



Nelson WWTP Complex Pilot Infiltration/Inflow Rehabilitation

Project Specific FAQ – November 2010

Construction Types and Activities

- 1. What type of work will be done?** Construction activities on this project will include repair of existing sanitary sewer mains and building service lines to reduce or eliminate the infiltration and inflow (I/I) which is entering the sewer system through cracks and other pipe defects. The sanitary sewer system will be repaired using numerous construction technologies, including excavation and trenchless (no dig) technologies. Additionally, I/I sources on private property (such as storm sump pumps connected to the sanitary sewer and area drains connected to the sanitary sewer), found during the building inspection program, will be removed as part of this project.
- 2. What type of trenchless technologies will be used on this project?** Trenchless technologies are used to repair sewer lines while minimizing the need for open cut excavation which can be much more disruptive to the community. At this time, two types of trenchless technologies are planned for implementation in this project: *pipe bursting* and *cured-in-place pipe (CIPP) lining*.
 - *Pipe bursting* is a method of sewer replacement where a new pipe is pulled into the old pipe after the old pipe is burst larger by a machine. The service lines are then reconnected via open cut excavation.
 - *CIPP lining* is a method of pipe rehabilitation in which a resin cloth liner is installed into a sewer through an existing manhole. The resin in the cloth tube is then cured (hardened) using steam or hot water. The service lines are then reconnected using a remotely operated cutter that is placed in the main sewer.Both of these technologies are appropriate only in specific locations, meaning open cut installation of new sewer lines is still necessary in many cases. Trenchless technologies will be used to minimize disruption to the affected property owners where possible.

3. Explain the rehabilitation strategy areas shown on the Pilot I/I map.

Control – No repair work will be performed. This area will be flow monitored only and the results used to help evaluate results in the other strategy areas. The flow monitoring work will not impact private property.

Everything – All sanitary sewer main lines and manholes will be repaired. All identified building inflow sources/defects will be removed. All building service lines will be repaired.

Public Only – All sanitary sewer main lines and manholes will be repaired.

Private Only – All identified building inflow sources/defects will be removed. All building service lines will be repaired.

Typical Comprehensive – Repair defects that have been typically included in JCW sanitary sewer repair projects in sanitary sewer main lines and manholes. Remove all identified building inflow sources/defects.

Typical Comprehensive + LL (lower lateral) – Repair defects that have been typically included in JCW sanitary sewer repair projects in sanitary sewer mains and manholes. Remove all identified building inflow sources/defects. Repair the lower portion of all private service lines (LL = “lower laterals”).

4. What is considered to be the lower portion of the service line (lower lateral)? The lower lateral is defined as the portion of the lateral (service line) generally from the mainline connection to the property line.

5. In the strategy area labeled “Everything,” will all of the pipes be dug up? In the “Everything” area, all pipes will be repaired; however, they will not all necessarily be dug up. When possible, trenchless, or no-dig, rehabilitation methods will be used to minimize disruption. However, open cut excavation will be required in some instances.

6. What will happen on properties where access will be tough, such as in the backyards? The Construction Access Exhibits that will be sent directly to property owners where work will be performed will show where the construction work will occur and how the

construction crews will access the work area. If you have any concerns or questions related to the proposed limits of construction and access to the work shown on the exhibit, please contact the I/I Hotline at (913) 577-8490.

General Information

7. Why was this area selected for the pilot project?

The pilot I/I study areas were selected because flow monitoring indicated that I/I sources that can be repaired are likely to exist in these areas. There are other areas that show similar characteristics but it was the goal of JCW to test removal methods in a smaller pilot area. The selected pilot I/I areas are also on the perimeter of the service area, which allows for better flow monitoring of the area. In addition to these two factors, these areas have typical residential development that is representative of the larger service area where these pilot areas are located.

8. Why is this work necessary if it was done back in the 1980's and 1990's?

Although the work in the 1980's and 1990's resulted in significant improvement, in the subsequent years the system has continued to deteriorate and recent wet weather events have resulted in system overflows and basement backups. System repairs are never a one-time event and will occur at intervals throughout the life of the system. There are property owners whose basements have flooded and the sewer system has overflowed during significant wet weather storm events in recent years. This project will help identify the most cost effective approach to reducing or eliminating these problems. Additionally, EPA has requested that JCW gather additional information to share with them as they evaluate changes to wet weather permitting requirements.

Impact on Private Property

- 9. Will our property be affected, and if so, how?** Johnson County Wastewater (JCW) has prepared a website for this project at www.jcw.org/eng-i&istudy.htm. This website includes an improvements map that shows which sanitary sewers are included in this project and identifies the various rehabilitation strategy areas. By finding your property

on the map and reviewing the rehabilitation strategies for each area, you can determine what type of work is scheduled for your property. In addition, if your property will be directly affected by this project, you will receive additional correspondence from JCW which identifies specifically what work will be performed on your property. This correspondence will be delivered during winter 2010/2011 prior to a second public meeting (tentatively scheduled for February 2011) and will include a letter explaining the planned work, a Construction Access Exhibit showing the planned work, and agreements (if applicable) for allowing JCW to remove the building and inflow sources and / or to repair the private service lines. At that time, there will be another opportunity for you to voice any concerns regarding the work on your property and to notify us of other considerations, e.g., existing underground sprinkler systems, future house additions, etc.

10. Will this work affect any future property plans I have, such as a new house addition?

Except in a few cases where the sanitary sewer may be slightly realigned, this construction will occur within existing easements where the existing sanitary sewer is located. Since there will be very few new permanent easements required for this project, future property plans should not be affected. If you have any specific property plans that you believe may be affected by this project, please contact the I/I Hotline (913) 577-8490.

11. Will roads or access to our homes (driveways) be blocked? Temporary street closings may be necessary during construction. The Contractor will be required to minimize traffic delays as much as is practical and will be required to have all roads open at the end of each day. If any part of a driveway must be removed for construction, at a minimum, temporary vehicular access will be made available at the end of each work day.

12. Will I be without sewer service? If your sewer service will be affected by construction, the Contractor will notify you well in advance. The Contractor will be required to reinstate your sanitary service by the end of each work day.

13. Will this work affect my water service? Construction will not affect drinking water service.

14. Will trees be removed during construction? Due to the nature of the work, some trees will have to be removed in order to repair or replace the sanitary sewer. This is done to

allow for construction of the sewer, and also to minimize the opportunity for tree roots to penetrate the sewer. Tree roots that grow into sewer lines can cause a reduction of the carrying capacity of the sewer or potentially cause a full blockage of the pipe that could lead to an overflow of the sewer system at that location. Typically, trees that are required to be removed in order to complete the project construction are replaced with a small diameter tree planted outside the permanent sewer easement.

- 15. My property is served by a septic tank; do I have to connect to the sanitary sewer now?**
No.
- 16. Does my service line have to be dug up to be repaired?** It depends. The preferred method of repairing service lines will be to utilize trenchless (no dig) technologies that do not require excavating the entire pipe. If the service line is badly deteriorated, it is recommended that complete replacement be performed which will require digging.
- 17. I have flags in my yard. What are they for and can I remove them?** The flags were used to identify the location of the service line and/or existing utilities. You may remove them.
- 18. In general, where there is disruption during construction, will things be replaced after construction is complete?** Yes, please refer to the **Restoration FAQ** for additional comments.

Funding

- 19. Who is paying for this work; how is the project funded? Will my rates be affected?** This project is being funded through Johnson County Wastewater's system-wide capital fund. Although individual homeowners are not directly responsible for the costs of these types of projects, the costs are reflected in the rates that all JCW customers pay for sanitary sewer service.
- 20. Who is required to pay for service line repairs?** Upon approval of construction phase funds by the Board of County Commissioners, JCW will pay for service line repairs made as part of this pilot project. If the Board does not approve the construction phase funding, the project will not move forward.

- 21. Who is required to pay for building source removal?** Upon approval of construction phase funds by the Board of County Commissioners, JCW will pay for these source removals as part of this pilot project. If the Board does not approve the construction phase funding, the project will not move forward. Since these types of sources are not allowed, the homeowner will be required to remove these sources at a future date with JCW reimbursement dependent on Board authorization which is not guaranteed.
- 22. If I decline to have an inspection, will I have to pay for an inspection in the future?** Mandatory inspections may be needed in the future to remove I/I from the sanitary sewer system. We could only speculate at this time who will pay for inspection and repair in the future, but it should be noted that in the past, inspections have been paid for by JCW.
- 23. What if my service line is inspected and there is a problem? Will JCW's project take care of fixing the problem? If a problem is found during a building or service line inspection, who will pay for it?** If service line defects are discovered and the property is located in an area where the pilot project will repair service line defects, JCW will pay for the repairs if the project receives funding approval from the Board of County Commissioners. If a property is located outside of the areas where service line repairs are planned and a severe defect is identified during an inspection, the property owner will be notified by JCW of the defect. It will be up to the individual property owner to decide if they would like to have their private service line repaired. This repair would be independent of JCW's project and at the property owner's expense.
- 24. What plan does the County have for helping properties outside of the pilot area? After this pilot study is completed, will the County come back into areas where things were not repaired and then do that work?** The purpose of the Pilot I/I project is to provide the information needed to guide future JCW plans. Therefore, until the pilot project is complete, future plans are unknown.

Schedule

- 25. When will construction work begin?** Design work began in August 2010 and is anticipated to continue through spring 2011. Tentatively, it is planned to initiate construction in summer 2011. Completion of construction is anticipated by autumn 2012.
- 26. What are the Contractor's work hours?** Construction will be limited to the hours between 7:00 am and 6:00 pm, Monday through Friday unless otherwise approved by JCW.

Communication

- 27. Will I be notified prior to construction?** The Contractor will notify property owners where work will be performed at least 14 days prior to construction. In addition, before construction begins, JCW will conduct a public meeting for residents with the Engineer and Contractor present to answer questions. An updated project schedule will also be maintained on the project website at www.jcw.org/eng-i&istudy.htm during construction.
- 28. Who will the engineer and contractor be?** JCW has contracted with three local engineering teams to perform the design phase services; CH2M HILL, GBA, and Black & Veatch/TREKK. See the main project page for contact information (www.jcw.org/eng-i&istudy.htm). The Contractor will be selected after the final design is complete through a competitive bidding process in compliance with the Purchasing Policies of Johnson County.
- 29. Where can I get the Request for Information form?** The Request for Information form is available on the project website and by contacting the I/I Hotline (913) 577-8490.
- 30. Is JCW mailing out the exhibits to each property owner?**
- Construction Access Exhibits are currently being produced that indicate the work that is proposed for each property. Those exhibits will be mailed in December 2010/January 2011. If your property is not directly impacted by the work, you will not receive a Construction Access Exhibit.

Inspections

- 31. If I had an inspection in 2009, do I need another?** No. If you had a building inspection and service line inspection in 2009, then we have the information we need. If you don't recall whether you had an inspection, please request an inspection by contacting the I/I Hotline 913-577-8490 and we'll check our list before calling for an inspection appointment.
- 32. Property owners did not hear anything about the results of the building and service line inspections. How do they find out the results at their property?** If you did not receive the results from your inspections, please contact the I/I Hotline (913) 577-8490.
- 33. If there was smoke coming from my vent during the inspection does that mean everything at my house is OK? Why was there smoke that filled my house last year?** Smoke from the vent (outside the house) is normal, and should have occurred at every house during smoke testing of the sewer system. Smoke from the vent does not indicate whether there are, or are not, defects in the building plumbing that need to be corrected. On the other hand, if there were any dry plumbing traps or defective plumbing in your home during the smoke testing, smoke may have gotten into your home. This is an indication that you may have a leak in your interior plumbing and the defective plumbing should be tested and corrected by a qualified plumber. Plumbing traps should be kept wet when not in use to prevent sewer odors from entering homes. Simply pouring water in any unused or infrequently used drains (i.e. basement drains) should correct this problem.
- 34. I just moved into my house within the last year, how do I find out if my property has been inspected or find out the results of that inspection?** Please request an inspection by contacting the I/I Hotline (913) 577-8490. Before scheduling an inspection with you, we will check our list of completed inspections. If your building has been inspected, we will call back and let you know that the inspection has already been completed and provide you with the inspection results. If an inspection has not been completed, we will call to schedule an inspection.

- 35. I had my sump pump disconnected in the 1980's. Will my property still need to be inspected?** We would like to inspect all properties even if the property owner does not suspect that there are defects. The service line inspection was not performed in the 1980s. Additionally, I/I sources may have been missed and we've found that some sources may have been reconnected. If we find that there are no I/I sources on a property, this is also valuable information as it allows us to more accurately refine our I/I projections.
- 36. What will the building and service line inspection results tell the property owner?** The inspections reveal the condition of the service line and whether or not there are I/I sources connected to the sanitary sewer.

Sewer Backups, Stormwater and Runoff

- 37. Has JCW discussed the issue of where the stormwater kept out of the sanitary system goes with the City? Is there any intent for the County to connect stormwater sources directly to the storm sewers?** JCW is only responsible for the wastewater infrastructure and the City is responsible for the stormwater infrastructure. JCW is meeting with the City to discuss stormwater runoff-related impacts, including how and where the stormwater is rerouted when I/I sources are disconnected from the JCW sewer system.
- The intent of the I/I source removal is to keep stormwater out of the sanitary sewer and at the surface of the ground. The stormwater kept out of the sanitary sewer systems will runoff with the rest of the rainfall and is only a very small percentage of the total runoff.
- 38. If my sump pump is disconnected, will the water be discharged on the surface where it will cause a nuisance? There are areas within the pilot area where there are springs under the houses; these properties send the water collected in the sump pump to the street, which causes nuisance issues. What should you do with this water?** Sump pump discharges will be routed to the yards according to local code. We will be meeting with each individual property owner to discuss specifics to minimize potential nuisance situations.

- 39. What can be done for properties that already have problems with backups and may or may not be in this area?** If you are experiencing backups, please submit a questionnaire through JCW's Backup Prevention Program (BUPP). More information is available at: <http://www.jcw.org/engbupp.htm#Questionnaire>. You may also contact JCW's BUPP Coordinator at (913) 715-8554 for more information.
- 40. Is the County looking at overall sustainability for keeping stormwater out of the sanitary sewer system, such as rain gardens?** Sustainable solutions are part of every project JCW undertakes. Rain gardens have been used for control of stormwater runoff, however they are not a solution for I/I removal.