



City of Pekin

REGULAR COUNCIL MEETING MONDAY, JUNE 22, 2009
5:30 P.M.

- I. CALL TO ORDER
- II. PLEDGE OF ALLEGIANCE
Mayor Dunn
- III. ROLL CALL
Clerk to Call the Roll
- IV. APPROVAL OF AGENDA
ACTION: Motion to approve the meeting agenda.

VOTE REQUIRED
- V. APPROVAL OF MINUTES
ACTION: Motion to approve minutes of Regular Council Meeting of June 8, 2009 and Meeting of June 9, 2009 Bus Trip

VOTE REQUIRED
- VI. PUBLIC INPUT ON AGENDA ITEMS
Speakers to state name, address, and spell last name. Questions unrelated to agenda items are accepted during "Public Questions" near the end of the meeting
- VII. CONSENT AGENDA
 1. **Receive and File Monthly Reports and Minutes:** Liquor Commission Minutes dated May 28, 2009, Airport Commission June 3, 2009, And Traffic Safety Committee Minutes dated June 5, 2009
 2. **Receive and File** the Bids for the Wastewater Treatment Plant Sludge Removal Project Opened June 9, 2009
 3. **Receive and File** City of Pekin Wastewater Facilities Plan prepared by Farnsworth Group*ACTION: Motion to approve all items listed on the Consent Agenda by Omnibus Vote.*

VOTE REQUIRED TO APPROVE CONSENT AGENDA
- VIII. COMMUNICATIONS, PETITIONS, REPORTS
 1. **PRESENTATION**
DESCRIPTION: Year End Financial Report
Treasurer James Wolf

IX. NEW BUSINESS

1. Ordinance No. 2587-09/10 – Authorizing the Lease of Municipally Owned Real Estate (DK)
DESCRIPTION: Two year lease agreement containing two 2-year options with CenturyTel for parking Lot H on the northeast corner of the Ann Eliza at 4th Streets Intersection.

ACTION: Motion to adopt the Ordinance authorizing the lease in the amount of \$10,000 per year.

VOTE REQUIRED

2. Vehicle Maintenance Agreement with Tazewell County (DK)
DESCRIPTION: Tazewell County vehicles maintained by the City. The agreement is extended by two-years with the hourly mechanic rate increased from \$55 to \$65 per hour; parts from 25% mark-up to 33 1/3%; and gas purchase cost plus \$0.05/gallon.

ACTION: Motion to approve the Agreement.

VOTE REQUIRED

3. Bid for the Wastewater Treatment Plant Sludge Removal Project (JW)
DESCRIPTION: Approve the 3 year contract with Stewart Spreading for \$428,100 to remove sludge from the Water Treatment Plant #1 sludge lagoon

ACTION: Motion to approve the bid in the amount of \$428,100 and award the contract to Stewart Spreading.

VOTE REQUIRED

4. Ordinance No. 1462-A290-09/10 - Amending Title 8, Chapter 3, Section 3F. (JW)
of the Code of the City of Pekin Regarding Speed Limits
DESCRIPTION: A portion of Broadway Road from Hickory Lane to California Road be increased to 40 mph as recommended by the Traffic Safety Committee.

ACTION: Motion to approve the Ordinance No. 1462-A290-09/10.

VOTE REQUIRED

5. Resolution No. 9-09/10- Establishing an Amended Façade Grant Program in the TIF (SB)
DESCRIPTION: Modifications of current Façade Program an increasing the City's participation to 50% of eligible costs up to \$12,500.

ACTION: Motion to approve Resolution No. 9-09/10.

VOTE REQUIRED

6. Resolution No. 10-09/10 - Establishing Pekin Downtown Commercial Retail/Upper Story Housing Loan Program (SB)
DESCRIPTION: The loan program is available for viable commercial retail use on first & upper story floors and upper story lofts/apartments. This loan program is a dollar to dollar match, up to but not exceeding \$25,000. Funds are available from the TIF 1.

ACTION: Motion to approve Resolution No. 10-09/10.

VOTE REQUIRED

X. ANY OTHER BUSINESS TO COME BEFORE THE COUNCIL

Council Members
Staff
Public Questions
Press Time

XI. EXECUTIVE SESSION

5 ILCS 120/2 (c.) 2. Collective negotiating matters between the public body and its employees or their representatives, or deliberations concerning salary schedules for one or more classes of employees.

ACTION: Motion to move to Executive Session.

VOTE REQUIRED

XII. ADJOURNMENT

With no further action to come before the Council the Mayor declares meeting closed in open session.

NO VOTE REQUIRED

**PROCEEDINGS OF THE REGULAR MEETING
OF THE CITY COUNCIL OF THE CITY OF PEKIN, ILLINOIS,
HELD IN THE COUNCIL CHAMBERS OF CITY HALL
111 SOUTH CAPITOL STREET
ON MONDAY, JUNE 8, 2009 AT 5:30 O'CLOCK P.M.
RUSTY DUNN MAYOR PRESIDING**

**PRESENT: COUNCIL MEMBERS, ABEL, BLANCHARD, STRAND, KORTKAMP, BARRA,
AND SCHMIDGALL**

ABSENT: NONE

The **Pledge of Allegiance** was led by Mayor Dunn.

Roll was called and all Council Members were present.

AGENDA

Motion by Council Member Strand, seconded by Council Member Kortkamp, that the **agenda be approved as presented**. On roll call vote, all present voted Aye.

MINUTES

Motion by Council Member Abel, seconded by Council Member Barra, that the **minutes of the Regular City Council Meeting of May 26, 2009 be approved as written**. On roll call vote, Ayes, Stand, Abel, Schmidgall, Barra, Blanchard, Dunn; present, Kortkamp. Motion Carried.

PUBLIC INPUT ON AGENDA ITEMS

Garnet Meischner 1401 Janssen, spoke to the Ordinance to amend the Liquor Code regarding areas for a Class C license. He opposed not-for-profit organizations taking sales away from licensed establishments. He felt the organizations were not aware of the responsibilities and would let alcohol in the hands of children at such gatherings not needed in the community.

CONSENT AGENDA

Motion by Council Member Barra, seconded by Council Member Blanchard, that the Consent Agenda be approved as presented.

Mayor Dunn read and presented the following for consideration of the Consent Agenda items by Omnibus Vote.

1. **Receive and File Monthly Reports and Minutes:** Liquor Commission Minutes dated April 16, 2009 and Police Department May Report
2. Charitable Solicitation: TCAP Catholic Charities Saturday, July 19, 2009
St. Jude 2nd Annual Memorial Run Carl Kearney, Saturday June 20, 2009

3. Resolution No. 7-09/10 - Annual Prevailing Wage

On roll call vote, all present voted Aye.

COMMUNICATIONS, PETITIONS, REPORTS

Mayor Dunn spoke of the mobilization of volunteers in response to hurricane Gustav destruction. Pekin deployed Chief Chuck Lauss, Matt Martin, and Chris Coats to Southwest Louisiana to help in the relief of the devastated area. Humanitarian Service Awards and Decoration Certificates from MABAS Division 42 were given to the Firefighters for their efforts.

Bonnie Eeten of the Unland Companies presented the establishment of the Wellness Committee and the health strategies that they were trying to accomplish for the city employees. She reported the committee was made up of representatives from each department who have reviewed the Heath Fair study results, set priorities, and had formed solution programs for improved health results such as Buddy Walk, Heart Smart, and Bowling. Their initiative has been on germ resistance, water consumption, and food intake.

NEW BUSINESS

Motion by Council Member Blanchard, seconded by Council Member Abel, that the **VEHICLE MAINTENANCE AGREEMENT BETWEEN THE CITY OF PEKIN AND TAZEWELL-WOODFORD HEAD START** for a two-year term until May 31, 2011, be approved. Mayor Dunn told the Council that the agreement was extended by two-years with the hourly mechanic rate increased from \$55 an hour to \$65 per hour; parts from 25% mark-up to 33 1/3 %; and gas purchase cost \$0.05/gallon. City Manager said the fuel purchase was new to the renewed contract for the maintenance of the 5 buses. Council Member Blanchard spoke in support of the considering the adjustment in fuel based on rising cost. On roll call vote, all present voted Aye.

Motion by Council Member Schmidgall, seconded by Council Member Abel, that the **SOFTWARE CONTRACT WITH SPRINGBROOK** in the amount of \$241,760.46 to be paid in annual installments of \$40,293.41, be approved. Council was advised by the Assistant Finance Direct Angie Evans that the current provider was bought out by a larger company leaving the City with limited support. She recommended contracting with a new company. Council Member questioned additional expense, budgeted funds, sale of present server, IT acceptance and concerns were addressed. On roll call vote, all present voted Aye.

ORDINANCE NO. 2586-09/10

AMENDING TITLE 3, CHAPTER 3, OF THE CODE OF THE CITY OF PEKIN 1995 REGARDING THE LIQUOR SALES AREAS

Motion by Council Member Kortkamp, seconded by Council Member Abel, that **Ordinance No. 2586-09/10** be adopted. It was the recommendation of the Liquor Commission to add area of sales on Court Street between 4th and Capitol Streets to the provisions of the Liquor Code Class C License for Not For Profit or Charitable applications. Police Chief Gillespie addressed the concerns that liquor consumption was being expanded on Court and noted the sale would be in one contained area. Leigh Matthews Director of Main Street advised the Council that the organization partners with the local establishments in the events. On roll call vote, all present voted Aye.

RESOLUTION NO. 8-09/10

DOWNSTATE PUBLIC TRANSPORTATION OPERATING ASSISTANCE GRANT AMENDMENT NO. 2 TO AGREEMENT WITH THE ILLINOIS DEPARTMENT OF TRANSPORTATION – GRANT #3797

Motion by Council Member Strand, seconded by Council Member Blanchard, that **Resolution No. 8-09/10** be adopted. Director of Transportation Greg Ranney requested the Council approve a second amendment to the grant to receive the funding for 2009 operations of the Pekin Municipal Bus and partial funding to CityLink for contract services. On roll call vote, all present voted Aye.

Motion by Council Member Abel, seconded by Council Member Strand, that the **AGREEMENT WITH FARNSWORTH FOR IEPA LOAN APPLICATION SUPPORT FOR WASTEWATER TREATMENT PLANT UPGRADES, in an amount not to exceed \$18,000.00**, be approved. The expenditure was with a company that had the expertise in filing all documentation and subsequent compliance with the IEPA. Council Member Blanchard expressed concern that the City was spending money before there was a decision of how much the plant would be improved and at what cost. Discussion followed on the Attorney's opinion of the language contained in the General Conditions of the document. Council Member Schmidgall made a motion to amend **APPROVAL TO FARNSWORTH AGREEMENT TO INCLUDE PENDING ANY COMMENTS BY THE ATTORNEY**, seconded by Council Member Blanchard. On roll call vote, Ayes, Strand, Schmidgall, Barra, Kortkamp, Abel, Blanchard; Nay, Dunn. Motion carried. On roll call vote, all present vote Aye to approve the Agreement subject to the review and comments of the City Attorney.

ANY OTHER BUSINESS TO COME BEFORE THE COUNCIL

Council Member Strand expressed compliments from the contractors that had worked with the City in obtaining permits and plans for the expansion of the Advocacy Center.

Mayor Dunn announced community events such as the summer reading program for children at the Library, and the U of I Extension for summer lunch program.

Council Member Abel asked that the City Manager on behalf of the public, discuss with the County the possibility of extending the due date for the payment of the second installment of real estate taxes persons who had lost their jobs or were laid off.

Christal Dagit 1413 Charlotte undated Council and the public on the expanding Tazewell County museum rooms and alliances with other societies.

Bill Gilroy 1312 South 11th Street, again expressed his concern that a parking lot on Derby is still gravel and not blacktopped. He questioned if there were provisions for having silt barriers and why were some sited. Staff was directed to follow-up on the concerns.

Garnet Meischner 1401 Janssen spoke in support of the using the expertise of a company in securing the funding needed for the upgrades to the Treatment Plant.

Kay Lock 709 South 3rd Street presented a list of issues and concerns:

- Garbage cans are not returned to the proper place by the drivers but in the middle of the driveway
- Several streets that are difficult to drive because of the potholes or manhole covers
- Expressed disappointment with the Mayor's speech at the Cemetery on Veterans Day

Ms. Lock announced the Relay for Life Event on June 26-27, 2009.

Daniel DeHoog 619 S. 12th Street, congratulated Ed Emmons for his work to bring the Impoundment Ordinance forward for amendment. He objected to the seizure of vehicles and compared it to holding a vehicle for ransom. Mr. DeHoog was informed that the Ordinance would be discussed again at the July meeting and possible be presented for action in August.

Kyle Peebles representing Mike Smith Office invited Council and the public to attend Green Collar Summit on Wednesday at 6:00 p.m. in City Hall.

Todd Thompson, Manito, told Council he was appreciative of the support in revitalization of the Downtown. He felt there were comprehensive strategies for the development and great momentum to move forward.

Leigh Ann Matthews, Director of Main Street thanked the Council for their support of the efforts of the revitalization of the Downtown. She also encouraged vendors and the public to participate in the Farmers Market Days every Thursday until September 24.

EXECUTIVE SESSION

Motion by Council Member Barra, seconded by Council Member Blanchard, that **Council move to Executive Session** at 6:50 P.M. to discuss 5 ILCS 120/2 (c.) 2. Collective negotiating matters between the public body and its employees or their representatives, or deliberations concerning salary schedules for one or more classes of employees. 5 ILCS 120/2 (c) 5. the purchase or lease of real property for the use of the public body. 5 ILCS 120/2 (c) 6. The setting of a price for sale or lease of property owned by the public body. On roll call vote, all present voted Aye.

No further business to come before the Council, in open session, Mayor Dunn called the meeting closed.

COUNCIL ADJOURNED AT 7:50 P.M.

Sue E. McMillan
City Clerk

**PROCEEDINGS OF A SPECIAL MEETING
OF THE CITY COUNCIL OF THE CITY OF PEKIN, ILLINOIS
BEGINNING AT PEKIN CITY HALL
111 SOUTH CAPITOL STREET
ON TUESDAY, JUNE 9, 2008 AT 5:00 P.M. O'CLOCK P.M.
MAYOR RUSTY L. DUNN PRESIDING**

**PRESENT: COUNCIL MEMBERS BLANCHARD, KORTKAMP, STRAND, SCHMIDGALL,
ABEL, BARRA, MAYOR DUNN**

ABSENT: NONE

An agenda notice was posted on Friday, June 5, 2009, that because all members of the City Council had indicated an interest in attending the special City Projects Bus Trip meeting on June 9, 2009, the City was required to post the meeting, in addition, as a Special Council meeting under the provisions of the Open Meetings Act.

The purpose of the meeting was to provide information on services and past, present, and future projects of the City of Pekin.

Roll

City Clerk Sue McMillan recorded Council Members in attendance. There was a quorum. Also present were City Manager Dennis Kief, City Clerk Sue McMillan, Police Chief Timothy Gillespie, Economic Development Coordinator Steve Brown, Community Director Pamela Anderson, Code Enforcement Officer Ron Sieh, Director of Public Property Greg Ranney, Fire Chief Chuck Lauss, Treasurer James Wolf, and Attorney Scott Kriegsman. Also present was Joy Hoover facilitator for the Council/Staff Retreat. Public Works Director Joe Wuellner attended the stop at the Wastewater Treatment Plant.

COMMUNICATIONS, PETITIONS, REPORTS

Staff and Council boarded a City bus outside of City Hall to begin a tour of projects, buildings, and view other matter/concerns throughout the City. City Manager Dennis Kief distributed a packet of aerial maps, plats, and plans for the tour. Department Heads and Council Members discussed the status of the following projects of the bus itinerary:

- 5:00 Leave City Hall
- 5:10 Riverfront @ Court Street – Development and Boat Access Areas
- 5:15 200 and 400 Block Court Street – Including Façade Grants, Inside Rehab and TIF EDFAP
- 5:20 West Campus
- 5:30 Pekin Lake
- 5:35 Route 29 North – City Owned 43 Acres
- 5:40 Route 98 – City Owned 60 Acres
- 5:45 Northside Wastewater Treatment/Storage
- 5:50 Sheridan Road Bridge
- 5:55 California Rd. @ Veterans - Extension N & S
- 6:00 Broadway @ Veteran - Briar Ridge & Lakeview Estates
- 6:10 Veteran's Drive south to Commercial

6:20 VFW Road - Future Veterans South

6:30 Riverway Business Park - ICC & Hanna Extension
Ongoing Construction, EDAC and Possible TIF

6:40 Wastewater Treatment Plant - Drive Thru Complex

6:50 Fayette Street CSO - Long Term Control Plan

6:55 Wrap-up

7:00 Back to City Hall

Council and Staff arrived back at City Hall in advance of schedule. No action was taken by Council.

No further business to come before the Council, Mayor Dunn called the meeting closed.

COUNCIL ADJOURNED AT 6:40 P.M.

Sue E. McMillan
City Clerk

City of Pekin

LIQUOR COMMISSION MINUTES THURSDAY, MAY 28, 2009 4:00 P.M. CITY HALL COUNCIL CHAMBERS

Deputy Liquor Commissioner Rick VonRohr called the meeting to order at 4:11p.m.

PLEDGE of ALLEIGENCE

Eitenmiller led the pledge

ROLL CALL

The following members were present for roll call: Liquor Commissioner Rusty Dunn, Deputy Liquor Commissioner Rick VonRohr, Dave Eitenmiller, Fire Chief Chuck Lauss, Police Chief Timothy Gillespie and Holly Brown.

Also present: Sue Bosich, Assistant Corporation Counsel and City Clerk Sue McMillan

APPROVAL OF AGENDA

VonRohr entertained a motion to accept the Agenda of May 28th, 2009. Motion made by Eitenmiller, seconded by Gillespie. Motion passed.

APPROVAL OF MINUTES

Eitenmiller made a motion to approve the April 16, 2009 minutes as presented, seconded by Gillespie. Motion passed.

PUBLIC INPUT/COMMENTS/QUESTIONS

Nothing at this time

NEW BUSINESS

Pekin Main Street – Gregg Ratcliff –

Eitenmiller made a motion to allow the change in the 3-3-4-5 C of the Liquor Code for Pekin Main Street boundaries for downtown events, Court Street between 4th Street and Capitol Street be added. Seconded by Gillespie, motion passed.

Avanti's of East Peoria, Inc. dba Avanti's new Liquor Application–

Stephan Zeller, Manager was present to speak on behalf of Avanti's. He stated they could be open in 5-6 weeks.

Eitenmiller made a motion to approve the Liquor Application for Avanti's. Seconded by Holly. Motion passed.

Purple Frog, Inc. dba Pottsie's Place – Beer Garden –

Tina and Terra were present to speak on behalf of Pottsie's Place. Tina stated they were in front of the Commission last August and was approved, just needed Ron Sieh's signature of approving the Beer Garden. Ron signed off on the site plan. Also they need to contact the Fire Chief Chuck Lauss. Eitenmiller made a motion to tentatively approve the site plan for the Beer Garden. Seconded by Holly. Motion passed.

Hearings:

1) **Dragon's Dome – Bill Griffin** – 3401 Griffin Ave, Mr. Griffin spoke briefly in their defense. Stipulated to the facts. Stated he was bartending the whole day, saw the State Police there walked away for a little bit and had his daughter bartend, that is when they came up to do the sting. Stated they will train more and not happen again.

2) **Fiesta Ranchera – Attorney Kevin Sack** spoke on their behalf – Stipulated to the facts. They accept responsibility, stated this person was a new hire at the time and is no longer working there. Will train with

more educational materials. Attorney also stated they were fined \$500 from the State Liquor Control Commission.

3) County Market – Lyle Chism, Store Manager was present. Stipulated to the facts. Mr. Chism stated the employee had been disciplined. New Training procedures in place. anyone under 40 years old will be carded, their registers will tell them if under 21.

4) Shenanigans – Annette Green – 513 Court Street – Stipulated to the facts.

5) Boardwalk – James Shaw – 435 Court Street – Stipulated to the facts. Mr. Shaw spoke highly of his employee who has been there for 12 years. He stated she is paying all the fines and asked the City to be lenient on fines. Set new training procedures in place. Stated he had a tape of the incident and took that to the State Liquor Commission and that tape for training.

Discussions: Bosich stated that the State Liquor Control Commission is current on their Hearings. In the past, we've been able to have our local Hearings before the State had theirs. Most of these Hearings that are before us today have already been down to Springfield for their Hearings. The State will offset their fines depending on the outcome of our Hearings and fines imposed. Commission feels our fines and costs are not strong enough and we should impose higher fines or shut them down for a few days to get the message across. We need to get their attention that we do not tolerate serving alcohol to minors. The Commission felt 1st offense \$500, 2nd offense \$1,500 with any mitigating circumstances could go up or down.

Dragons Dome – Holly made a motion to fine Dragon's Dome \$500 plus costs, seconded by Lauss. Motion passed.

Fiesta Ranchera – Gillespie made a motion to fine Fiesta Ranchera \$500 plus costs, seconded by Holly. Lauss abstained. Motion passed.

County Market – VonRohr made a motion to fine County Market \$500 plus costs, seconded by Holly. Gillespie voted No. Motion passed.

Shenanigans – VonRohr made a motion to fine Shenanigans \$500 plus costs, seconded by Lauss. Motion passed.

Boardwalk – Gillespie made a motion to fine Boardwalk \$500 plus costs, seconded by Lauss. Motion passed.

Form for Initial Liquor Violations – Attorney Bosich will email the form to members of the Liquor Commission. Any questions or discussions can be brought up at the June 11th Special Liquor Commission meeting.

Any Other Business

No other business

Meeting adjourned at 6:07P.M. Next Meeting: Thursday, June 11, 2009 at 4:00pm.

Respectfully submitted Paula Gensel

City of Pekin
Airport Commission Meeting Minutes
June 3, 2009

Commissioners: Present –Charlie Thomas, Robert Ehrich , Pete Kalman, and Lillard Hedden
Absent: Mike Fort
Attendees: Joe Wuellner, Geoff Shilton, & Murray Brian

Roll Call: Roll was called and it was determined that there was a quorum.

Agenda:

Old Business:

1. Hangar Doors – Erect-A-Tube has personnel on site doing the touch up painting and work on the weather seals. Mr. Kalman stated a concern over the painting was addressing what could be seen and what if there is a problem in these areas. Mr. Wuellner will see what the warranty covers to ensure if there are future problems they are covered.

New Business:

1. Grass Mowing – it was mentioned that a crew was present on Saturday taking care of the grass and that since it had been left so long why was a crew sent out on overtime. This operation needs to be reviewed.
2. A letter from the Dept. of Aeronautics was presented which was asking for the support of the General Aviation (GA) people to write to their local representatives asking for more money to be put in the capital bill for GA projects.

Any Other Business to Come Before the Commission:

1. None.

Executive Session: Moved into Executive Session at 3:15pm. Meeting Adjourned at 3:40pm

Next regular meeting will be July 8, 2009 at 3:00pm

CITY OF PEKIN TRAFFIC SAFETY COMMITTEE MINUTES
JUNE 5, 2009 @ 8:30 a.m.
CITY HALL CONFERENCE ROOM

PRESENT: Joe Wuellner, Tim Gillespie, Denny Kief, Chuck Lauss, Dave Pagliaro, Will Taylor. Also present, Lee Ann Wrhel

Bob Burch (914 Washington Street, 346-1212) addressed the committee again regarding the traffic on S. 10th Street. Mr. Burch had approached the committee in January with traffic concerns. In February, blinking stop signs were installed at the 10th Street/Washington Street intersection. He indicated that semi trucks use the street regularly on their deliveries. Chief Gillespie indicated that there is a weight restriction on S. 10th Street and enforcement will be stepped up in that location.

Old Business:

1. *Restricted Parking*

Joe asked Dave to make a list of streets that need to be looked at. Cul-de-sacs will also be addressed. The committee will meet and go out to physically look at streets with parking concerns on Friday, June 19th at 8:30 a.m. Chief Lauss will drive. The committee will leave from City Hall.

2. *Downtown Parking Meters*

This subject was discussed again. Parking meters are the most fair way to monitor downtown parking. However, there are costs involved. The area under consideration is Margaret Street to Broadway Road from 2nd Street to 6th Street. Dave made a motion to look into the cost of parking meters, including costs to monitor and maintain them. Joe seconded the motion. All in favor.

3. *Lighting Options on Parkway at Coal Miner's Park*

Dave reported that Schwartz Electric has been given the okay to install an amber warning light that flashes 24 hours a day at the crosswalk in this location.

4. *Lane Usage Signs From East Court Village onto Court Street*

IDOT has stated that a sign can be installed on the mast arm to indicate the proper lane usage in this location. The sign will indicate left turn only from the left lane and straight ahead or right turn only from the right lane.

5. *Direct Access to Second Street from Property at Corner of Second Street and Koch Street*

This was a discussion item only regarding the possibility to access property in this area of the business park from 2nd Street. Allowing left turns onto 2nd Street would be contingent on the design of any property development there.

New Business:

1. *School Zone Flashing Light on Court Street at High School*

Dave made a motion to leave this area as is. Denny seconded the motion. All in favor.

2. *Countdown Screen Warning of Upcoming Light Change*

The committee discussed this subject. Dave will look into the possibility of the availability of grant money for purchase of these signs. Cost is the issue in this matter.

3. *Broadway Speed Limit*

Jim Donahue (506 Country Club Drive, 347-3692) attended the meeting asking for the speed limit on Broadway from Parkway to where it changes from 35 mph to 45 mph to be increased to 40 mph.

There was a discussion on this subject. He indicated that people have complained to him that the current speed there is too slow. It was determined that there are opinions on both sides of this issue. The committee will get a report of the tickets issued there and take another look at this decision. He asked that if the debate comes to numbers (petitions) he would like to be informed.

After Mr. Donahue left the meeting, the committee continued discussion of this subject. Denny presented a motion to make a recommendation to City Council to change the speed limit from the southern portion of California Road to Hickory Lane to 40 mph. The motion was seconded by Dave. The vote was split. Yes – Denny, Dave, Chuck, Joe. No – Tim, Will.

4. *Speed Limit Signs-Sheridan Rd./California Rd. (Recently Annexed)*

The signs for each road should be consistent. Joe will go out and look at the area. After the meeting, Joe went out. The signs on Sheridan are fine. He recommends that the sign on California Road going towards Sheridan Road be moved closer to Broadway.

5. *Handicapped Sign Requests*

The committee turned down both of these requests. Joyce Barnhart, 1118 Summer Street was denied because it would not improve the situation. It is safer to load/unload the handicapped person from the driveway. Robert Cotter, 1863 Vienna Ct. was denied because of the cul-de-sac. It is recommended that Mr. Cotter talk with Monge Property Management about a parking spot on the access road. Both citizens will receive response letters.

6. *Crosswalk Sign on Park Avenue at Hospital*

Joe Wuellner reported that he has sent a letter to the hospital on this subject, but has received no response. The City paid for the first sign, had agreed to pay half the second time and beyond that the signs would be at the hospital's expense.

7. *Stop Sign at Highwood and North Lake*

This area will remain as is at this time.

8. *Parking Issue at 1100 Hamilton Street*

Dave went to this location. He explained that the City had paid half when the sidewalks were put in that location. Chuck made a motion to make a recommendation to City Council to install a handicapped accessible spot for the church for loading/unloading. The motion was seconded by Tim. No votes – Denny, Dave.

9. *Cul-de-sacs*

The City of Pekin Safety Committee asked the Traffic Safety Committee to address parking in cul-de-sacs. There has recently been another accident involving a garbage truck due to parking in a cul-de-sac. There have been four accidents in cul-de-sacs involving city vehicles. The locations involved will be addressed when the committee goes out on the next restricted parking tour.

Respectfully Submitted,
Lee Ann Wrhel

NEXT REGULAR MEETING JULY 2, 2009 @ 8:30 A.M.

BID TABULATIONS
PEKIN WASTEWATER TREATMENT PLANT – SLUDGE REMOVAL

OPENING JUNE 9, 2009 @ 10:00 A.M.

NAME & NUMBER	ADDRESS	RECEIPT OF ADDENDUM	BASE BID
MERRELL BROS., INC. 800-663-8830 574-699-7782 574-699-7478 info@merrellbros.com	8811 W. 500 N. KOKOMO, IN 46901	YES	\$447,410.00
J & B WASTE APPLICATIONS, INC. 618-569-5222	16344 N 700 TH STREET ROBINSON, IL 62454	YES	\$433,350.00
K & R COMPANY 309-389-3350 309-389-3317 kandrco@glastel.net	15922 GLASFORD- CANTON ROAD GLASFORD, IL 61633	YES	\$468,230.00
STEWART SPREADING, INC. 815-695-5667 815-695-5770 FAX michellestewart@stewartspreading.com	3870 N. ROUTE 71 SHERIDAN, IL 60551	YES	\$428,000.00

ESTIMATE \$

Director of Public Works Joe Wuellner



City of Pekin Wastewater Facilities Plan

May 29, 2009



June 3, 2009

Mr. Geoff Andres
Infrastructure Financial Assistance Section
Illinois Environmental Protection Agency
1021 North Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276

**RE: City of Pekin – Phase 1 and Phase 2 Wastewater Treatment Plant Improvements
IEPA Projects L17-2157 and L17-3081**

Dear Mr. Andres:

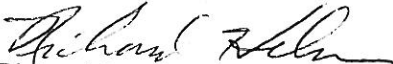
On behalf of the City of Pekin, we are enclosing three (3) copies of the Facilities Plan for the above projects, along with the completed Facilities Planning Submittal Checklist and the signed copy of the Loan Applicant Environmental Checklist. Please initiate the planning review and approval process as soon as possible and contact us if there are any questions or if additional information is required to meet the planning requirements for funding under the ARRA stimulus funding program.

Please note that plans, specifications and construction permit application for the Phase 1 project were submitted to the Agency last year and a construction permit should be issued now. The project can be ready to bid by August 15, 2009, subject to your timely review and approval of this planning report.

The City intends to proceed with a formal loan application for funding under the ARRA program with submittal of the loan application and supporting documentation for the Phase 1 project before August 15, 2009.

Sincerely,

FARNSWORTH GROUP, INC.


Richard B. Helm, PhD, PE
Principal

pc: ✓ Rusty Dunn, Mayor
Dennis Kief, Director of Public Works
Joe Wuellner, City Engineer
Pat Sheridan, FGI Project Manager

**IEPA - Facilities Planning Submittal Checklist
For Projects Seeking Assistance Under the ARRA of 2009**

Page 1 of 2

Before the Agency will begin review of a Facilities Plan, ALL of the items below comprising the basic minimum requirements of a Facilities Plan must be included and the page number(s) of ALL items noted. **If any of the basic information is not provided the planning and loan application will be returned.**

Facilities planning should contain all pertinent information detailed in emergency rules filed to implement provisions of the American Recovery and Reinvestment Act of 2009. Loan applicants should be familiar with their planning responsibilities as detailed in those rules and as derived from Ill. Adm. Code 35, Sections 365.520 and 530.

Loan Applicant: City of Pekin

Consulting Engineer: Patrik Sheridan, Farnsworth Group, Inc. Phone: 309-663-8435 Agency Use: L17 2157

Project Description: Wastewater Treatment Plant 1 - Phase 1 Improvements

Page(s)

5 to 6 Loan applicant's background information including location, historical population, makeup of customer base, conditions effecting growth, and 20 year design population/customer base.

4 to 5 Map(s) of existing FPA boundaries and discussion of any necessary modifications.
Note: FPA boundary modifications entail additional requirements, review and sign-offs.

9 to 37 Detailed description of the EXISTING collection system and treatment facilities, along with a clear identification for the need of the proposed project(s).

61 to 65 Where applicable, information regarding an anti-degradation analysis pursuant to Ill. Adm. Code 35 Section 302.105 for a new or modified NPDES Permit.

7 to 8 Discussion of existing and proposed NPDES Permit limits.

40 to 52 Detailed discussion of the chosen alternative's capability to maintain compliance with all applicable laws and regulations in addition to addressing the identified system need(s).

App. E Basis of Design for Chosen Alternative. The preliminary engineering data should include, to the extent appropriate, flow diagrams, unit process descriptions, detention times, flow rates, unit capacities, etc. to demonstrate that the proposed project will be designed in accordance with 35 Ill. Adm Code 370.

IEPA - Facilities Planning Submittal Checklist

Page 2 of 2

Page(s)

60 to 61 Inventory of environmental impacts of chosen alternative and a discussion of the measures required during design and construction to mitigate or minimize negative environmental impacts.

Note: The IEPA Loan Applicant Environmental Checklist must be signed by the loan applicant's authorized representative and submitted to the Agency with all applicable sign-offs before a final Planning approval can be issued. (see Appendix D)

App. D Reproducible 8.5 x 11 inch map(s) showing the project(s) location(s) relative to the community.

53 to 57 Detailed cost estimate for the alternative selected, including both capital and O, M & R costs over the 20-year planning period. The estimate should include cost items for design engineering, construction engineering, bidding, legal, construction and contingency.

66 to 68 Implementation plan for the proposed project including the anticipated construction schedule, the financial schedule, including necessary financial arrangements for assuring adequate annual debt service and O,M & R coverage requirements and a description of the dedicated source of revenue necessary for loan repayment. List any other funding involved in the project.

58 to 59 Detailed description of the existing residential rate structure, average water consumption or the basis for billing, current average monthly residential bill, any proposed rate changes and the proposed average monthly residential bill as a result of the project(s).

Three Copies of the Facilities Plan and related documents should be submitted to:

Infrastructure Financial Assistance Section (IFAS)
Illinois Environmental Protection Agency
1021 North Grand Ave. East
P.O. Box 19276
Springfield, IL 62794-9276

IFAS will distribute the planning documents to the appropriate Agency staff for review, comment and approval. IFAS will contact the loan applicant if further information is needed.

Loan Applicant: City of Pekin
L17#: 2157

IEPA Loan Applicant Environmental Checklist

Checklist must be signed by loan applicant's Authorized Representative (not engineering consultant)

ALL loan applicants must provide items 1 and 2 below – Items 3-6 are specific to conditions of project.

- 1) National Historic Preservation Act, Section 106 sign-off:
Circle one: Attached OR Date requested May 19, 2009
- 2) Provide record of consultation with Illinois Department of Natural Resources Office of Realty and Environmental Planning regarding compliance with Illinois Endangered Species Act, Illinois Natural Areas Preservation Act and Interagency Wetlands Protection Act.
Circle one: EcoCAT printout DNR Letter Date DNR consultation requested: May 19, 2009
- 3) Yes x No Project involves construction in or near a stream bank (includes stream/river crossing), floodway and/or wetland.
IF YES: By signing below applicant certifies they will comply with the Rivers, Lakes & Streams Act.
IF YES: Comments from the Army Corps of Engineers are:
Circle one: Attached OR Date requested _____
- 4) Yes x No Project involves conversion of prime agricultural land to other uses.
IF YES - Description and map of the area to be converted along with a discussion of the necessity of utilizing prime agricultural land for the project must be provided in planning.
- 5) Yes x No Project includes growth resulting in more than a 30% reserve capacity in the present or proposed service.
IF YES - Prior to planning approval a detailed discussion in the planning documents must be provided documenting potential secondary impacts of the proposed project.

WASTEWATER PROJECTS ONLY

- 6A) Yes x No Project is within jurisdiction of a Designated Water Quality Management Agency such as Chicago Metropolitan Agency for Planning (CMAP), Greater Egypt Regional Planning & Development Commission (GERPDC) or Southwestern Illinois Planning Commission (SIPC).
IF YES - Comments from the appropriate agency regarding the project, growth projections and Facility Planning Area modifications (if applicable) are:
Circle one: Attached OR Date requested _____
- 6B) Yes x No A change in the Facility Planning Area is proposed
IF YES - Comments from Illinois Department of Agriculture regarding the FPA change are required:
Circle one: Attached OR Date requested _____

Specific contact information for the various offices and agencies which must be contacted, as well as the sources for further information, is detailed within the instruction guide for this checklist.

Signed: Rusty Dunn
Loan Applicant's Authorized Representative
Rusty Dunn, Mayor

Date: 4/3/09

**City of Pekin
Wastewater Facilities Plan**

May 29, 2009

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1.0 EXECUTIVE SUMMARY

This report summarizes the status of existing wastewater treatment facilities at the City of Pekin and outlines a plan for treatment plant improvements to meet the projected needs of the community for the next 20 years. Most of the major existing treatment units at Wastewater Treatment Plant 1 (WWTP 1) are 40 to 70 years old and are nearing the end of their useful life. Furthermore, as water pollution regulations have continued to tighten since passage of the Federal Water Pollution Control Act of 1972, additional facilities are needed to process higher flows due to growth in community population and industry needs, to reduce combined sewer overflows, and to provide additional treatment for reduction of ammonia nitrogen and phosphorus.

A significant limitation of the existing facilities is the location at such a low elevation that much of the plant is subject to flooding at high river levels. In order to prevent damage to pumps and motors, it has been necessary to remove some of this equipment on several occasions during the past 25 years and to bypass most of the treatment process. In order to correct this problem, the planned improvements will be installed at a higher elevation such that the treatment plant can continue to function up to at least a 100-year flood level on the Illinois River.

Because the improvements required are extensive and maintaining treatment operations during construction is essential, it has been proposed to construct the improvements in two phases. The Phase 1 project includes a new headworks facility with fine screens and grit removal, influent screw pumps, effluent pump station, sludge processing improvements and several miscellaneous improvements. The total eligible project cost for Phase 1 is estimated to be approximately \$9.9 million. Approximately \$875,000 of this would be funded through an existing STAG grant and the required local match for the STAG grant. The remainder of the project

would be funded through an IEPA revolving loan under the 2009 ARRA stimulus funding, which includes 25% loan forgiveness and 0% interest on the balance. The resulting loan balance to be repaid would be about \$6.75 million or \$338,000 per year for 20 years. The current user fees appear adequate to support Phase 1 without a rate increase. The Phase 1 project has been designed and is awaiting a construction permit from IEPA and loan authorization. Provided funding is received this fall as expected, Phase 1 construction should begin around the end of this year and be completed by June 2011.

Phase 2 improvements include new primary clarifiers, aeration basins, final clarifiers, disinfection system, sludge processing improvements and modifications to the excess flow facilities to accommodate full treatment of flows up to 15.5 MGD and excess flow storage and processing capacity of up to an additional 25 MGD. The total eligible project cost of Phase 2 improvements is estimated to be \$23 million, all of which would be funded by an IEPA low-interest revolving fund loan. The current interest rate for this type of loan is 2.5% which results in an annual loan repayment of about \$1.8 million. An estimated rate increase of 79% would be required to support the additional cost for operation and loan payments. This would increase the typical wastewater fee from the current \$14.94 per month to \$26.74 per month for a residential customer using 6000 gallons per month. The design of Phase 2 improvements is anticipated to begin later this year and be completed by the end of 2010. Assuming IEPA loan funding is received, Phase 2 construction could begin shortly after Phase 1 is completed with completion of Phase 2 construction by the end of 2012.

In addition to the proposed improvements discussed in this report, the City will need to make other improvements in the collection system to reduce combined sewer overflows (CSOs) and comply with the latest CSO regulations. The CSO improvements are being addressed in a separate CSO Long Term Control Plan report that is being prepared concurrently.

2.0 INTRODUCTION

2.1 Study Purpose and Previous Planning

The purpose of this report is to evaluate wastewater facility requirements for the City of Pekin over the 20-year planning period starting in 2008, and to prepare a recommended plan of improvements to meet the 20-year needs. The report is being prepared to address the planning requirements for receipt of an Illinois Environmental Protection Agency (IEPA) loan under the American Recovery and Reinvestment Act of 2009 (ARRA). Previous wastewater facilities planning reports have been prepared by Crawford, Murphy & Tilly, Inc. in 1997 and Harding ESE in 2000 with an amendment by Farnsworth Group, Inc. (FGI) in 2001. These studies helped to define the needs, evaluate alternatives and develop proposed improvements, but were not intended to support IEPA loan funding.

More recently in 2006 the City of Pekin received a federal special appropriations grant, also called a State and Tribal Assistance Grant (STAG), to assist in funding a portion of the proposed wastewater improvements. An additional planning report was prepared in 2007 by FGI and submitted to the United States Environmental Protection Agency (USEPA) in support of the STAG funding. An updated project description and schedule will be submitted to USEPA at the conclusion of this study to address project changes that have occurred since the grant was first awarded. A recommended approach for use of the STAG funding is also incorporated into this report as part of the project financing plan in Section 7.3.

In order to take advantage of the ARRA funding and keep the capital requirements manageable, the recommended improvements have been divided into two construction phases. Both phases are described in this report in Section 6. It is anticipated that Phase 1 improvements can be bid in 2009 and be funded in part by the federal ARRA program, by the existing STAG grant and the balance with a 0% IEPA revolving loan. Since Phase 2 improvements have not yet been

designed, the federal stimulus funding will not be available for Phase 2 construction. This portion is expected to be funded using a normal IEPA low interest revolving loan at 2.5% interest. More detailed information on the proposed funding plan for both construction phases is presented in Section 7 of this report.

2.2 Planning Area

The designated Facilities Planning Area (FPA) as established by IEPA is shown in Figure 2.1. No modifications to the FPA are requested at this time. All of the existing corporate limits and sewer collection system of the City of Pekin lie within the current FPA boundaries. In addition, the Pekin FPA includes the Village of North Pekin and several unincorporated areas extending east into Groveland Township and south to the boundary with South Pekin FPA. The unincorporated areas are served only by private on-site systems and contribute no flow into the City's wastewater system. The Village of North Pekin has its own sewer collection system and pumps its wastewater into the Pekin system. The North Pekin flows are metered prior to discharge at a location near the Pekin Wastewater Treatment Plant 2 (WWTP 2), and an intergovernmental agreement between the two communities provides that Pekin will treat the wastewater from North Pekin.

The City of Pekin is currently served by two wastewater treatment facilities, as shown in Figure 2.1. Wastewater Treatment Plant 2 has been converted to a peak flow storage facility and is no longer used for processing normal daily flows. A new interceptor, designated as the North Side Interceptor, was constructed in 1987 to route normal flows from the WWTP 2 service area (including North Pekin) directly into the junction box at WWTP 1. Additional information on the existing Pekin sewer system is provided in Section 4.

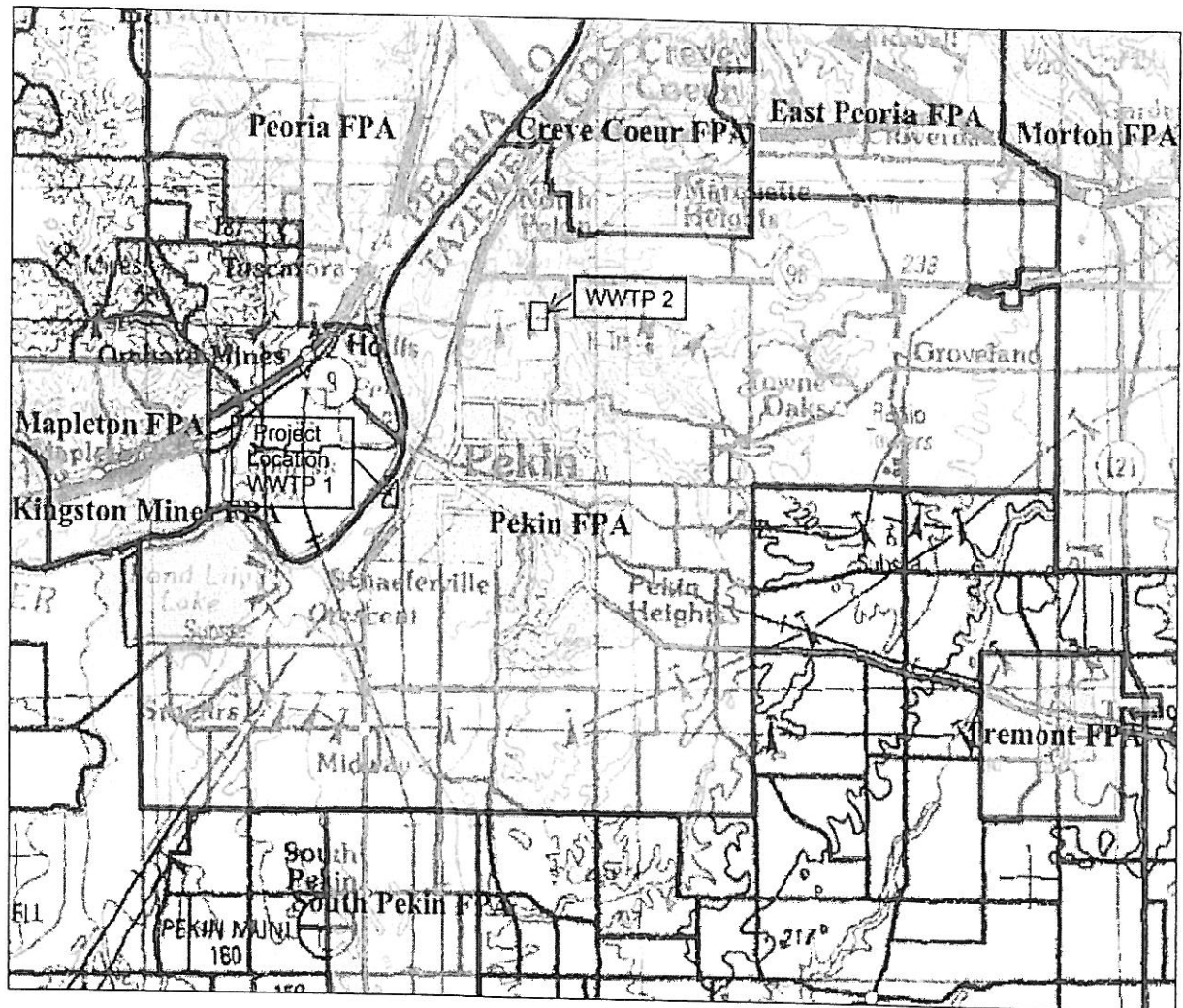


Figure 2.1 -- Pekin Facilities Planning Area – WWTP 1 & WWTP 2

2.3 Population Served

Population served in the City of Pekin and the Village of North Pekin is shown in Table 2.1 below. The data for 1990 and 2000 is from the U.S. Census Bureau. Data for 2008 is estimated based on the average annual growth rate of 0.47% during the period from 1990 to 2000, and assumes the portion residing in North Pekin remains the same as in 2000. This results in an estimated total population of 36,785 in 2008. Assuming the same 0.47% growth rate continues

throughout the 20-year planning period, the projected total population for Pekin and North Pekin in 2028 would be approximately 40,400.

Table 2.1 Population Served

<u>Year</u>	<u>North Pekin</u>	<u>Pekin</u>	<u>Total</u>
1990	1,556	32,254	33,810
2000	1,574	33,857	35,431
2008	1,634	35,151	36,785 (est.)
2028	1,700	38,700	40,400 (est.)

The values shown for Pekin include the population at the Pekin Federal Corrections Institute, since this facility is located within the city limits on the south side of town. Any additional flows (beyond normal residential flow) resulting from activities at the prison are included in the allowance for industrial and commercial flows discussed in Section 5.

3.0 EFFLUENT LIMITS

The discharges from WWTP 1 and from the four combined sewer overflows are currently permitted under NPDES permit No. IL0034495. A copy of the permit is included in Appendix A. The current permit expires on May 31, 2009, and a permit renewal application has been submitted to IEPA. WWTP 2 no longer has an NPDES permitted discharge as all flows are held temporarily and then transferred back to WWTP 1 for treatment and discharge.

Existing and anticipated future permit limits for the main WWTP Outfall 001 are summarized in Table 3.1 below.

Table 3.1 Existing and Future Permit Limits

<u>Parameter</u>	<u>Existing Limits</u>	<u>Future Limits</u>
Design Avg. Flow	4.5 MGD	6.84 MGD
Design Max. Flow	8.7 MGD	15.5 MGD
CBOD ₅ (mo. avg.)	20 mg/l	20 mg/l
Suspended Solids (mo. avg.)	25 mg/l	25 mg/l
Dissolved Oxygen	> 6 mg/l	>6 mg/l
pH	6 to 9 std. units	6 to 9 std. units
Fecal Coliform (May thru Oct.)	<400 per 100 ml	<400 per 100 ml
Chlorine Residual (daily max)	0.75 mg/l	0.75 mg/l
Ammonia Nitrogen (daily max)		
March-May/Sep.-Oct.	24.9 mg/l	4.0 to 8.0 mg/l
June – August	27.5 mg/l	4.0 mg/l
Nov. – Feb.	24.5 mg/l	8.0 mg/l
Ammonia Nitrogen (mo. avg.)		
April – Oct.	Not applicable	2.5 mg/l
Nov. – March	Not applicable	4.0 mg/l
Phosphorus (mo. avg.)	Not applicable	1.0 mg/l

As shown in Table 3.1, the only changes anticipated in effluent permit concentration limits are for ammonia nitrogen and phosphorus. For Phase 1 improvements, the existing permit limits should still apply since there is no proposed change in the permitted design capacity. For Phase 2 improvements the rated wastewater treatment capacity will be increased, which triggers new limits for ammonia and phosphorus.

The NPDES permit also limits combined sewer overflows discharged at the WWTP 1 outfall 002 for fecal coliform (<400/100 ml), ph (6 to 9) and chlorine residual (<2.0 mg/l). These limits are expected to remain the same after completion of the proposed improvements.

The existing NPDES permit also authorizes discharges from four combined sewer outfalls at State Street (Outfall 003), Caroline Street (Outfall 004), Court Street (Outfall 005) and Fayette Street (Outfall 006). These discharges are subject to no specific numerical limits but must not cause water quality violations. It is anticipated that the recommended improvements described in the CSO Long Term Control Plan (LTCP) will be consistent with the presumptive approach under the Federal CSO Policy of 1994 and Wet Weather Water Quality Act of 2000, which should result in an average of <4 overflow events per year. Any change in effluent limits for these discharges will be addressed in the LTCP, which is currently being revised and should be finalized later this year.

4.0 EXISTING FACILITIES

The City of Pekin was originally served by one sewer collection system with treatment provided at WWTP 1, located adjacent to the Illinois River. As the city grew and new developments occurred further north and east a second treatment facility (WWTP 2) was constructed on the north side of town. The location of these two facilities is shown on Figure 2.1.

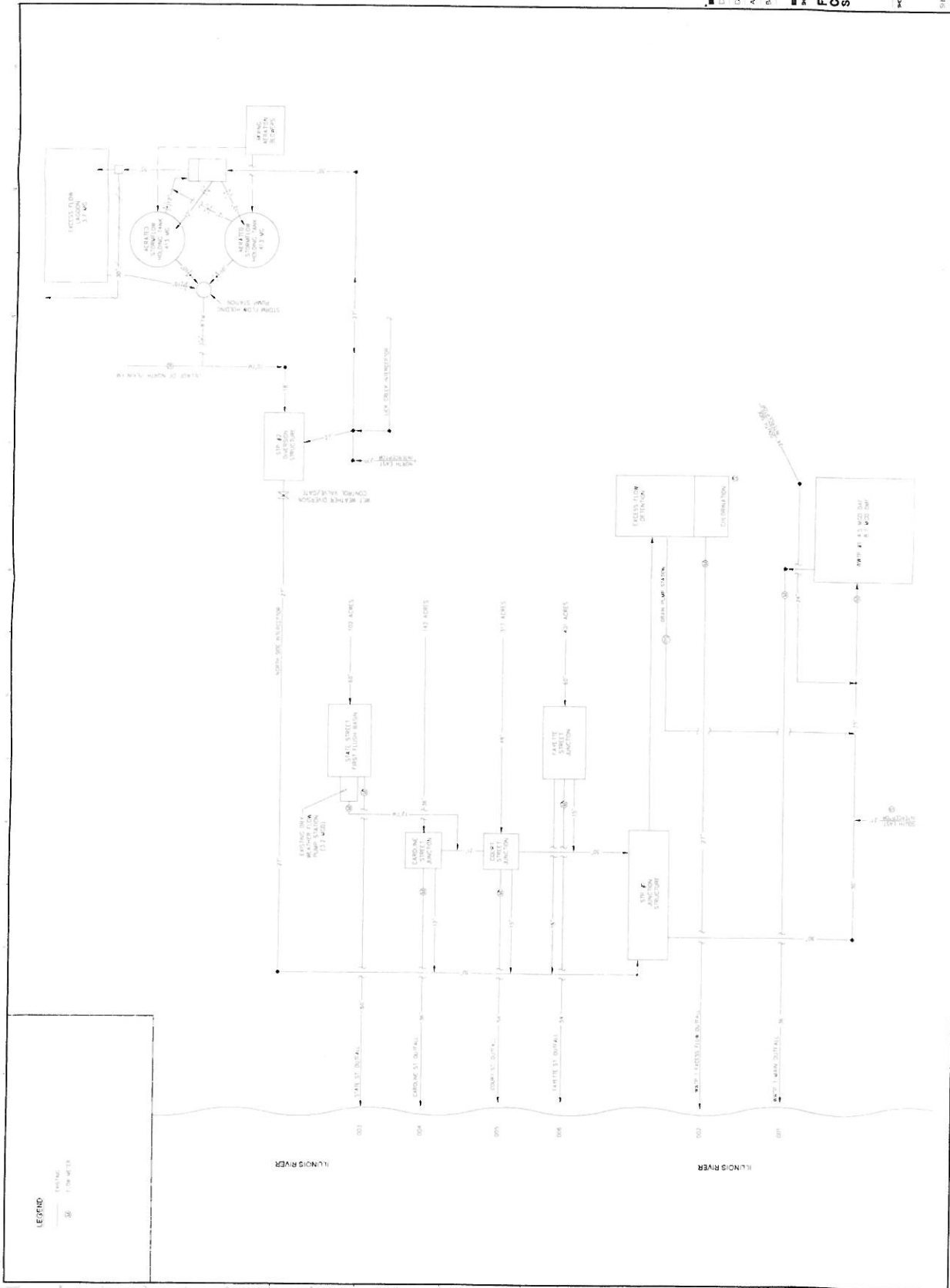
After operating with two treatment facilities for approximately 20 years, the City was faced with need for additional capacity at WWTP 2. A cost analysis done at that time indicated that it would be more economical to convert WWTP 2 into a peak flow storage facility and to construct a new interceptor to convey normal dry weather flows from WWTP 2 to WWTP 1 for consolidated treatment at one location. There is no longer a discharge from the WWTP 2 location.

4.1 Interceptor Sewers

The sewer system includes five major trunk sewers as shown schematically on Figure 4.1 and listed below in Table 4.1. A brief description of each interceptor is included in the paragraphs below.

Table 4.1 Interceptor Sewers

<u>Name</u>	<u>Sanitary/Combined</u>	<u>Size</u>	<u>Slope</u>	<u>Capacity (MGD)</u>
Northeast	Sanitary	27"	0.067%	5.15
North Side	Sanitary & Combined	27"/30"	0.058%	6.5
CSO Interceptor	Combined	30"	0.089 %	7.9
South Side	Sanitary	24"	0.08 %	4.13
Southeast	Sanitary	27"	0.067"	5.15



- **Northeast Interceptor**

The Northeast interceptor conveys sanitary flows from the northeast side of the city to a flow diversion structure at the WWTP 2 location. During normal conditions all flow from this interceptor is routed through the WWTP 2 diversion structure and on to WWTP 1. During a CSO event, the diversion gate is closed which re-directs the flow into WWTP 2 for temporary storage. When flows return to normal, the stored flow at WWTP 2 is pumped out of storage and returned to WWTP 1 via the North Side interceptor.

- **North Side Interceptor**

The North Side interceptor was constructed in 1987 to transport flows from WWTP 2 to WWTP 1 for treatment of all flows at WWTP 1. The sewer starts out as a 27" polyethylene pipe and increases to 30" concrete pipe where it parallels the river. From State Street downstream to WWTP 1 the sewer capacity is approximately 6.5 MGD. When flows from the WWTP 2 service area are shut off, this sewer provides additional capacity for transport of combined sewer flows from Caroline Street downstream to WWTP 1. The diversion gate at WWTP 2 is controlled automatically based on flow increase at the State Street pump station.

- **CSO Interceptor**

The CSO interceptor is the original interceptor installed to intercept combined sewer flows from the combined sewers existing at the time the WWTP was constructed in the 1930's. This sewer is a 21" diameter from Caroline to Court Street then becomes 30" diameter at Court Street. Gates are installed at each CSO diversion structure to regulate the amount of flow diverted into the interceptor. These gates are normally kept in the full open position except during maintenance operations.

- **South Side Interceptor**

The South Side interceptor is a sanitary only trunk sewer serving the south side of the City. It enters WWTP 1 at the inlet junction chamber such that flows from this sewer continue to come into the WWTP for treatment even during high flow conditions when the inlet gate to the plant is throttled down to restrict flows entering from the other interceptors. The average flow in this sewer has typically been about 1.0 MGD.

- **Southeast Interceptor**

The Southeast interceptor is another sanitary only trunk sewer that serves an industrial area further south along the river. This sewer also receives flow from the Federal Corrections Institute. The average flow in this sewer is typically about 0.3 MGD.

4.2 Combined Sewer System

The older section of the city including the central business district and areas near the river are served by combined sewers. The combined sewer system drains a total of about 1000 acres and there are four permitted CSO discharges at State, Caroline, Court and Fayette Streets. The CSO drainage basins and overflow structures are shown schematically in Figure 4.1. The State Street system drains a lower area than the other sewers and requires pumping the dry weather flows through a 12" force main into the interceptor approximately 30 ft downstream of Caroline Street. The State Street pump station has three pumps with a firm rated capacity of 1700 gpm when two pumps are operating and a maximum pumping rate of approximately 2200 gpm with all three pumps running. The dry weather flow at State Street is estimated to be about 140,000 gallons per day. If the pumps cannot keep up with incoming flows, the sewer overflows into a first flush storage basin that has a capacity of approximately 160,000 gallons. If flows continue after the basin is full, it overflows into the Illinois River.

The City and Illinois EPA filed a joint exception petition from CSO regulations in 1985 and an Illinois Pollution Control Board (IPCB) Order (Docket No.PCB 85-226) was issued on June 5, 1986. A copy of the IPCB Order is included in Appendix B. The provisions of this IPCB Order are incorporated into the City's current NPDES permit. The order specifically grants an exception from the state water pollution regulations in Title 35 Section 306.305(a) and 306.305(b) that require full treatment of first flush storm flows and primary treatment and disinfection of ten times dry weather flow. As a condition of the exception, the City was required to construct certain improvements to the combined sewer system including construction of the first flush storage basin at State Street, reconstructing the outfalls at Fayette and Court Streets, and regulator modifications at Caroline, Court and Fayette Streets to interconnect the CSOs to the new North Side interceptor that transports flow from WWTP 2 service area to WWTP 1 for treatment. The City has complied fully with all requirements of the IPCB Order. However, additional improvements to the combined system will be needed to comply with the federal CSO policy of 1994 and the Wet Weather Water Quality Act of 2000. These requirements are addressed separately in the CSO Long Term Control Plan being prepared in tandem with this report.

4.3 WWTP 2

As indicated previously, WWTP 2 has been converted to a peak flow storage facility and is no longer used for treatment. During storm events or other high flow periods in the CSO area, a diversion gate at WWTP 2 is closed, diverting flows into the old treatment units for temporary storage. These two tanks can hold approximately 0.9 million gallons (MG). If necessary, approximately 3.7 MG of additional storage is available in the former polishing pond. City staff has indicated that overflows into the polishing pond have never occurred to their knowledge. After peak flows return to normal, the stored flows are pumped out of the storage tanks and

returned to the North Side interceptor and routed to WWTP 1 for full treatment. The return flow pump station has a rated capacity of approximately 1000 gpm.

4.4 WWTP 1

WWTP 1 was constructed in the 1939 as a primary treatment facility. Secondary treatment was added in 1970. The current NPDES permit rated capacity is for a design average flow (DAF) of 4.5 MGD and a design maximum flow (DMF) of 8.7 MGD.

A condition evaluation was performed on WWTP 1 based on several site visits, prior knowledge and discussions with City of Pekin staff. This report section includes a general description of each system and assessment of the system's condition. A listing of the treatment plant facility components is included in Appendix C and a general site plan is included as Figure 4.2.

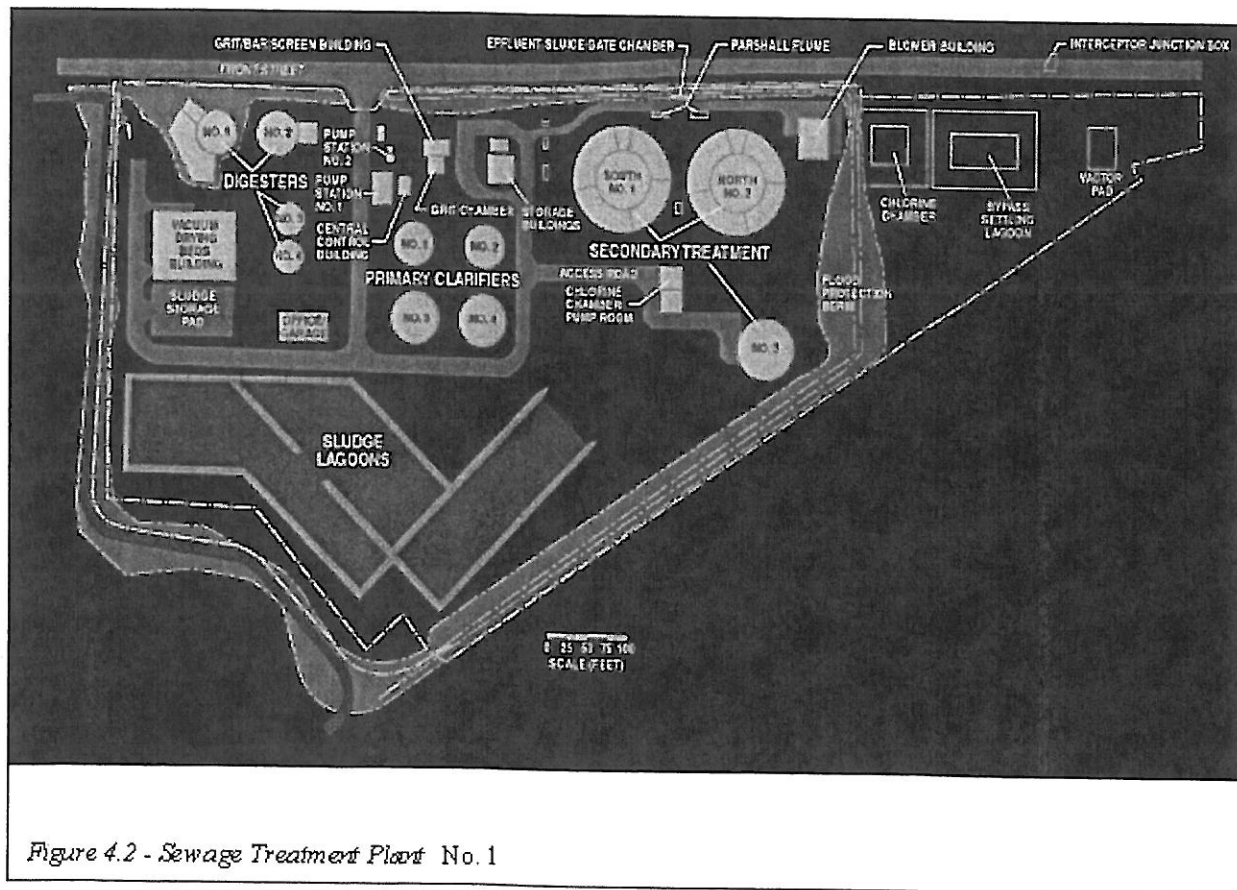


Figure 4.2 - Sewage Treatment Plant No. 1

4.4.1 Preliminary Treatment Facility

The existing wastewater preliminary treatment facility, shown in Figure 4.3, includes a mechanically-cleaned bar screen, an aerated grit chamber with grit washer system, and a channel grinder. Electrically operated gates are located ahead of the pre-treatment facility to direct influent flow to either the bar screen or the channel grinder and to regulate the rate of flow entering the plant. At normal flows, the influent is directed to the bar screen. At higher flows, the wastewater is routed to the channel grinder. All flows enter the aerated grit chamber, which is rated by the manufacturer for maximum sewage flows of up to 5.7 MGD. IEPA's design criteria for aerated grit removal systems requires a detention time of no less than three minutes at peak flow. The existing grit chamber has a theoretical detention time of 4.13 minutes at a flow rate of 8.74 MGD. Actual operational experience has shown that theoretical detention times do not always occur, and it is entirely possible that much shorter detention times are prevalent during peak flows allowing grit to enter the primary treatment system. Overall grit removal is inconsistent. The grit washer, housed in the Grit Building, is appropriately sized for the plant's current rated flow and was installed in 1999.

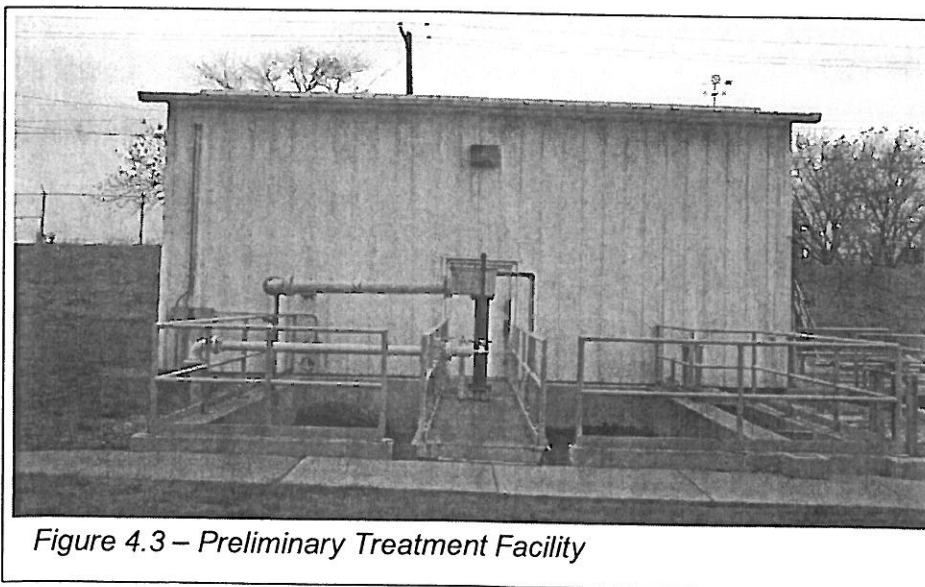


Figure 4.3 – Preliminary Treatment Facility

The overall condition of the preliminary treatment system is poor. Screening effectiveness is marginal and the system cannot handle flows above 8.7 MGD. A new

headworks facility is needed to accommodate flows up to 15.5 MGD as proposed in this plan.

4.4.2 Primary Treatment

The primary treatment system, shown in Figure 4.4, removes grease and scum using a surface skimmer system. Sludge is removed by two positive displacement sludge pumps. The clarifiers provide 7,932 square feet

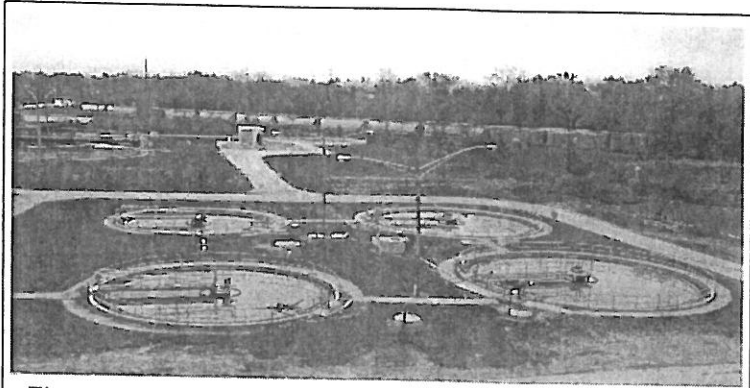


Figure 4.4 - Primary Treatment

of surface area, with a total volume of 68,947 cubic feet, or 515,724 gallons. The primary clarifiers provide settling for the pre-treated wastewater. The clarifier surface area based on IEPA design criteria for BOD removal at surface settling rates of 1,200 gpd/sq. ft., will allow for peak flow of 9.5 MGD.

The existing primary treatment facility includes a flow splitter box, four circular clarifiers and primary sludge removal. The concrete flow splitter box divides the incoming flow from the 30-inch RCP influent line to a 14-inch RCP line that feeds clarifier No. 1 and No. 3 and to an 18-inch RCP line that feeds clarifier No. 2 and No. 4. Two clarifiers, the northwest (No. 3 clarifier) and southwest (No. 1 clarifier), built in 1939, and upgraded in 1974, are each 45 feet in diameter. The other two clarifiers, known as the northeast (No. 4) and the southeast (No. 2), constructed in 1963, are each 55 feet in diameter.

The existing primary sludge pumps are air-operated diaphragm units each rated at 180 gpm at 52 feet of head. A sludge grinder is located on the inlet piping of the sludge pumps. The buried sludge piping from the clarifiers to the sludge pumps contains isolation valves for each clarifier. A duplex air compressor system is housed in the control building to provide the 50

SCFM of air required for operation of one sludge pump, an adequate supply for sludge pumping operations.

Most of the primary clarifier system is in poor condition and at or near the end of its useful life. The system can continue to operate as is during construction of the proposed Phase 1 improvements, but will need to be replaced as part of Phase 2 construction when the rated plant capacity is increased to a peak flow of 15.5 MGD.

4.4.3 Primary Effluent Pumping

The primary effluent from the four clarifiers flows by gravity to two pump stations through a 30-inch pipe. The first pump station, shown in Figure 4.2 as Pump Station No. 1, contains three 25-horsepower submersible sewage pumps. The check valves and shut off valves for the three pumps are located in the basement of the control building. The second pump station, shown as Pump Station No. 2, contains two 25-horsepower submersible sewage pumps identical to the three in Pump Station No. 1. A separate underground valve vault contains the check and shut off valves for the two pumps.

Pump station No. 1 and No. 2, with all pumps operational, are rated for a total of 12.4 MGD. The system with one pump out of service is rated for 9.5 MGD. A spare pump is available should a pump fail and need to be replaced.

The primary pumping system was upgraded in the early 1990s with all the pumps, valves and controls being replaced. Since that time, the pumps have been rebuilt including replacement of the pump seals. The system should be adequate for Phase 1 improvements and will not be needed after Phase 2 is complete, since flow will go by gravity to the new aeration basins.

4.4.4 Secondary Treatment

The primary effluent is pumped by the effluent pumping system, described in Section 4.3.3, into a 24-inch RCP forcemain to a split flow chamber. The split flow chamber constructed in the late 1980s is equipped with slide gates that provide flow regulation to each of the three secondary treatment units. The chamber allows for operation of the secondary treatment system in either conventional or contact stabilization mode. During periods of dry weather and low flows, one secondary treatment unit may be removed from service. All three secondary treatment units are required to be in service during periods of wet weather.

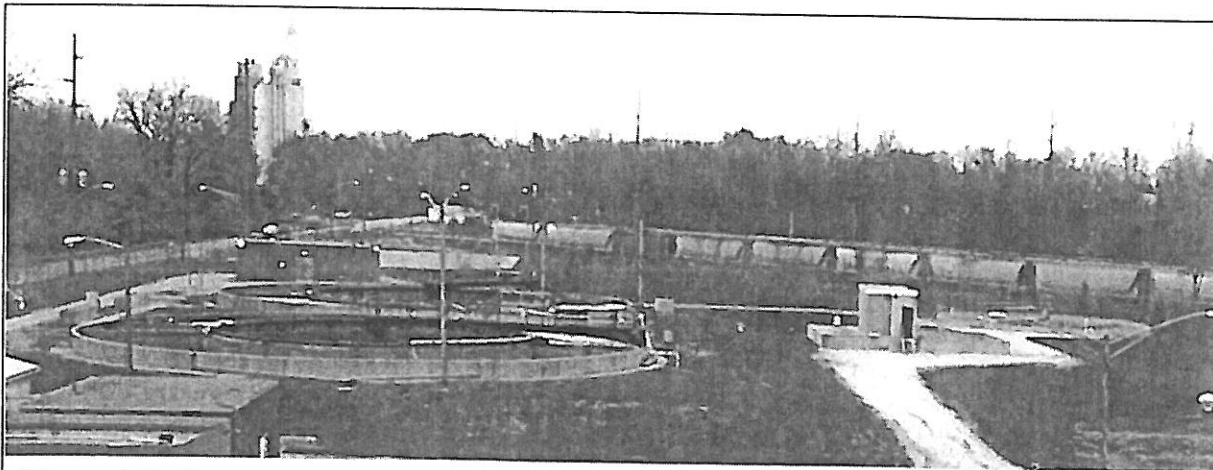


Figure 4.5 - Secondary Treatment

The existing secondary treatment system, shown in Figure 4.5, includes three treatment units. Two of the units, constructed in 1970, shown as the South Secondary Treatment Unit and the North Secondary Treatment Unit in Figure 4.2, are circular, multi-compartment tanks, 120 feet in diameter. The South Secondary Treatment Unit is divided into contact aeration, re-aeration, 70-foot diameter clarifier, chlorine contact, and a waste-activated sludge holding tank used for all three secondary treatment systems. The North Secondary Treatment Unit is divided into contact aeration, re-aeration, 70-foot diameter clarifier, chlorine contact and an additional contact aeration and re-aeration zone used for the third secondary treatment system.

The third secondary treatment system, shown as Clarifier No. 3 in Figure 4.2, was constructed in 1995 and includes a 70-foot diameter clarifier, chlorine contact chamber, and a sludge pumping building for return and waste activated sludge. Located north of the North Secondary Treatment Unit is the Blower Building that houses two engine-driven positive displacement blowers, one electrically-driven positive displacement blower, and the chlorination systems for all three secondary treatment units. Additional secondary treatment system equipment details are included in Appendix C.

IEPA design criteria for an aeration system not providing nitrification requires a design maximum loading rate of 50 lbs. BOD per day per 1000 CF of tank volume (contact and re-aeration combined), 1500 CF of air per lb. of BOD, return sludge pumps capable of 15% - 100% of peak flow, waste sludge pumps capable of at least 25% of peak flow, and air piping sized for 200% of the normal requirements. The blower capacity must be adequate to maintain 2.0 PPM minimum dissolved oxygen level with the largest blower out of service. Design criteria for secondary settling facilities require a design surface loading rate of not more than 1000 gallons per square foot per day. Solids loading cannot exceed 50 lbs. per day per square foot at peak flow. Based on these criteria, the secondary treatment system is adequate for the Phase 1 improvements but will not be adequate for Phase 2. The condition of the existing equipment and structures, particularly the two 35-year-old package aeration basins, is aging and marginal, necessitating completion of the Phase 1 and Phase 2 improvements as soon as financially feasible to avoid extensive interim repairs or on the deteriorated facilities.

For Phase 2 improvements, significantly expanded aeration capacity will be required to achieve the anticipated permit limits for ammonia nitrogen and phosphorus. Thus, the recommended plan is to construct new rectangular aeration basins and replace the existing package plants with two new secondary clarifiers.

Blower System

The three existing blowers, installed in 1970, are rated at 3,500 CFM each. Caterpillar G342-NA-6 cylinder natural gas engines drive two of the blowers. Caterpillar has rebuilt the engines, but no longer manufactures the G342. The third blower is driven by a 200 HP, 480VAC electric motor which was replaced in 1990. The blowers are in fair to poor condition and exhibit significant bearing noise. The blowers have been in service for 30 years and will need to be replaced in the near future. The Blower Building shown in Figure 4.6 was also constructed in 1970 and is in fair

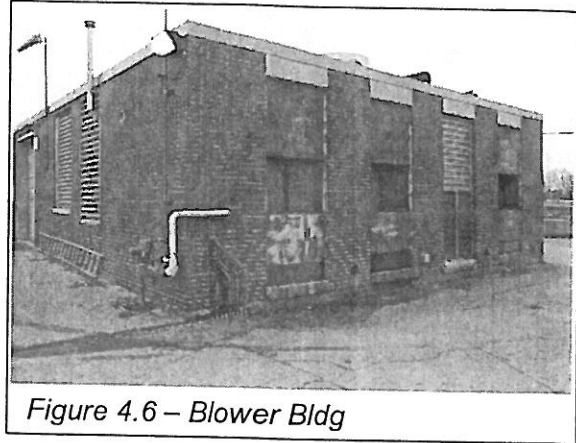


Figure 4.6 – Blower Bldg

condition. The blowers will meet the air requirements for Phase 1 improvements but will need to be replaced as part of Phase 2. An updated computer controlled aeration system that optimizes blower energy consumption to match treatment needs is recommended. The existing manually operated system is highly inefficient and creates the most significant energy demand at the WWTP facility.

4.4.5 Effluent Disinfection

The chlorination system, also housed in the Blower Building, is in good condition. The automatic chlorinators for the North and South Secondary Treatment Units, shown in Figure 4.7, were replaced in the early 1990s. The Secondary Treatment Unit No. 3 automatic chlorinator was installed in 1995. The manual chlorinators used to control filamentous bacteria in the aeration system

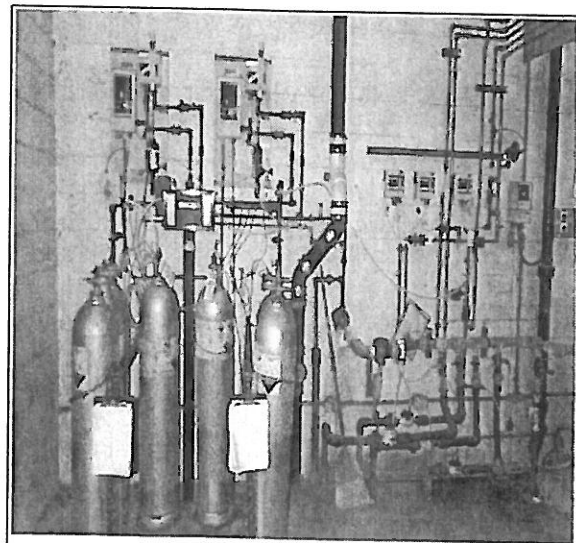


Figure 4.7 – Chlorination System

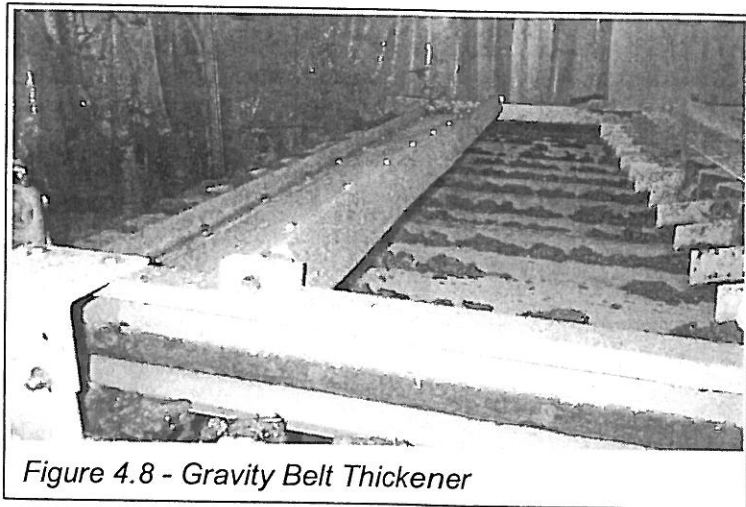
are also in good condition. The chlorination system has approximately five years of useful life remaining and should continue to provide adequate disinfection for Phase 1 improvements.

4.4.6 Sludge Handling/Processing

- **General Description**

Historically, the sludge handling facilities at WWTP 1 have consisted of liquid sludge storage lagoons. In 1989, a gravity belt thickener, vacuum sludge drying beds, sludge storage pad, and associated piping, controls and metering equipment were added for sludge handling.

Currently, the City operates the gravity belt thickener, shown in Figure 4.8, for thickening both primary and waste activated sludge prior to digesting the sludge in the



anaerobic digesters. The vacuum sludge drying beds and the sludge storage pad are currently not in use. The liquid sludge is stored in the sludge storage lagoons and then land applied.

A general sludge handling and processing component description follows, with specific details listed in Appendix C. The liquid sludge storage lagoons are estimated to hold approximately 272,600 cubic feet of sludge (2,039,000 gallons). Sludge can be gravity drained from Digester No. 1, 2, and 3 to the lagoons.

The gravity belt thickener (GBT) system consists of a 2.5 meter wide gravity belt sludge thickener installed in 1989. Associated components include a 2 GPH variable rate polymer feed system, a 60 GPM rotary lobe thickened sludge pump, waste activated sludge flow meter, and a

PLC-based control system. The GBT system is capable of thickening sludge at the rate of approximately 250 GPM. The GBT capacity is limited by the thickened sludge discharge pump. The waste activated sludge (WAS) pump, housed in the "old dewatering building" pumps the WAS from the south tank of the South Secondary Treatment Unit to the GBT. The pump is rated at 300 GPM and is controlled by a variable speed drive.

The vacuum drying bed system is capable of dewatering up to 24,000 gallons of digested sludge in one cycle. The application and drying cycle time typically ranges from 24 to 48 hours. The system consists of four 20-foot by 40-foot rectangular vacuum drying beds, an 8 GPH variable rate polymer feed system, two vacuum pumps, digested sludge flow meter, and a PLC-based control system all housed in the Drying Bed Building shown in Figure 4.2.

To accommodate storage of the dried sludge, a sludge storage pad was constructed in 1989. The uncovered storage pad consists of one 60-foot by 100-foot rectangular concrete pad with curbs and drains. The pad can hold approximately 18,000 CF of dried sludge.

- **Condition Evaluation**

The following paragraphs include a description of the sludge handling/processing components condition as noted during the WWTP 1 site investigations performed by Farnsworth personnel. Summaries of the conditions are listed in Table 4.2.

Table 4.2 Sludge Handling/Processing Condition Summary

Item Description	Condition	Useful Life Remaining (years)	Comments
Sludge Lagoons	Fair	---	Routine Berm Repair Required
Gravity Belt Thickener	Good	5	Hydraulic system, belt and moving parts require periodic maintenance and replacement
Polymer Feed System	Good	5	Installed in 2000
Thickened Sludge Discharge Pump	Good	2	Pump replaced in 2000
Waste Activated Sludge Pump	Fair	5	Has been in service 11 years. Duplex system should be considered
Vacuum Bed System	---	---	Out of service
Sludge Storage Pad	---	---	Out of service

Liquid Sludge Storage Lagoons

The digested liquid sludge stored in the sludge lagoons, shown in Figure 4.9, is periodically removed by mechanical pumping. The lagoons have not been completely drained and cleaned for many years. Dried sludge deposits are dispersed throughout the lagoon area. The lagoon berms are in fair condition, requiring routine maintenance to eliminate rodents and vegetation control. There has historically been a question regarding groundwater intrusion into the lagoons, especially during periods of high river levels, indicating a lagoon floor with potentially minimal integrity.

Gravity Belt Thickener

The gravity belt thickener (GBT) was installed in 1989 and is used on a daily basis. The belt has been replaced several times and other system components have been repaired or replaced. The hydraulic drive unit and all moving parts are susceptible to wear and require periodic maintenance and replacement. Based on the site investigation, it appears that the unit will

require complete replacement in the near future. The vinyl curtain system is in marginal to fair condition and will also need to be replaced soon.

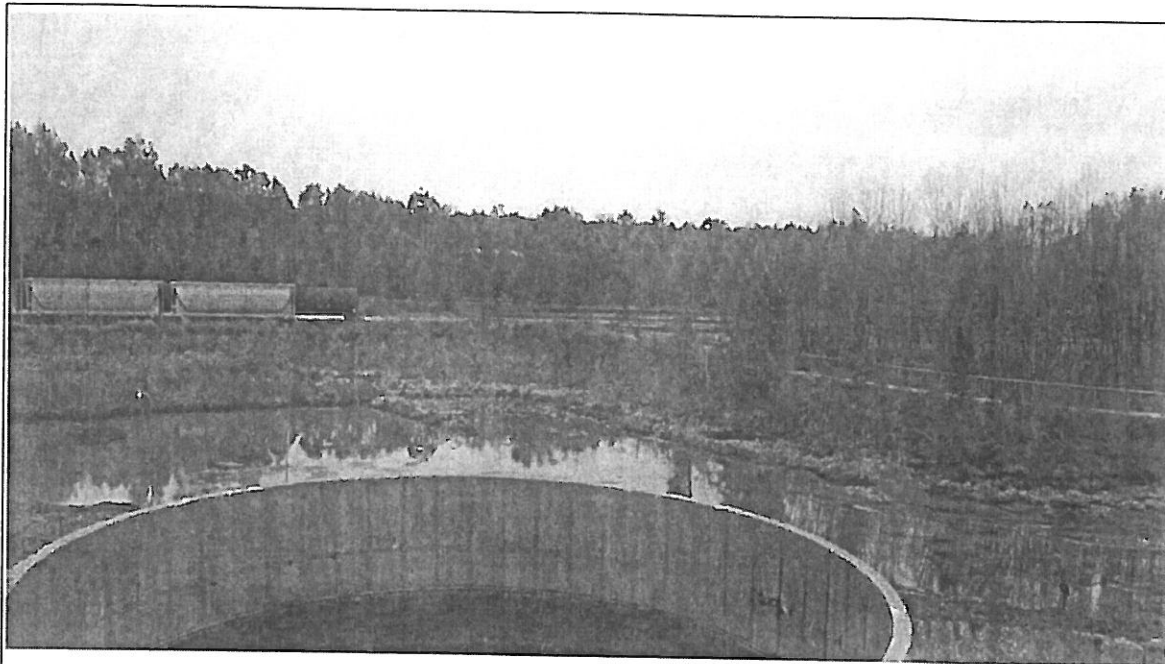


Figure 4.9 -- Sludge Lagoon

Polymer Feed System

The GBT utilizes polymer to enhance the sludge dewatering process. The polymer-feed system has been in service for 17 years. Due to the importance of the GBT system for the sludge handling/processing procedure, the City has installed a second polymer feed unit to provide a duplex system. Both units will need to be replaced as part of Phase 2 improvements

Thickened Sludge Discharge Pump

The 11-year-old pump has recently been replaced with a new unit. The existing motor was reused. As noted in an earlier Harding ESE report, the sludge processed by the GBT system is restricted due to the capacity of the sludge discharge pump. The previous recommendation, which is still valid, is to replace the existing 60 GPM pump with new higher capacity pump as part of the Phase 1 improvements. Additional modifications will be required when the system is expanded during Phase 2 construction.

Waste Activated Sludge Pump

The 300 GPM waste activated sludge (WAS) pump has also been in service for eleven years. It appears to be in good condition. As with the other GBT support systems, addition of a duplex pump should be included with the Phase 2 improvements. As a temporary modification for Phase 1, the WAS pump will need to be relocated to allow removal of the existing dewatering building to provide space for the proposed new headworks building.

Vacuum Bed System

The vacuum bed system is not being used by the City. It has been taken out of service due to the labor required to process the sludge, clean the beds prior to the next sludge application and the variations in sludge quality and cycle time. The system appears to be in fairly good condition, although the vacuum plates are showing signs of wear. Modifications to allow storage of dewatered sludge cake are proposed as part of Phase 2 improvements.

Sludge Storage Pad

The sludge storage pad is also not being used. The pad appears to be in good condition, but a roof should be installed if it is returned to service for storage of dewatered or dried sludge.

4.4.7 Anaerobic Digestion

- **General Description**

The existing anaerobic digester system consists of two primary digesters, a secondary digester, an "old" out of service digester, gas recovery and conditioning equipment, and electrical controls.

The primary digesters, Digester No. 1 and No. 2, are complete mix digesters. Digester No. 1 constructed in 1988, consists of a 50-foot diameter digester tank, a dual-fuel sludge heat exchanger, a 300 GPM sludge recirculation pump, a complete mix digester gas system, gas collection, condensate recovery and conditioning system, gas volume and usage metering, and

sludge level and floating cover level metering. Digester No. 2, built in 1964 and improved in 1996, consists of a 50-foot diameter digester tank, a dual-fuel sludge heat exchanger, sludge recirculation pump, a complete mix digester gas system, gas collection and condensate recovery system, gas volume metering, and sludge level metering. Total primary digester volume is 871,000 gallons.

Digester No. 3, built in 1939, was improved in 1996 and is currently used as a secondary digester. The digester is a 35-foot diameter tank with a fixed cover. There is no heating or mixing system associated with Digester No. 3. The secondary digester No.3 volume is 263,000 gallons.

The "old" out of service digester, also built in 1939, was cleaned and the cover was removed in 1996. It is currently being used as a digested sludge storage tank.

Thickened primary and waste activated sludge can be fed to either of the two primary digesters. Digester gas is collected in the three digesters and stored in Digester No. 1, under the floating cover. The floating cover has approximately 20,000 cubic feet of storage volume. The gas can be used for fuel for the engine-generator (G-1), Digester No. 1 and No. 2 dual-fuel sludge heat exchangers, or flared using the waste gas burner.

The organic treatment capability of the digestion system, based on the total primary digester volume of 116,445 CF, would be approximately 9,315 lbs. VSS per day.

- **Condition Evaluation**

The condition of the anaerobic digestion components is summarized in Table 4.3. A more complete description is included in the following paragraphs.

Table 4.3 Anaerobic Digestion Condition Summary

Item Description	Condition	Useful Life Remaining (years)	Comments
Digester No. 1			
▪ Dual-fuel sludge heat exchanger	Good	1	Tubes require periodic replacement
▪ Recirculation pump	Poor	<1	Motor out, seals leaking
▪ Complete mix system	Poor	<1	Compressor out of service
▪ Gas collection system	Fair	5	Piping replacement < 5 years
▪ Building	Good	20	Exterior re-seal; interior re-paint
Digester No. 2			
▪ Dual-fuel sludge heat exchanger	Good	20	Installed in 1996
▪ Recirculation pump	Good	10	Installed in 1996
▪ Complete mix system	Good	15	Installed in 1996
▪ Gas collection system	Good	15	Installed in 1996
▪ Building	Good	25	

Anaerobic Digester No. 1

Digester No. 1, shown in Figure 4.10 was constructed in 1988 and is generally in good structural condition. The various mechanical components that comprise the complete mix digester system are in poor condition.

The dual fuel sludge heater boiler tubes have been replaced several times since installation. The digester gas is corrosive and has decreased the life of the tubes. City of Pekin contracts out the maintenance and repairs to the sludge heater and heat

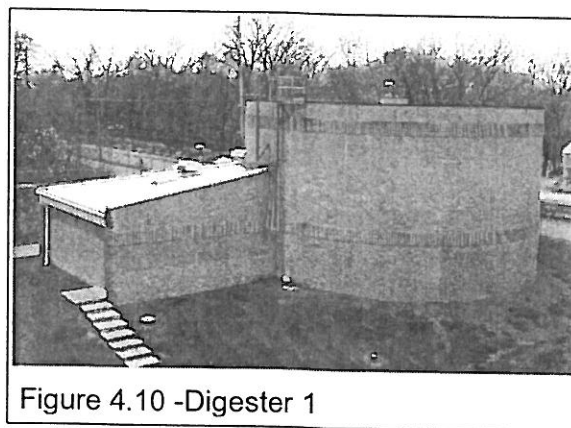


Figure 4.10 -Digester 1

exchanger and it is maintained in good condition. The anticipated remaining useful life of the boiler and heat exchanger is less than 3 years, and this unit should be replaced as part of Phase 1 improvements.

A 5 HP, 300 GPM centrifugal pump recirculates the sludge in the digester tank and through the sludge heater. During a recent site visit, it was noted that significant seal water and/or sludge was leaking from the pump seal. Due to the importance of the pump, a stand-by unit should be considered.

The complete mix system is comprised of a belt drive gas compressor, gas piping, gas safety equipment, and three gas mixing guns. During the site visit, the gas compressor was out of service due to a failed impeller. The piping that was accessible for inspection appeared to be in fair to poor condition on the interior, with a majority of the piping exterior painting in good condition. The piping will need to be completely replaced soon (small sections of piping have already been replaced). The piping inside of the digester tank was coated on the inside of the pipe with an epoxy paint system prior to the initial installation. So, this piping is most likely in better condition than the piping in the digester gas room, but it would be prudent to replace the gas piping in the digester tank, also. Replacement of the piping will require the digester be taken out of service, drained and access made through the manways in the floating cover. The digester tank should be cleaned and inspected at that time. The system has been in service for approximately 18 years and other repairs may be required to the digester tank, floating cover or the mixing gun system. Rather than replacing or rehabilitating all the existing gas mixing equipment, a new vortex mixing system is proposed as part of Phase 1 improvements.

The gas collection system consists of the floating cover, piping, and gas safety devices. The collection piping is primarily ductile iron pipe and appears to be in satisfactory condition. However, the entire gas system needs to be replaced due to deteriorated gas safety and control equipment in the gas processing room. There is evidence of leakage and corrosion creating a hazardous and potentially highly dangerous environment. The waste gas burner, roof mounted on the south side of the building, also must be replaced. The burner is in poor condition and

currently inoperable. The gas control panel enclosure is also in poor condition. The pilot burner, fueled with natural gas, runs continuously. The original design for the system provided for ignition of the pilot burner only during periods of high digester gas pressure above a certain set point. Replacement of the gas flare and related gas collection components is included in Phase 1 improvements. Currently, excess digester gas is exhausted through pressure relief valves on the digester cover. This condition must be rectified. The gas is highly corrosive and detrimental to other components when humid ambient conditions cause hydrogen sulfide gas to condense on ferrous metal components.

The digester building is in good general condition, but there are some maintenance and repairs that need to be completed. A new roof is recommended as part of the Phase 1 project.

Anaerobic Digester No. 2

Digester No. 2, shown in Figure 4.11, was upgraded in 1996 and is in good general condition. All of the major system components were replaced in 1996, including the sludge heat exchanger, re-circulation pump, complete mix system, gas collection system, building heating and ventilation, and a majority of the sludge piping. These components are in good

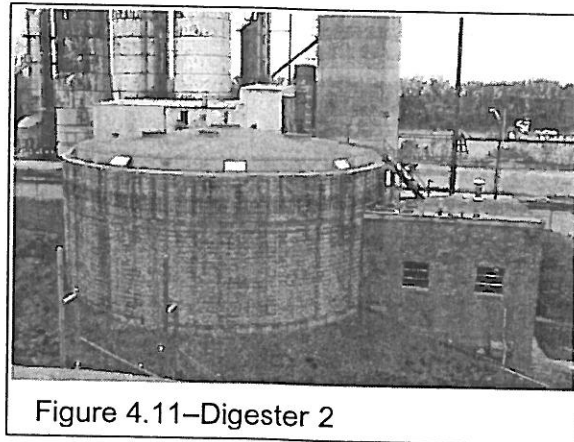


Figure 4.11–Digester 2

condition. The sludge piping that was not replaced is in fair condition, and needs to be repainted. As part of Phase 2, the equipment building will be replaced with a larger two-story building and the existing boiler and heat exchanger will be relocated to the second floor for flood protection. Also, the gas mixing system will be replaced with a vortex mixing system to match Digester No.1.

The Digester No. 2 tank was rehabilitated on the exterior in 1996. The original bricks, installed in 1964, were removed, the tank height was increased by placing concrete walls on the top of the old tank, and split face CMU's were installed around the exterior of the tank. The CMUs need to be resealed with a waterproof coating. The steel bands that were added when the tank was extended have failed from corrosion and need to be replaced. The digester building, also constructed in 1964, has the original brick exterior and appears to be in reasonably good condition but is not large enough to house the additional sludge dewatering and pumping equipment required for Phase 2.

4.4.8 Metering/Instrumentation/Controls

- **General Description**

Nearly all of the facility meters, instruments and control systems were modified during the 1989 plant improvements project, or more recently in some cases. Exceptions to this are the influent meters, which were installed previous to the 1989 improvement project. The facility contains seven Allen-Bradley PLCs, four significant HVAC control panels, two major motor control centers and numerous power panels.

The PLCs are linked to a central computer system located in the Control Building, second floor office area. Alarm system status and system controls are available from the central computer utilizing RSView Software. Alarms are telemetered by the SCADA System to an emergency telephone number during off hours. Table 4.4 includes a listing of the meters and PLCs, their location, function, and estimated years of service.

Much of the control components are now nearing 20 years of age and are becoming obsolete or are far below the current performance standard of electronic controls equipment available in the marketplace today.

Table 4.4 Meters and Programmable Logic Controllers

Item	Location	Service	Years of Service
CP-PC-PLC	Control Building	Primary Pumps and Sludge Pumping	18
CP-PS-PLC	Digester No. 1 Bldg.	Engine/Generator	18
CP-BL-PLC	Digester No. 1 Bldg.	Digester No. 1 & No. 2 Heat Exchanger	18
CP-TH-PLC	Digester No. 1 Bldg.	Gravity Belt Thickener	18
CP-FP-PLC	Drying Bed Bldg.	Sludge Drying Bed System	18
CP-HG-PLC	Blower Building	Diversion Chamber Hydraulic Gates	19
CP-BM-PLC	Blower Building	Blower System, DO, FBOP Sludge Pumping	18
Influent Flow Meter	Control Building	East Effluent	25
Influent Flow Meter	Control Building	West Effluent	25
Effluent Flow Meter	Control Building	North Secondary Effluent	17
Effluent Flow Meter	Control Building	South Secondary Effluent	17
Effluent Flow Meter	Control Building	FBOP Effluent (East Secondary)	12
D.O. Meter	Blower Building	North Secondary	18
D.O. Meter	Blower Building	South Secondary	18
D.O. Meter	Blower Building	FBOP Secondary (East Secondary)	12
Turbidity Meter	Blower Building	North Secondary Effluent	12
Turbidity Meter	Blower Building	South Secondary Effluent	12
Turbidity Meter	Blower Building	FBOP Effluent (East Secondary)	12
Chlorine Residual	Blower Building	North Secondary Effluent	15
Chlorine Residual	Blower Building	South Secondary Effluent	15
Chlorine Residual	Blower Building	FBOP Effluent (East Secondary)	12
Sludge Meter	Digester No. 1 Bldg.	WAS & Primary Sludge	18
Sludge Meter	Drying Bed Building	Digested Sludge	18
Electric Meter	Digester No. 1 Bldg.	CILCO KWH	18
Electric Meter	Digester No. 1 Bldg.	G-1 KWH	18
Gas Meter	Digester No. 1 Bldg.	Digester No. 1 Digester Gas Production	18
Gas Meter	Digester No. 1 Bldg.	Digester No. 2 Digester Gas Production	18

• **Condition Evaluation**

The following paragraphs are condition reports for various control panels throughout WWTP 1.

Ventilation Control (Belt Thickener & Heat Exchanger Area)

- Overall, this panel is in marginal condition with evidence of hydrogen sulfide corrosion.
- All bare copper and brass fuses are black with corrosion.

- Wiring internal to the panel is coated copper wire and shows no signs of corrosion. Wiring brought into the panel is stranded copper and shows significant signs of corrosion and must be replaced.
- To prevent the migration of hydrogen sulfide gases and meet code requirements, seal-offs must be installed on all conduits coming from or going to this panel.
- It is also recommended that Hoffman Corrosion inhibitors be maintained within the panel. Internal wiring is wire tagged with permanent plastic markers. External wiring (wire entering the control panel from a conduit) currently has paper wire tags that have started to deteriorate and fall off. It is recommended that these paper wire tags be replaced with plastic tags like those on wiring internal to the panel.
- Currently, front panel mounted switches, fuse blocks and other internal panel devices are inconsistently labeled. It is recommended that all internal panel devices be permanently labeled and that the panel be permanently labeled internally. It is recommended that a documentation rack be installed in the panel and that the copy of the associated documentation be maintained within the panel.
- Remove debris and clean out the bottom of the cabinet.

Primary Effluent Pump Control Panel (CP-PC)

The following upgrades are recommended for this control panel:

- Permanently label all relays, switches, panel meters and internal devices.
- Label processor with associated rack, rung and slot designations.
- Provide documentation rack and associated panel documentation.
- Replace paper wire tags with permanent plastic tags.
- Reroute wiring within the panel through the provided raceway and reinstall the raceway covers.
- Provide permanent internal and external panel identification tag. (CP-PC)
- Permanently label all internal panel devices (i.e. power supplies, signal conditioners, etc.)

- All terminations should be retorqued.
- Label all spare wiring as to origination/destination etc.
- Remove debris and clean out bottom of control panel.

Primary Sludge Pumping System Control Panel (CP-SP)

Overall this panel is in good condition. The following modifications are recommended:

- Label switches, panel meters, transformer and relays permanently.
- Label the processor and associated rack rung and slot designations.
- Provide permanent internal and external panel identification tag. (CP-SP)
- Provide documentation rack and associated panel documentation.
- All terminations should be retorqued.
- Remove debris and clean out bottom of control cabinet.

Ventilation Control Panel-(Generator Room, Generator #1 & Generator #2)

This panel has corrosion consistent with exposure to hydrogen sulfide gas. The following improvements are recommended:

- To prevent the migration of hydrogen sulfide gases, seal-offs should be installed on all conduits terminated in the control panel.
- Provide permanent internal panel identification tag.
- Label all internal devices, fuses, switches, transformers, relays etc. with permanent labels.
- Hoffman Vapor Corrosion Inhibitors are recommended to be installed and maintained.
- Provide documentation rack and associated panel documentation.
- Significant corrosion is apparent on all bare copper wires and brass fuse ends. It is recommended that all external wiring be re-terminated or replaced to eliminate all corrosion.
- Replace paper based wire tags with permanent plastic tags.
- Remove debris and clean bottom of the cabinet.

Boiler System Control Panel (CP-BL)

Overall, this panel is showing signs of deterioration caused by hydrogen sulfide gas. The following upgrades are recommended:

- Replace panel, PLC and all components.
- Establish procedure for maintaining up-to-date panel documentation.

Auxiliary Boiler Control Panel (CP-BL Aux.)

Hydrogen sulfide gas corrosion is already apparent within this panel. The following improvements are recommended:

- Permanently label all starters associated with the auxiliary boiler system currently residing in the boiler room.
- To prevent the migration of hydrogen sulfide gases, seal-offs should be installed on all conduits terminated in the control panel.
- Provide permanent internal and external panel identification tags. (CP-Aux. BL).
- Corrosion is apparent on all bare copper wire. It is recommended that all corroded wiring be re-terminated or replaced as required to eliminate all corrosion.
- Hoffman Vapor Corrosion Inhibitors are recommended to be installed and maintained.
- All terminations should be retorqued.
- Permanently label all internal panel devices (i.e. switches, panel meters, etc.).
- Provide documentation associated with panel and documentation rack/holder.
- Provide permanent wire tags for all internal wiring.

Gas Compressor Control Panel (CP-GC)

This panel is showing signs of deterioration consistent with hydrogen sulfide gas exposure. The following improvements are recommended:

- To prevent the migration of hydrogen sulfide gases, seal-offs should be installed on all conduits terminated in the control panel.
- Provide permanent internal and external panel identification tag. (CP-GC)
- Significant corrosion is apparent on all bare copper wire and brass fuse ends. It is recommended that all external wiring be re-terminated or replaced to eliminate all corrosion and that fuses that are badly corroded be replaced.
- Provide documentation rack and associated panel documentation.
- Replace paper wire tags with permanent plastic tags similar to existing internal wire tags.
- Label processor with associated rack, rung and slot designations as required.
- Hoffman Vapor Corrosion Inhibitors are recommended to be installed and maintained.
- All terminations should be retorqued.
- Replace door seal.
- Remove debris and clean out bottom of the cabinet.

Generator Control Panel (CP-PS)

This panel is showing signs of deterioration associated with hydrogen sulfide gas exposure.

The following improvements are recommended for this panel:

- Replace the panel, PLC and all components

Boiler Control Panel (Mounted on Aux. Boiler)

The following improvements are recommended for this panel:

- Label all internal devices permanently.
- Label all internal wiring permanently.
- Provide disconnecting means for power to control panel.
- Provide accurate wiring documentation and store in documentation rack/holder.

Gravity Belt Thickener (CP-TH)

This panel is showing signs of deterioration associated with hydrogen sulfide gas exposure.

The following improvements are recommended:

- Replace the panel, PLC and all components
- Establish procedure for maintaining accurate and up-to-date panel documentation.

Blower Control (CP-BM)

Overall, this panel is in relatively good condition and doesn't exhibit corrosion similar to other panels. The following improvements are recommended:

- Label incoming wiring permanently.
- Label power supply control relays, switches, breakers, etc. permanently.
- Label processor with rack, rung, and slot designations.
- Label all unused wires as to origin/destination.
- Permanently label interior and exterior of control panel (CP-BM).
- Provide documentation and associated documentation rack.

The rehabilitation, upgrade, amendment and/or replacement of the WWTP control system equipment and exterior conduits will be integrated into the proposed Phase 1 and Phase 2 improvements. Interconnections between systems will be via a single fiber optic cable to provide improved reliability, corrosion resistance, resistance to lightning, voltage spikes, or extraneous induced electrical 'noise', improved expandability and cost effectiveness.

4.4.9 CSO Settling and Chlorine Contact Basin – WWTP 1

- **General Description**

The CSO settling and chlorine contact basins are used to store excess flow from the incoming combined sewer system during wet weather conditions. If the flow exceeds the storage capacity of the CSO settling basin, the flow passes into the chlorine contact basin and ultimately

out to the Illinois River. The combined storm water and wastewater retained in the basin after a storm event is pumped back into the interceptor sewer to WWTP 1 for full treatment. Both basins have concrete walls and floors that were upgraded in the early 1990s.

- **Condition Evaluation**

The basins are generally in good condition. City staff has indicated that they have had some problems with the pumping system due to solids collecting in the sump. Operational experience has also shown there is a tendency for significant solids to collect in the CSO settling basin and to some extent in the chlorine contact basin. Typically the plant operators clean the settling basin with a tractor loader. The chlorine contact basin must be cleaned manually by hand. These methods of cleaning have been time consuming and an improved cleaning system would be helpful. The system should continue to function as is during Phase 1 but will be modified for additional peak flow storage and improved operation as part of the Phase 2 project.

5.0 FUTURE CONDITIONS

This section describes the rationale used to develop estimated future flows and loadings to be applied for design of all proposed improvements. As mentioned previously, the improvements are proposed to be constructed in two phases to facilitate construction sequencing while maintaining the existing plant in operation and also to lessen the financial impact on the community. Although the improvements will be completed in two phases, all new facilities will be sized to meet projected 20-year needs. Since planning and design was initiated in 2008, the design year 2028 will be used for future flows and loading.

As presented in Section 2.3, the projected population served in 2028 is 40,400. At a nominal design flow of 100 gpd per person, this results in a projected residential flow of 4.04 MGD. In addition, an allowance has been made for potential new industrial and commercial flows and for sustained wet weather flows associated with the combined sewer system. The resulting design flows are summarized in Table 5.1 below.

Table 5.1 Design Flows

<u>Component</u>	<u>Design Capacity</u>	<u>Comments</u>
Projected residential flow	4.04 MGD	100 gpd per person
New industrial flow	1.00 MGD	projected by City staff
New commercial/institutional flow	0.80 MGD	projected by City staff
Added for combined sewer system	1.00 MGD	sustained wet weather flows
Total design average flow (DAF)	6.84 MGD	total of the above flows
Total design population equivalent	68,400 P.E.	based on 100 gpd per P.E.
Design maximum flow (DMF)	15.5 MGD	peaking factor of 2.26

Design loadings for biochemical oxygen demand (BOD) and total suspended solids (TSS) were determined based on historical influent concentrations for these parameters. The operating data for the period from 2000 through 2007 showed an average influent BOD of 218 mg/l and average TSS of 243 mg/l. These values result in the design loadings shown in Table 5.2.

Table 5.2 Design Loadings

<u>Parameter</u>	<u>Design Capacity</u>	<u>Comments</u>
Average influent BOD	218 mg/l	based on data from 2000 – 2007
Design BOD load at DAF	12,400 lbs/day	rounded to nearest hundred lbs.
Average influent TSS	243 lbs/day	based on data from 2000 - 2007
Design TSS load at DAF	13,900 lbs/day	rounded to nearest hundred lbs.

6.0 RECOMMENDED IMPROVEMENTS

To maintain treatment plant operation during construction of the proposed improvements, the WWTP 1 upgrade is proposed to be completed in two phases. This will also help lessen the financial impact on users.

A major consideration for the proposed improvements was to elevate all new structures and treatment units above the 100-year flood level. The existing WWTP has been flooded several times during the past 25 years and each time it has been necessary to pull pump motors and other electrical equipment to avoid further damage. The potential for equipment damage from future flooding will be substantially eliminated by elevating the new facilities.

Another major goal is to increase the treatment plant capacity to handle projected future loads and to process significantly higher flows during wet weather periods. This ability to process higher flows during storm events is a critical component of the combined sewer improvements required to meet the federal CSO control policy, as outlined in the city's CSO Long Term Control Plan, being prepared concurrently with this report. The proposed WWTP improvements will increase the design maximum flow from the current 8.5 MGD to nearly double that at 15.5 MGD.

A detailed evaluation of alternatives has been completed as part of previous planning studies done in 2000 by Harding ESE and updated again in 2007 by Farnsworth Group, Inc. These evaluations showed that the most cost-effective alternative was a conventional activated sludge treatment process with single-stage nitrification for ammonia removal. Other options evaluated included counter current aeration (with and without primary clarifiers), sequencing batch reactors, vertical loop reactors and rebuilding WWTP 2 with less improvements at WWTP 1. The conventional activated sludge process was the most cost-effective approach. With the

recent changes in phosphorus standards, additional anaerobic and anoxic basins have been added at the head of the activated sludge process to achieve biological phosphorus removal.

The improvements recommended for each phase of construction are summarized in the following sections. It should also be noted that for Phase 1 improvements there is no change proposed in the NPDES permitted flows and effluent limits. This is because Phase 1 does not expand the treatment capacity. After Phase 2 improvements are completed, there will be an NPDES permit change to reflect the higher flows and new effluent limitations as explained in Section 3.0

6.1 Phase I Improvements

The Phase 1 improvements are shown on the site plan in Figure 6.1 and the Basis of Design is included in Appendix E. The Phase 1 project includes the following items:

New Headworks Building

- Construction of a new building to house the influent pumping, screening, grit removal, screening washing and electrical gear flood- protected
- Installation of three 50 HP rotary screw pumps each rated at 7.75 MGD (15.5 MGD firm pumping capacity, 23.25 MGD peak pumping capacity)
- Installation of two mechanical perforated plate screens rated at 15.5 MGD each, a screenings conveyor, and screenings/washer press
- Installation of two vortex grit units rated for 15.5 MGD each, with flooded suction grit pumps and a grit washer unit
- Installation of a Parshall flume to measure the influent flow
- Installation of a standby 750 KW generator to provide backup power to the headworks building, effluent pump station, and future Phase 2 loads, including new utility electrical service and transformer, generator and transfer switchgear

Non-potable Water Pump Station

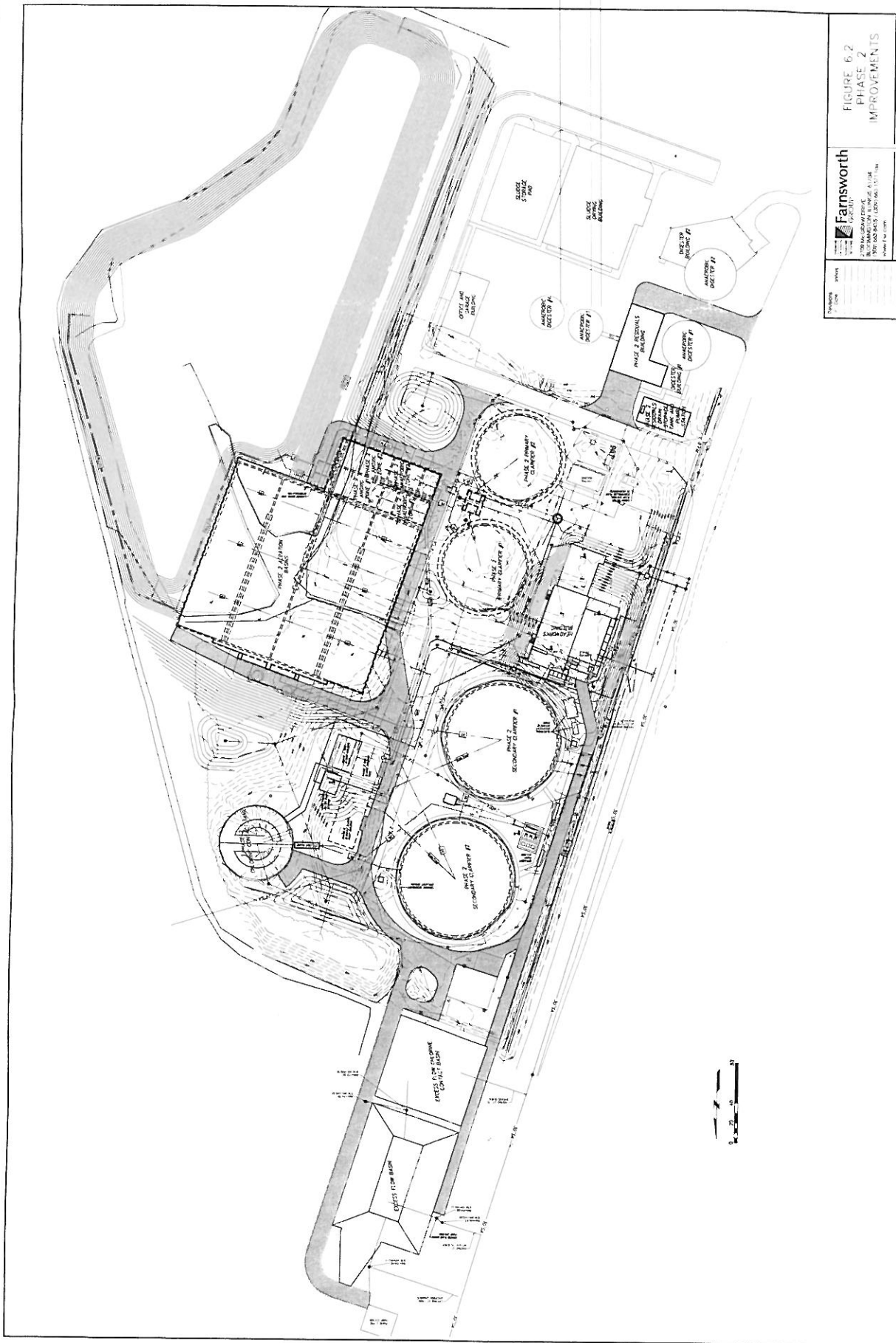
- Construction of a non-potable water pump station for plant wide non-potable water service. The pump station will pump water from the existing Federal Bureau of Prisons (FBOP) chlorine contact tank. In Phase 2 when this tank is converted into a sludge holding tank, the suction piping will be re-routed to the future chlorine contact tank.

Effluent Pump Station

- Construction of an effluent pump station to pump plant effluent to the river if the water level is too high for gravity discharge. The pump station will have 3 pumps each rated for 7.75 MGD.
- Replacement of the effluent box to aid in construction while under operation. Installation of a sluice gate to prevent the river from backing up into the plant.

Anaerobic Digestion Improvements – 1988 Digester

- Removal of the existing gas mix equipment for the digester and associated piping in the digester gas room and digester
- Replacement of the gas flare
- Replacement of the existing sludge boiler
- Replacement of all gas safety equipment and associated piping in the digester gas room
- Replacement of the sludge thickener discharge pump
- Installation of a vortex mixing system for the digester
- Rehabilitation of any internal piping and painting all piping and accessible portions on the interior of the digester
- Reroofing the building



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**FIGURE 6.2
 PHASE 2
 IMPROVEMENTS**

Block No. 2 of 2
 Sheet No. 0000234 00

Project No. 0000234 00
 Project Name: 0000234 00
 Project Location: 0000234 00
 Project Date: 0000234 00
 Project Status: 0000234 00
 Project Owner: 0000234 00
 Project Engineer: 0000234 00
 Project Designer: 0000234 00
 Project Checker: 0000234 00
 Project Approver: 0000234 00

recycle, and the primary effluent at various points for optimum control of the aeration reactors for biological nutrient removal. The aerated portions of the aeration basins will have fine bubble diffusers, arranged in zones with dissolved oxygen (DO) control to save energy running the blowers

Secondary Clarifiers

- Demolition of the two existing secondary treatment units (clarifiers, aeration basins, and sludge holding tank)
- Construction of two 112-ft diameter secondary clarifiers with 15-ft side water depth, and Tow-Bro type sludge collectors with direct connection to the RAS pump suction
- Construction of a secondary scum airlift pump station

Chlorine Contact Tank

- Conversion of the existing FBOP clarifier into a chlorine contact tank. Construct baffles to prevent short circuiting and raise the tank sidewalls for flood protection
- Construct an effluent Parshall flume adjacent to the chlorine contact tank

WAS Sludge Holding Tank

- Reuse the existing FBOP chlorine contact tank and the FBOP sludge pump building as WAS sludge holding tanks (the building currently has hydrostatic pressure relief flap valves in the building walls making it subject to constant water infiltration). Remove the baffle walls in the FBOP chlorine contact tank. Remove the pump building and the concrete roof of the existing pump building. Sidewalls of both tanks will be raised for flood protection.

Sludge Pumping/Blower/Chlorination Building

- Construction of a building in the vicinity of the WAS sludge holding tank with a basement, and ground level access
- Installation of RAS, WAS, and aeration recycle pumps in the basement level of the building
- Installation of electric blowers for the aeration system and WAS sludge holding tank mixing
- Construction of a chlorination room for gas chlorine and installation of all the necessary equipment for the plant effluent and the excess flow basin disinfection. Consideration of alternate hypochlorite chlorination will be made during design.

Anaerobic Digester – 1964 Digester

- Build a second floor in the existing building adjacent to the digester. Relocate the existing boiler and heat exchanger to the second floor.
- Demolish the existing gas mix system in the digester
- Install a vortex sludge mixing system in the digester
- Inspect and repair any damage to the equipment on the interior of the digester such as the fixed cover, gas, and sludge piping
- Repainting of all components

Residuals Building

- Construction of a two story building for the purpose of thickening and dewatering sludge. The first floor will house a truck bay and a concrete vault for sludge transfer. The second floor will house the thickening and dewatering equipment.

- Installation of one new 2-meter gravity belt thickener, thickened sludge pumps, and polymer feed system. The existing gravity belt thickener will be retained as a backup.
- Two 1.5-meter belt filter presses, cake pumps, and a polymer feed system. One unit will be installed initially with all piping and appurtenances for the second unit as sludge demand needs necessitate the second machine.
- Installation of two sludge transfer/belt press feed pumps in a vault accessible via the second floor. Modification of the existing sludge piping feeds to make them accessible in the vault

Vacuum Drying Building

- Remove the existing filter tiles and replace with sand.
- Make necessary drainage piping modifications to reuse the sludge beds to store and further dry the dewatered cake prior to seasonal transfer for farm land application.
- Flood protect the filtrate pump station

Decant /Underflow Storage and Settling Basin

- Construction of a basin to collect the decant/supernatant from the digesters and underflows from the thickener, belt press, and former vacuum drying beds
- Precipitation of the concentrated phosphorous from the waste stream prior to the flow being returned to the front of the plant
- Construction of a small pump station with metering capability to control high concentration return flow to the front of the plant

Site Work

- Installation of all new air piping between the blowers and the aeration basins and WAS sludge holding tanks

- Installation of new RAS piping between the secondary clarifiers and the RAS pump station, and from the RAS pump station to the aeration basins
- Installation of new WAS piping between the RAS pump station and the WAS holding tank, the WAS holding tank and the WAS transfer pumps, and the WAS holding tank and the residuals building
- Installation of recycle piping between the aeration basin and the aeration recycle pumps
- Installation of chlorination water piping from the new chlorination room to the excess flow chlorine contact basin and the new plant effluent chlorine contact tank
- Installation of chlorine make-up water line from the effluent chlorine contact tank and the chlorination building
- Installation of a non-potable water suction line between the chlorine contact tank and the non-potable water pump station
- Installation of non-potable water lines to new and existing flushing hydrants and the other site buildings that have a use for non-potable water
- Installation of sewage piping between the head works building and the primary clarifier splitter box, the primary clarifier splitter box and the primary clarifiers, the primary clarifiers and the aeration basins, the aeration basins and the secondary clarifiers, the secondary clarifiers and the chlorine contact tank, and the chlorine contact tank and the effluent pump station
- Installation of scum piping between the secondary clarifiers and the scum pump station, and the scum pump station and the WAS feed line to the residuals building
- Installation of primary sludge piping between the primary clarifiers and the primary sludge pump station and the primary sludge pump station and the residuals building
- Installation of primary scum piping between the primary clarifiers and the primary sludge pump station

- Installation of a plant drain system where it does not exist to allow for the more complete draining of tanks
- Installation of a force main from the CSO/plant drain pump station to the head of the plant
- Installation of a force main from the decant/underflow settling tank to the head of the plant
- Installation of sludge piping to and from each of the digesters and the residuals building
- Installation of sludge cake piping between the residuals building and the vacuum filter building
- Installation of potable water piping throughout the plant for purposes of fire protection
- Installation of a raw sewage pipe from the excess flow settling basin to the CSO storage lagoon
- Installation of a new interceptor down Front Street between the stub provided in Phase 1 and the excess flow basin junction structure
- Site electrical duct bank, wire and switchgear associated with all the Phase 2 processes
- Fiber conduit and control panels for all Phase 2 process monitoring and automation
- Site grading revisions
- Access road pavements and maintenance walkways

CSO LTCP-Related Plant Improvements

- Draining and settled sludge removal from the existing sludge lagoons. Conversion of the lagoons into a flood protected CSO storage lagoon
- Construction of a CSO/plant drain pump station to feed CSO back to the head of the plant at a controlled rate following a storm event
- Modification of the existing excess flow chlorination and settling basin including influent and effluent piping and a flushing return drain to the headworks

- Construction of a CSO pump station to maximize the use of the excess flow chlorination and settling basin and CSO lagoon storage above gravity flow levels
- Modification of the existing excess flow junction structure to allow for a future interceptor from the CSO outfalls
- Flow control valves and gates, controls and associated site electrical duct bank, conduit and switchgear

7.0 COST ESTIMATES AND FINANCING

7.1 Construction Cost Estimates

The estimated construction costs (excluding engineering and administrative costs) are shown in Tables 7.1 and 7.2 for Phase 1 and Phase 2 improvements, respectively. These estimates are based on May 2009 costs and include an allowance for normal contractor overhead and profit. Where budgetary quotes were provided by vendors, an allowance of 25% of the equipment cost was assumed for installation.

Table 7.1 Construction Cost Estimate for Phase 1

<u>Item</u>	<u>Equipment Cost</u>	<u>Installed Cost</u>
Site demolition, clearing & mobilization		\$56,000
Filling and grading		286,000
Headworks building structure		2,379,000
Headworks building electrical		360,000
Screening equipment and installation	\$395,000	555,000
Influent screw pumps equipment and installation	343,000	482,000
Grit removal equipment and installation	200,000	281,000
Digester mixing equipment	78,600	111,000
Gas safety equipment		378,000
Effluent pump equipment	225,000	316,000
Stop gates, sluice gates and actuators	162,800	229,000
Effluent pump station structural, piping and electrical		491,000
Non-potable water structure, piping and electrical		294,000
Digester boiler and heat exchanger equipment	110,000	155,000
Parshall flume and flow meter equipment	15,200	21,000
Site piping		484,000
Electric duct bank and feeders to new pump stations		587,000
Emergency generator, transfer switch and pad	171,000	260,000
Site pavement		25,000
Digester building demolition, jet mix equip. and electrical		170,000
Digester cleaning and painting		81,000
Digester building roof improvements		23,000
Digester floating cover insulation		73,000
Electrical controls and fiber optic cable		174,000
Contract closeout, cleanup and site restoration		17,000
Estimated construction cost		\$ 8,288,000
Contingency (5%)		414,400
Total Phase 1 construction cost		\$ 8,702,400

Table 7.2 Construction Cost Estimate for Phase 2

<u>Item</u>	<u>Equipment Cost</u>	<u>Installed Cost</u>
Site demolition, clearing & mobilization		\$ 582,000
Primary clarifiers and splitter box	\$ 357,600	2,629,700
Primary sludge pump station	66,400	269,800
Aeration basins with anoxic/anaerobic zones	640,600	9,177,150
Secondary clarifiers	385,000	3,749,650
Chlorine contact tank conversion	41,000	311,550
WAS sludge holding tank	60,000	194,800
Sludge pumping/blower/chlorination bldg.	1,567,300	3,104,545
Anaerobic digester and bldg. mod. (1964)	80,000	307,500
Residuals processing building	863,700	2,367,265
Vacuum drying building modifications		23,000
Decant/underflow storage/settling basin	40,000	342,600
Site work and piping		1,138,930
CSO/excess flow processing at WWTP 1	541,000	2,827,050
Electrical controls and instrumentation	80,000	180,000
Contract closeout, cleanup and site restoration		30,000
Estimated construction cost		\$ 27,358,540
Contingency (10%)		2,735,860
Total Phase 2 construction cost		\$ 30,094,400

7.2 Operation and Maintenance Cost Estimates

Based on information provided by City staff, the current costs for operation, maintenance and equipment replacement (O, M & R) of the Pekin wastewater system are approximately \$500,000 for the collection system and \$1,300,000 for the treatment plant. The improvements proposed in Phase 1 and Phase 2 are all part of the treatment facilities, so there should be little change in the collection system O, M & R costs.

At WWTP 1 there should be lower expenditures on equipment replacement but higher costs for power due to increased pumping and aeration, although these costs will be partially offset by improvements in process control, use of variable frequency drives and similar features.

For Phase 1 improvements, some additional costs for operating the new influent pumps and headworks facility equipment is anticipated. The main increase in operating costs would be for the new 50 HP screw pumps. Assuming one pump is running continuously, this would add

approximately 895 KWH of power usage per day or 327,000 KWH per year. At \$0.10 per KWH, this is a \$32,700 increase in annual power cost. To allow for small increases associated with other new equipment (screens, grit units, etc.), we estimate the overall O & M cost will increase by approximately \$50,000 per year after Phase 1 is completed. This would be about \$1,350,000 per year for the total O, M & R cost at WWTP 1. Including the estimated \$500,000 per year for collection system operation, the total O, M & R cost is estimated to be \$1,850,000 per year after Phase 1.

After completion of Phase 2 improvements, additional flows will be processed through the plant resulting in increased O, M & R costs. A reasonable estimate would be to assume that O, M & R costs increase in proportion to the increase in design flow. The new plant is designed for an average flow of 6.84 MGD compared with the existing plant at 4.5 MGD, which is a 52% increase. However, there will also be some cost savings due to better process control and more efficient use of pumps and blowers. As a preliminary estimate for budgeting purposes it is estimated that O, M & R cost for WWTP 1 after completion of Phase 2 would increase by about 30% or to \$1,690,000 per year. Adding the \$500,000 for collection system O&M results in a total projected O, M & R cost of \$2,190,000 per year after completion of Phase 2 improvements.

These estimates do not include costs associated with any future CSO control improvements that may be recommended in the Long Term Control Plan except for the proposed modifications located at WWTP 1.

7.3 Project Financing and User Fees

7.3.1 Phase 1 Improvements

It is anticipated that Phase 1 improvements will be funded through an Illinois EPA revolving loan. Depending on the availability of funds, the IEPA loan may be awarded with or without

economic stimulus funding through the American Recovery and Reinvestment Act of 2009 (ARRA). ARRA funding would include a 25% loan forgiveness with 0% interest on the amount to be repaid. On the other hand, a conventional IEPA low interest loan would be provided at an interest rate of 2.5% and no loan forgiveness. Since the allocation of ARRA funding is uncertain, both cases are presented below.

In addition, the City of Pekin has received a federal STAG grant in the amount of \$481,100 for this Phase 1 project. The STAG grant requires a minimum 45% local match, which is equivalent to approximately \$393,700. The resulting project funding scenarios with and without ARRA funding are summarized in Tables 7.3 and 7.4.

Table 7.3 Phase 1 Cost Summary with ARRA Funding

<u>Item</u>	<u>Estimated Cost</u>
Estimated construction cost	\$8,702,400
Engineering design	479,400
Engineering for bidding & construction	704,500
Total loan eligible project cost	\$9,886,300
STAG grant funding	481,100
Local match for STAG grant	393,700
Total IEPA loan funding	\$9,011,500
ARRA loan forgiveness (25%)	2,252,875
Total loan amount to be re-paid (75%)	6,758,625
Annual loan payments at 0% interest	338,000
Estimated annual O, M & R	1,850,000
Total annual costs after Phase 1	\$2,188,000

Table 7.4 Phase 1 Cost Summary without ARRA Funding

<u>Item</u>	<u>Estimated Cost</u>
Estimated construction cost	\$8,702,400
Engineering design	479,400
Engineering for bidding & construction	704,500
Total loan eligible project cost	\$9,886,300
STAG grant funding	481,100
Local match for STAG grant	393,700
Total IEPA loan funding	\$9,011,500
ARRA loan forgiveness (0%)	- 0 -
Total loan amount to be re-paid	9,011,500
Annual loan payments at 2.5% interest	509,600
Estimated annual O, M & R	1,850,000
Total annual costs after Phase 1	\$2,359,600

7.3.2 Phase 2 Improvements

The Phase 2 project is expected to be funded using a regular IEPA low interest loan. The interest rate for these loans is set annually at one-half the prime rate or 2.5%, whichever is higher. In recent years, the interest rate has been 2.5%. The anticipated funding for Phase 2 is summarized in Table 7.5.

Table 7.5 Phase 2 Funding Summary

<u>Item</u>	<u>Estimated Cost</u>
Estimated construction cost	\$30,094,400
Engineering design (7%)	2,106,600
Engineering for bidding & construction (8%)	2,407,500
Total loan eligible project cost	\$34,608,500
Total IEPA loan funding	\$34,608,500
Annual loan payments at 2.5% interest	1,957,100 (Phase 2 only)
Annual loan payment from Phase 1	338,000 (with ARRA)
Annual loan payment from Phase 1	509,600 (without ARRA)
Total IEPA annual loan repayment	2,295,100 (with ARRA)
Total IEPA annual loan repayment	2,466,700 (without ARRA)
Estimated annual O, M & R	2,190,000
Total annual costs after Phase 2	\$ 4,485,100 (with ARRA)
Total annual costs after Phase 2	\$ 4,656,700 (without ARRA)

7.3.3 User Fees

The current monthly sewer user fee is composed of a flat charge of \$3.00 for billing plus \$1.99/1000 gallons for all metered flow. For a typical residential customer using 6000 gallons per month, this would be an average residential sewer bill of \$14.94 per month or \$179.28 annually.

There are approximately 12,000 residential services. At the typical usage of 6000 gallons per month, this generates approximately \$2,151,360 annually from residential services. In addition, the Federal Corrections Center generates approximately \$13,500 per month in user fees which adds approximately \$162,000 per year. North Pekin is billed separately based on their metered discharge into Pekin's system and this adds approximately \$30,000 per year in revenue. There are also an estimated 100 other commercial/institutional customers using an average of 60,000 gallons per month. This adds approximately \$1500 per industrial/commercial user annually. The total revenue from these other industrial/commercial/institutional customers is estimated to be approximately \$150,000 per year. This results in total revenue of approximately \$2,500,000 per year from the existing rate structure. The preliminary total revenue generated in the last fiscal year ending April 1, 2009 was \$2,519,504.

From Tables 7.3 and 7.4, the estimated total annual costs for operation and debt retirement after Phase 1 is \$2,188,000 with ARRA stimulus funding or \$2,359,600 if ARRA funding is not available. In either case the existing user fees should be adequate to cover the Phase 1 project without a rate increase. For a typical residential customer using 6000 gallons per month, the monthly user fee would remain at \$14.94.

From Table 7.5, the estimated total annual costs after Phase 2 is \$4,485,100 with ARRA funding for Phase 1 and is \$4,656,700 if both phases are funded with conventional IEPA loans

at 2.5% interest. This would require a rate increase of approximately 79% to 86% depending on whether ARRA funding is received for Phase 1 construction. A rate adjustment of 79% would increase the typical residential bill from \$14.94 per month to \$26.74 per month. A rate increase of 86% would increase the typical residential bill to \$27.79 per month. In either case, these estimated user fees are still within the range of typical sewer charges for communities in Illinois. A rate study completed by the City of Carbondale showed an average monthly sewer bill of \$21.04 for 266 communities that were surveyed in 2007. Approximately one-third of the communities had rates over \$25.00 per month.

A more detailed analysis of user fees, revenues and expenses will be prepared with the loan application documents.

8.0 ENVIRONMENTAL IMPACTS

This section describes the anticipated impacts associated with construction activities occurring during both Phase 1 and Phase 2 projects, and antidegradation considerations that will be applicable to the Phase 2 project only.

8.1 Construction Impacts

All proposed improvements for both Phase 1 and Phase 2 will be constructed within the existing WWTP 1 site and the adjacent city-owned street right-of way. There is no new construction proposed at other off-site locations. Thus the environmental impact from construction activities will be limited to a temporary increase in vehicular traffic such as construction trucks, mobilization of construction equipment onto the site and equipment deliveries. Since the WWTP is located in a heavy industrial area with frequent heavy truck traffic, the impacts of additional construction traffic will be negligible.

Since the WWTP site has been significantly disturbed by past construction activities, there is no anticipated impact on historic/cultural resources or rare and endangered species. Sign-off requests have already been made to the Illinois Historic Preservation Agency and Illinois Department of Natural Resources, and copies of these letters are included in Appendix D.

The proposed improvements do not involve any prime agricultural land or construction in a wetland. As part of Phase 2, modification to one Illinois River outfall structure for excess flows at the WWTP may require a permit from the Corps of Engineers (COE) and comments from the COE will be requested.

The project is not within a Designated Water Quality Management Agency jurisdiction and there are no changes proposed in the Facilities Planning Area boundaries or service areas. Although the design average flow is increasing more than 30% with completion of Phase 2 construction, this is due to an additional allowance for sustained high flows from the combined sewer system and an allowance for new industrial/commercial flows rather than for future population growth. As noted in Section 2.3, the projected future population growth is approximately 10% over the 20-year planning period. Thus, any potential secondary impacts due to population growth should be minimal.

8.2 Antidegradation Considerations

No change in the NPDES permitted discharge limits are requested for Phase 1 improvements so an antidegradation assessment is not required for Phase 1. However, for Phase 2 there will be an increase in the permitted discharge limits for some parameters and the Agency will be required to complete an antidegradation assessment in accordance with Section 302.105 of the state water pollution control regulations. The paragraphs below address the criteria to be provided by the permit applicant.

- **Identification and Characterization of the Affected Water Body**

The receiving stream is the Illinois River at approximately mile point 152.2. The drainage basin for this reach of the river is designated as the Middle Illinois River Watershed and the stream segment is designated as IL D-05 for water quality purposes. The Illinois River is a major navigational water way with heavy commercial barge traffic and a navigational lock and dam located approximately 5 miles upstream near Peoria. The river is also used for recreation activities, including secondary contact uses like boating and fishing and primary contact activities like water skiing and jet skiing. The 7-day 10-year low flow is approximately 3000 cfs. This provides a dilution factor of at least 280 times the proposed Phase 2 discharge flow rate at

the lowest river flow. Average flow in the river is about 15,000 cfs, which provides a dilution factor of over 1000 times the proposed wastewater discharge from Pekin WWTP 1.

In the 2008 IEPA Illinois Integrated Water Quality Report and Section 303(d) List report, segment IL D-05 was listed as impaired for fish consumption due to mercury and PCBs and impaired for primary contact recreation due to fecal coliform. This portion of the river is scheduled by IEPA for a TMDL (total maximum daily load) study on fecal coliform in 2010, but no results are available yet. The presence of mercury and PCBs is generally attributed to air pollution from coal burning power plants and/or other past industrial activities. These contaminants are not associated with municipal wastewater discharges. The presence of fecal coliform is due to a wide variety of sources including storm water runoff, wildlife, septic systems and combined sewer overflows. There will be no significant increase in fecal coliforms discharged by Pekin WWTP 1 because these flows are disinfected prior to discharge during May through October when the fecal coliform water quality standard applies. In addition, the higher treatment capacity proposed will reduce the combined sewer overflows, which will result in a net reduction of fecal coliform discharged.

Other water quality parameters of interest may include suspended solids, BOD, ammonia nitrogen and phosphorus. Each of these is discussed briefly. The river carries a very high load of suspended solids, mostly attributable to erosion from agricultural lands and re-suspended sediments from the heavy barge traffic. As an example, in 1996 the minimum recorded suspended sediment load at Pekin was 450 tons/day and the maximum was 91,500 ton /day. The BOD load was not readily available, but the ambient concentrations in the river are similar to that discharged in the effluent. As indicated in Section 3, the permit limits for ammonia and phosphorus will be reduced when the Phase 2 improvements are completed, so this will result in lower loads discharged to the river for these parameters than are currently discharged.

- **Identification of Proposed Pollutant Load Increases or Potential Impact on Uses**

For the permit regulated parameters there are no anticipated loading increases, and for some parameters there will be a significant decrease in the loads discharged. For suspended solids and BOD it is projected that the average discharged load will remain about the same. Although the design average flow after Phase 2 will be about 1.5 times the flow currently permitted, the average effluent concentration of BOD and TSS is projected to be reduced by a corresponding amount, such that the total pounds discharged will be approximately the same. Lower effluent concentrations will occur due to significantly improved treatment capacity and individual process units. In addition, there will be higher volumes of stormwater processed due to the higher WWTP capacity and ability to process more combined sewer flows, which typically have lower influent concentrations of BOD and TSS. The fecal coliform load will also remain essentially the same because the effluent will continue to be disinfected, which destroys nearly all bacteria. In addition, the increased capacity of the plant and ability to process more flow from the combined sewer system will reduce the quantity of untreated combined sewer overflows. This should reduce the total bacteria load discharged.

For ammonia nitrogen and phosphorus, the proposed Phase 2 project will result in a reduction in the loads discharged to the river. WWTP effluent data for the 5-year period from 2000 to 2004 showed an average load of 259 lbs/day ammonia nitrogen was being discharged. After the Phase 2 improvements are complete, the treatment process will include nitrification of ammonia, which should typically result in effluent concentrations below 4 mg/l. When discharging at the proposed design average flow of 6.84 MGD and a concentration of 4.0 mg/l the total ammonia load discharged would be reduced to 228 lbs/day. Phosphorus data for the existing discharge is not available, but typically would be in the range of 5 to 10 mg/l. At the current permitted average flow of 4.5 MGD and a typical P content of 5 mg/l, the discharged load would be 188 lbs/day. After completion of the Phase 2 project, the effluent phosphorus concentration will be

limited to 1 mg/l. Thus, at the design average flow of 6.84 MGD and 1 mg/l phosphorus, the total discharged load would be reduced to only 57 lbs/day.

In summary, the requested permit modifications should result in no measurable impact on the affected water with respect to BOD and suspended solids should have a beneficial impact due to reductions in ammonia nitrogen and phosphorus discharged in the WWTP effluent and a reduction in fecal coliform due to increased capture and treatment of combined sewer flows.

- **Purpose and Anticipated Benefits of the Proposed Activity**

The WWTP improvements proposed for the City of Pekin provide many benefits including adequate treatment capacity to meet the needs of the community for the next 20 years; replacement of obsolete, worn-out or failing equipment and structures (much of which is over 50 years old) with new reliable equipment; elevation of all major structures and equipment above the 100-yr flood levels; higher quality effluent due to additional treatment to remove ammonia and phosphorus; and expanded capacity to handle high flows from the combined sewer system. Increasing the maximum design flow from the current 8.7 MGD to the proposed 15.5 MGD will reduce the volume and frequency of combined sewer overflows (CSOs) and is an essential component of the city's CSO Long Term Control Plan that is being developed as a mandatory requirement under the existing NPDES permit.

- **Assessment of Alternatives for Less increase in Loading or Minimal**

Environmental Degradation

As discussed above, the proposed discharge is not anticipated to cause any increase in load discharged to the river and will result in a reduction in the ammonia and phosphorus loads and in upstream combined sewer overflows compared with the existing permitted discharges. As such, there will be no environmental degradation. Alternative treatment processes were evaluated as part of previous planning efforts, and the recommended plan was determined to

best meet the requirements at an affordable cost. Other approaches such as land treatment are not feasible due to the location of the facilities and the volume of wastewater to be treated.

- **Comments from the Illinois Department of Natural Resources**

Consultation with IDNR has been initiated through the EcoCAT system in May 2009 (see Appendix D). The proposed discharge will not affect any threatened or endangered species, Illinois Natural inventory sites, dedicated Illinois Nature Preserves or registered Land & Water Reserves in the vicinity of the project location.

9.0 IMPLEMENTATION PLAN

This section presents the proposed project schedule and anticipated arrangements for financing the proposed improvements. Since the project has been separated into two phases, the implementation plan is indicated for each phase separately. In addition to the two projects proposed at WWTP 1, there will be additional improvements required to meet the combined sewer overflow (CSO) control requirements. The CSO improvements will be phased over several years and are summarized in the Long Term Control Plan being prepared concurrently with this report. Portions of the CSO improvements that impact facilities at WWTP 1 are included in the Phase 2 project discussed below.

9.1 Phase 1 Project Schedule

The proposed schedule for Phase 1 improvements is shown in Table 9.1. For Phase 1, there is no change required in the NPDES discharge permit and the construction permit application with final design plans and bidding documents was submitted to IEPA for review several months ago. Consequently, it is anticipated that an ARRA loan commitment letter from IEPA should be received by the end of July, 2009.

Table 9.1 Phase 1 Project Schedule

<u>Item</u>	<u>Target Completion Date</u>
Plans & specs submitted to IEPA for review	November 7, 2008
City authorizes prep. of Facilities Plan for IEPA funding	March 9, 2009
Facilities Plan report submitted to IEPA	May 29, 2009
City authorizes prep. of IEPA loan application package	June 8, 2009
Loan application documentation submitted to IEPA	July 15, 2009
IEPA approves Facilities Plan	July 31, 2009
IEPA issues construction permit for Phase 1 project	July 31, 2009
IEPA issues loan commitment letter and authorizes bid advertisement	August 15, 2009
Bids due	October 15, 2009
City issues Notice of Intent to award contract	October 26, 2009

Table 9.1 (cont.) Phase 1 Project Schedule

<u>Item</u>	<u>Target Completion Date</u>
IEPA finalizes loan and authorizes contract award	November 19, 2009
City awards construction contract for Phase 1	November 23, 2009
Contractor executes agreement with City	December 7, 2009
Construction begins	December 15, 2009
Construction substantial completion	May 7, 2011
Phase 1 contract closeout	June 7, 2011

9.2 Phase 2 Project Schedule

The proposed schedule for Phase 2 improvements is shown in Table 9.2. Phase 2 will require a modification in the NPDES permit to reflect the higher design flows for the treatment plant. The schedule assumes that Phase 2 engineering design will begin later this year and be completed by the end of next year. This will allow the Phase 2 construction to begin shortly after completion of Phase 1.

Table 9.2 Phase 2 Project Schedule

<u>Item</u>	<u>Target Completion Date</u>
City authorizes engineering design for Phase 2	August 10, 2009
City submits pre-application for IEPA loan	March 15, 2010
Phase 2 NPDES permit modifications approved	May 1, 2010
Plans & specs submitted to IEPA for review	November 10, 2010
City authorizes Phase 2 IEPA loan application package	November 22, 2010
Loan application documentation submitted to IEPA	January 10, 2011
IEPA issues construction permit for Phase 2 project	February 10, 2011
IEPA issues loan commitment letter and authorizes bid advertisement for Phase 2	February 15, 2011
Bids due	April 15, 2011
City issues Notice of Intent to award contract	April 25, 2011
IEPA finalizes loan and authorizes contract award	May 16, 2011
City awards construction contract for Phase 1	May 23, 2011
Contractor executes agreement with City	June 6, 2011
Construction begins	June 15, 2011
Construction substantial completion	November 6, 2012
Phase 1 contract closeout	December 6, 2012

9.3 Project Financing

As indicated in Section 7.3, the Phase 1 project is planned to be financed using a combination of an existing STAG grant in the amount of \$481,100, matching local funds (\$393,700) for the STAG grant, and the balance through an IEPA revolving loan provided under the ARRA stimulus funding program with 25% loan forgiveness and 0% interest. The existing user fees are sufficient to support the loan repayments and estimated O, M & R costs for the Phase 1 project.

For Phase 2 an additional IEPA low interest loan will be needed to fund the construction. The City has some cash reserves which can be used to fund the Phase 2 engineering design fees. After construction starts the design fees will be reimbursable as a loan eligible cost. For planning purposes it was assumed that the loan amount would be for the total eligible project cost, or \$34.6 million. In order to generate adequate revenues for loan repayment and operating costs, it will be necessary to increase user fees by an estimated 79 to 86%. This would increase the average residential monthly bill from the current \$14.94 to approximately \$26.74 to \$27.79.



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276, 217-782-3397
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601, 312-814-6026

ROD R. BLAGOJEVICH, GOVERNOR

RENEE CIPRIANO, DIRECTOR

217/782-0610

MAY 04 2004

City of Pekin
111 S. Capitol Street
Pekin, Illinois 61554-4108

Re: City of Pekin
Pekin STP #1
NPDES Permit No. IL0034495
Final Permit

Gentlemen:

Attached is the final NPDES Permit for your discharge. The Permit as issued covers discharge limitations, monitoring, and reporting requirements. Failure to meet any portion of the Permit could result in civil and/or criminal penalties. The Illinois Environmental Protection Agency is ready and willing to assist you in interpreting any of the conditions of the Permit as they relate specifically to your discharge.

The Permit as issued is effective as of the date indicated on the first page of the Permit. You have the right to appeal any condition of the Permit to the Illinois Pollution Control Board within a 35 day period following the issuance date.

To assist you in meeting the self-monitoring and reporting requirements of your reissued NPDES permit, a supply of preprinted Discharge Monitoring Report (DMR) forms for your facility is being prepared. These forms will be sent to you prior to the initiation of DMR reporting under the reissued permit. Additional information and instructions will accompany the preprinted DMRs upon their arrival.

Should you have questions concerning the Permit, please contact Surinder Tandon at the telephone number indicated above.

Sincerely,

Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

SAK:DJS:SKT:03081201 bah

Attachment: Final Permit

cc: Records
Compliance Assurance Section
Peoria Region
US EPA

ROCKFORD - 4302 North Main Street, Rockford, IL 61103 - (815) 987-7760 • DES PLAINES - 9511 W. Harrison St., Des Plaines, IL 60016 - (847) 294-4000
ELGIN - 595 South State, Elgin, IL 60123 - (847) 608-3131 • PEORIA - 5415 N. University St., Peoria, IL 61614 - (309) 693-5463
BUREAU OF LAND - PEORIA - 7620 N. University St., Peoria, IL 61614 - (309) 693-5462 • CHAMPAIGN - 2125 South First Street, Champaign, IL 61820 - (217) 278-5800
SPRINGFIELD - 4500 S. Sixth Street Rd., Springfield, IL 62706 - (217) 786-6892 • COLLINSVILLE - 2009 Mall Street, Collinsville, IL 62234 - (618) 346-5120
MARION - 2309 W. Main St., Suite 116, Marion, IL 62959 - (618) 993-7200

PRINTED ON RECYCLED PAPER

NPDES Permit No. IL0034495

Illinois Environmental Protection Agency

Division of Water Pollution Control

1021 North Grand Avenue East

Post Office Box 19276

Springfield, Illinois 62794-9276

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

Reissued (NPDES) Permit

Expiration Date: May 31, 2009

Issue Date: May 4, 2004

Effective Date: June 1, 2004

Name and Address of Permittee:

City of Pekin
111 S. Capitol Street
Pekin, Illinois 61554-4108

Facility Name and Address:

Pekin STP #1
606 South Front Street
Pekin, Illinois
(Tazewell County)

Receiving Waters: Illinois River

In compliance with the provisions of the Illinois Environmental Protection Act, Title 35 of the Ill. Adm. Code, Subtitle C, Chapter I, and the Clean Water Act (CWA), the above-named Permittee is hereby authorized to discharge at the above location to the above-named receiving stream in accordance with the standard conditions and attachments herein.

Permittee is not authorized to discharge after the above expiration date. In order to receive authorization to discharge beyond the expiration date, the Permittee shall submit the proper application as required by the Illinois Environmental Protection Agency (IEPA) not later than 180 days prior to the expiration date.


Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

SAK:SKT:03081201.bah

NPDES Permit No. IL0034495

Effluent Limitations, Monitoring, and Reporting

FINAL

Discharge Number(s) and Name(s): 001 STP Outfall

Load limits computed based on a design average flow (DAF) of 4.5 MGD (design maximum flow (DMF) of 8.7 MGD).

Excess flow facilities (if applicable) shall not be utilized until the main treatment facility is receiving its design maximum flow.

From the effective date of this Permit until the expiration date, the effluent of the above discharge(s) shall be monitored and limited at all times as follows:

Parameter	LOAD LIMITS lbs/day DAF (DMF)*			CONCENTRATION LIMITS MG/L			Sample Frequency	Sample Type
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum		
Flow (MGD)							Continuous	RIT
CBOD ₅ **	751 (1451)	1501 (2902)		20	40		5 days/week	Composite
Suspended Solids	938 (1814)	1689 (3265)		25	45		5 days/week	Composite
Dissolved Oxygen	Shall not be less than 6 mg/L						5 days/week	Grab
pH	Shall be in the range of 6 to 9 Standard Units						5 days/week	Grab
Fecal Coliform***	Daily Maximum shall not exceed 400 per 100 mL (May through October)						5 days/week	Grab
Chlorine Residual***							3 days/week	Grab
Ammonia Nitrogen as (N)							0.75	3 days/week
March-May/Sept.-Oct.								
June-August							24.9	5 days/week
Nov.-Feb.							27.5	5 days/week
							24.5	5 days/week

*Load limits based on design maximum flow shall apply only when flow exceeds design average flow.

**Carbonaceous BOD₅ (CBOD₅) testing shall be in accordance with 40 CFR 136.

***See Special Condition 7

Flow shall be reported on the Discharge Monitoring Report (DMR) as monthly average and daily maximum.

Fecal Coliform shall be reported on the DMR as Daily Maximum.

pH shall be reported on the DMR as a minimum and a maximum.

Chlorine Residual shall be reported on DMR as Daily Maximum.

Dissolved oxygen shall be reported on DMR as minimum.

NPDES Permit No. IL0034495

Effluent Limitations, Monitoring, and Reporting

FINAL

Discharge Number(s) and Name(s): 002 Treated Combined Sewage Outfall (Flows Greater than 8.7 MGD)

These flow facilities shall not be utilized until the main treatment facility is receiving its design maximum flow.

From the effective date of this Permit until the expiration date, the effluent of the above discharge(s) shall be monitored and limited at all times as follows:

		CONCENTRATION LIMITS mg/L			
Parameter		Monthly Average		Sample Frequency	Sample Type
Total Flow (MG)	See Below			Daily When Discharging	Continuous
BOD ₅		Report		Daily When Discharging	Grab
Suspended Solids		Report		Daily When Discharging	Grab
Fecal Coliform	Daily Maximum Shall Not Exceed 400 per 100 mL			Daily When Discharging	Grab
pH	Shall be in the range of 6 to 9 Standard Units			Daily When Discharging	Grab
Chlorine Residual		2.0		Daily When Discharging	Grab

Total flow in million gallons shall be reported on the Discharge Monitoring Report (DMR) in the quantity maximum column.

Report the number of days of discharge in the comments section of the DMR.

Fecal Coliform shall be reported on the DMR as daily maximum.

Chlorine Residual shall be reported on the DMR as a monthly average concentration.

pH shall be reported on the DMR as a minimum and a maximum.

BOD₅ and Suspended Solids shall be reported on the DMR as a monthly average concentration.

NPDES Permit No. IL0034495

Influent Monitoring, and Reporting

The influent to the plant shall be monitored as follows:

Parameter	Sample Frequency	Sample Type
Flow (MGD)	Continuous	RIT
BOD ₅	5 days/week	Composite
Suspended Solids	5 days/week	Composite

Influent samples shall be taken at a point representative of the influent.

Flow (MGD) shall be reported on the Discharge Monitoring Report (DMR) as monthly average and daily maximum.

BOD₅ and Suspended Solids shall be reported on the DMR as a monthly average concentration.

NPDES Permit No. IL0034495

Special Conditions

SPECIAL CONDITION 1. This Permit may be modified to include different final effluent limitations or requirements which are consistent with applicable laws, regulations, or judicial orders. The IEPA will public notice the permit modification.

SPECIAL CONDITION 2. The use or operation of this facility shall be by or under the supervision of a Certified Class 1 operator.

SPECIAL CONDITION 3. The IEPA may request in writing submittal of operational information in a specified form and at a required frequency at any time during the effective period of this Permit.

SPECIAL CONDITION 4. The IEPA may request more frequent monitoring by permit modification pursuant to 40 CFR § 122.63 and Without Public Notice in the event of operational, maintenance or other problems resulting in possible effluent deterioration.

SPECIAL CONDITION 5. The effluent, alone or in combination with other sources, shall not cause a violation of any applicable water quality standard outlined in 35 Ill. Adm. Code 302.

SPECIAL CONDITION 6. Samples taken in compliance with the effluent monitoring requirements shall be taken at a point representative of the discharge, but prior to entry into the receiving stream.

SPECIAL CONDITION 7. Fecal Coliform limits for discharge point 001 are effective May thru October. Sampling of Fecal Coliform is only required during this time period.

The total residual chlorine limit is applicable at all times. If the Permittee is chlorinating for any purpose during the months of November through April, sampling is required on a daily grab basis. Sampling frequency for the months of May through October shall be as indicated on effluent limitations, monitoring and reporting page of this Permit.

SPECIAL CONDITION 8. The Permittee shall monitor the effluent and report concentrations (in mg/L) of the following listed parameters eighteen (18) months prior to the expiration date and again at twelve (12) months prior to the expiration date. The sample shall be a 24-hour effluent composite except as otherwise specifically provided below and the results shall be submitted on Discharge Monitoring Report Forms to IEPA unless otherwise specified by the IEPA. The parameters to be sampled and the minimum detection limits to be attained are as follows:

<u>STORET CODE</u>	<u>PARAMETER</u>	<u>Minimum detection limit</u>
01002	Arsenic	0.05 mg/L
01007	Barium	0.5 mg/L
01027	Cadmium	0.001 mg/L
01032	Chromium (hexavalent) (grab)	0.01 mg/L
01034	Chromium (total)	0.05 mg/L
01042	Copper	0.005 mg/L
00718	Cyanide (grab) (weak acid dissociable)	10.0 ug/L
00720	Cyanide (grab not to exceed 24 hours) (total)	10.0 ug/L
00951	Fluoride	0.1 mg/L
01045	Iron (total)	0.5 mg/L
01046	Iron (Dissolved)	0.5 mg/L
01051	Lead	0.05 mg/L
01055	Manganese	0.5 mg/L
71900	Mercury	0.2 ug/L
01067	Nickel	0.005 mg/L
00556	Oil (hexane soluble or equivalent) (Grab Sample only)	1.0 mg/L
32730	Phenols (grab)	0.005 mg/L
01147	Selenium	0.002 mg/L
01077	Silver (total)	0.003 mg/L
01092	Zinc	0.025 mg/L

Unless otherwise indicated, concentrations refer to the total amount of the constituent present in all phases, whether solid, suspended or dissolved, elemental or combined, including all oxidation states.

SPECIAL CONDITION 9. During January of each year the Permittee shall submit annual fiscal data regarding sewerage system operations to the Illinois Environmental Protection Agency/Division of Water Pollution Control/Compliance Assurance Section. The Permittee may use any fiscal year period provided the period ends within twelve (12) months of the submission date.

Submission shall be on forms provided by IEPA titled "Fiscal Report Form For NPDES Permittees".

SPECIAL CONDITION 10. The Permittee shall conduct biomonitoring of the effluent from Discharge Number(s) 001.

Special ConditionsBiomonitoring

1. Acute Toxicity - Standard definitive acute toxicity tests shall be run on at least two trophic levels of aquatic species (fish, invertebrate) representative of the aquatic community of the receiving stream. Testing must be consistent with Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (Fifth Ed.) EPA/821-R-02-012. Unless substitute tests are pre-approved; the following tests are required:
 - a. Fish - 96 hour static LC₅₀ Bioassay using fathead minnows (*Pimephales promelas*).
 - b. Invertebrate 48-hour static LC₅₀ Bioassay using *Ceriodaphnia*.
2. Testing Frequency - The above tests shall be conducted using 24-hour composite samples unless otherwise authorized by the IEPA. Samples must be collected in the 18th, 15th, 12th, and 9th month prior to the expiration date of this Permit.
3. Reporting - Results shall be reported according to EPA/821-R-02-012, Section 12, Report Preparation, and shall be submitted to IEPA, Bureau of Water, Compliance Assurance Section within one week of receipt from the laboratory. Reports are due to the IEPA no later than the 16th, 13th, 10th, and 7th month prior to the expiration date of this Permit.
4. Toxicity Reduction Evaluation - Should the results of the biomonitoring program identify toxicity, the IEPA may require that the Permittee prepare a plan for toxicity reduction evaluation and identification. This plan shall be developed in accordance with Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants, EPA/833B-99/002, and shall include an evaluation to determine which chemicals have a potential for being discharged in the plant wastewater, a monitoring program to determine their presence or absence and to identify other compounds which are not being removed by treatment, and other measures as appropriate. The Permittee shall submit to the IEPA its plan for toxicity reduction evaluation within ninety (90) days following notification by the IEPA. The Permittee shall implement the plan within ninety (90) days or other such date as contained in a notification letter received from the IEPA.

The IEPA may modify this Permit during its term to incorporate additional requirements or limitations based on the results of the biomonitoring. In addition, after review of the monitoring results, the IEPA may modify this Permit to include numerical limitations for specific toxic pollutants. Modifications under this condition shall follow public notice and opportunity for hearing.

SPECIAL CONDITION 11. For the duration of this Permit, the Permittee shall determine the quantity of sludge produced by the treatment facility in dry tons or gallons with average percent total solids analysis. The Permittee shall maintain adequate records of the quantities of sludge produced and have said records available for IEPA inspection. The Permittee shall submit to the IEPA, at a minimum, a semi-annual summary report of the quantities of sludge generated and disposed of, in units of dry tons or gallons (average total percent solids) by different disposal methods including but not limited to application on farmland, application on reclamation land, landfilling, public distribution, dedicated land disposal, sod farms, storage lagoons or any other specified disposal method. Said reports shall be submitted to the IEPA by January 31 and July 31 of each year reporting the preceding January thru June and July thru December interval of sludge disposal operations.

Duty to Mitigate. The Permittee shall take all reasonable steps to minimize any sludge use or disposal in violation of this Permit.

Sludge monitoring must be conducted according to test procedures approved under 40 CFR 136 unless otherwise specified in 40 CFR 503, unless other test procedures have been specified in this Permit.

Planned Changes. The Permittee shall give notice to the IEPA on the semi-annual report of any changes in sludge use and disposal.

The Permittee shall retain records of all sludge monitoring, and reports required by the Sludge Permit as referenced in Standard Condition 23 for a period of at least five (5) years from the date of this Permit.

If the Permittee monitors any pollutant more frequently than required by the Sludge Permit, the results of this monitoring shall be included in the reporting of data submitted to the IEPA.

NPDES Permit No. IL0034495

Special Conditions

Monitoring reports for sludge shall be reported on the form titled "Sludge Management Reports" to the following address:

Illinois Environmental Protection Agency
Bureau of Water
Compliance Assurance Section
Mail Code #19
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

SPECIAL CONDITION 12

AUTHORIZATION OF
COMBINED SEWER AND TREATMENT PLANT DISCHARGES

The IEPA has determined that at least a portion of the collection system consists of combined sewers. References to the collection system and the sewer system refer only to those parts of the system which are owned and operated by the Permittee unless otherwise indicated. The Permittee is authorized to discharge from the overflow(s)/bypass(es) listed below provided the diversion structure is located on a combined sewer and the following terms and conditions are met:

<u>Discharge Number</u>	<u>Location</u>	<u>Receiving Water</u>
003	State Street Lift Station	Illinois River
004	Caroline Street Overflow	Illinois River
005	Court Street Overflow	Illinois River
006	Fayette Street Overflow	Illinois River

Treatment Requirements

1. All combined sewer overflows and treatment plant bypasses shall be given sufficient treatment to prevent pollution and the violation of applicable water quality standards. Sufficient treatment shall consist of the following:
 - a. Treatment as described in PCB 85-226 and dated June 5, 1986 shall be provided. The terms and conditions of this Board Order are hereby incorporated by reference as if fully set forth herein. As provided in this Board Order, the use of any of the CSOs listed in this Special Condition is prohibited unless the treatment plant is treating its design maximum flow.
 - b. Any additional treatment, necessary to comply with applicable water quality standards and the federal Clean Water Act, including the amendments pursuant to the Wet Weather Water Quality Act of 2000.
2. All CSO discharges authorized by this Permit shall be treated, in whole or in part, to the extent necessary to prevent accumulations of sludge deposits, floating debris and solids in accordance with 35 Ill. Adm. Code 302.203 and to prevent depression of oxygen levels below the applicable water quality standards.
3. Overflows during dry weather are prohibited. Dry weather overflows, if discovered, shall be reported to the IEPA pursuant to Standard Condition 12(e) of this Permit (24 hour notice).
4. The collection system shall be operated to optimize transport of wastewater flows and to minimize CSO discharges.
5. The treatment system shall be operated to maximize treatment of wastewater flows.

Nine Minimum Controls

6. The Permittee shall comply with the nine minimum controls contained in the National CSO Control Policy published in the Federal Register on April 19, 1994. The nine minimum controls are:
 - a. Proper operation and maintenance programs for the sewer system and the CSOs (Compliance with this Item shall be met through the requirements imposed by Paragraph 8 of this Special Condition);
 - b. Maximum use of the collection system for storage (Compliance with this Item shall be met through the requirements imposed by Paragraphs 1, 4, and 8 of this Special Condition);
 - c. Review and modification of pretreatment requirements to assure CSO impacts are minimized (Compliance with this Item shall be met through the requirements imposed by Paragraph 9 of this Special Condition);

Special Conditions

- d. Maximization of flow to the POTW for treatment (Compliance with this Item shall be met through the requirements imposed by Paragraphs 4, 5, and 8 of this Special Condition);
- e. Prohibition of CSO's during dry weather (Compliance with this Item shall be met through the requirements imposed by Paragraph 3 of this Special Condition);
- f. Control of solids and floatable materials in CSO's (Compliance with this Item shall be met through the requirements imposed by Paragraphs 2 and 8 of this Special Condition);
- g. Pollution prevention programs which focus on source control activities (Compliance with this Item shall be met through the requirements imposed by Paragraph 6 of this Special Condition, See Below);
- h. Public notification to ensure that citizens receive adequate information regarding CSO occurrences and CSO impacts (Compliance with this Item has been met through Paragraphs 7 and 12 of this Special Condition); and,
- i. Monitoring to characterize impacts and efficiency of CSO controls (Compliance with this Item shall be met through the requirements imposed by Paragraphs 10 and 11 of this Special Condition).

A pollution prevention plan was approved by the IEPA for this collection/treatment system on January 28, 2000. The pollution prevention plan shall be presented to the general public at a public information meeting conducted by the Permittee within nine (9) months of the effective date of this Permit. The Permittee shall submit documentation that the pollution prevention plan complies with the requirements of this Permit and that the public information meeting was held. Such documentation shall be submitted to the IEPA within twelve (12) months of the effective date of this Permit and shall include a summary of all significant issues raised by the public, the Permittee's response to each issue, and two (2) copies of the "CSO Pollution Prevention Plan Certification", one (1) with original signatures. Following the public meeting, the Permittee shall implement the pollution prevention plan within one (1) year and shall maintain a current pollution prevention plan, updated to reflect system modifications, on file at the sewage treatment works or other acceptable location and made available to the public. The pollution prevention plan shall be submitted to the IEPA upon written request.

Sensitive Area Considerations

- 7. Sensitive areas are any water likely to be impacted by a CSO discharge and designated as an Outstanding National Resource Water, found to contain either shellfish beds or threatened or endangered aquatic species or their habitat, used for primary contact recreation, or within the protection area for a drinking water intake structure.

Within one (1) month of the effective date of this Permit, the Permittee shall submit two (2) copies of documentation indicating which of the outfalls listed in this Special Condition do not discharge to sensitive areas. Such documentation shall include information regarding the use of the receiving water for primary contact activities (swimming, water skiing, etc.). If the Permittee believes that it is not possible for primary contact recreation to occur in the areas impacted or potentially impacted by the CSOs listed in this Special Condition, then justification as to why primary contact recreation is not possible shall be submitted. Adequate justification shall include, but is not limited to: (1) inadequate water depth; (2) presence of physical obstacles sufficient to prevent access to or for primary contact recreation; and, (3) uses of adjacent land sufficient to discourage primary contact activities. The IEPA will make a determination based on this documentation and other information available to the IEPA.

Should the IEPA conclude that any of the CSOs listed in this Special Condition discharge to a sensitive area, the IEPA will notify the Permittee in writing. Within three (3) months of the date of notification, or such other date contained in the notification letter, the Permittee shall submit two (2) copies of either a schedule to relocate, control, or treat discharges from these outfalls. If none of these options are possible, the Permittee shall submit adequate justification as to why these options are not possible. Such justification shall be in accordance with Section II.C.3 of the National CSO Control Policy.

Special ConditionsOperational and Maintenance Plans

8. The IEPA reviewed and accepted a CSO operational and maintenance plan ("CSO O&M plan") on prepared for this sewerage system. The Permittee shall review and revise, if needed, the CSO O&M plan to reflect system changes. The CSO O&M plan shall be presented to the general public at a public information meeting conducted by the Permittee within nine (9) months of the effective date of this Permit. The Permittee shall submit documentation that the CSO O&M plan complies with the requirements of this Permit and that the public information meeting was held. Such documentation shall be submitted to the IEPA within twelve (12) months of the effective date of this Permit and shall include a summary of all significant issues raised by the public, the Permittee's response to each issue, and two (2) copies of the "CSO Operational Plan Checklist and Certification", one (1) with original signatures. Following the public meeting, the Permittee shall implement the CSO O&M plan within one (1) year and shall maintain a current CSO O&M plan, updated to reflect system modifications, on file at the sewage treatment works or other acceptable location and made available to the public. The CSO O&M plan shall be submitted to the IEPA upon written request.

The objectives of the CSO O&M plan are to reduce the total loading of pollutants entering the receiving stream and to ensure that the Permittee ultimately achieves compliance with water quality standards. These plans, tailored to the local governments's collection and waste treatment systems, shall include mechanisms and specific procedures where applicable to ensure:

- a. Collection system inspection on a scheduled basis;
- b. Sewer, catch basin, and regulator cleaning and maintenance on a scheduled basis;
- c. Inspections are made and preventive maintenance is performed on all pump/lift stations;
- d. Collection system replacement, where necessary;
- e. Detection and elimination of illegal connections;
- f. Detection, prevention, and elimination of dry weather overflows;
- g. The collection system is operated to maximize storage capacity and the combined sewer portions of the collection system are operated to delay storm entry into the system; and,
- h. The treatment and collection systems are operated to maximize treatment.

Sewer Use Ordinances

9. The Permittee, within six (6) months of the effective date of this Permit, shall review and where necessary, modify its existing sewer use ordinance to ensure it contains provisions addressing the conditions below. If no ordinance exists, such ordinance shall be developed and implemented within six (6) months from the effective date of this Permit. Sewer use ordinances are to contain specific provisions to:
- a. prohibit introduction of new inflow sources to the sanitary sewer system;
 - b. require that new construction tributary to the combined sewer system be designed to minimize and/or delay inflow contribution to the combined sewer system;
 - c. require that inflow sources on the combined sewer system be connected to a storm sewer, within a reasonable period of time, if a storm sewer becomes available;
 - d. provide that any new building domestic waste connection shall be distinct from the building inflow connection, to facilitate disconnection if a storm sewer becomes available;
 - e. assure that CSO impacts from non-domestic sources are minimized by determining which non-domestic discharges, if any, are tributary to CSO's and reviewing, and, if necessary, modifying the sewer use ordinance to control pollutants in these discharges; and,
 - f. assure that the owners of all publicly owned systems with combined sewers tributary to the Permittee's collection system have procedures in place adequate to ensure that the objectives, mechanisms, and specific procedures given in Paragraph 10 of this Special Condition are achieved.

Special Conditions

Upon completion of the review of the sewer use ordinance(s), the Permittee shall submit two (2) copies of a completed Certification of Sewer Use Ordinance Review with original signatures. The Permittee shall submit copies of the sewer use ordinance(s) to the IEPA upon written request.

The Permittee shall enforce the applicable sewer use ordinances.

Long-Term Control Planning and Compliance with Water Quality Standards

10. a. Pursuant to Section 301 of the federal Clean Water Act, 33 U.S.C. § 1311, and 40 CFR § 122.4, discharges from the CSOs, including the outfalls listed in this Special Condition and any other outfall in this Permit listed as a "Treated Combined Sewage Outfall", shall not cause or contribute to violations of applicable water quality standards or cause use impairment in the receiving waters. In addition, discharges from CSOs shall meet all applicable requirements of 35 Ill. Adm. Code 306.305(a), (b), (c), and (d).
- b. The Permittee shall develop and implement a CSO Control Plan for assuring that discharges from the outfalls listed in this Special Condition comply with 10.a above, including the following steps:
 1. The Permittee shall develop and submit a Plan of Study ("POS") for CSO Assessment within six (6) months of the effective date of this Permit. Such POS shall incorporate the provisions of Title 35, Subtitle C, Chapter II, Part 375, Subpart D and shall include provisions to determine what percentage of the first flush for a 1.2 inch storm with a one hour duration is currently being treated by the Permittee. The POS shall also contain provisions to measure compliance with 35 Ill. Adm. Code 306.305(b) and to demonstrate compliance with water quality standards pursuant to the "demonstration approach" under Section II.C.4.b of the federal CSO Control Plan of 1994.
 2. The Permittee shall respond to an IEPA review letter in writing within ninety (90) days of the date of such an initial review letter, within thirty (30) days of any subsequent review letter(s), if any, and shall implement the POS and submit a CSO Assessment Report within eighteen (18) months of IEPA approval for the POS or by such date as indicated in the IEPA approval letter for the POS.
 3. If the CSO Assessment Report indicates that the discharges from the outfalls listed in this Special Condition fully comply with all applicable requirements of 35 Ill. Adm. Code 306.305(a), (b), (c), and (d), and do not cause or contribute to violations of water quality standards (including recreational uses), IEPA may make a determination that no additional CSO control is required.
 4. Unless IEPA determines that no additional CSO controls are required, the Permittee will be notified in writing and shall complete a CSO Control Plan for complying with such regulations and bringing flows from all its CSOs (treated and untreated) into compliance with applicable standards, including water quality standards. Two (2) copies of this plan shall be submitted to the IEPA within forty-eight (48) months of the effective date of this Permit and shall contain a schedule for its implementation and provisions for re-evaluating compliance with applicable standards and regulations after implementation. The control plan shall be consistent with the "demonstration approach" under Section II.C.4.b of the federal CSO Control Policy of 1994.

Required components of the LTCP include the following:

- a. Characterization, monitoring, and modeling of the Combined Sewer System (CSS);
- b. Consideration of Sensitive Areas;
- c. Evaluation of alternatives;
- d. Cost/Performance considerations;
- e. Revised CSO Operational Plan;
- f. Maximizing treatment at the treatment plant;
- g. Implementation schedule;
- h. Post-Construction compliance monitoring program; and
- i. Public participation.

Monitoring, Reporting and Notification Requirements

11. The Permittee shall monitor the frequency of discharge (number of discharges per month) and estimate the duration (in hours) of each discharge from each outfall listed in this Special Condition. Estimates of storm duration and total rainfall shall be provided for each storm event.

NPDES Permit No. IL0034495

Special Conditions

For frequency reporting, all discharges from the same storm, or occurring within 24 hours, shall be reported as one. The date that a discharge commences shall be recorded for each outfall. Reports shall be in the form specified by the IEPA and on forms provided by the IEPA. These forms shall be submitted to the IEPA monthly with the DMRs and covering the same reporting period as the DMRs. Parameters (other than flow frequency), if required in this Permit, shall be sampled and reported as indicated in the transmittal letter for such report forms.

12. A public notification program in accordance with Section II.B.8 of the federal CSO Control Policy of 1994 shall be developed employing a process that actively informs the affected public. The program shall include at a minimum public notification of CSO occurrences and CSO impacts, with consideration given to including mass media and/or internet notification. The Permittee shall also consider posting signs in waters likely to be impacted by CSO discharges and at points where these waters are used for primary contact recreation. Provisions shall be made to include modifications of the program when necessary and notification to any additional affected public. The program shall be presented to the general public at a public information meeting conducted by the Permittee. The Permittee shall conduct the public information meeting within nine (9) months from the effective date of this Permit. The Permittee shall submit documentation that the public information meeting was held, shall submit a summary of all significant issues raised by the public and the Permittee's response to each issue, two (2) copies of the public notification program, and shall identify any modifications made to the program as a result of the public information meeting. The public information meeting documentation shall be submitted to the IEPA within twelve (12) months of the effective date of this Permit. The Permittee shall implement the public notification program within twelve (12) months of the effective date of this Permit.
13. If any of the CSO discharge points listed in this Special Condition are eliminated, or if additional CSO discharge points, not listed in this Special Condition, are discovered, the Permittee shall notify the IEPA in writing within one (1) month of the respective outfall elimination or discovery. Such notification shall be in the form of a request for the appropriate modification of this NPDES Permit.

Summary of Compliance Dates in this CSO Special Condition

14. The following summarizes the dates that submittals contained in this Special Condition are due at the IEPA:
- | | |
|--|--|
| Submission of CSO Monitoring Data (Paragraph 11) | 15th of every month |
| Documentation of CSO Locations (Paragraph 7, Sensitive Areas) | 1 month from the effective date of this Permit |
| Control (or Justification of No Control) of CSOs to Sensitive Areas (Paragraph 7) | 3 months from date of IEPA notification |
| Elimination of a CSO or Discovery of Additional CSO Locations (Paragraph 13) | 1 month from discovery or elimination |
| Certification of Sewer Use Ordinance Review (Paragraph 9) | 6 months from the effective date of this Permit |
| CSO Assessment Plan of Study (Paragraph 10) | 6 months from the effective date of this Permit |
| Conduct Pollution Prevention, OMP, and PN Public Information Meeting (Paragraphs, 6, 8 and 12) No Submittal Due with this Milestone | 9 months from the effective date of the Permit |
| Submit Pollution Prevention Certification, OMP, and PN Information Meeting Summary (Paragraphs, 6, 8 and 12) | 12 months from the effective date of the Permit |
| Submit CSO Assessment Report (Paragraph 10) | 18 months from the date of IEPA POS approval |
| CSO Control Plan (Paragraph 10) | 48 months from the effective date of this Permit |

All submittals listed in this paragraph shall be mailed to the following address:

Illinois Environmental Protection Agency
 Division of Water Pollution Control
 Attention: CSO Coordinator, Compliance Assurance Section
 1021 North Grand Avenue East
 Post Office Box 19276
 Springfield, Illinois 62794-9276

All submittals hand carried shall be delivered to 1021 North Grand Avenue East.

Special Conditions

Reopening and Modifying this Permit

15. The IEPA may initiate a modification for this Permit at any time to include requirements and compliance dates which have been submitted in writing by the Permittee and approved by the IEPA, or other requirements and dates which are necessary to carry the provisions of the Illinois Environmental Protection Act, the Clean Water Act, or regulations promulgated under those Acts. Public Notice of such modifications and opportunity for public hearing shall be provided.

SPECIAL CONDITION 13. The Permittee shall record monitoring results on Discharge Monitoring Report Forms using one such form for each outfall each month.

In the event that an outfall does not discharge during a monthly reporting period, the DMR form shall be submitted with no discharge indicated.

The completed Discharge Monitoring Report forms shall be submitted to IEPA no later than the 15th day of the following month, unless otherwise specified by the permitting authority.

Discharge Monitoring Reports shall be mailed to the IEPA at the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
Attention: Compliance Assurance Section, Mail Code # 19
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

Attachment H
Standard Conditions

Definitions

Act means the Illinois Environmental Protection Act, 415 ILCS 5 as Amended

Agency means the Illinois Environmental Protection Agency

Board means the Illinois Pollution Control Board

Clean Water Act (formerly referred to as the Federal Water Pollution Control Act) means Pub. L. 92-500, as amended, 33 U.S.C. 1251 et seq.

NPDES (National Pollutant Discharge Elimination System) means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 402, 318 and 405 of the Clean Water Act.

USEPA means the United States Environmental Protection Agency

Daily Discharge means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurements, the "daily discharge" is calculated as the average measurement of the pollutant over the day.

Maximum Daily Discharge Limitation (daily maximum) means the highest allowable daily discharge.

Average Monthly Discharge Limitation (30 day average) means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Average Weekly Discharge Limitation (7 day average) means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Best Management Practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Aliquot means a sample of specified volume used to make up a total composite sample.

Grab Sample means an individual sample of at least 100 milliliters collected at a randomly-selected time over a period not exceeding 15 minutes.

24 Hour Composite Sample means a combination of at least 8 sample aliquots of at least 100 milliliters collected at periodic intervals during the operating hours of a facility over a 24-hour period.

8 Hour Composite Sample means a combination of at least 3 sample aliquots of at least 100 milliliters collected at periodic intervals during the operating hours of a facility over an 8-hour period.

Flow Proportional Composite Sample means a combination of sample aliquots of at least 100 milliliters collected at periodic intervals such that either the time interval between each aliquot or the volume of each aliquot is proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot.

- (1) **Duty to comply.** The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action, permit termination, revocation and reissuance, modification, or for denial of a permit renewal application. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.
- (2) **Duty to reapply.** If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. If the permittee submits a proper application as required by the Agency no later than 180 days prior to the expiration date, this permit shall continue in full force and effect until the final Agency decision on the application has been made.
- (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 permit.
- (4) **Duty to mitigate.** The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.
- (5) **Proper operation and maintenance.** The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities, or similar systems only when necessary to achieve compliance with the conditions of the permit.

- (6) **Permit actions.** This permit may be modified, revoked and reissued, or terminated for cause by the Agency pursuant to 40 CFR 122.62. 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.
- (7) **Property rights.** This permit does not convey any property rights of any sort or any exclusive privilege.
- (8) **Duty to provide information.** The permittee shall furnish to the Agency within a reasonable time, any information which the Agency may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. The permittee shall also furnish to the Agency, upon request, copies of records required to be kept by this permit.
- (9) **Inspection and entry.** The permittee shall allow an authorized representative of the Agency, upon the presentation of credentials and other documents as may be required by law, to:
 - (a) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the permit;
 - (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - (c) inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
 - (d) Sample or monitor at reasonable times, for the purpose of assuring permit compliance, or as otherwise authorized by the Act, any substances or parameters at any location.
- (10) **Monitoring and records.**
 - (a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
 - (b) The permittee shall retain records of all monitoring information, including a calibration and maintenance records, and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of this permit, measurement, report, or application. This period may be extended by request of the Agency at any time.
 - (c) Records of monitoring information shall include:
 - (1) The date, exact place, and time of sampling or measurements;
 - (2) The individual(s) who performed the sampling or measurements;
 - (3) The date(s) analyses were performed;
 - (4) The individual(s) who performed the analyses;
 - (5) The analytical techniques or methods used; and
 - (6) The results of such analyses.
 - (d) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit. Where no test procedure under 40 CFR Part 136 has been approved, the permittee must submit to the Agency a test method for approval. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals to ensure accuracy of measurements.
- (11) **Signatory requirement.** All applications, reports or information submitted to the Agency shall be signed and certified.
 - (a) **Application.** All permit applications shall be signed as follows:
 - (1) For a corporation: by a principal executive officer of at least the level of vice president or a person or position having overall responsibility for environmental matters for the corporation;
 - (2) For a partnership or sole proprietorship: by a general partner or proprietor, respectively; or
 - (3) For a municipality, State, Federal, or other public agency: by either principal executive officer or ranking elected official.
 - (b) **Reports.** All reports required by permits, or other information requested by the Agency shall be signed by a person described in paragraph (a) or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - (1) The authorization is made in writing by a person described in paragraph (a) and
 - (2) The authorization specifies either an individual or a position responsible for the overall operation of the facility, from which the discharge originates, such as a plant manager, superintendent or person of equivalent responsibility, and
 - (3) The written authorization is submitted to the Agency.

- (c) **Changes of Authorization.** If an authorization under (b) is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of (b) must be submitted to the Agency prior to or together with any reports, information, or applications to be signed by an authorized representative.
- (12) **Reporting requirements.**
- (a) **Planned changes.** The permittee shall give notice to the Agency as soon as possible of any planned physical alterations or additions to the permitted facility.
- (b) **Anticipated noncompliance.** The permittee shall give advance notice to the Agency of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- (c) **Compliance schedules.** Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.
- (d) **Monitoring reports.** Monitoring results shall be reported at the intervals specified elsewhere in this permit.
- (1) Monitoring results must be reported on a Discharge Monitoring Report (DMR).
- (2) If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR 136 or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.
- (3) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Agency in the permit.
- (e) **Twenty-four hour reporting.** The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause, the period of noncompliance, including exact dates and time, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The following shall be included as information which must be reported within 24 hours:
- (1) Any unanticipated bypass which exceeds any effluent limitation in the permit.
- (2) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Agency in the permit to be reported within 24 hours.
- The Agency may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.
- (f) **Other noncompliance.** The permittee shall report all instances of noncompliance not reported under paragraphs (12)(c), (d), or (e), at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (12)(e).
- (g) **Other information.** Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in any report to the Agency, it shall promptly submit such facts or information.
- (13) **Transfer of permits.** A permit may be automatically transferred to a new permittee if:
- (a) The current permittee notifies the Agency at least 30 days in advance of the proposed transfer date.
- (b) The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittees; and
- (c) The Agency does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement.
- (14) All manufacturing, commercial, mining, and silvicultural dischargers must notify the Agency as soon as they know or have reason to believe:
- (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant identified under Section 307 of the Clean Water Act which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:
- (1) One hundred micrograms per liter (100 ug/l).
- (2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony.
- (3) Five (5) times the maximum concentration value reported for that pollutant in the NPDES permit application, or
- (4) The level established by the Agency in this permit.
- (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the NPDES permit application.
- (15) All Publicly Owned Treatment Works (POTWs) must provide adequate notice to the Agency of the following:
- (a) Any new introduction of pollutants into that POTW from an indirect discharge which would be subject to Sections 301 or 306 of the Clean Water Act if it were directly discharging those pollutants; and
- (b) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
- (c) For purposes of this paragraph, adequate notice shall include information on (i) the quality and quantity of effluent introduced into the POTW, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.
- (16) If the permit is issued to a publicly owned or publicly regulated treatment works, the permittee shall require any industrial user of such treatment works to comply with federal requirements concerning:
- (a) User charges pursuant to Section 204(b) of the Clean Water Act, and applicable regulations appearing in 40 CFR 35.
- (b) Toxic pollutant effluent standards and pretreatment standards pursuant to Section 307 of the Clean Water Act; and
- (c) Inspection, monitoring and entry pursuant to Section 308 of the Clean Water Act.
- (17) If an applicable standard or limitation is promulgated under Section 301(b)(2)(C) and (D), 304(b)(2), or 307(a)(2) and that effluent standard or limitation is more stringent than any effluent limitation in the permit, or controls a pollutant not limited in the permit, the permit shall be promptly modified or revoked, and reissued to conform to that effluent standard or limitation.
- (18) Any authorization to construct issued to the permittee pursuant to 35 Ill. Adm. Code 309.154 is hereby incorporated by reference as a condition of this permit.
- (19) The permittee shall not make any false statement, representation or certification in any application, record, report, plan or other document submitted to the Agency or the USEPA, or required to be maintained under this permit.
- (20) The Clean Water Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Clean Water Act is subject to a civil penalty not to exceed \$10,000 per day of such violation. Any person who willfully or negligently violates permit conditions implementing Sections 301, 302, 306, 307, or 308 of the Clean Water Act is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than one year, or both.
- (21) The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.
- (22) The Clean Water Act provides that 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 permit shall, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.
- (23) Collected screening, slurries, sludges, and other solids shall be disposed of in such a manner as to prevent entry of those wastes (or runoff from the wastes) into waters of the State. The proper authorization for such disposal shall be obtained from the Agency and is incorporated as part hereof by reference.
- (24) In case of conflict between these standard conditions and any other condition(s) included in this permit, the other condition(s) shall govern.
- (25) The permittee shall comply with, in addition to the requirements of the permit, all applicable provisions of 35 Ill. Adm. Code, Subtitle C, Subtitle D, Subtitle E, and all applicable orders of the Board.
- (26) The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit is held invalid, the remaining provisions of this permit shall continue in full force and effect.
- (Rev. 3-13-98)

ILLINOIS POLLUTION CONTROL BOARD
June 5, 1986

IN THE MATTER OF:)
)
JOINT PETITION OF THE CITY)
OF PEKIN AND THE ILLINOIS)
ENVIRONMENTAL PROTECTION AGENCY) PCB 85-226
FOR EXCEPTION TO THE COMBINED)
SEWER OVERFLOW REGULATIONS)

MR. PATRICK OBERLE, CORPORATION COUNSEL, CITY OF PEKIN APPEARED
ON BEHALF OF THE CITY OF PEKIN; AND

MR. E. WILLIAM HUTTON APPEARED ON BEHALF OF THE ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY.

OPINION AND ORDER OF THE BOARD (by J. Anderson):

This matter comes before the Board upon the filing on December 31, 1985 of a joint petition for a combined sewer overflow ("CSO") exception from 35 Ill. Adm. Code 306.305 (a) and (b) by the City of Pekin ("Pekin") and the Illinois Environmental Protection Agency ("Agency"). A public hearing was held in Pekin, Illinois on March 11, 1986. Testimony on Pekin's behalf was presented by Mayor Willard E. Brinkmeier, and by Gregory A. Sherwood and Richard Helm of Randolph and Associates, Inc. No public testimony was presented and no public comments were received.

Decision in this matter is being expedited consistent with the City's need for a decision on or about June 1 to allow for coordination of CSO design with construction of various grant-funded wastewater system improvement projects.

CSO REGULATIONS

The CSO regulations are contained in 35 Ill. Adm. Code 306.302 et seq. They were amended in R81-17, 51 PCB 383, March 24, 1983. Section 306.305 provides as follows:

All combined sewer overflows and treatment plant bypasses shall be given sufficient treatment to prevent pollution, or the violation of applicable water standards unless an exception has been granted by the Board pursuant to Subpart D.

Sufficient treatment shall consist of the following:

- a) All dry weather flows, and the first flush of storm flows as determined by the Agency, shall meet the

- applicable effluent standards; and
- b) Additional flows, as determined by the Agency but not less than ten times to [sic] average dry weather flow for the design year, shall receive a minimum of primary treatment and disinfection with adequate retention time; and
- c) Flows in excess of those described in subsection (b) shall be treated, in whole or in part, to the extent necessary to prevent accumulations of sludge deposits, floating debris and solids in accordance with 35 Ill. Adm. Code 302.203, and to prevent depression of oxygen levels; or
- d) Compliance with a treatment program authorized by the Board in an exception granted pursuant to Subpart D.

Subpart D allows the discharger to file a petition for an exception either singly, or jointly with the Agency as the City had done. The joint petition seeks an exception based on minimal discharge impact as provided in Section 306.361(a).

COMBINED SEWER SYSTEM

Pekin, population 33,127, is located on the east bank of the Illinois River, approximately five miles downstream of the Peoria Lock and Dam. It is served by both sanitary and combined sewers, the latter having been originally constructed, as is typical for older communities, to collect only storm drainage; however, over time, the sewers began and continue to serve the dual function of conveying both wastewater and surface water runoff.

During the past 40 to 50 years, Pekin has endeavored to separate out the wastewater flow by constructing sanitary sewers that convey the flow directly to sewage treatment facilities. (In recent years, this sewer separation work has been performed in conjunction with street improvements and redevelopment projects, when, as, and if the City has been able to proceed with such projects.) Additionally, connections of newly constructed sanitary sewers to the old combined system are prohibited. Presently, about one-fourth of the City is served by combined sewers, which drain stormwater from about 1175 acres.

There are combined sewer overflows at four outfalls located above the plant and identified by their street location: State, Caroline, Court and Fayette Streets. CSO from the State and Caroline CSO's discharge to a common backwater slough of the Illinois River. The Court CSO discharges close to the bank of the Illinois River, and the Fayette CSO discharges about 250 feet back from the river bank into a channel created by the deterioration and washing away of the outfall pipe.

Overflows occur about 47 times a year at each location during rainfalls exceeding about 0.10 inches.

For a one-year design storm of 1.2 inches per hour, based on suspended solid concentrations, the peak first flush flow rates and volumes are as follows:

<u>Site</u>	<u>Peak First Flush</u> <u>Flow Rate (mgd)</u>	<u>First Flush</u> <u>Volume (ft³)</u>
State	16	19,000
Caroline	23	54,000
Court	47	155,000
Fayette	101	366,000

The BOD first flush volume is about 60% of that shown for suspended solids.

ENVIRONMENTAL IMPACTS AND PROPOSED CSO CONTROL STRATEGY

Uses of the river at Pekin are commercial, primarily grain loading and storage facilities, as well as recreational, including boating and fishing. There is a boat ramp upstream of Court Street and a private boat club near the Caroline CSO. A railroad runs along the riverbank, limiting accessibility except at Court Street.

The supporting justification for the proposed exception program is based on three studies. The first two, Phase I and Phase II (Ex. A) were performed by Randolph and Associates, Inc. Phase I covered the sewer system, treatment facilities, land use, and receiving stream characteristics, the latter having relied on an extensive water quality data base generated during a 1983 Peoria CSO study. Phase II included a six month CSO monitoring and sampling program, an evaluation of alternative CSO controls, and recommended improvements. The third study was performed by the State Water Survey Division of the Department of Energy and Natural Resources (ISWS). It focused on the benthic conditions and stream morphology in the outfall areas (Ex. B).

Regarding existing conditions, the ISWS study was summarized as follows:

1. "The State, Court and Fayette Street outfall channels exhibit some pollutional effects due to combined sewer overflows: the Caroline Street outfall channel does not." The State and Caroline outfall channels discharge into a common outlet channel to the river. Sediment degradation and potential public health and aesthetic problems exist in the State and

Fayette Street outfall channels and in the State-Caroline outlet channel. Only public health and aesthetic problems exist at Court Street. Problems in the State-Caroline outlet channel appear attributable only to State Street sewer overflows.

2. The sediments in the riverine areas around the State-Caroline Street outlet and the Fayette Street outlet show no signs of pollutional degradation: but several samples in the area of the Court Street outlet showed evidence of chronic organic contamination. The limited contamination in the Court Street area sediments can probably be attributed to grain spillage during barge loading operations which regularly take place immediately below the outfall. Frequent spillage was observed during the course of this study." (Ex. B, p. 27, 28 emphasis in original)

The ISWS Peoria study, assumed to be applicable to Pekin, noted that the only significant CSO impacts were "substantial increases in fecal coliform densities and the transitory occurrences of floating debris..." (Ex. C, p. 113). The dilution factor is 26 to 1 between the river's minimum seven-day, ten-year flow and Pekin's total one-year first flush peak flow discharge. (R.24)

In lieu of construction which would achieve full compliance with the CSO regulations, Pekin and the Agency propose the following CSO control strategy:

- 1) Construct underground storage for complete treatment of first flush volume (19,000 cu. ft.) at State Street. This will reduce overflow frequency by 36% and volume by 52%, up to approximately a 0.40 inch rainfall. An overflow baffle will prevent floating debris from entering the slough. The storage will also alleviate basement flooding.

- 2) Connect existing regulators at the Caroline, Court and Fayette CSO's to a new interceptor sewer, which, with other improvements of the treatment plant and use of the existing interceptor, will allow full operation of the system up to a 25 year flood, and completely treat 14 times dry weather flow, capture about 18% of the first flush volume on an annual basis, and reduce the number of overflows by about 9%.

- 3) Modify the Court Street CSO to provide a self-cleaning outfall channel to the river, thus eliminating the occurrence of trash and debris which is caught in the course (sic) riprap presently below the outfall.

4) Extend the Fayette CSO outfall about 180 feet to its original discharge point, this eliminating sewage contamination in the outfall channel.

Pekin has also agreed to monitor the four CSOs outfalls for up to three years to assure that the CSO effects are adequately mitigated or, alternatively, to determine whether additional improvements are necessary.

Pekin anticipates that its proposal will "substantially eliminate all significant water quality and aesthetic impacts..." (R.25). Pekin expects to complete design by October 30, 1986, to begin construction by March 31, 1987, and to have these facilities operational by April, 1988.

The cost is estimated to be \$1.2 million. Alternatively, Pekin asserts that the most cost-effective method of full compliance with Sections 306.305(a) and (b), providing storage for first flush volumes at each CSO outfall and increasing transport capacity to at least 12.5 times dry weather flow, is estimated to be \$10 million.

Mayor Willard Brinkmeier testified that local dollars have funded about \$800,000 in sewage treatment system upgrading in the past 12 years. Presently, the projected costs of necessary major improvements to the wastewater treatment plant and sewer system, including the proposed CSO improvements, are estimated at \$7 million, of which \$2.5 million is available through grant funds, although more grant funding is expected. However, the Mayor also stated that the \$1.2 million needed to finance the proposed CSO improvements would be "funded entirely by our own community" by means of general revenue bonds. (R.5-8, 12).

CONCLUSION

Having considered the factors enumerated in Section 306.361(a) and the evidence presented by Pekin jointly with the Agency, the Board finds that the proposal for exception will have minimal impact.

The Board grants the exception with language similar to that recommended in the petition. However, the Board, in Condition 2 and 3, has substituted language for proposed Condition 1(f) addressing monitoring, and added language to clarify that relief is not granted from water quality standards.

ORDER

1) The City of Pekin (Pekin) is hereby granted an exception from 35 Ill. Adm. Code 306.305(a) as such provision relates to first flush of storms flows, and from 35 Ill. Adm. Code

306.305(b), subject to the following conditions:

- a) Pekin shall connect the existing regulators at Caroline, Court, and Fayette Street CSO's to the new interceptor that will extend from Plant 2 to Plant 1.
- b) Pekin shall construct facilities to provide that the entire first flush volume from the State Street CSO will be captured and fully treated.
- c) Pekin shall extend the Fayette Street outfall so that the CSO discharges directly into the main river channel.
- d) Pekin shall provide a self-cleaning outfall channel to the river for the Court Street CSO.
- e) Overflows shall only occur while the treatment plant is receiving and treating its design maximum flow.

2) This grant of exception does not preclude the Agency from exercising its authority to require as a permit condition a) a CSO monitoring program sufficient to assess compliance with this exception and any other Board regulations, including Section 306.305(c); and b) other controls if needed for compliance, including compliance with water quality standards.

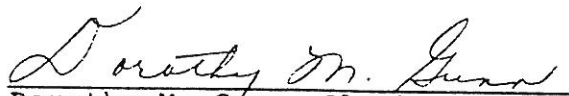
3) This grant of exception is not to be construed as affecting the enforceability of any provisions of this exception, other Board regulations, or the Act.

IT IS SO ORDERED.

J. D. Dumelle concurred.

B. Forcade dissented.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 5th day of June, 1986, by a vote of 6-1.


Dorothy M. Gunn, Clerk
Illinois Pollution Control Board

Appendix C WWTP Component Description

A. PRETREATMENT FACILITIES

(1) MECHANICAL BAR SCREEN

Maximum Flow - MGD	> 5.70
Clear Bar Spacing - Inches	0.75
Bar Size - Inches	0.25 x 1.50
Inclination - Degrees off Vertical	30
Type	Toothed Rake
Drive	Hydraulic
Horsepower	1.5

(2) CHANNEL SCREENINGS GRINDER

Maximum Flow - MGD	9.0 Minimum
Type	Rotating Screen
Drive	Hydraulic
Horsepower	7.5
Cutters	Dual Rotating

(3) GRIT REMOVAL TANKS

Number of Tanks	1
Maximum Rated Flow - MGD	5.18
Detention Time at Max Flow - Minutes	8.26
Type of Tank	Aerated
Air Consumption - CFM	60
Dimensions of Tank - Feet	16 x 16
Sidewall Depth - Feet	11.62
Weir Elevation - USGS Datum	443.5

(4) GRIT HANDLING SYSTEM

Removal Capacity - CF/HR	90
CF/DAY	2160
CY/DAY	80
Grit Pump Type	6" Air lift
Pump Air Consumption - CFM	50
Grit Separation Type	Settling Tank
Grit Transport	Screw Auger
Grit Storage/Disposal	Wheeled Hopper

B. PRIMARY TREATMENT FACILITIES

(1) PRIMARY CLARIFIERS

Type of Tanks	Circular Overflow
Total Number of Tanks	4
Number of 45 Foot Diameter Tanks	2
Number of 55 Foot Diameter Tanks	2
Average Water Depth - Feet	8.7
Total Surface Area - SQ FT	7,932
Surface Loading at Max Flow - GAL/SQ FT/DAY	1,097

Total Volume - CF	68,947
Total Volume - GAL	515,724
Detention time at Max Flow - Minutes	85
Detention Time at Average Flow - Minutes	165
Weir Elevation - USGS Datum	442.4

BOD Removal Rate - Percent	30%
TSS Removal Rate - Percent	60%

(2) PRIMARY SLUDGE PUMPS

Total Number of Pumps	2
Diaphragm Pump Size	4" Simplex
Diaphragm Pump Capacity - GPM	180
Diaphragm Pump Drive Type	Air, Variable
Air Requirement - SCFM	50
Design Head - Feet	52

(3) PRIMARY EFFLUENT CHARACTERISTICS

Average Flow - MGD	4.50
Biochemical Oxygen Demand - MG/L	153
Biochemical Oxygen Demand - LBS/DAY	5532
Suspended Solids - MG/L	106
Suspended Solids - LBS/DAY	3845

C. SEWAGE PUMPING FACILITIES

(1) PRIMARY EFFLUENT PUMPING

Type	Submersible
Total Number of Pumps	5
Horsepower of Each Pump	20
Maximum Capacity, All Pumps - MGD	12.4
Maximum Capacity, Less One Pump - MGD	9.5
Lift - Feet TDH	23.5

D. SECONDARY TREATMENT FACILITIES

(1) GENERAL

Design Average Flow - MGD	4.50
Design Maximum Flow - MGD	8.74
Biochemical Oxygen Demand - LBS/DAY	5532
Suspended Solids - LBS/DAY	3845

(2) AERATION TANKS

Total Number of Tanks	6
Contact Aeration Tanks	3
Reaeration Tanks	3
Total Volume All of Tanks:	
Cubic Feet	155,830
Gallons	1,165,608
Water Elevation - USGS Datum	453.9

Volume of All Contact Aeration Tanks:

Cubic Feet	77,915
Gallons	582,804

Volume of All Reaeration Tanks:

Cubic Feet	77,915
Gallons	582,804

Biochemical Oxygen Demand Loading:

Design Peak Loading - BOD LBS/DAY	7792
Loading Rate at Peak - LBS/TCF/DAY	50

Average Primary Effluent - BOD LBS/DAY	5532
Average Loading Rate - LBS/TCF/DAY	35.5

Applied Air:

Design Application Rate - CF/LB BOD	1500
Design Oxygen Transfer Rate - LB OXY/LB BOD	1.0

Air Requirement for Design Peak Load - CFM	8117
Air Requirement for Primary Effluent - CFM	5762

Mixed Liquor:

Suspended Solids - MG/L	4000
Volatile Solids - Percent	70%
Dissolved Oxygen Level:	
Average Loading - MG/L	4.0
Peak Loading - MG/L	2.0
Return Sludge Rate - Percent	70%

(3) MECHANICAL AERATION EQUIPMENT

Blowers:

Type	Positive Displacement
Number of Blowers	3
Total Capacity - CFM	10,500

Engine Blowers:

Number Engine Blowers	2
Rated Capacity, Each - CFM	3500
Engine Size - Cylinders	6
Engine Fuel	Natural Gas
Engine Speed - RPM	1200, Adjustable

Electric Blowers:

Number Electric Blowers	1
Rated Capacity - CFM	3500
Motor Horsepower	200
Motor Voltage - VAC	480

Motor Speed - RPM
Drive Type

1175
Fixed speed

(4) SECONDARY CLARIFIERS

Total Number of Tanks	3
Type of Tanks	Circular Overflow
Diameter of Tanks - Feet	70
Average Water Depth, Existing Tanks - Feet	11.5
Average Water Depth, New Tank - Feet	13
Total Surface Area - SQ FT	11,218
Surface Loading at Max Flow - GAL/SQ FT/DAY	779
Total Volume:	
Cubic Feet	63,450
Gallons	474,606
Detention time at Max Flow - Minutes	78
Detention Time at Average Flow - Minutes	152
Weir Elevation - USGS Datum	453.9
Mixed Liquor Solids - MG/L	4000
Return Sludge Rate - Percent	70%
Peak Flow Including Return Sludge - MGD	14.86
Solids Loading - LBS/DAY/SQ FT	44.2
 BOD Removal Rate - Percent	 90%
TSS Removal Rate - Percent	80%

(5) RETURN SLUDGE PUMPS

Total Number of Pumps	4
Air Lift Type	2
Centrifugal Non-clog Type	2
Total Rated Capacity - MGD	5.6
 Air Lift Pumps:	
Size - Inches	12
Rated Capacity, Each - MGD	1.4
Air Consumption, Each - CFM	75
Output	Adjustable
Output Proportional Type	Manual
 Centrifugal Pumps:	
Size - Inches	6
Rated Capacity, Each - MGD	1.4
Drive	Electric
Output Speed	Adjustable
Output Proportional Type	Automatic, Flow Paced

May 19, 2009

Mr. David Halpin, Staff Archaeologist
Illinois Historic Preservation Agency
1 Old State Capitol
Springfield, IL 62701-1507

Subject: City of Pekin Waste Water Treatment Plant Improvements

Dear Mr. Halpin:

Enclosed you will find a completed Illinois Historic Preservation Agency Project Review, State Agency Historic Resources Preservation Act, Form #2 the above referenced subject. Please review for this project's possible effects upon cultural resources. Also attached for your review is a USGS 7½' quadrangle map that identifies the project location.

The City of Pekin is proposing a project that will consist of two (2) phases that will include various waste water treatment plant improvements. Phase 1 will include a new headworks building; screw pumps; fine screens; grit removal units; effluent pump station; and miscellaneous residuals processing modifications. Phase 2 will include primary clarification; secondary activated sludge treatment; effluent chlorination conversion; a residuals building; digester #2 rehabilitation; site prep/grading; internal process underflow detention, recycling and pumping; storm water detention and pumping; controls, automation and telemetry. The project will take place entirely within the existing waste water treatment plant #1 site confines.

The City of Pekin is further finalizing their Long Term Control Plan which seeks to mitigate combined sewer overflows from the collection system. This project includes construction of a CSO pumping station, modification and conversion of the excess flow basins and conversion of the existing WWTP #1 sludge lagoon to CSO flow storage for full treatment. These facilities are all on the existing WWTP #1 property and are anticipated to be constructed concurrent to the above improvements due to their direct proximity on the site. Other CSO improvements include modification of the existing State St. First flush storage basin and pump station, Conversion of the existing (currently inactive) WWTP #2 tanks and lagoon to Interim CSO capture and storage, and provision of a new CSO interceptor from Caroline St. to the WWTP #1.

All the ground included in the project area has previously been disturbed and ground disturbance for this project is expected to be minimal. The existing WWTP and pump station sites are all previously disturbed and no expansion of these existing facilities onto adjoining property or land is required for this project. The new CSO interceptor will adjoin and parallel the alignment of the existing Pekin major trunk sewers through former heavily industrialized land areas which are no in part being converted to municipal park land.

As this is a *federally* funded project, the applicant assumes responsibility for obtaining all necessary and required permits and authorizations. All construction will be performed in accordance with all appropriate construction standards and will be made a part of bid specifications. Attached for your review is a USGS 7½' quadrangle map that identifies the general location of this project.

Please contact me at your convenience should you have any questions or concerns about this signoff request.

Sincerely,

FARNSWORTH GROUP, INC.



Melissa Pilchard
Planning Technician

State Agency Historic Resources Preservation Act
20-ILCS-3420

HPA USE ONLY

Project Title: City of Pekin Waste Water Treatment Plant Improvements Project Number: 0090294.00
Project Address or Municipality: Pekin
County: Tazewell USGS 7.5' Quadrangle: Pekin
Sec: 3 Twp: 24N Range: 5W (Name)

Date Recd	
Log #	
H/A Rev	
Archaeo Rev	
Agency	

CONSULTING ENGINEER

Melissa Pilchard (PJS)
Name
FARNSWORTH GROUP
Company Name
2709 McGraw Drive
Address
Bloomington IL 61704
City State Zip+four
Check One:
Telephone: 309/663-8435 ☒ Public Land ☐ Private Land
Acreage and/or Linear Feet: 10 +/- ac Check One:
☒ Public S ☐ Private S
Extent of Project Ground Disturbance: Minimal
Previous Disturbance to Project Area: Ground has previously been disturbed

Scope Of Project and Narrative (Include Entire Project Area)

The City of Pekin is proposing a project that will consist of two (2) phases that will include various waste water treatment plant improvements. The project will take place within the existing waste water treatment plant and on surrounding property. All the ground included in the project area has previously been disturbed and ground disturbance for this project is expected to be minimal.

From which State Agencies or funding sources will permits, licenses, approvals or funds be obtained or required (Check appropriate boxes)?

☐ IDNR-Division of Water ☒ IEPA Water Pollution Control ☐ IEPA Public Water Supplies ☐ Other:

Federal Agencies from which permits, licenses, approvals, or funds may be required (i.e., Corps, HUD): None

This review process does *not* exempt your project from compliance with Section 106 of the National Historic Preservation Act of 1966, as amended.

Mandatory Enclosures:

- USGS 7.5' topographical map or city map clearly indicating project area and street address (if available)
- Current photographs (no photocopies) of all standing structures.
- If this project has been previously reviewed by HPA, include all pertinent correspondence.

Name and Address of Applicant/Developer:

Joe Wuellner, City of Pekin

111 S. Capitol St.

Pekin, IL 61554

309-477-2300

Telephone

The above information is correct to the best of my knowledge.

Melchard

5/21/09

Signature

Date

Melissa Pilchard

Printed Name

Planning Technician

Title

FOR OFFICE USE ONLY

REVIEWER RECOMMENDATION:

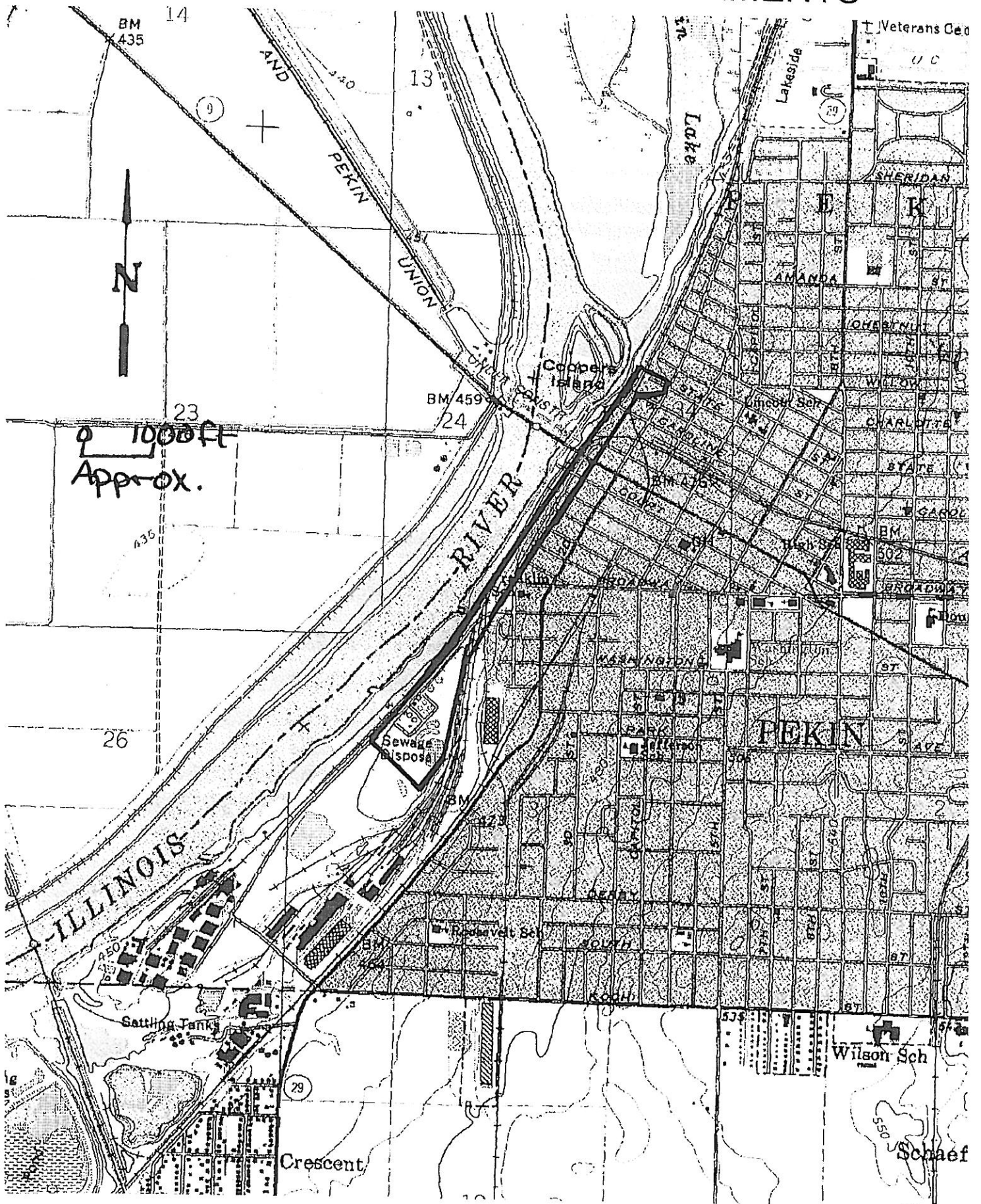
☐ Exempted From Review Pursuant To: ☐ Not High Probability Area
☐ Details Requested ☐ Disturbed
☐ Cleared by Review ☐ Previous Survey
☐ Survey Required (see attachment) ☐ No County Map/Known Site
☐ known site(s)
☐ high probability area
☐ historic structure narrative

Reviewed by: /
(Date)

Telephone Number: _____

AGENCY REVIEW ACTION:

CITY OF PEKIN WWTP IMPROVEMENTS



Applicant: Farnsworth Group, Inc
Contact: Mel Pilchard
Address: 2709 McGraw Dr.
Bloomington, IL 61704

IDNR Project #: 0910759
Alternate #: 0090294.00
Date: 05/19/2009

Project: City of Pekin WWTP Improvements - 2009
Address: various, Pekin

Description: various Improvements to existing waste water treatment facilities

Natural Resource Review Results

Consultation for Endangered Species Protection and Natural Areas Preservation (Part 1075)

The Illinois Natural Heritage Database shows the following protected resources may be in the vicinity of the project location:

Bald Eagle (*Haliaeetus leucocephalus*)

Wetland Review (Part 1090)

The National Wetlands Inventory shows wetlands within 250 feet of the project location.

An IDNR staff member will evaluate this information and contact you within 30 days to request additional information or to terminate consultation if adverse effects are unlikely.

Location

The applicant is responsible for the accuracy of the location submitted for the project.

County: Tazewell

Township, Range, Section:

24N, 5W, 3 25N, 5W, 34



CITY OF PEKIN

WASTEWATER TREATMENT PLANT IMPROVEMENTS – PHASE 1

BASIS OF DESIGN

September 18, 2008

Design Flows and Loadings

<u>Parameter</u>	<u>Design Capacity</u>	<u>Comments</u>
Design year	2028	
Population in 1990	33,810	U.S. Census data for Pekin and N. Pekin
Population in 2000	35,431	U.S. Census data for Pekin and N. Pekin
Population in 2008 (est.)	36,785	based on 0.47% annual growth 1990-2000
Population in 2028 (est.)	40,400	based on 0.47% annual growth 2008-2028
Design flow - residential	4.04 MGD	100 gpd per person
Design flow - new industrial	1.00 MGD	projected by City staff
Design flow – new commercial	0.80 MGD	projected by City staff
Design flow – added for CSOs	1.00 MGD	added for extended high flow treatment
Total Design Average Flow	6.84 MGD	
Total Design Pop. Equivalent	68,400 PE	100 gpd per PE
Design Maximum Flow	15.5 MGD	based on peaking factor of 2.26
Average Influent BOD ₅	218 mg/l	based on data for 2000 through 2007
Average pounds of BOD ₅	6,128 lbs/day	based on data for 2000 through 2007
Design Influent BOD ₅	12,400 lbs/day	(rounded to nearest hundred)
Average influent TSS	243 mg/l	based on data for 2000 through 2007
Average pounds of TSS	6,832 lbs/day	based on data for 2000 through 2007
Design Influent TSS	13,900 lbs/day	(rounded to nearest hundred)

Influent Screw Pumps

Design average flow	6.84 MGD	(4,750 gpm)
Design maximum flow	15.5 MGD	(10,760 gpm)
Number of pumps	3	(open vane - screw type)
Inclination	38 degrees	
Lift	20 ft	
Capacity per pump	7.75 MGD	(5380 gpm)
Firm Capacity	15.50 MGD	(with largest unit out of service)
Total Capacity	23.25 MGD	

Fine Screens

Design average flow	6.84 MGD	
Design maximum flow	15.5 MGD	
Number of screens	2	
Maximum flow per screen	15.5 MGD	(with largest unit out of service)
Channel width	4.5 ft	
Channel depth to finished floor	6'-2"	
Channel depth below pump outlet	3.6 ft	(measured from pump discharge elev.)
Maximum downstream depth	2.14 ft	(above bottom of screen channel)
Maximum downstream velocity	2.49 fps	
Minimum downstream velocity	1.26 fps	(at 2.5 MGD estimated minimum flow)
30% blinded screen headloss	.96 ft	(from manufacturer)
30% blinded screen upstream depth	3.1 ft	
Maximum available headloss	1.46 ft	(without flooding pump discharge channel)
Screen transport speed	10 ft/min	(low speed)
	20 ft/min	(high speed)
Clean screen area available	16.85 sq.ft.	(based on 15 sec. interval at low speed)
(at 2.14 depth and 30% blinded)	33.7 sq.ft.	(based on 15 sec. interval at high speed)
Screen actuation based on upstream channel depth:		
Level sensor for channel depth	Ultrasonic	(provide high level alarm float backup)
Screen angle	60 degrees	
Screen openings	10 mm	(perforated plate type)
% Open area per screen plate	58%	
Estimated screenings volume:		
Volume at DAF	4.3 cf/hr	(based on 15 cf/MG)
Volume at DMF	14.9 cf/hr	(based on 23 cf/MG)
Conveyor/Washer/		
Compactor capacity	12 cf/hr	(continuous)

Grit Removal

Number of units	2	(vortex type - one per channel)
DAF per unit	3.42 MGD	(with both units in service)
	6.84 MGD	(with one unit out of service)
DMF per unit	7.75 MGD	(with both units in service)
	15.5 MGD	(peak with one unit out of service)

Each unit to provide grit removal at rated efficiency up to the peak flow of 15.5 MGD:

Grit Removal Efficiency	95% greater than 50 mesh
	85% between 50 and 70 mesh
	65% between 70 and 100 mesh
Chamber diameter	14 ft
Side water depth (below water level)	5.6
Inlet channel width	3.5 ft
Outlet channel width	3.5 ft
Inlet /outlet orientation	360 degrees

Detention time	2.7 min at DAF
Collection hopper diameter	5.0 ft
Collection hopper depth	7.25 ft
Collection hopper capacity	142 cf
Grit removal pumps	1 per unit (suction lift type)
Grit removal pump rate	250 gpm/unit
Grit Washer/Classifier Unit	1 provided
Maximum flow rate	350 gpm
Maximum grit throughput	54 cf/hr
Estimated grit volume:	
DAF	1.42 cf/hr (based on 5 cf/MG)
DMF	3.23 cf/hr (based on 5 cf/MG)
Maximum putrescibles	5%
Maximum moisture content	25%

Effluent Pump Station

Static Head:		
Discharge Elevation	460.0	(100 year flood + 2.6')
Low Water Level	440.0	
Static Head	20 ft	
Pipe Friction Loss	0.5 ft	(@ C=100)
Minor Losses	4.0 ft	(@ C=100)
Total Dynamic Head	24.5 ft	
Number of Pumps	3	
Pump Type	Mixed Flow Propeller	
Pump Flow Rate	5385 gpm	(Per Pump)
Pump Horsepower	50	
Pump Station Rated Capacity	10,765 gpm	(@ 24.5ft TDH)
Firm Capacity	10,765 gpm	(with largest unit out of service)
Total Capacity	16,155 gpm	

PEKIN WWTP BASIS OF DESIGN AFTER PHASE 2 IMPROVEMENTS

Date: 5/29/2009

Basis of Design

	Current Situation	Proposed Design
Design Average Flow	3.49 MGD 2423.6 gpm	6.84 MGD 4750 gpm
Design Maximum Flow	15.5 MGD 10764 gpm	15.5 MGD 10764 gpm
Design Average BOD Concentration	218 mg/l	218 mg/l
Design Average BOD Loading	6,128 lb/day	12,400 lb/day
Design Average TSS Concentration	243 mg/l	243 mg/l
Design Average TSS Loading	6,832 lb/day	13,900 lb/day
Design Average TKN Concentration	30 mg/l	30 mg/l
Design Average TKN Loading	900 lb/day	1,700 lb/day

Primary Clarification

Flows:

DAF	3.49 MGD	6.84 MGD
DMF	15.5 MGD	15.5 MGD
Max/Avg	4.44	2.27

Loading:

CBOD	6,128 lb/day 218 mg/l	12,400 lb/day 218 mg/l
TSS	6,832 lb/day 243 mg/l	13,900 lb/day 243 mg/l
TKN	900 lb/day 30 mg/l	1,700 lb/day 30 mg/l

of Clarifier Units in Operation:

	1	2
Diameter	85 ft	85 ft
Side Water Depth	12 ft	12 ft
Surface Area	5,675 sq. ft.	11,349 sq. ft.
Volume	509,343 gallons	1,018,687 gallons

Surface Overflow Rate:

At DAF	615.03 gpd/sf	602.70 gpd/sf
At DMF	2,731.52 gpd/sf	1,365.76 gpd/sf

Hydraulic Detention:

At DAF	3.5 hrs	1.8 hrs
At DMF	0.8 hrs	1.6 hrs

CBOD Removal Efficiency:

At DAF	36 %	36 %
At DMF	15 %	28 %

TSS Removal Efficiency:

At DAF	50 %	50 %
At DMF	%	%

Primary Effluent at DAF:

CBOD	3921.92 lb/d 135 mg/l	7936 lb/d 139 mg/l
TSS	3416 lb/d 117 mg/l	6950 lb/d 122 mg/l
NH3-N	900 lb/d 31 mg/l	1700 lb/d 30 mg/l

Sludge Production:

3,416 lb/d	6,950 lb/d
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Sludge Volume:

1.5 % TS	27306 gal/d	55556 gal/d
2 % TS	20480 gal/d	41667 gal/d
3 % TS	13653 gal/d	27778 gal/d
4 % TS	10240 gal/d	20833 gal/d

Design Sludge Transfer Rate:

320 gpm	320 gpm
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Transfer Pipe Size/Velocity:

8 in	8 in
2.05 ft/s	2.05 ft/s

2.05 ft/s

2.05 ft/s

Activated Sludge:

Single-Stage Activated Sludge Process for combined carbonaceous and nitrogenous oxidation (USEPA Solids Retention Approach):

Influent Loading, with (Primary Effluent)

DAF	6.84 MGD
DMF	15.5 MGD
Max/Avg	2.27
CBOD	7936 lb/d
	139 mg/l
TSS	6950 lb/d
	122 mg/l
TKN	1700 lb/d
	30 mg/l

Assumptions:

Safety Factor	2.5
Minimum Dissolved Oxygen	2.0 mg/l
pH >=	7.2
Design Temperature	10 deg C
BOD/CBOD Ratio	1.5:1
No allowance for de-nitrification in anoxic selector	

Maximum Growth Rate of Nitrifying Organisms

U _{mn}		0.175 1/day
Maximum Solids Retention Time:	1/0.175 =	5.73 days
Design Solids Retention Time (SRT):	2.5 x 5.73 =	14.33 days
Design Nitrifier Growth Rate:	1/14.33 =	0.07 1/day
Half Saturation Constant for NH ₃ -N Oxidation at 15C:		0.225
Steady State NH ₃ -N Content of the effluent:		0.15 mg/l
Organic Removal Rate:		0.184 lb BOD rem/lb MLVSS/day
Assumptions: Y _b = 0.65 lb VSS/lb BOD (yield co-efficient)		
K _d = 0.05 1/day (decay rate)		

Calculated Theoretical Hydraulic Detention Time at ADWF:

Assumptions:		MLSS = 1,500 mg/l - 3,000 mg/l
		% VSS = 0.65
		MLVSS is 975 to 1950 mg/l
		Effluent CBOD = 10 mg/l
		Influent CBOD = 7,936 lb/d
		139 mg/l
HT at 1,500 mg/l MLSS	0.72 days	
HT at 2,000 mg/l MLSS	0.54 days	
HT at 2,500 mg/l MLSS	0.43 days	
HT at 3,000 mg/l MLSS	0.36 days	

IEPA 370.1210 c.3 b. requires minimum 8 hour detention at DAF

Design Reactor Size:

At 1,500 mg/l MLSS V	4,916,438 gal
	657,278 cu. Ft.
At 2,500 mg/l MLSS	2,949,863 gal
	394,367 cu. Ft.
IEPA 370.1210 c.3 a. Allowable Loading 15 lb/d/1,000cf	
Required Volume:	3,957,419 gal

Tank Depth:	529,067 cu. Ft.
Tank Width:	15 ft
Number of Reactors:	48 ft
Tank Length:	4
	183.7 ft

BOD Loading with one aeration tank out of service: 33.63 lb/1000cf

Reactor Configuration: Complete Mix; Plug Flow; or Step Feed; Operator Selected.

Detention at Average Flow: 13.88 hours > 8 required

Detention Time at Peak Flow: 6.13 hours

F/M Ratio:

0.247	1/day (@1,500 mg/l MLSS)
0.185	1/day (@2,000 mg/l MLSS)
0.148	1/day (@2,500 mg/l MLSS)

10 State Standard (0.2 to 0.5 1/d)

Phosphorus Control:

Detention Time at DAF for Anaerobic and Anoxic Zones:

Additional Aeration Basin Volume for Anaerobic and Anoxic Selectors:

2 hours
76,203 cu. Ft.
570,000 gal

Tank Depth:	15 ft
Tank Width:	99 ft
Number of Reactors:	2
Tank Length:	25.7 ft

MLSS Recycle Loop (50 to 100% of DAF):

50% of DAF:	3.4 MGD
100% of DAF:	6.8 MGD

Provide 3 pumps (2 run, 1 standby) to meet 100% of DAF for the MLSS Recycle Loop.

Sludge Wasted (WAS):

Sludge under aeration:	48,270 lb VSS
Sludge Wasted:	5,184 lb TSS/d
For Design, assume all TSS Converted to Waste solids:	6,950 lb TSS/d
% Solids	Sludge Volume
0.50%	166,667 gpd
0.75%	111,111 gpd
1%	83,333 gpd

8 in WAS transfer piping @ 2.05 ft/s to secondary booster pumps. Minimum waste sludge rate 320 gpm.

Daily WAS Pumping Duration (at 0.5% Solids): 8.7 Hours

Return Sludge (RAS):

Return Sludge Rates at 1,500 mg/l MLSS

% Solids of Return Sludge	Return Rate (Qr)	Recycle Ratio
0.9	1.37 MGD	20%
1	1.21 MGD	17.6%
1.5	0.76 MGD	11%

Design Pump Rate (IEPA) shall be variable between 15% and 100% of DAF (to MGD)

Provide three pumps; two active and one standby; VFD controlled

RAS Pump Capacity:

Transfer pipe size:	18 in
V at 100% recirculation	5.99 ft/s
V at 50% recirculation	2.99 ft/s
V at 40% recirculation	2.40 ft/s
V at 30% recirculation	1.80 ft/s

Alkalinity:

Where alkalinity of the wastewater is depleted by acid production from nitrification, the natural alkalinity of the waste water would need to be supplemented by chemical (lime) addition.

Aeration Requirement:

Aeration Basins:

Minimum D.O.:	2 mg/l
BOD Demand:	1.25 lb O2/lb BOD Applied
NOD:	4.6 lb O2/lb NH3-N Applied
Oxygen Required:	
BOD:	9,920 lb/day O2
NOD:	7,820 lb/day O2
Average Oxygen Required:	17,740 lb/day O2
Maximum (peak) Oxygen required:	26,610 lb/day O2 (at 1.5 times average)

Oxygen Required, Standard Conditions (SOR):

Alpha	0.5
Beta	0.95
Cw	2 mg/l (D.O. in tanks)
T	20 deg C (68 deg F) Summer Condition
Theta	1.024
Cs 20	10.4 mg/l
Theta(T-20)	1
AOR/SOR	0.369
Average SOR	48,056 lb O2/day
Max. (peak) SOR	72,084 lb O2/day

Air Flow:

1 SCFM =	0.0173 lb O2/min
Diffusers transfer efficiency >=	25 %
Average Air Required	7,716.13 SCFM
Maximum (peak) air flow required	11,574.19 SCFM

Fine Bubble Diffusers:

Shall be designed to handle 200% of average air flow requirement	15,432.26 SCFM
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Air Piping:

Shall be designed to handle 200% of the average air flow required	15,432.26 SCFM
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Secondary Clarification:

Flows:

DAF	3.49	6.84 MGD
DMF	15.5	15.5 MGD
Max/Avg	4.44	2.27

Loading:

CBOD	3,922 lb/day	7,936 lb/day
	135 mg/l	139 mg/l
TSS	3,416 lb/day	6,950 lb/day
	117 mg/l	122 mg/l
TKN	900 lb/day	1,700 lb/day
	31 mg/l	30 mg/l

of Clarifier Units in Operation:

Diameter	1	2
Side Water Depth	112 ft	112
Surface Area	15 ft	15
Volume	9,852 sq. ft.	19,704 sq. ft.
	1,105,398 gallons	2,210,797 gallons

Surface Overflow Rate:

At DAF	354.24 gpd/sf	347.14 gpd/sf
At DMF	1,573.28 gpd/sf	786.64 gpd/sf

Hydraulic Detention:

At DAF	7.6 hrs	7.8 hrs
At DMF	1.7 hrs	3.4 hrs

CBOD Removal Efficiency:		
Effluent Requirements:		25 mg/l
At DAF and DMF		%
TSS Removal Efficiency:		
Effluent Requirements:		25 mg/l
At DAF and DMF		50 %
Ammonia-Nitrogen Removal Efficiency:		
Effluent Requirements:		1.5 mg/l
At DAF and DMF		50 %
Solids:		
MLSS:		3,000 mg/l
Loading Rate at DAF:		lbs/d/sf
Loading Rate at DMF:		lbs/d/sf
Weir:		
Length		703.7 ft
Loading Rate at DAF:		9719.8 gpd/ft
Loading Rate at DMF:		22025.9 gpd/ft

Chlorine Contact Tank:

Flows:			
DAF	3.49 MGD		6.84 MGD
DMF	15.5 MGD		15.5 MGD
Max/Avg	4.44		2.27
Tank Size:			
Diameter:	70 ft		
Depth:	9.1 ft		
Volume:	261,956 gallons		
Detention Time:			
At DAF	108.1 minutes		55.1 minutes
At DMF	24.3 minutes		24.3 minutes

WAS Holding (Storage) Tanks:

Storage is provided for secondary waste sludge. Reuse the existing FBOP Chlorine Contact Tank and the FBOP Sludge Pump Building

WAS Mass (50% of influent SS), lbs/day 6,950 lbs/day

% Solids:

Minimum	0.5
Average	0.75
Maximum	1

WAS Volume:

Minimum (@1% solids)	83,333 gals/day
Average (@0.75% solids)	111,111 gals/day
Maximum (@0.5% solids)	166,667 gals/day

Transfer Pipe Diameter 6 -in

WAS Flow Rate:

Minimum:	370 gpm
Maximum:	700 gpm

WAS Storage Tanks:

No.		2 tanks	
Length:	Tank 1:	Tank 2:	Total:
Width:	32 ft	32 ft	
Depth:	24 ft	24 ft	
	17 ft	15 ft	

Volume:	13,056 cu. Ft. 97,659 gallons	11,520 cu. Ft. 86,170 gallons	24,576 183,828
At Max WAS Flow:	0.59 days	0.52 days	1.10 days
At Min WAS Flow:	1.17 days	1.03 days	2.21 days

Air Requirement for Mixing:

Aeration Criteria (for mixing):	20 SCFM/1000 cu ft
Flow for Tank 1:	261 SCFM
Flow for Tank 2:	230 SCFM
Total Flow for all Tanks:	492 SCFM

Sludge Transfer Pumps:

Sludge Transfer Pumps transfer waste activated sludge from holding tanks to Gravity Belt Thickener

No.	2
Type	non-clog immersible
Capacity each	300 gpm
Combined Capacity	550 gpm

Secondary Air Blowers:

Blowers are sized for maximum (peak) aeration requirement of Activated Sludge Aeration tanks, mixing air requirement of WAS holding (storage) tanks, and mixing air requirement of aeration tanks, Influent/Effluent channels.

Aeration Requirement:

Activated Sludge Aeration Tanks =	11,574.19 SCFM
WAS Holding (Sludge) Tanks =	492 SCFM
Aeration tanks influent/effluent channels =	0 SCFM
Total =	12,066 SCFM

Air Blowers:

Total No.	3
In Service	2
Standby	1
scfm/blower	6,033 SCFM
Design Temperature (deg R):	575 deg R
Pressure:	14.3 in Hg
ICFM/Blower:	6,754 ICFM

Residual Processing

WAS Processing:

WAS is transferred from the secondary clarifiers either to the gravity belt thickeners or to the WAS Holding Tank where it is held prior to feed to the gravity belt thickeners. Gravity belt thickeners thicken the WAS prior to feed into the digesters. System includes thickeners, thickened sludge pumps, and belt wash system. The polymer feed is described in its own section.

Loading:	Startup	Design Capacity
Plant total solids Loading	6,832 lbs/day	13,900 lbs/day
Fraction of total solids load from secondary clarifiers	50 %	50 %
Mass TSS	3,416 lbs/day	6,950 lbs/day
Average TS	0.75 %	0.75 %
Volume	54,612 gpd	111,111 gpd
Working days per week	5 days	5 days
Maximum length of production shift	7 hrs	7 hrs
Working day production volume	76,457 gal	155,556 gal
Required processing rate	182 gpm	370 gpm

Gravity Belt Thickeners:

Number of Units:	1	1
Belt width each	2 meters	2 meters
Unit Loading:		
Solids Range	%	0.5 - 1.0 %

Design hydraulic feed rate	370 gpm	370 gpm
Maximum hydraulic feed rate	gpm	700 gpm
Actual production time	3.4 hrs	7.0 hrs
Design solids loading	683 lb/hr	1,390 lb/hr
Output:		
Capture rate	95 %	95 %
Solids range	3.0 - 8.0 %	3.0 - 8.0 %
Average solids	5.5 %	5.5 %
Design output rate	90 gpm	90 gpm
Wash Water/unit:		
Rate	35 gpm	35 gpm
Pressure	120 psi	120 psi

Thickened Sludge Pumps:

Number of pumps:	2
Type:	Rolary Lobe
Average Rate	90 gpm
Max Rate	150 gpm
TDH at Max Rate	50 ft
Meters, Magnetic type	
Transfer pipe size	6 in
Discharge flow dampeners	one per pump

Primary Sludge Processing:

Primary Sludge is transferred from the primary clarifiers to the anaerobic digesters. System may include a sludge grinder.

Anaerobic Digesters:

Primary Sludge:

Solids from primary clarifiers	6,950 lbs/day
% TS range	2 - 5 %
Average % TS	3.5 %
Average Sludge Volume	23810 gpd
% VSS	75 %
Mass VSS	5213 lbs/day

Secondary Sludge:

Solids from secondary clarifiers	6,950 lbs/day
% TS range	3 - 8 %
Average % TS	5.5 %
Average Sludge Volume	15152 gpd
% VSS	65 %
Mass VSS	4518 lbs/day

Total Sludge:

Solids	13,900 lbs/day
Average Sludge Volume	38961 gpd
Average % TS	4.3 %
Average % VSS	70 %
Mass VSS	9730 lbs/day

Primary Digesters:

Sizing:

Unit Loading (from IEPA 370.830 c.2 A.)	80 lbs VSS/1000cf/day
Volume required	121,625 cf

	Digester #1	Digester #2
Digester High Water Level Elevation	474.3	474.3
Digester Low Water Level Elevation	450.53	460
Active sidewater depth at max liquid level	23.77 ft	14.3 ft
Digester diameter	50 ft	50 ft
Digester active Volume	46,672 cf	28,078 cf
Start of Cone Elevation	445.56	448
Bottom of Cone Elevation	439.22	442.55

Additional Cylindrical storage height	5 ft	12 ft
Cone Depth	6.34 ft	5.45 ft
Inside cone diameter	4 ft	4 ft
digester bottom sloped from wall to flat bottom		
Additional Cylindrical storage Volume	9,759 cf	23,562 cf
Cone volume	4,503 cf	3,871 cf
Digester full volume	60,934 cf	55,511 cf
Total Primary Digester Volume	116,445 cf	

Cover:

Type	Steel Floating Cover	Steel Fixed Cover
Gas Storage capacity		

Digester mixing (pumped mixing system):

Number of pumps	2 total	2 total
Number of Pumps in operation	1	1
Type	centrifical with macerator	centrifical with macerator
Pump Rate	1,400 gpm	1,400 gpm
TDH	39 ft	39 ft
Motor	30 HP	30 HP
Number of floor mounted nozzles	2	2

Digester Heating:

Boiler will be used to heat hot water, which will be pumped through heating jacket mounted on digester mixing tubes. The water can also be heated by waste heat off the co-generation unit.

Conditions:

Mixed liquor temperature	95 F	
--------------------------	------	--

Temperatures:

Raw sludge temperature	Summer	55 F	Winter	50 F
Ambient temperature		60 F		10 F
Earth temperature (wet)		55 F		50 F

Heat requirements:

Assume gravity belt thickening operation and primary sludge feed will not occur simultaneously.

Thickened WAS sludge heating:

Feed rate	Summer	90 gpm	Winter	90 gpm
Heat required		1.79 MBTU/hr		2.01 MBTU/hr
Length of Feed Duration		2.81 hr		2.81 hr
Total WAS heat required		5.01 MBTU/day		5.64 MBTU/day

Primary sludge heating:

Average Sludge Volume	23810 gpd	23810 gpd
Volume per feed cycle	1300 gal	1300 gal
Feed rate	320 gpm	320 gpm
Length of Feed Duration	4.06 min	4.06 min
Number of feed durations per day	18.3	18.3
Digester Temperature drop	0.060 F	0.067 F
at minimum operating level with no boiler input		
Primary Heat Required	6.35 MBTU/hr	7.14 MBTU/hr
Total primary sludge heat required	7.87 MBTU/day	8.86 MBTU/day
Makeup losses	0.3 MBTU/hr	0.75 MBTU/hr
Peak hourly heating requirements	6.35 MBTU/hr	7.14 MBTU/hr
Total daily heat required	20.1 MBTU/day	32.5 MBTU/day

Boiler:

Input Rate	Digester 1	2 MBTU/hr	Digester 2	0.94 MBTU/hr
Output Rate		1.667 MBTU/hr		0.75 MBTU/hr
Daily capacity		40.008 MBTU/day		18 MBTU/day
Number of units		1		1
Combustion Efficiency		83.4 %		79.8 %

Hot Water Circulation Pump:

Type	centrifugal
Number of units	1
Capacity	gpm
TDH	ft

Transfer pipe size

2 in

Heat Source:

The boiler will burn digester gas and be able to automatically switch to natural gas if needed.

Gas Production:

VSS destruction	50 %
Mass VSS destroyed	4865 lb/day
Gas production rate	15 cf/lb VSS Destroyed
Average Gas produced	3040.6 cf/hr
Peaking Rate	3.0
Peak Gas produced	9121.9 cf/hr
Heat value of gas	640 BTU/cf
Total heat value of digester gas produced	1.9 MBTU/hr
Daily heat value of digester gas produced	46.7 MBTU/day

Gas Balance:

	Summer	Winter
Digester Heat required	20.1 MBTU/day	32.5 MBTU/day
Total heat used by the boiler (w/combustion losses)	24.1 MBTU/day	39.0 MBTU/day
Excess Heat	22.61 MBTU/day	7.72 MBTU/day
Excess gas flared	1472 cf/hr	503 cf/hr
Makeup fuel type	Natural gas	
Heat value of fuel	blu/cf	1,010 blu/cf
Makeup fuel required	0 cf/hr	0 cf/hr

Waste gas burner:

number of units	1
burner diameter	6 in

Max gas flow for sizing piping:

Digester #1	4773.4 cfh	6 in
Digester #2	4348.5 cfh	6 in
Secondary Digester	9121.9 cfh	6 in
Sludge Boiler #1	2604.7 cfh	4 in
Sludge Boiler #2	1171.9 cfh	4 in
Co-gen unit	cfh	
Waste Gas Flare	9121.9 cfh	6 in

Secondary Digesters:

Use the existing secondary digesters, 2 units of the same size

Active sidewater depth at max liquid level	
Digester diameter	
Grit and scum storage height	
Total wet digester height at max level (not incl. cone)	
Cone Depth	
Inside cone diameter	
Digester bottom slope	
Digester full bottom	
Cover:	
Type	
Gas storage capacity	
Digester Mixing:	none
Heating:	none

Gas Handling:

Operating pressure range	in H ₂ O
Total gas storage at max liquid levels	cu. Ft.
Days storage	

Dewatering:

Digested sludge is withdrawn from the secondary digesters and pumped to the belt filter press units. System includes belt filter press feed pumps, belt filter presses, and cake pumping. The polymer system is described in its own section

Loading

Plant total solids loading	6,832 lbs/day	13,900 lbs/day
Solids range	2.0 - 4.0 %	2.0 - 4.0 %
Average TS	3.0 %	3.0 %

Volume	27,306 gpd	55,556 gpd
Working days per week	5 days	5 days
Maximum length of production shift	7 hrs	7 hrs
Working day production volume	38,229 gal	77,778 gal
Required processing rate	91.0 gpm	185.2 gpm

Digested Sludge Feed Pumps:

Number of pumps	2
Type	Double diaphragm
Average rate	185 gpm
Max rate	278 gpm
TDH at max rate	60 ft
Motor	10 HP
Meters, magnetic type	1
Transfer pipe size	6 in
Discharge flow dampeners	one per pump

Belt Filter Presses:

Number of units	2	2
Number of units in operation	1	1
Belt width each	2 m	2 m
Loading per unit	2.0 - 4.0 %	2.0 - 4.0 %
Hydraulic feed rate	91 gpm	185 gpm
Average solids loading	1366 lb/hr	2780 lb/hr

Output:

Capture rate	95 %	95 %
Cake solids range	13.0 - 22.0 %	13.0 - 22.0 %
Typical cake solids	15.0 %	15.0 %
Cake bulk density	50 lb/cu. Ft.	50 lb/cu. Ft.
Average cake production	9109 lb/hr	18533 lb/hr
Average cake output rate	182.2 cu. Ft./hr	370.7 cu. Ft./hr
Maximum cake production		27800 lb/hr
Maximum cake output rate		556 cu. Ft./hr
Average output per shift	1275.3 cu. Ft.	2594.7 cu. Ft.

Wash Water:

Rate	143 gpm	143 gpm
Pressure	120 psi	120 psi

Underflow:

Working day production volume	38,229 gal	77,778 gal
Working day output volume	9,539 gal	19,408 gal
Difference is process volume in underflow	28,689 gpd	58,370 gpd
Process flow rate in underflow	68.3 gpm	139.0 gpm
Total underflow (washwater plus process flow)	211.3 gpm	282.0 gpm

Cake Pumping:

A progressive cavity cake pump will be provided to pump sludge to the truck bay and to the existing vacuum filter building where it will be stockpiled and dried further. The cake pump will be sized for 4,160 gpm at 15% solids.

Polymer System:

Polymer will be fed directly into the sludge feed lines to both the gravity belt thickeners and belt filter presses. The system will be completely automated.



June 3, 2009

Mr. Geoff Andres
Infrastructure Financial Assistance Section
Illinois Environmental Protection Agency
1021 North Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276

**RE: City of Pekin – Phase 1 and Phase 2 Wastewater Treatment Plant Improvements
IEPA Projects L17-2157 and L17-3081**

Dear Mr. Andres:

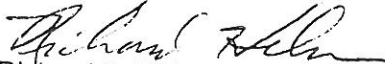
On behalf of the City of Pekin, we are enclosing three (3) copies of the Facilities Plan for the above projects, along with the completed Facilities Planning Submittal Checklist and the signed copy of the Loan Applicant Environmental Checklist. Please initiate the planning review and approval process as soon as possible and contact us if there are any questions or if additional information is required to meet the planning requirements for funding under the ARRA stimulus funding program.

Please note that plans, specifications and construction permit application for the Phase 1 project were submitted to the Agency last year and a construction permit should be issued now. The project can be ready to bid by August 15, 2009, subject to your timely review and approval of this planning report.

The City intends to proceed with a formal loan application for funding under the ARRA program with submittal of the loan application and supporting documentation for the Phase 1 project before August 15, 2009.

Sincerely,

FARNSWORTH GROUP, INC.


Richard B. Helm, PhD, PE
Principal

pc: ☒ Rusty Dunn, Mayor
Dennis Kief, Director of Public Works
Joe Wuellner, City Engineer
Pat Sheridan, FGI Project Manager



REQUEST FOR COUNCIL ACTION

To: Honorable Mayor and Members of the City Council

CC: Sue McMillan, City Clerk

From: Dennis Kief (06/15/2009)

AGENDA ITEMS: Lease Agreement with CenturyTel for City Owned Lot H

AGENDA DATE REQUESTED: June 22, 2009

ACTION REQUESTED: Approval of the Lease Agreement with CenturyTel

BACKGROUND: Proposed 2 year Lease Agreement with CenturyTel with two 2 year options for City owned Lot H. This area is 0.436 acres and is in the northeast corner of the Ann Eliza at 4th Streets Intersection. CenturyTel will maintain the current use (parking). There is a 180 day termination clause for both parties.

FINANCIAL IMPACT: \$10,000/year revenue

NEIGHBORHOOD CONCERNS: N/A

IMPACT IF APPROVED: 2 year lease extension to a good Pekin business

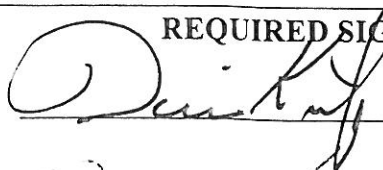
IMPACT IF DENIED: Lot remains under utilized.

ALTERNATIVES: N/A.

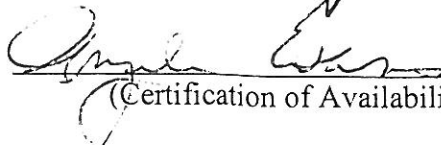
RELATIONSHIP TO THE CONCEPTUAL PLANNING PROCESS: Very important part of the Prosperous Community theme

REQUIRED SIGNATURES

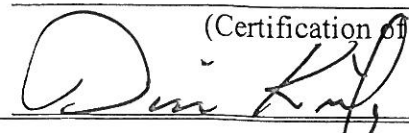
Department Director

 6/15/09

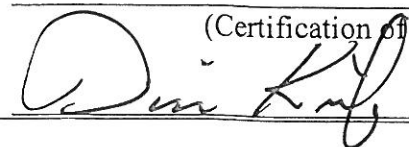
Finance Department

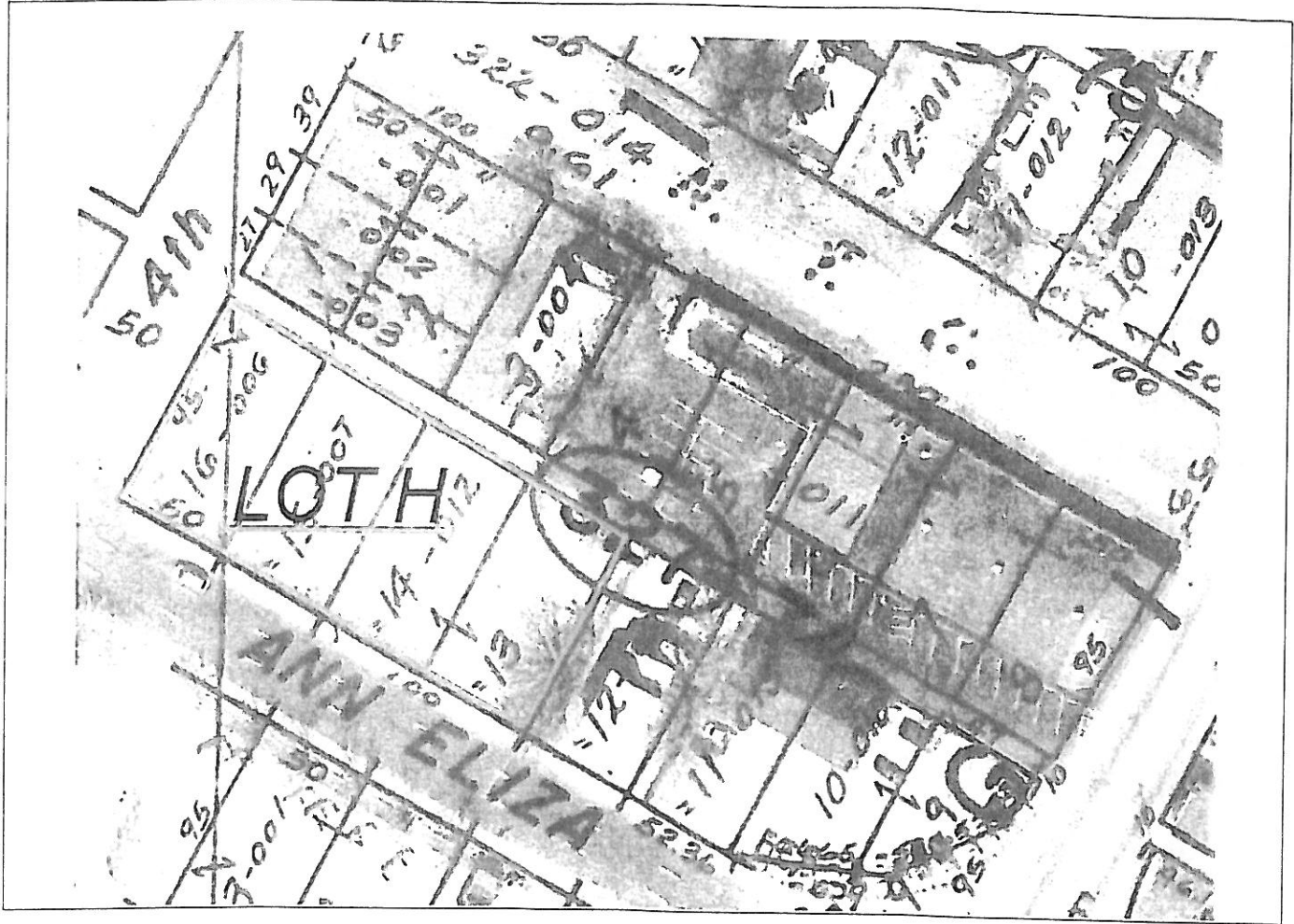
 6-15-09
(Certification of Availability of Funds)

Corporation Counsel

 (Certification of Review)

City Manager

 6/16/09



LEASE AGREEMENT

This Lease Agreement (the "Lease") is made and executed in duplicate by and between the **CITY OF PEKIN, ILLINOIS**, herein called Lessor, and **GALLATIN RIVER COMMUNICATIONS, LLC dba CenturyTel**, an Illinois Corporation, herein called Lessee. This Lease is executed on the dates shown below Lessor's and Lessee's signature lines with an effective commencement date of January 1, 2010.

I. DESCRIPTION OF PREMISES

Lessor leases to Lessee the premises located at 405 Ann Eliza Street, in the City of Pekin, Illinois (the "Leased Premises"), and described more particularly as follows:

Part of Block 74 of a the Original Town of part of the West Half of the Southwest Quarter of Section 35, Township 25 North, Range 5 West of the 3rd P.M., in Tazewell County, Illinois, described as follows:

Lots 13, 14, 15 and 16 of said Block 74, containing 0.436 acres more or less, situated in Tazewell County, Illinois.

Part of PIN # 04-04-35-327-006

Part of PIN # 04-04-35-327-007

Part of PIN # 04-04-35-327-012

II. TERM

The term of this Lease is for two (2) years, beginning January 1, 2010, with Lessee having an option to renew said Lease for two (2) additional two (2) year terms. Lessee shall give Lessor written notice of its intent to exercise an option to renew this Lease at least ninety (90) days prior to the end of the term of this Lease.

III. RENT

The rent under this Lease is \$833.33 (Eight Hundred Thirty-three and 33/100 Dollars), payable in advance each month. Should the rent be late, but before the 10th of that month, the monthly payment shall be \$850.00 per month. Late payments beyond the 10th of that month shall be \$10.00 per day.

IV. TAXES

Lessee shall pay all real estate taxes and any special assessments hereafter coming due on the Leased Premises.

V. USE OF PREMISES, GENERALLY

The Leased Premises shall be used by Lessee as a parking lot. Lessee agrees to restrict its use to such purposes, and not to use, or permit the use of the Leased Premises for any other purpose without first obtaining the consent in writing of Lessor. Lessor agrees to allow Lessee to install ornamental fencing and security cameras at Lessee's expense as long as it meets the applicable City Code requirements. The cost of installing, maintaining and removing said security fence and camera shall be the responsibility of the Lessee. Lessee shall be responsible for separate utility metering of said improvements.

VI. NO WASTE, NUISANCE OR UNLAWFUL USE

Lessee shall not commit, or allow to be committed, any waste on the Leased Premises, create or allow any nuisance to exist on the Leased Premises, or use or allow the Leased Premises to be used for any unlawful purpose.

VII. REPAIRS AND MAINTENANCE

Lessor agrees to maintain the Leased Premises in the condition it is in at the time of the conception of the term of the Lease. Lessor shall seal any deteriorated areas of the parking lot prior to the start of this Lease. Lessor shall have all lighting operational prior to the start of this Lease. Lessee shall be responsible for snow removal during the term of the Lease.

VIII. ACCEPTANCE AND SURRENDER OF THE LEASED PREMISES

Lessee accepts the Leased Premises possession in an "AS IS" condition with the exception as to Lessor's agreement to reseal all deteriorated areas of the parking lot pursuant to Section VII above. Lessee shall remove all business signs or symbols placed on the Leased Premises by it before redelivery back to Lessor. Lessee shall restore the Leased Premises in the same condition with normal wear and tear as before Lessee's use.

IX. LESSOR'S ENTRY FOR INSPECTION AND MAINTENANCE

Lessor reserves the right to enter on the Leased Premises at reasonable times to inspect same.

X. LESSEE TO CARRY LIABILITY INSURANCE

Lessee shall procure and maintain in force during the term of this Lease and any extension thereof, at its expense, public liability insurance in companies and through brokers regularly used by Lessee, adequate to protect against liability for damage claims through public use of or arising out of accidents occurring in or around the Leased Premises, in a minimum amount of \$1,000,000 for each person injured, \$1,000,000 for

any one accident, and \$100,000 for property damage. Such insurance policies shall provide coverage for Lessor's contingent liability on such claims or losses. A certificate of insurance showing such required coverages shall be delivered to Lessor. Lessee agrees to obtain a written endorsement from its insurers to notify Lessor in writing at least thirty (30) days prior to cancellation or refusal to renew any such policies and/or coverages. Lessee agrees that if such insurance policies and coverages are not kept in force during the entire term of this Lease and any extension thereof, Lessor may procure the necessary insurance, pay the applicable premium, and that such premium shall be repaid to Lessor upon demand.

XI. LESSOR'S REMEDIES ON LESSEE'S BREACH

If Lessee breaches this Lease, Lessor shall have the following remedies in addition to its other rights and remedies in such event:

A. RE-ENTRY. Lessor may re-enter the Leased Premises immediately, and remove all Lessee's personnel and property therefrom. Lessor may store Lessee's property in a public warehouse or at another place of its choosing at Lessee's expense or to Lessee's account.

B. TERMINATION. After re-entry, Lessor may terminate the Lease on giving thirty (30) days written notice of such termination to Lessee. Re-entry only, without notice of termination, will not terminate the Lease.

C. RELETTING PREMISES. After re-entering, Lessor may relet the Leased Premises or any part thereof, for any term, at such rent and on such terms as Lessor may choose. Lessor may make alternations and repairs to the Leased Premises.

(1) LIABILITY OF LESSEE ON RELETTING. Lessee shall be liable to Lessor in addition to its other liability for breach of the Lease for all expenses of the reletting, and of the alterations and repairs made, which Lessor may incur.

(2) APPLICATION OF RENT ON RELETTING. Lessor, at its option, may apply the rent received from reletting the Leased Premises as follows:

(a) To reduce Lessee's indebtedness to Lessor under the Lease, not including indebtedness for rent:

(b) To expenses of the reletting and alternations and repairs made.

XII. HOLD HARMLESS

Tenant will at all times defend, indemnify, and save and keep harmless Lessor against claims arising from any and all loss, damage or expenses, including reasonable attorney fees, arising out of the conduct of its business on said Leased Premises.

XIII. ATTORNEY'S FEES

If a party files an action to enforce any covenant of this Lease, or for breach of any covenant herein, the losing party agrees to pay the prevailing party's reasonable attorneys' fees in the action, with such fees to be fixed by the court.

XIV. LESSOR'S TERMINATION RIGHTS/RIGHT OF FIRST REFUSAL

In the event the Lessor receives a bona fide offer to purchase from any third party, Lessor shall give written notice to the Lessee of said offer, as well as a one-hundred eighty (180) day notice to terminate the Lease, upon consummation of the sale of the Leased Premises. Lessee shall have twenty-one (21) days from receipt of the bona fide offer notice from Lessor to notify Lessor of its intent to exercise its right of first refusal to meet the purchase price offered in the bona fide offer previously received by the City, and thereafter executing necessary documents for the purchase of the Leased Premises at said price. In the event Lessee does not notify the Lessor, within the 21 days, of its intent to exercise the right of first refusal, or declines to exercise the right of first refusal, Lessor shall be free to proceed to the sale of the Leased Premises, upon the terms contained in the bona fide offer, possession to be given 180 days after the above stated notice given to Lessee.

XV. NO RENEWAL OF LEASE

If the Lessor permits the Lessee to hold-over after expiration of the term of this Lease, such hold-over shall not be deemed a renewal of this Lease but rather shall be a month to month tenancy.

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Notices given pursuant to the provisions of this Lease, or necessary to carry out its provisions, shall be in writing, and delivered personally to the person to whom the notice is to be given, or mailed postage prepaid, addressed to such person. Lessor's address for this purpose shall be 111 S. Capitol St., Pekin, Illinois, 61554. Notices to Lessee may be addressed to Lessee at Gallatin River Communications, LLC, Attn: Legal Department, 100 CenturyTel Drive, Monroe, Louisiana 71203.

XVII. EFFECT OF LESSOR'S WAIVER

Lessor's waiver of breach of one covenant or condition of this Lease is not a waiver of breach of others, or of a subsequent breach of the one waived.

XVIII. LEASE APPLICABLE TO SUCCESSORS

This Lease and the covenants and conditions hereof apply to and are binding on the heirs, successors, legal representatives and assigns of the parties.

XIX. TIME OF ESSENCE AND GOVERNING LAW

Time is of the essence of this Lease. The terms and conditions of this Lease shall be governed by the laws of the State of Illinois.

EXECUTED at Pekin, Illinois on this ____ day of _____, 2009.

CITY OF PEKIN, Lessor

BY: _____
Signature

Printed Name: _____

Title: _____

EXECUTED at Pekin, Illinois on this 15 day of June, 2009.

**GALLATIN RIVER COMMUNICATIONS,
LLC dba CenturyTel, Lessee**

BY: _____
Signature

Printed Name: Ty Lemaster

Title: GENERAL MANAGER

This document prepared by:
Elliff, Keyser, Oberle & Dancey, P.C.
PO Box 873
109 S. 4th St.
Pekin, IL 61555-0873
Phone: 309-346-4148

LEASE AGREEMENT

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XIX. TIME OF ESSENCE AND GOVERNING LAW

Time is of the essence of this Lease. The terms and conditions of this Lease shall be governed by the laws of the State of Illinois.

EXECUTED at Pekin, Illinois on this ____ day of _____, 2009.

CITY OF PEKIN, Lessor

BY: _____
Signature

Printed Name: _____

Title: _____

EXECUTED at Pekin, Illinois on this 15 day of June, 2009.

**GALLATIN RIVER COMMUNICATIONS,
LLC dba CenturyTel, Lessee**

BY: _____
Signature

Printed Name: Ty Lemaster

Title: General Manager

This document prepared by:
Elliff, Keyser, Oberle & Dancey, P.C.
PO Box 873
109 S. 4th St.
Pekin, IL 61555-0873
Phone: 309-346-4148



REQUEST FOR COUNCIL ACTION

To: Honorable Mayor and Members of the City Council

CC: Sue McMillan, City Clerk

From: Dennis Kief, City Manager (06/15/09)

AGENDA ITEM: Intergovernmental Agreement with Tazewell County for VMF Services

AGENDA DATE REQUESTED: June 22, 2009

ACTION REQUESTED: Approval of Intergovernmental Agreement

BACKGROUND: The City of Pekin and Tazewell County have a longstanding agreement of working together, especially when it comes to a financial benefit to our taxpayers. Several County departments' vehicles stationed in Pekin have the ability (with proper identification/key) to get vehicle maintenance work done and gas purchased at the City's Service Center on Koch Street. The County would be billed at our current rate of gas plus \$0.05/gallon, which would cover the City's administrative overhead. In addition vehicle maintenance work would be conducted at the rate of \$65/hour (increase from \$55/hour rate in 2007 agreement). Parts purchase would be billed at a +28% overhead rate (increase from current 25%).

FINANCIAL IMPACT: Increased revenue to offset increased cost

NEIGHBORHOOD CONCERNS: N/A

IMPACT IF APPROVED: County Vehicles have ability to get VMF services and gas at City's Koch Street Facility

IMPACT IF DENIED: County vehicles would either have to drive to Tremont or utilize gas stations for gas and/or utilize private mechanic services.

ALTERNATIVES: Longer drive to fill-up or higher price at private stations as well as possible higher mechanic rates.

RELATIONSHIP TO THE CONCEPTUAL PLANNING PROCESS: Consistent with the Strong Foundation theme

REQUIRED SIGNATURES

Department Director

David J. Haglund

6-15-09

Date

Finance Department

Angela Evans

(Certification of Availability of Funds)

6-15-09

Date

Corporation Counsel

(Certification of Review)

Date

City Manager

Date

VEHICLE MAINTENANCE AGREEMENT

This Agreement is entered into this 1st day of June 2009, by and between the CITY OF PEKIN, an Illinois municipal corporation and TAZEWELL COUNTY, Illinois.

WHEREAS, the City of Pekin and Tazewell County desire to set forth their agreement regarding maintenance and repair of Tazewell County vehicles by the City of Pekin; and

WHEREAS, the 1970 Illinois Constitution (Article XII, Section 10) and the Illinois Compiled Statutes (5 ILCS 22011-220/8) provide authority for intergovernmental cooperation; and

WHEREAS, the maintenance and repair of Tazewell County's and the City of Pekin's vehicles are essential to providing their respective services and may be obtained more effectively and economically on an area wide basis and by joint efforts and resources.

NOW, THEREFORE, in consideration of the mutual covenants contained herein, the parties agree as follows:

1. **Term.** This Agreement shall begin on June 1, 2009 and terminate on May 31, 2011. Either party may terminate this Agreement by providing (60)days written notice to the other party.

2. **Repairs and Maintenance of Vehicles.** When service or maintenance on Its vehicles is needed, Tazewell County will deliver its vehicles to the City of Pekin's facility at 1130 Koch street, Pekin, Illinois for such repair and Maintenance. Each time Tazewell County delivers a vehicle, the vehicle shall be accompanied by a written authorization describing the work to be performed.

All such authorizations shall be executed by the respective Department Head, Fleet Manager, or designee. Any additional work may be performed only with the Prior written approval of the respective Tazewell County Department Head, Fleet Manager, or designee in charge of vehicle maintenance. All repairs and maintenance shall be performed in a workmanlike manner.

3. **Costs and Payment.** Repairs and maintenance shall be billed at the rate of \$65.00 per hour, plus parts. Parts shall be billed at cost

plus Twenty-eight percent (28%) of cost. Gasoline shall be billed at cost plus five (5) cents.

The City of Pekin shall bill Tazewell County monthly. Tazewell County shall pay all invoices within thirty (30) days of receipt.

4. **Limitation of Liability.** The City of Pekin shall not be liable for loss of or injury to Tazewell County's vehicles resulting from fire, flood, or other act of God, nor for an amount in excess of the amount of the repairs or maintenance on such vehicle. The City of Pekin shall not be liable to Tazewell County for any special, incidental, indirect, punitive or consequential damages, or damages for lost revenue or lost profits, whether foreseeable or not, arising out of, or in connection with the City of Pekin's performance of or failure to perform its obligations hereunder, including but not limited to, damage or loss of property or equipment, loss of profits or revenue, cost capital, or claims of constituents, in each case whether occasioned by any repair or maintenance performed by, or failed to be performed by, the City of Pekin or any other cause whatsoever, including breach of contract, breach of warranty, negligence, or strict liability, all claims with respect to which such special, incidental, indirect, punitive or consequential damages are hereby specifically waived.

5. **Notices.** Notices shall be deemed delivered (a) when delivered if by Personal delivery, (b) as indicated on the receipt when mailed U.S Postal certified mail, return receipt requested or (c) as indicated on the receipt when delivered by reputable private overnight mail or delivery for, and other than personal delivery, shall be delivered to the parties at their following addresses:

The City of Pekin
City Manager
City Hall
111. S. Capitol Street
Pekin, Il. 61554

Tazewell County
County Administrator
Tazewell County Board Office
11 S. 4th Street
Pekin, Il. 61554
CITY OF PEKIN, an Illinois
Municipality

TAZEWELL COUNTY, ILLINOIS

By: _____
Its: _____

ATTEST:

By: _____
Its: _____

By: _____
Its: _____

ATTEST:

By: _____
Its: _____



REQUEST FOR COUNCIL ACTION

To: Council Members

CC: Dennis Kief, Sue McMillan, Angie Evans, & City Attorney

From: Joe Wuellner

AGENDA ITEM: Sludge Removal Contract with Stewart Spreading

AGENDA DATE REQUESTED: June 22, 2009

ACTION REQUESTED: Approve contract with Stewart Spreading for \$428,100 for 3 years for the removal of sludge from the Waste Water Treatment Plant #1.

BACKGROUND: The treatment process generates approximately 3 to 3.5 million gallons of sludge every year which has to be removed and hauled off. This work is done by contractors who remove the sludge and arrange with area farmers to land apply it in their fields. This contract will be for 3 years with the amount being taken out increasing from the starting point of 3.1 million gallons, increasing approximately 0.5 million gallons each year, to 4 million gallons the final year. The last contract was bid in 2006 at \$0.0396 per gallon for removal of 2.5 million gallons and increased per year during the 3 years and cost \$100,000 last year; however, due to weather conditions the full amount was not removed. Stewart's proposal remains constant for all three years at \$0.04 per gallon. I am recommending that the contract be awarded to Stewart Spreading. I have checked their bid and a few of the references and find everything satisfactory.

FINANCIAL IMPACT: \$124,000 – 1st year; \$144,000 – 2nd year; & \$160,000 – 3rd year

NEIGHBORHOOD CONCERNS: None

IMPACT IF APPROVED: Sludge from the lagoon will be removed.

IMPACT IF DENIED: Sludge will remain in the lagoon and further operations of the treatment plant will have to be stopped until lagoon can be emptied.

ALTERNATIVES: None

RELATIONSHIP TO THE CONCEPTUAL PLANNING PROCESS: Strong Foundation

REQUIRED SIGNATURES

Department Director

Joseph Whalen 6/15/09
Date

Finance Department

Angel Evans 6-15-09
(Certification of Availability of Funds) Date

Corporation Counsel

(Certification of Review) Date

City Manager

Dan Kelly 6/15/09
Date

CITY OF PEKIN

ORDINANCE NO. 1462-A290-09/10

AN ORDINANCE AMENDING TITLE 8, CHAPTER 3, SECTION 3. F.
OF THE CODE OF THE CITY OF PEKIN 1995
REGARDING SPEED LIMITS

PASSED BY THE CITY COUNCIL
OF THE CITY OF PEKIN
THE 22ND DAY OF JUNE, 2009

PUBLISHED IN PAMPHLET FORM BY AUTHORITY OF THE CITY
COUNCIL OF THE CITY OF PEKIN, TAZEWELL COUNTY, ILLINOIS,
THIS 22ND DAY OF JUNE 2009

EFFECTIVE
JULY 2, 2009

ORDINANCE NO. 1462-A 290 – 09/10

**AN ORDINANCE AMENDING TITLE 8, CHAPTER 3, SECTION 3 F.
OF THE CODE OF THE CITY OF PEKIN 1995
REGARDING SPEED LIMITS**

WHEREAS, the Code of the City of Pekin 1995 was adopted on April 10, 1995, and duly published in book form;

WHEREAS, the City of Pekin is a home rule municipality as described in Section 6(a), Article VII of the 1970 Constitution of the State of Illinois, and as such may exercise any power and function pertaining to its government and its affairs; and

WHEREAS, it is in the best interests of the safety and welfare of the residents of the City of Pekin, Tazewell County, Illinois that the speed limits on Broadway Road from Hickory Lane to California Road be increased to 40 mph and that a speed limit be designated to acquired jurisdiction of California Road from Broadway Road to Sheridan Road; and

WHEREAS, per recommendation of the Traffic Safety Committee at the meeting of June 5, 2009, the City Council has determined that it is in the best interests of the City to amend the Traffic Code regarding authorized speed limits.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF PEKIN, ILLINOIS:

1. That Title 8, Chapter 3, Section 3. F. be amended by deleting the following designated Speed Limits:

Control	Speed	On Street	At or From	To	Direction
Speed	35 mph	Broadway Road	N. 14 th Street	California Road	EW

Ord. No. 1462-A288

2. That Title 8, Chapter 3, Section 3. F. be amended by adding the following designated Speed Limits:

Speed	35 mph	Broadway Road	N. 14 th Street	Hickory Lane	EW
					Ord. No. 1462-A290
Speed	40 mph	Broadway Road	Hickory Lane	California Road	EW
				(at intersection at the south right of way of Broadway)	
					Ord. No. 1462-A290
Speed	40 mph	California Road	Broadway Road	Sheridan Road	NS
					Ord. No. 1462-A290
Speed	45 mph	Broadway Road	California Road	Veteran's Drive	

BE IT FURTHER ORDAINED that all other parts of the Code of the City of Pekin 1995 as amended except as modified herein are hereby reaffirmed and ratified and are in full force and effect.

BE IT FURTHER ORDAINED that all Ordinances or parts of Ordinances in conflict herewith are hereby repealed.

BE IT FURTHER ORDAINED that this Ordinance shall be in full force and effect upon its passage, approval and publication as required by law.

PASSED AND APPROVED at the regular meeting of the City Council of the City of Pekin, this _____ day of _____, 2009; and upon roll call the vote was as follows:

AYES:

NAYS:

ABSENT:

ABSTAINING:

APPROVED this _____ day of _____, 2009.

Mayor

ATTEST:

City Clerk

CERTIFICATE

THE UNDERSIGNED CERTIFIES THAT SHE IS THE CITY CLERK FOR THE CITY OF PEKIN, ILLINOIS, AND THAT THE CITY COUNCIL AT A REGULARLY CONSTITUTED MEETING OF SAID CITY COUNCIL OF THE CITY OF PEKIN ON THE 22ND DAY OF JUNE 2009 ADOPTED ORDINANCE NO. 1462-A290 09/10 A TRUE AND CORRECT COPY OF WHICH IS CONTAINED IN THIS PAMPHLET.

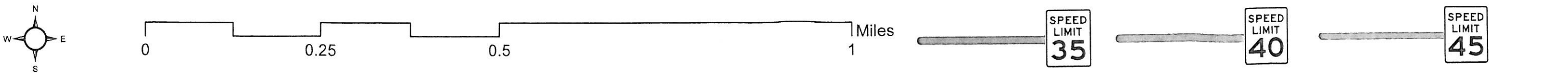
GIVEN UNDER MY HAND AND SEAL THIS _____ DAY OF _____, 2009.

(SEAL)

SUE E. MCMILLAN
CITY CLERK



Speed Limit on Broadway: 35 MPH-Parkway to Hickory Ln,
40 MPH-Hickory Ln to California Rd, 45 MPH-California Rd to Veterans



Control	Speed	On Street	At or From	To	Direction
Speed	20 mph	Market Street	N. Nineteen Street	East End	EW
Speed	20 mph	N. Nineteenth St.	Broadway Road	Market Street	S
Speed	20 mph	N. Twentieth Street	Broadway Road	Market Street	N
Speed	20 mph	Park Avenue	Court Street	12 th Street	EW
				Ord. No. 1462-A276	
Speed	35 mph	Broadway Road	N. 14 th Street	Hickory Lane	EW
				Ord. No. 1462-A290	
Speed	35 mph	Court Street	S. Ninth Street	Valle Vista Blvd	EW
Speed	35 mph	N. Eighth Street	Chestnut Street	Coolidge Drive	NS
Speed	35 mph	S. Second Street	Derby Street	Koch Street	NS
Speed	35 mph	S. Fourteenth Street	Rosemary Street	Koch Street	NS
Speed	35 mph	Parkway Drive	Broadway Road	Velde Drive	NS
				Ord. No. 1462-A266	
Speed	35 mph	VFW Road	Route 29	IC Railroad	EW
Speed	40 mph	Ann Eliza Street	N. Second Street	Bridge	West
Speed	40 mph	Court Street	Valle Vista Blvd	Barney Avenue	EW
Speed	40 mph	Margaret Street	Bridge	N. Second Street	East
Speed	40 mph	N. Eighth Street	Coolidge Drive	Past Sacred Hrt. Ce.	NS
Speed	40 mph	Parkway Drive	Velde Drive	Northern City Limit	NS
				Ord. No. 1462-A266	
Speed	40 mph	California Road	Broadway Road	Sheridan Road	NS
				Ord. No. 1462-A290	
Speed	40 mph	Broadway Road	Hickory Lane	California Road	EW
				Ord. No. 1462-A290	
Speed	45 mph	Broadway Road	California Road (at intersection of south right of way of Broadway)	Veterans Drive	EW
				Ord. No. 1462-A288	
Speed	45 mph	Court Street	Barney Avenue	Veterans Drive	EW
Speed	45 mph	S. Fourteenth Street	VFW Road	Rosemary Street	NS
Speed	45 mph	S. Second Street	Manito Blacktop	Koch Street	NS
Speed	45 mph	VFW Road	S. Fourteenth Street	900' E of S. Fourteenth Street	EW
Speed	45 mph	Veterans Drive	Court Street	Broadway Road	NS
				Ord. No. 1462-A214	
Speed	50 mph	Court Street	Veterans Drive	Eastern City Limit	EW
Speed	50 mph	N. Eighth Street	Past Sacred Hrt. Ce.	Northern City Limit	NS
Speed	50 mph	S. Second Street	Southern City Limit	Manito Blacktop	NS
Speed	55 mph	Ann Eliza Street	Bridge	Levee Road	West
Speed	55 mph	Margaret Street	Levee Road	Bridge	East

(deleted Ord. No. 1462-A200 10/14/02 on 10/22/07) (deleted 1462-A180 on 11-13-00) (deleted portion Ord. No. 1462-A288 on 06-22-09)

Control	Speed	On Street	At or From	To	Direction
Speed	20 mph	Market Street	N. Nineteen Street	East End	EW
Speed	20 mph	N. Nineteenth St.	Broadway Road	Market Street	S
Speed	20 mph	N. Twentieth Street	Broadway Road	Market Street	N
Speed	20 mph	Park Avenue	Court Street	12 th Street	EW
Ord. No. 1462-A276					
Speed	35 mph	Broadway Road	N. 14 th Street	California Road	EW
Ord. No. 1462-288					
Speed	35 mph	Court Street	S. Ninth Street	Valle Vista Blvd	EW
Speed	35 mph	N. Eighth Street	Chestnut Street	Coolidge Drive	NS
Speed	35 mph	S. Second Street	Derby Street	Koch Street	NS
Speed	35 mph	S. Fourteenth Street	Rosemary Street	Koch Street	NS
Speed	35 mph	Parkway Drive	Broadway Road	Velde Drive	NS
Ord. No. 1462-A266					
Speed	35 mph	VFW Road	Route 29	IC Railroad	EW
Speed	40 mph	Ann Eliza Street	N. Second Street	Bridge	West
Speed	40 mph	Court Street	Valle Vista Blvd	Barney Avenue	EW
Speed	40 mph	Margaret Street	Bridge	N. Second Street	East
Speed	40 mph	N. Eighth Street	Coolidge Drive	Past Sacred Hrt. Ce.	NS
Speed	40 mph	Parkway Drive	Velde Drive	Northern City Limit	NS
Ord. No. 1462-A266					
Speed	45 mph	Broadway Road	California Road	Veterans Drive	EW
Ord. No. 1462-A288					
Speed	45 mph	Court Street	Barney Avenue	Veterans Drive	EW
Speed	45 mph	S. Fourteenth Street	VFW Road	Rosemary Street	NS
Speed	45 mph	S. Second Street	Manito Blacktop	Koch Street	NS
Speed	45 mph	VFW Road	S. Fourteenth Street	900' E of S. Fourteenth Street	EW
Speed	45 mph	Veterans Drive	Court Street	Broadway Road	NS
Ord. No. 1462-A214					
Speed	50 mph	Court Street	Veterans Drive	Eastern City Limit	EW
Speed	50 mph	N. Eighth Street	Past Sacred Hrt. Ce.	Northern City Limit	NS
Speed	50 mph	S. Second Street	Southern City Limit	Manito Blacktop	NS
Speed	55 mph	Ann Eliza Street	Bridge	Levee Road	West
Speed	55 mph	Margaret Street	Levee Road	Bridge	East

(deleted Ord. No. 1462-A200 10/14/02 on 10/22/07) (deleted 1462-A180 on 11-13-00)

- G. Speed Limits in School Zones. No person shall drive a motor vehicle at a speed in excess of twenty (20) miles per hour while passing a school zone or while traveling upon any public thoroughfare on or across which children pass going to and from school during school days when school children are present.

Control	On Street	At or From	To	Direction
Speed 20 mph School Zone	Broadway Road	N. Eighth Street	N. Ninth Street	EW

Control	Speed	On Street	At or From	To	Direction
Speed	20 mph	Market Street	N. Nineteen Street	East End	EW
Speed	20 mph	N. Nineteenth St.	Broadway Road	Market Street	S
Speed	20 mph	N. Twentieth Street	Broadway Road	Market Street	N
Speed	20 mph	Park Avenue	Court Street	12 th Street	EW
Ord. No. 1462-A276					
Speed	35 mph	Broadway Road	N. 14 th Street	Hickory Lane	EW
Ord. No. 1462-A290					
Speed	35 mph	Court Street	S. Ninth Street	Valle Vista Blvd	EW
Speed	35 mph	N. Eighth Street	Chestnut Street	Coolidge Drive	NS
Speed	35 mph	S. Second Street	Derby Street	Koch Street	NS
Speed	35 mph	S. Fourteenth Street	Rosemary Street	Koch Street	NS
Speed	35 mph	Parkway Drive	Broadway Road	Velde Drive	NS
Ord. No. 1462-A266					
Speed	35 mph	VFW Road	Route 29	IC Railroad	EW
Speed	40 mph	Ann Eliza Street	N. Second Street	Bridge	West
Speed	40 mph	Court Street	Valle Vista Blvd	Barney Avenue	EW
Speed	40 mph	Margaret Street	Bridge	N. Second Street	East
Speed	40 mph	N. Eighth Street	Coolidge Drive	Past Sacred Hrt. Ce.	NS
Speed	40 mph	Parkway Drive	Velde Drive	Northern City Limit	NS
Ord. No. 1462-A266					
Speed	40 mph	California Road	Broadway Road	Sheridan Road	NS
Ord. No. 1462-A290					
Speed	40 mph	Broadway Road	Hickory Lane	California Road	EW
Ord. No. 1462-A290					
Speed	45 mph	Broadway Road	California Road	Veterans Drive	EW
Ord. No. 1462-A288					
Speed	45 mph	Court Street	Barney Avenue	Veterans Drive	EW
Speed	45 mph	S. Fourteenth Street	VFW Road	Rosemary Street	NS
Speed	45 mph	S. Second Street	Manito Blacktop	Koch Street	NS
Speed	45 mph	VFW Road	S. Fourteenth Street	900' E of S. Fourteenth Street	EW
Speed	45 mph	Veterans Drive	Court Street	Broadway Road	NS
Ord. No. 1462-A214					
Speed	50 mph	Court Street	Veterans Drive	Eastern City Limit	EW
Speed	50 mph	N. Eighth Street	Past Sacred Hrt. Ce.	Northern City Limit	NS
Speed	50 mph	S. Second Street	Southern City Limit	Manito Blacktop	NS
Speed	55 mph	Ann Eliza Street	Bridge	Levee Road	West
Speed	55 mph	Margaret Street	Levee Road	Bridge	East

(deleted Ord. No. 1462-A200 10/14/02 on 10/22/07) (deleted 1462-A180 on 11-13-00) (deleted portion Ord. No. 1462-A288 on 06-22-09)

RESOLUTION NO. 9-09/10

A RESOLUTION AMENDING THE TIF 1 FAÇADE PROGRAM OF THE CITY OF PEKIN

WHEREAS, the City of Pekin reviewed the current TIF 1 Façade Program and substantially revised the Façade Grant Program established in 1998; and

WHEREAS, after further review by staff it is in the best interest of the City of Pekin to adopt the newly revised TIF 1 Façade Program as follows:

***CITY OF PEKIN, ILLINOIS
DOWNTOWN FAÇADE REVITALIZATION PROGRAM
PROGRAM GUIDELINES***

GENERAL ELIGIBILITY ITEMS

- ❖ Property must be located within boundaries of TIF#1 District (*see attached map*).
- ❖ Subject structure must have at least the entire ground level floor space devoted to commercial use.
- ❖ Applicant must be Owner of property or occupant of property with written consent of Owner to participate in program; proof of ownership will be required.
- ❖ Property must be reasonably maintained for 5 years following completion of the façade work.
- ❖ To be eligible to receive a grant, property must be current on any and all tax and mortgage payments and must also comply with all applicable City codes.
- ❖ Eligible work items include any work done to the exterior of a structure or lot with the exception of sidewalks, parking lots, sprinkler systems, storm or sanitary sewers, wiring, plumbing, heating or air conditioning or pest extermination.
- ❖ Examples of typical eligible work items could include improvements of visible exterior components such as, painting, tuck pointing, sealing, wall cleaning, wall coverings, doors

and doorways, shutters, awnings, canopies, signage, guttering, windows, stairs, walkways, perennial landscaping and plantings, chimneys, cornices, parapets, bulkheads, fascias and lighting.

- ❖ Work items not resulting in façade improvements readily visible from the street (i.e. roofing and guttering repair, chimneys, lighting) will be funded only when such items are a portion of a larger project including true façade enhancement activities.
- ❖ All applicants are required to have a building assessment by a structural engineer. This completed building assessment is to be submitted with the façade application. Costs for building assessment are an eligible project expense cost for the Façade program and 100% refundable.
- ❖ All work must be performed in compliance with the City of Pekin's Downtown Design Guidelines and all applicable City codes to be considered as eligible.
- ❖ Upon receiving a completed application and building assessment report, approval and recommendation from Main Street Design committee, City Council will vote to pre-approve application and City funds will be distributed upon inspected project completion.

FINANCIAL REQUIREMENTS

- ❖ Minimum total project eligible for City participation is \$1,000.00.
- ❖ City share of project will be equal to 1/2 of total exterior project costs or \$12,500.00, *whichever is less*.
- ❖ Owner/Applicant must document existence and/or financial sources of 1/2 of total project costs.
- ❖ City will conduct inspection of premises to document the project completion prior to City injection of funds that will include the refund of the building assessment fee as an eligible project cost.
- ❖ Owner/Applicant must provide two (2) or more bids from qualified contractors for all exterior work to be performed at time of application.
- ❖ The City will require Owner/Applicant to produce invoices, bills or statements and proof of payment in the form of receipts and/or copies of checks accounting for the expenditure of funds towards the projects completion and the City may choose to issue checks directly to contractors for work performed.
- ❖ The City may, at its discretion, increase the amount of its participation in a particular project.

- ❖ An agreement with a term of three (3) years will be taken by the City against the property requiring pro-rated repayment, equal to 2.777% of total grant per month, in the event that:
 1. property ceases to be a viable business;
 2. is converted to a predominantly non-commercial use; or
 3. the improvements in part financed by the City are allowed to deteriorate and are not repaired following a 30 day notice by the City Building Department.

APPLICATION REVIEW / RANKING PROCESS

- ❖ Complete application form and all attachments including building assessment, drawings, photographs, statement of need and certification form must be submitted to Pekin Main Street, 111 S Capitol Street, Pekin, Illinois.
- ❖ If complete, application will be taken for review and recommendation to the Design Committee of the Pekin Main Street Board.
- ❖ Applications will be recommended for approval or disapproval by the Design Committee to the City Council.
- ❖ Total estimated “turn around” time from completed application to final approval is a maximum of 45 calendar days.

In the event of application requests exceeding the amount of available monies budgeted at \$75,000/year, applications will be prioritized for funding by the TIF 1 Rehabilitation & Renovation Committee and City Council based on the following factors:

- past efforts (maximum of 10 years) of property Owner to improve exterior of building
- historical and/or architectural significance of building
- project’s extent of adherence to design guidelines
- project’s overall effect on appearance of structure visible from public areas and/or right-of-ways
- number of FTE jobs created or retained
- project’s affect on, and visual harmony with, block in which it is situated
- amount of Owner equity injected into project
- Applicant’s stated need for City financial assistance

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Pekin, Illinois, that the City of Pekin, hereby adopt the changes and revisions to the Façade Grant Program as presented..

ADOPTED AND APPROVED at a regular meeting of the Council of the City of Pekin, this

_____ day of _____, 2009.

AYES: _____

NAYS: _____

ABSENT: _____

ABSTAINING: _____

APPROVED this _____ day of _____, 2009

MAYOR

ATTEST:

CITY CLERK

**CITY OF PEKIN, ILLINOIS
DOWNTOWN FAÇADE REVITALIZATION PROGRAM
PROGRAM GUIDELINES**

GENERAL ELIGIBILITY ITEMS

- ❖ Property must be located within boundaries of TIF#1 District (*see attached map*).
- ❖ Subject structure must have at least the entire ground level floor space devoted to commercial use. (Previous statement required at least 50% of total floor space devoted to commercial use.)
- ❖ Applicant must be Owner of property or occupant of property with written consent of Owner to participate in program; proof of ownership will be required.
- ❖ Property must be reasonably maintained for 5 years following completion of the façade work.
- ❖ To be eligible to receive a grant, property must be current on any and all tax and mortgage payments and must also comply with all applicable City codes.
- ❖ Eligible work items include any work done to the exterior of a structure or lot with the exception of sidewalks, parking lots, sprinkler systems, storm or sanitary sewers, wiring, plumbing, heating or air conditioning or pest extermination.
- ❖ Examples of typical eligible work items could include improvements of visible exterior components such as, painting, tuck pointing, sealing, wall cleaning, wall coverings, doors and doorways, shutters, awnings, canopies, signage, guttering, windows, stairs, walkways, perennial landscaping and plantings, chimneys, cornices, parapets, bulkheads, fascias and lighting. (But it used to say visible from Court Street)
- ❖ Work items not resulting in façade improvements readily visible from the street (i.e. roofing and guttering repair, chimneys, lighting) will be funded only when such items are a portion of a larger project including true façade enhancement activities.
- ❖ All applicants are required to have a building assessment by a structural engineer. This completed building assessment is to be submitted with the façade application. Costs for building assessment are an eligible project expense cost for the Façade program and 100% refundable. (But this is a new bullet point)
- ❖ *All work must be performed in compliance with the City of Pekin's Downtown Design Guidelines and all applicable City codes to be considered as eligible.*
- ❖ *Upon receiving a completed application and building assessment report, approval and recommendation from Main Street Design committee, City Council will vote to pre-approve application and City funds will be distributed upon inspected project completion. (This is also a new bullet point)*

FINANCIAL REQUIREMENTS

- ❖ Minimum total project eligible for City participation is \$1,000.00. (Changed from \$1,500 to \$1,000 due to awning costs)
- ❖ City share of project will be equal to 1/2 of total exterior project costs or \$12,500.00, *whichever is less*. (Burt this was 1/3 of cost and up to \$8,500)
- ❖ Owner/Applicant must document existence and/or financial sources of 1/2 of total project costs.
- ❖ City will conduct inspection of premises to document the project completion prior to City injection of funds that will include the refund of the building assessment fee as an eligible project cost. (We added the building assessment portion to this)
- ❖ Owner/Applicant must provide two (2) or more bids from qualified contractors for all exterior work to be performed at time of application.
- ❖ The City will require Owner/Applicant to produce invoices, bills or statements and proof of payment in the form of receipts and/or copies of checks accounting for the expenditure of funds towards the projects completion and the City may choose to issue checks directly to contractors for work performed.
(the red is new to prove of payment)
- ❖ The City may, at its discretion, increase the amount of its participation in a particular project.
- ❖ An agreement with a term of three (3) years will be taken by the City against the property requiring pro-rated repayment, equal to 2.777% of total grant per month, in the event that:
 1. property ceases to be a viable business;
 2. is converted to a predominantly non-commercial use; or
 3. the improvements in part financed by the City are allowed to deteriorate and are not repaired following a 30 day notice by the City Building Department.

APPLICATION REVIEW / RANKING PROCESS

- ❖ Complete application form and all attachments including building assessment, drawings, photographs, statement of need and certification form must be submitted to Pekin Main Street, 111 S Capitol Street, Pekin, Illinois.
 - ❖ If complete, application will be taken for review and recommendation to the Design Committee of the Pekin Main Street Board.
 - ❖ Applications will be recommended for approval or disapproval by the Design Committee to the City Council.
 - ❖ City Council shall make the final decision as to City funding of individual applications.
 - ❖ Total estimated "turn around" time from completed application to final approval is a maximum of 45 calendar days.
-

In the event of application requests exceeding the amount of available monies budgeted at \$75,000/year, applications will be prioritized for funding by the Design Committee and City Council based on the following factors:

- past efforts (maximum of 10 years) of property Owner to improve exterior of building
- historical and/or architectural significance of building
- project's extent of adherence to design guidelines
- project's overall effect on appearance of structure visible from public areas and/or right-of-ways
- number of FTE jobs created or retained
- project's affect on, and visual harmony with, block in which it is situated
- amount of Owner equity injected into project
- Applicant's stated need for City financial assistance

CITY OF PEKIN, ILLINOIS
DOWNTOWN FAÇADE REVITALIZATION PROGRAM

APPLICANT CERTIFICATION FORM

As Applicant(s) for participation in the City of Pekin's Downtown Façade Revitalization Program, I/we acknowledge with following statements.

- To the best of my/our current knowledge, all information contained within the application is true and we hereby authorize the City of Pekin to verify any such information at its discretion.
- I/We have read and understand the Program Guidelines for Pekin Downtown Façade Revitalization Program and agree to fully abide by said guidelines.
- I/We understand that my/our property must be located within the boundaries of the City of Pekin's Tax Increment Financing District (TIF) #1 in order to be eligible for program participation.
- I/We understand that a three (3) year contractual agreement will be signed with the City requiring prorated repayment of the City's financial injection in to the project in the event of: conversion of property to a not-commercial use; cessation of business operations; or, failure to properly maintain improvements to the property financed in part by the City.
- I/We have read and understand the Design Standards for the Pekin Downtown Façade Program and agree to, the fullest extent feasible, perform all work on our property in compliance with these standards.
- I/We understand that my/our financial share of the total project's cost must all be expended, and appropriate project progress documented, prior to the injection of any City funds into the project.
- I/We understand the Owner/Applicant will be responsible for securing all required municipal permits and paying all associated fees prior to the onset of work.
- Due to a limitation on the amount of available program dollar funds, I/we understand that an eligible completed application is not necessarily a guarantee of project funding.
- I/We understand that the Owner of the property, if not the Applicant, must give written approval for project participation prior to approval.
- I/We understand that the subject property must have at least the ground level floor space devoted to commercial use to qualify for program participation.
- I/We understand that, barring the occurrence of unforeseen circumstances beyond the control of me/us as a Applicant, I/we will be obligated to satisfactorily complete the work items (within the time frame cited) as listed in the application.
- I/We understand that upon submitting a completed application and building assessment report, approval and recommendation from Main Street Design committee, City Council will vote to pre-approve application and City funds will be distributed upon inspected project completion.

Signature _____

Date _____

Signature _____

Date _____



Pekin TIF/Enterprise Shared Zone Exhibit A

Legend

	Shared TIF and Enterprise
	TIF Zone
	Enterprise Zone
	parcels



RESOLUTION NO. 10-09/10

A RESOLUTION FOR THE CREATION OF THE PEKIN DOWNTOWN TIF COMMERCIAL RETAIL/UPPER STORY HOUSING LOAN PROGRAM, OF THE CITY OF PEKIN, ILLINOIS

WHEREAS, the City of Pekin has reviewed the Pekin Downtown TIF Commercial Retail / Upper Story Housing Loan Program for the TIF 1 District and,

WHEREAS, the eligible loan uses for approval will be in accordance with the State of Illinois statutes and,

WHEREAS, after preparation and research by staff of similar successful programs in TIF Districts in the State of Illinois, it is in the best interest of the City of Pekin to adopt this newly created TIF 1 program as follows:

Pekin Downtown TIF Commercial Retail / Upper Story Housing Loan Program

This loan program provides a forgivable loan (0% interest rate-otherwise known as a grant), but requires private financing to complete the project. The loan amount is a dollar to dollar match, up to but not exceeding \$25,000. The loan program is available for viable commercial retail use on first & upper story floors and upper story lofts / apartments. Tax Increment Financing (TIF) funding cannot be more than 50% of the cost of the total project. One program (maximum \$25,000 total) per building over a 5 year period is allowed however, a maximum of \$50,000 can be permitted for building projects with multiple floors within the 5 year period requirement and project completion. At the City's Council's discretion, larger projects could be considered for additional funding. Qualified projects are treated on a first come, first serve basis as funding is available in the annual TIF budget. See Exhibit "A" for a map of the TIF boundaries.

Eligible Loan Uses

- Upgrade electrical systems
- Plumbing
- HVAC
- Sprinkler System
- Walls / Plaster / Paint / Framing
- Carpet, flooring, trim-finish units
- Door installation / Kitchen / Bathrooms
- Upgrade of windows

- Architectural Renderings / Consultations
- Other uses may be eligible with council consent

TIF Commercial Retail / Upper Story Housing Program is forgivable funding at a minimum of \$2,000 not to exceed \$25,000, or 50% of eligible uses costs; or whichever is less. Applicants will be required to contribute matching funds. The forgivable loan shall not exceed \$25,000.00; or \$50,000 for project with multiple floors. A mortgage and note will be required.

The total amount of TIF funding granted to address rehabilitation will be a forgivable loan for a period of time based upon the funding amount.

Forgivable (Equity Share) Period:

<u>Project Funding from TIF</u>	<u>Term</u>
\$2,000.00 - \$5,000.00	One year term
\$5,000.01 - \$10,000.00	Two year term
\$10,000.01 - \$15,000.00	Three year term
\$15,000.01 - \$20,000.00	Four year term
\$20,000.01 - \$50,000.00	Five year term

General Eligibility Items

1. Property must be located within boundaries of TIF#1 District (*see attached map*).
2. The applicant must be the owner of the property for which the rehabilitation loan is sought or occupant of property with written consent of Owner to participate in the program; proof of ownership will be required. (as recorded in the Tazewell County Recorder's office).
3. Subject structure must have at least the entire ground level floor space devoted to commercial use.
4. The applicant shall not have any judgments or open collections. The applicant shall not have any pending court cases with the City of Pekin or have had any code or housing violations within the last twelve months, or be delinquent on any monies owed to the City of Pekin. The property must be current on any and all tax and mortgage payments and must also comply with all applicable City codes.
5. The applicant must demonstrate the ability to finance his/her portion of the rehabilitation. If financing is not required, then the grantee must show proof of verification of deposits acceptable to the City.
6. All applicants will be required to disclose any Conflict of Interest relationship in writing.

7. All applicants must provide a business plan with cost estimates, and business revenue projections for the improvements of commercial retail use projects acceptable to the City.
8. All applicants are required to have a building assessment by a structural engineer. This completed building assessment is to be submitted with the commercial retail/ upper story loft application. Costs for building assessment are an eligible project expense cost and 100% refundable.

TERMS AND CONDITIONS FOR FORGIVABLE LOANS

A. The loan will consist of:

1. No monthly payments of principal and interest on the deferred/forgivable loan, secured by a lien on the property.
2. TIF Equity Share. The owner will be responsible for repaying the pro-rata share of the grant amount to the Pekin TIF I fund, if the property changes ownership, or a change in building use to non-commercial on ground floor, during the forgivable loan period. The equity repayment shall be determined as follows:

<u>Year</u>	<u>Repayment(Percent of Grant Amount)</u>
One	100%
Two	80%
Three	60%
Four	40%
Five	20%
Years Six and After	0%

3. The repayment term is defined as follows.
 - i. Term begins on date of application approval by City Council.
 - ii. Term ends on the date of recording for deeds or the date of signature by both parties for contracts for deed as a result in change of ownership or date of change in building use to non commercial on ground floor.
4. All loans require evidence of title, credit reports, and recorded mortgages.
5. A first or second lien position is preferred. At the discretion of the review committee and in consultation with the TIF Administrator, and based on the program's acceptable risk underwriting standards, a third lien position may be approved.
6. Property and improvements must be reasonably maintained for 5 years following the completion of the project. Acceptable in sole discretion of the TIF Administrator.
7. A release deed will be provided, upon request from the owner, after the term is fulfilled. All expenses for preparation and recording will be paid by the owner.

Pre Project Requirements

1. Conduct building assessment by a structural engineer, then schedule and conduct code inspections on the subject dwelling; terminate project if structure is dilapidated and therefore infeasible for rehabilitation.
2. Review the list of deficiencies including code violations, general improvements and a preliminary cost estimate.
3. Assess and define areas to be rehabilitated.
4. Review the estimates and/or bid specifications to qualified contractors for a minimum of 2 required bids for loan program.
5. Conduct pre-construction conference with City Code Enforcement, Fire Department, TIF Administrator and Pekin Main Street Director to review contractor bids, project costs and overall plan.
6. Owner/Applicant to complete and submit loan program application to City TIF Administrator at 111 S. Capitol Street, Pekin, IL 61554.

Fire Code Requirements (Loan eligible requirements)

1. 2 code required exits for egress / exit.
2. City of Pekin Fire Dept. to review the blue print of proposed buildings for fire code requirements.
3. Code required fire alarms
4. Code required knox box entry system
5. Lighted exit signs in use for stairwells that exit the main corridor of the building
6. Back flow preventer for the fire sprinkler system.

Project Management to be conducted by City of Pekin Code Enforcement

1. Receive building assessment report from building owner/applicant
2. Inspect rehabilitation work on a regular basis to see that all work is progressing satisfactorily and to monitor the quality of materials and workmanship.
3. Make final inspection of rehabilitation work to insure conformance with contract specifications. Complete Certificate of Final Inspection when appropriate.
4. Make follow-up inspections of rehabilitation work as needed.

Reimbursement for Completed Rehabilitation

1. Submit final invoices showing balance of completed work
2. Provide proof of payment in the form of receipts/copies of checks
3. Final reimbursement will be issued within three (3) weeks of receipt of completed proof of payment. The borrower is expected to pay the contractors. Upon City Council's approval, the City TIF Administrator will issue a reimbursement to the owner/applicant for half of the amount approved upfront, if requested, with the remainder to be paid upon completion of the project and certification of that.

Additional Incentives:

For properties with-in the Enterprise Zone / TIF boundaries, Permit Fee's are waved and taxes are exempt on building materials purchased within the State of Illinois. Project costs **must exceed \$25,000** to qualify, and an Enterprise Zone application **must be submitted and approved before work and purchases begin**. See Exhibit A map for the Enterprise Zone area's within the TIF.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Pekin, Illinois, that the City of Pekin, hereby adopt the Pekin Downtown TIF Commercial Retail / Upper Story Housing Loan Program as presented.

ADOPTED AND APPROVED at a regular meeting of the Council of the City of Pekin, this

_____ day of _____, 2009.

AYES: _____

NAYS: _____

ABSENT: _____

ABSTAINING: _____

APPROVED this _____ day of _____, 2009

MAYOR

ATTEST:

CITY CLERK

Pekin Downtown TIF Commercial Retail / Upper Story Housing Loan Program

This loan program provides a forgivable loan (0% interest rate-otherwise known as a grant), but requires private financing to complete the project. The loan amount is a dollar to dollar match, up to but not exceeding \$25,000. The loan program is available for viable commercial retail use on first & upper story floors and upper story lofts / apartments. Tax Increment Financing (TIF) funding cannot be more than 50% of the cost of the total project. One program (maximum \$25,000 total) per building over a 5 year period is allowed. A maximum of \$50,000 is permitted for building projects with multiple floors within the 5 year period requirement and project completion. At the City's discretion, larger projects could be considered for additional funding. Qualified projects are treated on a first come, first serve basis as funding is available in the annual TIF budget. See Exhibit "A" for a map of the TIF boundaries.

Eligible Loan Uses

- Upgrade electrical systems
- Plumbing
- HVAC
- Sprinkler System (Required)
- Walls / Plaster / Paint / Framing
- Carpet, flooring, trim-finish units
- Door installation / Kitchen / Bathrooms
- Upgrade of windows
- Architectural Renderings / Consultations
- Other uses may be eligible with council consent

TIF Commercial Retail / Upper Story Housing Program is forgivable funding at a minimum of \$2,000 not to exceed \$25,000, or 50% After-rehab value; whichever is less. Applicants will be required to contribute matching funds. The forgivable loan shall not exceed \$25,000.00; or \$50,000 for project with multiple floors. A mortgage and note will be required.

The total amount of TIF funding granted to address rehabilitation will be a forgivable loan for a period of time based upon the funding amount.

Forgivable (Equity Share) Period:

<u>Project Funding from TIF</u>	<u>Term</u>
\$2,000.00 - \$5,000.00	One year term
\$5,000.01 - \$10,000.00	Two year term
\$10,000.01 - \$15,000.00	Three year term
\$15,000.01 - \$20,000.00	Four year term
\$20,000.01 - \$25,000.00	Five year term

General Eligibility Items

1. Property must be located within boundaries of TIF#1 District *(see attached map)*.
2. The applicant must be the owner of the property for which the rehabilitation loan is sought or occupant of property with written consent of Owner to participate in the program; proof of ownership will be required. (as recorded in the Tazewell County Recorder's office).
3. Subject structure must have at least the entire ground level floor space devoted to commercial use.
4. The applicant shall not have any judgments or open collections. The applicant shall not have any pending court cases with the City of Pekin or have had any code or housing violations within the last twelve months, or be delinquent on any monies owed to the City of Pekin. The property must be current on any and all tax and mortgage payments and must also comply with all applicable City codes.
5. The applicant must demonstrate the ability to finance his/her portion of the rehabilitation. If financing is not required, then the grantee must show proof of verification of deposits acceptable to the City.
6. All applicants will be required to disclose any Conflict of Interest relationship in writing.
7. All applicants must provide a business plan with cost estimates, and business revenue projections for the improvements of commercial retail use projects acceptable to the City.
8. All applicants are required to have a building assessment by a structural engineer. This completed building assessment is to be submitted with the commercial retail/upper story loft application. Costs for building assessment are an eligible project expense cost and 100% refundable.

TERMS AND CONDITIONS FOR FORGIVABLE LOANS¹

A. The loan will consist of:

1. No monthly payments of principal and interest on the deferred/forgivable loan, secured by a lien on the property.
2. TIF Equity Share. The owner will be responsible for repaying the pro-rata share of the grant amount to the Pekin TIF I fund, if the property changes ownership, or a change in building use to non commercial on ground floor, during the forgivable loan period. The equity repayment shall be determined as follows:

<u>Year</u>	<u>Repayment(Percent of Grant Amount)</u>
One	100%
Two	80%
Three	60%
Four	40%
Five	20%

Years Six and After

0%

3. The repayment term is defined as follows.
 - i. Term begins on date of application approval by City Council.
 - ii. Term ends on the date of recording for deeds or the date of signature by both parties for contracts for deed as a result in change of ownership or date of change in building use to non commercial on ground floor.
4. Loan processing costs will be considered as a part of the total project costs. All loans require evidence of title, credit reports, and recorded mortgages.
5. The forgivable period begins on the date of the loan closing.
6. A first or second lien position is preferred. At the discretion of the review committee and in consultation with the TIF Administrator, and based on the program's acceptable risk underwriting standards, a third lien position may be approved.
7. Property and improvements must be reasonably maintained for 5 years following the completion of the project.
8. A release deed will be provided, upon request from the owner, after the term is fulfilled.

Pre Project Requirements

1. Conduct building assessment by a structural engineer then schedule and conduct code inspections on the subject dwelling; terminate project if structure is dilapidated and therefore infeasible for rehabilitation.
2. Review the list of deficiencies including code violations, general improvements and a preliminary cost estimate.
3. Assess and define areas to be rehabilitated.
4. Review the estimates and/or bid specifications to qualified contractors for a minimum of 2 required bids for loan program.
5. Conduct pre-construction conference with City Code Enforcement, Fire Department, TIF Administrator and Pekin Main Street Director to review contractor bids, project costs and overall plan.
6. Owner/Applicant to complete and submit loan program application to City TIF Administrator at 111 S. Capitol Street, Pekin, IL 61554.

Fire Code Requirements (Loan eligible requirements)

1. 2 code required exits for egress / exit.
2. City of Pekin Fire Dept. to review the blue print of proposed buildings for fire code requirements.
3. Code required fire alarms
4. Code required knock box entry system
5. Lighted exit signs in use for stairwells that exit the main corridor of the building
6. Back flow preventer for the fire sprinkler system.

Project Management to be conducted by City of Pekin Code Enforcement

1. Receive building assessment report from building owner/applicant
2. Inspect rehabilitation work on a regular basis to see that all work is progressing satisfactorily and to monitor the quality of materials and workmanship.
3. Make final inspection of rehabilitation work to insure conformance with contract specifications. Complete Certificate of Final Inspection when appropriate.
4. Make follow-up inspections of rehabilitation work as needed.

Reimbursement for Completed Rehabilitation

1. Submit final invoices showing balance of completed work
2. Provide proof of payment in the form of receipts/copies of checks
3. Final reimbursement will be issued within three (3) weeks of receipt of completed proof of payment. The borrower is expected to pay the contractors. Upon City Council's approval, the City TIF Administrator will issue a reimbursement to the owner/applicant for half of the amount approved upfront, if requested, with the remainder to be paid upon completion of the project and certification of that.

Additional Incentives:

For properties with-in the Enterprise Zone / TIF boundaries, Permit Fee's are waved and taxes are exempt on building materials purchased within the State of Illinois. Project costs must exceed \$25,000 to qualify, and an Enterprise Zone application must be submitted and approved before work and purchases begin. See Exhibit A map for the Enterprise Zone area's within the TIF.

Contact the Economic Development Department, 309-477-2300, for more information.



Pekin TIF/Enterprise Shared Zone Exhibit A

Legend

- Shared TIF and Enterprise
- TIF Zone
- Enterprise Zone
- parcels



