

**CITY OF GAUTIER**

**CITY MANAGER MEMORANDUM**

**To:** Honorable Mayor and Council  
**From:** Samantha D. Abell, City Manager  
**Copy:** Dennis Reeves, P.E., Public Works Director  
**Date:** August 16, 2012  
**Subject:** Request Authorization to Proceed with a Department of Health – Drinking Water Loan Program

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I am pleased to provide you with a financing plan and professional services contract for your clear water filtration system. After multiple meetings with Dennis Reeves, Public Works Director, the engineer and the City's financial consultant, I am confident that this scenario represents the best financing option for you. In brief, the Drinking Water Loan Program does not require a cash reserve fund based on the percentage of the loan, and the interest rate is a low 1.95% for 20 years. The first payment will not be due until completion of construction projected for February 2014. The loan will pay for construction and professional services including the engineering design, construction inspection and geotechnical fees. It is the professional opinion of Goodwyn Mills and Cawood (GMC) that the Phase I filtration system may clarify water for all households in the city. Therefore, I recommend that you do not fund more than Phase 1 until such time in the future as the City deems it necessary. The probable breakdown of cost is as follows:

$\$2,630,000 + \$280,000 \text{ Professional Fees} = \$2,910,000$

Estimated annual payment = \$205,000

$\$205,000 \text{ subtracting } \$134,000 \text{ GUD Bond Refinance} = \$69,000/\text{annual payment}$

The \$69,000 can be funded from the Water and Sewer Enterprise Fund at no added cost to taxpayers. Again, the first payment would not be due until after February 2014. I would like to place an order on the Council agenda authorizing staff to proceed with apply through the Drinking Water Loan Program.

GMC's schedule for the Phase 1 project is as follows:

- Design complete – December 31, 2012
- Advertise and Bidding complete – January 31, 2013
- Execute Construction Contracts – March 1, 2013

- Begin Construction – March 15, 2013
- Construction Complete – January / February 2014

**RECOMMENDATION:**

It's my recommendation that the City borrow the funds through the Department of Health – Drinking Water Loan Program. Adopt the engineer's entire Clear Water Drinking Plan and fund Phase 1 now with the other 2 phases to be determined based on future need.

**ATTACHMENTS:**

Clear Water Drinking Plan from Goodwyn Mills and Cawood  
Financing Plan by Demery Grubbs, Government Consultants

# CITY OF GAUTIER, MISSISSIPPI

## MISSISSIPPI DEPARTMENT OF HEALTH DRINKING WATER LOAN PROGRAM

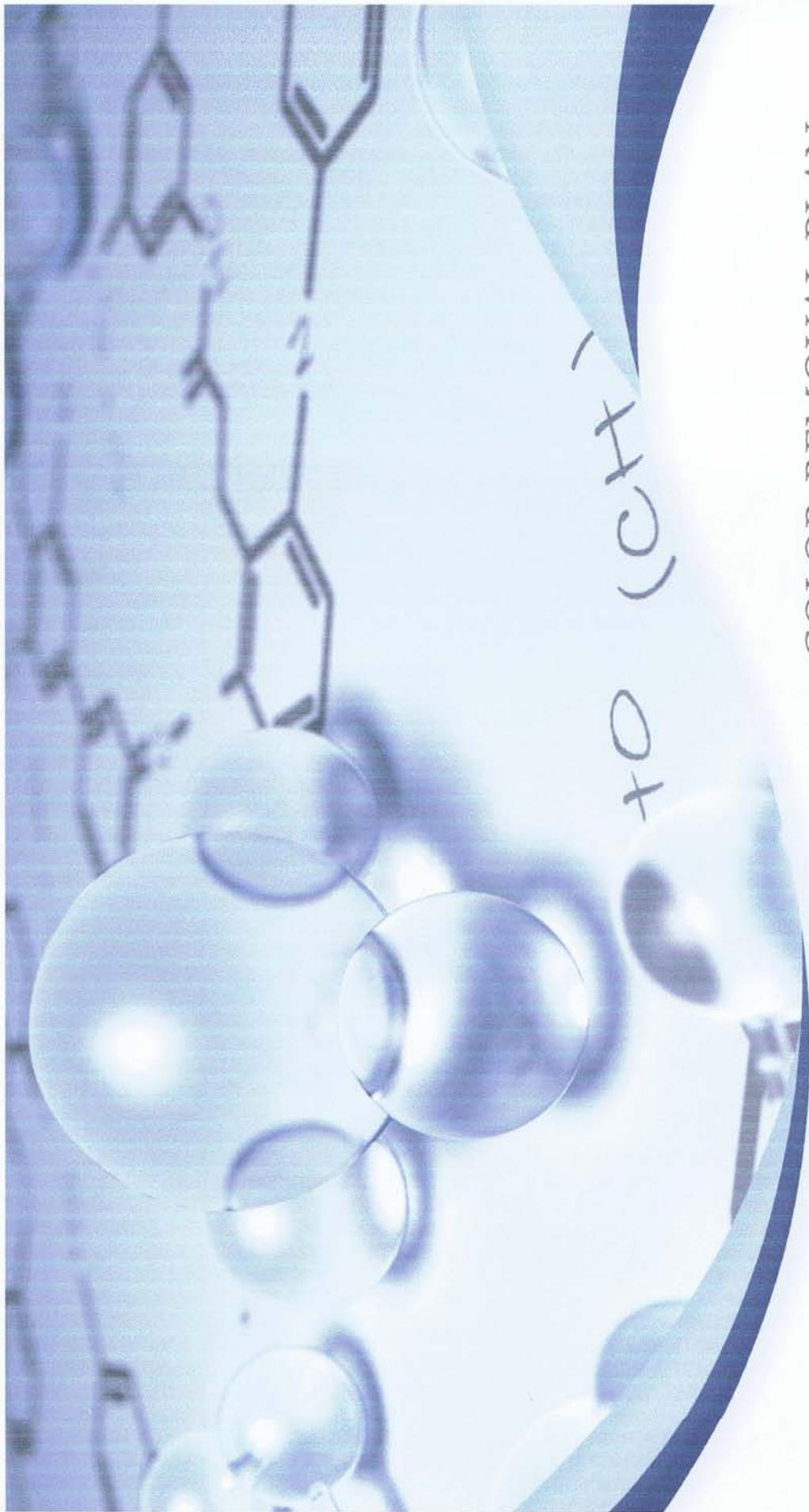
- Drinking Water Loan Program limited to \$5,000,000 annually per water system.
- Facilities Plan is required to be submitted to the Department of Health. Plan is good for a period of five (5) years.
- Current loan rate is 1.95%.
- Loan repayment starts after completion of work and final invoices are paid.
- Reimbursement program, where the City pays the invoices, then submits paid invoices to Mississippi Department of Health for reimbursement.
- Estimated time frame for funding is five (5) to six (6) months depending on submission of Facilities Plan.
- Must show that City has the revenues to repay the loan.

### Estimated Cost – 20 Year Term

Phase I	\$2,630,000 + \$280,000 Professional Fees = \$2,910,000 (estimated annual payment \$205,000) \$205,000 subtracting \$134,000 GUD bond Refinance=\$69,000/annual
Phase II	\$2,605,000 (estimated annual payment \$159,000)
Phase III	\$2,315,000 (estimated annual payment \$141,000)

### **Contact Person:**

Bill Moody, Director  
Drinking Water Loan Program  
(601) 576-7518



# COLOR REMOVAL PLAN

The City of Gautier

July 2012  
By Chad Jordan



## COLOR REMOVAL STUDY

### GOALS OF PROJECT:

1. Remove Color
2. Low Capital Cost
3. Low Operations & Maintenance Cost

### COMPLETED TASKS (STUDY / RESEARCH / PILOT):

1. Reviewed Previous Reports (Recommended GAC)
2. Researched Existing System Hydraulics
3. Researched Existing Water Quality
4. Implemented Pilot Study w/GAC = 6 Weeks
5. Comprehensive Desktop Analysis – Determined all Treatment Options
6. Site Visit to Three Similar Systems
7. Implemented Ion Exchange Pilot Study – 5 weeks
8. Determined Capital Costs and O&M Costs



## COLOR REMOVAL STUDY

### GAC PILOT RESULTS (November 2011)

- Norit Carbon was not effective in achieving Secondary Limit of 15 PtCo.
- Calgon Carbon was effective, but cost prohibitive due to replacement.
- Carbon would need to be replaced every 7 – 10 days.
- Average replacement should be every 6 – 12 months.
- Recommended Researching Alternative Treatment Solutions
- Desktop Analysis to show all Treatment Options, Capital Cost and O&M Cost



## COLOR REMOVAL STUDY

### ION EXCHANGE COLUMN

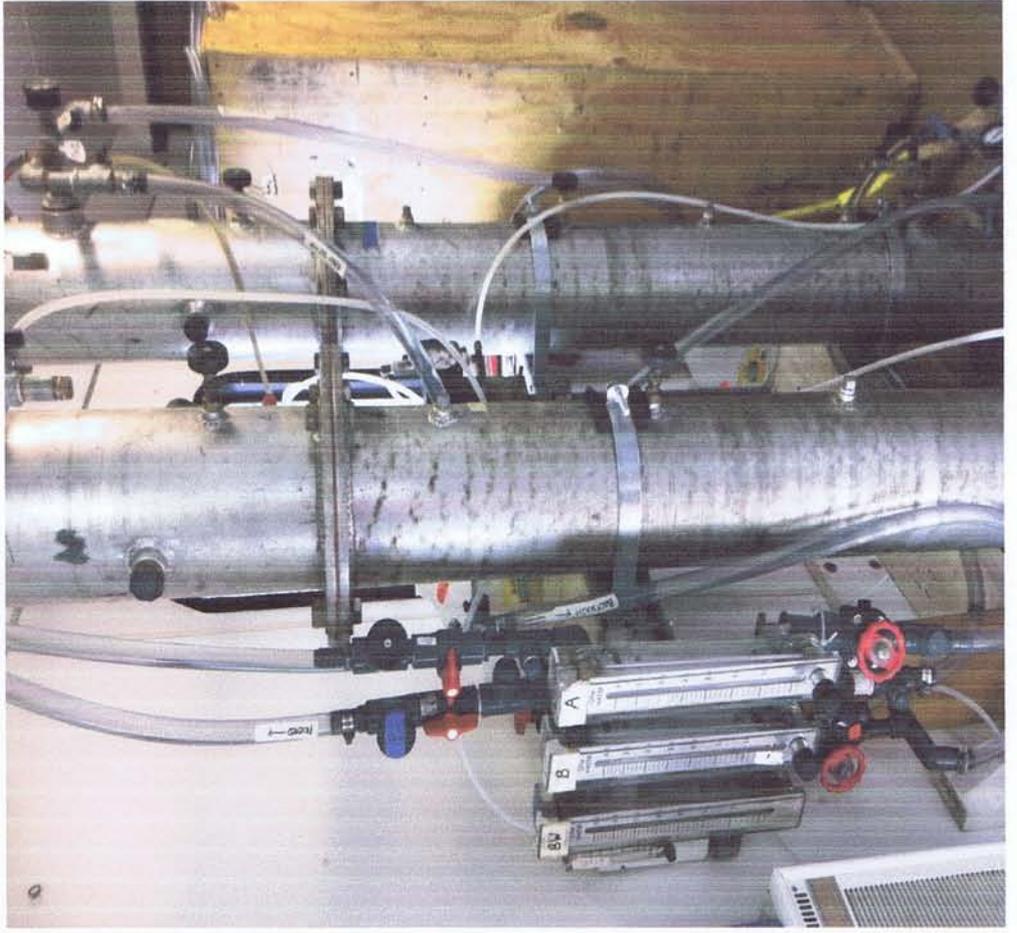
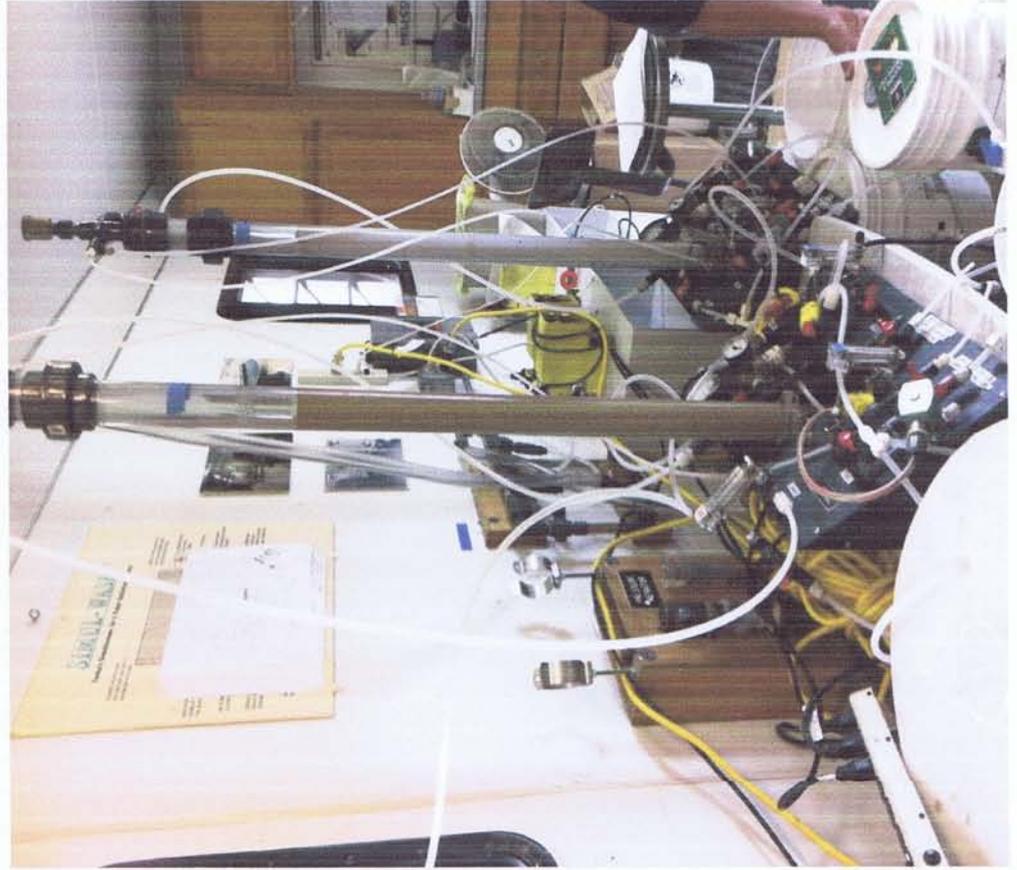
(November 2011)

- Color Removal < 15 PtCo
- TOC Removal < detection limit
- Bed life unknown





## COLOR REMOVAL STUDY





## COLOR REMOVAL STUDY

### COST ESTIMATE

- Phase 1:
  - Construct a 1.0 MGD Ion Exchange Facility at the Public Works Office off Gautier / Vancleave Road
  - Combine the Mall Well, Beasley Well, Honduras Well and Office Well
  - Total Estimate Cost = \$2,630,000
- Phase 2:
  - Construct a 1.0 MGD Ion Exchange Facility somewhere along Martin Bluff Road
  - Combine the Well No. 1, Well No. 6, and Westgate Well
  - Total Estimate Cost = \$2,605,000
- Phase 3:
  - Construct a 0.5 MGD Ion Exchange Facility on Highway 57
  - Treat Well No. 11 – Future Growth Area
  - Total Estimate Cost = \$2,314,000
    - Includes 30,000' of 8" Transmission Main = \$312,000 (East / West Loop)



## COLOR REMOVAL STUDY

### NEXT STEPS

- Determine Possible Funding Sources:
  - South Mississippi Planning and Development District
  - Corps of Engineers
  - Bond Issue
  - Low Interest Loans (USDA)
  - RESTORE Act (BP Money)
- Preliminary Design = 2 months
  - Review Water Model
  - Review Well Usage & Average / Peak Demands
  - Review Available Property / Easements / ROW / Existing Utilities
- Final Design = 6 months
- Implement Construction = 12 months
- Other Considerations:
  - Rate Study
  - New Elevated Water Tank