

Capacity Assurance Program: Frequently Asked Questions

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About the Capacity Assurance Program

1. What is the Capacity Assurance Program?

The Capacity Assurance Program (CAP) is a program to review all new sewer service connections and increased wastewater flow. This review follows specific criteria to

determine if the City's wastewater system has sufficient capacity to accept new connections and increased flows.

The CAP is a part of the City's comprehensive program to reduce and prevent sanitary sewer overflows. The City is required to implement a CAP that meets federal and state approval.

2. What projects will be reviewed?

Any new sewer service connections or proposed increased wastewater flow are subject to the CAP review.

3. What triggers result in a capacity limitation for an area?

There are two main triggers that could result in an area being flagged as capacity limited.

1. If an area has experienced repeated capacity-related sanitary sewer overflows (SSOs) in the past 12 months. Capacity-related SSOs might be caused by:

- Heavy rains and wet-weather flows
- Undersized pumps
- Undersized pipes
- Other events that might cause increased peak flow.

They do not include SSOs from:

- Equipment failures
- Mechanical failures
- Unanticipated industrial discharges
- Other errors

2. If a desktop analysis or hydraulic model (see below) determine any proposed additional flows are likely to cause an SSO. This analysis determines:

- If there is room in the pipe to hold the additional proposed flow
- If existing pump stations can move the extra volume quickly enough to keep room in the pipe
- If the wastewater treatment plant can handle the additional proposed flow
- If the system is also capable of handling the additional proposed peak flow
- If there are any other known potential capacity issues downstream.

This analysis is done for all projects over 4,000 gallons per day even if there have not been any recent SSOs.

4. Does a capacity limitation mean development has to stop?

No! Depending on the area, the City may have capacity enhancing projects underway that, once completed, will add capacity to the area in question.

If an area does not already have a capacity enhancing project planned or underway, the City will determine if upgrades to the system would allow for the proposed project.

Once an area has been upgraded, projects will be re-evaluated based on the new conditions and approved if CAP requirements are met.

5. Do capacity enhancing projects really ease capacity limitations?

Yes! Recently, the Burnside Gravity Sewer Main Project (SS7076) was completed in southeast Columbia. The project included adding over 3 miles of 30" gravity sewer to the system and removing a problematic pump station from service. Once completed, capacity limitations were eased in the area.

6. What is the City planning to do about current areas with capacity limitations?

As part of its Capital Improvement Program, the City regularly identifies projects that could improve sewer capacity. The City has completed numerous projects that have avoided many capacity limitations within the system, including upgrading all of its major sewer pump stations, rehabilitating a major sewer outfall, and upgrading capacity at the wastewater treatment plant.

The Crane Creek Basin located northeast of Columbia is known to have capacity limitations. A project to replace almost a mile and a half of 36" pipe with 48" pipe is entering its final phases. Part of the project includes installing a temporary by-pass which will provide capacity relief before the permanent line is completed. Under the current project timeline, this by-pass is expected to be in service by Fall 2015 to ease capacity limitations in the area.

About Project Review

7. I have heard about the Pre-CAP review. When should new projects undergo Pre-CAP review?

The City offers an optional Pre-CAP review for anyone who has a project they are considering submitting in the future. The City will then determine if current sewer service in the area is capable of handling the project. While the assessment is non-binding for either the City or the developer—meaning if conditions change, final

approval may change—the Pre-CAP Analysis can be a useful tool in helping local developers better plan their investments.

The City recommends every project be submitted for Pre-CAP review before the property owner or developer makes a significant investment in the project.

8. How early can I submit my project for Pre-CAP review?

A project can be submitted for Pre-CAP review at any time. If you are considering purchasing a property for development or developing a property you already own, the City recommends you contact us for a Pre-CAP review.

The City recommends every project be submitted for Pre-CAP review before the property owner or developer makes a significant investment in the project.

9. I submitted a project and received a "Denial" or "Revise and Resubmit" letter. What does this mean?

Projects that do not meet federal, state or local regulations or standards will be denied before capacity is even considered. If you received a denial, the letter should identify any issues with the proposed project and a corrective action plan. Denied projects may be revised and resubmitted.

10. I submitted a project and received a letter stating a capacity enhancement project would have to be completed before the system could handle my proposed flows. What does this mean?

Depending on the area, the City may have capacity enhancing projects underway that, once completed, will add capacity to the area in question.

If an area does not already have a capacity enhancing project planned or underway, the City will determine if upgrades to the system would allow for the proposed project.

Once an area has been upgraded, projects will be re-evaluated based on the new conditions and approved if CAP requirements are met.

11. Will the City authorize taps on projects for which a valid and unexpired wastewater construction permit has been issued, but the taps have not yet been purchased?

The City will authorize the purchase of taps for any project for which a valid wastewater construction permit was issued prior to the U.S. District Court's approval of the Consent Decree with EPA and DHEC on May 21, 2014, as long as that permit has not yet expired.

More Information

12. I'd like to know more about this hydraulic model. When does the City use it to determine if there are capacity issues?

The City is currently in the process of developing a hydraulic model for the entire system. Portions of the model have already been developed and may be used to examine projects. This model will be continually improved as the City gathers more system data.

13. I'd like to request a CAP review, a Pre-CAP review, or get more information on this program.

For more information on the CAP program or to request a review of your project, contact us at 545-3400.