



State of Louisiana
Louisiana Department of Health
Office of Public Health

September 8, 2017

FINDING OF NO SIGNIFICANT IMPACT

TO ALL INTERESTED AGENCIES AND PUBLIC GROUPS:

In accordance with the National Environmental Policy Act (NEPA), as administered by the Louisiana Department of Health (LDH), Office of Public Health (OPH) in accordance with Act 39 of the 2006 Regular Session of the Louisiana Legislature in connection with the Drinking Water Revolving Loan Fund (DWRLF) program, an environmental review has been performed and a *Finding of No Significant Impact* determined for the proposed action as described below:

CALCASIEU PARISH WATERWORKS DISTRICT #8
“SYSTEM IMPROVEMENT PLAN WITH ENVIRONMENTAL IMPACTS”
PWS Identification Number LA 1019118
Drinking Water Revolving Loan Fund (DWRLF) Project Number 1019118-01
CALCASIEU PARISH, LOUISIANA

BACKGROUND: Calcasieu Parish Waterworks District #8 is located along Interstate 10 just east of the city of Lake Charles, Louisiana, as shown in Figure 1. The District is a publicly-owned, community water system that currently serves a population of approximately 5,556 with 2,431 residential and 31 non-residential/commercial customers. There are also 1,240 inactive connections.

The water system obtains its source water from three (3) groundwater wells located in the Chicot aquifer, two of which were completed in 1986 and the third in 2008. All three wells are approximately 500 feet in depth and are located at the treatment plant site. Raw water quality for all of the existing wells is consistent with that typically seen from the Chicot aquifer. The most notable raw water conditions are iron and manganese concentrations that require the raw water to be filtered. Water treatment consists of injection of a polymer to precipitate the iron and manganese, followed by filtration using six (6) vertical pressure filters, and then injection of orthophosphate as a polishing agent and corrosion inhibitor. Disinfection is provided by gas chlorination.

Water storage facilities include one (1) elevated storage tank and two (2) ground storage tanks with a combined capacity of 1.7 million gallons. The water distribution system consists of PVC water mains ranging in size from 2” to 12”. There is one inline booster station with chlorination in the Hecker area that is used to provide adequate pressure and

chlorine residual for the northeastern most portion of the system.

The water district service area, like much of Calcasieu Parish, is currently experiencing rapid population growth due to the multiple large industrial projects that are currently underway. Growth within the water system has been primarily on the south side of the district where development of two additional subdivisions that will include as many as 935 new service connections is proposed. The proposed developments will result in a need for additional treatment and distribution capacity in the Calcasieu Parish Waterworks District #8 service area.

PURPOSE AND NEED: The purpose of this project is to provide the residents and customers of the water system with a reliable source of quality potable water for consumption. In order to maintain a high standard of compliance and reliability, Calcasieu Parish Waterworks District #8 has identified a number of deficiencies that require corrective action. These include:

1. The inline booster station in the Hecker area is no longer working reliably. This station has only one pump and an antiquated control system. Residents in the northeast portion of the system experience intermittent low pressure and low chlorine residual due to unreliable service from this station.
2. Residents in the southern half of the system may experience low pressure during times of peak demand due to increasing development because the existing water mains are inadequate to serve the growing population. Larger water mains are needed to increase the amount of water that can be conveyed into this area.
3. The well and treatment plant capacity are not adequate for anticipated growth, and the capacity needs to be increased.

PROJECT DESCRIPTION: The proposed project consists of three basic parts:

1. A new booster station will be constructed in Hecker; which will have three booster pumps; the first two will be able to handle both average and peak flows and the third pump will be sized to adequately flush the 6" water mains in the area. New chlorination equipment will include a flow paced injection system designed to provide an adequate chlorine residual downstream of the station. Approximately 0.5 acre of land will be needed for the new pump station.
2. New 8" – 12" distribution lines will be installed to replace existing 6" and smaller lines to increase the volume of water that can be conveyed to the southern portion of the system. The new water mains will be sized to convey peak flow rates in conjunction with the existing piping network that is to remain.
3. Increases in well and treatment plant capacity can be made through optimum use of existing capabilities. Two of the existing wells pumping in parallel can meet the projected maximum daily production by pumping 20.4 hours per day. Flow through the six vertical pressure filters can be increased to the maximum allowable which is sufficient to handle the projected maximum daily production. Even if one of the filters is out of service, the remaining five filters can achieve

the projected maximum daily production by running two wells for 23.4 hours per day. Therefore, no new construction is needed to increase well and treatment capabilities at this time.

DOCUMENTATION COORDINATION AND PUBLIC PARTICIPATION:

Coordination with the appropriate governmental agencies has been made as indicated in the Environmental Information Document (EID) prepared for this proposed project. No adverse environmental comments were issued for the proposed project. A public hearing was held on Friday, June 16, 2017 at 8:30 AM at the Calcasieu Parish Waterworks District #8 office, 6407 Hwy. 3059, Lake Charles, Louisiana. The hearing was advertised on May 15, 2017 in the Lake Charles American Press, a newspaper of general circulation in Lake Charles, Louisiana. Any and all comments offered were addressed. The proposed project will be reviewed by the Louisiana Department of Health to ensure that it complies with the State Sanitary Code for Water Supplies, Louisiana Administrative Code (LAC), Title 51, Chapter 12.

RECOMMENDATIONS: Based upon DWRLF's detailed review of the System Improvement Plan with Environmental Impacts for Calcasieu Parish Waterworks District #8, June 2017, and DWRLF's preparation of an Environmental Assessment (EA), the proposed project is considered to be cost effective and environmentally sound. Therefore, a preliminary decision not to prepare an Environmental Impact Statement (EIS) has been made. Comments supporting or disagreeing with this decision may be submitted for consideration to the following address:

Thomas R. Griggs, P.E.
Drinking Water Revolving Loan Fund
Office of Public Health
Louisiana Department of Health
P.O. Box 4489
Baton Rouge, LA 70821-4489


After evaluating the comments received, DWRLF will make a final decision; however, no administrative action will be taken on this project for at least thirty (30) calendar days after release of this Finding of No Significant Impact.

Sincerely,




Jennifer Wilson,
Office of Public Health
DWRLF, Program Manager

9/8/17
Date



Amanda Laughlin, P.E.
Office of Public Health
Chief Engineer

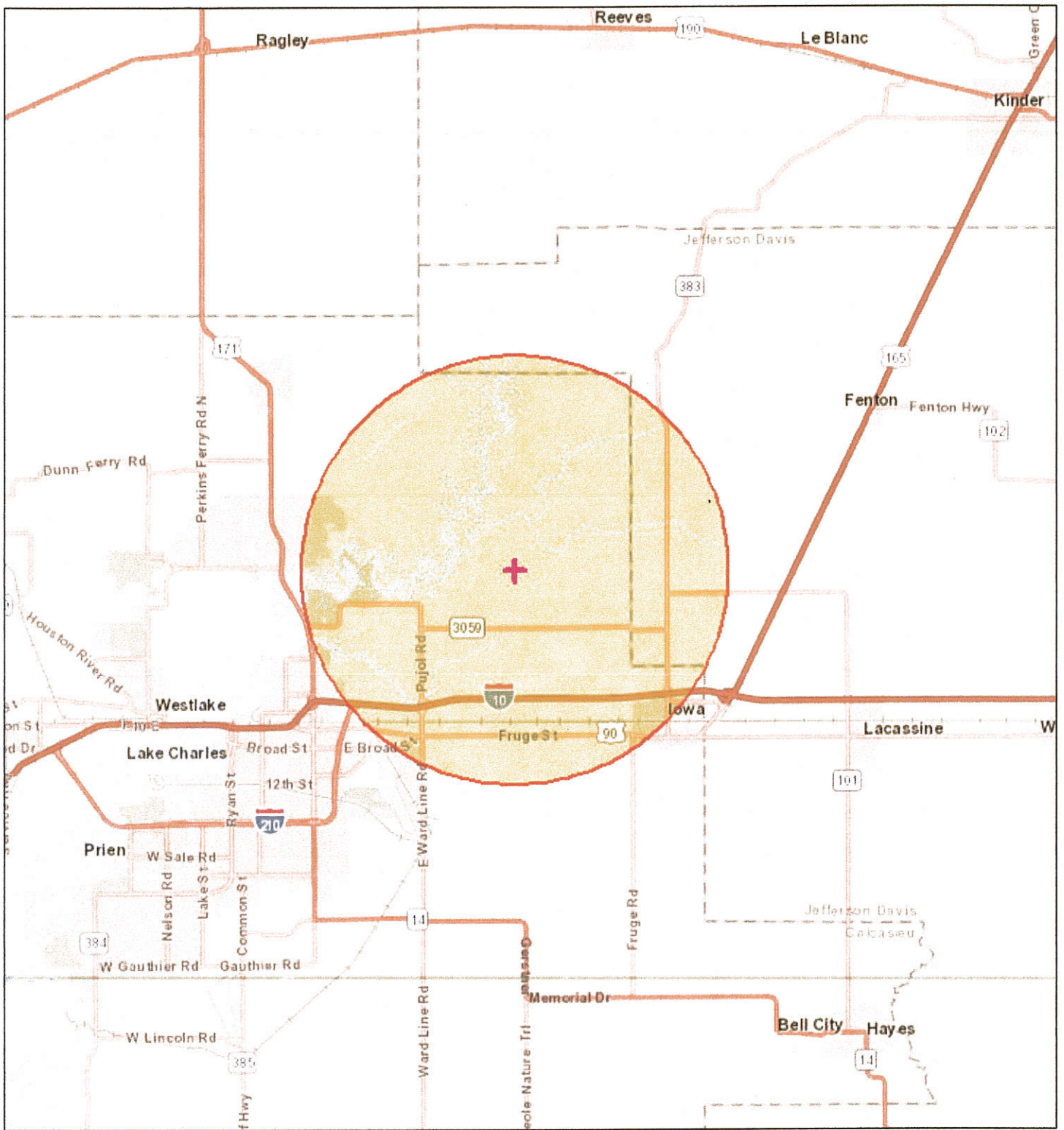
9/12/17
Date



Parham Jaber, MD, MPH
Assistant Secretary
Office of Public Health



9/25/17
Date

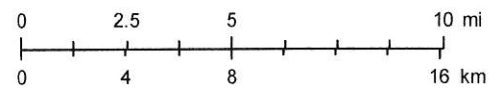
Figure 1



September 6, 2017

1:288,895

-  Buffer Area
-  Digitized Point



Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community



State of Louisiana
Louisiana Department of Health
Office of Public Health

September 8, 2017

ENVIRONMENTAL ASSESSMENT

for

CALCASIEU PARISH WATERWORKS DISTRICT #8

“SYSTEM IMPROVEMENT PLAN WITH ENVIRONMENTAL IMPACTS”

PWS Identification Number LA 1019118

Drinking Water Revolving Loan Fund (DWRLF) Project Number 1019118-01

BACKGROUND: Calcasieu Parish Waterworks District #8 is located along Interstate 10 just east of the city of Lake Charles, Louisiana, as shown in Figure 1. The District is a publicly-owned, community water system that currently serves a population of approximately 5,556 with 2,431 residential and 31 non-residential/commercial customers. There are also 1,240 inactive connections. The water system obtains its source water from three (3) groundwater wells located in the Chicot aquifer, two of which were completed in 1986 and the third in 2008. All three wells are approximately 500 feet in depth and are located at the treatment plant site. Raw water quality for all of the existing wells is consistent with that typically seen from the Chicot aquifer. The most notable raw water conditions are iron and manganese concentrations that require the raw water to be filtered. Water treatment consists of injection of a polymer to precipitate the iron and manganese, followed by filtration using six (6) vertical pressure filters, and then injection of orthophosphate as a polishing agent and corrosion inhibitor. Disinfection is provided by gas chlorination. Water storage facilities include one (1) elevated storage tank and two (2) ground storage tanks with a combined capacity of 1.7 million gallons. The water distribution system consists of PVC water mains ranging in size from 2” to 12”. There is one inline booster station with chlorination in the Hecker area that is used to provide adequate pressure and chlorine residual for the northeastern most portion of the system. The water district service area, like much of Calcasieu Parish, is currently experiencing rapid population growth due to the multiple large industrial projects that are currently underway. Growth within the water system has been primarily on the south side of the district where development of two additional subdivisions that will include as many as 935 new service connections is proposed. The proposed developments will result in a need for additional treatment and distribution capacity in the Calcasieu Parish Waterworks District #8 service area.

PURPOSE AND NEED: The purpose of this project is to provide the residents and customers of the water system with a reliable source of quality potable water for

consumption. In order to maintain a high standard of compliance and reliability, Calcasieu Parish Waterworks District #8 has identified a number of deficiencies that require corrective action. These include:

1. The inline booster station in the Hecker area is no longer working reliably. This station has only one pump and an antiquated control system. Residents in the northeast portion of the system experience intermittent low pressure and low chlorine residual due to unreliable service from this station.
2. Residents in the southern half of the system may experience low pressure during times of peak demand due to increasing development because the existing water mains are inadequate to serve the growing population. Larger water mains are needed to increase the amount of water that can be conveyed into this area.
3. The well and treatment plant capacity are not adequate for anticipated growth, and the capacity needs to be increased.

ALTERNATIVES: Alternatives considered and analyzed for the Water System include:

1. *No Action:* The “No Action” alternative considers the future environment without implementing any of the proposed actions. If the project does not occur the area will continue to suffer from the deficiencies listed above. This alternative was considered ‘not feasible’ as it does not address any of the planning area’s current deficiencies.
2. *Consolidation:* The “Consolidation” alternative considers the possibility of consolidating the Calcasieu Parish Waterworks District #8 with other water systems in the vicinity. Purchasing water from other systems will not correct the problems described above; however, constructing an emergency connection with Calcasieu Parish Waterworks District #5 could provide a backup source of water for both systems and improve system reliability.
3. *Source Water Alternatives:* Surface water is available from the Calcasieu River, but it is less desirable than the current groundwater source. Groundwater of better quality is not known to be available in the area as all nearby wells also use water from the Chicot aquifer and must provide filtration.
4. *Existing System Optimization:* Optimization of the existing system would consist of replacing the inline pressure/chlorine booster station in the Hecker area, replacing water lines to increase the amount of water that can be conveyed to the southern portion of the system, and increasing the filter and well capacities at the water treatment plant. Also, an emergency interconnection with Calcasieu Parish Waterworks District #5 is proposed to further improve reliability of the water supply.

The Preferred Alternative is Alternative 4 – Existing System Optimization

PROJECT DESCRIPTION: The proposed project consists of three basic parts:

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- booster pumps, the first two will be able to handle both average and peak flows and the third pump will be sized to adequately flush the 6" water mains in the area. New chlorination equipment will include a flow paced injection system designed to provide an adequate chlorine residual downstream of the station. Approximately 0.5 acre of land will be needed for the new pump station.
2. New 8" – 12" distribution lines will be installed to replace existing 6" and smaller lines to increase the volume of water that can be conveyed to the southern portion of the system. The new water mains will be sized to convey peak flow rates in conjunction with the existing piping network that is to remain.
 3. Increases in well and treatment plant capacity can be made through optimum use of existing capabilities. Two of the existing wells pumping in parallel can meet the projected maximum daily production by pumping 20.4 hours per day. Flow through the six vertical pressure filters can be increased to the maximum allowable which is sufficient to handle the projected maximum daily production. Even if one of the filters is out of service, the remaining five filters can achieve the projected maximum daily production by running two wells for 23.4 hours per day. Therefore, no new construction is needed to increase well and treatment capabilities at this time.

EXISTING ENVIRONMENTAL SETTINGS: The existing land use for the project area is zoned by the Calcasieu Parish Police Jury as primarily agricultural. The only exceptions are the few existing subdivisions. The planning area includes numerous bayous and canals, all of which flow westerly to the Calcasieu River which forms the west/northwest boundary of the planning area. Surface water is not known to be used as a water supply for any development within the planning area. The planning area consists primarily of planted pine timber, rice and crawfish ponds, and wetlands adjacent to the Calcasieu River and various bayous. Mosquitoes are abundant. The Red-cockaded Woodpecker is a threatened species known to be found in Calcasieu Parish. The climate within the planning area is classified as Humid Subtropical. Precipitation is evenly distributed throughout the year with a total annual average of 56". Average temperature is approximately 68°F. Winds prevail from the southerly direction. The general topography of the planning area is flat and poorly drained with average slopes of 0-1%. Predominant soil types are Mowata-Vidrine complex, 0-1% slopes, rarely flooded, and Kinder-Gist complex, 0-1% slopes. No geologic structures or formations are known to have a direct influence on groundwater. Calcasieu Parish is currently in attainment of all National Ambient Air Quality Standards.

ENVIRONMENTAL IMPACTS: Potential short-term and long-term primary and secondary environmental impacts that can be identified for the proposed project pertain to Protected Species, Historical/Archaeological Sites, Agricultural Lands, Wetlands, Floodplains, Storm Water, Coastal Zone, and Soil Stability/Erodibility. The loan will be conditioned to read that any mitigation measures required by federal cross-cutting authorities must be adopted to ensure the action will not have any significant environmental impacts.

Protected Species: This project was reviewed by the Louisiana Department of Wildlife and Fisheries, Office of Wildlife, which determined that no impacts to rare, threatened, or endangered species or critical habitats are anticipated for the proposed project. However, rare, threatened or endangered species may be encountered in areas outside their known habitat. The construction contract will include a requirement that, should plants or animals belonging to either endangered or threatened species be discovered in the area of construction or adjacent areas, all work in that area shall cease immediately and the owner shall be informed of the discovery, who will in turn, promptly notify the Drinking Water Revolving Loan Fund (DWRLF). After consultation with appropriate state and federal agencies, the DWRLF will advise the owner of any protective measures that may be required.

Historical/Archaeological Sites: The data for the project was reviewed by the Louisiana State Historic Preservation Officer of the Louisiana Department of Culture, Recreation, and Tourism, which deemed that no known historic properties will be affected by the project. However, numerous sites of historic or archaeological significance exist in Calcasieu Parish, particularly in the Lake Charles area. The construction contract will include a requirement that, should evidence of historical or archaeological sites be discovered during construction, all work in that area shall cease immediately and the owner shall be informed of the discovery, who will in turn, promptly notify the Drinking Water Revolving Loan Fund (DWRLF). After consultation with appropriate state and federal agencies, the DWRLF will advise the owner of any protective measures that may be required.

Agricultural Lands: The new inline booster station in Hecker will require a one-half (½) acre site for construction. Information for this project, including the proposed site for the new booster station, has been reviewed by the U.S. Department of Agriculture (USDA), Natural Resources Conservation Service. The proposed booster station site is classified as prime or unique farmland, although it is not currently in agricultural use. A Farmland Conversion Impact Rating was prepared by USDA which found that the conversion of this site to non-agricultural use would have an insignificant impact on agricultural lands in Calcasieu Parish.

Wetlands: Information for this project was reviewed by the Wetlands Section, U.S. Environmental Protection Agency, Region 6; and by the Operations Division, U.S. Army Corps of Engineers. Both of these agencies recognize the possibility of jurisdictional wetlands within the project area and recommend that wetland delineation studies be conducted to determine if any wetlands will be impacted by the project. If any wetlands will be impacted, then a permit will be required in accordance with Section 404 of the Clean Water Act. A wetland delineation determination has been completed by Arabie Environmental Solutions, LLC which found that less than one-half acre of jurisdictional wetlands will be impacted by the project. A permit from the U.S. Army Corps of Engineers will be obtained before any work in wetland areas is performed.

Floodplains: As required, Federal Emergency Management Agency (FEMA), LA Department of Transportation and Development (LDOTD), and the local Floodplain Administrator for Calcasieu Parish were contacted regarding the project. FEMA transferred reviewing authority to the local Floodplain Administrator to ensure compliance with the Flood Damage Prevention Ordinance since the Parish participates in the National Flood Insurance Program (NFIP). The LA Department of Transportation & Development (LDOTD) – Floodplain Management Section and the Calcasieu Parish Floodplain Administrator stated that the proposed project is located in and out of Special Flood Hazard Areas (SFHA). The minimum requirements of the NFIP for water supply systems can be found in 44 CFR 60.3 and state that within flood prone areas new replacement water supply systems must be designed to minimize or eliminate infiltration of flood waters into the system. LDOTD also stated that these areas must be kept clear of debris so as not to interfere with their floodplain function. The Calcasieu Parish Floodplain Administrator also stated that Development Permits must be obtained from the Division of Planning and Development prior to the proposed work, and Utility Permits must be obtained from the Department of Engineering and Public Works for work being performed in the public right of way. These permits will be obtained before any work in affected areas is performed.

Storm Water: There will be no increase in storm water runoff as a result of this project. All water main trenches will be backfilled and compacted. Existing natural grades will be restored after the installation of the new water main is complete. No significant paving will be constructed; therefore no increase in storm water runoff should be observed. The Louisiana Department of Environmental Quality (LDEQ) has been notified of the project. LDEQ provided a letter of no objection with a few additional recommendations of items that may influence the project, including the requirement to obtain a Storm Water General Permit for construction areas equal to or greater than one acre and that all precautions must be observed to control non-point source pollution from the construction activities. Additionally, if the project results in a discharge to waters of the state, a Louisiana Pollutant Discharge Elimination System permit would be required. All of these requirements and recommendations will be adhered to during construction. A Storm Water General Permit will be obtained prior to the beginning of construction.

Coastal Zone: Information for this project was reviewed by the Office of Coastal Management, Department of Natural Resources. Although a portion of Calcasieu Parish is within the Louisiana Coastal Zone, the Office of Coastal Management stated that the project area has been found to be outside the Louisiana Coastal Zone, and that pursuant to Louisiana Revised Statutes 49:214.25.E, a Coastal Use Permit will not be required.

Soil Stability/Erodability: The project will include earthwork associated with the installation of water mains. Best management practices regarding erosion control measures will be implemented during construction to minimize erosion and sediment

transport. Disturbed areas will be graded to their original configuration and reseeded to prevent future erosion. Area watercourses will not be adversely affected by siltation and sedimentation as a result of this project.

DOCUMENTATION COORDINATION AND PUBLIC PARTICIPATION:

Coordination with the appropriate governmental agencies has been made with no adverse environmental comments for the proposed project. All comments offered have been addressed. The proposed project will be reviewed by the Louisiana Department of Health to ensure that it complies with the State Sanitary Code for Water Supplies, Louisiana Administrative Code (LAC), Title 51, Chapter 12. A public hearing was held on Friday, June 16, 2017 at 8:30 AM at the Calcasieu Parish Waterworks District #8 office, 6407 Hwy. 3059, Lake Charles, Louisiana. The hearing was advertised on May 15, 2017 in the Lake Charles American Press, a newspaper of general circulation in Lake Charles, Louisiana.

RECOMMENDATIONS: Based upon DWRLF's detailed review of the System Improvement Plan (with Environmental Information Document) for Calcasieu Parish Waterworks District #8, June 2017, and DWRLF's preparation of an Environmental Assessment (EA), the proposed project is considered to be cost effective and environmentally sound. Therefore, it is recommended that a *Finding of No Significant Impact* be issued.

LIST OF AGENCIES CONTACTED:

U.S. Department of Agriculture – Forest Service
U.S. Department of Agriculture - Natural Resources Conservation Service
U.S. Department of the Army, New Orleans District, Corps of Engineers
U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service – Southeast Regional Office
U.S. Department of the Interior - National Park Service, Southeast Regional Office
U.S. Department of the Interior - U.S. Fish and Wildlife Service
U.S. Environmental Protection Agency Region 6 – Air Planning Section
U.S. Environmental Protection Agency Region 6 - Ground Water/UIC Section
U.S. Environmental Protection Agency Region 6 - Marine and Wetlands Section
Federal Emergency Management Agency (FEMA), Region 6
Louisiana Department of Culture, Recreation, and Tourism – Office of Cultural Development
Louisiana Department of Environmental Quality – Contracts and Grants Review (Clearing House Review)
Louisiana Department of Natural Resources – Office of Coastal Management
Louisiana Department of Transportation and Development – Floodplain Management Division
Louisiana Department of Wildlife and Fisheries – Natural Heritage Program
Calcasieu Parish Police Jury – Division of Planning and Development
Imperial Calcasieu Regional Planning & Development Commission
South Central Planning and Development Commission

REFERENCES:

1. System Improvement Plan for 2016 Water System Improvements with Environmental Impacts for Calcasieu Parish Waterworks District #8; June 2017, Meyer & Associates, Inc.