Overall Plan

- Souder Miller is responsible for preparing the Integrated Preliminary Engineering Report (PER)
- Project started in July 2010
- Two (2) Public Meetings were held on September 2010 and March 2011
- Consultants have prepared Technical Reports for the Raw Water Supply, Storage and Conveyance, Groundwater, Finished Water Treatment Plant, Finished Water Distribution and Storage, and Effluent Reuse.
- Water Rights and Water Demand has also been addressed in the Technical Reports and the Preliminary Engineering Report
- The Integrated Preliminary Engineering Report provides the City with a detailed summary of the identified facilities needs, alternatives and recommended projects for the complete water system

SMA

Format of the Preliminary Engineering Report

- **Format utilized by all Consultants was the RUS 1780-2**
  - **General**: Describes owners situation and proposes a specific course of action
  - **Project Planning Area**: Describes Area of Consideration
  - **Existing Facilities**: Describes the Existing Facilities
  - **Need for Project**: Identifies Facilities that need to be upgraded
  - **Alternatives Considered: describes Alternatives that provides a solution of the identified need**
  - **Selection of an Alternative**: Alternatives are selected based on weighted criteria. Ranking system is used
  - **Recommended Alternatives: Projects are selected to be funded, designed and constructed**
  - **Conclusions and Recommendations: Recommended Plan of action is developed for implementation**

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METHODOLOGY

- **Identify Alternatives**
- **Rank Alternatives/Weighted Criteria**
  - Cost
  - Water Rights Permitting
  - Meet Supply Needs
  - Engineering Feasibility
  - Environmental Permitting
  - Ease of Operation
  - Implementation Time
  - Environmental Stewardship
- **Recommended Alternatives**

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METHODOLOGY

- **Prioritization/Implementation Schedule**
  - Phase O: Ongoing Projects (Non PER)
  - Phase 1: Short Term Projects (1-5 years)
  - Phase 2: Mid-Term Projects (5-15 years)
  - Phase 3: Long Term Project (15-40 years)

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SCHEDULE FOR THE PER

- Technical Reports are now in draft form and have been submitted to Souder Miller

- Draft Preliminary Engineering Report will be posted by August 15, 2011

WATER SUPPLY/WATER RIGHTS

- Mustafa Chudnoff

SMA

WATER SUPPLY/WATER RIGHTS

PROJECT WATER DEMAND (YEAR 2050)

POPULATION: 25,100 within the service area

AVERAGE DEMAND

119 Gallons Per Capita Day (GPCD)
2.99 Million Gallons per Day (MGD)
3,348 Acre-Feet per Year (AFY)

REQUIRED PRODUCTION (AVERAGE CONDITIONS)

2,800 AFY GALLINAS RIVER*
968 AFY GROUNDWATER

*420 AFY ANNUAL RESERVOIR LOSSES

Mustafa D. Chudnoff Consulting LLC

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WATER SUPPLY/WATER RIGHTS

PROJECT WATER RIGHTS (YEAR 2050)

YEAR 2050 WATER RIGHTS NEEDED: 3,768 Ac-Ft

CURRENT INVENTORY:

Gallinas River:	**2,806 Ac-Ft**
Groundwater:	**1,500 Ac-Ft**
TOTAL:	**4,306 Ac-Ft**

CURRENT SURFACE WATER PRIORITY:

Junior Priority:	**2,600 Ac-Ft**
Senior Priority:	**200 Ac-Ft**

REMAND LITIGATION OUTCOME PRIORITY

Junior Priority:	**1,400 Ac-Ft**
Senior Priority:	**1,600 Ac-Ft**

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WATER SUPPLY/WATER RIGHTS

PROJECT WATER RIGHTS (YEAR 2050)

CITY HAS SUFFICIENT WATER RIGHTS TO MEET AVERAGE ANNUAL NEEDS.

ADDITIONAL WATER RIGHTS WILL BE NEEDED

- **Improve drought reserve**
- **Offset increased reservoir losses**
- **Contingencies**

REMAND LITIGATION: Reduces potential for system failure by increasing drought reserve.

Mustafa D. Chudnoff Consulting LLC

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