

## **WATER AND WASTEWATER CAPACITY, FUNDING and SERVICE CONNECTION AND EXTENSION SUMMARY**

The City of Hot Springs (CHS) has implemented a policy regarding water and wastewater approvals for service connections and extensions in an effort to maintain and meet current obligations of the Utility department. CHS is faced with major financial investments in both water and wastewater systems over the next few years. Making matters worse is the fact that both issues must be addressed in the same time frame. There are several goals and objectives that will need to be met during this time. CHS must meet the requirements of the Environmental Protection Agency (EPA) Consent Administrative Order (CAO), establish a second dependable long term water source, establish the method of funding for the improvements, and reserve capacity for current users, current obligations and meet the strategic goal of infill development within the CHS. *It is important to note that the current users and obligations include both city and county citizens and projects. In fact, there are more meters served outside the city limits than within.*

The CHS has been working diligently on meeting the requirements of the EPA CAO and securing a second water supply from either Lake Ouachita or Lake DeGray. Neither of these will likely be resolved prior to 2017/2018. During this time, the CHS Utilities department intends to meet current obligations for utility connections for projects located inside and outside the city limits. However, future obligations outside the city's boundary are not being made at this time.

Specifically, this means that water and wastewater services extensions and connections will continue as usual for the following:

1. **NEW OWNER OCCUPIED HOMES.** Proposed single family, owner occupied homes, whether inside or outside the city limits, where an existing water or wastewater main exists at the property and there is adequate pressure or capacity.
2. **NEW BUSINESSES.** Proposed new businesses inside the city limits where an existing water or wastewater main exists at the property and there is adequate pressure or capacity. A main extension may be approved if paid by the developer, designed by a licensed professional engineer, and installed according to city standards.
3. **NEW CITY SUBDIVISIONS.** Proposed new subdivisions inside the city limits provided that they are first approved by the Planning Commission and CHS Utilities, the developer pays for the new facilities, they meet city standards and specifications, and a final plat is properly recorded.
4. **VACANT LOTS IN EXISTING SUBDIVISIONS.** Lots in existing subdivisions inside or outside the city limits when the subdivision was properly approved by the Planning Commission and CHS Utilities, when the developer paid for the new facilities and they were installed in accordance with city standards and specifications, and when a final plat was properly recorded.
5. **SUBDIVISIONS IN PROGRESS.** When a subdivision inside or outside the city limits has been properly approved by the Planning Commission and CHS Utilities, then that subdivision may proceed to completion and commitments made for connections for water and sewer services will be honored, conditioned upon the following: that the developer will pay for the new facilities, all improvements shall be installed in

accordance with city standards and specifications, and that a final plat will be properly recorded. Further provided that the subdivision is completed within two years of Planning Commission approval. However, if a phased subdivision received approval of all phases in one submission as specified above, and if work on the phases of that subdivision has continued uninterrupted, then the prior approval of all phases will be honored.

6. MAIN EXTENSIONS FOR OWNER OCCUPIED HOMES. If a main extension is required along a city street to reach the property line of a proposed owner occupied single family home within the city limits, then that main extension will be allowed when the owner pays all the costs of the extension, when the extension is designed by a registered engineer, when there is adequate pressure or capacity, and when the extension is installed in accordance with city standards and specifications.
7. ROYAL WATER SYSTEM. The CHS will honor the agreement to provide water connections in the Royal water system when those connections can be made to existing water mains. Generally, wastewater service is not available in the Royal water district because it is so remote from the existing CHS Wastewater system.
8. SEWER IMPROVEMENT DISTRICTS. There are four active sewer improvement districts: White Oak, Red Oak, Hwy 70 West, and Little Mazarn Sewer Improvement Districts. The CHS will honor the agreement to accept wastewater connections in these wastewater districts when those connections can be made to existing wastewater mains.

In order to reserve capacity for the above, water and wastewater extensions will not be approved for other projects until funding and capacity issues are resolved.

Specifically, water and wastewater extensions will not be approved for the following:

- New subdivisions or developments outside the city limits.
- Extension of mains outside the city limits to serve single homes or businesses.

Sprinkler meters will be allowed within the city limits. They will also be allowed outside the city limits if a lot or property already has a sprinkler tap or service, or if a previously approved subdivision or development is currently under construction, provided that the Planning Commission approval for that subdivision or development has not expired. If no sprinkler tap or service exists, and none of the above conditions apply, then a new sprinkler connection will not be approved. Data shows that an average of approximately 4 million gallons per day (mgd) of water capacity is used each summer month for irrigation. This is 20 to 25% of the summer water use. Conservation plans typically target the reduction of irrigation as a first level conservation strategy.

Below is additional information regarding the CHS Utility Water and Wastewater systems, as well as excerpts from the CHS Strategic Plan.

### **CHS UTILITY WATER SYSTEM**

#### **WATER SYSTEM CONSTRAINTS**

The water system will require a new source, intake, raw water transmission mains, treatment plant, and connecting mains to the existing system. Repair and replacement of old leaking mains is also required during this time.

#### **WATER USE IS APPROACHING PRODUCTION CAPACITY**

Current Maximum Day Production Capacity is 25 mgd.

2012 Maximum Day Consumption was 23.2 mgd, which is 93% of capacity.

Arkansas Health Department "New Source" Capacity Guideline is 80% of Max, which is 20 mgd. CHS currently exceeds the Health Department "New Source" Guideline.

Until a source of additional water supply is built and operating, the CHS must examine carefully proposals for the addition of new water users.

#### UPPER LAKE HAMILTON PLANT CAN NOT BE SOLE SOURCE

Lake Hamilton is owned by Entergy. Hot Springs uses that water through an agreement granted by Entergy. Entergy has limited the CHS withdrawal of water from the Upper Lake Hamilton site until the CHS can demonstrate that they have another source of water supply.

It is hoped that once an alternate water source has been identified and when substantial progress toward implementing that source has occurred, that Entergy might allow additional withdrawal of water from Upper Lake Hamilton. With that in mind, the CHS has implemented a study to evaluate the existing Upper Lake Hamilton Water Treatment Plant to hopefully find cost effective ways to increase the capacity of that plant.

Turbidity is also an issue at the current intake site. Excessive rainfall upstream from the CHS intake on Upper Lake Hamilton creates turbidity issues in the production process. Turbidity is a measurement of the amount of sedimentation in our water samples, which has to be filtered in order to be used in the production of potable water. During these events, turbidity issues greatly reduce the ability to produce water. In other words, Upper Lake Hamilton cannot be the sole source of water for the CHS.

#### LAKE OUACHITA WATER SOURCE

Currently the CHS, through collaboration with the Mid Arkansas Water Alliance (MAWA), has requested that up to 50,000 acre feet of water from Lake Ouachita (about 30 mgd) be reallocated from Power Generation use to Water Supply use. The Corps of Engineers (COE) has begun a study of this request and the cost to be paid for lost benefits of power generation. The study is expected to take two years, that is until about March, 2015. Until that study is completed the CHS cannot say that Lake Ouachita can be their next source of water.

Additionally, once the study affirms that the CHS can withdraw water from Lake Ouachita, then a formal agreement between the COE, MAWA, and the CHS must be completed. A real estate lease agreement with COE and an easement agreement with the Ouachita National Forest must also be completed. The estimated time required for these agreements, studies and the design, permitting, and construction of the water intake, water distribution main, and the new water treatment plant is about five years (2018).

The preliminary estimate for the Lake Ouachita water supply project, including intake, pipelines, and treatment plant, is approximately \$70 million. Funding sources for this water investment must be studied and implemented before construction can begin.

#### LAKE DEGRAY WATER SOURCE

Currently Central Arkansas Water (CAW) has rights to an allocation of 120 mgd of water from Lake DeGray. It is already designated for municipal water supply use. CAW has verbally agreed to sell CHS 20 mgd of that allocation. They have also agreed verbally to contribute to the cost of obtaining the intake site and a portion of the water main right of way. The preliminary cost estimate for the DeGray water intake, pipeline, and water treatment plant is about \$60 million, plus the cost of obtaining the water from CAW.

After completion of a formal agreement between the CAW and the CHS, a real estate lease agreement with COE must also be completed. The estimated time required for these agreements, studies and the design, permitting, and construction of the water intake, water distribution main, and the new water treatment plant is about four years (2017).

Funding for the new water capacity is not built into the current rates and fees. The source of new funding has not been established, but a system of rate increases, user fees, and development fees need to be evaluated.

#### CONSERVATION AND MANAGEMENT OF EXISTING WATER SUPPLY

During the four or five year period of obtaining additional water capacity, the CHS is diligently working to maximize the capacity currently available. Reducing system leaks is a critical part of that management plan. The city has planned to spend over \$7 million in the 2012 to 2016 period to replace leaking water mains.

The CHS also plans to implement a water conservation policy and strategy to minimize peak demands in the summer months.

#### **CHS UTILITY WASTEWATER SYSTEM**

##### WASTEWATER SYSTEM CONSTRAINTS

##### CONSENT ADMINISTRATIVE ORDER

In 2009, the CHS was placed under a CAO issued by the EPA. This CAO requires the elimination of Sanitary Sewer Overflows (SSO's). Our wastewater system has overflows because connections were made to the system without adequate upsizing of the core trunk mains that carry the wastewater through the city.

These trunk or core pipelines and the necessary pump stations convey the wastewater from Highway 270 West, Hwy 70 West, and Hwy 7 South, all the way through the city to the wastewater treatment facility on Davidson Drive on the extreme eastern side of the city. Although new mains were added to the outlying edges of the service area, the capacity of the core pipeline was not increased. Furthermore, maintenance and replacement of pipelines, pumps, and treatment components has not been adequately funded in previous years. This means the CHS is behind and has to catch up to reach an acceptable operating level. It also means that funding must be kept in place to prevent this from happening again.

The current estimate from our consultants is that the cost for repairs needed to comply with the CAO is more than \$100 million.

##### DRY WEATHER SSO's and the 2009 CAO BOND ISSUE

The first benchmark in the CAO was that all dry weather SSO's be eliminated by December 31, 2011. In order to meet that deadline, the city passed a \$26 Million bond issue in 2009. Over the past four years, the first EPA deadline was met, but it required all of the Bond issue funding. That bond fund is depleted.

##### WET WEATHER SSO's and a NEW BOND ISSUE

The second benchmark of the EPA CAO was that all wet weather SSO's be eliminated by December, 2017. City staff and consultants have been working to develop the strategic projects needed to meet that deadline. The current strategy is to ask the city for \$40 million bond issue for those projects. This amount will not fund all the projects needed to meet the 2017 deadline, but it will accomplish enough to show marked progress toward that goal. Further, the targeted projects will make significant changes in the system operations and the SSO study should be re-evaluated at that time to fine tune the most cost effective approach to elimination of remaining SSO's.

Funding for the new wastewater capacity is not built into the current rates and fees. The source of new funding has not been established, but a system of rate increases, user fees, and development fees need to be evaluated.

## **CHS STRATEGIC PLAN**

Mission Statement Item H: Developing a long range strategy to fully develop within the corporate limits of the city.

Strategic Goal Item Numbers:

2.2 The City will extend water and wastewater services to any unserved area within the city limits.

2.7. The City will complete and approve long range plans for its water supply.

2.8. The City will ensure that all state and federal water and wastewater regulations are met.

5.2. The City will establish programs and policies to encourage builders to build in inner city areas.

6. The City of Hot Springs will continue to explore ways to expand its boundaries through annexation. See 6.1 (Promotional Program) , 6.2 (Meeting with Interested Individuals and Groups), and 6.3 (Benefits of Living in the City).

7.3. The City will be actively involved in the recruitment of hotel, restaurants, and retail establishments in order to expand the sales tax base of the city.

9. The City of Hot Springs will develop programs and policies that result in better planning and management of land use around Lake Hamilton. See 9.1 (Comprehensive Plan), 9.2(Working with Garland County), 9.3 (Energy and Health Department), and 9.4 (Stormwater).

11 The City of Hot Springs will continue to place a major emphasis on the redevelopment of downtown Hot Springs so that it will be a center of economic activity.11.2. The City will work closely with building owners to develop more housing in the downtown area.

## ADDENDUM TO POLICY:

WAIVER FOR THE SIX MONTH PERIOD FROM NOVEMBER 1, 2013 UNTIL MAY 1, 2014 FOR RESIDENTIAL SUBDIVISIONS WITH LESS THAN 20 LOTS; AND FOR EXTENSIONS TO RESIDENTIAL PROJECTS AND RESIDENTIAL SPRINKLER METERS; FOR ANY CONFLICTS WITH EXISTING POLICY, THIS ADDENDUM SHALL GOVERN.

### INDIVIDUAL RESIDENCES

For the six month period from November 1, 2013 until May 1, 2014, water and sewer extensions outside the city limits will be considered for residential projects and residential sprinkler meters. These water and sewer extensions must be designed by a licensed professional engineer, approved in writing by the city and the Arkansas Department of Health, and must be installed and accepted by the city on or before May 1, 2015.

### RESIDENTIAL SUBDIVISIONS AND DEVELOPMENTS

Extensions and sprinkler meters will only be allowed for residential subdivisions with less than 20 residential lots or residential developments with less than 20 residential equivalents, and only if such projects comply with the following conditions and criteria.

- The water and wastewater extension plans have been completed by a licensed professional engineer and comply with the City of Hot Springs Water and Wastewater Standards and Specifications for Water and Wastewater Construction.
- The water and wastewater extension plans have been approved in writing by the City and the conditions of approval have been accepted in writing by the developer.
- The water and wastewater extension plans have been approved in writing by the Arkansas Department of Health.
- The plans have been approved in writing by the State Fire Marshall.
- The plans have been approved in writing by the local fire department having jurisdiction.
- The development plan or subdivision preliminary plat has been approved - (approved by the City of Hot Springs Planning Commission if within the Planning Area, or by the County Judge if outside the Planning Area).
- The owner/developer has acknowledged in writing that they understand that the city is reviewing the city impact fee policy that affects fees required with the issuance of a plumbing permit.

For the developments or subdivisions approved for construction pursuant to the criteria herein by May 1, 2014, plumbing permits may be issued for individual lots or home sites if the following conditions were met on or before May 1, 2015.

- The lot or tract for which the plumbing permit is requested shall be a legally platted lot or lot of record. For new subdivisions, the final plat shall be recorded by the developer after it is first approved – (approved by the city if within the Planning Area, or by the County Judge if outside the Planning Area).

- The water and wastewater extensions were completed and the city issued a letter of acceptance for those extensions. Note: A letter of acceptance may be issued only if the project has met the following checklist of requirements:
  - (1) All the required work has been completed. Bonds for incomplete water and wastewater work will not be accepted.
  - (2) As Built Plans have been submitted to the city by the Engineer of Record with a certification that the extensions were installed in compliance with the approved plans and specifications.
  - (3) The water and wastewater pipes and appurtenances have successfully passed hydrostatic pressure and/or vacuum tests.
  - (4) The water mains have successfully passed the sterilization and disinfection tests required by the Arkansas Department of Health.
  - (5) All required easements or right of way documents have been approved by the city and the developer has recorded them in the Garland County Recorder's Office.
  - (6) A 12 month maintenance bond has been delivered to the city.