Appendix A
Surface Water Discharge Permit

Permit No.: SDG823728

SOUTH DAKOTA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

General Surface Water Discharge Permit
For Minor Non-Discharging Domestic Wastewater Treatment Facilities

In compliance with the provisions of the South Dakota Water Pollution Control Act and the Administrative Rules of South Dakota (ARSD), Article 74:52,

City of Harrisburg

is directed by the South Dakota Department of Environment and Natural Resources to have **no discharge** from its facility located in the Southwest 1/4 of Section 1, T99N, R50W, in Lincoln County, in accordance with the requirements as contained in the provisions of this General Permit. The permittee shall comply with all conditions of this General Permit. Any permit noncompliance constitutes a violation of the South Dakota Water Pollution Control Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

This general permit shall become effective October 1, 2011.

General permit coverage for the City of Harrisburg shall become effective October 1, 2011.

This general permit shall expire at midnight, September 30, 2016.

Signed this 24th day of August, 2011,

Authorized Permitting Official

Steven M. Pirner
Secretary
Department of Environment and Natural Resources

TABLE OF CONTENTS

COVER SHEET – Issuance and Expiration Dates

APPENDICES

1.0 DEFINITIONS

"ARSD" means the Administrative Rules of South Dakota.

"BOD_5" means Five-Day Biochemical Oxygen Demand. BOD is a measurement of the amount of oxygen utilized by the decomposition of organic material, over a specified time period (usually 5 days) in a sample.

A **"Bypass"** is the intentional diversion of waste streams from any portion of a treatment facility. Bypasses do not include releases from the sanitary sewer collection system (see "**Sanitary Sewer Overflow**) or emergency releases from the treatment facility (see "**Emergency Discharge**").

"Composite Samples" shall be flow proportioned. The composite sample shall contain at least four samples collected over the compositing period. Unless otherwise specified, the time between the collection of the first sample and the last sample shall not be less than six hours nor more than 24 hours. Acceptable methods for preparation of composite samples are as follows:

1. Constant time interval between samples, sample volume proportional to flow rate at time of sampling;

2. Constant time interval between samples, sample volume proportional to total flow (volume) since last sample. For the first sample, the flow rate at the time the sample was collected may be used;

3. Constant sample volume, time interval between samples proportional to flow (i.e., sample taken every "X" gallons of flow); and,

4. Continuous collection of sample, with sample collection rate proportional to flow rate.

"Daily Maximum (Daily Max.)" is the maximum value allowable in any single sample or instantaneous measurement.

An **"Emergency Discharge"** is a discharge from the lower end of the treatment or containment system through a release structure or over or through retention dikes. An emergency discharge is distinguished from a sanitary sewer overflow in that a sanitary sewer overflow discharges wastewater prior to reaching the treatment or containment system.

"EPA" or **"US EPA"** means the United States Environmental Protection Agency.

A **"Grab Sample**,**"** for monitoring requirements, is a single "dip and take" sample collected at a representative point in the discharge stream.

An **"Industrial User"** is a non-domestic source of pollutants discharged into a publicly owned treatment works.

An **"Instantaneous Measurement**," for monitoring requirements, is a single reading, observation, or measurement.

"pH" is the measure of the hydrogen ion concentration of water or wastewater; expressed as the negative log of the hydrogen ion concentration. A pH of 7 is neutral. A pH less than 7 is acidic, and a pH greater than 7 is basic.

A **"Publicly-Owned Treatment Works"** or **"POTW"** is any device or system used in the treatment, including recycling and reclamation, of municipal sewage or industrial waste of a liquid nature that is owned by the state or a municipality. This term includes sewers, pipes, or other conveyances only if they convey wastewater to a publicly owned treatment works providing treatment.

A **"Sanitary Sewer Overflow"** or **"SSO"** is the intentional or unintentional discharge of untreated sewage from the sanitary sewer collection system, including sewer lines, manholes, lifts stations, etc.

"SDDENR" means the South Dakota Department of Environment and Natural Resources.

"Secretary" means the Secretary of the South Dakota Department of Environment and Natural Resources, or authorized representative.

"Severe Property Damage" is substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

"Sewage Sludge" is any solid, semi-solid, or liquid residue removed during the treatment of municipal wastewater or domestic sewage. Sewage sludge includes but is not limited to solids removed during primary, secondary or advanced wastewater treatment, scum, septage, portable toilet pumpings, and sewage sludge products. Sewage sludge does not include grit, screenings, or ash generated during the incineration of sewage sludge.

A **"Significant Industrial User"** is defined as an industrial user discharging to a publicly-owned treatment works (POTW) that satisfies any of the following:

1. Is subject to Categorical Pretreatment Standards under ARSD Chapter 74:52:10 (a.b.r. 40 CFR 403.6 and 40 CFR chapter I, subchapter N);

2. Discharge an average of 25,000 gallons per day or more of process wastewater to the publicly owned treatment works (excluding sanitary, non-contact cooling water, and boiler blowdown wastewater);

3. Contributes a process wastewater that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the publicly owned treatment works; or,

4. Is designated as such by the Secretary on the basis that the Industrial User has a reasonable potential for adversely affecting the publicly owned treatment works or for violating any pretreatment standard or requirement.

"TSS" means Total Suspended Solids. TSS is a measure of the filterable solids present in a sample.

"**Upset**" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limits because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

2.0 PERMIT COVERAGE

2.1 Request for Coverage under General Permit

1. This general permit is potentially applicable to any minor, non-discharging wastewater treatment facilities within South Dakota that are treating primarily domestic wastewater. In order for a facility to be eligible for coverage under this general permit, the owner, operator, and/or authorized agent of any facility wishing to obtain coverage under this general permit must complete and submit a Notice of Intent form, located in **Appendix A** of this general permit. Applications for individual Surface Water Discharge permits may also serve as a Notice of Intent form and be accepted by the Secretary, provided they contain the information and signatures required to properly grant or deny general permit coverage. The original form must be sent to the following address:

   South Dakota Department of Environment and Natural Resources
   Surface Water Quality Program
   PMB 2020
   523 East Capitol
   Pierre, South Dakota 57501-3182

   Telephone: (605) 773-3351 or 1-800-GET-DENR (1-800-438-3367)

2. Coverage provided under this general permit is limited to those activities specifically designated in the permittee's Notice of Intent and as approved in the letter from the Secretary granting general permit coverage. Knowingly discharging from an unauthorized location or failing to report an unauthorized discharge within a reasonable time from the permittee first learning of an unauthorized discharge could subject the permittee to penalties as provided under the South Dakota Water Pollution Control Act.

2.2 Permit Transfers

1. Coverage under this general permit may be transferred to a new permittee if:

   a. The current permittee notifies the Secretary at least 30 days in advance of the proposed transfer date;

   b. The notice includes a written agreement between the current and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and

   c. The new permittee submits as Certification of Applicant form certifying the new permittee is qualified to perform the obligations of a permit holder in accordance with South Dakota Codified Law 1-40-27.

2. The Secretary will notify the existing and new permittee of his or her intent to transfer, modify, or revoke and reissue the coverage under the general permit based on the information received and other permit information.

2.3 Reopener Provisions

This general permit may be reopened and modified (following proper administrative procedures) to include appropriate effluent limits (and compliance schedules, if necessary), or other appropriate requirements if one or more of the following events occurs:

1. Water Quality Standards: The water quality standards of the receiving waters applicable to this general permit or a specific permittee are modified in such a manner as to require different conditions than contained in this general permit;

2. Water Quality Management Plan: A revision to the current water quality management plan is approved and adopted that calls for different conditions than contained in this general permit;

3. Effluent Guidelines: Effluent limit guidelines are promulgated or revised for point sources covered by this general permit;

4. Total Maximum Daily Load: Additional controls in the permit are necessary to implement a total maximum daily load approved by the Secretary and/or EPA;

5. Noncompliance: The discharger is a significant contributor of pollution to waters of the state, presents a health hazard, or is in noncompliance with the conditions of the permit;

6. Pretreatment Program: The permittee is required to develop and implement a pretreatment program, regulating indirect discharges of wastewater into its publicly owned treatment works; or

7. Other Changes: Other conditions or standards change so that the permittee no longer qualifies for this permit, such as the permittee being designated as a major discharger, changes in necessary influent or effluent pollutant monitoring, additional industrial pretreatment requirements become applicable to the permittee, or other items.

2.4 Duty to Reapply

If the permittee wishes to continue an activity regulated by this general permit after its expiration date, the permittee must apply for and obtain coverage under a new general permit. The Notice of Intent must be submitted at least 180 days before the expiration date of this general permit. If the permittee wishes to apply for an individual permit, the application must also be submitted at least 180 days before the expiration date of this general permit. Periodically during the term of this general permit and at the time of reissuance, the permittee may be requested to reaffirm its eligibility for coverage under this general permit.

2.5 Continuation of the Expired General Permit

1. An expired general permit continues in full force and effect until a new general permit is issued. Any permittee with coverage under the general permit at the time of expiration will continue to have coverage until a new general permit is issued.

2. If the permittee wishes to continue an activity regulated by this general permit after its expiration date, the permittee must submit a Notice of Intent at least 180 days before the expiration date of the general permit.

2.6 Requiring an Individual Permit

1. The Secretary may require any permittee covered under this general permit to apply for and obtain an individual permit if any of the following occur:

   a. Noncompliance: The discharger is a significant contributor of pollution to waters of the state, presents a health hazard, or is in noncompliance with the conditions of the general permit;

   b. Compliance Schedule: The Secretary determines a compliance schedule is necessary to ensure compliance with the federal Clean Water Act, the Administrative Rules of South Dakota, or the South Dakota Surface Water Quality Standards; or

   c. Other Changes: Other conditions or standards change so that the permittee no longer qualifies for this general permit, such as the permittee being designated as a major discharger, changes in necessary influent or effluent pollutant monitoring, additional industrial pretreatment requirements become applicable to the permittee, or other items that would necessitate an individual permit.

2. The Secretary will notify the permittee in writing that an application for an individual permit is required. When an individual permit is issued to a permittee otherwise covered under this general permit, the permittee's general permit coverage shall be automatically terminated upon the effective date of the individual permit.

2.7 Property Rights

1. The Secretary's issuance of this permit, adoption of design criteria, and approval of plans and specifications, does not convey any property rights of any sort, any exclusive privileges, any authorization to damage, injure or use any private property, any authority to invade personal rights, any authority to violate federal, state or local laws or regulations, or any taking, condemnation or use of eminent domain against any property owned by third parties.

2. The State does not warrant that the permittee's compliance with this permit, design criteria, approved plans and specifications, and operation under this permit, will not cause damage, injury or use of private property, an invasion of personal rights, or violation of federal, state or local laws or regulations. The permittee is solely and severably liable for all damage, injury or use of private property,

invasion of personal rights, infringement of federal, state or local laws and regulations, or taking or condemnation of property owned by third parties, that may result from actions taken under the permit.

2.8 Permit Actions

The Secretary may modify, revoke and reissue, or terminate coverage under this general permit for cause, including failure to comply with any provision of the general permit or any condition imposed by the Secretary upon granting coverage under the general permit. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

2.9 Severability

The provisions of this general permit are severable, and if any provision of this general permit, or the application of any provision of this general permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this general permit, shall not be affected thereby.

3.0 EFFLUENT LIMITS

3.1 Emergency Discharges

1. Discharges of wastewater are prohibited and the Secretary may take enforcement action against a permittee, unless the discharge or sanitary sewer overflow is an emergency and meets each of the following conditions:

   a. The emergency discharge or sanitary sewer overflow was unavoidable to prevent loss of life, threat to public health, personal injury, or severe property damage;

   b. There were no feasible alternatives to the emergency discharge or sanitary sewer overflow, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment or proper operation and maintenance to prevent an emergency release that occurred during normal periods of equipment downtime or preventive maintenance; and,

   c. The permittee submitted notices as required under **Section 4.5 – Discharge Reporting Requirements**.

2. If an emergency discharge, sanitary sewer overflow, or other discharge occurs or is expected to occur, the permittee shall take the appropriate measures to minimize the discharge of pollutants. Such measures may include the closing of facilities that contribute wastewater to the sewer system until the discharge is terminated.

3. Any emergency discharge or sanitary sewer overflow that meets the conditions of paragraph 1 above shall be reported as soon as possible (but in no case less than 24 hours after becoming aware of the circumstances) in accordance with the provisions in **Section 4.5 – Discharge Reporting Requirements**. The report shall be made to the Secretary at (605) 773-3351 during regular business hours (8:00 a.m. – 5:00 p.m. Central Time) or to the South Dakota Emergency Management at (605) 773-3231 any other time.

3.2 Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and treatment and control systems that are installed or used by the permittee to achieve compliance with the conditions of this general permit or other conditions required by the Secretary upon granting coverage under this general permit.

1. This may include the maintenance of freeboard levels of lagoons or holding ponds.

2. Proper operation and maintenance may also include adequate laboratory controls and appropriate quality assurance procedures. This provision requires the

operation of back-up or auxiliary facilities or similar systems that are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the general permit.

3.3 Inspection Requirements

The permittee shall inspect its wastewater treatment facility, outfall structures, and lift stations regularly as outlined below. The inspections shall be conducted to determine if a discharge is occurring, has occurred since the previous inspection, and/or if a discharge is likely to occur before the next inspection. In addition, the inspection shall be performed to determine if proper operation and maintenance procedures are being undertaken at the wastewater treatment facility and lift stations. The permittee shall maintain a notebook recording information obtained during the inspection.

1. The permittee shall inspect the facility and discharge location on at least a **monthly** basis. During any emergency discharge, the facility and discharge location shall be inspected on a **daily** basis. At a minimum, the inspection notebook shall include the following items for the facility inspections:

    a. Date and time of the inspection;
    b. Name of the inspector(s);
    c. The facility's discharge status;
    d. The measured amount of freeboard or water depth in each pond and wetland;
    e. Identification of operational problems and/or maintenance problems;
    f. Recommendations, as appropriate, to remedy identified problems;
    g. A brief description of any actions taken with regard to problems identified;
    h. Other information, as appropriate.

2. The permittee shall inspect each lift station on at least a **weekly** basis. During any sanitary sewer overflow, the lift stations shall be inspected on a **daily** basis. At a minimum, the inspection notebook shall include the following for each lift station inspection:

    a. Date and time of the inspection;
    b. Name of the inspector(s);
    c. Whether a sanitary sewer overflow is occurring or has occurred;
    d. Identification of operational problems and/or maintenance problems;
    e. Cleaning of screenings, if applicable;
    f. Testing of alarms, if applicable;
    g. Hour meter readings;
    h. Recommendations, as appropriate, to remedy identified problems;
    i. A brief description of any actions taken with regard to problems identified;

j. Other information, as appropriate.

3. The permittee shall maintain the notebook(s) for the facility and each lift station in accordance with proper record-keeping procedures and shall make the notebook(s) available for inspection, upon request, by the Secretary or the U.S. EPA.

3.4 Capacity, Management, Operation, and Maintenance Program

In the event that the Secretary notifies the permittee of the need to develop a capacity, management, operation, and maintenance program in order to address, reduce, or eliminate the frequency of sanitary sewer overflows or emergency discharges, the permittee shall develop and submit the program to the Secretary. The program shall, at a minimum, address the following areas:

1. Sewer management program: This program includes personnel organizational structure, training, communication information systems, noncompliance notification program, and other appropriate items;

2. Collection system operation program: This program includes operational budgeting, monitoring, safety, emergency preparedness and response, pump stations, operational recordkeeping, and other appropriate items;

3. Collection system maintenance program: This program includes maintenance budgeting, planned and unplanned maintenance; sewer cleaning; maintenance recordkeeping, parts and equipment inventory, and other appropriate items; and

4. Sewer system capacity evaluation: The capacity evaluation includes the following:

   a. System inventory (sewer locations, sizes, slopes, materials, age, condition, etc.);

   b. Identification of problem areas (overflows, surcharged lines, basement backups, etc.);

   c. Capacity evaluation of problem areas (utilizing flow and precipitation records, infiltration and inflow investigation, manhole and pipe inspections and televising, smoke and dye testing, and building inspections); and

   d. Sewer rehabilitation recommendations.

5. Timelines: This program shall identify timelines and specific dates for completing any identified changes or improvements.

6. SDDENR Approval: The permittee shall submit the program to SDDENR for approval. Upon approval, the permittee shall implement the program.

4.0 MONITORING, RECORD KEEPING, & REPORTING REQUIREMENTS

4.1 Self-Monitoring Requirements

Promptly upon discovery of an emergency discharge, bypass, sanitary sewer overflow, or other discharge, the discharge shall be monitored as shown below. Knowingly discharging or failing to report a discharge within a reasonable time from the permittee first learning of a discharge could subject the permittee to penalties as provided under the South Dakota Water Pollution Control Act. The permittee shall report the monitoring results in accordance with **Section 4.4 – Reporting of Monitoring Results.**

Effluent Characteristic	Frequency	Reporting Value	Sample Type [1]
Total Flow, million gallons	Each Discharge [2]	Event Total	Calculated
Duration of Discharge, days	Each Discharge [2]	Event Total	Calculated
Flow Rate, million gallons per day	Daily [3]	Actual Value	Instantaneous
pH, standard units	Daily [3,4]	Actual Value	Instantaneous [5]
Total Residual Chlorine, mg/L *(only if chlorinating)*	Daily [3,]	Actual Value	Instantaneous
Water Temperature, °C	Daily [3, 4]	Actual Value	Instantaneous [6]
Total Suspended Solids (TSS), mg/L	Daily [3]	Actual Value	Grab
Five-Day Biochemical Oxygen Demand (BOD_5), mg/L	Daily [3]	Actual Value	Grab
Ammonia as N, mg/L	Daily [3, 4]	Actual Value	Grab
Escherichia Coli, no./l00 mL	Daily [3]	Actual Value	Grab
Total Coliform, no./l00 mL	Daily [3]	Actual Value	Grab

[1] See Definitions.

[2] The permittee shall report the date and time of the start and termination of each discharge, along with the total number of gallons discharged during the entire discharge event.

[3] The permittee shall take a minimum of one sample per day during any emergency release, bypass, sanitary sewer overflow, or other discharge unless SDDENR authorizes an alternative sampling schedule.

[4] The pH and temperature of the effluent shall be determined when ammonia samples are collected.

[5] pH shall be taken within 15 minutes of sample collection with a pH meter. The pH meter must be capable of simultaneous calibration to two points on the pH scale that bracket the expected pH and are approximately three standard units apart. The pH meter must read to 0.01 standard units and be equipped with temperature compensation adjustment. Readings shall be reported to the nearest 0.1 standard units.

[6] The water temperature of the effluent shall be taken as a field measurement. Measurement shall be made with a mercury-filled, or dial type thermometer, or a thermistor. Readings shall be reported to the nearest whole degree Celsius.

4.2 Monitoring Procedures

1. Effluent samples taken in compliance with the monitoring requirements established under this general permit shall be collected prior to discharge into the receiving waters. Samples and measurements shall be representative of the volume and nature of the monitored discharge.

2. Monitoring shall be conducted according to test procedures approved under ARSD §74:52:03:06, (a.b.r. 40 CFR, Part 136), unless other test procedures have been specified in this general permit or approved by the Secretary.

4.3 Additional Monitoring by the Permittee

If the permittee monitors any pollutant more frequently than required by this general permit, using test procedures approved under ΛRSD §74:52:03:06 (a.b.r. 40 CFR 136) or as specified in this general permit, the results of this monitoring shall be used in determining compliance with this general permit.

4.4 Reporting of Monitoring Results

1. Monitoring results shall be reported on a photocopy of the Discharge Monitoring Summary Form located in **Appendix B** of this general permit, postmarked no later than the 28th day of the month following the discharge. Legible copies of these, and all other reports required herein, shall be signed and certified in accordance with **Section 4.7 – Signatory Requirements** and submitted to the Secretary at the following address:

   South Dakota Department of Environment and Natural Resources
   Surface Water Quality Program
   PMB 2020
   523 East Capitol
   Pierre, South Dakota 57501-3182

2. In accordance with SDCL 1-40-39, the Secretary is authorized to accept a document with an electronic signature. SDDENR shall provide for the authenticity of each electronic signature by adhering to any standards established by the South Dakota Bureau of Information and Telecommunications pursuant to SDCL 53-12-47 and 53-12-50 or any other standards established by rules promulgated pursuant to SDCL Chapter 1-26.

4.5 Discharge Reporting Requirements

1. The permittee shall report any emergency related to this general permit or permitted facility that may endanger health or the environment as soon as possible, but no later than 24 hours after becoming aware of the circumstances. The report shall be made to the Secretary at (605) 773-3351 during regular business hours (8:00 a.m. – 5:00 p.m. Central Time), or to South Dakota Emergency Management at (605) 773-3231 any other time.

2. Emergency discharges, sanitary sewer overflows, and other unauthorized releases that do not meet the conditions of Paragraph 1 above shall be reported to the

Secretary within 24 hours from the time the permittee becomes aware of the circumstances as follows:

a. During regular business hours (8:00 a.m. - 5:00 p.m. Central Time), the report shall be made at (605) 773-3351.

b. Outside of normal business hours, the permittee shall leave a message at 1-800-GET-DENR (1-800-438-3367).

3. Anticipated overflows shall be reported to the Secretary in advance, if possible.

4. The Secretary may require the permittee to notify the general public or downstream users that could be or will be impacted by the discharge.

a. In making the decision to require public notification, the Secretary will consider the potential impacts as a result of the discharge, the downstream beneficial uses (such as drinking water or recreation), and the potential for public contact.

b. If required by the Secretary, the permittee shall notify the public and/or downstream users as soon as possible, but in no case more than 24 hours after the discharge begins.

5. In addition to verbal notification, the permittee shall submit to the Secretary a written report of the circumstances above.

a. Reports shall be submitted in accordance with **Section 4.4 – Reporting of Monitoring Results**.

b. The written submission shall contain:

i. A description of the event and its cause;
ii. The period of the event, including exact dates and times;
iii. Where the wastewater was discharged;
iv. The estimated time the event is expected to continue if it has not been corrected;
v. Any adverse effects, such as fish kills;
vi. If public notification was required, describe how the public was notified of the discharge; and
vii. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the event.

c. The written report shall be submitted on the Discharge Monitoring Summary Form in **Appendix B** by the 28th day of the following month. The Secretary may require a written report to be submitted sooner or may require additional information if the discharge has the potential to impact human health or the environment.

4.6 Bypass Reporting

1. The permittee may allow anticipated bypasses to occur that do not result in a discharge and will not result in a violation of the effluent limits, but only if for essential maintenance to ensure efficient operation.

2. The permittee shall submit notice of a bypass as follows:

   a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, the permittee shall submit notice to the Secretary at least 10 days before the date of the bypass.

   b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass to the Secretary at (605) 773-3351 by the first workday (8:00 a.m. - 5:00 p.m. Central Time) following the day the permittee became aware of the circumstances.

4.7 Records Contents

Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements;

2. The initials or names of the individuals who performed the sampling or measurements;

3. The dates analyses were performed;

4. The time analyses were initiated;

5. The initials or names of individuals who performed the analyses;

6. References and written procedures, when available, for the analytical techniques or methods used; and,

7. The results of such analyses, including the bench sheets, instrument readouts, computer disks or tapes, etc., used to determine these results.

4.8 Signatory Requirements

1. All applications, reports or information submitted to the Secretary shall be signed and certified.

2. All Notice of Intent forms shall be signed by either a principal executive officer or ranking elected official.

3. All reports required by the general permit and other information requested by the Secretary shall be signed by a principal executive officer or ranking elected official, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

a. The authorization is made in writing by a person described above and submitted to the Secretary; and,

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of superintendent or equivalent responsibility, or an individual or position having overall responsibility for environmental matters. (A duly authorized representative may be either a named individual or any individual occupying a named position.)

4. If an authorization under paragraph 3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization shall be submitted to the Secretary.

5. Any person signing a document under this section shall make the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

4.9 Retention of Records

1. The permittee shall retain records of all monitoring information and other data required by the general permit. This includes:

a. Data collected on site;

b. Copies of all Discharge Monitoring Summary Forms;

c. A copy of the general permit and the letter granting coverage under this general permit;

d. All calibration and maintenance records;

e. All original strip chart recordings for continuous monitoring instrumentation;

f. Copies of all other reports required by this general permit; and

g. Records of all data used to complete the application for this general permit.

2. This information must be retained for a period of at least **three years** from the date of the sample, measurement, report, or application. This period may be extended by request of the Secretary at any time.

4.10 Availability of Reports

Except for data determined to be confidential under ARSD §74:52:02:17, all reports prepared in accordance with the terms of this general permit shall be available for public inspection at the office of SDDENR. The name and address of the permittee, permit applications, notices of intent, permits, and effluent data shall not be considered confidential.

4.11 Duty to Provide Information

1. The permittee shall furnish to the Secretary, within a reasonable time, any information the Secretary may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this general permit, or to determine compliance with this general permit. The permittee shall also furnish to the Secretary, upon request, copies of records required to be kept by this general permit.

2. If the permittee becomes aware that it failed to submit any relevant facts in a Notice of Intent form, or submitted incorrect information in a Notice of Intent form or any report to the Secretary, it shall promptly submit such facts or information.

4.12 Planned Changes

The permittee shall give notice to the Secretary as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when the alteration or addition could significantly change the nature or increase the quantity of pollutant discharged, or could result in noncompliance with permit conditions. This notification applies to pollutants that are not subject to effluent limits or other notification requirements in the general permit.

5.0 COMPLIANCE REQUIREMENTS

5.1 Duty to Comply

The permittee shall comply with all conditions of this general permit. Any permit noncompliance constitutes a violation of the South Dakota Water Pollution Control Act and the federal Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. A violation of a condition of the general permit is subject to SDCL § 34A-2-75.

5.2 Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use in violation of this general permit that has a reasonable likelihood of adversely affecting human health or the environment.

5.3 Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this general permit.

5.4 Upset Conditions

1. An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limits if the requirements of Paragraph 3 below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review (i.e., Permittees will have the opportunity for a judicial determination on any claim of upset only in an enforcement action brought for noncompliance with technology-based permit effluent limits).

2. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

   a. An upset occurred and that the permittee can identify the cause(s) of the upset;

   b. The permitted facility was at the time being properly operated;

   c. The permittee submitted notice of the upset in accordance with **Section 4.5 – Discharge Reporting Requirements**; and

   d. The permittee complied with mitigation measures required under **Section 5.2 – Duty to Mitigate**.

3. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

5.5 Penalties for Violations of Permit Conditions

Any person who violates a permit condition is in violation of the provisions of SDCL 34A-2-36, and is subject to penalties under SDCL 34A-2-75. In addition to a jail sentence authorized by SDCL 22-6-2, such violators are subject to a criminal fine not to exceed ten thousand dollars per day of violation. The violator is also subject to a civil penalty not to exceed ten thousand dollars per day of violation, or for damages to the environment of this state. Except as provided in Section 5.4, nothing in this general permit shall be construed to relieve the permittee of the civil or criminal penalties for noncompliance.

5.6 Penalties for Tampering

Any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this general permit is in violation of the provisions of SDCL 34A-2-77, and is subject to penalties under SDCL 34A-2-75. In addition to a jail sentence authorized by SDCL 22-6-2, such violators are subject to a criminal fine not to exceed ten thousand dollars per day of violation. The violator is also subject to a civil penalty not to exceed ten thousand dollars per day of violation, or for damages to the environment of this state.

5.7 Penalties for Falsification

1. Any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this general permit, including monitoring reports or reports of compliance or noncompliance, is in violation of the provisions of SDCL 34A-2-77, and is subject to penalties under SDCL 34A-2-75.

2. Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit is in violation of the provisions of SDCL 34A-2-77, and is subject to penalties under SDCL 34A-2-75.

3. In addition to a jail sentence authorized by SDCL 22-6-2, such violators are subject to a criminal fine not to exceed ten thousand dollars per day of violation. The violator is also subject to a civil penalty not to exceed ten thousand dollars per day of violation, or for damages to the environment of this state.

5.8 Oil and Hazardous Substance Liability

Nothing in this general permit shall be construed to preclude the Secretary from taking any legal action or relieve the permittee from any responsibilities, liabilities, or penalties the permittee is or may be subject under section 311 of the federal Clean Water Act.

6.0 INDUSTRIAL WASTES (for Publicly Owned Treatment Works Only)

6.1 Industrial Users

1. During the life of the permit, the permittee shall conduct an industrial waste survey to identify the character and volume of pollutants from each significant industrial user, as well as documenting production data.

2. The permittee shall notify the Secretary of any new introductions by new or existing industrial users or any substantial change in pollutants from any industrial user. Such notice must contain the information described in paragraph 1 above and be submitted to the Secretary no later than 60 days following the introduction or change.

3. The permittee shall provide adequate notice to the Secretary of any substantial change in the volume or character of pollutants being introduced into the POTW by any other industrial users. For the purposes of this section, adequate notice shall include information on:

   a. The quality and quantity of effluent to be introduced into the POTW; and,

   b. Any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

6.2 Prohibited Discharges

1. Under no circumstances shall the permittee allow the introduction of the following pollutants to the publicly owned treatment works from any source of nondomestic discharge:

   a. Pollutants that create a fire or explosion hazard in the publicly owned treatment works, including but not limited to wastestreams with a closed cup flashpoint of less than 60 degrees Celsius (140 degrees Fahrenheit) using the test methods specified in ARSD §74:28:22:01 (a.b.r. 40 CFR 261.21);

   b. Pollutants that will cause corrosive structural damage to the publicly owned treatment works, but in no case discharges with pH lower than 5.0 standard units nor greater than 12.5 standard units;

   c. Solid or viscous pollutants in amounts that will cause obstruction to the flow in the POTW, or other interference with the operation of the POTW;

   d. Any pollutant, including oxygen-demanding pollutants (e.g., BOD), released in a discharge at a flow rate and/or pollutant concentration that will cause interference with the POTW;

   e. Heat in amounts that will inhibit biological activity in the POTW resulting in interference but in no case heat in such quantities that the temperature at the POTW treatment plant exceeds 40 degrees Celsius (104 degrees Fahrenheit);

f. Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;

g. Pollutants that result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems;

h. Any trucked or hauled pollutants, except at discharge points designated by the POTW;

i. Any pollutant that causes pass through or interference; and,

j. In addition to the general limits expressed above, more specific pretreatment limits have been promulgated for specific industrial categories under Section 307 of the federal Clean Water Act (see ARSD, Chapter 74:52:10, a.b.r. 40 CFR Subchapter N, Parts 405 through 471, for specific information).

2. The Secretary retains the right to take legal action against the industrial user and/or the permittee, in those cases where a permit violation has occurred because of the failure of an industrial user to discharge at an acceptable level.

7.0 ADDITIONAL PERMIT CONDITIONS

7.1 Inspection and Entry

The permittee shall allow the Secretary or EPA, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this general permit;

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this general permit;

3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this general permit; and,

4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the South Dakota Water Pollution Control Act, any substances or parameters at any location.

7.2 Removed Substances

1. Collected screenings, grit, solids, sludges, or other pollutants removed in the course of treatment shall be disposed of in such a manner so as to prevent any pollutant from entering any waters of the state or creating a health hazard in accordance with applicable requirements of SDCL 34A-2, -6, and -11.

2. If sludge disposal is necessary, the permittee shall submit to the Secretary a sludge disposal plan for review and approval prior to the removal and disposal of sludge. The permittee shall not dispose of sludge without the Secretary's approval.

APPENDIX A

Notice of Intent to Receive Coverage Under the General Surface Water Discharge Permit for Minor Non-Discharging Publicly Owned Treatment Works

APPENDIX B

Discharge Monitoring Summary Form

DISCHARGE MONITORING SUMMARY FORM

This form is to be used to summarize effluent monitoring information for discharges from facilities covered under the General Surface Water Discharge Permit for Minor Non-Discharging Domestic Wastewater Treatment Facilities.

Address:			
Facility Contact:		**Phone:**	

Description of Event

(Attach additional sheets if necessary)

Date and Time the discharge began or was discovered:	
Date and Time the discharge was stopped:	

Describe the events resulting in the discharge and its cause(s):

Where was the wastewater discharged:

Describe the steps taken or planned to reduce, eliminate, and prevent reoccurrence:

Time and Date 24-Hour Notice of Noncompliance given to SDDENR:	
Describe any adverse effects, such as fish kills, etc.:	
Duration of discharge (include dates and times):	
Total flow, million gallons:	

ANALYTICAL RESULTS

Parameter	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Sample 7
Date and time of sample							
Flow Rate, million gallons per day							
pH, standard units							
Water Temperature, °C							
Total Residual Chlorine, mg/L (if chlorinating)							
Escherichia Coli, no./l00 mL							
Total Coliform, no./l00 mL							
Ammonia as N, mg/L							
Total Suspended Solids (TSS), mg/L							
Five-Day Biochemical Oxygen Demand (BOD_5), mg/L							

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name (print): _____ Title: _____

Signature: _____ Date: _____

Appendix B
Surface Water Discharge Compliance Inspection

DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES
PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

January 24, 2012

Reed Ramstad
Mayor of Harrisburg
PO Box 26
Harrisburg, SD 57032

Dear Mr. Ramstad:

The South Dakota Department of Environment and Natural Resources conducted a Surface Water Discharge Compliance inspection at the city of Harrisburg's wastewater treatment facility on August 15, 2011. I appreciate Dan Fink's time and assistance in supplying the requested information.

I have attached an inspection summary and a copy of the inspection report. Please pay special attention to the Inspection Summary tables and implement the required corrective actions as soon as possible. All corrective actions taken will be reviewed during our next inspection at your facility.

Thank you for your continued efforts to protect the environment and natural resources of South Dakota. If you have any questions concerning the attached report, please contact me at (605) 362-3543.

Sincerely,

Jill M Riedel

Jill M. Riedel, E.I.T.
Engineer II
Surface Water Quality Program
Enclosures

cc: Dan Fink – City of Harrisburg
Surface Water Quality Program – Pierre
Seth Draper, EPA – Region VIII, 8ENF-W-NP

INSPECTION SUMMARY

Facility: City of Harrisburg WWTF

SWD Permit: SDG823728

Inspection Date: August 15, 2011

The following comments and corrective actions are ***recommended*** and are items that will improve the operation of your facility.

COMMENTS	RECOMMENDED CORRECTIVE ACTIONS
The city has not developed a routine calibration schedule for the lift station pumps.	The city should consider developing a pump calibration schedule for the lift stations. By checking the pumping rates three or four times per year, pump or motor problems may be detected before a complete failure occurs.
There is some weed growth in the riprap on the stabilization ponds.	Continue efforts to eliminate weed growth to prevent dike damage from erosion. This vegetation also tends to inhibit the air action on the ponds, which in turn inhibits the biological action necessary to treat the wastes and keep odors to a minimum.
Reeds are growing in Pond #3.	The reed growth in Pond #3 should be eliminated by spraying and/or cutting to prevent damage to the pond liner and attracting rodents.
We would like to encourage you to give Mr. Fink or other representatives of the city of Harrisburg the opportunity to attend the wastewater training courses sponsored by the state to upgrade skills and share knowledge concerning the operation and maintenance of municipal wastewater systems.	For more information as to dates and locations of upcoming courses in your area, contact South Dakota Association of Rural Water Systems, under contract with DENR, at 5009 W. 12th Street, Suite 5, Sioux Falls, SD 57106. Phone: (605) 336-7219. Website: http://www.sdarws.com.

NO DISCHARGE INSPECTION CHECKLIST

SOUTH DAKOTA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

I. GENERAL INFORMATION

Name City of Harrisburg

Location 203 S Prairie

SWD Permit No. SDG823728

Contact Person / Title Dan Fink, WW Operator **Phone Number** (605) 201-6570

Responsible Party/Title Reed Ramstad, Mayor **Phone Number** (605) 743-5872

Persons present during the inspection:

Name	Title / Phone Number	Affiliation
Dan Fink	Wastewater Operator / 201-6570	City of Harrisburg
Jill Riedel	Engineer II / 362-3543	SDDENR

Mailing Address PO Box 26 Harrisburg, SD 57032

Inspection Date August 15, 2011 **Last Inspection Date** Oct 30, 2007

Entrance Time 10:00 AM **Exit Time** 11:45 AM

Permit Effective Date May 17, 2006 **Permit Expiration Date** March 31, 2011

Type of "No Discharge" Facility:

☒ Stabilization Ponds Only ☐ Other:

Design Population Equivalent 4,890 **Average Design Flow** 250,000 gpd

Present Population Served 4,089 (2010 census)

Date Facility Began Operation 1999

Dates of Facility Upgrades 2008 – floating aerators, 2010 – lift station to pump WW to Sioux Falls

Industries Served by Facility (list names of industries) Just domestic wastes

The city of Harrisburg operates a wastewater treatment facility located about 1/2 mile south of the city in Lincoln county. The wastewater treatment facility serves a population of 958 (2000 Census), with no known industrial contributions. Wastewater flows by gravity to the three-cell stabilization pond system, which was designed for total retention. The wastewater enters cell one (10.21 acres) and flows in series to cell two (10.18 acres) and cell three (19.60 acres). The city constructed this system in 1999. The collection system consists of 20,000 linear feet of sanitary sewer and a collection system pumping station. In 2010, the city constructed a lift station and piping to pump excess wastewater to the city of Sioux Falls.

For office use only:	*OMA*	*OME*	*SEV*	*ENF*
	Yes ☒ No ☐	Yes ☐ No ☒	Yes ☐ No ☒	Yes ☐ No ☒

II. PERMIT VERIFICATION

	Yes	No	N/A
1. A current copy of the permit is on site.	X		
2. Operator is aware of permit conditions (especially unauthorized release procedures).	X		
3. O&M manuals for the treatment facility and the lift stations are available.	X		
4. Facility is as described in permit. If no, what is different?	X		
5. Facility, address and contact information is correct in the SWD Database?	X		
6. Facility, address and contact information is correct in the ICIS Database?	X		
5. Have there been any new, different, or increased loadings to the WWTF since the last inspection? If yes, describe. **Population increases**	X		

Comments: Due to population increases, the city has a contract with Sioux Falls to pump wastewater to Sioux Falls for treatment. The city has installed a lift station and started discharging to Sioux Falls in October 2010.

III. RECORDKEEPING AND REPORTING EVALUATION

	Yes	No	N/A
1. An inspection notebook is maintained for the treatment facility.	X		
2. A notebook is maintained for lift station inspections, and/or hour meter readings?	X		
3. Discharge Monitoring Reports have been submitted as required (for irrigation facilities only).			X
4. Information is maintained for the required 3-year period.	X		

If overflows occurred from this facility, the information from questions 5-7 should be entered in the SSO Database.

	Yes	No	N/A
5. Facility has experienced an emergency release, such as overflows (pond or sanitary sewer) or bypasses (internal, collection system, total). If yes, describe the release, including dates, total volumes, and receiving waters: **March 2010 and July 2010 emergency discharges due to flooding prior to completing the construction of the system to discharge *to the city of Sioux Falls.***	X		
6. DENR was notified of any emergency releases (treated and/or untreated). If no, why not?	X		
7. Samples were collected for all emergency releases/bypasses. If yes, list sampling results. If no, why not?	X		

Comments: The city has not had to discharge due to flooding since connecting to Sioux Falls. The city also has Omnisite, an electronic monitor, that records gallons pumped per minute, runtime, history, and maintenance for the lift station, too.

IV. FACILITY PROCEDURES REVIEW

	Yes	No	N/A
1. A water balance has been done for the facility. Describe the results.		X	
2. Written emergency procedures are established (in the event of a major storm event, a chemical release into the sewer system, a sewer main break, etc.)	X		
3. A vulnerability assessment has been performed.	X		
4. Modifications to the facility have been made since the last inspection. Describe the modifications: **New lift station added to pump to Sioux Falls**	X		
5. Facility can be bypassed (internal, collection system, total). Describe bypass procedures:		X	
6. Sludge has been disposed of at this facility. If yes, describe disposal procedures:		X	
7. Hauled waste (septage) or industrial waste is accepted at this facility. If yes, list contact information:		X	
8. Chemicals or enzymes are added to the wastewater. If yes, list products:		X	
9. The facility has experienced problems with industrial or hauled wastes. If yes, explain:			X
10 Does the facility have sampling kits in case of a discharge or SSO?	X		

Comments: The city contacts Sioux Falls and samples for BOD, TSS, TKN, and flow prior to sending wastewater to Sioux Falls; American Engineering Testing analyzes the samples.

V. COMPLIANCE SCHEDULE STATUS REVIEW

	Yes	No	N/A
1. Is the facility subject to a compliance schedule either in its permit or in an enforcement action? If yes, note date and type of enforcement action.		X	
2. List milestones that remain in the schedule:			
3. Facility has missed milestone dates, but will still meet the final compliance date.			X

Comments: No additional comments

VI. PERSONNEL AND BUDGET REVIEW

Number of Personnel: 3

Certification	Class I	Class II	Class III	Class IV
Treatment	X			
Collection	XX	X		

State certification requirements (if required): **Class I Wastewater Treatment**
Class II Wastewater Collection (since 2010 census results)

Budget: Fiscal Year 2010

Yearly expenditures for the facility. **$6,263,069**

Residential Sewer Use Fee **$15 base fee +$6.50/1,000 gal**

Yearly revenue for the facility. **$6,879,981**

Commercial Sewer Use Fee **Same**

Describe any wastewater projects planned during the next three years. **Main interceptor line next year – Columbia Basin Project**

Describe measures taken to raise funds for the project(s). **SRF Loan**

Comments: The expenditures and revenue also includes the construction of the new lift station.

VII. COLLECTION SYSTEM REVIEW

Piping and Manholes

Type of Collection System: [ ] Combined [X] Separate [ ] Both

[ ] Other (explain):

	Yes	No	N/A
1. A routine sewer-cleaning schedule is maintained. If yes, what is the schedule and what type of equipment is used? **City has a jet/vac truck and cleans a section of the city lines every year**	X		
2. Sewer backups into basements occur during high flows. If yes, explain:		X	
3. The community has a sump pump ordinance. If yes, how is it enforced? **Published in the city's quarterly newsletter**	X		
4. Testing for inflow/infiltration sources has been conducted since the last inspection. If yes, describe testing and corrective actions taken to fix problems:		X	

Comments: No additional comments

Lift Stations

Item	Comments
Number of lift stations	**Seven – visited S. Cliff and the main lift to Sioux Falls**
Type of lift stations (wetwell/drywell or submersible)	**All are wetwell/drywell**
List areas served	**S. Cliff – SW portion of town; Main – sends everything to SF**
Inspection frequency	**Once a week; continuously monitored via Omnisite**
Condition of lift stations	**Good, clean**
Alternative power source available for each lift station	**All have on-site backup generators that are tested once/week**
Wetwell baskets (quantity)	**Only one has a basket (coyote lift)**
Cleaning schedule	**As-needed**
Bar screens (quantity)	**None**
Cleaning schedule	**NA**
Screening disposal method	**Dumped into pond or sucked up into vac truck**
Dehumidifier working properly (if applicable)	**Yes**
Ventilation system working properly (if applicable)	**Yes**
Type of alarm system	**Visual, audible, Omnisite calls when alarms sound**
Alarm system working properly	**Yes**
Lift station have hour meters	**Yes**
Hour meters are logged in an inspection notebook	**Yes**
Pump ratings	**150 HP – Main lift; 450 gpm – S. Cliff**
Pump calibration schedule	**None, haven't needed to calibrate**

Comments: The main lift station to Sioux Falls has four wetwells that sends wastewater from the pond system to Sioux Falls. The city contacts Sioux Falls prior to pumping, and is allowed to send 500,000 gallons per minute a day when pumping. The city utilizes one pump at a time while sending wastewater to Sioux Falls.

The operator says grease build up is a problem in a couple lift stations and they are cleaned every other month, or as-needed, by adding Dawn dish soap to help control build up.

VIII. TREATMENT PROCESS REVIEW

Stabilization Ponds

Item	Comments
Inspection frequency	**Recorded at least once/month; visually inspected daily**
Weeds and/or trees growing on the dikes	**Some weeds in riprap; sprayed every fall and mowed 3-4 times a year**
Vegetation growing in the ponds	**Some in Pond #3**
Pond dikes protected from erosion with riprap	**Yes**
Pond seepage surfacing reported	**No**
Dike structure failure (sloughing and/or sagging)	**No**
If aerators are used, number per cell	**14 in Pond #1**
Aerator information and comments	**In good condition**
Condition of fencing	**Good**
All access gates are kept locked	**Yes**
Signs legible and properly located	**Yes – city plans to replace signs due to fading and gunshots though**
Facility accessible in all weather conditions	**Yes**
Evidence of burrowing animals	**No**
Evidence of grazing animals	**No**
Odor problem (except seasonal turnover)	**Not since aerators were installed in 2008**
Inter-pond piping valves are working and used	**Yes**
Flow measurement (weir, flume, etc.)	**Weir and flow meter**
Depth indicator(s)	**Yes – concrete slabs**
Effluent destination	**City of Sioux Falls WWTF**
Discharge structure (valve control, overflow, etc.)	**Valve**
Latest discharge (date)	**Discharged to Sioux Falls in July 2011**
Duration of discharge	**20 days sent water to Sioux Falls**
Cells operated in series or parallel	**Series**

Cell information

	Cell #1	Cell #2	Cell #3
Maximum operation depth (feet)	**5.0 ft**	**6.0 ft**	**8.0 ft**
Current operating depth (feet)	**3.8 ft**	**4.2 ft**	**6.0 ft**
Minimum operating depth (feet)	**2.0 ft**	**2.0 ft**	**2.0 ft**
Surface area at maximum depth (acres)	**10.21 acres**	**10.18 acres**	**19.60 acres**

Comments: New outflow pipe was installed recently, along with a new flow meter and grinder.

Surface Water Discharge Compliance Inspection Report

Section A: National Data System Coding

Transaction Code	Permit No.	mm/dd/yy	Insp. Type	Inspector	Fac. Type
N 5	SDG823728	08/15/11	C	S	1

Remarks:

Inspection Work Days	Facility Evaluation Rating	BI	QA	Reserved	Reserved
0.5	4	N	N		

Section B: Facility Data

Name and Location of Facility (*For Industrial Users include POTW name and SWD permit number*)	Entry Time:	Permit Eff. Date:
City of Alcester Wastewater Treatment Facility	10:00 AM	May 17, 2006
Name of On-Site Representative(s)/ Title/ Phone and Fax Number	**Exit Time:**	**Permit Exp. Date**
Dan Fink / WW Operator / 201-6570	11:45 AM	March 31, 2011
Name and Address of Responsible Official/Title/Phone and Fax Number Reed Ramstad / Mayor / 743-5872 **Contacted?** No	**Other Facility Data**	

Section C: Areas Evaluated During Inspection
(S=Satisfactory, M=Marginal, U=Unsatisfactory, N=Not Evaluated)

S	Permit	S	Flow Measurement	S	O & M	S	CSO/SSO
S	Records/Reports	S	Self-Monitoring	N	Sludge Disposal	N	PP
S	Facility Site Review	N	Compliance Schedule	N	Industrial Users	N	Multimedia
S	Effluent/Receiving Waters	N	Laboratory	N	Storm Water	N	Other

Section D: Summary of Findings/Comments (*Attach additional sheets if necessary*)

1. Develop a pump calibration schedule
2. Eliminate weeds on pond dikes
3. Continue efforts to eliminate reeds in Pond #3
4. Encourage additional training for personnel

Name of Inspector(s)	Signature	Affiliation / Phone	Date
Jill M. Riedel, E.I.T.	Jill M Riedel	*SDDENR / (605) 362-3543*	01/24/12

Name of Reviewer	Signature	Affiliation / Phone	Date
Kelli D. Buscher, P.E.	Kelli Buscher	*SDDENR / (605) 773-3351*	01/25/2012

INSTRUCTIONS FOR SURFACE WATER DISCHARGE COMPLIANCE INSPECTION REPORT

SECTION A: NATIONAL DATA SYSTEM CODING

Transaction Code: Use N, C or D for New, Change or Delete. All inspections will be New (N) unless there is an error in the data entered.

Permit No.: SWD Permit Number.

Inspection Date: Use month/day/year format.

Inspection Type: Uses the following codes to describe the type of inspection:

A-Performance Audit
B-Biomonitoring
C-Compliance Evaluation
D-Diagnostic
E-Corps of Engrs Inspection
F-Pretreatment Follow-up
G-Pretreatment Audit
I-Industrial User (IU)
L-Enforcement Case Support
M-Multimedia
P-Pretreatment Compliance Inspection
R-Reconnaissance Inspection
S-Compliance Sampling
U-IU Inspection with Pretreatment Audit
X-Toxics Inspection
Z-Biosolids
2 IU Sampling Inspection
3 IU Non-Sampling Insp
4 IU Toxics Inspection
5 IU Sampling Insp w/Prt
6 IU Non-Samp Insp w/Prt
7 IU Toxics w/Prt
%-SSO Sampling Insp
& -SSO Non-Sampling Insp
# -CSO Sampling Insp
$ - CSO Non-Sampling Insp

Inspector Code: Use following codes to describe the lead agency:

C-Contractor or Other (specify)
E-Corps of Engineers
J-Joint EPA/State - EPA Lead
N-NEIC Inspectors
R-EPA Regional inspector
S-State Inspector
T-Joint State/EPA - State Lead

Facility Type: Use following codes to describe the facility:

1-Municipal - Publicly Owned Treatment Works (POTW) with SIC code 4952.
2-Industrial - Other than municipal, agricultural and Federal facilities.
3-Agricultural - Facilities with SIC 0111 to 0971.
4-Federal - Facilities identified as Federal by the EPA Regional Office.

Remarks: Columns for remarks at discretion of the Inspector.

Inspection Work Days: Estimate the total work effort (to the nearest 0.1 work day), up to 99.9 days, that were used to complete the inspection and submit a QA reviewed report of findings. This estimate includes the accumulative effort of all participating inspectors; any effort for laboratory analyses, testing, and remote sensing; and the billed payroll time for travel and pre and post inspection preparation. This estimate does not require detailed documentation.

Facility Evaluation Rating: Evaluate the quality of the facility self monitoring program using scale of 1 to 5, with a 5 being a very reliable program, a 3 being satisfactory and a 1 being a very unreliable program.

Biomonitoring Information: Enter D for static testing; F for flow through testing; or N for no biomonitoring.

Quality Assurance Data Inspection: Enter Q if inspection was a follow-up on QA sample results. Enter N otherwise.

SECTION B: FACILITY DATA

This section is self-explanatory, except for *Other Facility Data*, which may include new information not in the permit or PCS (e.g., new outfalls, names of receiving waters, new ownership, and other updates to the record).

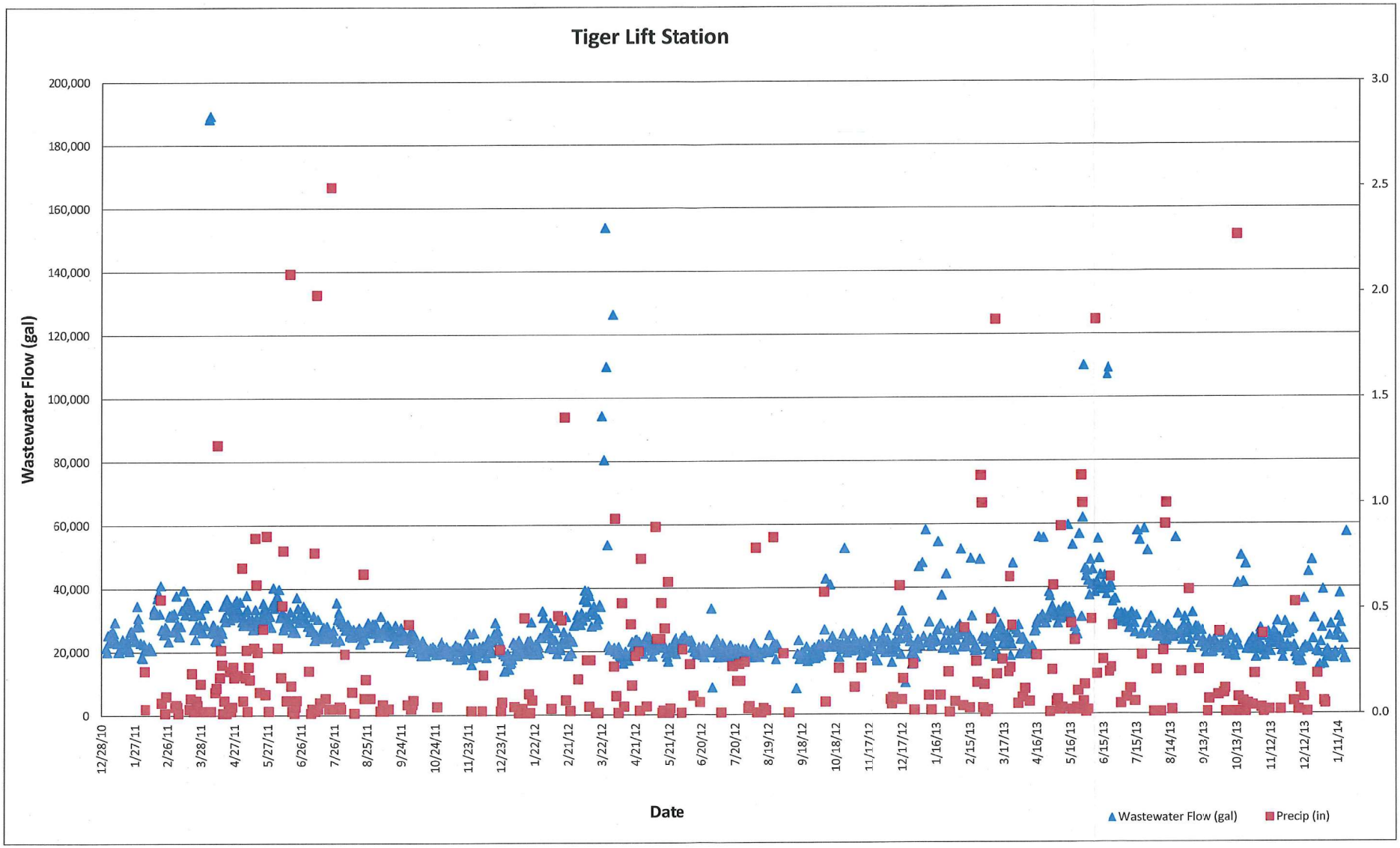
SECTION C: AREAS EVALUATED DURING INSPECTION

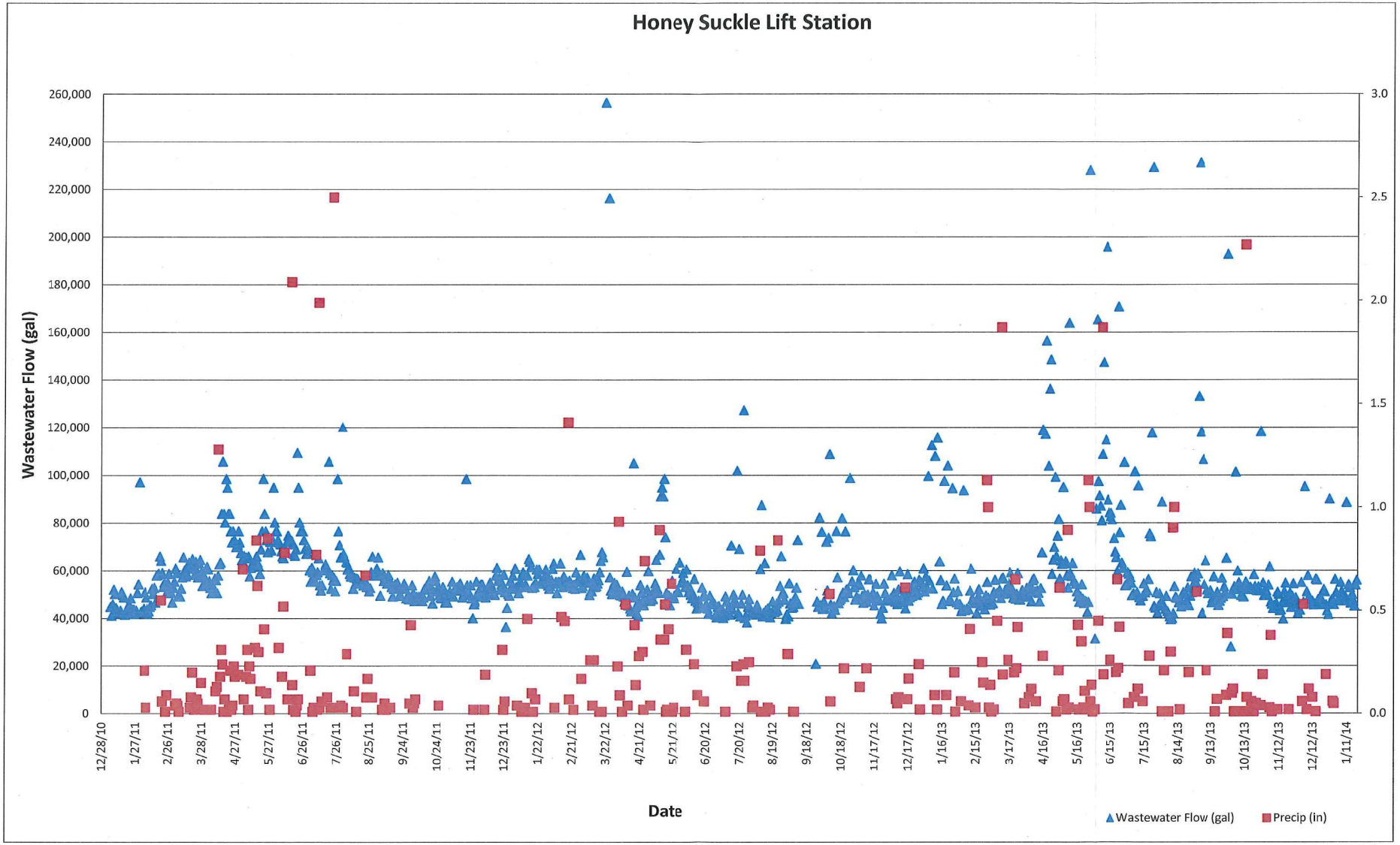
Indicate findings (S, M, U or N) in the appropriate line. Use section D and additional sheets as need to explain findings in a brief narrative when appropriate. The heading marked *Multimedia* may indicate medias such as CAA, RCRA, and TSCA. The heading marked "Other" may be used to note any additional concerns, such as SPCC, BMPs, and concerns that are not covered elsewhere.

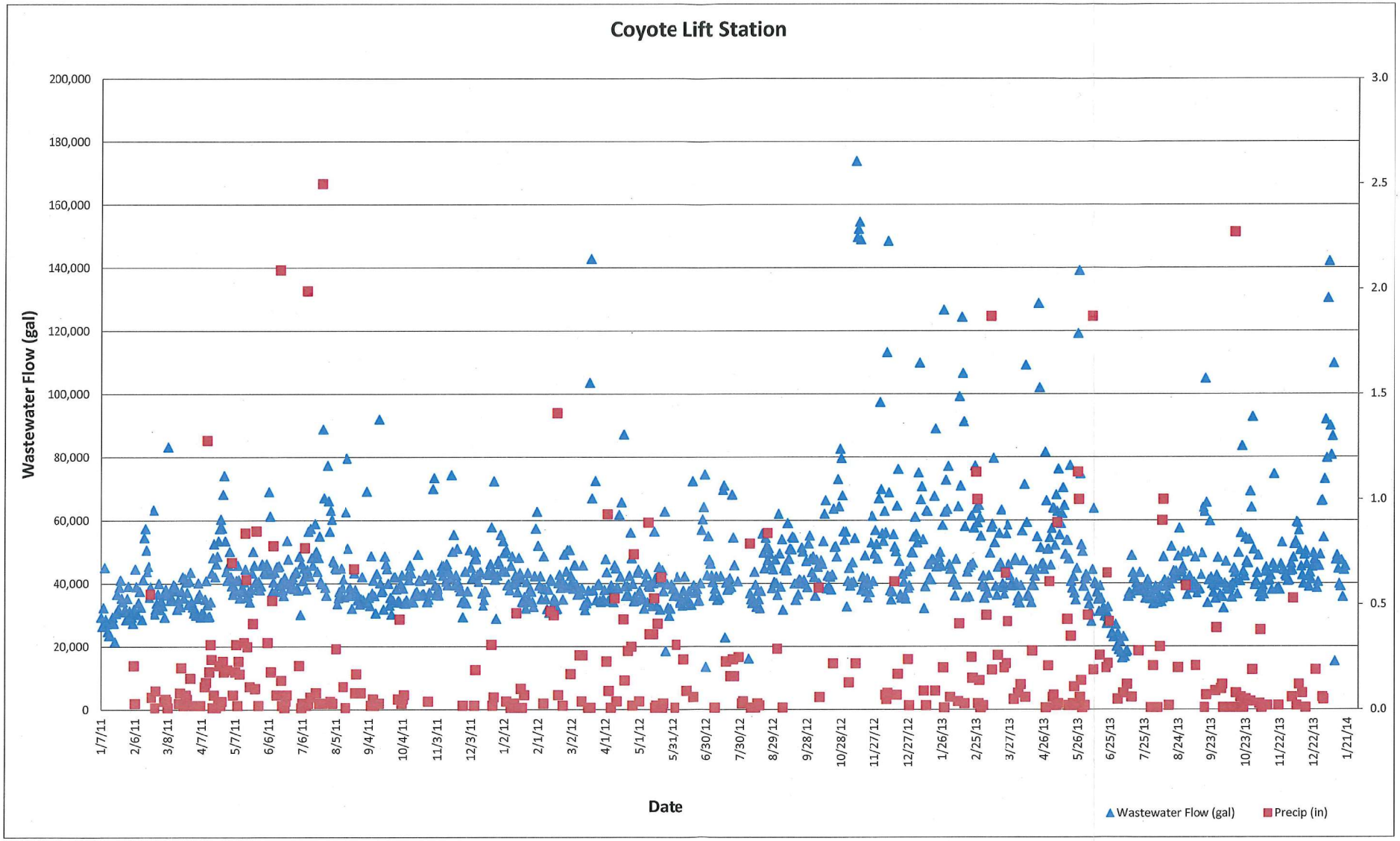
SECTION D: SUMMARY OF FINDINGS/COMMENTS

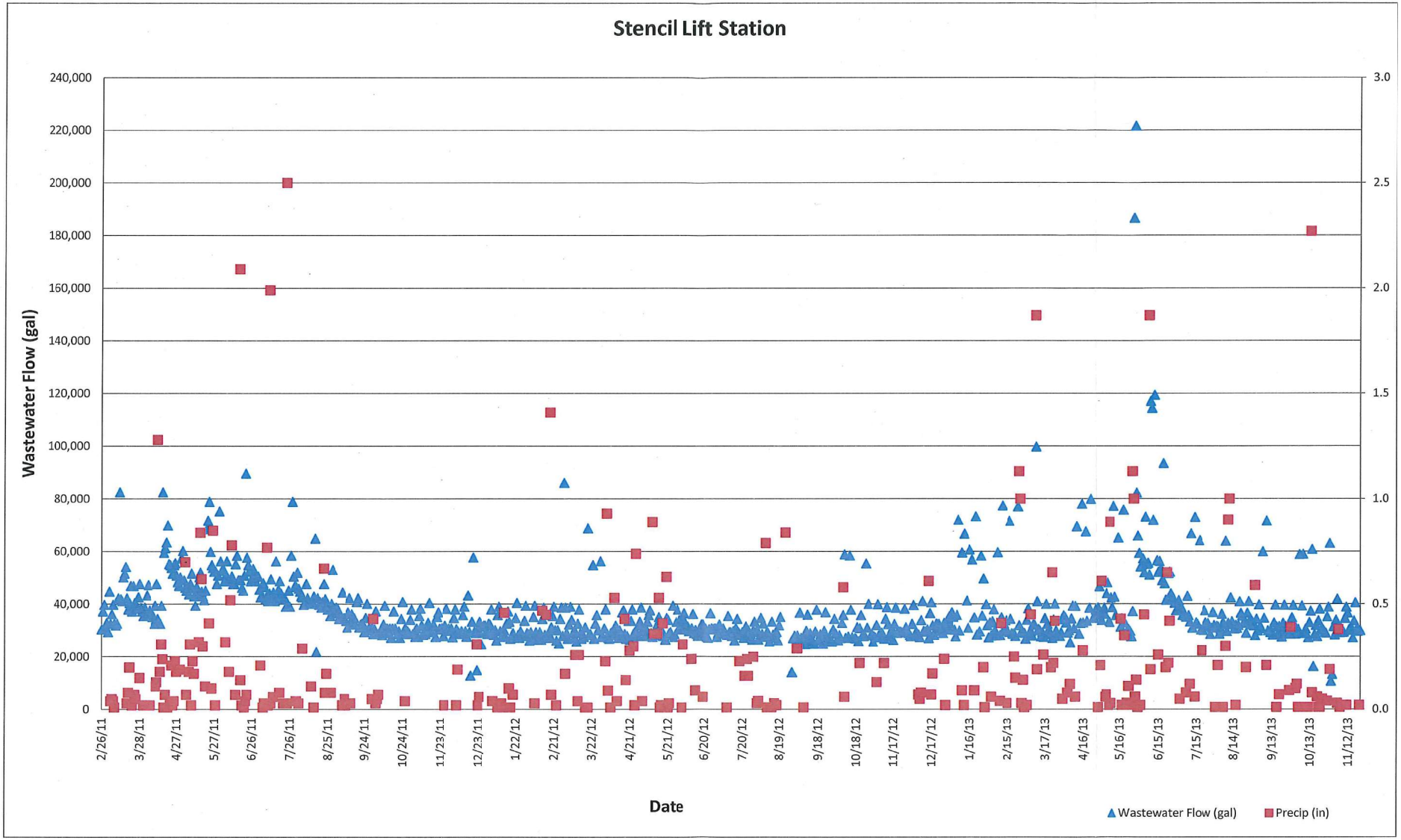
Briefly summarize the inspection findings along with referencing any attachments such as checklists from NPDES inspection manuals, pretreatment guidance documents and monitoring results.

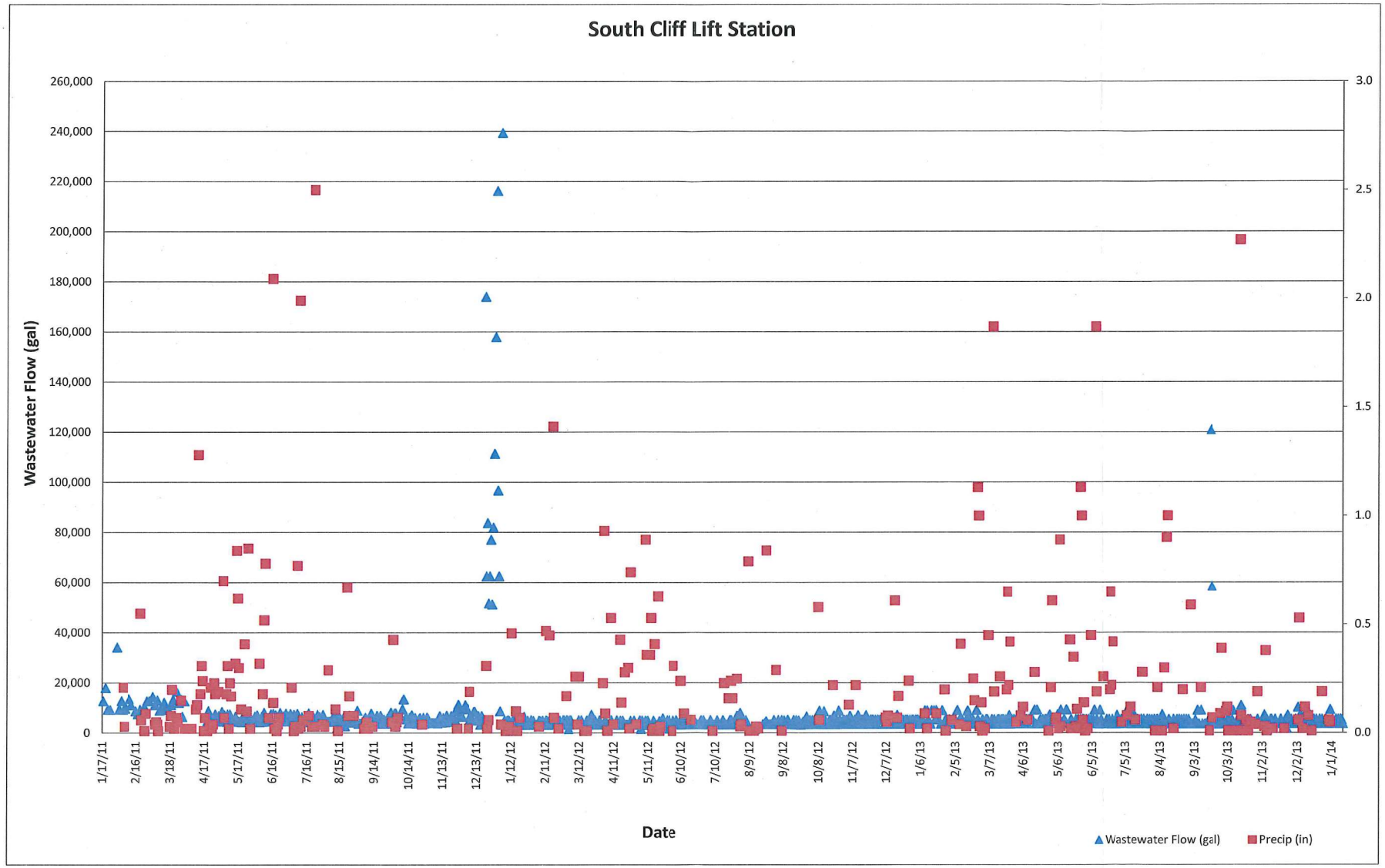
Appendix C
Lift Station Records

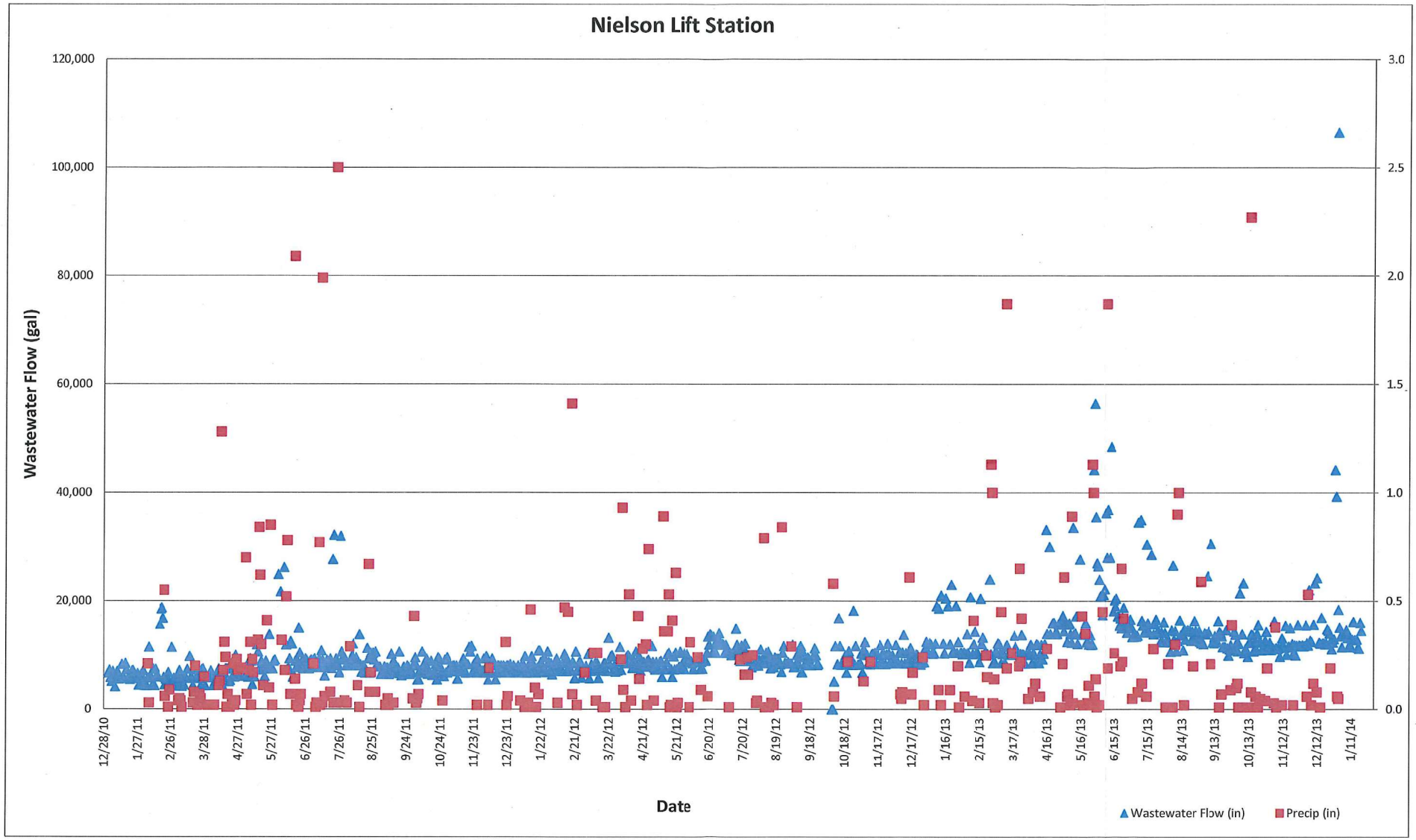

Tiger Lift Station
Wastewater Flow (gal)
200,000
180,000
160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
3.0
2.5
2.0
1.5
1.0
0.5
0.0
12/28/10
1/27/11
2/26/11
3/28/11
4/27/11
5/27/11
6/26/11
7/26/11
8/25/11
9/24/11
10/24/11
11/23/11
12/23/11
1/22/12
2/21/12
3/22/12
4/21/12
5/21/12
6/20/12
7/20/12
8/19/12
9/18/12
10/18/12
11/17/12
12/17/12
1/16/13
2/15/13
3/17/13
4/16/13
5/16/13
6/15/13
7/15/13
8/14/13
9/13/13
10/13/13
11/12/13
12/12/13
1/11/14
Date
Wastewater Flow (gal)
Precip (in)


Honey Suckle Lift Station
Wastewater Flow (gal)
260,000
240,000
220,000
200,000
180,000
160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
3.0
2.5
2.0
1.5
1.0
0.5
0.0
12/28/10
1/27/11
2/26/11
3/28/11
4/27/11
5/27/11
6/26/11
7/26/11
8/25/11
9/24/11
10/24/11
11/23/11
12/23/11
1/22/12
2/21/12
3/22/12
4/21/12
5/21/12
6/20/12
7/20/12
8/19/12
9/18/12
10/18/12
11/17/12
12/17/12
1/16/13
2/15/13
3/17/13
4/16/13
5/16/13
6/15/13
7/15/13
8/14/13
9/13/13
10/13/13
11/12/13
12/12/13
1/11/14
Date
Wastewater Flow (gal)
Precip (in)

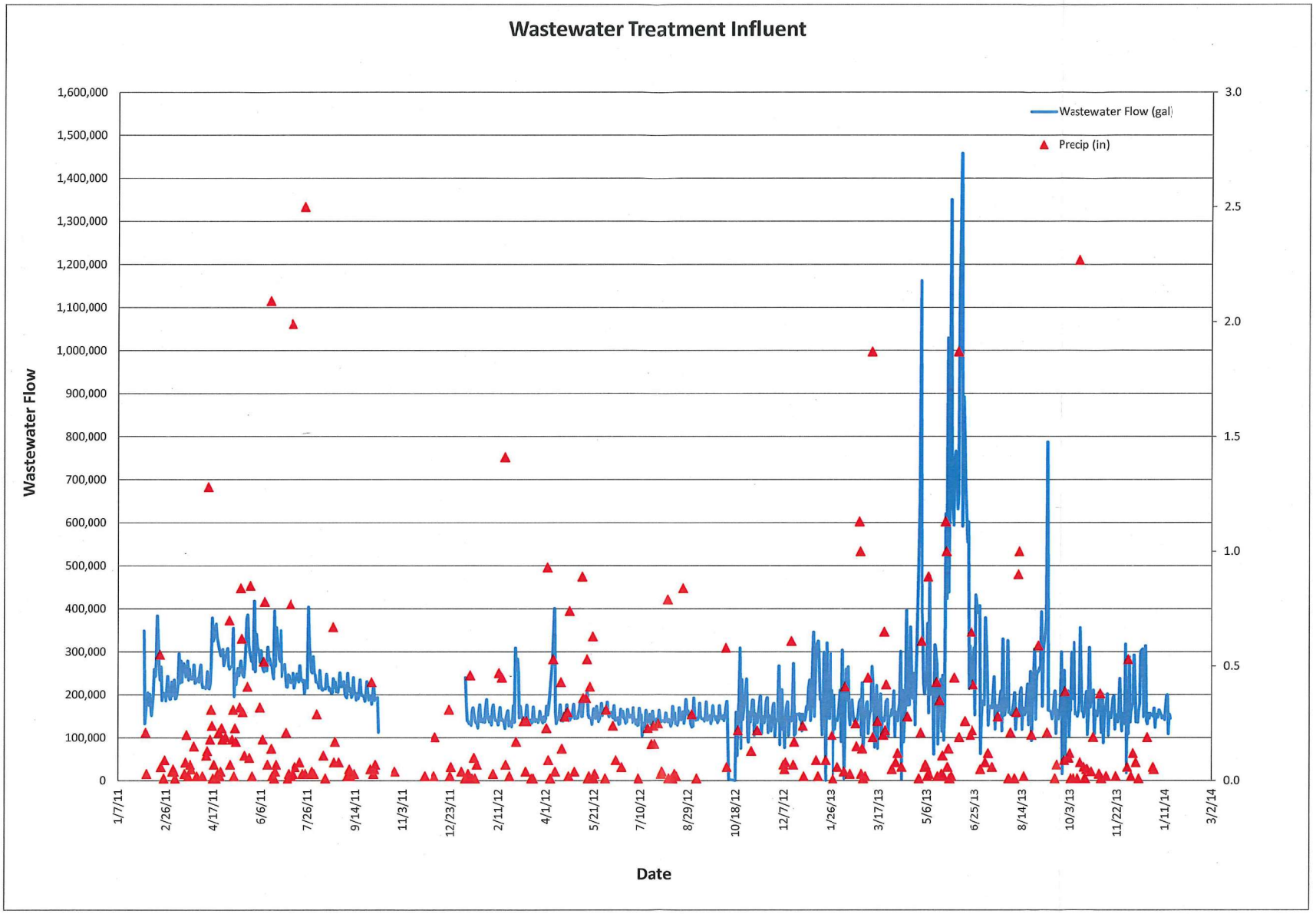

Coyote Lift Station
Wastewater Flow (gal)
200,000
180,000
160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
3.0
2.5
2.0
1.5
1.0
0.5
0.0
1/7/11
2/6/11
3/8/11
4/7/11
5/7/11
6/6/11
7/6/11
8/5/11
9/4/11
10/4/11
11/3/11
12/3/11
1/2/12
2/1/12
3/2/12
4/1/12
5/1/12
5/31/12
6/30/12
7/30/12
8/29/12
9/28/12
10/28/12
11/27/12
12/27/12
1/26/13
2/25/13
3/27/13
4/26/13
5/26/13
6/25/13
7/25/13
8/24/13
9/23/13
10/23/13
11/22/13
12/22/13
1/21/14
Date
Wastewater Flow (gal)
Precip (in)


Stencil Lift Station
Wastewater Flow (gal)
240,000
220,000
200,000
180,000
160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
3.0
2.5
2.0
1.5
1.0
0.5
0.0
2/26/11
3/28/11
4/27/11
5/27/11
6/26/11
7/26/11
8/25/11
9/24/11
10/24/11
11/23/11
12/23/11
1/22/12
2/21/12
3/22/12
4/21/12
5/21/12
6/20/12
7/20/12
8/19/12
9/18/12
10/18/12
11/17/12
12/17/12
1/16/13
2/15/13
3/17/13
4/16/13
5/16/13
6/15/13
7/15/13
8/14/13
9/13/13
10/13/13
11/12/13
Date
Wastewater Flow (gal)
Precip (in)


South Cliff Lift Station
Wastewater Flow (gal)
260,000
240,000
220,000
200,000
180,000
160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
3.0
2.5
2.0
1.5
1.0
0.5
0.0
1/17/11
2/16/11
3/18/11
4/17/11
5/17/11
6/16/11
7/16/11
8/15/11
9/14/11
10/14/11
11/13/11
12/13/11
1/12/12
2/11/12
3/12/12
4/11/12
5/11/12
6/10/12
7/10/12
8/9/12
9/8/12
10/8/12
11/7/12
12/7/12
1/6/13
2/5/13
3/7/13
4/6/13
5/6/13
6/5/13
7/5/13
8/4/13
9/3/13
10/3/13
11/2/13
12/2/13
1/1/14
Date
Wastewater Flow (gal)
Precip (in)


Nielson Lift Station
Wastewater Flow (gal)
120,000
100,000
80,000
60,000
40,000
20,000
0
3.0
2.5
2.0
1.5
1.0
0.5
0.0
12/28/10
1/27/11
2/26/11
3/28/11
4/27/11
5/27/11
6/26/11
7/26/11
8/25/11
9/24/11
10/24/11
11/23/11
12/23/11
1/22/12
2/21/12
3/22/12
4/21/12
5/21/12
6/20/12
7/20/12
8/19/12
9/18/12
10/18/12
11/17/12
12/17/12
1/16/13
2/15/13
3/17/13
4/16/13
5/16/13
6/15/13
7/15/13
8/14/13
9/13/13
10/13/13
11/12/13
12/12/13
1/11/14
Date
Wastewater Flow (in)
Precip (in)

Appendix D
Wastewater Treatment Influent Records


Wastewater Treatment Influent
Wastewater Flow (gal)
Precip (in)
Wastewater Flow
Date
1,600,000
1,500,000
1,400,000
1,300,000
1,200,000
1,100,000
1,000,000
900,000
800,000
700,000
600,000
500,000
400,000
300,000
200,000
100,000
0
3.0
2.5
2.0
1.5
1.0
0.5
0.0
1/7/11
2/26/11
4/17/11
6/6/11
7/26/11
9/14/11
11/3/11
12/23/11
2/11/12
4/1/12
5/21/12
7/10/12
8/29/12
10/18/12
12/7/12
1/26/13
3/17/13
5/6/13
6/25/13
8/14/13
10/3/13
11/22/13
1/11/14
3/2/14

Appendix E
Comprehensive Plan

Harrisburg
Comprehensive Plan

2005 - 2025

Prepared by the South Eastern Council of Governments at the direction of the Planning Commission and City Council of Harrisburg, South Dakota

ACKNOWLEDGMENTS

This Comprehensive Plan is a compilation of effort by many people, organizations and government entities. This document expresses the great civic pride that exists in the City of Harrisburg. Through the preparation and adoption of this document, the governing officials of Harrisburg have expressed their desire for orderly and efficient growth and development in the community and surrounding area.

City Council

Mayor:	James Aalbers
Council Members:	Steven Becker, Marshall Drexler, James Herbert, Reed Ramstad
Finance Officer:	Mary McClung
Planning Commissioners:	Bruce Bicknas, Verlon Enger, Jon Klemme, Gary Lane, John Loos, Judy Omer

RESOLUTION NO. 2005-2

A RESOLUTION ADOPTING A COMPREHENSIVE PLAN FOR THE CITY OF HARRISBURG, AS PROVIDED FOR IN SDCL 11-6-16

Whereas, Chapter 11-6-14 of South Dakota Codified Law has empowered the Planning Commission and City Council of Harrisburg to prepare a Comprehensive Plan for the development of the City and the surrounding area; and

Whereas, the Harrisburg Planning Commission has developed a Comprehensive Plan for the years 2004-2025, has held the required Public Hearing, and has made a recommendation for adoption of the Plan to the City Council; and

Whereas, the Harrisburg City Council has received the recommendation of the Planning Commission and has held the required Public Hearing; and

Whereas, the adoption of the Comprehensive Plan would enhance the responsible development of Harrisburg and the surrounding area.

Now therefore, be it resolved by Harrisburg City Council, that the Comprehensive Plan for the City of Harrisburg for the years 2004 through 2025 be hereby adopted and effective upon 20 days after publication of this resolution.

ADOPTED THIS 7TH DAY OF FEBRUARY, 2005.

Publication Date: February 16, 2005

Effective Date: March 9, 2005

SIGNED: Mayor
City of Harrisburg

ATTEST: Finance Officer
City of Harrisburg

TABLE OF CONTENTS

I. INTRODUCTION

A. PURPOSE, AUTHORIZATION AND ADOPTION

1. PURPOSE OF THE COMPREHENSIVE PLAN

There are three primary purposes of this document:

(1) To address the planning requirements of state law while also providing a sound and logical basis for city growth management strategies; and

(2) To provide some predictability about the potential land uses and timing of development so that both public and private sectors can make informed decisions in the area of real estate and capital investments; and

(3) To provide the Planning Commission and City Council with policies for future planning decisions and the methods and justification to control land use through the zoning and subdivision ordinance, the capital improvements program, and other enforcement controls.

2. AUTHORIZATION UNDER STATE LAW

Under 11-6-14 of South Dakota Codified Laws, the planning commission of a municipality is directed to *"propose a plan for the physical development of the municipality... [to] include the general location, character, layout and extent of community centers and neighborhood units..."*

3. DEVELOPMENT AND ADOPTION

The Harrisburg City Council has adopted this document in accordance with state law. In developing this Comprehensive Plan, the Harrisburg Planning Commission has used background research, detailed inventories and assessments, and discussion sessions at Planning Commission and City Council meetings and public hearings. It is intended to guide the City in its implementation of zoning regulations, subdivision regulations, capital improvements plans and other related policies.

4. AREA OF PLANNING JURISDICTION

The City of Harrisburg shall, under South Dakota statutes, have the authority to control development within the corporate limits of Harrisburg.

B. INTERGOVERNMENTAL CONSIDERATIONS

A comprehensive plan affects not only those living in the study area, but also (to some extent) those living and working throughout the Harrisburg area. As a result, the City Council has requested input from the Lincoln County Planning Commission, the Harrisburg School District and the Harrisburg Economic Development Corporation.

C. APPROPRIATE USE OF THE COMPREHENSIVE PLAN

South Dakota laws require that zoning districts must be in accordance with the Comprehensive Plan. It is the intent of this document to show the most appropriate use of land within the study area, based on the potential for growth and development of the community.

D. COMMUNITY SURVEY RESULTS

Early in 2001, a community survey was distributed to residents of Harrisburg. The intent of the survey was to better involve citizens in the planning process. What follows is a summary of responses, broken down into strengths, weaknesses and needs for the City of Harrisburg.

Strengths

- The size of Harrisburg is a major contributing factor for residents who choose to live in Harrisburg
- The growth rate of Harrisburg is acceptable to the majority of survey respondents
- Law enforcement, fire protection, ambulance service, snow removal and street maintenance received a favorable rating from responding citizens

Weaknesses

- A significant number of respondents felt that the library was poor in quality
- Location of the wastewater lagoons is a concern
- Maintenance of City parks needs to be enhanced
- The issue of poorly maintained streets needs to be addressed

Needs

- Commercial and industrial growth is a major need for the Harrisburg community
- Better facilities for a library and community center would benefit the City of Harrisburg
- Recreational opportunities such as a swimming pool, tennis courts and a bike/walk trail should be explored
- More single family, multi family and elderly/assisted living are needed in Harrisburg

II. DEMOGRAPHIC CONDITIONS

A. GENERAL DEMOGRAPHY

Table 1. Population History *(Source: United States Census)*

YEAR	POPULATION	% INCREASE
1960	313	NA
1970	338	7.99%
1980	558	65.09%
1990	727	30.29%
2000	958	31.77%

Table 2. Current Demographic Statistics (Source: State Data Center)

	Harrisburg	Lincoln Co.	S.D.
1990 Population	727	15,427	696,004
2000 Population	958	24,131	754,844
% Change	31.77%	56.42%	8.45%
Median Age	27.9	33.2	32.5
Median Family Income (1990)	NA	NA	$27,602

Table 3. Population by Age (Source: State Data Center)

	Under 18	18-44	45-64	65 & Over	Total
1980	211	238	67	42	558
1990	275	336	79	37	727
2000	319	443	154	42	958

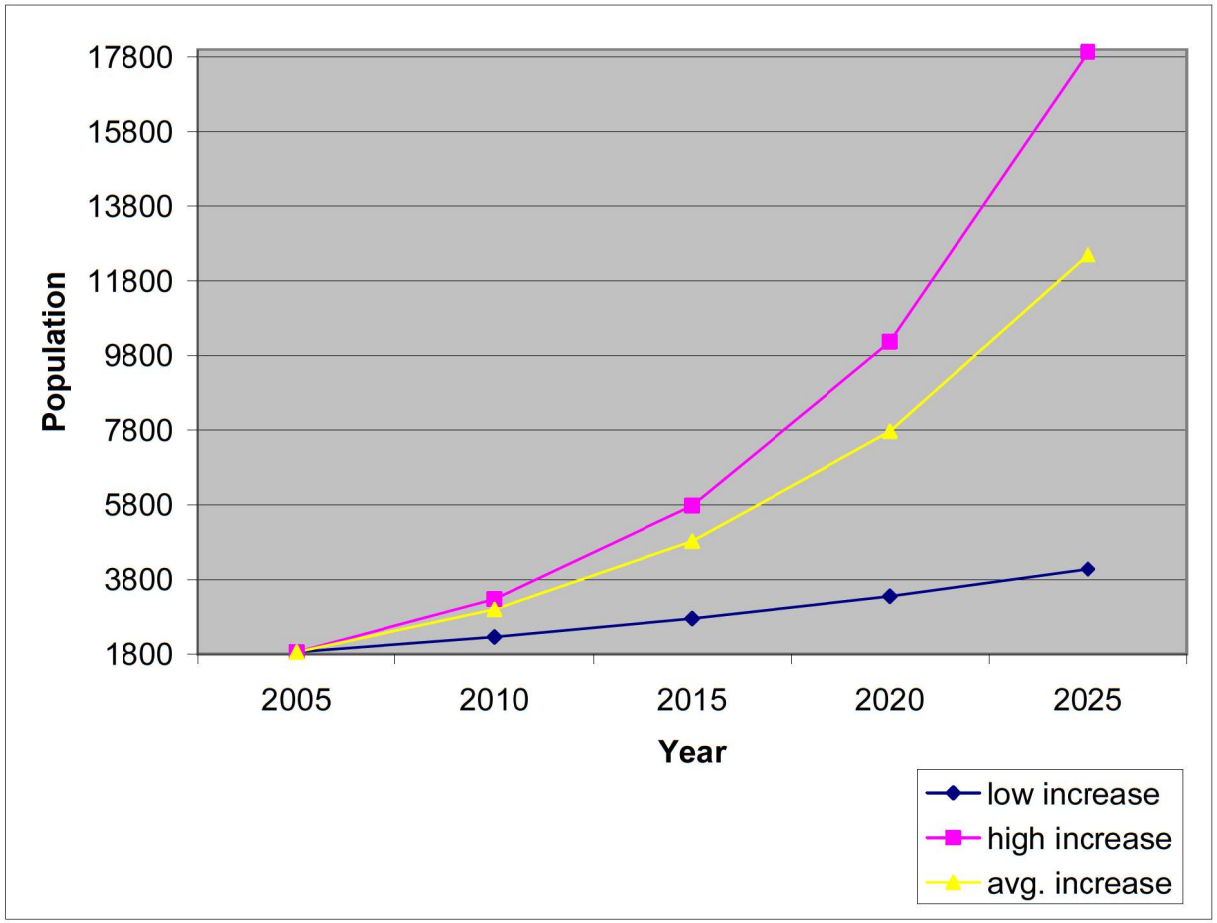
B. POPULATION PROJECTIONS

Based upon current trends, a population projection through the study period indicates that the City of Harrisburg will have a population high of 17,900 and a low of 4,000 with an expected population of around 12,500 by the year 2025. The graph on the following page illustrates the Harrisburg population projection that was attained from building permit data along with information of the growth of surrounding communities to ensure adequate land is reserved and planned for future development.

HARRISBURG: Population Projections, 2005 - 2025:

20-YEAR TREND

CALCULATION OF PROJECTIONS	Statistics
1960 Census Population	**313**
1970 Census Population	**338**
% Change 1960 - 1970	7.99%
1970 Census Population	338
1980 Census Population	**558**
% Change 1970 - 1980	65.09%
1980 Census Population	558
1990 Census Population	**727**
% Change 1980 - 1990	30.29%
1990 Census Population	727
2000 Population	**958**
% Change 1990 - 2000	31.77%
2000 CensusPopulation	958
2005 Projected Population	**1,859**
% Change 2000 - 2005	94.05%
2005 Projected Population	1,859
2010 Projected Population	**2,994**
% Change 2005 - 2010	61.05%
2010 Projected Population	2,994
2015 Projected Population	**4,822**
% Change 2010 - 2015	61.05%
2015 Projected Population	4,822
2020 Projected Population	**7,766**
% Change 2015 - 2020	61.05%
2020 Projected Population	7,766
2025 Projected Population	**12,506**
% Change 2020 - 2025	61.05%



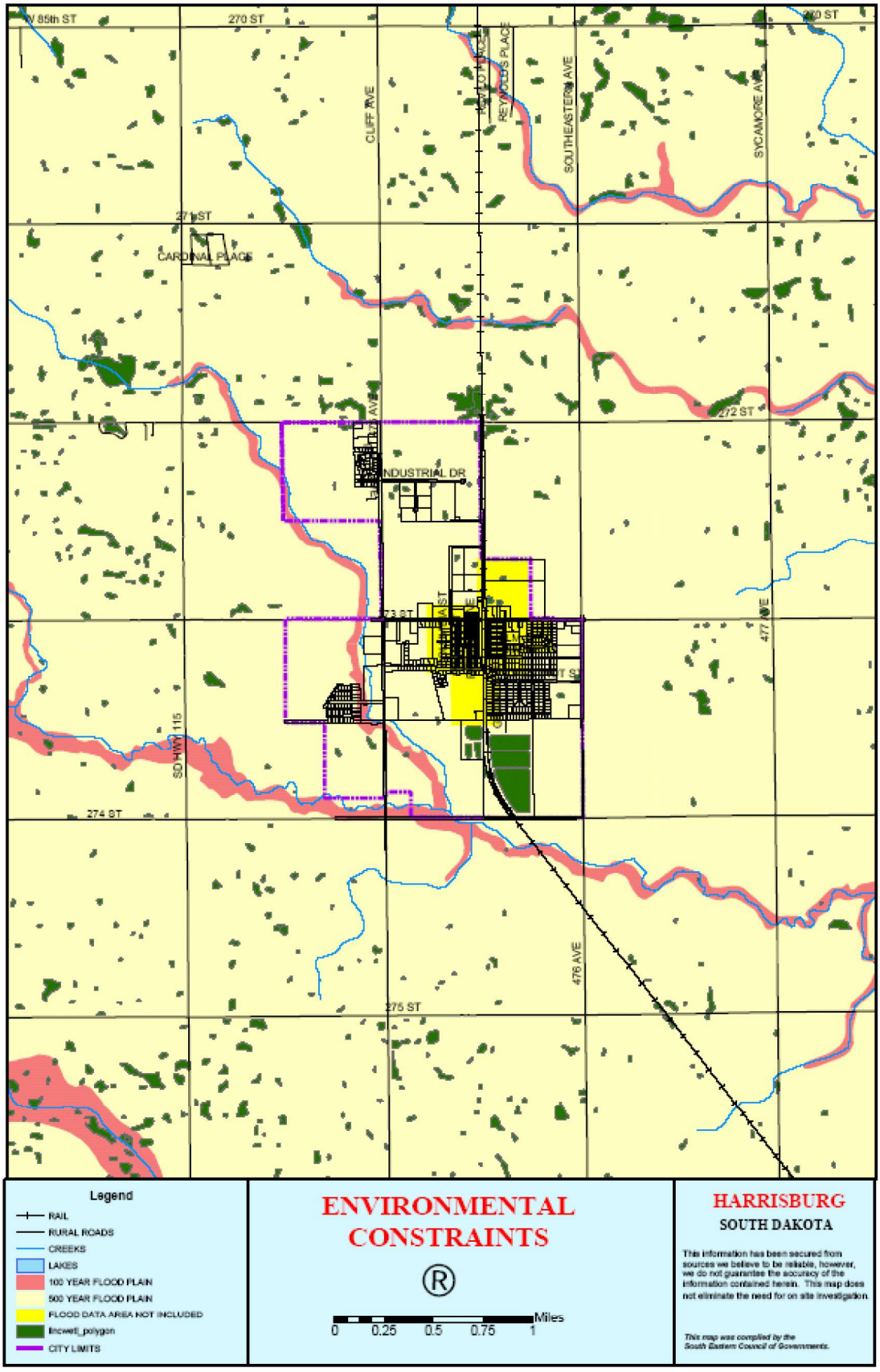
III. ENVIRONMENTAL CONSTRAINTS

A. PHYSICAL GEOGRAPHY

Harrisburg is located in the southeastern portion of South Dakota. The City is roughly three miles west of Lake Alvin. Harrisburg is approximately 4 and ½ miles east of Interstate 29 via Lincoln County Hwy 110. The landscape is primarily flat, with an elevation varying from a low of 1408 feet to a high of 1451 feet.

B. DRAINAGE AND WETLANDS

Some small wetlands and potholes are found in the city's growth areas. Wetlands and water bodies are designated from base maps developed through the National Wetlands Inventory and other data sources. These natural resources provide a number of functions that are important to the health and welfare of the community. They provide storage for storm water, help to control flooding, provide wildlife habitat, improve water quality, and they provide recreational opportunities. The wetlands of the Harrisburg area are shown on **Map 1**.


W 85th ST
270 ST
CLIFF AVE
REYNOLDS PLACE
SOUTHEASTERN AVE
SYCAMORE AVE
271 ST
CARDINAL PLACE
272 ST
INDUSTRIAL DR
273 ST
477 AVE
SD HWY 115
274 ST
476 AVE
275 ST
Legend
RAIL
RURAL ROADS
CREEKS
LAKES
100 YEAR FLOOD PLAIN
500 YEAR FLOOD PLAIN
FLOOD DATA AREA NOT INCLUDED
fscwetl_polygon
CITY LIMITS
ENVIRONMENTAL CONSTRAINTS
Miles
0 0.25 0.5 0.75 1
HARRISBURG
SOUTH DAKOTA
This information has been secured from sources we believe to be reliable, however, we do not guarantee the accuracy of the information contained herein. This map does not eliminate the need for on site investigation.
This map was compiled by the South Eastern Council of Governments.

IV. INFRASTRUCTURE ASSESSMENT

A. TRANSPORTATION

Street and highway improvements are a critical planning consideration because of the interactive relationship between transportation and land use. Location choices for many land uses are frequently made on the basis of access to major streets and highways. Without consideration for adequate capacity or maintenance, the transportation system cannot adequately accommodate development.

Arterial streets are designed to carry a large volume of traffic at higher speeds. Within the city, the function of arterials is to facilitate the movement of goods and people with few obstructions. These streets are generally adjacent to commercial uses.

Collector streets are designed to provide connectivity between arterials. They allow local traffic an access onto the arterial system. Collector streets are normally spaced one-half mile apart and include two lanes of traffic with turn lanes at major intersections, limited on-street parking, and may be adjacent to either residential or commercial uses.

Local streets provide access from low-density residential developments to collector or arterial streets. Because their function is based on development patterns, there are no spacing requirements. Local streets operate at low speeds, with on-street parking and few traffic signals.

A Major Street Plan includes a list of current and future road and street improvement projects for the transportation needs of the City of Harrisburg. The Major Street Plan has been developed as a part of the Comprehensive Plan (**see Map 2**).

B. WATER FACILITIES

As a result of a recent engineering study, several projects enhancing Harrisburg's water facilities were completed. Those projects are as follows:

1) The construction of a 12" water main to strengthen the Lincoln County Rural Water System which serves as the water source for the City of Harrisburg; and

2) The connection to the Lincoln County Rural Water System, providing a new source of water supply for the City of Harrisburg; and

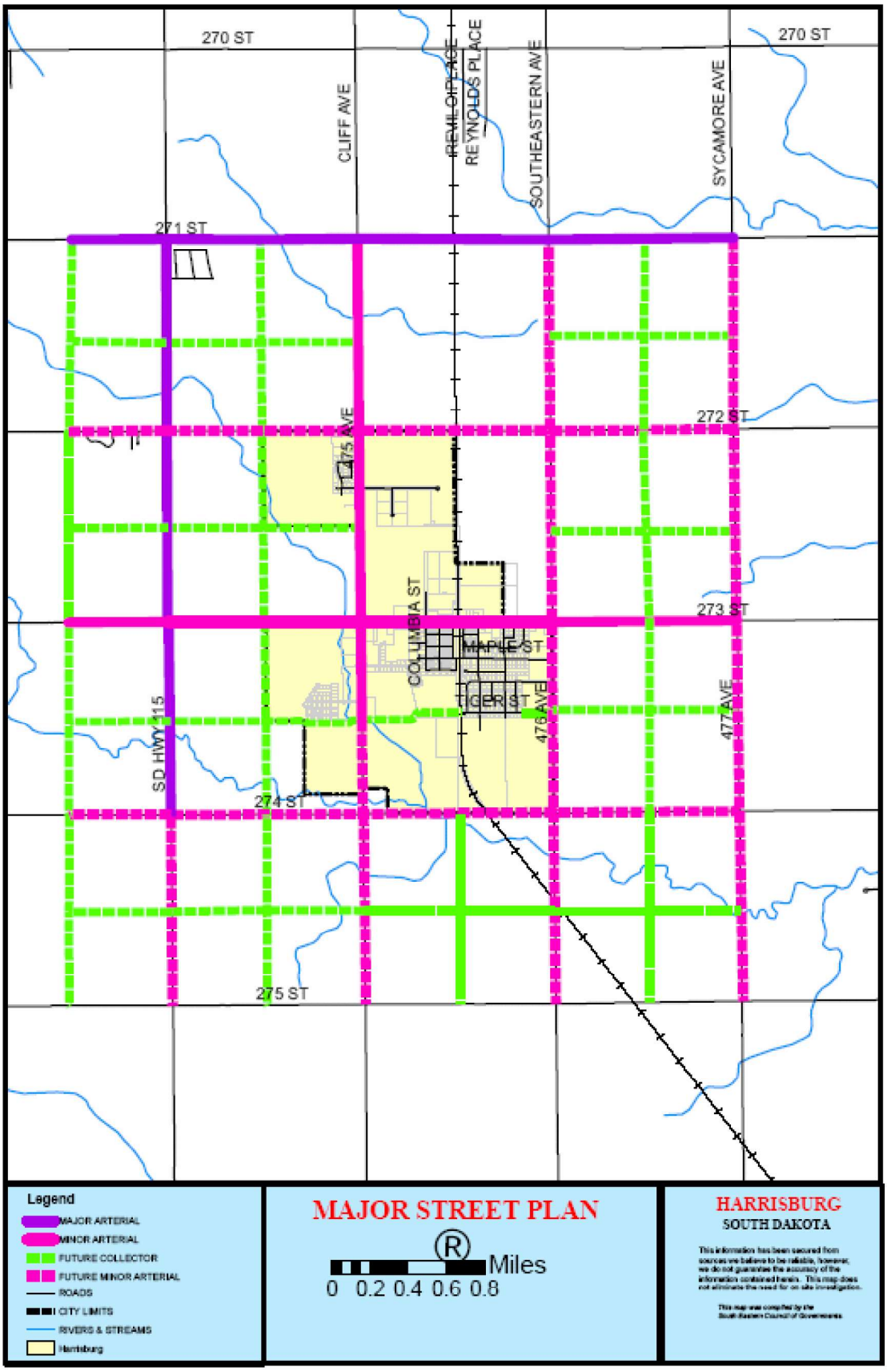
3) The construction of a 300,000 gallon elevated storage tank in the Harrisburg Industrial Park; and

4) The construction of an 8" water main from the existing system to loop with an existing water main at the location of the Industrial Park elevated tank.

The City of Harrisburg is a member of the Lewis and Clark Rural Water System. Presently, the City is seeking a long term water supply for the community, pending organizational funding decisions and construction timelines.

C. WASTEWATER FACILITIES

Several years ago Harrisburg expanded its existing waste water treatment facility into a total retention water stabilization pond. This project required a purchase of sixty four (64) acres in the southern portion of the community. With the rapid population growth the community has recently experienced, the population waste water treatment facility is expected to reach capacity between 2009 and 2012. The community will prepare a facility plan to address future wastewater needs.


270 ST
270 ST
CLIFF AVE
REVILO PLACE
REYNOLDS PLACE
SOUTHEASTERN AVE
SYCAMORE AVE
271 ST
272 ST
475 AVE
COLUMBIA ST
MAPLE ST
273 ST
TIGER ST
476 AVE
477 AVE
SD HWY 115
274 ST
275 ST
Legend
MAJOR ARTERIAL
MINOR ARTERIAL
FUTURE COLLECTOR
FUTURE MINOR ARTERIAL
ROADS
CITY LIMITS
RIVERS & STREAMS
Harrisburg
MAJOR STREET PLAN
Miles
0 0.2 0.4 0.6 0.8
HARRISBURG
SOUTH DAKOTA

V. SCHOOL PLANS AND PROJECTIONS

A. HARRISBURG PUBLIC SCHOOLS

- In May of 2000, a municipal bond was issued for 7.59 million dollars.
- A new high school (grades 9-12) has been constructed in the southwestern portion of Harrisburg.
    - The new high school includes more than 30 classrooms, a library, computer and science labs, a gym with seating for 1,000, locker rooms, offices, a kitchen and a tiered cafeteria-community room with a stage.
- The date of opening for classes was Fall 2002.
- The former K-12 school has become the district's K-8 facility.
- Harrisburg Public Schools recently approved the construction of an elementary school within Sioux Falls City limits.

VI. PARKS AND OPEN SPACE

A. CURRENT AND FUTURE PARK NEEDS

Neighborhood Parks provide a service area of approximately ¼ mile in radius and are around 0.1-5 acres in size. The amenities in these parks may be specialized to the neighborhood or may be repetitious so that residents do not have to cross town to get a specific recreation opportunity. Specialized amenities include skate parks, ice skating rinks, perennial gardens, community gardens, butterfly gardens, amphitheaters, dog parks, or Frisbee golf.

Community parks are generally between five and twenty acres in size. The effective service area of neighborhood parks is one mile, depending on location, facilities, and accessibility. School/park sites also serve as neighborhood parks and include playground equipment in addition to play fields, parking lots, and multi-use paved areas for court games.

Regional parks, because of their larger size, provide a much wider range of activities and facilities than neighborhood parks. The land area requirements generally range from 21 to 40 acres, and can provide services to an area of approximately 1—2 square miles. Specialized facilities such as swimming pools, picnic areas, and athletic complexes can be accommodated in community parks. Community parks that should be provided include areas for passive uses, nature conservation, pools and aquatic centers, and athletic fields. Each of these four types of uses might include other uses such as neighborhood playground space, but generally larger parks will focus on one major type of activity.

Conservation and nature areas are specialized locations that preserve wildlife habitat, woodlands, and wetlands through open space development. Most commonly developed along the stream corridors and natural drainage ways are linear parks or greenways which provide a variety of recreational opportunities to adjacent neighborhoods. These activities easily accommodate the development of a bike trail system.

The parks and open spaces on the Current and Future Land Use Maps identify existing park facilities and proposed new facilities within the projected growth areas. The specific improvements provided within the park facility should be tailored to meet the needs of the nearby population that it will primarily serve. In addition, potential combinations of detention pond sites and neighborhood parks should be reviewed wherever feasible to allow more efficient land utilization and consolidation of maintenance costs.

If new parks are to be provided at reasonable cost and in proper locations, it is essential that parkland acquisition take place prior to residential development. Integration of park and school sites will likewise be feasible only if land acquisition occurs well ahead of residential development.

The city has prepared a Master Park Plan. This plan may be used as a reference for park improvements.

VII. NEIGHBORHOOD CONSERVATION

Blighted neighborhoods tend to grow into adjacent areas and invite additional deterioration. Visual deterioration gives the impression that nobody cares, creating an atmosphere which may foster crime, antisocial activities and further blight. Declining neighborhoods demand additional health, social and public safety services, weaken the tax base, and make activities to promote new economic development in the city more difficult.

Strategies to strengthen and preserve the older residential neighborhoods will maintain the supply of safe, decent, affordable homes and limit the need for costly increases in public services and avoid the need for dramatic revitalization programs. The goals of affordability, variety, safety, and preservation are emphasized.

A. LAND USE

Zoning changes to allow multifamily or commercial land uses into older neighborhoods should be carefully analyzed. Conservation of single-family homes is encouraged. Commercial uses are ideally limited to businesses which service the neighborhood needs and that have minimal impact on adjacent properties.

B. INFRASTRUCTURE

Streets, utilities, and public facilities should be maintained and improved on an ongoing basis. Schools and parks contribute to neighborhood stability, and should set an example for residential areas in terms of maintenance and appearance.

C. PROPERTY MAINTENANCE

Inspections and enforcement of building and zoning codes, and effective nuisance abatement activities help prevent neighborhood decline. Legal assistance through the City Attorney's office is a key component for the effectiveness of these activities.

VIII. LAND USE PLAN

A. EVALUATION OF LAND USE IN RURAL LINCOLN COUNTY

The rural area of Lincoln County is dominated by agricultural uses. However, a great deal of rural residential structures (hobby farms, rural subdivisions) have been constructed over the past twenty years. Also, a great number of farms have been vacated with a dilapidated structure still standing. A land use dilemma is the rural/urban fringe area along and near the city limits of Harrisburg. A common goal of the Lincoln County Planning Commission and all Lincoln County cities is to cooperate near all city limit boundaries. Therefore, the future land use map specifies the area outside of Harrisburg for land use cooperation with Lincoln County.

B. EVALUATION OF URBAN LAND USE IN HARRISBURG

To simplify preparation of this plan, land uses have been grouped into eight categories for Harrisburg:

(1) Industrial includes light manufacturing, warehouses and other similar uses.

(2) Commercial includes retail businesses, offices, etc.

(3) Single-Family Residential includes single-family, residential, duplexes, and manufactured housing.

(4) Multi-Family Residential includes all apartments.

(5) Institutional & Governmental includes schools, churches, government offices and similar uses.

(6)Transportation & Utility uses include power substations, water / wastewater treatment facilities, etc.

(7) Conservation & Recreation includes parks and athletic fields. Also included are areas that should be protected from development to facilitate movement of flood water and runoff. Some types of development may be appropriate for such areas, as long as the development does not dramatically increase the incidence or severity of flood or drainage problems.

(8) Agricultural includes land not yet developed for one of the other seven uses. Also included are areas that provide farming and agriculturally related uses.

A physical land use inventory was prepared by SECOG in October 2000 and updated in October of 2003. Maps for the current and future land uses (**Maps 3 and 4**) in Harrisburg and the planning area are included. Future land uses were determined by the Harrisburg Planning Commission and SECOG, based on topographic features, compatibility of future and current land uses and existing infrastructure.

C. CURRENT LAND USE CONSUMPTION

Land Use	Acres Consumed
Single Family	121 acres
Multi Family	6 acres
Commercial	11 acres
Agriculture	334 acres
Government/Institutional	83 acres
Vacant	448 acres
Industrial	37 acres
Park and Recreation	1 acre

D. FUTURE LAND USE ESTIMATES

Households and a projected demand of certain land use categories are listed in the tables below.

City of Harrisburg

Household Projections

	Population	Persons per Household *(assuming number remains constant)*	Households
1980	558	NA	NA
1990	727	NA	NA
2000	958	3.04	318 (actual)
2005	1,859	3.04	612 (projected)
2010	2,994	3.04	985 (projected)
2015	4,822	3.04	1,586 (projected)
2020	7,766	3.04	2,555 (projected)
2025	12,506	3.04	4,114 (projected)

	Households Added 2000 to 2020
New Households	3,796

Land Use Consumption Needs – Housing		
Single-family Residential	3 units per acre (low density) x 3.04 persons per household (pph) = 9.12 persons per acre (ppa) *	9.12 ppa x 7,015 acres = 63,977 additional people
Multi-family Residential	3 units per acre (low density) x 3.04 pph = 9.12 ppa **	9.12 ppa x 505 acres = 4,606 additional people

Based upon the above referenced analysis, the City of Harrisburg will be able to provide adequate housing through the year 2020.

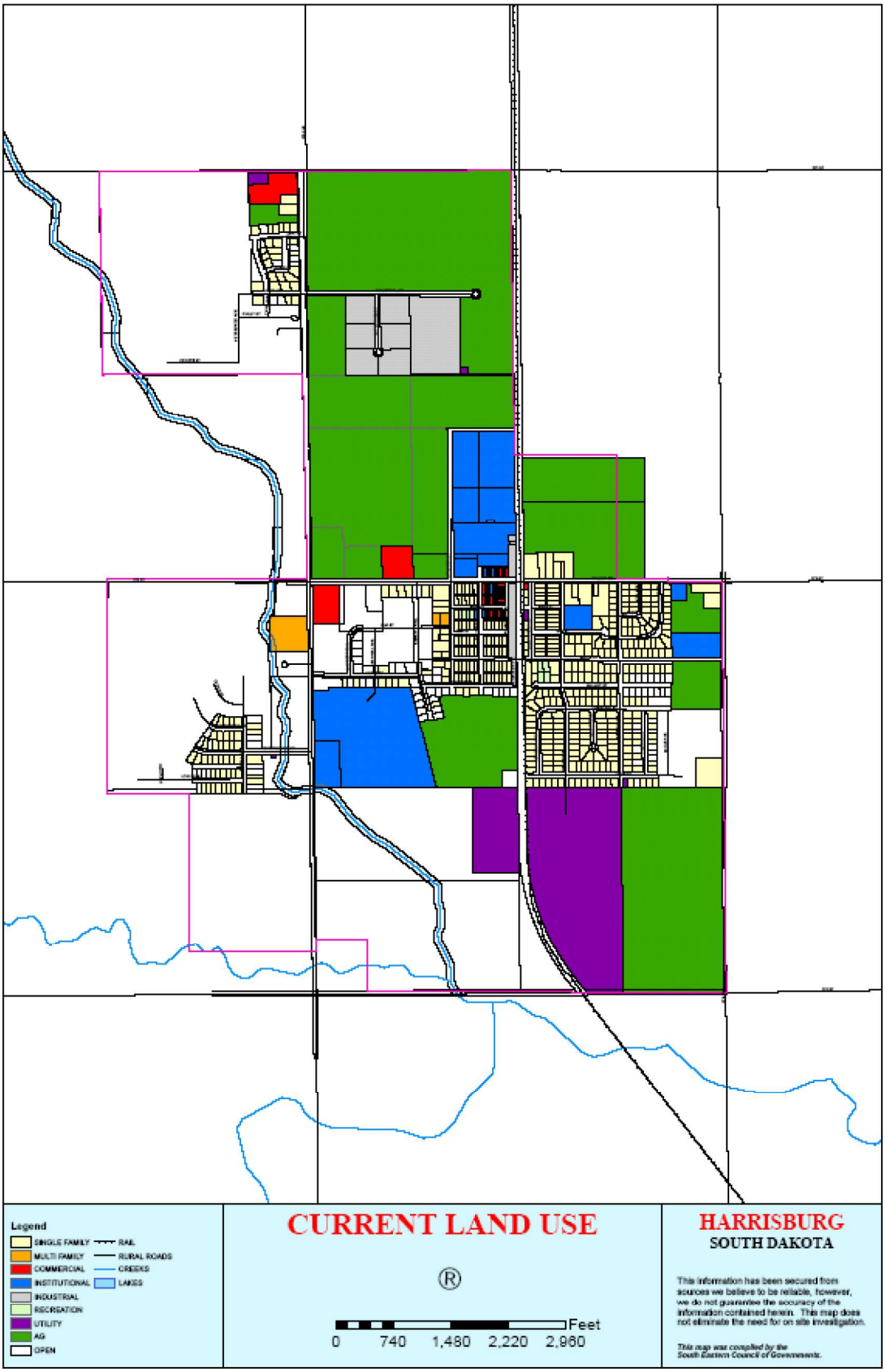
* Projections based upon low density single-family development

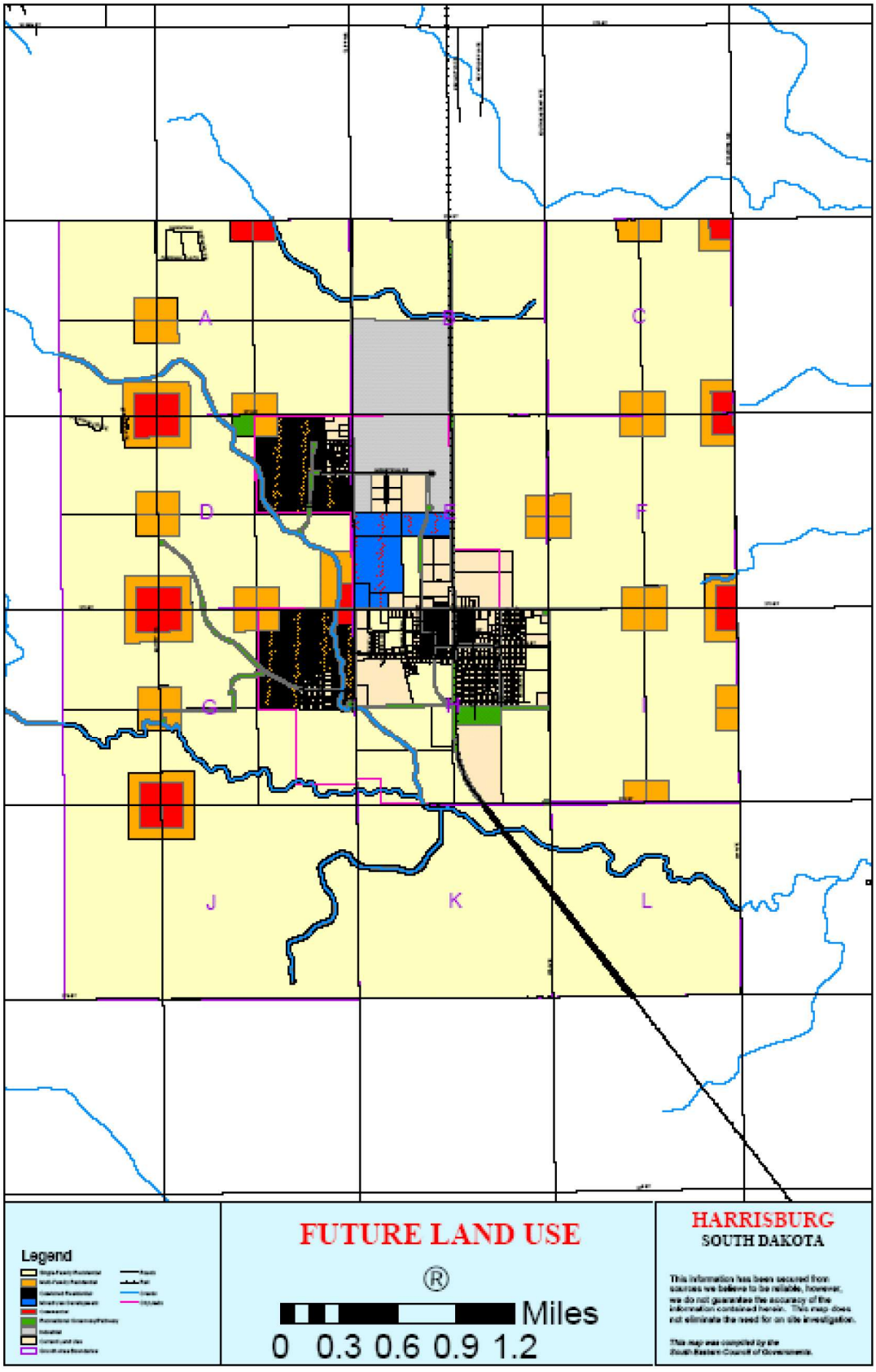
** Projections based upon low density multi-family development

Future Land Use Available

Land Use	Available Acres
Single Family	**7015 acres**
Multi Family	**505 acres**
Combined Residential	**244 acres**
Commercial	**170 acres**
Industrial	**278 acres**
Greenway/Recreational	**330 acres**

A review of the population projections and land use consumption needs should be reviewed every five (5) years to ensure enough land is available for future land use needs.


Legend
SINGLE FAMILY
MULTI FAMILY
COMMERCIAL
INSTITUTIONAL
INDUSTRIAL
RECREATION
UTILITY
AG
OPEN
RAIL
RURAL ROADS
CREEKS
LAKES
CURRENT LAND USE
Feet
0
740
1,480
2,220
2,960
HARRISBURG
SOUTH DAKOTA
This information has been secured from sources we believe to be reliable, however, we do not guarantee the accuracy of the information contained herein. This map does not eliminate the need for on site investigation.
This map was compiled by the South Eastern Council of Governments.


A
C
D
F
G
I
J
K
L
Legend
FUTURE LAND USE
Miles
0 0.3 0.6 0.9 1.2
HARRISBURG
SOUTH DAKOTA

IX. GROWTH AREA ANALYSIS

The costs of extending water and sewer services are the primary considerations in designating future growth. However, other factors must also be considered which includes capacity of the transportation system, environmental suitability, and compatible land uses. The following analysis is intended to provide the City of Harrisburg and Lincoln County with a guide to land use decisions and direct implementation through subdivision and zoning regulations. **Map 4** illustrates all growth areas by the number indicated.

It is appropriate to note that rezoning requests (and other development approvals) for land uses not consistent with the Future Land Use map (**Map 4**), except for previously established and approved land uses, should not be considered until the Comprehensive Plan has been amended, as necessary, to provide for such land uses. In those cases where development requests are not consistent with the Plan but represent a benefit to the community, the City should process such requests and Plan amendments concurrently and in a timely fashion. In addition, **the Future Land Use map is not the community's official zoning map.** It is a guide for future land use patterns. The Future Land Use element and all other aspects of the Comprehensive Plan are implemented primarily through development regulations (e.g., zoning and subdivision regulations). Text of the zoning regulations and its corresponding map determine which specific development requirements apply to a particular property.

Growth Area A

- Specific serviceability plans for this area have not been made; however, this area can be serviced by sanitary sewer.

DEVELOPMENT PATTERNS FOR FUTURE GROWTH

- Primarily, the growth area will accommodate single-family residential development. Two multi-family nodes are proposed; one at the intersection of SD HWY 115 and a proposed collector and the other located at the intersection of 272nd Street and future collectors. Nodal commercial development, with a multi-family buffer abutting single-family residential development, is proposed at the intersection of 272nd Street and SD 115. There is also commercial development proposed ½ mile between Cliff and SD HWY 115 on 271st Street.
- A portion of the proposed Nine Mile Creek recreational greenway traverses this growth area.

Growth Area B

- Planned growth would encourage development of Growth Area E before Growth Area B. This would allow extension of services to extend continuously outward from Harrisburg.

DEVELOPMENT PATTERNS FOR FUTURE GROWTH

- The southwest quarter of this section is proposed industrial. The remaining portion is single-family residential with a trail system following the creek and the railroad.

Growth Area C

- This area should be one of the last areas to be developed to promote orderly growth and extension of services.

DEVELOPMENT PATTERNS FOR FUTURE GROWTH

- Commercial nodes buffered by multi-family are proposed at the southern and northern portions of 477th Street (Sycamore Avenue). Multi-family nodes are also proposed at the half mile intersection of the future collector and 271st and 272nd Streets.

Growth Area D

- Development immediately west of the industrial park is serviceable, yet the serviceability of the remaining growth area is currently unknown.

DEVELOPMENT PATTERNS FOR FUTURE GROWTH

- Commercial nodes buffered by multi-family are proposed for the northern and southern portions of the growth area along SD HWY 115, as well as, at the intersection of 273rd Street and 475th Street (Cliff Avenue). Multi-family nodes are also proposed at the half mile collector intersections of 272nd Street, SD HWY 115, and 273rd Street. A community park and two neighborhood parks are proposed along the trails systems through this growth area.

Growth Area E

- The area east of 475th Avenue and south of the industrial park is serviceable by utilities on Columbia Avenue.

DEVELOPMENT PATTERNS FOR FUTURE GROWTH

- Portions of Growth Area B are already within city limits and include the Harrisburg Industrial Park.
- Mixed-use development, which could include commercial, residential, and/or multi-family, is proposed in the southwestern quarter of this section south of the industrial park and west of the elementary school.

Growth Area F

- Services to this growth area will stem from the radial outward growth from the center of Harrisburg. This will provide the most efficient use of infrastructure.

DEVELOPMENT PATTERNS FOR FUTURE GROWTH

- A substantial amount of land is proposed as single-family residential, with multi-family nodes located at future collector intersections and existing arterial/future collector intersections.
- Commercial nodes buffered by multi-family are proposed at the intersection of 477th Street (Sycamore Avenue) and 271st and 272nd Streets.

Growth Area G

- A portion of this growth area will be serviceable by existing utilities in the current development in the northeast quadrant of the growth area. The serviceability of the remaining area is currently unknown.

DEVELOPMENT PATTERNS FOR FUTURE GROWTH

- As with growth areas A and D, Growth Area G focuses primarily on single-family residential development. Nodal multi-family development is projected at future collector intersections and existing arterial/future collector intersections. Major commercial nodes, with a multi-family buffer, will be located at the intersection of SD HWY 115 and 273rd and 274th Streets. Three trail systems traverse the growth area and provide areas for neighborhood parks.

Growth Area H

- This area is serviceable by the High School pumping station.
- Capacity of the pumping station needs to be verified prior to future development

DEVELOPMENT PATTERNS FOR FUTURE GROWTH

- The majority of this growth area is already in city limits. All of the development in this area is anticipated as single-family residential, with the exception of nodal commercial development in the northwest quadrant of the growth area (intersection of 475th Avenue and Willow Street).
- The primary reason for the considerable amount of single-family residential is due to location of the recently built Harrisburg High School, which is located in the central-west portion of the growth area.
- An opportunity to improve traffic mobility exists by having residential backyards face 476th Avenue (Southeastern Avenue).
- One community park and two neighborhood parks lie along the trail systems that wind through the growth area.

Growth Area I

- This growth area may be one of the next areas to be annexed into by Harrisburg. An update of existing services will need to take place to service this area.

DEVELOPMENT PATTERNS FOR FUTURE GROWTH

- Primarily single-family residential with multi-family nodes at the intersection of future collectors and minor arterials has been proposed for this area. One commercial node, buffered by multi-family will be located at the intersection of 476th Street (Sycamore Avenue) and Willow (273rd Street).

Growth Area J, K, and L

- As Harrisburg expands south, the community needs to be aware of the floodplains from Ninemile Creek.
- Development of Growth Area's G, H and I should occur before development is extended south to Growth Area's J, K and L.
- Development of L should not occur prior to development of K, to ensure smooth and efficient connections for services.

DEVELOPMENT PATTERNS FOR FUTURE GROWTH

- One commercial node is located at the intersection of 274th Street and SD HWY 115. The remaining land has been proposed single-family. A park trail system has been proposed along Ninemile creek and the railroad.

X. PLANNING POLICY FRAMEWORK

Harrisburg has adopted this Comprehensive Plan to provide a framework for specific future land use and growth management policies and recommendations. It is designed to be a dynamic and flexible process to accommodate the changing needs of a growing population, yet steady enough to allow for reasonable long-term investment strategies by both public and private sectors. To the greatest extent possible, future planning for the City of Harrisburg ought to involve the public, other city agencies and elected officials throughout the planning and implementation phases.

A. GROWTH MANAGEMENT STRATEGY

The following goals and policies are a detailed expression of the community's aspirations for the future and can be considered the heart of the Comprehensive Plan. The goals and policies provide direction for future planning and city activities for the City of Harrisburg and the contiguous planning area.

Goal 1. Focus New Development within Existing City Limits Area

Objective 1 – Allow development within existing sanitary sewer and drainage basins as detailed by the Future Land Use map and prescribed in Chapter IX (Growth Area Analysis)

Policy 1 - Determine growth areas most accessible to sewer hookups

Policy 2 - Discourage growth in areas not suitable for hookups

Objective 2 – Allow compact and contiguous urban growth within city limits

Policy 1 - Maintain the growth area boundary as the division between urban and rural densities and services, and encourage growth and development that will promote an efficient use of present and future public investments in roads, utilities, and other services

Policy 2 - Avoid scattered or strip commercial and industrial development outside the urban service area and direct such uses into existing developed locations where adequate services are available including major street access and proper water/sewer systems

Policy 3 - Require that properties served by public utilities be located within the City

Policy 4 - Establish and maintain an addressing system to create consistency for safety and convenience of businesses, visitors, and local citizens

Policy 5 – Establish an area-wide approach to cooperatively manage future growth including city and county governments, school districts, townships and other public utility providers

Objective 3 – Enhance the character, identity, and historic preservation of the community

Policy 1 – Guide new development with urban design amenities that enhance community aesthetics and local identity

Policy 2 – Protect historic dwellings and other architecturally significant buildings from incompatible development, and encourage rehabilitation and reuse for the redevelopment of historic buildings

Policy 3 – In existing and developing centers, buildings should be set close to each other and to pedestrian ways and main streets to encourage walking and shared parking

Goal 2. Direct New Growth into Designated Future Growth Areas

Objectives 1– Establish development patterns/requirements for each of the described Growth Areas

Policy 1 – Review and revise specific development patterns established under Chapter IX. – Growth Area Analysis

Goal 3. Construct and Upgrade the Major Street System to Handle New Growth

Objective 1 – Enhance the current road system to provide optimum traffic mobility

Policy 1 – Because road reconstructions, resurfacings and other related projects are funded by a limited budget, it is incumbent upon the City Council to evaluate the need for various improvements and appropriate annual funds accordingly

Objective 2 – Minimize ingress and egress onto major roadways

Policy 1 – Utilize driveway access points off of local roads rather than arterials whenever feasible so as to alleviate congestion from heavily traveled roads

Objective 3 – Complete projects to enhance the safety of the transportation system

Policy 1 – Develop sidewalks in all areas of town to create safe neighborhoods by requiring developers to construct or assessing landowners at the directive of the City

Goal 4. Improve Community Services for all Residents of Harrisburg

Objective 1 – Improve Public Services and Buildings

Policy 1 – Community development projects shall be envisioned by the City Council, with assistance from the Planning Commission and public, on an annual basis

Objective 2 – Improve Park and Recreation Opportunities for Citizens

Policy 1 – Consider developing an athletic complex to coincide with the Harrisburg Community.

Policy 2 – Develop a linear greenway along Nine Mile Creek to provide future recreational opportunities for all residents

Goal 5. Preserve the Function and Character of the Rural Area

Objective 1 – Encourage agriculture to remain the dominant land use activity

Policy 1 – *Only* agricultural uses will be allowed in the city's agricultural zones

Objective 2 – Discourage scattered residential, commercial, or industrial development

Policy 1 – Work with Lincoln County to ensure all proposed development within Harrisburg's growth areas are annexed and serviced with municipal utilities

B. CAPITAL IMPROVEMENTS PLANNING

The purpose of capital improvements planning is to provide local government officials with a guide for budgeting major improvements that will benefit the community. Before future development can be considered, the City must review current infrastructure and identify any deficiencies that need to be corrected prior to the development. It is the intention of the City to upgrade a portion of existing utilities and transportation routes on an ongoing basis. Information within the Comprehensive Plan can be utilized in constructing the Harrisburg capital improvement plan.

C. LAND USE PLANNING STRATEGY

The City of Harrisburg has committed to shape the future of the community to enhance economic development and maintain a high quality of life for all citizens of the community. The following goals, objectives, and policies will guide the City Council and are the basis for regulations contained within the City of Harrisburg's zoning and subdivision ordinances.

Goal 1. Ensure the Health and Safety of Citizens

Objective 1- Separate structures for health and safety

Policy 1 – Sideyard setbacks will comply with fire code separation for residential, commercial and industrial structures

Policy 2 - Ensure buildings and structures do not encroach on residential building air space

Objective 2 - Design lots and blocks to emphasize cost efficiency and community values

Policy 1 – Review the lot and block designs based upon subdivision design standards

Policy 2 – Utilize the zoning and subdivision regulations to protect residential neighborhoods from encroachment of incompatible activities or land uses which may have a negative impact upon a residential living environment

Policy 3 – In reviewing development proposals, the City should consider issues of community character, compatibility of land use, residents' security and safety, and efficient service provision, particularly since these are all important qualities of the community

Objective 3 – Provide adequate visibility at intersections and driveways for all streets

Policy 1 – Ensure that structures and fences do not obstruct the view of intersecting traffic

Objective 4 – Design major streets to emphasize mobility and safety

Policy 1 – Preserve adequate right-of-way for future arterial traffic routes and collectors

Policy 2 – Maintain a policy of safe speed limits for all collectors and arterial roads; limit the number of stop signs or stop lights to maintain an even traffic flow

Policy 3 – Ensure single-family developments and other low intensity uses have driveway access off local or collector streets and not off major streets; arterial streets should have limited access

Policy 4 – Require development of a consistent collector street system as indicated by the Major Street Plan

Goal 2. Protect Natural Resources

Objective 1 – Retain runoff with open natural drainage systems

Policy 1 – Any development should be platted to incorporate as much natural drainage as possible

Policy 2 – Utilize open space such as parks or backyards to help naturally drain new developments

Objective 2 – Create greenways and linear open spaces within floodplain areas

Policy 1 – Do not allow residential, commercial or industrial development within floodplain areas

Objective 3 – Design around significant wetlands

Policy 1 – Encourage development to utilize and maintain wetlands as a part of the natural drainage basin

Objective 4 – Limit development in areas with poor soils and high water table

Policy 1 – Require further investigation for new development to occur in areas with soil limitations as identified by the Natural Resource Conservation Service (NRCS)

Goal 3. Enhance the Visual Quality of the City

Objective 1 – Separate industrial and residential uses

Policy 1 – Do not allow industrial development near residential developments

Policy 2 – Encourage siting of industrial uses in incorporated areas

Policy 3 – Require design review requirements in the Harrisburg Industrial Park

Objective 2 – Soften the look of all uses to enhance the community's image as an attractive place

Policy 1 – Front and rear setbacks will provide reasonable separation for residential living

Policy 2 – Encourage development to comply with land use location and design criteria located in Appendix 1

Policy 3 – Use landscaping to establish visual and physical boundaries between parking lots and roads

Objective 3 – Encourage the appropriate siting and concentration of uses and structures that can clutter the landscape

Policy 1 – Allow manufactured homes to be placed in residential areas that are consistent with site-built homes

Policy 2 – Allow manufactured homes to be placed only in parks that are single sections or do not resemble a site-built home

Policy 3 – Home occupations will be allowed as long as there is no substantial change in the residential nature of the home

Objective 4 – Create a transition from commercial to residential areas

Policy 1 – Require the use of berms, fences and additional setbacks as measures to create an appropriate transition to single-family use.

XI. PLAN IMPLEMENTATION

Planning is a continuous process. Completion of the Comprehensive Plan is by no means an end in itself. A comprehensive plan must be constantly scrutinized to ensure that its goals, objectives and policies continue to reflect changing community needs and attitudes. The purpose of this implementation element is to provide direction and recommendations for implementing the Comprehensive Plan and for continuing planning.
Above all, the Plan must be used.

A. THE CONTINUOUS PLANNING PROCESS

Circumstances will continue to change in the future, and the Harrisburg Comprehensive Plan will require modifications and refinements to be kept *up-to-date and current*. Some of its proposals will be found unworkable and other solutions will continue to emerge. Changes that are needed should be carefully noted and thoroughly considered as part of **Annual Plan Updates** and **5-Year Major Plan Revisions**. As change occurs, however, Harrisburg's vision should remain the central theme and provide a unifying element. ***This plan's importance lies in the commitment of citizens to agree on Harrisburg's purpose for the future, and to apply that consensus in continuing efforts that focus on betterment of the community.***

**** Review by the Planning Commission ****

The Planning Commission should review the status of efforts to implement this Comprehensive Plan on an annual basis. Significant actions and accomplishments during the past year should be recognized as well as recommendations for needed actions and programs to be developed in the coming new year.

**** Annual Plan Amendment Process ****

Annual plan amendments, when necessary, will provide opportunity for relatively minor plan updates and revisions such as: changes in future land use designations; implementation actions for identified goals, objectives and policies; and review of plan consistency with ordinances and regulations. A plan amendment should be prepared and distributed in the form of an addendum to the adopted Comprehensive Plan. Identifying potential plan amendments should be an *ongoing process* by the Planning Commission and City Council throughout the year; input from the general public should be solicited for any and all plan amendments. Proposed plan amendments should be reviewed and approved by the Planning Commission with final approval from the City Council, mirroring the initial adoption of this Comprehensive Plan; plan amendments shall be in the form of a resolution.

**** Major Updates of the Comprehensive Plan ****

Major updating of the Comprehensive Plan should occur *every five years*. These updates will ensure renewal and continued utility of the Comprehensive Plan for use by the City Planning Commission and City Council. Annual plan amendments from the previous four years should be incorporated into the next major plan update. Plan updates will be a significant undertaking involving City officials, the Planning Commission, a steering committee and citizens. The result of major plan updates will be a "new" comprehensive plan for the City, including new identification of up-to-date goals, objectives, policies and implementation actions.

B. CITIZEN PARTICIPATION IN CONTINUING PLANNING

All community members of Harrisburg have a vested interest in maintaining a high quality of life within the city. It is only fair that those members be entitled to an opportunity of shaping the community's vibrant future. Citizens should continue to be involved in implementing and maintaining the Comprehensive Plan. The Planning Commission, town meetings, public forums, newsletters and public notices should be utilized to inform and involve citizens in continuing planning. Methods and activities for public participation should be carefully chosen and designed to achieve meaningful and effective involvement.

C. IMPLEMENTATION PROCESS

The Comprehensive Plan is the City's guide for government officials and citizens when making decisions about land use and development. The Comprehensive Plan is *comprehensive* in that it identifies the multitude of factors related to future community growth. The Plan analyzes relationships among these factors, proposes what needs to be done about them, and recommends goals and objectives and actions for using the City's resources in the most efficient and effective ways.

Plan implementation includes using the Future Land Use map as a general guide for decision-making in zoning cases and subdivision plat review. This practice is to ensure that development and redevelopment are consistent with the policies of the City's Comprehensive Plan. Review and revision of City ordinances for updating, strengthening and streamlining the Zoning Ordinance and Subdivision Regulations will be a plan implementation activity. Studies for drainage basins are critical to protection of existing and future development. Water and sewer needs and improvements must be addressed on a yearly basis. Parks development and community facilities improvements will be needed as well.

Perhaps the most important method of implementing Harrisburg's Comprehensive Plan comes through a day-to-day ***commitment*** by elected and appointed officials, City staff members and citizens of the community. The Comprehensive Plan must be perceived as a useful and capable tool in directing the City's future. The Future Land Use map and other key elements of the Comprehensive Plan should be displayed and available for ready reference by public officials and citizens. The Comprehensive Plan should continually be referenced in rezoning public hearings, site plan proposals, variance and conditional use hearings as well as informal discussion situations.

An aggressive, yet realistic program for implementing the Comprehensive Plan should be established by the Mayor, City Council, and the Planning Commission, and then used by the entire community. Implementation tools include the Zoning Ordinance, Subdivision Regulations and annual budget. These tools should be reviewed and updated periodically so that the goals, objectives, and policies of the Comprehensive Plan are put into action. ***In addition, the identified goals, objectives and policies on pages 20-24 of this Plan should be reviewed and implemented continually to ensure maximum effectiveness of the Plan. It is recommended that an Implementation Task Force be established by the City Council to address the identified goals, objectives and policies of this Comprehensive Plan; the Planning Commission should provide oversight and act in a supervisory capacity.***

APPENDIX 1

Land Use Location and Design Criteria

Residential

Low density (3 to 6 units/acre)

*Access to local street system-avoid direct access to arterial streets
*Convenient to neighborhood school, park, and commercial services
*Avoid environmentally sensitive areas such as wetlands and drainage ways

Medium density (6 to 16 units/acre)

*Access to major street system
*Well designed transition to adjacent land uses
*Provision of usable open space based on project size
*Transition between low-density neighborhood and major streets
*Adjacent to neighborhood commercial center

High density (16 to 40 units/acre)

*Adjacent to principal arterials near major commercial, institutional, or employment centers
*Well designed transition to adjacent land use
*Provision of usable open space based on project size

Commercial

Highway oriented and regional centers

*Adjacent to major streets and regional highways
*Controlled access to arterial streets
*Quality architecture and well designed transition to adjacent uses

Community centers

*Intersection of arterial streets and along transit routes
*Mixed-use development including office, institutional, or multifamily residences
*Well designed transition to adjacent uses

Neighborhood retail, office, and convenience services

*Convenient vehicular and pedestrian access to residential areas
*Adjacent to major street intersections
*Design compatible with surrounding uses
*Well designed transition to adjacent uses
*Located within residential, employment, or institutional centers

Downtown area

*Pedestrian orientation
*Quality urban design standards
*Mixed uses including office, retail, institutional, cultural, and entertainment
*Orientation to greenway where feasible
*Consolidate off-street parking areas
*Residential uses within walking distance of CBD

Industrial

General light industrial

*Regional highway access located close to major arterial streets
*Rail access for industrial uses requiring it
*Buffered from residential and other adjacent land uses
*Industrial park setting with building design and landscape amenities
*Include office, warehousing, and limited retail uses

Limited heavy industrial

*Access to major streets
*Well designed buffer to adjacent land uses
*Minimize environmental impacts on surrounding properties

Mixed Use

Institutional, office, and other mixed use development

*Convenient to intended market area
*Vehicular access to major streets
*Minimization of traffic impact on adjacent uses
*Orderly expansion of institutional uses near residential areas
*Design compatibility with adjacent uses
*Include retail, multi-family, and business-technology land uses

RESOLUTION NO. 2011-05

A RESOLUTION AMENDING THE 2005 - 2025 HARRISBURG COMPREHENSIVE PLAN AS PROVIDED FOR IN SDCL CHAPTER 11-6.

WHEREAS, the Harrisburg City Council desires to amend the 2005 - 2025 Harrisburg Comprehensive Plan; and

WHEREAS, the Harrisburg Planning Commission has held the required public hearing and has recommended approval of said proposed amendments; and

WHEREAS, the Harrisburg City Council has received the recommendation of the Harrisburg Planning Commission and has held the required public hearing.

NOW, THEREFORE, BE IT RESOLVED that the Harrisburg City Council hereby adopts the attached addendum which will amend the 2005 - 2025 Harrisburg Comprehensive Plan and that these amendments will take effect upon publication of a notice of adoption and summary (SDCL 11-6-18.2).

Adopted this 4th day of April, 2011.

Mayor Reed Ramstad

ATTEST:

Mary McClung
Finance Officer

(SEAL)

Published · April 14, 2011
Effective · May 4, 2011

Addendum

2005 - 2025 Harrisburg Comprehensive Plan

The 2005 - 2025 Harrisburg Comprehensive Plan is amended as follows:

On page 7 amend "IV. INFRASTRUCTURE ASSESSMENT" to read as follows:

IV. INFRASTRUCTURE ASSESSMENT

Harrisburg's infrastructure has seen significant changes in the past few years, with more improvements needed to allow for continued development. Recently completed and top priority projects for each infrastructure area are described below. The City's greatest challenge during the next comprehensive planning period will be to fund the necessary improvements.

A. TRANSPORTATION

Street and highway improvements are a critical planning consideration because of the interactive relationship between transportation and land use. Location choices for many land uses are frequently made on the basis of access to major streets and highways. Without consideration for adequate capacity or maintenance, the transportation system cannot adequately accommodate development.

The City is currently in the process of completing a Transportation Master Plan. The plan will provide the City with a 25-year planning guide for its transportation needs. The objective of the study is to document and prioritize the transportation improvements needed to serve the current and anticipated (2035) users, including pedestrians and bicyclists. The City intends to use the information for capital improvement planning purposes and to seek funding assistance for select projects, since funding for the projects from the City's general fund is limited. Assessments, loans, grants, and/or earmarks are considered funding options.

The study evaluated several street corridors and key intersections, and determined the top two priority projects. Existing arterials within the City are rural, two-lane highways. Cliff Avenue from 272nd Street to Willow Street is the top priority project, and Willow Street from Minnesota Avenue to Cliff Avenue is the second priority project. Both roadways need to be converted to two-lane urban sections with a center median. The medians will provide access control. Additional turning lanes are needed at several intersections along the corridors.

The Transportation Master Plan also provided the City with an updated Major Street Plan **(see Major Street Plan Map)** that categorizes existing and future streets as arterial, collector, or local. The definitions for each street category can be found in Harrisburg's Engineering Design Standards, which were adopted in April 2010.

B. WATER FACILITIES

Since the last comprehensive plan was prepared, the City of Harrisburg has completed several key improvements to the water system to serve current and anticipated development. Those projects are as follows:

1) A 16" emergency connection to the Lewis and Clark Rural Water System to meet current and anticipated water needs. The connection is being fed with water from the City of Sioux Falls, via

Lincoln County Rural Water lines, until Lewis and Clark's water treatment plant comes on-line; and

2) The construction of a 750,000 gallon elevated storage tank north of the Harrisburg High School; and

3) The construction of a 12" water main from the new elevated storage tank to the southwest corner of the Harrisburg Homesites Addition. The connection improved water quality in the distribution system and provided a redundant connection for the Harrisburg Homesites Addition; and

4) The replacement of aging 4" water main with new 6" water main in the older portions of the city. The City plans to continue to replace and upsize existing, older 4" water main for the next several years; and

5) The upsizing of several new water mains from 8" to 12" to begin to create a trunk water main system for the City. This includes water main in the Greyhawk Addition, the Green Meadows Addition, and the Legendary Estates Addition. The Legendary Estates Addition also includes 12" connections to water main in Willow Street and just north of Liberty Elementary.

During the comprehensive planning period, key projects for the City's water system would be to seek a long-term water supply for the community. The City of Harrisburg is a member of the Lewis and Clark Rural Water System, and their contract limits the amount of water they can purchase. Harrisburg will need to find other sources to meet long-term water needs.

C. WASTEWATER FACILITIES

The City of Harrisburg recently constructed a large lift station and 7 miles of 16" force main to convey the City's wastewater to Sioux Falls for treatment. As part of the project, the existing evaporation ponds now serve as pretreatment and retention facilities. The design, which includes intermediate pumping upgrades, will allow for significant development and is projected to serve a 2029 population of over 20,000.

It is often said that the availability of sanitary sewer drives development. The construction of sanitary sewer interceptors are needed in the City's sewer basins to serve future development. These projects are discussed in more detail in the Growth Area Analysis portion of this Comprehensive Plan Amendment.

D. STORM WATER FACILITIES

In 2007, the City completed a Master Drainage Plan to address the flooding issues currently occurring with the City and to identify the infrastructure needed to manage storm water runoff. The plan identified several areas that need improvements. From this list the City has identified the top priority project as the flooding that occurs east of Liberty Elementary School and the undersized storm water piping that conveys runoff from this area to the Ninemile Creek tributary, south of the Harvest Acres Addition. The City is currently working to obtain funding for this project, and hopes to begin construction in the next few years.

On page 8 replace "MAJOR STREET PLAN MAP" with the attached new map of the same title (attached as Exhibit A).

On pages 12 - 14 amend "VIII. LAND USE PLAN" to read as follows:

VIII. LAND USE PLAN

A. EVALUATION OF URBAN LAND USE IN HARRISBURG

To simplify preparation of this plan, land uses have been grouped into six categories for the City of Harrisburg:

(1) Industrial: Includes light manufacturing, warehouses and other similar uses.

(2) Commercial: Includes retail businesses, offices, etc.

(3) Residential: Includes single-family, two-family, multiple-family and manufactured housing.

(4) Institutional: Includes schools, libraries, churches, government offices and similar uses.

(5) Parks, Recreation and Open Space: Includes parks and athletic fields. Also included are areas that should be protected from development to facilitate movement of flood water and runoff. Some types of development may be appropriate for such areas, as long as the development does not dramatically increase the incidence or severity of flood or drainage problems.

(6) Vacant: Includes land not yet developed for one of the other five uses. Also included are areas that provide farming and agriculturally related uses.

A physical land use inventory was prepared by SECOG in January of 2011. Maps for the current and future land uses in Harrisburg and the planning area are included. Future land uses were determined by the Harrisburg Planning Commission and SECOG, based on topographic features, compatibility with current land uses and existing infrastructure.

B. CURRENT LAND USE CONSUMPTION

Land Use	Acres Consumed
Residential	342
Commercial	47
Institutional	266
Industrial	111
Parks, Recreation & Open Space	57
Vacant	563

C. FUTURE LAND USE ESTIMATES

Households and a projected demand of certain land use categories are listed in the tables below.

City of Harrisburg

Household Projections

	Population	Persons per Household *(assuming number remains constant)*	Households
1980	558	NA	NA
1990	727	NA	NA
2000	958	3.04	318 (actual)
2020	7,766	3.04	2,555 (projected)
2025	12,506	3.04	4,114 (projected)

Households Added 2000-2025
Total New Households 3,796

Land Use Consumption Needs – Housing		
Residential – Urban Density	3 units per acre (low density) x 3.04 pph = 9.12 ppa *	9.12 ppa x 2,307 acres = 21,040 additional people

Based upon the above referenced analysis, the City of Harrisburg will be able to provide adequate housing through the year 2025.

* Projections based upon low density residential development

Future Land Use Available

Land Use	Available Acres
Residential	2,307
Commercial	66
Industrial	276
Mixed Use (Commercial and Residential)	489
Urban Reserve	2,288
Parks, Recreation & Open Space	691

A review of the population projections and land use consumption needs should be reviewed every five (5) years to ensure enough land is available for future land use needs.

On page 15 replace "CURRENT LAND USE MAP" with the attached new map of the same title (attached as Exhibit B).

On page 16 replace "FUTURE LAND USE MAP" with the attached new map of the same title (attached as Exhibit A).

On pages 17 - 19 amend "IX. GROWTH AREAS" to read as follows:

IX. DEVELOPMENT AREA ANALYSIS

Because of the high cost of sanitary sewer infrastructure, the areas that can most economically be provided with sanitary sewer service are anticipated to develop the fastest. For this reason, Harrisburg is expected to expand mostly to the north and west during the 20-year planning period. The need, size, and location of future sanitary sewer interceptors within Harrisburg were first identified in the Water and Wastewater Infrastructure Report prepared in September 2005. The key interceptors to serve the development areas identified in this Plan are discussed in more detail later in this section.

Trunk water main will also need to be extended as the City develops. Currently, the City's Subdivision Regulations, effective May 2010, state that 16" water main should be installed in a one-mile grid pattern and 12" water main should be installed in a one-half mile grid pattern.

The costs of extending water and sewer services are the primary considerations in designating future development. However, other factors must also be considered, including the capacity of the transportation system, environmental suitability, and compatible land uses. The following analysis is intended to provide the City of Harrisburg and Lincoln County with a guide to land use decisions and direct implementation through subdivision and zoning regulations. The Growth Areas Map illustrates all development areas by the number indicated.

The City will need to use creative financing methods because of State mandated debt limits to facilitate the infrastructure improvements needed for development. The City will seek outside funding sources and developers may see an increase in fees. In addition, cost recovery may be used to fund sanitary sewer interceptors. To reduce debt for the City, developers may be required to install the sanitary sewer interceptors as part of a subdivision or other development project, and be reimbursed for the oversize through the cost recovery process.

It is appropriate to note that rezoning requests (and other development approvals) for land uses not consistent with the Future Land Use Map, except for previously established and approved land uses, should not be considered until the Comprehensive Plan has been amended, as necessary, to provide for such land uses. In those cases where development requests are not consistent with the plan, but represent a benefit to the community, the City should process such requests and plan amendments concurrently and in a timely fashion. In addition, **the Future Land Use Map is not the community's official zoning map.** It is a guide for future land use patterns. The Future Land Use element and all other aspects of the Comprehensive Plan are implemented primarily through development regulations (e.g., zoning and subdivision regulations). Text of the zoning regulations and its corresponding map determine which specific development requirements apply to a particular property.

The City has identified three development areas within the 25-year planning period. Development in these areas is anticipated to occur from the southeast areas to the northwest over the indicated time period. An additional urban reserve area has been set aside for development during subsequent years (2035+). The following improvements will be needed for development to occur within the development areas:

2012 - 2020 Development Area

- **Sanitary Sewer** – An interceptor is needed from the intersection of Tiger Street and Columbia Street to north of the Industrial Park. This work is tentatively scheduled for 2012. Land to the east of the Burlington Northern Railroad tracks is served by an existing lift station in the Legendary Estates Addition.
- **Water Service** – The City's development plans will require 12" water main to be installed within developments in a half-mile grid pattern. In addition, 12" to 16" water main will be required in:
  - Willow Street from one-half mile east of the railroad tracks to Cliff Avenue
  - Cliff Avenue from Willow Street to one-half mile north of 272nd Street
  - 272nd Street from the Southeastern Avenue to one-half mile west of Cliff Avenue
- **Streets** – The following streets need to be reconstructed as urban sections with turning lanes:
  - Cliff Avenue from Willow Street to one-half mile north of 272nd Street
  - Willow Street from one-half mile east of the railroad tracks to Cliff Avenue
  - 272nd Street from Southeastern Avenue to one-half mile west of Cliff Avenue
- **Storm Sewer** – A regional detention basin is needed north of Willow Street on the west side of Liberty Elementary School. Storm water piping will need to be extended south from the basin to the Ninemile Creek tributary. Piping to handle storm drainage will be part of the street improvements. On-site drainage and retention will also be addressed for each area as it develops.

2015 - 2030 Development Area

- **Sanitary Sewer** - Sewer interceptors will need to be extended from outside the growth area, from the lift station at the wastewater treatment ponds and along the Ninemile Creek tributary, through the Green Meadows Addition, toward Willow Street. From this point, the interceptor will split. One interceptor is needed along and north of Willow Street, extending west past Minnesota Avenue. A second interceptor will be needed along the Ninemile Creek tributary from Willow Street to the northwest, past 272nd Street and Minnesota Avenue.
- **Water Service** – The City's development plans will require 12" water main to be installed within developments in a half-mile grid pattern. In addition, 12" to 16" water main will be required in:
    - Willow Street from Cliff Avenue to Minnesota Avenue
    - 272nd Street from one-half mile east of Minnesota Avenue to Western Avenue
    - Cliff Avenue from the South Cliff Falls Apartments to 274th Street
    - 274th Street from one-half mile east of Cliff Avenue to one-quarter mile west of Cliff Avenue
    - County Road 106 from Western Avenue to three-quarters of a mile east
    - Minnesota Avenue from one-quarter mile south of County Road 106 to Willow Street
- **Streets** – The following streets will need to be reconstructed as urban sections with turning lanes:
    - Willow Street from Cliff Avenue to Minnesota Avenue
    - 272nd Street from one-half mile east of Minnesota Avenue to Western Avenue
    - Cliff Avenue from the South Cliff Falls Apartments to 274th Street
    - 274th Street from one-half mile east of Cliff Avenue to one-quarter mile west of Cliff Avenue
    - County Road 106 will be expanded as part of a County project from Western Avenue to three-quarters of a mile east
    - Minnesota Avenue will be expanded to four lanes with a center median as part of a future State DOT project
- **Storm Sewer** – A regional detention basin will be constructed on property to the east of the high school. Piping to handle storm drainage will be part of the street improvements. This will include the planned culvert replacement in Cliff Avenue. On-site drainage and retention will also be addressed for each area as it develops.

2025 - 2035 Development Area

- **Sanitary Sewer** - Sewer interceptors will need to be extended from the lift station at the wastewater treatment ponds and along Ninemile Creek, with several smaller interceptors extending into areas as they develop.
- **Water Service** – The City's development plans will require 12" water main to be installed within developments in a half-mile grid pattern. In addition, 12" to 16" water main will be required in:
    - Cliff Avenue from 274th Street to 275th Street
    - 274th Street from one-quarter mile west of Cliff Avenue to one-half mile west of Minnesota Avenue
    - 275th Street from one-half mile east of Cliff Avenue to one-half mile west of Cliff Avenue
    - Willow Street from Minnesota Avenue to one-half mile west of Minnesota Avenue
    - Minnesota Avenue from 274th Street to Willow Street
- **Streets** – The following streets need to be reconstructed as urban sections with turning lanes:
    - Cliff Avenue from 274th Street to 275th Street
    - 274th Street from one-quarter mile west of Cliff Avenue to one-half mile west of Minnesota Avenue
    - 275th Street from one-half mile east of Cliff Avenue to one-half mile west of Cliff Avenue
    - Willow Street from Minnesota Avenue to one-half mile west of Minnesota Avenue
    - Minnesota Avenue will be expanded to four lanes with a center median as part of a future State DOT project
- **Storm Sewer** – The Master Drainage Plan will need to be updated to include this area. Regional detention basins will likely be required along Ninemile Creek and its tributaries. Channel reconstruction to create a meandering low flow channel with high flow floodplain areas and offline wetland pools may also be needed along Ninemile Creek and its tributaries. Piping to handle

storm drainage will be part of the street improvements. On-site drainage and retention will also be addressed for each area as it develops.

2035+ Urban Reserve Development Area

- **Sanitary Sewer** – Two large lift stations will be required to serve this area. The first will be located just north of Willow Street, approximately one-half mile east of Southeastern Avenue. Sewer interceptors will be extended north and then to the west, ending near the intersection of County Road 106 and Minnesota Avenue. Flow from the lift station will be pumped to a gravity interceptor south of Willow Street that will convey the sewage to another lift station near Ninemile Creek and Sycamore Avenue. This lift station will also collect flow from an interceptor located along Ninemile Creek from the railroad track to Sycamore Avenue. The lift station will pump to the City's main lift station at the wastewater treatment ponds. Sewer service for the development area southwest of Harrisburg will require a sanitary sewer interceptor extension and possible lift station.
- **Water Service** – The City's development plans will require 12" water main to be installed within developments in a half-mile grid pattern. In addition, 12" to 16" water main will be required in:
  - Southeastern Avenue from one-quarter mile south of County Road 106 to 275th Street
  - Sycamore Avenue from one-half mile south of County Road 106 to 275th Street
  - Cliff Avenue from County Road 106 to one-half mile south
  - Minnesota Avenue from one-quarter mile south of County Road 106 to one-quarter mile north of County Road 106, and from 274th Street to 275th Street
  - 274th Street from one-half mile west of Southeastern Avenue to Sycamore Avenue
  - 275th Street from one-half mile east of Minnesota Avenue to one-half mile west of Minnesota Avenue, and from one-half mile west of Southeastern Avenue to Sycamore Avenue
  - Willow Street from Southeastern Avenue to Sycamore Avenue
  - 272nd Street from Southeastern Avenue to Sycamore Avenue
  - County Road 106 from Southeastern Avenue to one-quarter mile west of Minnesota Avenue
- **Streets** – The following streets need to be reconstructed as urban sections with turning lanes:
  - Southeastern Avenue from one-quarter mile south of County Road 106 to 275th Street
  - Sycamore Avenue from one-half mile south of County Road 106 to 275th Street
  - Cliff Avenue from County Road 106 to one-half mile south
  - 274th Street from one-half mile west of Southeastern Avenue to Sycamore Avenue
  - 275th Street from one-half mile east of Minnesota Avenue to one-half mile west of Minnesota Avenue, and from one-half mile west of Southeastern Avenue to Sycamore Avenue
  - Willow Street from Southeastern Avenue to Sycamore Avenue
  - 272nd Street from Southeastern Avenue to Sycamore Avenue
  - County Road 106 will be expanded as part of a County project from Southeastern Avenue to one-quarter mile west of Minnesota Avenue
  - Minnesota Avenue will be expanded to four lanes with a center median as part of a future State DOT project from one-quarter mile south of County Road 106 to one-quarter mile north of County Road 106, and from 274th Street to 275th Street
- **Storm Sewer** – The Master Drainage Plan will need to be updated to include this area. Regional detention basins will likely be required along Ninemile Creek and its tributaries. Channel reconstruction to create a meandering low flow channel with high flow floodplain areas and offline wetland pools may also be needed along Ninemile Creek and its tributaries. Piping to handle storm drainage will be part of the street improvements. On-site drainage and retention will also be addressed for each area as it develops.

Add "GROWTH AREAS MAP" to page 29 (attached as Exhibit D).

EXHIBIT A

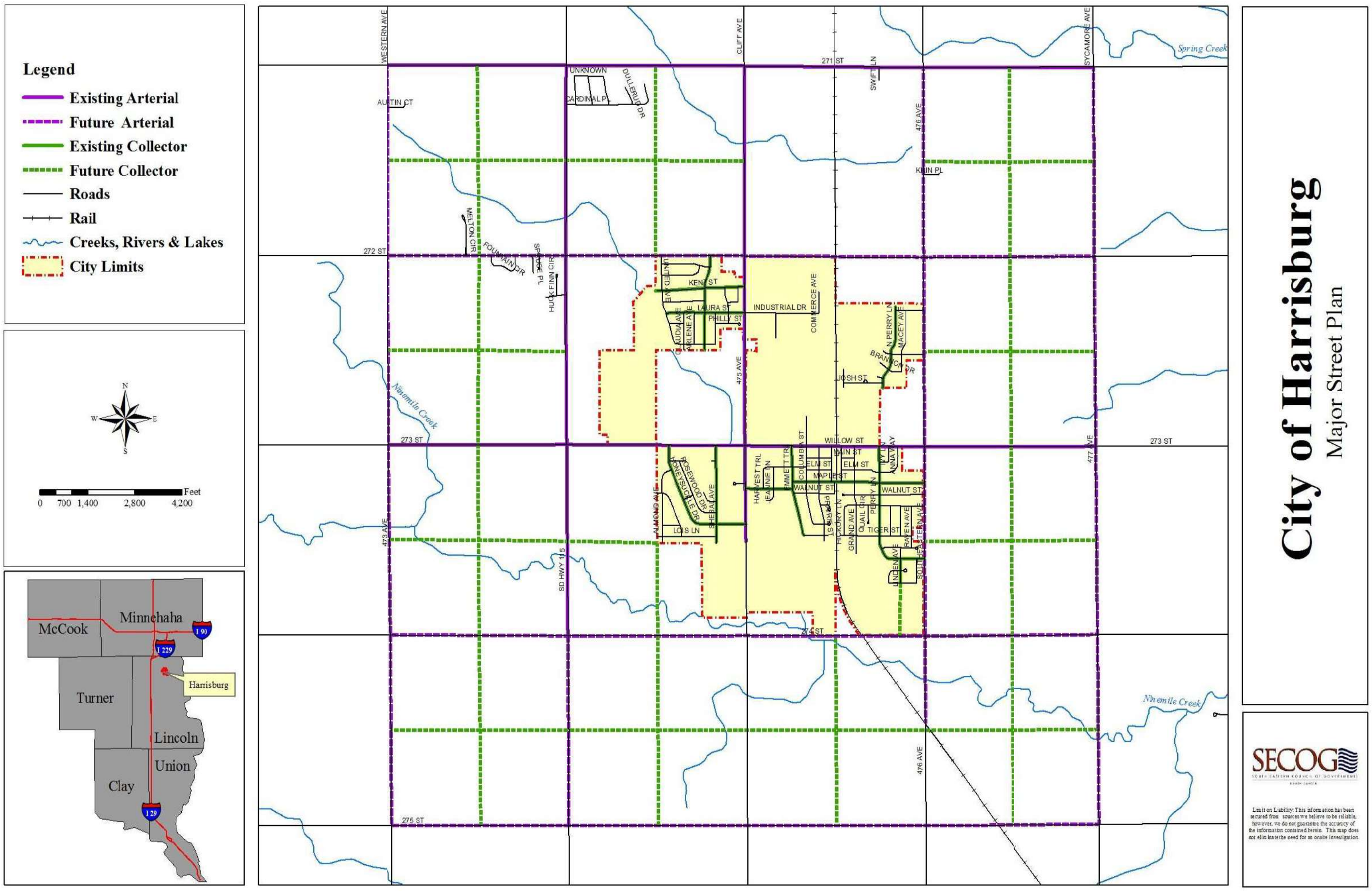
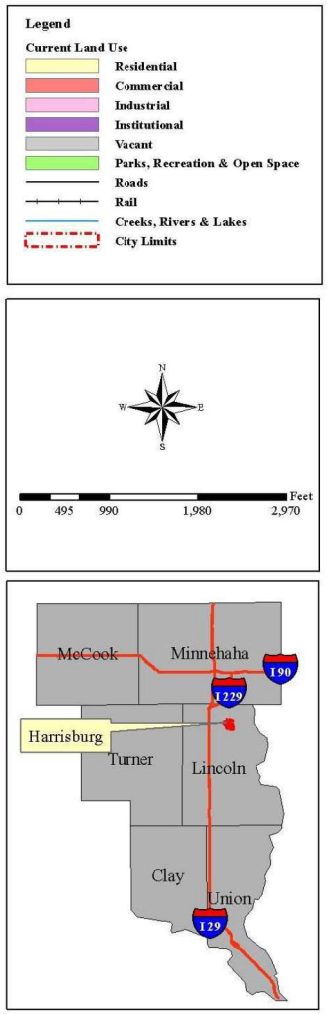

City of Harrisburg
Major Street Plan
Legend
Existing Arterial
Future Arterial
Existing Collector
Future Collector
Roads
Rail
Creeks, Rivers & Lakes
City Limits
N
S
E
W
0
700
1,400
2,800
4,200
Feet
McCook
Minnehaha
Turner
Lincoln
Union
Clay
Harrisburg
I 90
I 229
I 29
SECOG
SOUTH EASTERN COUNCIL OF GOVERNMENTS
Limit on Liability: This information has been secured from sources we believe to be reliable, however, we do not guarantee the accuracy of the information contained herein. This map does not eliminate the need for an onsite investigation.
WESTERN AVE
CLIFF AVE
SYCAMORE AVE
271 ST
272 ST
273 ST
275 ST
473 AVE
475 AVE
476 AVE
477 AVE
SD HWY 115
Spring Creek
Ninemile Creek
AUSTIN CT
UNKNOWN
CARDINAL PL
DULLERUD DR
SWIFT LN
KRIN PL
MELTON CIR
FOUNTAIN DR
SPRUCE PL
HUCK FINN CIR
UNITED AVE
KENT ST
LAURA ST
PHILLY ST
ARLENE AVE
INDUSTRIAL DR
COMMERCE AVE
N PERRY LN
MACEY AVE
JOSH ST
WILLOW ST
MAIN ST
ELM ST
MAPLE ST
WALNUT ST
COLUMBIA ST
EMMETT TRL
HARVEST TRL
JEANNIE LN
ROSEWOOD DR
HONEYSUCKLE DR
SHERAL AVE
LOIS LN
PRAIRIE ST
HICKORY LN
GRAND AVE
QUAIL CIR
PERRY LN
TIGER ST
ANNA WAY
RAVEN AVE

EXHIBIT B

City of Harrisburg

Current Land Use



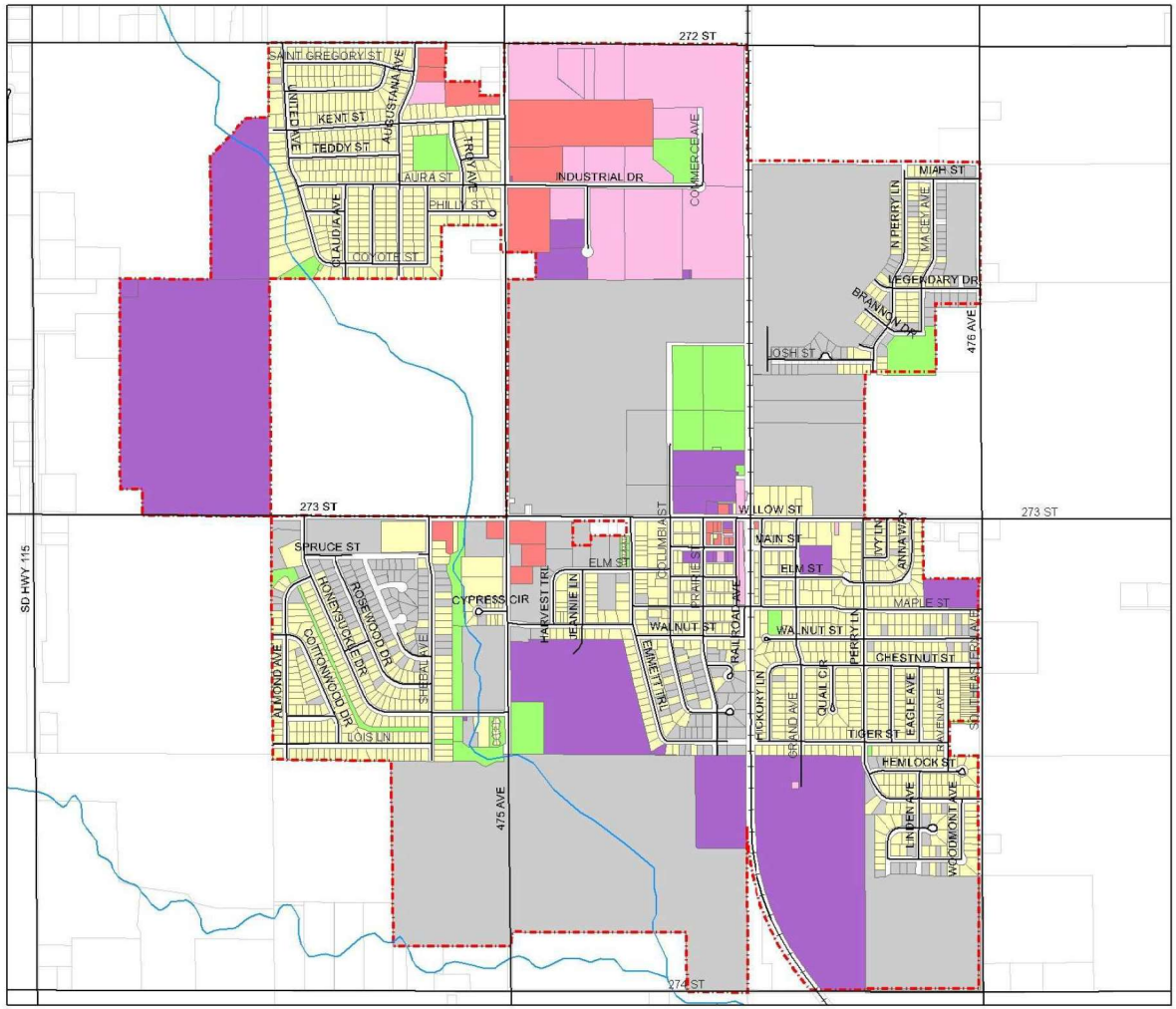
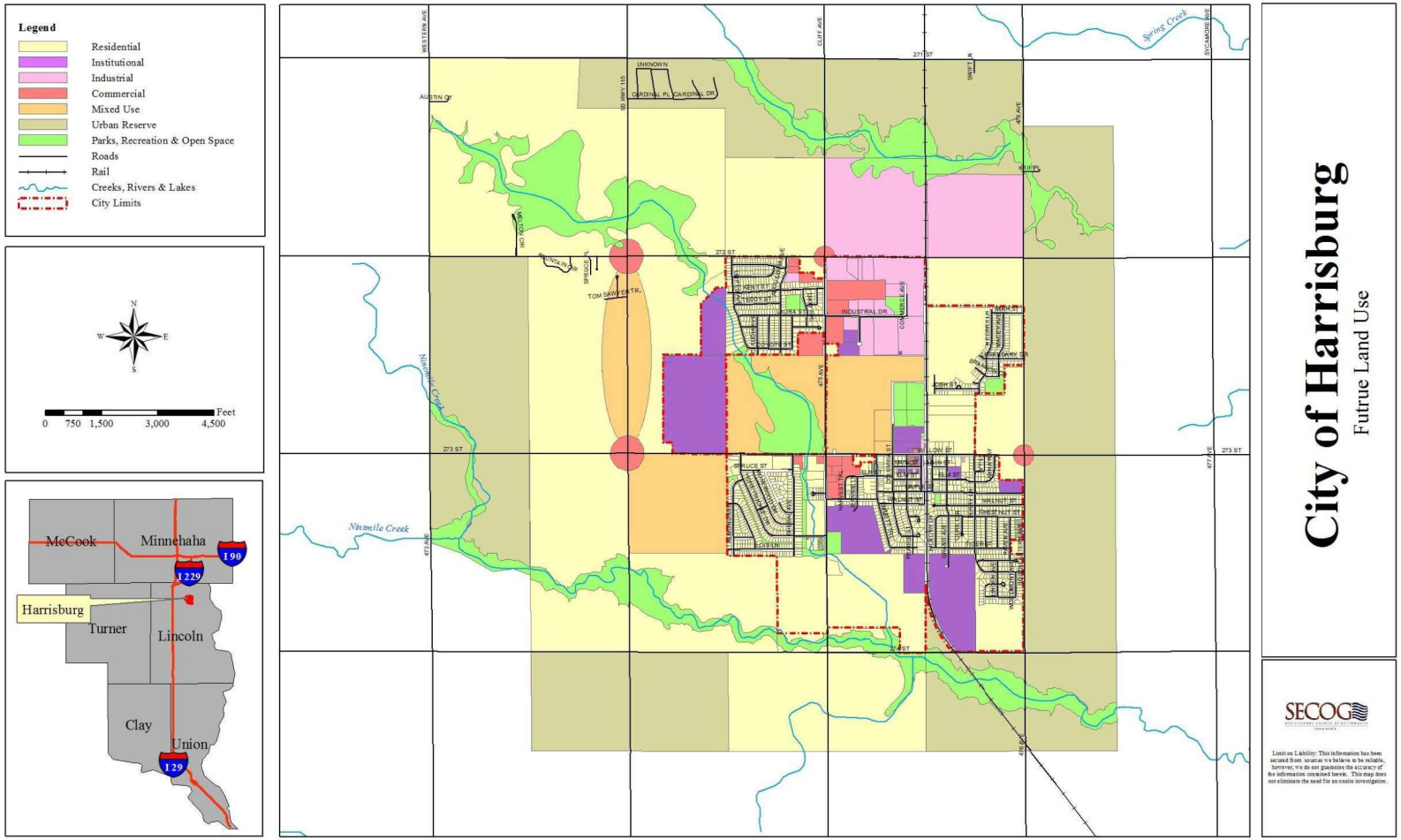


EXHIBIT C



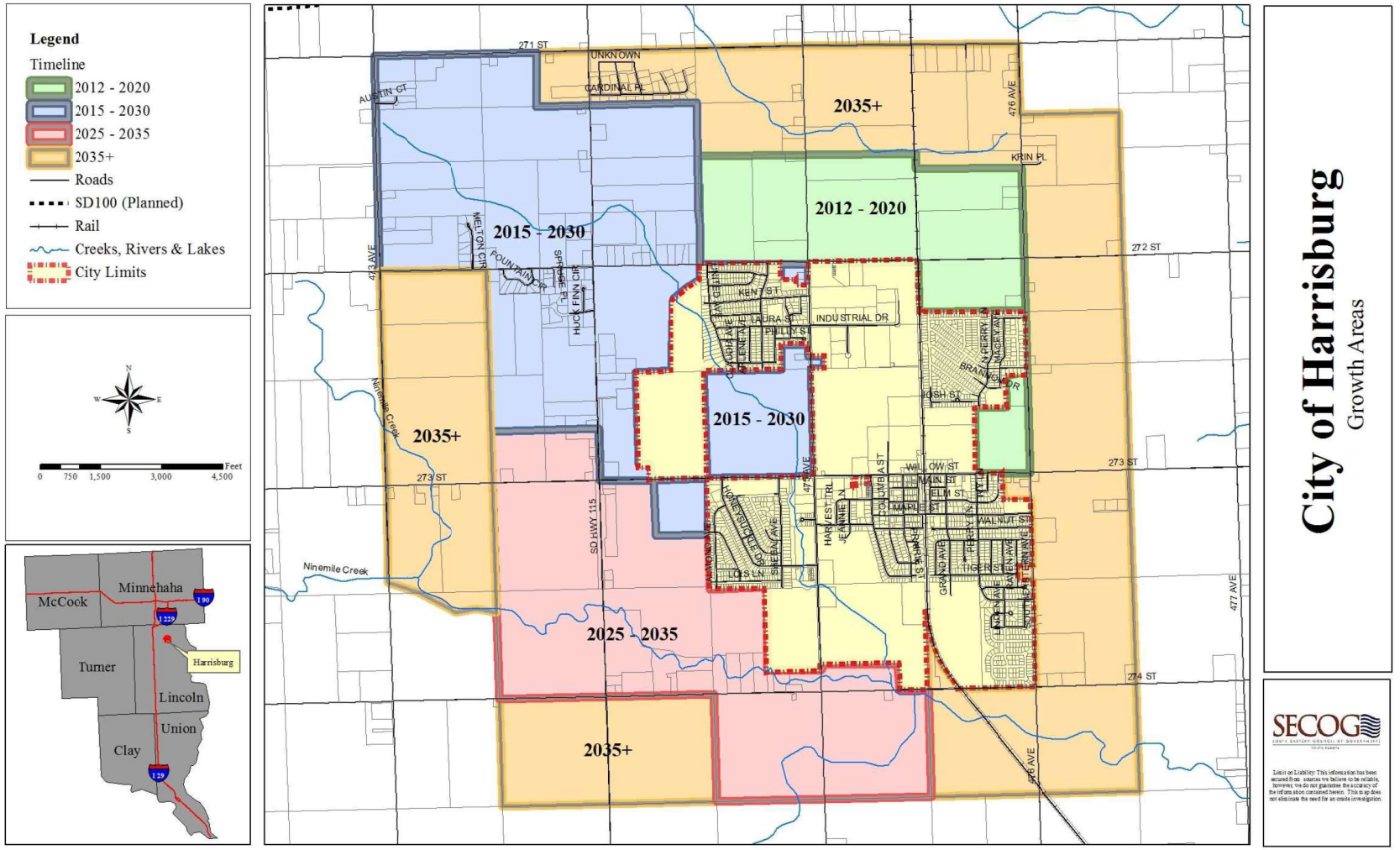
City of Harrisburg

Futrue Land Use

SECOG

Limit on Liability: This information has been secured from sources we believe to be reliable, however, we do not guarantee the accuracy of the information contained herein. This map does not eliminate the need for an onsite investigation.

EXHIBIT D



City of Harrisburg

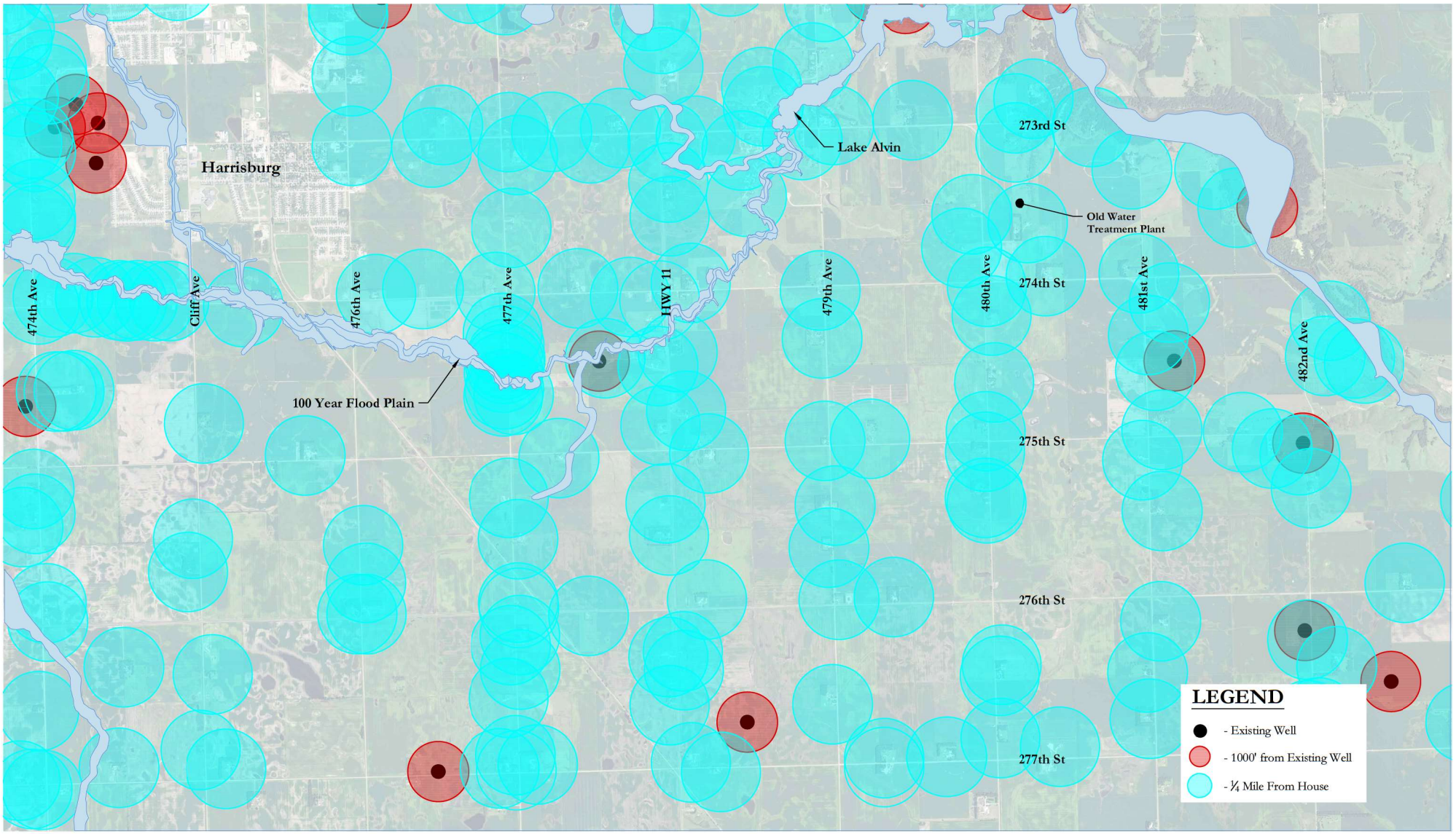
Growth Areas

SECOG

SOUTH EASTERN COUNCIL OF GOVERNMENTS

Limit on Liability: This information has been secured from sources we believe to be reliable, however, we do not guarantee the accuracy of the information contained herein. This map does not eliminate the need for an onsite investigation.

Appendix F
Potential Treatment Sites



Potential WWT Sites | Harrisburg, South Dakota

1" = 3000'

STOCKWELL ENGINEERS

Appendix G
Rose Wind Charts

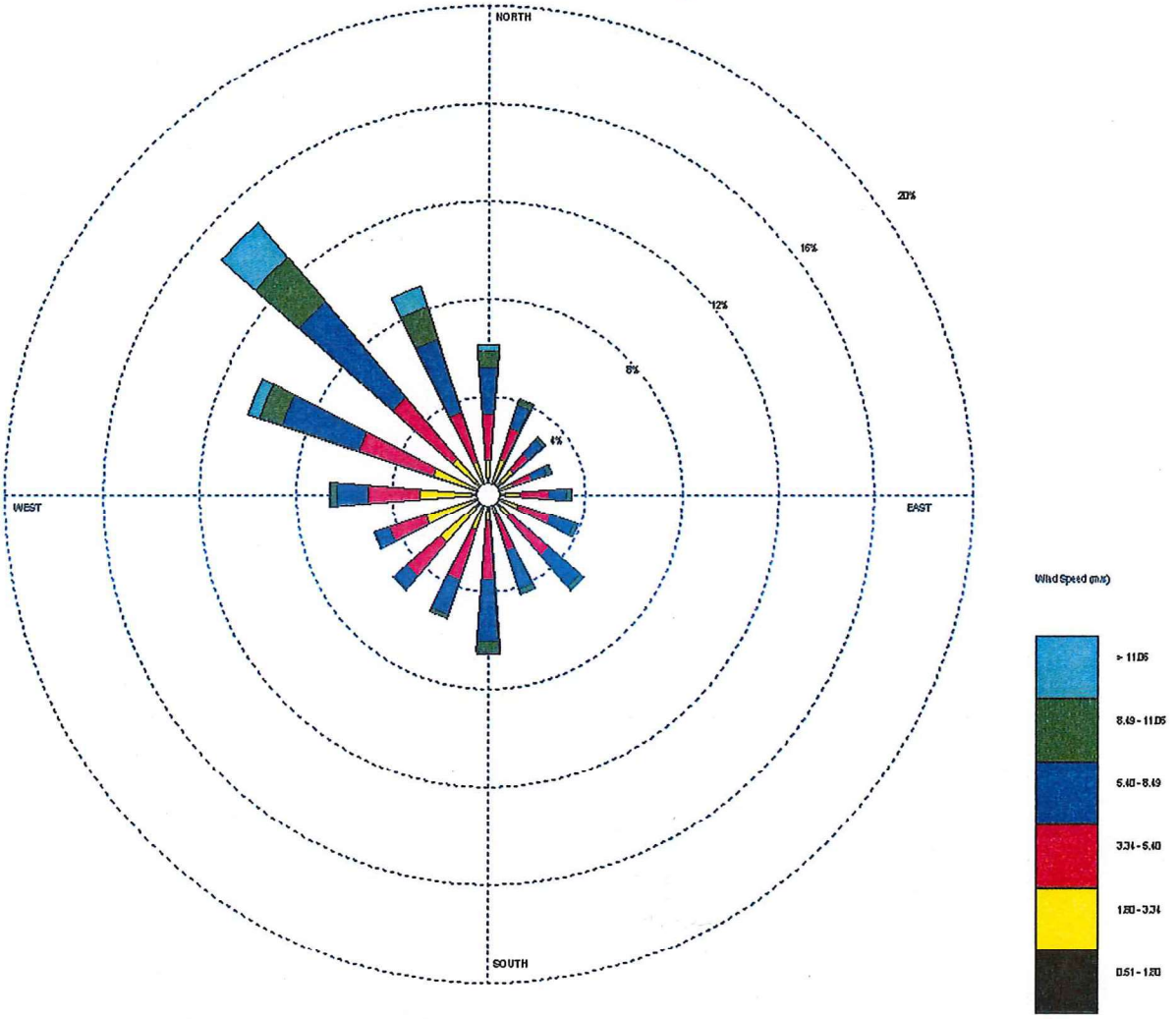
SOUTH DAKOTA STATE UNIVERSITY

SOUTH DAKOTA Climate and Weather

Wind Rose charts (m/s)

For: Sioux Falls Month of: January :: Go ::
(click here to view hourly average wind/temperature charts)

Sioux Falls Foss Field (726510): 1973-2002
January



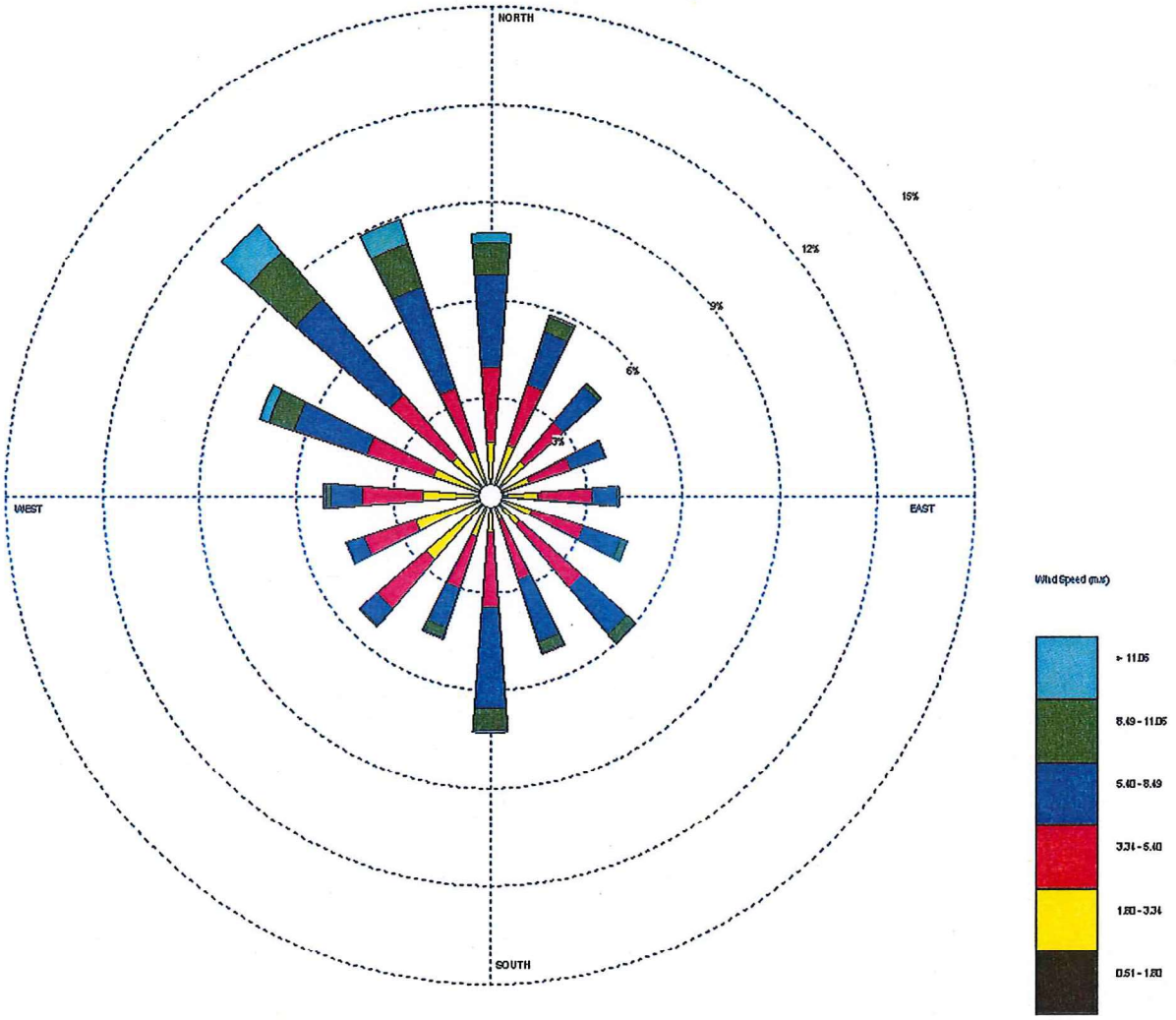
SOUTH DAKOTA STATE UNIVERSITY

SOUTH DAKOTA Climate and Weather

Wind Rose charts (m/s)

For: Sioux Falls Month of: February :: Go ::
(click here to view hourly average wind/temperature charts)

Sioux Falls Foss Field (726510): 1973-2002
February



SOUTH DAKOTA STATE UNIVERSITY

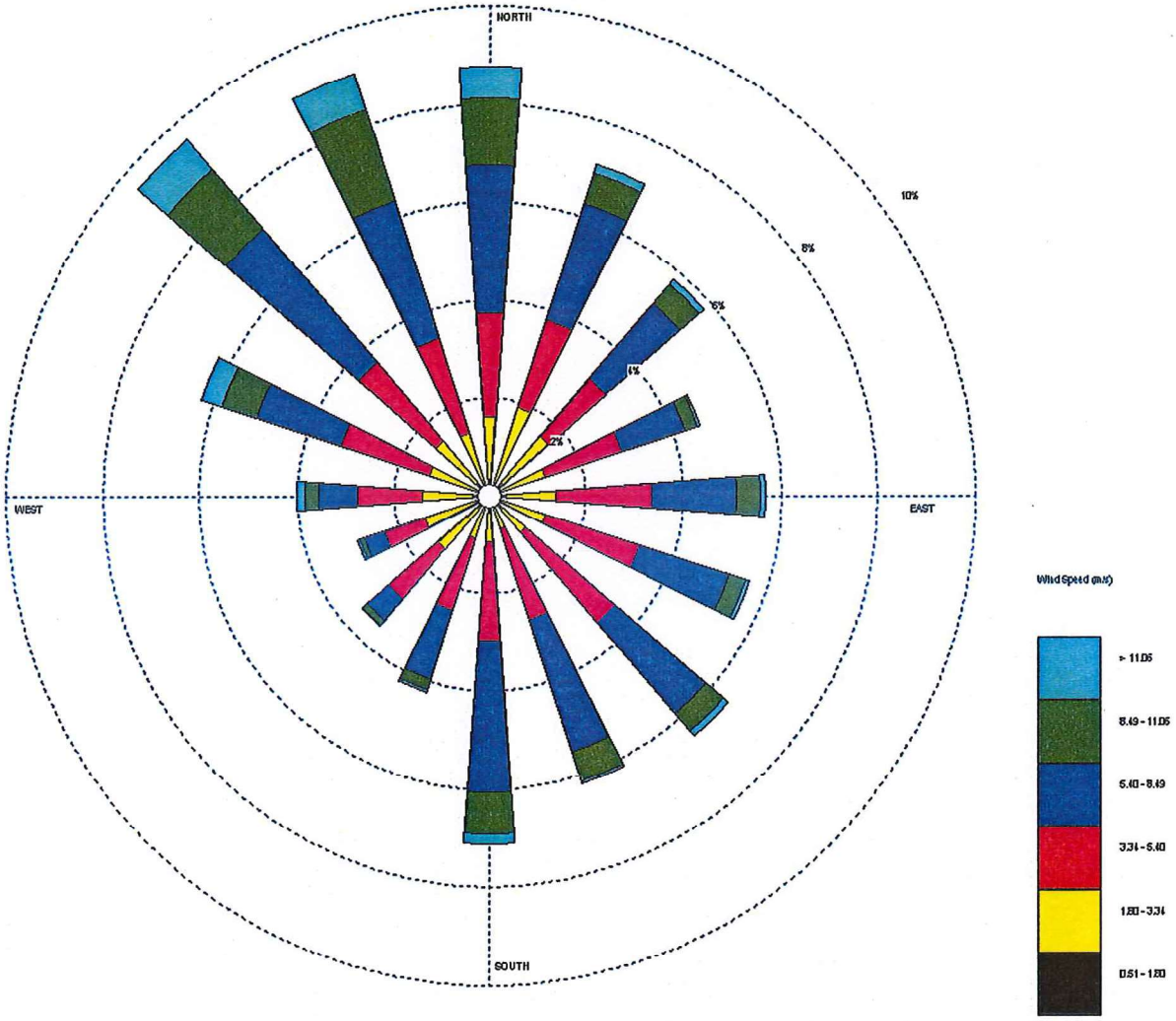
SOUTH DAKOTA Climate and Weather

Wind Rose charts (m/s)

For: Sioux Falls Month of: March :: Go ::

(click here to view hourly average wind/temperature charts)

Sioux Falls Foss Field (726510): 1973-2002
March



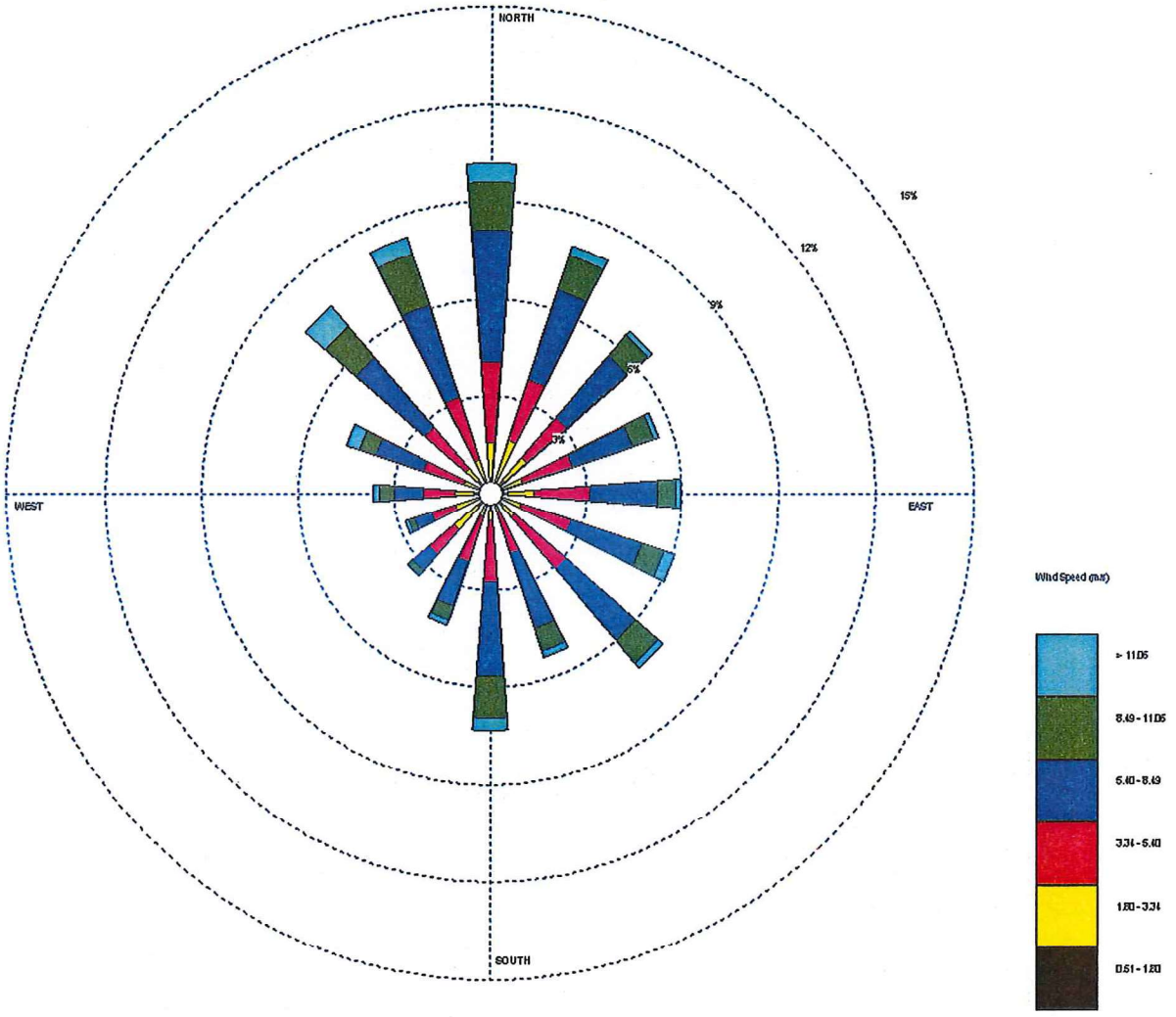
SOUTH DAKOTA STATE UNIVERSITY

SOUTH DAKOTA Climate and Weather

Wind Rose charts (m/s)

For: Sioux Falls Month of: April :: Go ::
(click here to view hourly average wind/temperature charts)

Sioux Falls Foss Field (726510): 1973-2002
April



SOUTH DAKOTA STATE UNIVERSITY

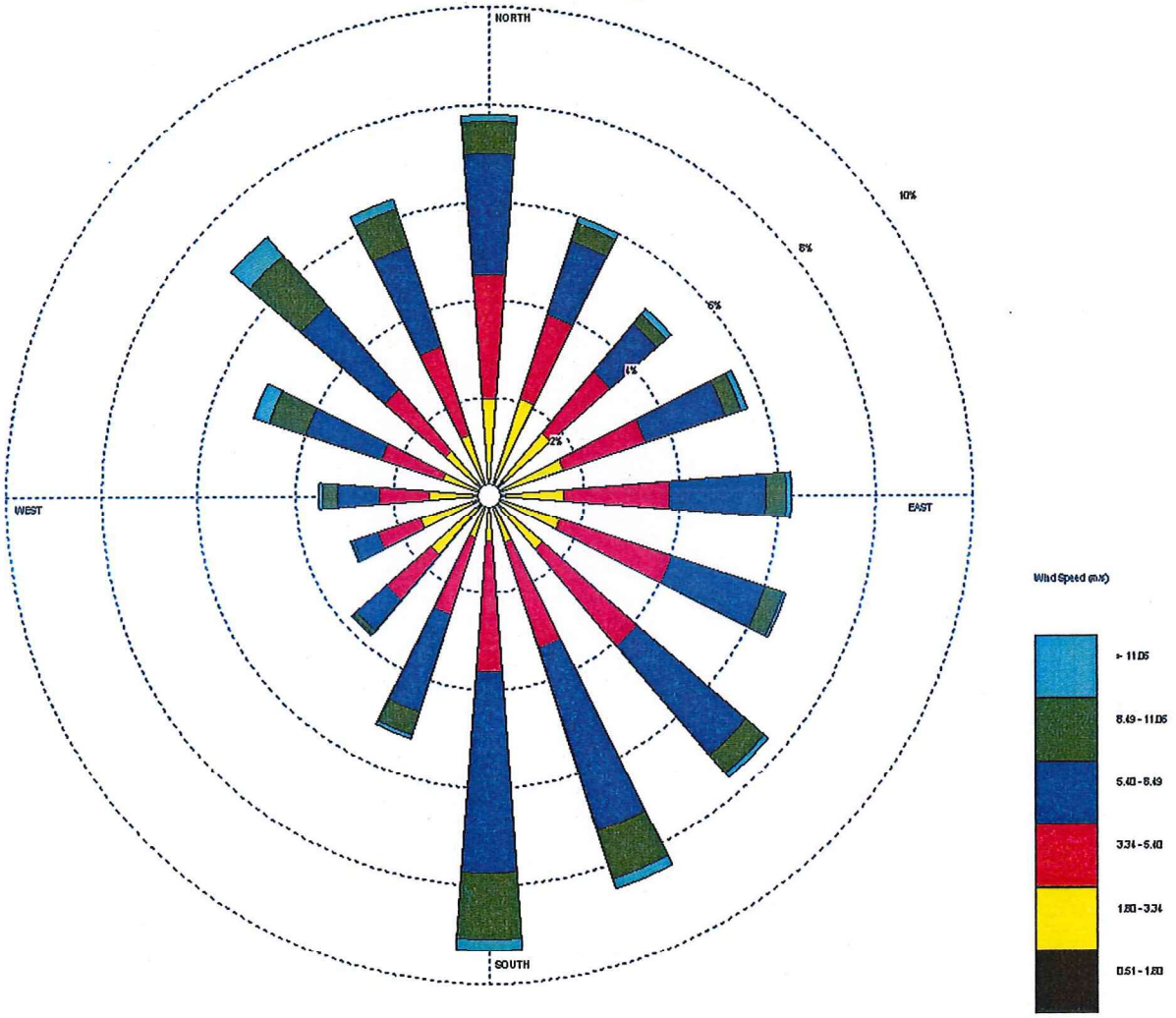
SOUTH DAKOTA Climate and Weather

Wind Rose charts (m/s)

For: Sioux Falls Month of: May :: Go ::

(click here to view hourly average wind/temperature charts)

Sioux Falls Foss Field (726510): 1973-2002
May



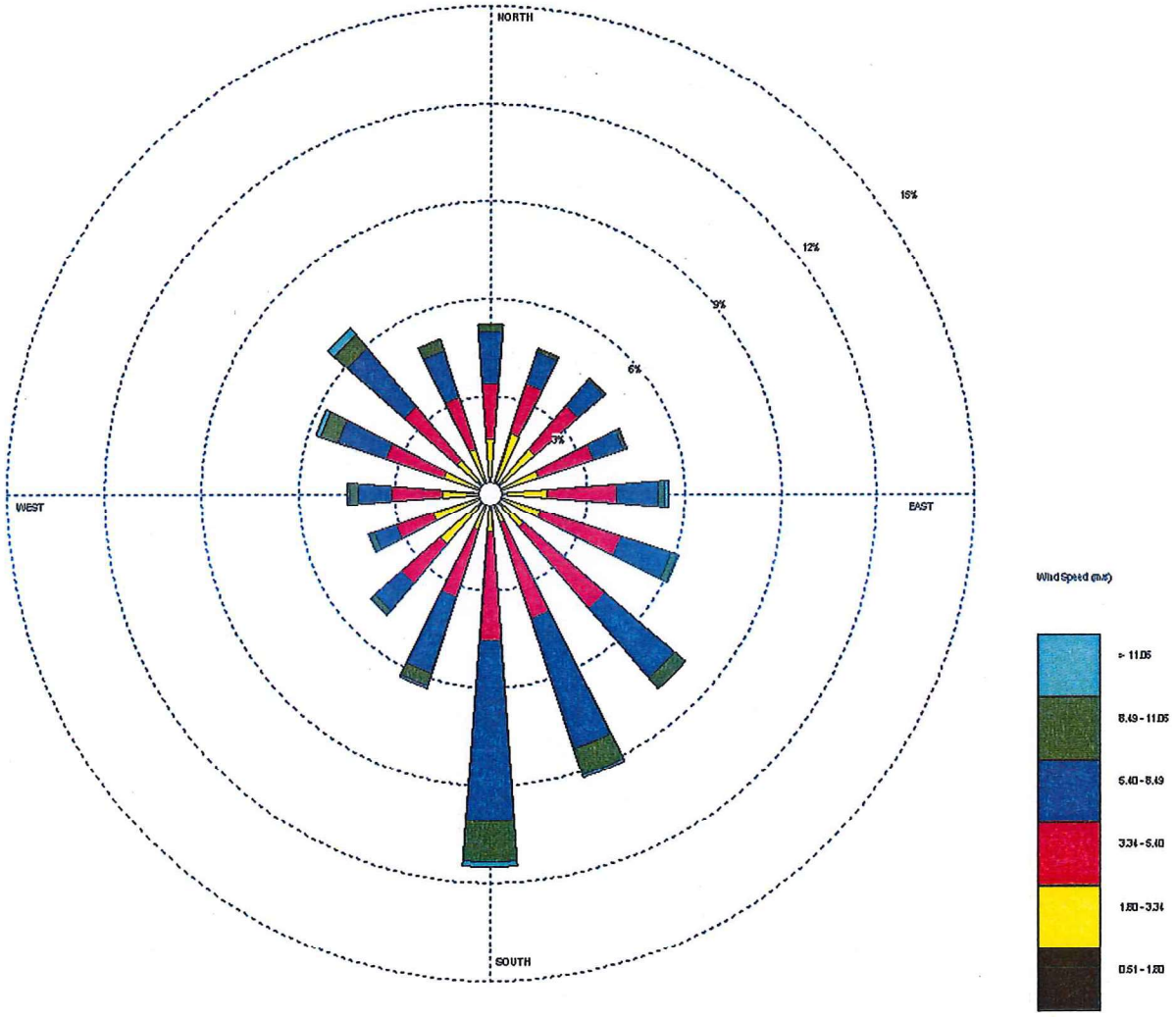
SOUTH DAKOTA STATE UNIVERSITY

SOUTH DAKOTA Climate and Weather

Wind Rose charts (m/s)

For: Sioux Falls Month of: June :: Go ::
(click here to view hourly average wind/temperature charts)

Sioux Falls Foss Field (726510): 1973-2002
June



SOUTH DAKOTA STATE UNIVERSITY

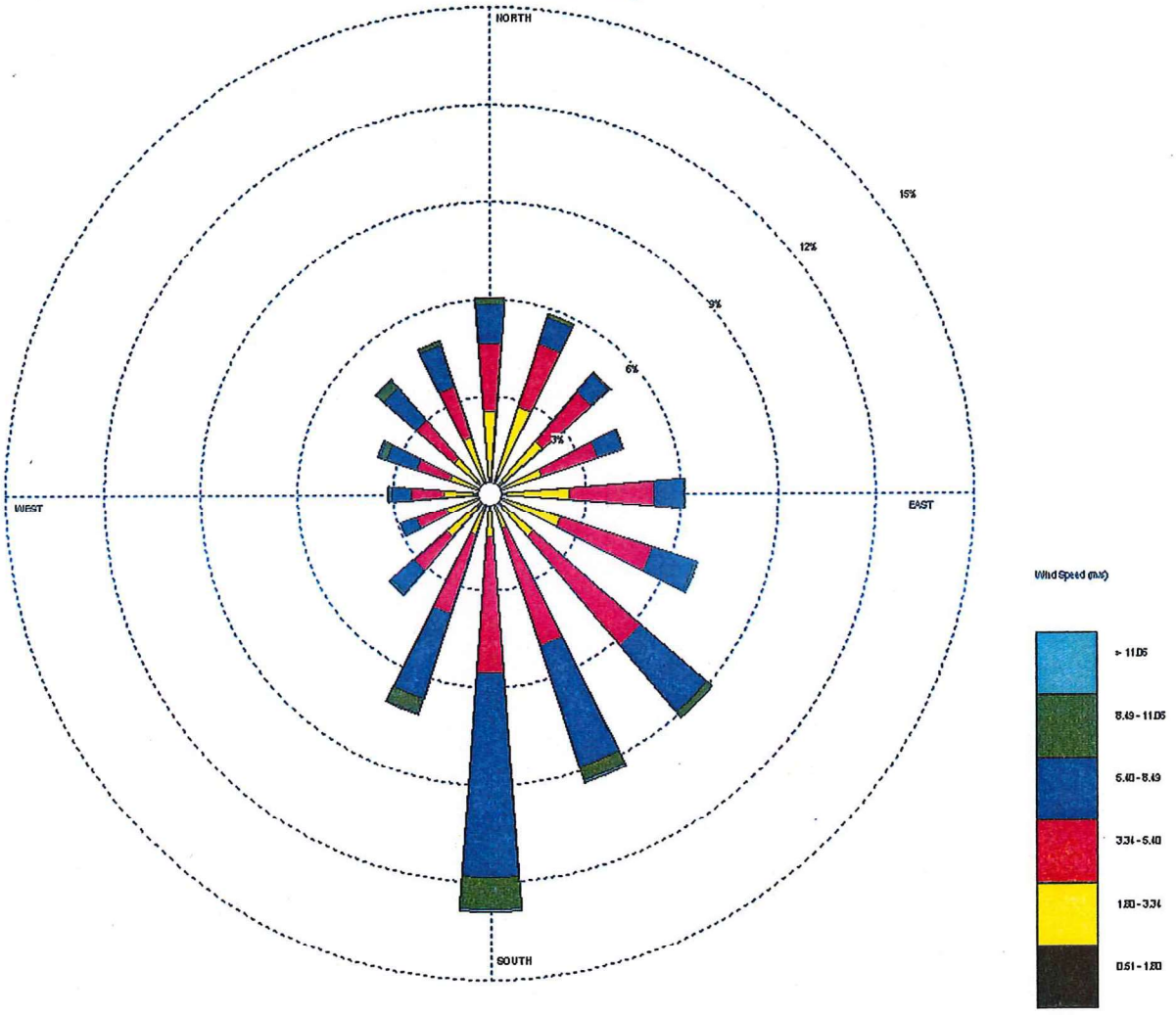
SOUTH DAKOTA Climate and Weather

Wind Rose charts (m/s)

For: Sioux Falls Month of: July :: Go ::

(click here to view hourly average wind/temperature charts)

Sioux Falls Foss Field (726510): 1973-2002
July



SOUTH DAKOTA STATE UNIVERSITY

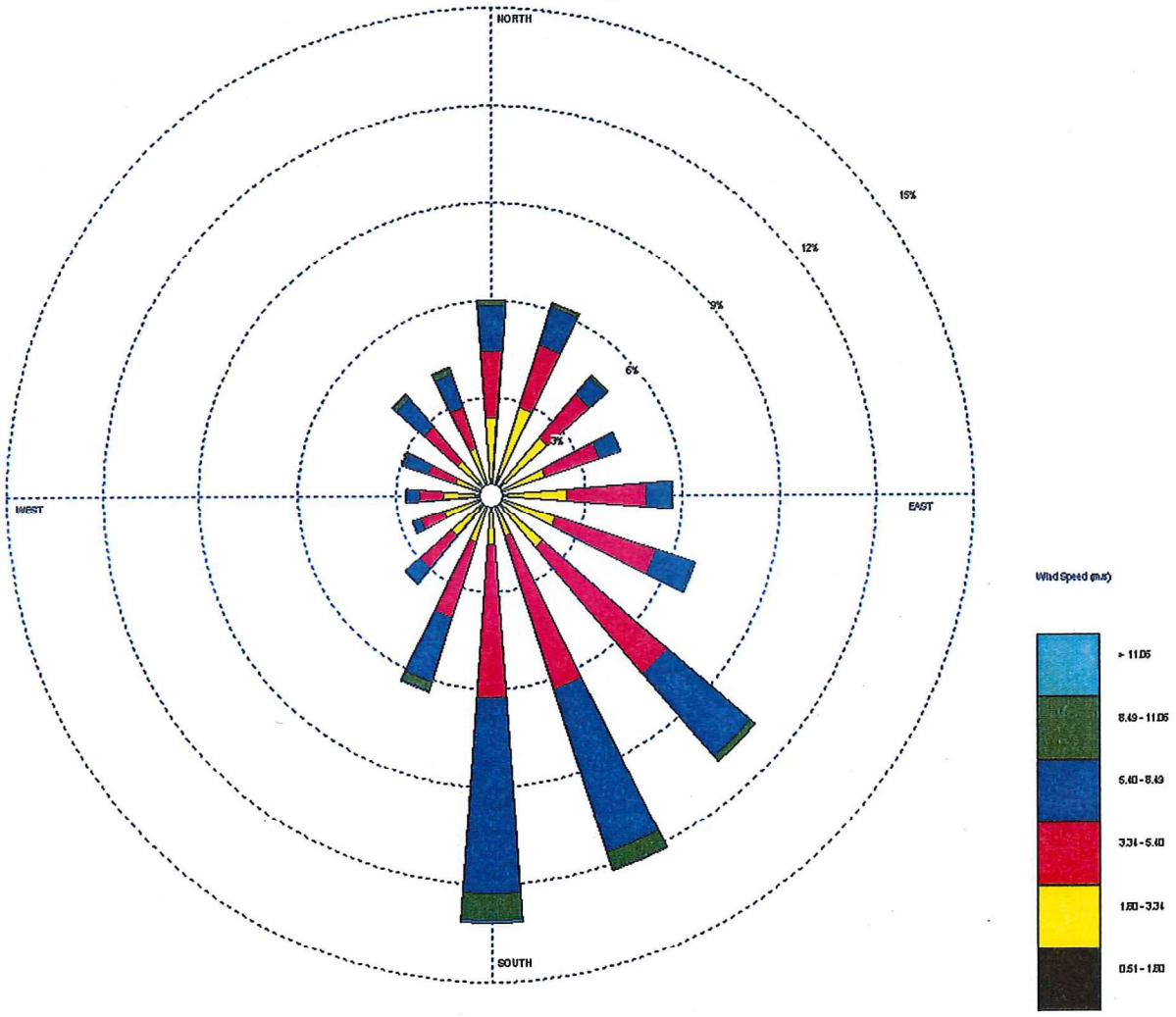
SOUTH DAKOTA Climate and Weather

Wind Rose charts (m/s)

For: Sioux Falls Month of: August :: Go ::

(click here to view hourly average wind/temperature charts)

Sioux Falls Foss Field (726510): 1973-2002
August



South Dakota State University

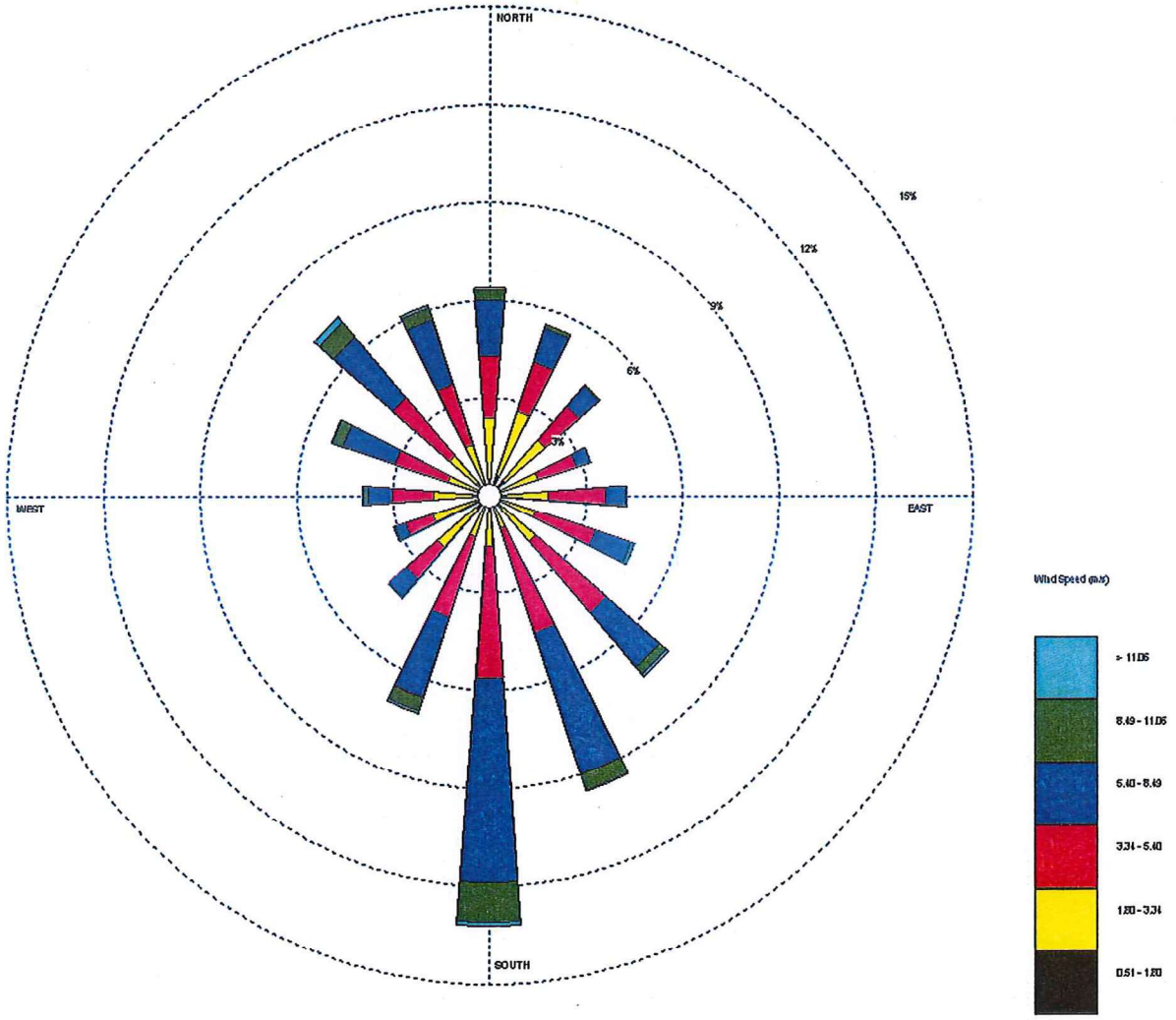
South Dakota Climate and Weather

Wind Rose charts (m/s)

For: Sioux Falls Month of: September :: Go ::

(click here to view hourly average wind/temperature charts)

Sioux Falls Foss Field (726510): 1973-2002
September



SOUTH DAKOTA STATE UNIVERSITY

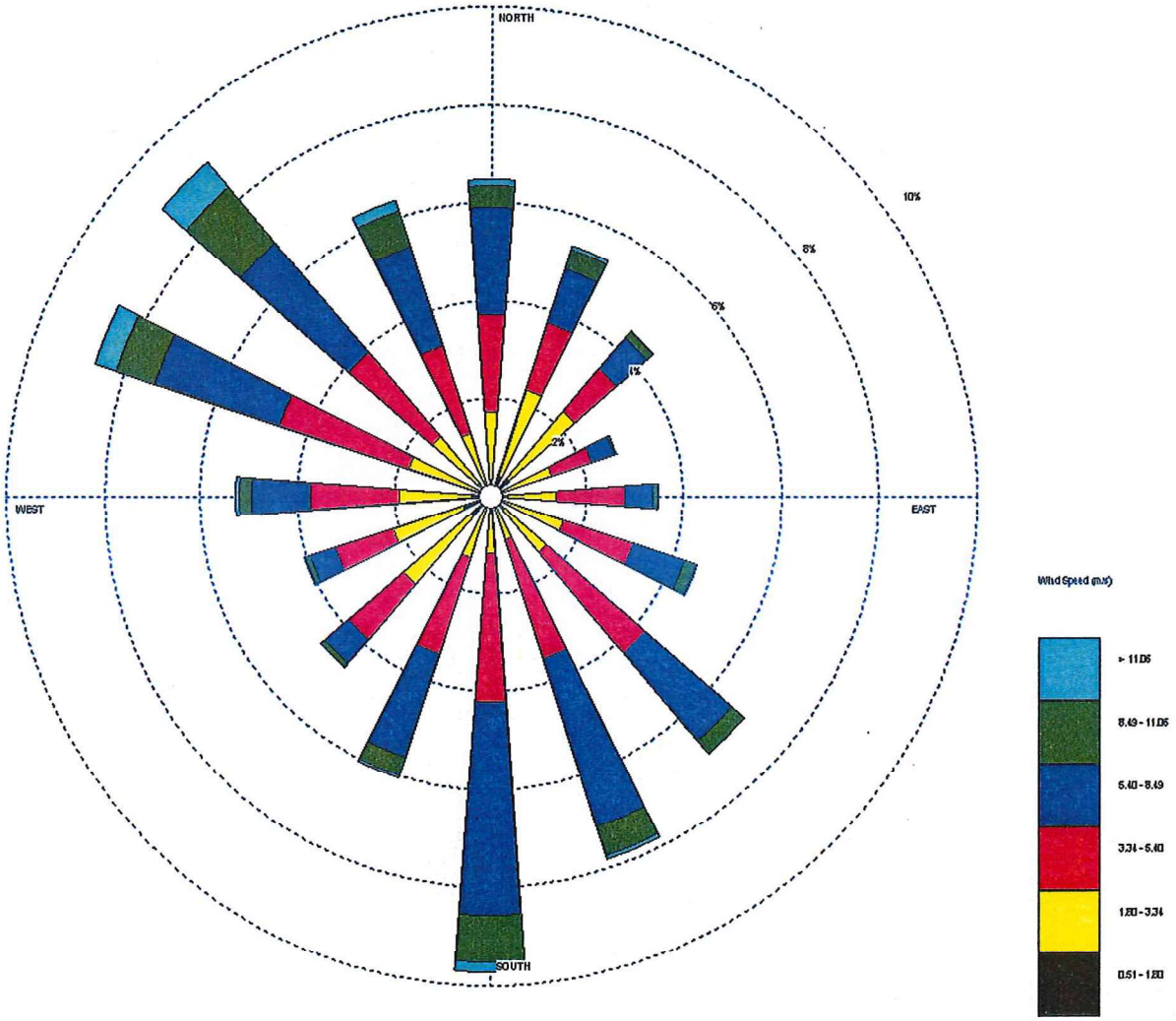
SOUTH DAKOTA Climate and Weather

Wind Rose charts (m/s)

For: Sioux Falls Month of: October :: Go ::

(click here to view hourly average wind/temperature charts)

Sioux Falls Foss Field (726510): 1973-2002
October



SOUTH DAKOTA STATE UNIVERSITY

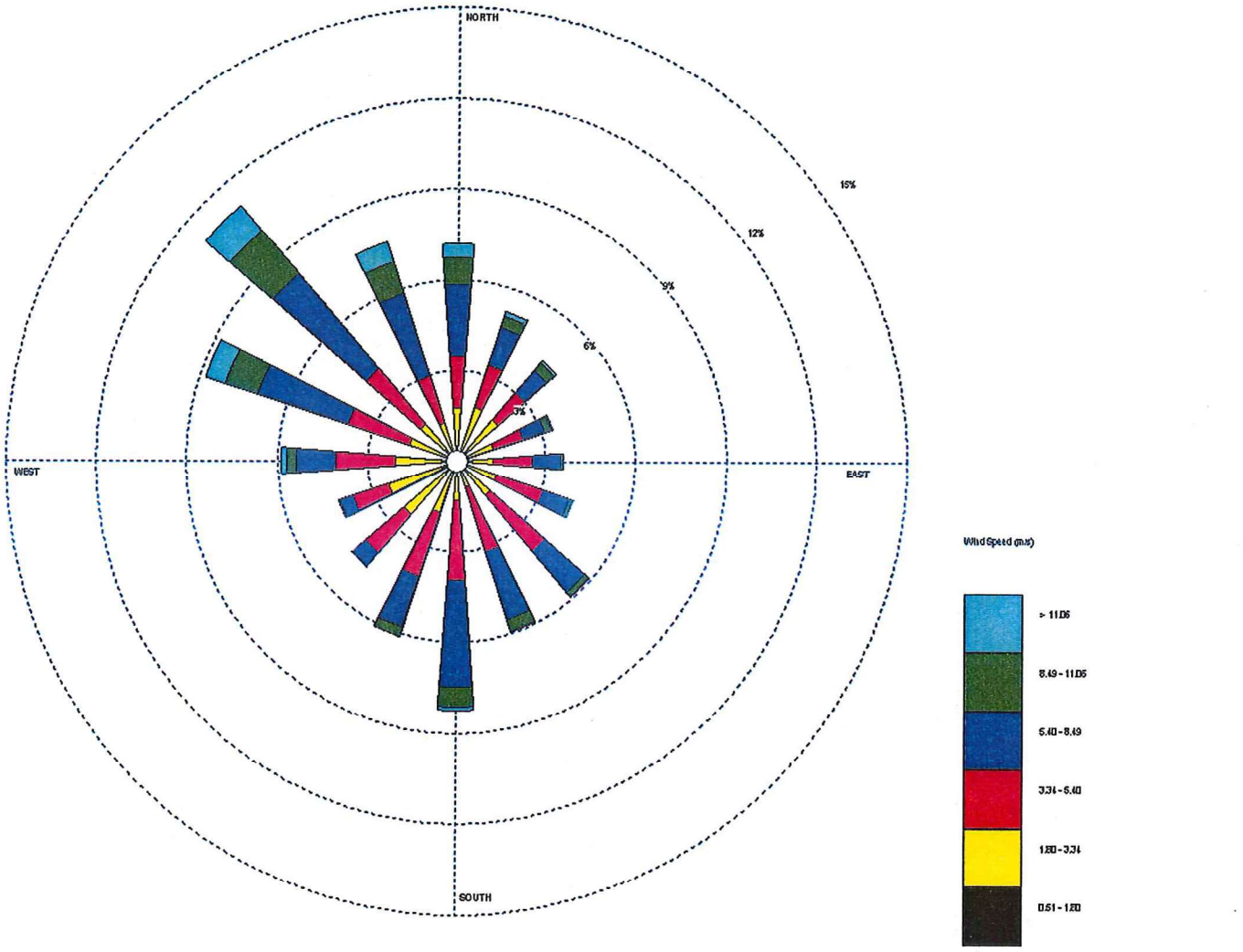
SOUTH DAKOTA Climate and Weather

Wind Rose charts (m/s)

For: Sioux Falls Month of: November :: Go ::

(click here to view hourly average wind/temperature charts)

Sioux Falls Foss Field (726510): 1973-2002
November



South Dakota State University

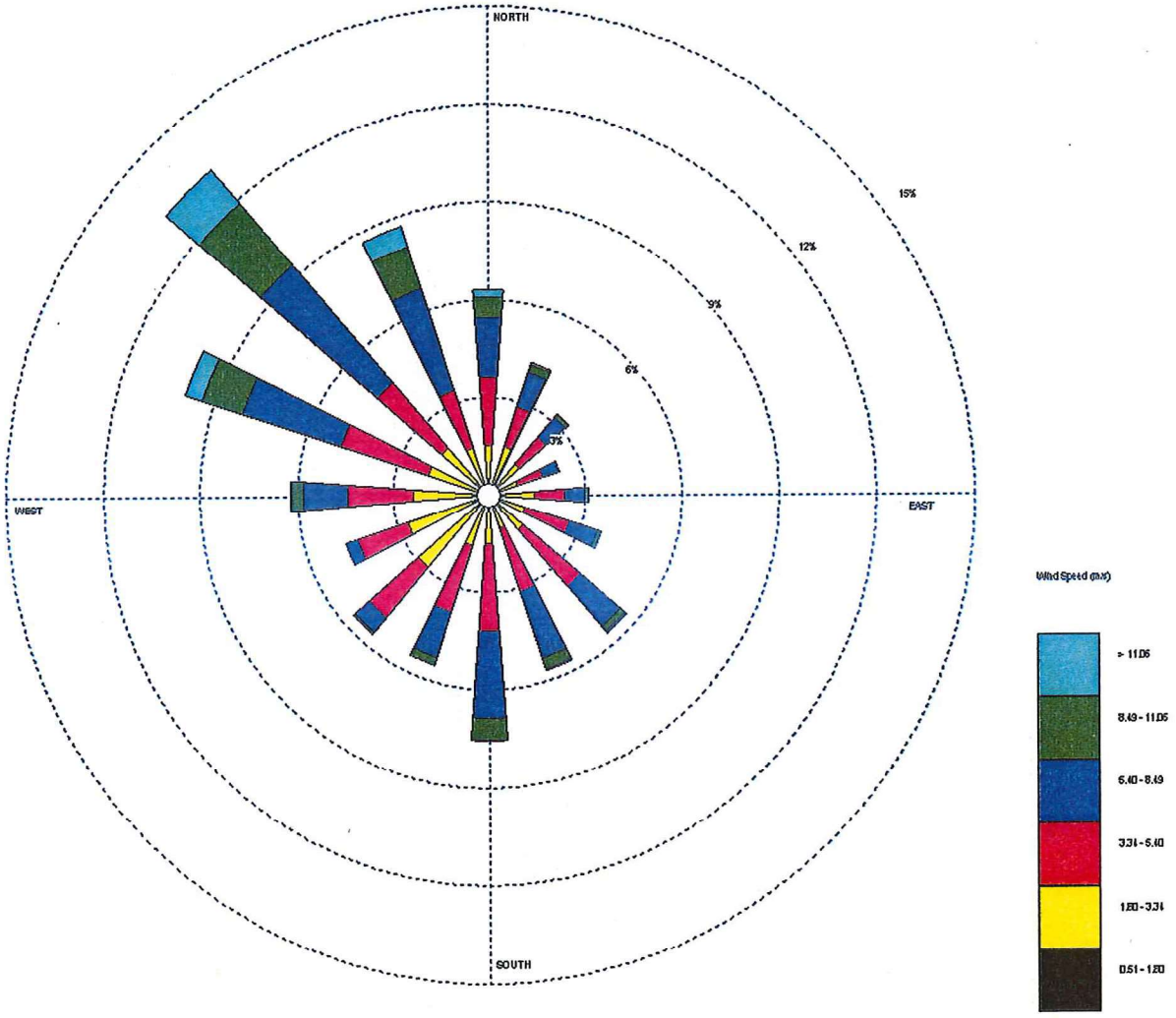
South Dakota Climate and Weather

Wind Rose charts (m/s)

For: Sioux Falls Month of: December :: Go ::

(click here to view hourly average wind/temperature charts)

Sioux Falls Foss Field (726510): 1973-2002
December



Appendix H
Annual Cost Comparison for Population Projection of 10,353

Harrisburg Wastewater Treatment Alternatives
Annual Cost Comparison for Population Projection of 10,353

12/19/2014

	2: Total Retention			2a: Total Retention with Aeration			6: SAGR at Existing Site			7: SAGR at New Site		
	$11,040,700			$13,634,800			$11,662,800			$13,244,800		
							Nutrient in 10 Years = $2,198,000			Nutrient in 10 Years = $2,198,000		
Year	O&M	Debt Service	Total	O&M	Debt Service	Total	O&M	Debt Service	Total	O&M	Debt Service	Total
1	$23,000	$581,643	**$604,643**	$81,000	$718,305	**$799,305**	$127,000	$614,416	**$741,416**	$127,000	$697,759	**$824,759**
2	$23,690	$581,643	**$605,333**	$83,430	$718,305	**$801,735**	$130,810	$614,416	**$745,226**	$130,810	$697,759	**$828,569**
3	$24,401	$581,643	**$606,044**	$85,933	$718,305	**$804,238**	$134,734	$614,416	**$749,151**	$134,734	$697,759	**$832,493**
4	$25,133	$581,643	**$606,776**	$88,511	$718,305	**$806,816**	$138,776	$614,416	**$753,193**	$138,776	$697,759	**$836,535**
5	$25,887	$581,643	**$607,530**	$91,166	$718,305	**$809,471**	$142,940	$614,416	**$757,356**	$142,940	$697,759	**$840,698**
6	$26,663	$581,643	**$608,306**	$93,901	$718,305	**$812,206**	$147,228	$614,416	**$761,644**	$147,228	$697,759	**$844,987**
7	$27,463	$581,643	**$609,106**	$96,718	$718,305	**$815,023**	$151,645	$614,416	**$766,061**	$151,645	$697,759	**$849,403**
8	$28,287	$581,643	**$609,930**	$99,620	$718,305	**$817,924**	$156,194	$614,416	**$770,610**	$156,194	$697,759	**$853,953**
9	$29,136	$581,643	**$610,779**	$102,608	$718,305	**$820,913**	$160,880	$614,416	**$775,296**	$160,880	$697,759	**$858,639**
10	$30,010	$581,643	**$611,653**	$105,687	$718,305	**$823,991**	$396,706	$730,211	**$1,126,917**	$396,706	$813,553	**$1,210,259**
11	$30,910	$581,643	**$612,553**	$108,857	$718,305	**$827,162**	$408,607	$730,211	**$1,138,818**	$408,607	$813,553	**$1,222,161**
12	$31,837	$581,643	**$613,480**	$112,123	$718,305	**$830,428**	$420,866	$730,211	**$1,151,076**	$420,866	$813,553	**$1,234,419**
13	$32,793	$581,643	**$614,436**	$115,487	$718,305	**$833,791**	$433,492	$730,211	**$1,163,702**	$433,492	$813,553	**$1,247,045**
14	$33,776	$581,643	**$615,419**	$118,951	$718,305	**$837,256**	$446,496	$730,211	**$1,176,707**	$446,496	$813,553	**$1,260,050**
15	$34,790	$581,643	**$616,433**	$122,520	$718,305	**$840,824**	$459,891	$730,211	**$1,190,102**	$459,891	$813,553	**$1,273,444**
16	$35,833	$581,643	**$617,476**	$126,195	$718,305	**$844,500**	$473,688	$730,211	**$1,203,899**	$473,688	$813,553	**$1,287,241**
17	$36,908	$581,643	**$618,551**	$129,981	$718,305	**$848,286**	$487,899	$730,211	**$1,218,109**	$487,899	$813,553	**$1,301,452**
18	$38,015	$581,643	**$619,659**	$133,881	$718,305	**$852,185**	$502,536	$730,211	**$1,232,746**	$502,536	$813,553	**$1,316,089**
19	$39,156	$581,643	**$620,799**	$137,897	$718,305	**$856,202**	$517,612	$730,211	**$1,247,822**	$517,612	$813,553	**$1,331,165**
20	$40,331	$581,643	**$621,974**	$142,034	$718,305	**$860,339**	$533,140	$730,211	**$1,263,351**	$533,140	$813,553	**$1,346,693**
			$12,250,879			$16,542,594			$19,933,203			$21,600,053

Assumptions:

Nutrient removal & full build-out O&M added to SAGR options in year 10.

Loan Terms: 3.25% for 30 Years

Sioux Falls Increases 3%

Partial Sioux Falls pumping assumes treatment credit for 10 years and equalization credit for 10 years.

Full Sioux Falls pumping assumes equalization credit for 20 years.

Harrisburg Wastewater Treatment Alternatives
Annual Cost Comparison for Population Projection of 10,353

	8: Regionalization with Sioux Falls (partial pumping)					9: Regionalization with Sioux Falls				
	$8,310,639					$5,207,039				
	Force Main Extension in 5 Years = $2,600,000					Force Main Extension in 5 Years = $2,600,000				
Year	O&M	Debt Service	SDC	Pumping Charge	Total	O&M	Debt Service	SDC	Pumping Charge	Total
1	$81,000	$437,819	$186,498	$165,000	**$870,317**	$21,000	$274,314	$186,498	$670,000	**$1,151,812**
2	$83,430	$437,819	$192,093	$98,000	**$811,342**	$21,630	$274,314	$192,093	$425,000	**$913,037**
3	$85,933	$437,819	$197,856	$117,000	**$838,608**	$22,279	$274,314	$197,856	$456,000	**$950,449**
4	$88,511	$437,819	$203,791	$136,000	**$866,121**	$22,947	$274,314	$203,791	$489,000	**$990,053**
5	$91,166	$575,002	$209,905	$158,000	**$1,034,073**	$23,636	$411,499	$209,905	$524,000	**$1,169,040**
6	$93,901	$575,002	$216,202	$180,000	**$1,065,105**	$24,345	$411,499	$216,202	$560,000	**$1,212,046**
7	$96,718	$575,002	$222,688	$204,000	**$1,098,409**	$25,075	$411,499	$222,688	$599,000	**$1,258,262**
8	$99,620	$575,002	$229,369	$233,000	**$1,136,991**	$25,827	$411,499	$229,369	$643,000	**$1,309,695**
9	$102,608	$575,002	$236,250	$265,000	**$1,178,860**	$26,602	$411,499	$236,250	$690,000	**$1,364,351**
10	$105,687	$575,002	$243,338	$298,000	**$1,222,026**	$27,400	$411,499	$243,338	$739,000	**$1,421,237**
11	$108,857	$575,002	$250,638	$410,000	**$1,344,497**	$28,222	$411,499	$250,638	$791,000	**$1,481,359**
12	$112,123	$575,002	$258,157	$453,000	**$1,398,282**	$29,069	$411,499	$258,157	$844,000	**$1,542,725**
13	$115,487	$575,002	$265,902	$505,000	**$1,461,390**	$29,941	$411,499	$265,902	$907,000	**$1,614,341**
14	$118,951	$575,002	$273,879	$560,000	**$1,527,832**	$30,839	$411,499	$273,879	$973,000	**$1,689,217**
15	$122,520	$575,002	$282,095	$617,000	**$1,596,617**	$31,764	$411,499	$282,095	$1,043,000	**$1,768,358**
16	$126,195	$575,002	$290,558	$678,000	**$1,669,755**	$32,717	$411,499	$290,558	$1,115,000	**$1,849,774**
17	$129,981	$575,002	$299,275	$741,000	**$1,745,258**	$33,699	$411,499	$299,275	$1,192,000	**$1,936,472**
18	$133,881	$575,002	$308,253	$817,000	**$1,834,135**	$34,710	$411,499	$308,253	$1,279,000	**$2,033,462**
19	$137,897	$575,002	$317,500	$896,000	**$1,926,399**	$35,751	$411,499	$317,500	$1,372,000	**$2,136,750**
20	$142,034	$575,002	$327,025	$979,000	**$2,023,061**	$36,824	$411,499	$327,025	$1,468,000	**$2,243,348**
					$26,649,078					$30,035,788

Assumptions:

Nutrient removal & full build-out O&M added to SAGR options in year 10.

Loan Terms: 3.25% for 30 Years

Sioux Falls Increases 3%

Partial Sioux Falls pumping assumes treatment credit for 10 years and equalization credit for 10 years.

Full Sioux Falls pumping assumes equalization credit for 20 years.