

City of Salina, Kansas

Emergency Water Supply Plan

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Section 1 – Introduction

Section 1 – Introduction

Plan Purpose

The City of Salina has compiled the following information, guidelines, and procedures to provide for orderly operation and to isolate and conserve an adequate supply of potable water during emergency operations. This emergency water supply plan is prepared in accordance with K.A.R. 28-15-18.

Training and Plan Update

The City of Salina will provide training on the implementation and use of the Emergency Water Supply Plan with key staff on an annual basis and/or as new employees enter into key positions. The **Director of Utilities** will be responsible for reviewing the entire Plan on an annual basis and determining need for updates and/or modifications. Modifications may be necessary due to the following items:

- Changes in key staff personnel
- New or revised cooperative agreements
- Additions or changes of available emergency equipment
- Additions or changes in water supply, treatment, or distribution infrastructure
- Changes in operating procedures
- Other changes which impact the emergency operations

[END OF SECTION]

Section 2 – Water System Description

Section 2 – Water System Description

Supply

This City of Salina utilizes both groundwater and surface water in the potable water system.

Water Treatment Plants

Downtown Water Treatment Plant

Groundwater from 21 wells located within the City of Salina is piped to the Plant for purification and treatment prior to public consumption. A total of 15 million gallons per day (MGD) can be supplied from the well system.

Surface Water is supplied from the Smoky Hill River in Salina. A pumping station, located along the cutoff channel, delivers the water to the plant for purification and treatment prior to public consumption. A total of 10 MGD of surface water is available from this source.

Treatment

The Plant provides partial water softening of the groundwater and surface water sources, as well as filtration and disinfection, as required to meet federal and state drinking water standards. The Plant has a total treatment capacity of 20 MGD from the combination of groundwater and surface water (maximum of 10 MGD groundwater; maximum of 10 MGD surface water).

The Plant includes the following primary treatment components:

- 2 - Air Stripping Towers (groundwater)
- 1 - River Settling Basin (surface water)
- 2 - Solids Contact Softening Basins
- 2 - Secondary Clarifiers
- 16 – Gravity Filter Cells
- 2 – Underground Storage Reservoirs (1 @ 2 MG; 1 @ 1 MG)
- 6 – High Service Pumps

South Water Treatment Plant

Groundwater from 4 wells located to the southeast of the City of Salina (South Well Field) is piped to the Plant for purification and treatment prior to public consumption. A total of 3.5 MGD can be supplied from the South Well Field.

Treatment

The Plant provides partial water softening of the groundwater, as well as filtration and disinfection, as required to meet federal and state drinking water standards. The Plant has a total treatment capacity of 3.5 MGD and includes the following primary treatment components:

- 2 - Solids Contact Softening Basins
- 4 - Gravity Filter Cells
- 1 – Above-ground Storage Reservoir (1,000,000 gallon)
- 4 – High Service Pumps

Distribution/Storage

Potable water is distributed from the high service pumps at the Downtown and South Plants to the public through a water distribution system comprised of waterlines, elevated water storage tanks, and booster pump stations. The distribution system includes five separate pressure systems and is comprised of the following primary system components:

- 5 - Booster Pump Stations
 - Cloud Street (800 gpm)
 - Schilling Road (2,000 gpm)
 - Magnolia Road (1,300 gpm)
 - Indian Rock (1,150 gpm)
 - Waterwell Road (185 gpm)

- 8 – Water Storage Tanks
 - Gold Tower (500,000 gal.)
 - Wyatt Tower (1,000,000 gal.)
 - Sunset Tower (500,000 gal.)
 - Schilling Tower (500,000 gal.)
 - Key Acres Tower (500,000 gal.)
 - Markley Tower (500,000 gal.)
 - Gypsum Hill Tower (500,000 gal.)
 - Burma Tank (75,000 gal.)

[END OF SECTION]

Section 3 –
**Disaster Organization/
Responsibilities**

Section 3 – Disaster Organization/Responsibilities

City Manager

1. Establish communication with the governing body, local news media, and general public.
2. Coordinate efforts of City office staff and department heads.
3. Request necessary governing body action to address the emergency situation (i.e. Water Conservation Policy).

Director of Utilities

1. Assess damages and establish communications with the City Manager.
2. Notify KDHE and request assistance if needed.
3. Establish communications with local emergency services (fire, police, emergency management, etc.).
4. Establish communications with cooperative agreement partners and request assistance as necessary.
5. Coordinate efforts of the Deputy Utilities Director and the Superintendents.

Deputy Utilities Director

1. Assess damages of the water and wastewater systems and establish communications with the Director of Utilities.
2. Identify and request repairs and assistance as necessary.
3. Coordinate and schedule efforts of operating staff to ensure continuous operations.

Superintendents

1. Assess damages throughout the water and wastewater systems and establish communications with the Deputy Utilities Director.
2. Identify and request repairs and assistance as necessary.
3. Coordinate and schedule efforts of staff to ensure continuous operations.

[END OF SECTION]

Section 4 –
Cooperative Assistance
Partners

Section 4 – Cooperative Assistance Partners

Description

Informal mutual-aid arrangements have been made with the following entities to provide assistance during times of emergency.

Cities

- City of McPherson; **(620) 245-2535**
400 E. Kansas Ave., McPherson, KS 67460
- City of Hutchinson; **(620) 694-2614**
125 E. Ave. B, Hutchinson, KS 67501
- City of Wichita; **(316) 942-4482**
455 N. Main St., Wichita, KS 67202

County/Emergency Management

- Saline County Emergency Management; **(785) 826-6511**
255 N. 10th, Salina, KS 67401

Contractors

- Smoky Hill LLC; **(785) 825-1224**
645 E. Crawford, Ste. E8, Salina, KS 67401
Contact: Kim Brown Cell: 785-819-6310
- T&R Construction; **(785) 820-9542**
1334-A N. Ohio St., Salina, KS 67401
Contact: Todd Roberge Cell: 785-826-0251
- Superior Contracting; **(785) 827-5611**
1655B Wall, Salina, KS 67401
Chris Harapap Cell: 785-820-6701

Suppliers

- Salina Supply Company; **(785) 823-2221**
302 N. Santa Fe, Salina, KS 67401
- Core & Main – McPherson; **(620) 241-3865**
600 S. Hwy 81 Byp, McPherson, KS 67460
- Wichita Winwater Company; **(316) 822-8900**
3612 S. West St., Wichita, KS 67217
Sam Skidmore Cell: 316-633-9637
- Municipal Supply, Inc. – Wichita; **(316) 239-7332**
4401 W. Esthner Ave., Wichita, KS 67209
Todd Flacon Cell: 785-577-0685
- Johnson Sand Company; **(785) 827-9702**
2100 E. Schilling, Salina, KS 67401
- Kansas Building Products; **(316) 943-3241**
1600 S. Hoover Rd., Wichita, KS 67209
After-Hours (620) 960-2027
- Builders Choice Concrete Company; **(785) 825-2444**
2601 Centennial Rd., Salina, KS 67401
- American Sand & Gravel; **(785) 825-5173**
1852-B Waterwell Rd., Salina, KS 67401

Equipment Rental

- Ferco Rental; **(785) 825-6380**
264 S. Broadway Blvd., Salina, KS 67401
- Construction Rental Inc.; **(785) 825-8121**
515 N. Broadway Blvd., Salina, KS 67401
- United Rentals; **(785) 404-6778**
929 N. Santa Fe Ave., Salina, KS 67401

Others

- Chemtrec (Chemical Spill): **1-800- 424-9300**
- Evergy Electric: **1-800-585-3709**
Alternate: **1-800-544-4857**
- Kansas Gas Services: **1-888-482-4950**
- Kansas 811 Locates: **1-800-344-7233**
- City of Salina Water and Sewer Locates: **(785) 826-7305**

[END OF SECTION]

Section 5 –
Inventory of Emergency
Equipment

Section 5 – Inventory of Emergency Equipment

Water Distribution Equipment

1. Construction Equipment
 - 10 – Service trucks
 - 1 – Hydraulic equipped main-break/service truck
 - 2 – Backhoes
 - 1 – Mini-excavator
 - 1 – Skid Steer
 - 1 – Air compressor
 - 2 – Pavement breakers
 - 1 – Vacuum excavator
 - Shoring & trench box
 - 3 – Power inverters (attached to service trucks)
2. Portable Pumps
 - 2 – 3” Pumps
 - 3 – 2” Pumps
3. Ductile iron and PVC pipe and fittings located at Water Distribution Warehouse
4. Pipe saws, cutting torch, welder, chainsaws, and other miscellaneous tools
5. Traffic signs and barricades

Downtown Water Treatment Plant Equipment

6. 4 – Service trucks
7. 1 – Skid Steer
8. 1 – Air compressor
9. Chlorine repair kits at Water Treatment Plant

Wastewater Collection Equipment

10. Construction Equipment

- 4 – Service trucks
- 1 – Backhoe
- 1 – Air compressor
- 1 – Boom truck
- 1 – Vacuum trailer
- 1 – High-pressure jet truck
- 1 – Combination high-pressure jet truck/vacuum truck
- 1 – TV Truck
- 1 – Tanker Truck
- 1 – Dump Truck
- 1 – Skid steer loader

11. Portable Pumps

- 1 – 3” portable pump
- 1 – 4” portable pump
- 1 – 8” Godwin pump
- 1 – 12” Godwin pump

12. Portable Generators

- 1 – 125KVA 3-phase portable generator

13. Traffic signs and barricades

14. Shoring

Wastewater Treatment Plant Equipment

15. Construction Equipment

- 1 – Service truck
- 1 – Skid steer front loader
- 1 – Forklift

Other City-owned Equipment

1. Construction Equipment

- General Services Division – Dump trucks, air compressors, wheel loader, motor grader, and backhoe
- Solid Waste Division – Wheel loader, track loader, dozer, motor grader, trucks, and large and small pumps
- Fire Department – Hazmat equipment and rescue gear

2. Other supplies

- General Services – Traffic signs, barricades, and safety gear
- Fire Department – Shoring

Local Contractors (See Section 4 for contact information)

- Large backhoes, trucks, trench shoring equipment, tanker trucks, equipment trailers, and concrete tools

Equipment Rental (See Section 4 for contact information)

- Tractors, backhoes, cranes, large dump trucks, compressors, generators, pumps, scaffolding, and shoring

Material Suppliers (See Section 4 for contact information)

- Large assortment of water pipe, valves, and fittings
- Concrete, sand, aggregates, and fill material

Other Cities (See Section 4 for contact information)

- Pipe, fittings, valves, and repair kits for emergency repairs

[END OF SECTION]

Section 6 –
System Vulnerabilities/
Response Plan

Section 6 – System Vulnerabilities/Response Plans

Well Supply

1. Drought

- Groundwater levels monitored monthly
- Utilize alternate groundwater wells
- Utilize surface water source
- Contact Division of Water Resources for administration of water rights
- Enact water conservation ordinance (City Code Section 41-60 thru 41-69)

2. Contamination

- Well water analysis conducted monthly
- Supply water analyzed at treatment plant daily
- Remove identified contaminated well from operation
- Utilize alternate groundwater wells
- Utilize surface water source

3. Power Failure

- Contact Evergy for backup power supply plan/coordination
- Utilize alternate groundwater wells
- Utilize surface water source
- Contact informal cooperative assistance partners as needed

4. Equipment Failure

- Utilize alternate groundwater wells
- Utilize surface water source
- Contact informal cooperative assistance partners as needed

River Supply

1. Drought

- Streamflow monitored daily
- Utilize well water source
- Utilize the Lower Smoky Hill Water Supply Access District
- Contact Division of Water Resources for administration of water rights
- Enact water conservation ordinance (City Code Section 41-60 thru 41-69)

2. Contamination

- Raw water analysis conducted daily
- Utilize alternate well water source

River Pump Station

1. Physical Damage (storm, explosion, fire)

- Assess damage and determine pumping capabilities
- Utilize alternate/redundant pumps
- Utilize well water source

2. Power Failure

- Contact Evergy for backup power supply plan/coordination
- Utilize well water source
- Contact informal cooperative assistance partners as needed

3. Equipment Failure

- Assess damage and determine pumping capabilities
- Utilize alternate/redundant pumps
- Utilize well water source
- Contact informal cooperative assistance partners as needed

Water Treatment Plants (Downtown and South)

1. Physical Damage (storm, explosion, fire)
 - Assess damage and determine treatment capabilities
 - Utilize alternate/redundant equipment or treatment
 - Utilize alternate water supply source
 - Contact informal cooperative assistance partners as needed
2. Power Failure
 - Contact Evergy for backup power supply plan/coordination
 - Contact informal cooperative assistance partners as needed
3. Equipment Failure
 - Assess situation and determine treatment capabilities
 - Utilize alternate/redundant equipment
 - Utilize alternate water supply source
 - Contact informal cooperative assistance partners as needed
4. Contamination
 - Assess situation and determine hazards
 - Initiate corrective action to remove/neutralize contamination
 - Utilize alternate/redundant equipment
 - Utilize alternate water supply source
 - Contact informal cooperative assistance partners as needed
 - Enact water conservation ordinance (City Code Section 41-60 thru 41-69)

Water Treatment Chemicals

1. Physical Damage (storm, fire, explosion)
 - Assess damage and determine hazards and remaining capabilities
 - If chlorine hazard, enact Risk Management Plan procedures
 - Utilize redundant chemical feed/storage equipment
 - Contact informal cooperative assistance partners as needed

Clearwell Storage

1. Physical Damage (storm, fire, explosion)
 - Assess situation and determine hazards
 - Isolate damaged clearwell storage
 - Utilize alternate clearwell storage
 - Enact water conservation ordinance (City Code Section 41-60 thru 41-69)
2. Contamination
 - Assess situation and determine hazards
 - Isolate contaminated clearwell
 - Utilize alternate clearwell
 - Enact water conservation ordinance (City Code Section 41-60 thru 41-69)

High Service Pump Station

1. Physical Damage (storm, fire, explosion)
 - Assess situation and determine pumping capabilities
 - Utilize alternate/redundant pumps
 - Contact informal cooperative assistance partners as needed
 - Enact water conservation ordinance (City Code Section 41-60 thru 41-69)
2. Power Failure
 - Contact Evergy for backup power supply plan/coordination
 - Contact informal cooperative assistance partners as needed
 - Enact water conservation ordinance (City Code Section 41-60 thru 41-69)

Distribution System

1. Physical Damage (storm, fire, explosion)
 - Assess situation and determine distribution capabilities
 - Isolate damaged area
 - Enact water conservation ordinance (City Code Section 41-60 thru 41-69)
2. Contamination
 - Assess situation and determine hazards and extent of contaminated area
 - Initiate corrective action to remove/neutralize contamination
 - Notify public
 - Enact water conservation ordinance (City Code Section 41-60 thru 41-69)

Booster Pump Station

1. Physical Damage (storm, fire, explosion)
 - Assess situation and determine pumping capabilities
 - Utilize alternate/redundant pump
 - Isolate pump station and utilize bypass piping
 - Contact informal cooperative assistance partners as needed
2. Power Failure
 - Contact Evergy for backup power supply plan/coordination
3. Equipment Failure
 - Assess situation and determine pumping capabilities
 - Utilize alternate/redundant pump
 - Isolate pump station and utilize bypass piping
 - Contact informal cooperative assistance partners as needed

Water Storage Tanks

1. Physical Damage (storm, fire, explosion)
 - Assess situation and determine storage capabilities
 - Isolate damaged storage tank from distribution system
2. Contamination
 - Assess situation and determine hazards
 - Initiate corrective action to remove/neutralize contamination
 - Isolate contaminated storage tank from distribution system
 - Notify public
 - Enact water conservation ordinance (City Code Section 41-60 thru 41-69)

Communication/Controls

1. Physical Damage (storm, fire, explosion)

- Assess situation and determine radio communication and/or telemetry control capabilities
- Utilize manual system controls
- Contact informal cooperative assistance partners as needed

2. Power Failure

- Contact Evergy for backup power supply plan/coordination
- Utilize manual system controls
- Contact informal cooperative assistance partners as needed

3. Equipment Failure

- Utilize alternate/redundant telemetry control equipment
- Utilize manual system controls
- Contact informal cooperative assistance partners as needed

Operation/Maintenance Staff

1. Natural Disasters

- Assess situation and determine staffing capabilities
- Contact backup staff and determine availability
- Keep current on-site staff in place as necessary for water production

[END OF SECTION]

Section 7 –
Emergency Water
Conservation Procedures

Section 7 – Emergency Water Conservation Procedures

Reference Municipal Water Conservation Plan (2013)

Salina Code 41-60 thru 41-69

and Ordinance 13-10684

[END OF SECTION]

Section 8 –
Communications Plan

Section 8 – Communications Plan

City Authorities

The Director of Utilities shall notify the City Manager, and other City Department Heads of the emergency situation and the anticipated action plan. The City Manager shall be responsible for notifying the governing body.

Emergency Services

The Director of Utilities shall notify appropriate emergency services (fire, police, emergency management, etc.) of the emergency situation and the anticipated action plan.

News Media / General Public

The City Manager shall be responsible for contacting the local news media (newspaper, radio station(s), and television) regarding the emergency situation and the anticipated action plan. It is anticipated that the general public will be adequately informed via the local news media

[END OF SECTION]

Section 9 –
Requirements for Water
During Emergency Conditions

Section 9 – Requirements for Water During Emergency Conditions

- Stage 1 – Potable water for human consumption (drinking and cooking) and sanitation of hospital equipment are the only permitted uses. Requirements are as follows:
 - Individuals: 0.5 – 5.0 gallons per capita per day (GPCD)
 - Hospitals and care centers: 5-15 GPCD
 - Mass Shelters: 3 GPCD

- Stage 2 – Potable water for human consumption and general sanitation. Requirements are as follows:
 - Individuals: 25 GPCD
 - Hospitals and care centers: 25-40 GPCD
 - Mass Shelters: 25 GPCD

- Stage 3 – Increased usage for human consumption and general sanitation plus reserves for fire defense. Requirements are as follows:
 - Individuals: 40 GPCD
 - Hospitals and care centers: 40 GPCD
 - Mass Shelters: 25 GPCD
 - Fire defense reserves: Based upon past experience of the community’s fire-fighting demands and system ability to produce or obtain additional water.

- Stage 4 – Conditions near normal. Selective industrial, commercial, and agricultural usage is permitted. Such usage is relative to the PWSS’s production capability.

Calculations for City of Salina

Stage 1 – Population 46,231 x 5 gallons per capita per day = 231,155 gallons per day
(Potable water for human consumption – drinking and cooking only)

Stage 2 – Population 46,231 x 25 gallons per capita per day = 1,155,775 gallons per day
(Potable water for human consumption and general sanitation)

Stage 3 – Population 46,231 x 40 gallons per capita per day = 1,849,240 gallons per day
(Increased usage for human consumption and general sanitation plus reserves for fire defense)

Fire Reserves Needed: 0.75 MGD

Stage 4 – Conditions near normal. Usage is relative to the PWS System Production Capacity.

[END OF SECTION]

Section 10 –
Key Personnel/
Contact Information

Section 10 – Key Personnel/Contact Information

City Manager

Name: Mike Schrage
Work Address: 300 W. Ash, Salina, KS 67401
Work Phone: (785) 309-5700
Cell Phone: (785) 643-2094

Director of Utilities

Name: Martha Tasker
Work Address: 300 W. Ash, Salina, KS 67401
Work Phone: (785) 309-5725
Cell Phone: (785) 392-7574

Deputy Utilities Director

Name: Vacant
Work Address: 401 S. 5th St., Salina, KS 67401
Work Phone: (785) 826-7305
Cell Phone:

Water Distribution Superintendent

Name: Vacant
Work Address: 319 E. Elm St., Salina, KS 67401
Work Phone: (785) 826-7305
Cell Phone:

Water Treatment Plant Superintendent

Name: Vacant
Work Address: 401 S. 5th St., Salina, KS 67401
Work Phone: (785) 826-7305
Cell Phone:

Wastewater Collections Superintendent

Name: Monty Hole
Work Address: 596 N. Marymount Rd., Salina, KS 67401
Work Phone: (785) 826-7305
Cell Phone: (785) 822-2385

Wastewater Plant Superintendent

Name: Richard Simmons
Work Address: 596 N. Marymount Rd., Salina, KS 67401
Work Phone: (785) 826-7305
Cell Phone: (785) 829-1898

Police Chief

Name: Clarence J. Wise
Work Address: 255 N. 10th, Salina, KS 67401
Work Phone: (785) 826-7210
Cell Phone: (573) 864-7403

Sheriff

Name: Roger Soldan
Work Address: 251 N. 10th, Salina, KS 67401
Work Phone: (785) 826-6500
Home Phone: (785) 493-1527
Cell Phone: (785) 822-4392

Fire Chief

Name: Anthony (Tony) Sneidar
Work Address: 222 W. Elm Street, Salina, KS 67401
Work Phone: (785) 826-7340
Cell Phone: (785) 223-7309

Saline County Emergency Management

Name: Michelle Weis, Director
Work Address: 255 N. 10th Street, Salina, KS 67401
Work Phone: (785) 826-6511 or (785)826-6500 – Dispatch
Cell Phone: (785) 714-0389

KDHE – Local

Name: Jennifer Nichols, North Central District Environmental Administrator
Work Address: 3040 Enterprise Dr., Salina, KS 67401
Work Phone: (785) 827-9639
Cell Phone: (785) 201-4676 – Jennifer Nichols
Cell Phone: (785) 201-4685 – Marsha Fleming

KDHE – Topeka

Name: Dan Clair, Unit Chief
Kansas Department of Health and Environment
Public Water Supply Section
Work Address: 1000 SW Jackson – Suite 420, Topeka, KS 66612
Work Phone: (785) 296-5516

[END OF SECTION]