

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 7
11201 RENNER BOULEVARD
LENEXA, KANSAS 66219

BEFORE THE ADMINISTRATOR

IN THE MATTER OF:)
)
The City of Salina, Kansas) Docket No. CWA-07-2019-0041
)
Respondent)
)
Proceedings under) COMPLAINT AND
Section 309(g) of the Clean Water Act,) CONSENT AGREEMENT/
33 U.S.C. § 1319(g)) FINAL ORDER
)
_____)

COMPLAINT

Jurisdiction

1. This is an administrative action for the assessment of civil penalties instituted pursuant to Section 309(g) of the Federal Water Pollution Control Act, commonly referred to as the Clean Water Act (“CWA”), 33 U.S.C. § 1319(g), and in accordance with the United States Environmental Protection Agency’s (“EPA’s”) Consolidated Rules of Practice Governing the Administrative Assessment of Civil Penalties and the Revocation/Termination or Suspension of Permits, 40 C.F.R. Part 22 (“Consolidated Rules of Practice”).

2. Complainant, the United States Environmental Protection Agency, Region 7 (“EPA” or “Complainant”) and Respondent, the city of Salina, Kansas (hereafter, “City” or “Respondent”), have agreed to a settlement of this action before the filing of a complaint, and thus this action is simultaneously commenced and concluded pursuant to Rules 22.13(b) and 22.18(b)(2) and (3) of the Consolidated Rules, 40 C.F.R. §§ 22.13(b) and 22.18(b)(2) and (3).

3. This Complaint and Consent Agreement/Final Order serves as notice that the EPA has reason to believe that Respondent violated Section 405 of the CWA, 33 U.S.C. § 1345, and a permit issued pursuant to Section 402 of the CWA, 33 U.S.C. § 1342, and regulations promulgated thereunder and codified at 40 C.F.R. Part 503.

Parties

4. The authority to take action under Section 309(g) of the CWA, 33 U.S.C. § 1319(g), is vested in the Administrator of EPA. The Administrator has delegated this authority to the Regional Administrator, EPA, Region 7, who in turn has delegated it to the Director of the Water, Wetlands and Pesticides Division of EPA, Region 7.

5. Respondent is the city of Salina, Kansas, a municipality organized under the laws of the state of Kansas and authorized to conduct business in the state of Kansas.

Statutory and Regulatory Framework

6. Section 405(a) of the CWA, 33 U.S.C. § 1345(a), prohibits the disposal of sewage sludge resulting from the operation of a treatment works where the disposal would result in any pollutant from such sewage sludge entering the navigable waters, except in accordance with a permit issued pursuant to Section 402 of the CWA, 33 U.S.C. § 1342.

7. Section 402 of the CWA, 33 U.S.C. § 1342, provides that pollutants may be discharged only in accordance with the terms of a National Pollutant Discharge Elimination System (“NPDES”) permit issued pursuant to that Section.

8. Section 405(d)(1) of the CWA, 33 U.S.C. § 1345(d)(1), provides that the Administrator shall develop and publish regulations providing guidelines for the disposal of sludge and the utilization of sludge for various purposes.

9. Pursuant to Section 405(d)(1) of the CWA, the EPA promulgated regulations governing the Standards for the Use or Disposal of Sewage Sludge which are set forth at 40 C.F.R. Part 503 (the “Sludge Management Program”). These regulations establish recordkeeping and reporting requirements, pollutant limits and site management practices applicable to owners or operators of treatment works treating domestic sewage, and standards for the final use or disposal of sewage sludge generated during the treatment of domestic sewage in treatment works.

10. The Kansas Department of Health and Environment (“KDHE”) is the state agency with the authority to administer the federal NPDES program in Kansas pursuant to Section 402 of the CWA. The EPA maintains concurrent enforcement authority with authorized states for violations of the CWA.

11. The state of Kansas has not applied for or obtained primary authority to administer and enforce the Sludge Management Program pursuant to Sections 402(b) or 405(c) of the CWA, 33 U.S.C. §§ 1342(b) or 1345(c), and 40 C.F.R. Part 501. The EPA directly implements the Sludge Management Program in Kansas, and is therefore the “permitting authority,” as defined by 40 C.F.R. § 503.9(p), for purposes of the sludge management program.

12. Section 405(e) of the CWA, 33 U.S.C. § 1345(e), prohibits the disposal of sludge from a publicly owned treatment works or any other treatment works treating domestic sewage for any use for which regulations have been established pursuant to subsection (d) of that Section, except in accordance with such regulations.

13. The regulations found in Subpart B of 40 C.F.R. Part 503 apply to any person who prepares sewage sludge that is applied to the land, to any person who applies sewage sludge to the land, to sewage sludge applied to the land, and to the land on which sewage sludge is applied. 40 C.F.R. § 503.10(a).

14. Pursuant to 40 C.F.R. § 503.9(r), a "person who prepares sewage sludge" is either the person who generates sewage sludge during the treatment of domestic sewage in a treatment works or the person who derives a material from sewage sludge.

15. Pursuant to 40 C.F.R. § 503.11 (h), "land application" means the spraying or spreading of sewage sludge onto the land surface; the injection of sewage sludge below the land surface; or the incorporation of sewage sludge into the soil so that the sewage sludge can either condition the soil or fertilize crops or vegetation grown in the soil.

16. Section 309(g)(l) of the CWA, 33 U.S.C. § 1319(g)(l), authorizes the issuance of penalty against any person who violates Section 405 of the CWA, 33 U.S.C. § 1345, or a permit issued pursuant to Section 402 of the CWA, 33 U.S.C. § 1342.

EPA's General Allegations

17. The City is a "municipality" and a "person" as defined by Sections 502(4) and (5) of the CWA, 33 U.S.C. §§ 1362(4) and (5) and 40 C.F.R. §§ 503.9(o) and (q), respectively.

18. At all relevant times, Respondent has owned and/or operated a publicly owned treatment works ("POTW"), as defined by 40 C.F.R. § 503.3(q), (hereinafter, referred to as the "Facility") located at 596 North Marymount Road, Salina, Kansas. Respondent used the Facility for the "treatment of sewage sludge" as defined in 40 C.F.R. § 503.9(z).

19. Respondent generates "sewage sludge" that is used for "land application" as these terms are defined by 40 C.F.R. §§ 503.9(w) and 503.11(h), respectively. Respondent land applies its Class B sewage sludge at locations within Saline County, Kansas.

20. Respondent is subject to Section 405 of the CWA, 33 U.S.C. § 1345, and 40 C.F.R. Part 503, Subpart B, because it is a "person who prepares sewage sludge," as defined at 40 C.F.R. § 503.9(r). NPDES Permit Number KS0038474, issued for the Respondent's POTW by the KDHE on January 1, 2015, reiterates the Respondent's responsibility to comply with Section 405 of the CWA and 40 C.F.R. Part 503.

21. 40 C.F.R. § 503.13(a) provides that bulk sewage sludge shall not be applied to land if the concentration of any pollutant in the sewage sludge exceeds the ceiling concentration for the pollutant in Table 1 of § 503.13.

22. Respondent is required by 40 C.F.R. § 503.18 to submit an annual report to the permitting authority, i.e., the EPA, each year by no later than February 19 regarding its sludge activities for the preceding calendar year.

23. Respondent submitted annual reports to the EPA covering calendar year 2016 (hereafter “2016 annual report”), on February 17, 2017, covering calendar year 2017 (hereafter “2017 annual report”), on February 19, 2018, and covering calendar year 2018 (hereafter “2018 annual report”), on February 19, 2019, pursuant to the requirements of 40 C.F.R. Part 503. The reports contain a summary of Respondent’s testing results and land application information for sludge, including land application sites, dates of land application and quantities of sludge applied to each site for each application.

24. 40 C.F.R. § 503.13(a) Table 1 limits the ceiling concentration for Molybdenum in sewage sludge applied to the land to 75 milligrams per kilogram.

25. The 2016, 2017 and 2018 annual reports submitted by Respondent document that analysis of the Respondent’s sludge sampled in the second and third quarters of 2016, the third quarter of 2017, and the fourth quarter of 2018, showed Respondent’s bulk sewage sludge contained concentrations of Molybdenum in excess of the ceiling concentration of 75 milligrams per kilogram permitted by 40 C.F.R. § 503.13(a) Table 1.

26. On or about September 24 through 26, 2018, the EPA performed an audit of Respondent’s Pretreatment program (“Audit”) under the authority of Section 308 of the CWA, 33 U.S.C. § 1318. Information collected during the Audit confirmed that the Respondent had land applied sewage sludge in 2016 and 2017 concentrations of Molybdenum in excess of the ceiling concentration of 75 milligrams per kilogram permitted by 40 C.F.R. § 503.13(a) Table 1.

EPA’s Specific Allegations

Failure to Comply with Ceiling Concentration Limitations

27. The facts stated above are herein incorporated.

28. Based on information presented by Respondent in its 2016, 2017 and 2018 annual reports, Respondent land applied bulk sewage sludge on twelve separate occasions between April 1, 2016, and September 30, 2016, on four separate occasions between July 1, 2017, and September 30, 2017, and on four occasions between October 1, 2018, and December 31, 2018, containing Molybdenum concentrations in excess of the ceiling concentration of 75 milligrams per kilogram permitted by 40 C.F.R. § 503.13(a) Table 1.

29. Respondent’s failure to comply with the ceiling concentration limitations described in Paragraph 28, above, is a violation of Section 405 of the CWA, 33 U.S.C. § 1345, and implementing regulations at 40 C.F.R. Part 503.

30. As alleged by the EPA above, and pursuant to Section 309(g)(2)(A) of the CWA, 33 U.S.C. § 1319(g)(2)(A), as adjusted pursuant to 40 C.F.R. § 19.4, Respondent is liable for civil penalties of up to \$26,628 per day for each day during which the violation continues, up to a maximum of \$257,848.

CONSENT AGREEMENT

31. Respondent and the EPA agree to the terms of this Consent Agreement/Final Order.
32. Respondent admits the jurisdictional allegations of this Complaint and Consent Agreement/Final Order and agrees not to contest the EPA's jurisdiction in this proceeding or any subsequent proceeding to enforce the terms of the Consent Agreement/Final Order.
33. Respondent neither admits nor denies the factual allegations and legal conclusions contained in this Complaint and Consent Agreement/Final Order.
34. Respondent waives its right to contest any issue of fact or law set forth above, and its right to appeal this Consent Agreement/Final Order.
35. Respondent and Complainant each agree to resolve the matters set forth in this Consent Agreement/Final Order without the necessity of a formal hearing and agree to bear their own costs and attorney's fees.
36. As required by Section 309(g)(3) of the CWA, 33 U.S.C § 1319(g)(3), the EPA has taken into account the nature, circumstances, extent and gravity of the alleged violations as well as Respondent's economic benefit of noncompliance, ability to pay, and other relevant factors in determining the appropriate penalty settlement amount to resolve this action.
37. The undersigned representative of Respondent certifies that he or she is fully authorized to enter into the terms and conditions of this Consent Agreement/Final Order and to execute and legally bind Respondent to it.
38. Respondent understands and agrees that this Consent Agreement/Final Order shall apply to and be binding upon Respondent and Respondent's agents, successors and/or assigns. Respondent shall ensure that all contractors, employees, consultants, firms or other persons or entities acting for Respondent with respect to matters included herein comply with the terms of this Consent Agreement/Final Order.
39. Respondent certifies by signing this Consent Agreement/Final Order that, to the best of its knowledge, Respondent is currently in compliance with all requirements of the CWA and its implementing regulations, including, but not limited to, the requirements of 40 C.F.R. Part 503.
40. This Consent Agreement/Final Order addresses all civil administrative claims for CWA violations identified above. Complainant reserves the right to take any enforcement action with respect to other violations of the CWA or any other applicable law.

Supplemental Environmental Project

41. In settlement of this matter, Respondent shall complete the following Supplemental Environmental Project (“SEP”), which the parties agree is intended to secure significant environmental or public health protection and improvements:

- a. **Project Description:** Respondent shall design, construct and implement a pollution prevention project to address harmful algal blooms in a 0.83 acres pond in Jerry Ivey Park, a public recreational park owned and maintained by the city of Salina, Kansas. As further described in Attachment A of this Consent Agreement and Final Order, the project includes eliminating current sources of nutrients in the pond, installing plants in the pond to maximize the uptake of nutrients, introducing aquatic life appropriate to reduce nutrients, installing an aeration system to improve plant nutrient uptake, install ultrasonic algae control, controlling water fowl populations, and developing and implementing a community involvement plan;
- b. **SEP Implementation Duration:** Respondent shall continue to fully implement and maintain the project for a minimum of two (2) years following the SEP Completion Date;
- c. **SEP Cost:** The total expenditure for the SEP shall be not be less than \$60,000; and
- d. **SEP Completion Date:** By no later than June 1, 2020, Respondent shall complete construction and begin full implementation of the SEP.

42. **SEP Completion Report:** July 1, 2020, Respondent shall submit a SEP Completion Report to EPA, with a copy to KDHE.

- a. The SEP Completion Report shall contain the following:
 - (i) A detailed description of the SEP, including but not limited to, as-built documentation, photographs, a description of the community involvement plan, and data regarding the effectiveness of the project in reducing harmful algal blooms;
 - (ii) Itemized costs, documented by copies of records such as purchase orders, receipts or canceled checks, and a statement confirming that SEP expenses do not include in-house personnel or equipment costs; and
- b. The SEP Completion Report and all other submittals regarding the SEP shall include following certification signed by Respondent or its authorized representative:

I certify under penalty of law that I have examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals

immediately responsible for obtaining the information, the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

- c. The SEP Completion Report and all other submittals regarding the SEP shall be sent to:

bruno.jodi@epa.gov
Jodi Bruno, or her successor
WWPD/WENF
U.S. Environmental Protection Agency
Region 7
11201 Renner Boulevard
Lenexa, Kansas 66219.

43. SEP Effectiveness Report: By no later than December 31, 2020, Respondent shall submit a report to the EPA, with a copy to KDHE, describing the effectiveness of the SEP, any challenges encountered and how Respondent addressed them, information regarding implementation of the community involvement plan, and any other information Respondent believes is relevant and helpful. The SEP Effectiveness Report shall be submitted in a manner consistent with the requirements of Paragraph 42, subparagraphs (b) and (c).

44. Respondent agrees that failure to submit, or failure to timely submit, the Detailed SEP Description or the SEP Completion Report required by Paragraph 42, above, shall be deemed a violation of this Consent Agreement and Order and Respondent shall become liable for stipulated penalties pursuant to Paragraph 45, below.

45. **Stipulated Penalties for Failure to Timely Submit and/or Complete SEP Requirements and/or Failure to Spend Agreed-on Amount:**

- a. In the event that Respondent fails to comply with any of the terms or provisions of this Agreement relating to the performance of the SEP described in Paragraph 41 and Attachment A, and/or to the extent that the actual expenditures for the SEP do not equal or exceed the SEP Cost described in Paragraph 41(c), above, Respondent shall be liable for stipulated penalties according to the provisions set forth below:
- (i) Except as provided below, for a SEP which has not been completed satisfactorily pursuant to this Consent Agreement and Order, Respondent shall pay a stipulated penalty to the United States in the amount of \$45,562.
 - (ii) If the SEP is completed in accordance with Paragraph 41 and Attachment A, but the Respondent spent at least 50 percent, but less than 70 percent, of the amount of money required to be spent for the project, Respondent shall pay a stipulated penalty to the United States in the amount of \$10,000.

- (iii) Respondent shall not be liable for stipulated penalties if:
 - (a) the SEP is not completed in accordance with Paragraph 41 and Attachment A, but the Complainant determines that the Respondent:
 - (1) made good faith and timely efforts to complete the project; and (2) certifies, with supporting documentation, that at least 70 percent of the amount of money which was required to be spent was expended on the SEP; or
 - (b) the SEP is completed in accordance with Paragraph 41 and Attachment A, and the Respondent spent at least 70 percent of the amount of money required to be spent for the project.
 - (iv) Respondent shall pay a stipulated penalty in the amount of \$50 for each day it fails to submit either of the following reports after the report was originally due, and until the report is submitted:
 - (a) the SEP Completion Report specified in Paragraph 42, above; or
 - (b) the SEP Effectiveness Report specified in Paragraph 43, above.
- b. The determinations of whether the SEP has been satisfactorily completed and whether the Respondent has made a good faith, timely effort to implement the SEP shall be in the sole discretion of EPA.
- c. Respondent shall pay stipulated penalties not more than fifteen (15) days after receipt of written demand by the EPA for such penalties. Interest and late charges shall be paid as stated in Paragraph 53, below. The method of payment shall be in accordance with the provisions of Paragraphs 50 and 51, below.

46. Respondent certifies that it is not required to perform or develop the SEP by any federal, state or local law or regulation; nor is Respondent required to perform or develop the SEP by agreement, grant or as injunctive relief in this or any other case or to comply with state or local requirements. Respondent further certifies that Respondent has not received, and is not presently negotiating to receive, credit in any other enforcement action for the SEP.

47. Respondent further certifies that it is not a party to any open federal financial assistance transaction that is funding or could be used to fund the same activity as the SEP. Respondent further certifies that, to the best of its knowledge and belief after reasonable inquiry, there is no such open federal financial transaction that is funding or could be used to fund the same activity as the SEP, nor has the same activity been described in an unsuccessful federal financial assistance transaction proposal submitted to the EPA within two years of the date of this settlement (unless the project was barred from funding as statutorily ineligible). For the purposes of this certification, the term "open federal financial assistance transaction" refers to a grant, cooperative agreement, loan, federally-guaranteed loan guarantee or other mechanism for providing federal financial assistance whose performance period has not yet expired.

48. Any public statement, oral or written, in print, film or other media, made by Respondent making reference to the SEP shall include the following language: *“This project was undertaken in connection with the settlement of an enforcement action taken by the United States Environmental Protection Agency.”*

Penalty Payment

49. Respondent agrees that, in settlement of the claims alleged in this Consent Agreement/Final Order, Respondent shall pay a civil penalty of **Fifteen Thousand One Hundred Eighty-Eight Dollars (\$15,188)** pursuant to the authority of Section 309(g)(2)(A) of the CWA, 33 U.S.C. § 1319(g)(2)(A), to be paid in full no later than thirty (30) days of the effective date of this Consent Agreement/Final Order as set forth below.

50. Respondent shall pay the penalty identified in Paragraph 49 by certified or cashier’s check made payable to “Treasurer, United States of America,” with a transmittal that identifies the case name, facility address, and docket number CWA-07-2019-0041 to:

U.S. Environmental Protection Agency
Fines and Penalties
Cincinnati Finance Center
P.O. Box 979077
St. Louis, Missouri 63197-9000

or by alternate payment method described at <http://www.epa.gov/financial/makepayment>.

51. Respondent shall simultaneously send copies of the transmittal letter and the check, as directed above, to the following:

Lisa Haugen
Regional Hearing Clerk
U.S. Environmental Protection Agency
11201 Renner Boulevard
Lenexa, Kansas 66219

and

Patricia Gillispie Miller
Office of Regional Counsel
U.S. Environmental Protection Agency
11201 Renner Boulevard
Lenexa, Kansas 66219.

52. Respondent agrees that no portion of the civil penalty or interest paid by Respondent pursuant to the requirements of this Consent Agreement/Final Order shall be claimed by Respondent as a deduction for federal, state, or local income tax purposes.

53. Respondent understands that, pursuant to 40 C.F.R. § 13.18, interest on any late payment will be assessed at the annual interest rate established by the Secretary of the Treasury pursuant to 31 U.S.C. § 3717. The interest will be assessed on any overdue amount from the due date through the date of payment. Failure to pay the civil penalty when due may result in the commencement of a civil action in Federal District Court to collect said penalty, together with costs or interest.

Effect of Settlement and Reservation of Rights

54. Respondent's payment of the entire civil penalty and completion of the Supplemental Environmental Project, or payment of applicable stipulated penalties, pursuant to this Consent Agreement/Final Order resolve all civil and administrative claims pursuant to Section 309(g) of the CWA, 33 U.S.C. § 1319(g), for violations alleged in this Consent Agreement/Final Order. Complainant reserves the right to take any enforcement action with respect to any other violations of the CWA or any other applicable law.

55. The effect of settlement described above is conditional upon the accuracy of the Respondent's representations to the EPA, as memorialized in Paragraph 39 of this Consent Agreement/Final Order.

56. Nothing contained in this Consent Agreement/Final Order shall alter or otherwise affect Respondent's obligations to comply with all applicable federal, state, and local environmental statutes and regulations and applicable permits, nor shall it be construed to be a ruling on, or determination of, any issue related to any federal, state or local permit.

57. Notwithstanding any other provision of this Consent Agreement/Final Order, the EPA reserves the right to enforce the terms of this Consent Agreement/Final Order by initiating a judicial collection action pursuant to Section 309(g)(9) of the CWA, 33 U.S.C. § 1319(g)(9), and to seek penalties against Respondent or to seek any other remedy allowed by law.

58. With respect to matters not addressed in this Consent Agreement/Final Order, the EPA reserves the right to take any enforcement action pursuant to the CWA and its implementing regulations, or any other available legal authority, including without limitation, the right to seek injunctive relief, penalties and damages.

General Provisions

59. The Parties acknowledge that this Consent Agreement/Final Order is subject to the public notice and comment required pursuant to Section 309(g)(4) of the CWA, 33 U.S.C. § 1319(g)(4), and 40 C.F.R. § 22.45.

60. Pursuant to 40 C.F.R. § 22.31(b), this Consent Agreement/Final Order shall be effective after entry of the Final Order and upon filing with the Regional Hearing Clerk, U.S. Environmental Protection Agency, Region 7, 11201 Renner Boulevard, Lenexa, Kansas 66219. All time periods herein shall be calculated therefrom in calendar days unless otherwise provided in this Consent Agreement/Final Order.

61. The state of Kansas has been provided an opportunity to consult with Complainant regarding this matter in accordance with the requirements of 40 C.F.R. § 22.38(b) and Section 309(g)(1) of the CWA, 33 U.S.C. § 1319(g)(1).

62. The headings in this Consent Agreement/Final Order are for convenience of reference only and shall not affect interpretation of this Consent Agreement/Final Order.

63. Respondent and Complainant agree that this Consent Agreement/Final Order may be signed in part and counterpart.

For the Complainant, United States Environmental Protection Agency, Region 7:

Date

Jeffery Robichaud
Director
Water, Wetlands and Pesticides Division
U.S. Environmental Protection Agency – Region 7

Patricia Gillispie Miller
Office of Regional Counsel
U.S. Environmental Protection Agency – Region 7

For the Respondent, City of Salina, Kansas:

4-24-2019
Date

Trent W. Davis MD
Signature

Name: Trent W. Davis M.D

Title: Mayer, City of Salina

FINAL ORDER

Pursuant to Section 309(g) of the CWA, 33 U.S.C. § 1319(g), and the Consolidated Rules of Practice Governing the Administrative Assessment of Civil Penalties and the Revocation, Termination or Suspension of Permits, 40 C.F.R. Part 22, the foregoing Consent Agreement resolving this matter is hereby ratified and incorporated by reference into this Final Order.

The Respondent is ORDERED to comply with all of the terms of the Consent Agreement. In accordance with 40 C.F.R. § 22.31(b), the effective date of the foregoing Consent Agreement and this Final Order is the date on which this Final Order is filed with the Regional Hearing Clerk.

IT IS SO ORDERED.

Date

Karina Borromeo
Regional Judicial Officer

CERTIFICATE OF SERVICE

I certify a true and correct copy of the Complaint and Consent Agreement/Final Order was sent this day in the following manner to the addressees:

Copy by First Class Mail to Respondent:

The Honorable Trent W. Davis, M.D., Mayor
City of Salina
City-County Building
300 West Ash Street
Salina, Kansas 67401

Copy emailed to Attorney for Complainant:

Patricia Gillispie Miller
U.S. Environmental Protection Agency - Region 7
miller.patriciag@epa.gov

Copy by First Class Mail to the Kansas Department of Health and Environmental:

Jaime Gaggero, Director
Kansas Department of Health and Environment
Bureau of Water
1000 SW Jackson Street, Suite 420
Topeka, Kansas 66612-1367.

Date

Lisa Haugen
Hearing Clerk, Region 7

In the Matter of the City of Salina, Kansas
Complaint and Consent Agreement/Final Order
EPA Docket No. CWA-07-2019-0041
Attachment A

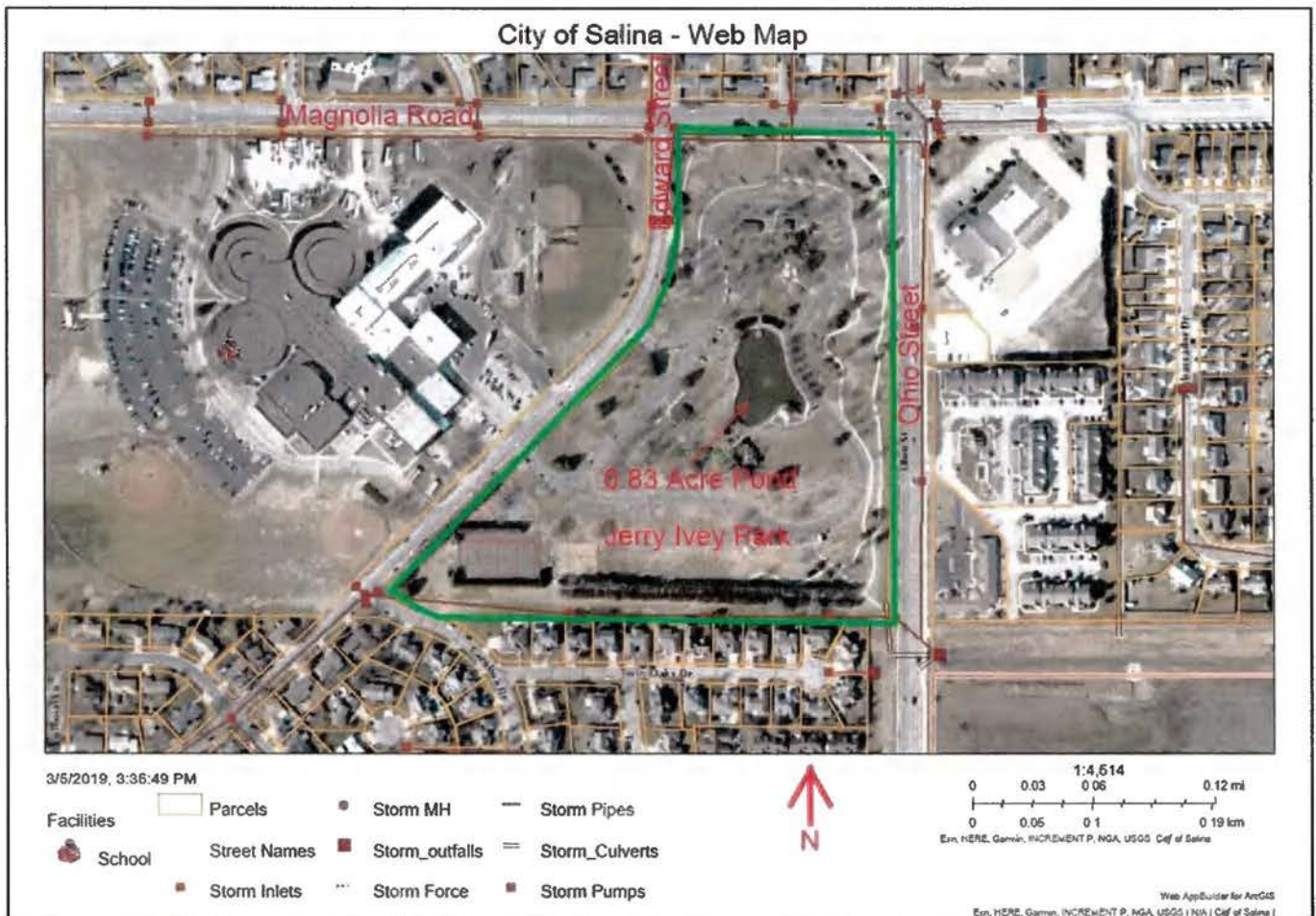
Final
City of Salina, Kansas Sewage Treatment Plant
Supplemental Environmental Project
Jerry Ivey Park
Harmful Algal Bloom



April 2019

Background

Jerry Ivey Park - 735 E Magnolia Road includes: four lighted tennis courts, picnic shelters, playground equipment designed for children of all ages and physical abilities, sand volleyball, basketball court and walking, jogging area and a spray water park in the summer months. Refer to map below. This popular neighborhood park is extensively used by the public year round. The park includes a 0.83 acre shallow urban pond (2.5 feet deep at the edge and 5.0 feet deep at the center) that was constructed in 1997. Amenities to the pond include a gazebo located on the south side, observation deck on the north end, floating fountain with lights, irrigation well, and meandering stream with recirculating pump on the southwest side, and a diffuser. The majority of the water in the pond comes from an on-site irrigation well and surface drainage from the adjacent park land, with very little runoff from the streets and parking areas. A flock of approximately 10-20 ducks and geese use the pond as their year-round home. During the winter months as many as 300-500 wild ducks and geese winter on the pond. The large number of water fowl at the park results in higher levels of nutrients in the pond which then feeds the algae.



Problem to Solve

Over the last several years the pond at Jerry Ivey Park has had a Harmful Algal Bloom (HAB) problem with 2018 being the worst year. In 2018, during the summer months of July through October, the Kansas Department of Health and Environment (KDHE) recommended that the pond be posted with a Warning - Harmful Algae Present, stating people and animals could become sick if they come in contact with the algae. Refer to Appendix A (Kansas Department of Health and Environment, Harmful Algal Blooms in Kansas: 2018 Statistics). In previous years fish kills have occurred in the pond due to the algae. HABs, or the rapid growth of algae, can produce toxins that have harmful effects on people, fish, and animals. Jerry Ivey Park is one of the most utilized parks in Salina, and therefore, it is very important to protect public health, safety, and welfare, as well as the environment by preventing HABs from growing in the pond during the summer months when public use is at its highest level.

During the HAB, those most at risk when exposed to the toxins are small children and pets that frequently enjoy the park amenities. A walking path is located at the pond's edge, which allows access to the water's edge. The adjoining gazebo frequently hosts wedding and other events. The current aeration method is a spray fountain that creates over spraying that extends into the walking path and gazebo area. Despite prominent signage, citizens in general, children in particular, and pets are observed coming in active contact with the water despite blue green algae warnings.

Possible Solutions

- First Priority - Pump the pond dry, and excavate organic sediment to eliminate nutrient recycling. Refill the pond with ground water from a well on site.
- Irrigate the surrounding turf grass with pond water and refill pond with ground water from well on site.
- Construct floating wetlands to reduce the phosphorus level in the pond. The root systems from the aquatic plants take up the nutrients.
- Construct a wetland shelf around the perimeter of the pond to capture the nutrients.
- Evaluate fish population. Carp, catfish and other bottom feeding fish muddy the water and reduce the photic zone. The less photic zone will reduce the amount of algae mass that can grow.
- Install aeration system, to include diffusers on the bottom of pond near the floating islands to help circulate the nutrients so the aquatic plants take up the nutrients.
- Install Ultrasonic devices to help aid in controlling the HABs. This technology has not been fully vetted and is considered innovative.
- Install two fountains to help keep the pond aerated.

- Work with Kansas Department of Wildlife and Parks in controlling the water fowl population.
- Develop a Community Involvement Plan for input on the project/water fowl control. Removal of the resident duck and goose population is critical to reducing the nutrient level in the pond.

Additional solutions suggested by KDHE and engineering consultants:

- Treat the pond with liquid Alum. A small area of the pond was treated with limited success. Treating the entire pond was ruled out because of the potential risk of a large fish kill.
- Evaluate deepening the center of the pond. Target 8 foot of depth to decrease the temperature of the bottom sediments and slow the release of dissolved phosphorus.
- Partial shading with trees. Grade an island in the center of the pond and plant trees.

SEP Proposed Timeline

- | | |
|--|-------------------|
| • EPA Preliminary Review/Approval of SEP | March 8, 2019 |
| • Estimated Project Costs | March 22, 2019 |
| • Consent Agreement/Final Order Executed | April 22, 2019 |
| • Public Input on Project/Water Fowl Control | May – July 2019 |
| • Design Complete | December 31, 2019 |
| • Begin Construction | January 1, 2020 |
| • Completion Date | June 1, 2020 |
| • Completion Report | July 1, 2020 |
| • Effectiveness Report | December 31, 2020 |
| • Implementation Duration - Two Years | June 1, 2022 |

Appendix A: Kansas Department of Health and Environment, Harmful Algal Bloom in Kansas: 2018 Statistics

Appendix B: Jerry Ivey Park Harmful Algal Bloom - Estimated Costs

Appendix A



Harmful Algal Blooms in Kansas: 2011

Matthew M. Johnson

WARNING

Harmful Algae Present

People & Animals May Get Sick



Avoid Water Contact

**Keep Pets
Away From
Water**

- **Avoid areas of algae accumulation**
- **Don't let people/pets eat dried algae or drink untreated lake water**
- **If people/pets contact lake water- wash with clean water as soon as possible**

In case of harmful algae contact, call doctor/
veterinarian if people/animals have nausea, vomiting,
diarrhea, rash, irritated eyes, seizures, breathing
problems or other unexplained illness

Report new algae-blooms to
Kansas Department of Health and
Environment:
www.kdheks.gov/algae-illness
or call
785-296-1664

Report possible algae-bloom illness
to Kansas Department of Health
and Environment:
www.kdheks.gov/algae-illness
or call
877-427-7317



For more information:
Scan this code or visit
kdheks.gov/algae-illness

Posted by:

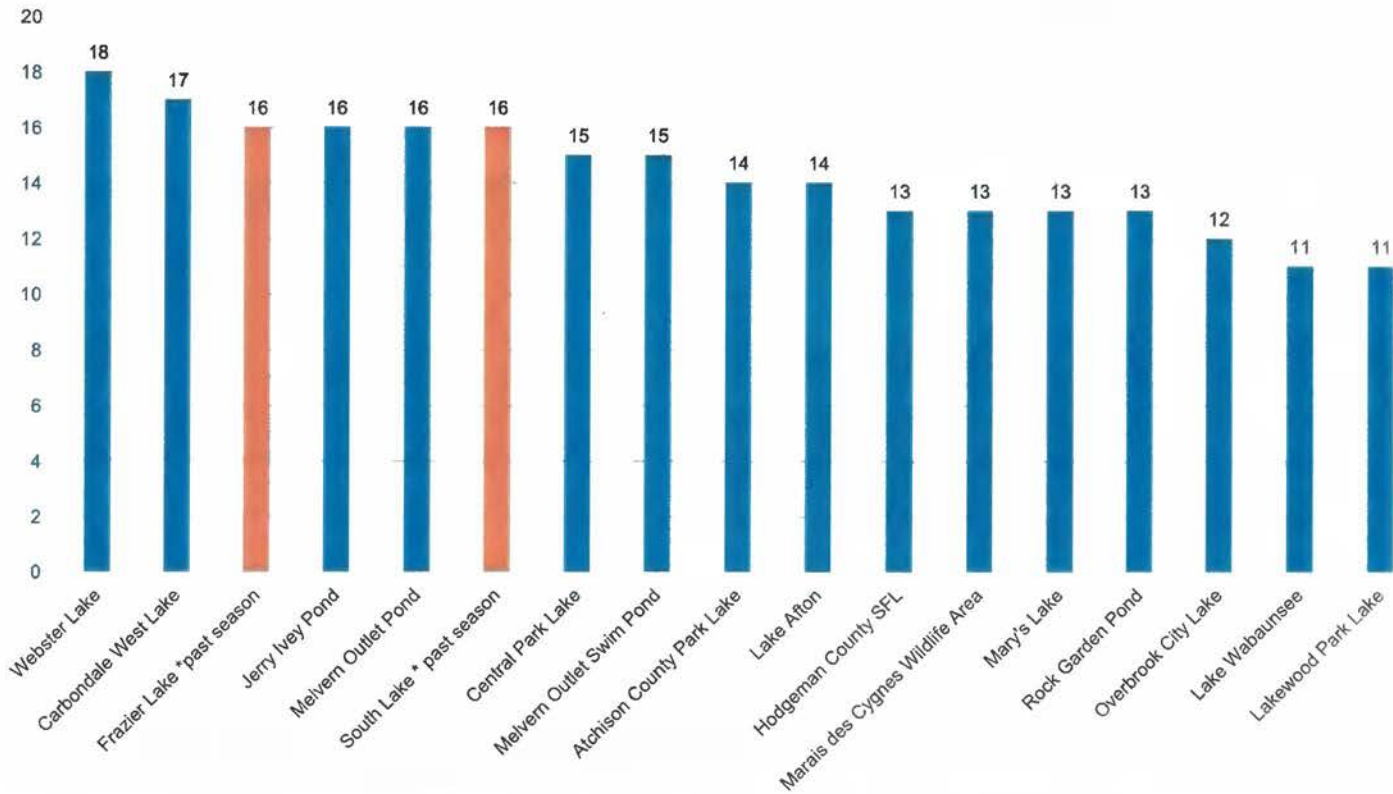
Posted on:

Waterbody and ID	Sampler	5/7 5/10	5/14 5/17	5/21 5/24	5/29 6/1	6/4 6/7	6/11 6/14	6/18 6/21	6/25 6/28	7/2 7/5	7/9 7/12	7/16 7/19	7/23 7/26	7/30 8/2	8/6 8/9	8/13 8/16	8/20 8/23	8/27 8/30	9/4 9/6	9/10 9/13	9/17 9/20	9/24 9/27	10/1 10/4	10/8 10/12	10/15 10/19	10/22 10/25	10/29 11/1
Anthony City Lake (75%) LM0488	SC							L																			
Atchison County Park Lake (75%) LM0606	NE								W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	L
Atchison Co SFL (25%) LM0126	NE																				Watch	Watch	Watch	L			
Atwood Township Lake (75%) LM0712	NW																	W	W	W	W	L					
Big Hill Lake (25%) LM0310	SE	L																									
Carbondale West Lake (75%) LM0608	NE							W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	L
Central Park Lake (75%) LM0609	Central			Watch	Watch	W	L			W	W	Watch	Watch	L		Watch	Watch	W	W	W	W	W	W	W	L		
Clarion Woods Lake (75%) LM0759	NE							W	W	W	L																
Cohwich City Lake (75%) LM0175	SC				Watch	Watch	Watch	Watch	L																		
Cottonwood River, South of Emporia	SE															Watch	Watch	Watch	Watch	L							
Council Grove City Lake (25%) (PWS) LM0430	NC																				Watch	L					
Frazier Lake LM0602	SW											W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
Hodgeman County SFL (75%) LM0742	SW												W	W	W	W	Watch	Watch	Watch	W	W	W	W	W	W	Watch	L
Jerry Ivey Pond (75%) LM0760	NC									W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	L
Kirwin Lake (25%) LM0110	NW							L																			
Lake Afton (25%) LM0492	SC									W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	L	
Lake Scott State Park (75%) LM0112	SW													W	W	W	W	W	W	Watch	Watch	W	W	L			
Lake Wabaunsee (25%) (PWS) LM0420	NE													W	Watch	Watch	W	W	Watch	W	W	W	L				
Lakewood Park Lake (75%) LM0698	NC													C	C	W	W	W	W	W	W	W	W	Watch	Watch	L	
Linn Valley Lake (PWS) LM0443	SE																Watch	L									
Marais des Cygnes Wildlife Area LM0532	SE											W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	L
Marion County Lake (25%) LM0121	NC						L																				
Mary's Lake (75%) LM0614	NE											Watch	Watch	Watch	Watch	Watch	Watch	Watch	Watch	Watch	Watch	Watch	Watch	Watch	Watch	L	
Melvem Lake (25%) (PWS) LM0270	NE																Watch	Watch	Watch	Watch	Watch	Watch	L				
Melvem Outlet Pond (25%) (PWS) LM0271	NE								W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	L
Melvem Outlet Swim Pond (25%) LM0272	NE								W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	L
Overbrook City Lake (75%) LM0205	NE												Watch	Watch	Watch	W	W	W	W	W	W	W	W	Watch	Watch	L	
Overbrook City Kids Pond LM0763	NE																							Watch	Watch	L	
Perry Lake (25%) LM0290 Zone A	NE												L	L	Watch	Watch	Watch	L									
Perry Lake (25%) LM0290 Zone B	NE												W	W	Watch	Watch	Watch	L									
Perry Lake (25%) LM0290 Zone C	NE												L	L													
Perry Lake (25%) LM0290 Zone D	NE												L	L													
Pomona Lake (25%) (PWS) LM0280	NE																	Watch	Watch	Watch	Watch	Watch	Watch	Watch	Watch	L	
Rock Garden Pond LM0761	Central												Watch	Watch	Watch	Watch	Watch	Watch	Watch	W	W	W	W	W	W	W	L
Rooks Co. State Fishing Lake (75%) LM119	NW										W	W	W	L													
Sebelius (Norton) Lake (75%) (PWS) LM0100	NW					W	W	L																			
South Lake (75%) LM0675	NE											W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	Watch
Tomahawk Park Lakes LM0417	NE																		Watch	Watch	Watch	Watch	Watch	Watch	L		
Webster Lake (75%) LM0120	NW						Wc	Wc	W	W	W	W	W	W	W	C	C	W	W	W	W	W	W	W	Watch	Watch	L
West Campus Pond, KU	NE																							L			



Harmful Algal Blooms in Kansas: 2018 Statistics

2018 Weeks on Advisory



Protect and improve the health and environment of all Kansans



Harmful Algal Blooms in Kansas: 2018 Statistics



Jerry Ivey Pond
July, 2018

Protect and improve the health and environment of all Kansans



Harmful Algal Blooms in Kansas: 2018 Statistics

Thank you/Questions



Jerry Ivey Pond
10/29/18

Protect and improve the health and environment of all Kansans

APPENDIX B
City of Salina, Kansas Sewage Treatment Plant
Supplemental Environmental Project
Jerry Ivey Park
Harmful Algal Bloom

Estimated Costs

1. Pump pond down to toe of wall – leave bottom wet. Floating Pump/Electrical, Piping and Pump Sock	\$ 3,500
2. Construct three Floating Wetlands/Plant Material	\$22,500
3. Install two Ultrasonic Devices/Electrical and Flex-arm	\$15,000
4. Laboratory Analysis of TKN, TP and Speciation of HAB for two years (5 months June – October)	\$ 5,000
5. Install Aeration System with Blower/Electrical and Weighted Tube Full length of Pond	\$11,000
6. Community Outreach including a minimum of two public meetings and educational signage to include Water Foul Control Measures and Wetlands Function	\$ 3,000
Total:	\$60,000