectiveness and efficiency can best be obtained in this manner, with the different partners playing different roles in each cooperative venture. In some cases, LPSNRD will be the lead agency and in others will provide only minimal effort or support.

Innovative financing will be necessary to enable the district to maximize its responsibilities. Limitations on property taxes will require the district to seek other grants, loans, and cost-share arrangements. Financing must be reviewed on the long-term, rather than annually, to allow the district to be positioned at the proper time to implement successful programs and projects.

There have been many studies completed and models developed pertaining to the changes in our climate. LPSNRD has been monitoring these studies and anticipates changes that will affect our district and require needed changes within our programs. The district refers to much research done by the University of Nebraska-Lincoln as we recognize changes in climate. Then Vice-Chancellor Ronnie D. Green said in a publication in 2014, "As we plan for the next hundred years, a thorough understanding of our changing climate is needed. The impacts of climate variability have been visibly experienced in Nebraska and the northern Great Plains of the United States in the past decade, particularly in terms of a change in the length of the growing season and in greater variability in temperature and precipitation. Combined with the expected increase in the global population to 9.6 billion by 2050 that is expected to exert significant increased pressures on the world's water and land resources, it is particularly important to assess with all available information, what the

current models tell us regarding the potential impacts of climate change on our state and its critically important natural resources in the near future and longer term" (Understanding and Assessing Climate change – Implications for Nebraska, UNL, September 2014). The district must recognize changes occurring in our climate and adapt to those changes. The district should not necessarily concentrate on the cause, but rather on recognizing the effects and how to deal with change.

### GOALS, DESIRED OUTCOMES, AND OBJECTIVES

The Master Plan is the document that expresses the Board of Directors' vision of the future and shapes the direction and activities of the Lower Platte South Natural Resources District. The Board of Directors adopted a set of goals, along with desired outcomes and objectives, in 2018 which are the framework for this Master Plan. Objectives define strategies or implementation steps to attain the identified goals. Unlike goals, objectives are specific, measurable, and have a defined completion date. They are more specific and outline the "who, what, when, where, and how" of reaching the goals.

The district must be a **Conservation Leader** for the residents, landowners, businesses and governmental agencies and through example, education and programs encourage and assist them to be **Responsible Conservationists**. Working together, our natural resources will flourish.

We must adjust our attitudes and approaches to have **Sustainable Water Resources** for all purposes. Within the district the **Natural and Unique Resource Areas** must be protected and enhanced. Other goals include **Healthy Forests** and **Healthy Wildlife Habitat**.

The Board also has developed goals for management of both rural and urban lands. **Properly Managed Agricultural Lands** will benefit all natural resources and sustain the agricultural economic base. For urban areas Low Impact Development should be the goal in both developing and redeveloping areas.

The district will continue to pursue the goal of Minimal Flood Threat and Damage to our homes, businesses, roads and bridges, and personal safety. Another goal is to ensure there are Ample Natural-Resource-Based Recreation opportunities for all citizens to enjoy. An overarching goal is to work towards building Resiliency to Changing Climate and having a Clean Environment for the future.

Brief descriptions of the desired outcomes from the goals for the district are provided on page 31.

### **GOALS AND OBJECTIVES TABLE**

The tables on pages 32-36 show how the NRD's goals tie in with the 12 statutory purposes of the Lower Platte South NRD. The tables also show a list of desired outcomes and objectives for the district. They were established by the NRD Board of Directors through a strategic planning process and a Directors' Retreat in February 2018. The goals closely reflect responsibilities and authorities contained in the state statutes. The objectives are reflected in the district's Long-Range Implementation Plan (LRIP) as actions to be taken toward accomplishing the goals. It should be the responsibility of each subcommittee to identify a list of measurable goals or outcomes (ie. 1-year, 10-year, etc.) for their respective subcommittee each year at the time the LPRIP is being reviewed and adopted. This process would further tie the master plan in with the LRIP and budget process. Likewise, staff and the subcommittee should rate progress on each objective and measurable goal or outcome each year to identify progress being made.

### **Desired Outcomes from District Goals**

#### **NRD** is a Conservation Leader

The Lower Platte South NRD is at the forefront of innovative conservation with its projects and programs. New conservation technology, research, demonstrations and education are utilized to promote all best management practices.

### People are Responsible Conservationists

The NRD is a credible source of information on natural resources for the public and other agencies and works with schools on providing natural resources education. The public acts responsibly on natural resources and environmental issues and agencies and elected officials include natural resource concerns in their decision-making.

#### **Sustainable Water Resources**

Water resources are a priority for the NRD. The NRD acquires data about the groundwater resources, which vary across the district, to the point that the NRD has the ability to predict changes in groundwater quality and quantity. Groundwater levels are maintained and quality standards are exceeded or met for all domestic and other water uses.

Surface waters also meet or exceed water quality standards and minimum streamflows are determined and maintained for fish, wildlife, and recreational uses. All areas of hydrologically connected ground and surface water are identified, with integrated management plans developed and implemented. Wastewater meets or exceeds regulatory standards and landowners and the public all utilize best management practices.

#### **Protected Natural and Unique Resource Areas**

All remaining natural and unique resource areas are identified, assessed, and sustained or enhanced.

### **Healthy Forests**

The forestry resources of the NRD are diversified and enhanced in urban areas. Rural forests are preserved and expanded.

#### **Healthy Wildlife Habitat**

Diverse, dispersed, and healthy wildlife populations thrive throughout the NRD. Critical habitat for endangered species is identified and managed, with appropriate Recovery Programs, and wetlands are protected and restored to full functions.

#### **Properly Managed Agricultural Lands**

Owners of all agricultural lands utilize best management practices for water quality and maintain soils at sustainable levels in accordance with their capabilities.

#### Low Impact Developments

All developments are compatible with and also conserve natural resources. Developments should also utilize "green" best management practices in design, construction, and landscaping.

### Ample Natural-Resource Based Recreation

The NRD provides diverse, safe, outdoor recreation opportunities across the district.

#### **Minimal Flood Threat and Damage**

Flood damages are reduced or eliminated and the public safety risk from flooding is minimized. All floodplains are accurately mapped and regulated under a "no adverse impact" policy.

#### Resiliency to Changing Climate and Clean Environment

Best management practices for energy and conservation are everyday activities for the residents and businesses of the NRD. Local efforts will mitigate and adapt to the changing climate and with conservation measures work to protect resources. Adaptation refers to actions taken at the individual, local, regional, and national levels to reduce risks by adjusting to and moderating negative effects from even today's changed climate conditions and to prepare for impacts from additional changes projected for the future. Mitigation refers to actions, programs, and strategies to address current and potential risks and effects of changes in climate and to reduce the need for adaptation; implementation of mitigation improves long-term resilience to such changes. These definitions may change over time and LPSNRD will use federal and state regulations and/or policies to make such changes as applicable.

GOAL		DESIRED OUTCOMES	OBJECTIVES	STATUTORY PURPOSE
			A1a. Create interactive data bases of all hydrogeology and water quality data	
	A1.	Groundwater quantity and quality is	A1b. Implement a quality and quantity monitoring network of wells in all critical areas	6
		known for the entire NRD	A1c. Investigate hydrogeology where data/wells are not available	0
			A1d. Develop estimates of groundwater availability, yield, and quality at all locations	
	A2.	Groundwater levels stable and quality meets standards	A2a. Manage quantity and quality consistent with Groundwater Management Plans	6
	A3.	Ability to predict changes in groundwater quality and quantity	A3a. Design interactive/predictive models for all geographic areas of management	6
	A4.	Areas of interrelated ground and	A4a. Identify and map areas of interrelated ground and surface waters	6
		surface water are managed	A4b. Implement integrated management plans for each area	0
	A5.	Surface waters meet or exceed water quality intended use standards	A5a. Identify and quantify source impairments of desired beneficial uses	
			A5b. Implement plans to preserve or restore desired surface water quality	6,7
A. Sustainable			A5c. Install monitoring network in watersheds and in-lakes/streams for water quality	
Water Resources		<ul> <li>Minimum streamflows are maintained for fish, wildlife, and recreational uses</li> </ul>	A6a. Quantify minimum streamflows for each critical stream segment	
	A6.		A6b. Acquire instream flow rights on priority segments	6, 7, 10
			A6c. Implement a program to protect and/or supplement streamflows	0,7,10
			A6d. Establish a monitoring network on instream flow stream segments	
	A7.	Wastewaters meet or exceed	A7a. Identify and evaluate all sources of wastewater and treatments	7, 8
		regulatory standards	A7b. Develop a program to assist with improvements to meet regulatory standards	7,0
	A8.	Domestic water supplies meet or	A8a. Identify and evaluate all domestic water supplies and systems and quality	
		exceed regulatory standards and are of adequate quantity	A8b. Develop a plan to protect and enhance existing and future domestic water supplies	5, 6, 7
			A9a. All water users know how much water they use for what purposes	
	A9.	Landowners/public all utilize best	A9b. All water users know the quality of their water	1, 4, 5, 6, 7,
		management practices	A9c. Information and education of water users on Best Management Practices	10,12
			A9d. Promote water and energy efficient irrigation practices	

Erosion prevention and control
 Prevention of damages from flood water and sediment
 Flood prevention and control
 Soil conservation

- 5. Water supply for any beneficial uses

- STATUTORY PURPOSES
- Development, management, utilization and conservation of groundwater and surface water
   Pollution control
   Solid waste disposal and sanit ary drainage
   Drainage improvement and channel rectification

- Development and management of fish and wildlife habitat
   Development and management of recreational and park facilities
   Forestry and range management

GOAL	DESIRED OUTCOMES	OBJECTIVES	STATUTOF PURPOS			
		B1a. Include open space in all new residential and commercial developments				
		B1b. Water-wise landscaping planted in new developments				
		B1c. Integrate stormwater quantity and quality BMPs into all existing and new developments				
B. Low Impact	B1. Developments are compatible with	B1d. Require cluster development and shared infrastructure in rural areas	1 <sub>-</sub> 7 ¢			
Developments	and conserve the site's natural resources and use "green" BMPs	B1e. Educate developers and homeowners on "green" BMPS for developments	1 - 7, 9, 10, 12			
	resources and use green BMPS	B1f. Require detailed analysis of water supply availability and quality in rural developments				
		B1g. Utilize conservation easements to protect open spaces and natural areas in new developments				
		B1h. Water practices in new developments meet or exceed regulatory standards				
	C1. All floodplains have been accurately	C1a. Utilize newest photography, topography, and models to digitally map floodplains	2,3			
	mapped	C1b. Update floodplain maps periodically with land use and other changes	۷,۵			
	C2. Floodplains are regulated under a "no	C2a. Assist cities and counties to revise ordinances to incorporate "no adverse "impact" policy				
	adverse impact" policy	C2b. Assist cities and counties to revise ordinances where appropriate require no net rise/no net loss of storage	2,3			
		C3a. Install and operate flood warning systems in critical areas				
		C3b. Assist in development of flood response plans in place for all communities and counties				
	C3. Public safety risk from flooding is minimized	C3c. Monument floodplain boundaries in key areas	2,3			
C. Minimal Flood		C3d. Assist in establishment of buyer notification of floodplain risks				
Threat and Damage		C3e. Educate public about flood threats and response plans				
2		C4a. Cooperate in programs to retain floodplains as open space in new developments				
		C4b. Acquire and hold conservation easements to preserve critical floodplains				
	C4. Flood damages are reduced or	C4c. Assist in revision to Lincoln's existing urban area ordinances to include storage no rise pensatory				
	eliminated	C4d. Acquire and relocate high-risk structures from floodplains	2,3			
		C4e. Assist in ordinances to require new subdivisions to absorb their stormwater quantity impacts				
		C4f. Implement cost-effective and environmentally sound flood storage projects to reduce existing and future flood impacts				

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	GOAL		DESIRED OUTCOMES	OBJECTIVES	STATUTORY PURPOSE			
				D1a. Identify the location and extent of natural and unique resources areas				
				D1b. Conduct environmental baseline assessments of natural and unique resource areas				
D.	Protected natural	D1.	Natural and unique resource areas are	D1c. Monitoring program established to assess changes in resources				
	and unique resource areas		identified, assessed, and sustained or enhanced	D1d. Programs are developed to respond to changes in resources on natural and unique resource areas	10,12			
				D1e. Ownership or conservation easements are secured over natural and unique resource areas				
				D1f. Educate public on the value of natural and unique areas				
				E1a. New developments incorporate new or replace existing recreation opportunities				
E.	Ample natural- resource based	F1.	Diverse outdoor recreation opportunities available across the NRD	E1b. Development of recreation trails connecting communities and significant destinations				
				E1c. NRD projects provide public access where it is appropriate and feasible	11			
	recreation			E1d. Inspect and maintain recreation areas to be safe, clean and attractive				
					E1e. Highlight natural resources education at NRD public access areas			
		F1.	Best management practices utilized	F1a. Conservation plans implemented on all agricultural lands	1 - 7, 9,			
			on all agricultural lands	F1b. Agriculture producers use energy-efficient practices	10,12			
F.	Properly managed agricultural lands	F2.	Soil losses at or less than sustainable levels	F2a. Treat and manage all lands to soil losses to less than sustainable levels ("T" rates)	1, 4, 7			
	-g	F3.	Agricultural lands managed according	F3a. Identify prime agricultural lands and protect from conversion to other uses	1 - 4, 7,			
			to their soil survey capabilities	F3b. Educate land users and public officials about soil capabilities and restrictions	10,12			
		G1.	Urban forests are diversified and	G1a. New developments include trees/shrubs on streets and public lands	10 12			
c	Haalthy forasts		enhanced	G1b. Trees are replaced and diversified in existing urban areas on public lands	10,12			
G.	Healthy forests	G2.	Rural forestry is expanded in diversity	G2a. Preserve and enhance wooded riparian corridors	10,12			
			and scope	G2b. Windbreak, energy conservation and wildlife plantings on all rural home sites	10, 12			

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	GOAL		DESIRED OUTCOMES		OBJECTIVES	STATUTORY PURPOSE
		H1.	NRD is a credible source of	H1a.	Public views and uses NRD as a credible source of information	1 - 12
			information on natural resources	H1b.	NRD prepares and directs information on natural resources to the public	1-12
		H2.	Public is knowledgeable on natural	H2a.	Public becomes conservation-minded in their actions	1 - 12
H.			resources and environmental issues	H2b.	Educate the public about conservation issues resulting in responsible actions	1-12
	responsible conservationists	H3.	Agencies and elected officials	H3a.	NRD serve as an advisor to agencies/officials on natural resources	
			include natural resources concerns in decision-making		Agencies/officials include natural resource factors in decisions	1 - 12
		H4.	Schools provide natural resources	H4a.	Outdoor classrooms are available to students in all grade levels in all schools	1 - 12
			education	H4b.	Environmental / natural resources curriculum taught at all grade levels in all schools	1 - 12
			Diverse, dispersed, healthy wildlife populations	l1a.	Identify suitable habitats for wildlife throughout NRD	
		11.		l1b.	Protect and restore critical habitats/corridors particularly riparian areas	10
				l1c.	Protect surface water quality in lakes, wetlands, and streams	10
				l1d.	Public aware and supportive of wildlife habitat protection	
I.	Healthy wildlife			I2a.	Identify and map designated critical habitat for all endangered species	
	habitat	12.	Critical habitat for endangered species managed	I2b.	Develop and implement recovery programs for each endangered species	10
			managea	12c.	Develop and implement Habitat Conservation Plans as appropriate	
				13a.	All freshwater and saline wetlands delineated, classified and mapped	
		13.	Saline wetlands and prairies protected and restored to full functions	13b.	Critically sensitive wetlands acquired in fee or by easement by the public	1 - 7, 10
					Key wetlands restored to their full function	

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	GOAL		DESIRED OUTCOMES	OBJECTIVES			
				J1a.	Recognize that mitigation of and adaptation to changes in climate are consistent with NRD statutory purposes		
		J1.	. Mitigation of and adaptation to changes in climate	J1b.	Board and staff study the scientific consensus on the effect of changes in climate on our region in general and Nebraska in particular.	1 7010	
J.	Resiliency to changes in climate and clean environment			J1c.	Continually consider the effect of changes in climate when initiating new NRD programs, and when making changes in existing programs	1 - 7, 9-12	
				J1d.	Implement programs and practices that will improve carbon capture potential of land resources as a mitigation tool		
		J2.		J2a.	Increase proportion of materials that are recycled and reused		
			<ol> <li>Energy and conservation practices are everyday activities</li> </ol>	J2b.	Construct buildings and infrastructure to use sustainable materials and techniques	7, 8	
				J2c.	Energy-efficient and low polluting vehicles become standard.		
				K1a.	NRD conservation programs and projects utilize leading edge conservation technology		
K.	NRD is a conservation leader	K1.	<ol> <li>NRD at the forefront of innovative conservation</li> </ol>	K1b.	Utilize research, demonstrations, and education to promote use of better BMPs by the public and agencies	1 - 12	
				K1c.	Promote use of sustainable products and practices in construction of NRD projects		

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Lower Platte South NRD PO Box 83581 3125 Portia Street Lincoln, NE 68521 402-476-2729 www.lpsnrd.org



### **Section 8**

### **Long Range Implementation Plan**

### SCHEDULE FOR UPDATE OF LONG RANGE IMPLEMENTATION PLAN (LRIP) AND PREPARATION AND CONSIDERATION OF FY2021 BUDGET

	Subcommittee Meetings on LRIP & Budget
	LRIP Accomplishments - FY2021 Proposed Actions/Budget to be mailed out one week before subcommittee meets
April-May 2020	Executive Subcommittee Urban Subcommittee Water Resources Subcommittee Recreation, Forestry & Wildlife Subcommittee Land Resources Subcommittee Platte River Subcommittee Finance and Planning Subcommittee Information & Education Subcommittee Integrated Management Subcommittee
Thursday, May 21, 2020 Friday, June 5, 2020 Wednesday, June 10, 2020 (5:30 PM) Wednesday, June 17, 2020 (6:00 PM) (Note: starting time is <b>6:00 PM</b> ) Wednesday, June 24, 2020 (5:30 PM) (if needed) June 30, 2020 July 1, 2020 Tuesday, July 14, 2020 (5:30 PM)	Deadline for budget recommendations Draft #1 Budget prepared & distributed Finance and Planning Subcommittee Board of Dir Mtg & Public Input Session Finance and Planning Subcommittee End of Fiscal Year 2020 Start of Fiscal Year 2021 Finance and Planning Subcommittee
change July Board Mtg date? Wednesday, July 22, 2019 (7:00 PM)	Board of Dir Mtg & tentative Budget approval
Friday, July 24, 2020 Thursday, August 6, 2020	Budget on file with District Publish Notice of Budget Hearing.
Wednesday, August 19, 2020 (7:00 PM) Wednesday, August 19, 2020 (7:30 PM) (immediately after hearing)	Public Hearing on Budget Finance and Planning Subcommittee
Thursday, August 20, 2020	County assessors' certification of valuations
change Aug Board Mtg date? Wednesday, August 26, 2020 (7:00 PM)	Board of Dir Mtg and budget approval
Tuesday, September 8, 2020 (7:00 PM)	Special Hearing to Set Final Tax Request
Tuesday, September 8, 2020 (7:30 PM)	Finance and Planning Subcommittee tentative LRIP approval; approve Final Tax Request Resolution
Wednesday, September 16, 2020 (7:00 PM) Friday, September 18, 2020	Board of Dir Mtg and approval of LRIP; Tax Levy Rate Resolution Deadline to file budget and certify required property tax amount w/ Counties & State
Tuesday, October 13, 2020 (5:30 PM)	Finance and Planning Subcommittee -Auditors present audit
Wednesday, October 21, 2020 (7:00 PM)	Auditors present audit at Board Meeting

# Long Range Implementation Plan

### July 1, 2020—June 30, 2025

### Lower Platte South Natural Resources District



### FY2021 Long Range Implementation Plan

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## Click Here to view entire Long Range Implementation Plan (LRIP)

Section 9 Budget

# Fiscal Year 2021 Budget

# August 26, 2020

### Lower Platte South Natural Resources District



	ANTICIPATED REVENUES	
	FY 2020	FY 2021
Cash and Investments (LPSNRD)	8,405,783	9,677,966
Cash and Investments (LPRCA)	546,773	531,360
Cash and Investments (ENWRA)	348,330	352,964
Deadmans Run Sinking Fund	4,122,400	4,989,977
Infrastructure Sinking Fund	194,273	195,267
Mopac East Trail Sinking Fund	205,679	208,109
Building Purchased Sinking Fund	51,608	
County Treasurers' Balance	125,000	125,000
Investment Income	245,000	60,000
Federal Funds	3,089,942	3,706,280
State Funds	904,687	1,086,968
Local Funds	2,912,575	2,507,77
Miscellaneous	0	
(County Treasurers' Commission)	(90,000)	(100,000
Total	21,062,050	23,341,662
NRD Property Taxes	10,156,870	10,156,870
	31,218,920	33,498,532
	PROPOSED EXPENDITURES	
	FY2020	FY 2021
Program / Project Costs	19,8 <mark>34,575</mark>	20,903,09
Operating Costs	1,438,464	1,417,43
Personnel Costs	3,169,248	3,313,424
Cash Reserve (General)	700,000	1,500,000
Deadmans Run Sinking Fund	4,922,400	5,085,279
Infrastructure Sinking Fund	194,273	323,18
Mopac East Sinking Fund	205,679	258,02
Building Purchase Sinking Fund	51,608	(
Reserve (LPRCA)	477,412	481,192
Reserve (ENWRA)	225,261	216,901
	31,218,920	33,498,532

ACCOUNT NUMBER	DESCRIPTION	FY 2020 BUDGET	FY 2020 EXPENDITURES THROUGH June 30, 2020	FY 2021 BUDGET	STATUS CODE	FY 2021 OTHER FUNDS	SOURCE	FY 2021 NET NRD FUNDS
	PROGRAM / PROJECT COSTS							
	INFORMATION & EDUCATION	461,900	300,947	467,500		0		467,50
421015	Programs and Projects	30,000	2,803	30,000	C1	0		30,00
				1,000	C2			1,00
421021	Environmental Education	203,400	104,453	115,450	C1	0		115,45
				78,750	C2			78,75
421023	General Awareness	228,500	193,691	129,300		0		129,30
				106,500 6,500				106,50
				0,000	02			6,50
	LAND BEST MANAGEMENT PRACTICES	1,581,450	891,915	1,829,750		148,000	0	1,681,75
419302	GIS Support	10,000	7,563	10,000	A3	0		10,00
	GIS Aerial Imagery Project	19,000	17,093	23,000		0		23,00
	GIS Mapping ROW	10,000	300	10,000		0		10,00
470010	Surface Water Quality Practices	1,000,000	723,253	1,100,000	C1	0		1,100,00
	NSWCP Land Treatment [*S]	*80,494	0	*80,000	C1	0		
	NACD Technical Assistant Grant	0	0	0		56,000		-56,00
470012	Special Practices	100,000	18,808	100,000	C1	0		100,00
470014	Buffer Strips	32,450	36,776	36,750	<b>A</b> 6	32,000	SL	4,75
470018	Private Sector Layout	0	0	0		0		
470019	Marginal Land Incentive Program (CRP Booster)	0	0	0	C2	0		
470020	Non-Point Source Pollution Control Plan	0	0	0	D1	0		
	Targeted Areas Assistance			0		0		
470023	Salt Valley Lakes	250,000	55,486	300,000	B1	0		300,00
470025	Stevens Creek Watershed	50,000	8,189	75,000	B1	0		75,00
470027	Cover Crop	100,000	24,447	75,000	B1	0		75,00
470028	Water Quality BMP Projects	10,000	0	100,000	B1	60,000	F	40,00
	PLATTE RIVER	604,720	240,397	348,753		197,896		150,85
	Lower Platte River Corridor Alliance Programs							
419002	Alliance Coordinator / Operations	5,012	4,770	2,500	A2	8,000	SL	-5,50
				2,510	C2	0		2,51
419006	Programs, Studies & Projects	433,108	177,434	118,626	A4	118,626	L	
	-			1,000	C1	1,000	L	
				33,617	E2	70,270	S	-36,65
-	LPRCA Carry over to Reserve							carry ove
	Lower Platte South NRD Platte River Programs						_	
419003	Lower Platte River Consultant Services	21,600	21,600	23,000		0		23,00
419008	Platte River Ice Jam Agreement	10,000	6,543	22,500		0		22,50
419009	Endangered Species Studies	5,000	0	5,000		0	_	5,00
419010	Monitor Lower Platte River instream flow	0	0	10,000		0		10,00
419012	Nebraska Land Trust	0	0	50,000 0	A3	0		50,00
419013 419016	Water Quality Management Plan Invasive species cost-share	30,000	30,000	30,000	<u>C1</u>	0		30,000
	Lower Platte River Watershed Restoration	0	0	0	01	0	-	50,000
419017	Western Sarpy / Clear Creek Project O&M	50,000	50	50,000	A3	0		50,00
	Platte River Bank Cut	50,000	0	0	710	0		(
		070 000	407 770	4 878 700		4 600		4 674 00
	TRAILS / CONSERVATION CORRIDORS	970,200	197,772	1,575,700	C1	4,500	-+	1,571,20
	Trail Administration	2,500	0	3,000	CT	3,000	L	(
	MoPac East Trail / Conservation Corridor					0		
447060	Operation & Maintenance	327,500	68,041	518,500		1,500	-	517,000

ACCOUNT NUMBER	DESCRIPTION	FY 2020 BUDGET	FY 2020 EXPENDITURES THROUGH June 30, 2020	FY 2021 BUDGET	ST AT US CODE	FY 2021 OTHER FUNDS	SOURCE	FY 2021 NET NRD FUNDS
	Salt Creek Trail - Lincoln					0		
720200	Planning & Development	175,200	250	269,800	E2	0	L	269,800
	Oak Creek Trail / Conservation Corridor							
447055	Operation & Maintenance	85,500	52.485	66,500	C1	0		66,500
720300		100,000	0	289,200		0	-	289,200
720000	Homestead Trail / Conservation Corridor	100,000	5	200,200	01	0		200,200
447065		239,500	76,996	25,000	E1	0		25,000
447000	Operation of Maintenance	200,000	10,000	403,700				403,700
720400	Planning & Development/Flood Damage Restoration	0	0	0		0	-	(
	Plattsmouth Hwy 75 Trail Bridge	40,000	0		A4	0	-	
447000	Thattomodul They to That Droge	10,000						
	WILDLIFE MANAGEMENT AREAS	76,000	41,895	51,000		0	1	51,000
464010	Wildlife Management Areas-Operation & Maintenance	76,000	41,895	51,000		0	-	51,000
	Wildlife Management Areas-Operation of Waintenance	0	0	01,000	,,,,	0		01,000
740100	Whome Management Areas-Major work					•		
		0	0	25,000	-1	0	-	25,00
469018	Pollinator Habitat	10,000	0	0		0	-	
	Diversify Grassland	0	0	25,000	Е	0	-	25,000
409019	Diversity Grassiand	U	0	20,000	L	0	_	20,000
	CONSERVATION EASEMENTS	1,829,430	288,471	925,290	-	627,400	1	297,890
730200	Prairie Corridor on Haines Branch	1,579,000	125,000	100,000	A3	100,000	IF	
	PCHB O&M / Project Coordination	200,430	133,471	625,290		527,400	_	97,890
	NE Land Trust Agreement	50,000	30,000	010,100	1.0	02.11.00	-	(
	Conservation Easements	0		200,000	E2	0		200,000
		-						
	WETLANDS	407,020	148,424	732,000		344,000		388,000
419225	Saline Wetland Partnership Support	65,000	45,000	380,000	A3	332,000	LF	48,000
469040	Section 404 Monitoring	16,500	10,500	6,000	A5	0		6,000
469041	Wetland Operation & Maintenance	72,000	4,274	135,000	A4	7,000	L	128,000
730300	Saline Wetland Conservation Easements	100,000	0	150,000		0		150,000
740425	Upper Little Salt Cr Saline Wetland	153,520	88,650	11,000		5,000	F	6,000
				50,000	E2	0		50,000
740500	Marsh Wren Saline Wetland, Acq. & Rest.	0	0	0		0	_	C
		-					-	
	TREE PLANTING	112,975	61,292	190,078		62,378		127,700
419001	UNL / NRD Forester Agreement	25,600	28,036	30,500		0		30,500
	Rural Forestry Program	52,250	27,987	54,450		42,250		12,200
	Windbreak Renovation Program	0	0	45,000	E2	15,000	F	30,000
	Tree Voucher Program	0		25,000		0		25,000
	Community Forestry Program	30,000	2,866	30,000		0		30,000
	Living Snowfence Program	0	0		C1	0		(
465001	Sales Tax	5,125	2,403	5,128	C1	5,128	L	(
	MISSOURI RIVER CORRIDOR	0	0	0		0		(
750100	COE Mitigation/ wildlife habitat & recreation	0	0	0		0		C
469060	WREP contract supplements	0	0	0		0		C
		4 000 000	000 505	4 445 355		0.000.070	-	0 000 000
770000	URBAN STORMWATER MANAGEMENT	4,085,850	890,505	4,445,755	A 4	2,062,076		2,383,679
	Beal Slough	400,000	54,446	629,270		330,732		298,538
	Little Salt Creek	140,000	0	160,000 0	A4	80,000 0	L	80,000
	Stevens Creek Stream Stability	0	0	0	-	0	-	
	Flood Plain Purchase/Easement/Non structural							l l
	Pool Slough S 14th Elevel Reduction Project	0	n					
775620	Beal Slough S 14th Flood Reduction Project BMP Demonstrations and cost-share	0 20,000	0 12,081	0 15,000	Δ.4	0	+	15,000

ACCOUNT NUMBER	DESCRIPTION	FY 2020 BUDGET	FY 2020 EXPENDITURES THROUGH June 30, 2020	FY 2021 BUDGET	STATUS CODE	FY 2021 OTHER FUNDS	SOURCE	FY 2021 NET NRD FUNDS
471089	Basin Master Planning	0	0	215,438	A4	0		215,438
471090	Salt Creek Flood Warning System	70,000	54,583	70,000	A4	25,000	Ł	45,000
471093	Lincoln stormwater management programs	12,500	4,037	12,500	A4	0		12,500
471095	Stormwater facilities cost-share	0	0	0	C1	0		(
471150	Administration Erosion/Sediment Program	30,000	30,000	31,500	A4	750	L	30,750
471160	Conservation Easement Inspections	5,000	5,000	25,000	A4	0		25,000
471200	General Master Plan Projects	0	0	0		0		(
775220	DMR Flood Reduction Project	1,936,500	153,255	2,664,037	A4	1,610,661	SL	1,053,376
471201	DMR Flood Reduction Reconnaissance Study	0	0	0		0		(
471202	DMR, Master Plan	0	0	0		0		(
471203	Beal Slough Master Plan	0	0	0		0		(
471204	Antelope Creek Water Quality	0	0	0		0		(
471209	South Salt Creek Master Plan	0	0	0		0		(
770221	South Salt Creek	397,250	19,312	451,860	A4	8,930	L	442,930
471212	Oak Cr, Lynn Cr. N Salt Cr, Tribs Master Plan	25,000	0	75,000	<b>A</b> 4	0		75,000
	Basin Master Plans (General)	230,000	75,376	0		0	-	(
	Non Basin Master Plans	770,000	460,257	70,000	A1	0		70,000
	Hazard Mitigation Plan Update	29,600	22,158	6,150	B3	6,003	F	147
11 1002			,	-,		0,000		
	LINCOLN STREAM CHANNEL IMPROVEMENTS	20,000	0	20,000		0		20,000
775621	Beal Slough Channel Improvements	20,000	0	20,000	A2	0		20,000
	O&M OF STORMWATER FACILITIES	4,879,369	467,718	5,083,420		1,485,000		3,598,420
439125	Salt Creek Pipe SWIF & O&M manual update	39,400	0	34,900	A2	0		34,900
				30,000	A4	0		30,000
447011	Salt Creek Routine O&M (Lincoln & Ashland)	372,300	112,618	7,500	A2	0		7,500
				455,000	C1	0		455,000
447019	Deadmans Run Routine O&M	250,000	47,177	422,000	C1	0		422,000
447020	Antelope Creek Routine O&M	332,000	127,844	373,000	A2	0		373,000
447024	Antelope Valley Routine O&M	105,000	18,298	5,000	<b>A</b> 4	0		5,000
				175,000	C1	0		175,000
447030	Stevens Creek	10,000	0	10,000	C1	0		10,000
447070	Oak Creek Routine O&M	30,526	4,700	29,000	C1	0		29,000
447075	Beal Slough Routine O&M	110,000	10,115	85,000	C1	0		85,000
447080	Lynn Creek Routine O&M	10,000	1,200	10,000	C1	0		10,000
447081	Ash Hollow	9,000	0	309,000	C1	0		309,000
447099	Equipment and supplies	40,000	40,874	40,000	C1	0		40,000
447150	Section 404 Monitoring	3,200	7,267	0	A2	0		0
775100	Antelope Creek Major O&M	2,017,000	32,566	30,000	A2	22,500	F	7,500
				1,950,000	C1	1,462,500		487,500
775115	Antelope Valley Major O&M	0	0	0	A1	0		0
775200	Deadmans Run Major O&M	0	0	0	C1	0		C
775300	Salt Creek Major O&M, Lincoln	1,217,400	60,221	14,880	A2	0		14,880
				737,500	C1	0		737,500
775400	Oak Creek Major O&M	333,543	4,838	25,640	A1	0		25,640
		-		340,000	C1	0		340,000
775500	Lynn Creek Routine Major O&M	0	0	0	Ť	0		0
	Beal Slough Major O&M	0	0	0		0		0
							_	
	COMMUNITY ASSISTANCE PROGRAMS	463,432	170,787	409,563		0		409,563
778100	Flood Plain Acquisition	15,000	0	25,000	C1	0		25,000
	General Projects	448,432	170,787	111,563	A3	0		111,563
				273,000	C2	0		273,000

ACCOUNT NUMBER	DESCRIPTION	FY 2020 BUDGET	FY 2020 EXPENDITURES THROUGH June 30, 2020	FY 2021 BUDGET	STATUS CODE	FY 2021 OTHER FUNDS	SOURCE	FY 2021 NET NRD FUNDS
	FLOOD CONTROL DAMS & ROAD STRUCTURES	2,334,510	601,039	2,661,473		1,649,277		1,012,196
447050	Road Structure O&M	45,000	5,640	40,000	C1	0		40,000
780360	Road Structure O&M (Major)	0	0	0	C1	0		(
780220	Piening Flood Control Dam	48,000	0	48,000	<b>A</b> 6	0		48,000
780230	Flood Control Dams (Major)	0	0	0	E2	0		(
447002	Emergency Action Plans	0	0	0		0		(
447045	Flood Control Dams O&M	15,000	0	15,000	C1	0		15,000
	Watershed Dams O&M	161,500	35,467	40,000	A5	0		40,000
				113,500	C1			113,500
780350	Watershed Dams O&M (Major)	0	0	0	A1	0		(
780345	Watershed Structures Rehab.	2,060,010	559,932	487,610	A1	474,277	F	13,33
				1,912,363	A4	1,175,000	F	737,363
471060	Clearing & Snagging cost-share	5,000	0	5,000	C2	0		5,000
	STREAM BANK AND CHANNEL EROSION	35,000	0	110,000		0		110,000
470070	Stream Stabilization above Clean Lakes	5,000	0	10,000	C1	0		10,000
	Lower Salt Creek Stream Stability cost-share	5,000	0	20,000	C1	0		20,000
	Stream Stability Demos with agencies	5,000	0	30,000	C1	0		30,000
	Stream Degradation control projects w/landowners	20,000	0	50,000	C1	0		50,000
	SURFACE WATER MONITORING	72,365	67,365	75,000	-	0		75,000
440007		67,365	67,365	70,000	A4	0		70,000
	Cooperative stream gages with USGS		07,303			0		
	Surface Water quality monitoring	5,000	0	5,000	62	0	-	5,000
419007	Stream gages on bridges	0	0	U				
	GROUNDWATER MANAGEMENT	1,054,787	578,857	909,722		30,150		879,572
419122	Lower Salt Creek Phase II Implementation	48,500	4,671	48,000	C1	0		48,000
419126	CWSPA Phase I, II, & III Implementation	413,618	159,992	226,000	A5	0		226,000
				133,600	C1			133,600
419130	Monitoring Quality & Quantity	208,000	89,221	145,000	A2	21,000	S	124,000
				25,000	A6	0		25,000
				73,000	C1	0		73,000
419150	BMP Cost-share Programs	87,927	30,447	122	A5	1,800	SL	-1,678
-				83,000	C1	2,350	SL	80,650
419155	Dwight Valparaiso Brainard Special Management Area	0	0	0	C1	0		C
419175	Geophysical Mapping Project	70,000	194,664	46,000		0		46,000
419188	ENWRA Corridnator	0	0	0	A2	5,000	L	-5,000
419200	Certification of irrigated acres	10,000	0	0	A5	0		(
439155	Groundwater Management Master Plan	0	0	0		0		(
790100	Monitoring Wells	216,742	99,862	130,000	E2	0		130,000
	ENWRA (Eastern NE Water Resources Assessment)	642,067	241,147	793,366		553,366		240,000
419185	ENWRA Partnership	329,626	182,779	540	A2	540	L	(
				94,121	<b>A</b> 3	94,121	SL	(
				7,800	<b>A</b> 4	7,800	L	(
				24,200	C1	24,200	L	(
419186	ENWRA AEM Flights	252,000	0	600,000	<b>A</b> 4	360,000	L	240,000
419195	ENWRA Coordinator	60,441	58,368	5,000	A3	5,000	L	(
				61,705	<b>A</b> 4	61,705	L	(
	ENWRA Carry-over to Reserve					0		carry over

ACCOUNT NUMBER	DESCRIPTION	FY 2020 BUDGET	FY 2020 EXPENDITURES THROUGH June 30, 2020	FY 2021 BUDGET	STATUS CODE	FY 2021 OTHER FUNDS	SOURCE	FY 2021 NET NRD FUNDS
	INTEGRATED MANAGEMENT STUDIES	193,500	1,228	249,725		136,976		112,749
419400	IMP Planning and Reviews	10,000	0	0		0		0
419420	IMP-Water Inventory	181,500	1,228	214,725	C2	136,976	SLF	77,749
419440	IMP-Water Supply Management	0	0	5,000	C2	0		5,000
419460	IMP-Water Use Management	0	0	10,000	C2	0		10,000
				10,000	E1	0		10,000
439120	Lower Platte River Basin Coalition Planning	2,000	0	10,000	A4	0		10,000
	TOTALS	19,824,575	5,189,759	20,903,095		7,301,019	0	13,602,076

ACCOUNT NUMBER	DESCRIPTION	FY 2020 BUDGET	FY 2020 EXPENDITURES THROUGH June 30, 2020	FY 2021 BUDGET	
	OPERATING COSTS				
405001	AUTO AND TRUCK EXPENSE	60,000	46,956	60,000	
407001	DIRECTORS EXPENSE	40,000	21,717	40,000	
409001	DIRECTORS PER DIEM	59,000	47,166	59,000	
413000	DUES AND MEMBERSHIPS	49,787	48,215	50,298	
001	NARD	37,787	37,787	39,298	
005	NACD	1,800	1,800	1,800	
007	NWRA	4,500	3,500	3,500	
010	Lincoln Chamber of Commerce	1,500	1,030	1,500	
021	Miscellaneous	4,200	4,098	4,200	
417001	PERSONNEL EXPENSES	53,000	23,498	50,000	
419005	FEES AND LICENSES	25,000	0	35,000	
005	Directors Election	25,000	0	35,000	
420001	COUNTY COLLECTION FEES	90,000	91,614	90,000	
	1% Retainage	90,000	91,614	90,000	
423000	BONDS	1,340	1,095	1,340	
001	Treasurer, et al	1,200	1,025	1,200	
005	Notary Public	140	70	14(	
425000	INSURANCE	99,700	96,602	112,000	
001	Commercial Package	46,000	48,191	56,000	
	Umbrella Liability	50,000	45,473	52,000	
	Directors/Staff Liability	3,700	2,938	4,000	
		6,000	3,455	6,000	
	OFFICE SUPPLIES AND EXPENSES	186,578	147,402	205,213	
	Supplies	25,000	18,117	25,000	
002	Hardware/Computers	31.600	24,761	43,100	
003	Office Machine Rentals and Maintenance	29,000	21,443	29,000	
004	Data Storage/Retrieval System (maint.)	6,000	5,418	6,000	
005	Computer Software	30,001	17,964	30,317	
007	Computer Maintenance and Telecom.	55,977	57,578	61,796	
800	Training/certification	6,000	320	6,000	
100	Office Furnishings	3,000	1,801	4,000	
437001	POSTAGE	2,500	2,744	3,500	
439000	PROFESSIONAL SERVICES	195,700	199,944	210,000	
010	Attorney Retainer & Fees	68,000	110,815	80,000	
035	Architect (Office)	0	0	20,000	
040	Auditors Assistance	2,500	2,100	2,500	

ACCOUNT NUMBER	DESCRIPTION	FY 2020 BUDGET	FY 2020 EXPENDITURES THROUGH June 30, 2020	FY 2021 BUDGET
045	Audit (every 5 yrs; next 2025)	30,000	22,050	30,000
060	Wage and Salary Consultant (every 4 yrs; next 2024)	16,000	9,999	-
070	Director's Planning/Continuing Education	6,000	4,715	4,000
070	Public Awareness Survey	0	0	-
070	Master Plan Update	0	0	-
075	Database Management / NRD website	70,000	42,888	70,000
090	Bank Services	3,200	7,377	3,500
451001	RENTAL EXPENSE	14,400	14,400	14,400
452001	TELEPHONE	47,000	41,452	47,000
453001	UTILITIES	22,000	16,357	30,000
463001	BUILDING MAINTENANCE	62,000	49,878	77,500
473001	In Lieu of Taxes on NRD Properties	10,759	4,184	4,184
763010	BUILDINGS	300,000	275,801	200,000
	Storage property	0	0	200,000
	Building purchase and remodel	300,000	275,801	-
765010	MACHINERY AND EQUIPMENT	30,000	25,700	40,000
	ATV	10,000	18,177	-
	UTV			
	GPS Survey Equipment	0	0	30,000
	soil conditioner	10,000	7,523	
	Miscellaneous	10,000	0	10,000
767010	AUTO AND TRUCK EXPENSE	65,000	38,687	70,000
	Vehicles	65,000	38,687	70,000
769010	OFFICE EQUIPMENT	18,700	5,848	12,000
		6,700	5,848	
	New office phone system	12,000	0	12,000
	Office Furniture	0	0	-
	TOTAL	1,438,464	1,202,715	1,417,435
ACCOUNT NUMBER	DESCRIPTION	FY 2020 BUDGET	FY 2020 EXPENDITURES THROUGH June 30, 2020	FY 2021 BUDGET
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	PERSONNEL COSTS			
415000	EMPLOYEE BENEFITS	606,405	518,401	629,51
010	Workers Compensation	19,168	12,131	19,16
020	Unemployment Compensation	0	0	
030	Retirement	130,000	117,941	135,00
034	Employee Assistance Program (EAP)	2,000	1,650	2,00
035	Deferred Comp	0	0	
038	AFLAC	0	0	
040	Health and Accident	381,887	337,703	400,00
042	Flex 125	850	420	85
050	Term Life, AD&D, LTD	31,000	20,468	31,00
060	Dental	34,500	26,698	34,50
070	Continuing Education Assistance	3,000	0	3,00
090	Wellness Program	4,000	1,390	4,00
100	United Way	0	0	
435001	PAYROLL TAXES	180,000	155,885	190,00
455000	SALARIES-CLERICAL	226,201	206,854	227,96
001	Secretary-Cass	47,797	34,714	42,00
003	Secretary-Lancaster	47,310	47,310	48,49
004	Secretary-NRD	49,635	49,635	51,87
005	Receptionist/Secretary	45,459	45,459	47,59
007	Clerks-But., Sa., & Se., Co.	36,000	29,736	38,00
050	Overtime & Adjustments	0	0	
457000	SALARIES-ADMINISTRATIVE	353,785	353,785	366,85
001	General Manager	151,000	151,000	158,00
003	Ass't General Manager	109,373	109,373	112,10
009	Administrative Assistant	93,412	93,412	96,74
011	Adjustments	0	0	
459000	SALARIES-TECHNICAL	1,622,857	1,531,042	1,709,08
001	Operation and Maintenance Coordinator	81,784	81,784	85,82
002	Operation and Maintenance Technician	58,106	58,106	60,55
003	Resources TechCass NRCS	57,500	57,500	58,93
004	Resources Tech Soil Conservationist (NACD Grant)	43,500	43,313	48,20
	Resources TechLancaster NRCS	57,375	57,375	58,80
006	Stormwater/Watershed Specialist	65,598	56,674	68,65
	Cons. Technician-NRCS Offices	15,000	7,436	15,00
	Resources Coordinator	100,832	100,832	104,35
010	Resources Conservationist	66,111	66,110	67,764

ACCOUNT NUMBER	DESCRIPTION	FY 2020 BUDGET	FY 2020 EXPENDITURES THROUGH June 30, 2020	FY 2021 BUDGET
011	Environmental Education/Communication Coordinator	80,357	80,357	83,366
012	Public Information Specialist	67,972	67,972	69,67
013	Water Resources Conservationist	59,061	59,061	61,260
014	Water Resources Specialist	87,566	86,892	89,75
015	Projects Coordinator	99,031	79,099	95,786
016	Interns/EE Aides	30,000	9,066	20,000
017	Summer Temporaries	46,000	46,367	52,000
018	IS Administrator	87,297	87,297	93,479
019	LPRCA Coordinator	0	0	(
020	GIS Specialist	70,989	70,989	72,764
021	Water Resources Technician	51,992	50,283	54,736
022	Operation and Maintenance Technician	60,889	60,889	62,41
023	Maintenance Technician	37,920	36,795	41,898
025	Maintenance Technician (PCHB)	20,000	13,396	44,792
031	Environmental Educator	51,334	51,334	52,610
032	Social Media Assistant	20,000	10,115	32,000
034	ENWRA Project Coordinator	0	0	(
040	Bookkeeper	36,000	31,357	38,000
043	Water Resources Compliance Specialist	63,287	63,287	65,651
044	Engineer	97,356	97,356	100,790
039	Engineer	0	0	(
050	Adjustments	10,000	0	10,000
460000	SALARIES-MAINT. & CONSTRUCTION	180,000	169,645	190,000
001	Dept. of Corrections Agreement	160,000	156,462	170,000
002	Fuel and Supplies	20,000	13,183	20,000
	TOTAL	3,169,248	2,935,612	3,313,424
	GRAND TOTAL	24,432,287	9,328,086	25,633,954

ACCOUNT NUMBER	REVENUE SOURCES	FY 2020 BUDGET	FY 2020 REVENUE THROUGH June 30, 2020	FY 2021 BUDGET
	STATE SOURCES			
301050	Buffer Strips Program	24,000	32,183	32,00
301080	NET, Conservation Easements	0	0	
301120	Saline Wetlands Restoration	84,420	24,887	
301234	ENWRA Project Coordinator	0	0	
301250	Water Well Decom. Fund (GW BMPs)	2,000	1,900	2,00
301260	Water Sustainability Fund	2,000	1,000	2,00
	-	57,000	-2,981	10.76
301262	Integrated Mgmt Plan (WSF)			10,76
301264	Integrated Mgmt Plan (NDNR)	0	0	11,60
301270	ENWRA Project	194,067	67,173	41,46
301271	ENWRA AEM Flights	151,200	102,000	
301330	Beal Slough Flood Reduction Improvements	0	0	
301343	Deadmans Run (WSF)	280,000	26,398	891,85
301650	NE Water Quality Fund	21,000	30,405	21,00
301720	Lower Platte River Corridor Alliance (Coordinator)	6,000	4,000	6,00
301724	Lower Platte River Projects	85,000	0	70,27
301785	Saline Wetlands Partnership	0	0	
301790	Western Sarpy/Clear Creek Project (Lincoln)	0	0	
301820	Stiefel/Samani Trailhead (NET)	0	0	
	State Subtotal	904,687	285,965	1,086,96
	LOCAL SOURCES			
302011	NRDS, Lower Platte River Corridor Alliance (Coordinator)	2,000	1,000	2,00
302014	NRDS, Lower Platte River Studies	156,408	87,547	119,62
302032	Landowners & Communities, GW BMPs	2,930	2,290	2,15
302040	Floodplain ROW / Nonstructural	0	0	
302041	Stevens Creek Stream Stability Projects	0	216	
302043	Deadmans Run Master Plan Project	411,660	64,925	718,80
302044	General Projects Master Plan	313,202	38,685	426,94
302045	Salt Creek Flood Warning System	25,000	27,159	25,00
302050	Corn Growers Buttfer Strips Program	450	0	
302052	Antelope Valley	0	22,928	
302081	Tree Planting Landowners	45,125	29,579	47,37
302144	Mopac East Trail	1,500	0	1,50
302145	Trail Users Donations	2,500	2,971	3,00
302150	Salt Creek Trail	55,000	0	
302164	South Salt Creek Master Plan	0	0	
302165	Non-Basin Master Plan	0	0	
302172	Little Salt Fork Marsh	0	0	
302175	Prairie Corridor Conservation Easement	1,564,000	29,670	627,40
302185	Wetland O&M Reimbursements	9,000	7,000	7,00
302191	TNC Stewardship Reimbursement	0	0	
302195	Saline Wetlands Partnership	2,000	2,000	2,00
302202	Little Salt Cr Master Plan (City)	0	0	,
302203	Little Salt Cr Master Plan (County)	0	0	
302440	Intergrated Management Planning	0	0	8,06
302450	Deadmans Run	20,000	0	0,00
			~	
302500	Community Assistant Program	0	900	

ACCOUNT NUMBER	REVENUE SOURCES	FY 2020 BUDGET	FY 2020 REVENUE THROUGH June 30, 2020	FY 2021 BUDGET	
302701	ENWRA AEM Flights	100,800	0	360,00	
302705	ENWRA Dues	201,000	147,600	156,90	
302710	ENWRA Coordinator	0	0		
	Local Subtotal	2,912,575	464,470	2,507,77	
	FEDERAL SOURCES				
303014	Platte River Studies	0	0	(	
303019	Spring Creek Prairie RTP	80,000	0	(	
303024	Salt Creek Levee Trail	0	0		
303027	Saline Wetlands Restoration	0	34,877	(	
303048	Little Salt Springs Wetland	0	0	335,000	
303140	LPRCA River Projects	0	0	(	
303220	Watershed Structures Rehabilitation	1,257,582	355,341	1,649,27	
303222	Section 319 Watershed Protection	0	0	60,00	
303252	NACD Technical Ass't Grant	55,610	27,800	56,000	
303330	FEMA Multihazard Mitigation Plan	35,000	16,822	6,003	
303332	FEMA Disaster Relief	1,512,750	24,425	1,485,00	
303762	Integrated Management Planning	149,000	6,594	100,00	
303782	Windbreak Renovation Program	0	0	15,00	
	Federal Subtotal	3,089,942	465,859	3,706,28	
	TOTALS	6,907,204	1,216,294	7,301,019	

COUNTY	2019 VALUATION	2020 VALUATION	2020 GROWTH	% OF TOTAL VALUATION	SHARE OF FY 2021 TAX REVENUE
Butler	179,030,314	181,842,242	2,136,747	0.53%	53,752
Cass	3,523,402,713	3,664,243,037	34,829,599	10.42%	1,057,856
Lancaster	27,892,102,582	28,679,328,826	471,250,794	82.45%	8,374,240
Otoe	156,527,010	157,973,218	147,920	0.46%	46,995
Saunders	722,207,649	736,407,309	10,451,869	2.13%	216,833
Seward	403,821,990	409,718,570	2,904,625	1.19%	121,242
TOTALO	22 977 002 259	33,829,513,202	521,721,554	97.18%	9,870,918
TOTALS	32,877,092,258				
			tax requirement of t	\$10,156,870 is calculat Tax Revenue X 100	
	ar 2021 the tax levy ne	eeded to produce the	tax requirement of t	\$10,156,870 is calcula	
	ar 2021 the tax levy ne	eeded to produce the	tax requirement of t	\$10,156,870 is calculat Tax Revenue X 100	
	ar 2021 the tax levy ne	eeded to produce the	tax requirement of t	\$10,156,870 is calculat Tax Revenue X 100 Total Valuation	



Section 10 Other NRD Plans

# **Other NRD Plans**

- Ground Water Management Plan (GWMP) 1995
- Integrated Management Plan (IMP) 2014
- Hazard Mitigation Plan (HMP) 2020
- Drought Emergency Response Plan 2015
- Lower Platte River Basin Coalition Basin Water Management Plan 2017
- Lower Platte River Drought Contingency Plan 2019
- Water Quality Management Plan 2019

Section 11 Projects / Programs

## **PROJECTS AND PROGRAMS**

### SUBCOMMITTEE PROGRAM AREA / PROGRAM - PROJECT

#### Executive

Personnel for District

#### Finance & Planning

- Directors planning and continuing education retreat
- Operations for District

#### Land Resources

#### Soil and Water Conservation (NRD-wide)

- Cost-share on practices (NRD and State NSWCP)
- Filter / Buffer Strip Program
- Special Practices

#### Soil and Water Conservation (Targeted)

- Salt Valley Lakes Watershed (targeted fields)
- Stevens Creek Watershed (storage terraces in eastern portion)
- Cover Crop Program
- Twin Lakes Watershed Section 319

#### **GIS Support and Imagery**

• Aerial Imagery Projects

#### Urban

#### Storm Water Management / Flood Reduction

- Basin master planning and implementation
- Annual Stormwater Agreement (Work Plan) with Lincoln
- Implementation of Master Plan CIPs
- Cost-share on urban water quality projects
- Salt Creek Flood Reduction Project (COE) O&M
- Flood Warning System
- Nonstructural flood mitigation
- Deadmans Run Flood Reduction Project (COE)
- Flood plain management and regulation
- Stream gage agreement with USGS
- Antelope Creek Flood Reduction Project (COE) O&M
- Rain Ready Landscapes
- Lincoln Rainscapes Program

#### Lincoln Stream Channel Improvements

- 1963 Agreement with Lincoln
- Salt Creek
- Antelope Creek
- Oak Creek
- Oak Creek Weir Rehabilitation
- Lynn Creek
- Deadmans Run
- Beal Slough

### SUBCOMMITTEE PROGRAM AREA / PROGRAM - PROJECT

#### **Operation and Maintenance of Improved Channels**

- Salt Creek, Deadmans Run, Antelope Creek, Lynn Creek, Beal Slough and Oak Creek
- Salt Creek Levee Drainage Structure rehabilitation and SWIF

#### **Community Assistance**

- Cost-share approximately 50% on projects
  - Weeping Water
  - Louisville
  - The Preserve Dam HOA

#### Water Resources

#### **Dams and Road Structures**

- Road Structure Program with counties 75% cost-share
- Flood Control Cost-Share Program
- Operation and Maintenance (190 = dams) (# high hazard)
- Rehabilitation of Dams, including Upper Salt Creek Watershed 3-A & Oak Middle 82-B
- Rehabilitation of Upper Salt Creek Watershed Grade Control Structures

#### Ground Water Management

- Monitoring and sampling
- GW BMP's District-wide
- CWSPA's (Ashland, Davey, Elmwood, Emerald SID #6, Greenwood, Hickman, Otoe RWD 3/Weeping Water, Pleasant Dale, Raymond, Union, Valparaiso, Waverly)
- CWS sampling and verification studies
- GWR monitoring wells
- Certified irrigated acres
- Chemigation Permits
- Fertilizer Flow Meter cost-share
- Lower Salt Creek GWR Phase II
- Water Well Flow Meter cost-share
- Phase II and Phase III Water Quality Areas
- ENWRA Partnership
- Vadose Zone Studies
- Dwight-Valparaiso-Brainard (DVB) Special Management Area
- AEM geologic mapping

#### Eastern Nebraska Water Resources Assessment (ENWRA)

- Multi-NRD AEM 3D Geological Model
- Nebraska GeoCloud

#### **Integrated Management**

#### **Integrated Management Plan**

- Joint LPSNRD / NDNR
- Goals / Objectives / Actions
- Lower Platte River Basin Water Plan Coalition
- Lower Platte River Consortium Drought Contingency Plan

#### SUBCOMMITTEE PROGRAM AREA / PROGRAM - PROJECT

#### **Recreation, Forestry & Wildlife**

#### Trails

- MoPac East Trail
- Platte River Connection
- Salt Creek Levee Trail
- Oak Creek Trail
- Homestead Trail
- Lied Platte River Bridge
- Operation and maintenance
- Highway 75/34 Platte River Bridge Trail
- Motocross

#### Wildlife Management Areas

• NRD Public Access Lakes and Wildlife Management Areas (8)

#### Habitat Improvement

• Partner on Pollinator & Grassland Diversity Programs

#### **Conservation Easements**

- Saline wetlands, prairies, woodlands, etc.
- Platte / Missouri Corridor
- Floodplain preservation

#### **Haines Branch Prairie Corridor**

• Continue partnership with City of Lincoln operation, acquisition and maintenance of the Corridor Plan

#### Wetlands

- Lincoln Saline Wetland Nature Center
- Landmarks North 33<sup>rd</sup> / Schleich Wetland
- Whitehead Saline Wetland
- Dakota Springs Saline Wetland
- Little Salt Fork Saline Wetland
- Warner Saline Wetland
- Dial Wetland Conservation Easement
- Little Salt Springs Saline Wetland
- Marsh Wren Saline Wetland
- Operation and maintenance
- Blue Heron Marsh Wetland Bank
- Saline Wetlands Conservation Partnership

#### **Tree Planting**

- Tree Seedling Distribution
- Seedling Cost-Share Program
- Community Forestry Program
- Forestry Agreement with UNL
- Windbreak Renovation
- Tree Voucher Program

#### SUBCOMMITTEE PROGRAM AREA / PROGRAM - PROJECT

#### **Information & Education**

#### **Programs and Projects**

- Signs / brochures
- Stormwater Public Education
- BMP tour
- Promote tree planting, development of nature trails and NRD public access property
- CWSPA information and education
- Groundwater user information and education

#### **Environmental Education**

- Outdoor classrooms
- earth wellness festival
- EE Workshops
- Lincoln Children's Zoo River Exhibit
- Scholarships
- Arbor Day Trees, Butterflies and Worms
- Special Events (Home & Garden Show, Husker Harvest Days)
- Partner with Lincoln on Pioneers Park Nature Center
- Middle School and High School Assistance
- Family Nature Nights
- Prairie Immersion Program

#### **General Awareness**

- Know Your NRD newsletter
- Social Media
- Promote projects / programs (print media campaign)
- Web Site
- TV and radio ad campaign

#### **Platte River**

#### Platte River

- Lower Platte River Corridor Alliance (with Papio-Missouri River NRD and 6 State agencies
- Western Sarpy / Clear Creek Project O&M
- Platte River Water Quality monitoring
- River Obstruction removals
- Education and outreach
- Lower Platte River Weed Management
- Liaison services in Washington DC (Water Strategies)
- Ice Jam Agreement
- Conservation Easements

LPSNRD Projects, Property, and Operation & Maintenance Responsibilities								
SUMMARY								
Category	Lead Staff	Fencing (LF)	Control Tree (ac)	Mowing (acres)	NoxWeed Control (ac)	Culvert / Riser (#)	Gabions (LF)	Additional Info.
Urban Streams (pgs 2 - 5)		1,000	152.4	440.5	131.2	3	63,815	99 structures
Salt Creek-Salt Creek Levees (pg 6)		36,500	578	1,530	578	62	0	13.5 miles of levee
Watershed Dams (pgs 7 - 11)		210,600	710	0	293	125	0	130 structures
Non Watershed Dams (pgs 12 - 13)		20,500	143	0	0	60	0	60 structures
Stormwater Basins (pg 14)		0	9	2	2	4	0	
Trails - Conservation Corridors (pg 15)		455,000	695	137.5	695	47	0	49 miles of trail / 36 bridges
Cons/ Flood Plain Easements (pg 16 - 17)		0	0	0	17	0	0	1,984.14 acres
Wild Mgt. Areas (pg 18)		96,000	1,497	0	1,497	0	0	12 sites, 1,862 acres
Community Wetlands (pg 19)		13,700	937.48	15	937.18	3	0	12 NRD wetlands
Misc. Projects (pg 20)		800	8.4	1	1	5	0	
Haines Branch Prairie Corridor (21)								
Total		<b>834,100</b> 151 miles	<b>4,730</b> 6.6 sq. miles	<b>2,126</b> 3.3 sq. miles 600 mowed acres	<b>4,151</b> 5.9 sq. miles	309	<b>63,815</b> 12 miles	











# Lower Platte South Natural Resources District

# Operation & Maintenance Projects and Properties



Map Created: December 2016 - LPSNRD, sdr







# Section 12 Abbreviations / Acronyms

#### COMMONLY USED ABBREVIATIONS AND ACROYNMS

- 319 Program Non Point Source Pollution Program by EPA & NDEQ
- 404 Permit Water body and wetlands fill permits administered by COE
- ARS Agriculture Research Service, an agency within the U.S. Department of Agriculture
- ASDSO Association of State Dam Safety Officials
- ASPA American Society for Public Administration
- AWRA American Water Resources Association
- AWWA American Water Works Association
- BIA Bureau of Indian Affairs, an agency within the U.S. Department of the Interior
- BLM Bureau of Land Management, an agency within the U.S. Department of the Interior
- BMP Best Management Practices
- BOR Bureau of Reclamation, an agency within the U.S. Department of the Interior
- CD Civic Defense, county or state
- CES Cooperative Extension Service, a combination federal, state and local agency
- COE Corps of Engineers, U.S. Army, Department of Defense
- CRP Conservation Reserve Program, administered by USDA under farm bill
- CSD Conservation and Survey Division, IANR-UNL
- CWSPA Community Water System Program Area (a.k.a. "cow spa")
- E&SC Erosion and Sediment Control
- EPA U.S. Environmental Protection Agency
- ENWRA Eastern Nebraska Water Resources Assessment
- EQIP Environmental Quality Improvement Program, a federal conservation cost-share program administered by NRCS/FSA
- ESA Endangered Species Act
- FEMA Federal Emergency Management Agency

FHWA	Federal Highway Administration
FIS	Flood Insurance Study, conducted by FEMA
FS	Forest Service, an agency within the U.S. Department of Agriculture
FSA	Farm Service Agency, an agency within the U.S. Department of Agriculture or Food Security Act
GMDA	Groundwater Management Districts Association
GPTN	Great Plains Trails Network
GWF	Ground Water Foundation
GWMA	Ground Water Management Area
GWMP	Ground Water Management Plan
IANR-UNL	Institute of Agriculture and Natural Resources, University of Nebraska
IECA	International Erosion Control Association
IPA	Improvement Project Area
IPMA	International Personnel Management Association
ISTEA	Intermodal Surface Transportation Efficiency Act, predecessor of current T-21 program with provides federal funding for trails projects
LLCHD	Lincoln/Lancaster County Health Department
LRIP	Long Range Implementation Plan
MOU	Memorandum of Understanding
NAAEE	North American Association of Environmental Education
NAC	Nebraska Agrelations Council
NACD	National Association of Conservation Districts
NALMS	North American Lake Management Society
NARD	Nebraska Association of Resources Districts
NATS	Nebraska Association of Teachers of Science
NCC	Nebraska Conservation Corporation
NDEQ	Nebraska Department of Environmental Quality

NDNR	Nebraska De	Nebraska Department of Natural Resources				
NDOH	Nebraska De	Nebraska Department of Health				
NDOT	Nebraska De	Nebraska Department of Transportation				
NEEA	Nebraska Er	vironmental Education Association				
NET	Nebraska Er	vironmental Trust				
NGPC	Nebraska Ga	ame and Parks Commission				
NLICA	Nebraska La	nd Improvement Contractors Association				
NNRC	Nebraska Na	tural Resources Commission				
NOI	Notice of Inte	ent, to disturb soil in the City of Lincoln				
NRCS	Natural Reso Agriculture	purces Conservation Service, an agency within the U.S. Department of				
NRD	Natural Reso	ources District				
	CPNRD	Central Platte NRD				
	LCNRD	Lewis & Clark NRD				
	LBNRD	Little Blue NRD				
	LBBNRD	Lower Big Blue NRD				
	LENRD	Lower Elkhorn NRD				
	LLNRD	Lower Loup NRD				
	LNNRD	Lower Niobrara NRD				
	LPNNRD	Lower Platte North NRD				
	LPSNRD	Lower Platte South NRD				
	LRNRD	Lower Republican NRD				
	MNNRD	Middle Niobrara NRD				
	MRNRD	Middle Republican NRD				
	NNRD	Nemaha NRD				
	NPNRD	North Platte NRD				

	PMRNRD	Papio-Missouri River NRD			
	SPNRD	South Platte NRD			
	TBNRD	Tri-Basin NRD			
	TPNRD	Twin Platte NRD			
	UBBNRD	Upper Big Blue NRD			
	UENRD	Upper Elkhorn NRD			
	ULNRD	Upper Loup NRD			
	UNWNRD	Upper Niobrara-White NRD			
	URNRD	Upper Republican NRD			
NREF	Nebraska Re	sources Enhancement Fund, administered by NNRC			
NRPA	Nebraska Re	creation and Parks Association			
NRWA	Nebraska (Na	ational) Rural Water Association			
NSA	Nebraska Sta	te Arboretum			
NSIA	Nebraska Sta	te Irrigation Association			
NSRA	Nebraska Sta	te Recycling Association			
NSWCP		I and Water Conservation Program, a state conservation cost-share inistered by NDNR			
NTF	Nebraska Tra	ils Foundation			
NWDA	Nebraska We	Il Drillers Association			
NWF	Nebraska Wil	dlife Federation			
NWRA	Nebraska Water Resources Association / National Water Resources Association				
NWS	National Weather Service				
O&M	Operation and	Maintenance			
PL566	Public Law 56	6, Watershed Protection and Flood Control Act			
RFP	Request for P	roposals			
RFQ	Request for Q	ualifications			

RTC	Rails-to-Trails Conservancy
RTP	Recreational Trails Program, federal funds administered by NE Game & Parks
RWD	Rural Water Districts
SCTB	Salt Creek Tiger Beetle
SID	Sanitary Improvement District
SWCS	Soil and Water Conservation Society
SWPPP	Storm Water Pollution Prevention Plan
TMDL	Total Maximum Daily Load
UNK	University of Nebraska – Kearney
UNL	University of Nebraska – Lincoln
UNO	University of Nebraska – Omaha
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service, an agency with the U.S. Department of the Interior (also FWS)
USGS	United States Geological Survey, an agency within the U.S. Department of the Interior
WEF	Water Environment Federation