MINUTES OF THE *WORK SESSION*
BOARD OF MAYOR AND ALDERMEN
FRANKLIN, TENNESSEE
CITY HALL BOARDROOM
TUESDAY, SEPTEMBER 13, 2011 – 5:00 P.M.

Board Members

Mayor Ken Moore	P	Alderman Margaret Martin	P
Alderman Clyde Barnhill	P	Alderman Dana McLendon	A
Alderman Pearl Bransford	P	Alderman Ann Petersen	P
Alderman Beverly Burger	P	Alderman Michael Skinner	P

Department Directors/Staff

Eric Stuckey, City Administrator	P	Eric Gardner, Engineering Director	P
Vernon Gerth, ACA Community & Economic Development		Shirley Harmon, HR Director	P
Russell Truell, ACA Finance & Administration	P	Mark Hilty, Water Management Director	P
David Parker, CIP Executive/City Engineer	P	Gary Luffman, BNS Director	P
Shauna Billingsley, City Attorney	P	Catherine Powers, Planning/Sustainability Director	P
Mike Culbertson & Todd Horton for Rocky Garzarek, Fire Chief	P	Joe York, Streets Director	P
David Rahinsky, Police Chief	P	Brad Wilson, Facilities Project Manager	P
Fred Banner, MIT Director		Andrew Orr, Sustainability/Grant Coordinator	P
Becky Caldwell, Solid Waste Director	P	Lanaii Benne, Assistant City Recorder	P
Lisa Clayton, Parks Director	P	Linda Fulwider, Board Recording Secretary	P

1. Call to Order

Mayor Ken Moore called the September 13, 2011 Work Session to order at 5:00 p.m. in the City Hall Boardroom.

2. Citizen Comments

None

WORK SESSION DISCUSSION ITEMS

3.* Consideration of Event Permit Application for Westhaven 5K on September 17, 2011

David Rahinsky, Police Chief

4.* Consideration of Event Permit Application for Franklin Cowboys Homecoming Parade on September 23, 2011

David Rahinsky, Police Chief

No questions or comments on these two items

5. Consideration of the Request for Sanitary Sewer Availability for 9330 Clovercroft Road

Eric Gardner, Engineering Director

The property owner was not present although aware the request would be on the agenda. Eric Gardner related the owner had indicated she would contact the aldermen about annexation; however, none had been contacted. Mr. Gardner noted the tap fees would be $4,000, plus 1,000 ft. extension of the line, and it would be the owner's responsibility to hire a plumber for the job. Consensus was to take no action until or if the owner made a formal request.

6. Presentation on Integrated Water Resources Plan – Technical Analysis Wrap Up
Kirk Westphal, Jamie Lefkowitz, Zack Daniel, CDM

Fluoridation of Drinking Water – Recent News

(This was prompted by recent news and citizen comments on the fluoridation of City water supplies)

- January 2010 – EPA finalized risk exposure assessment and announced intent to review the drinking water regulations
- December 2010 – EPA published "Fluoride: Exposure and Relative Source Contribution Analysis"
- December 2010 – EPA published "Fluoride: Dose-Response Analysis for Non-cancer Effects"
- January 2011 – EPA and US Department of Health and Human Services (HHS) released a joint statement announcing new efforts on fluoride standards and guidelines based on new scientific data
- Concurrently, HHS reaffirmed health benefits of fluoridation and solicited comments on proposal to lower the recommended level to 0.7 mg/L; from a range of 0.7 mg/L to 1.2 mg/L
- August 2011 – New Harvard study clears fluoride as a cause for bone cancer

Water Quality Questions for IWRP

- Phase I modeling focused on river flow and pollutant loads, *but not instream water quality*
- This is not a load allocation study
- Questions for Phase II:
  - Which alternative is likely to yield the best water quality in the Harpeth River in Franklin and downstream?
  - What are the likely water quality impacts of the selected alternative?
  - How will Franklin's IWRP affect the river:
    - If water quality upstream meets DO standards?
    - If water quality upstream *does not* meet DO standards?

Drivers of Low Dissolved Oxygen

- BOD
  - Sources: upstream watershed runoff, wastewater effluent
  - Result: Depletes oxygen directly
- Sediment
  - Solids from watershed runoff, wastewater effluent, debris settle to bottom
  - Result: Depletes oxygen directly in shallow, slow river
- Nutrients
  - Sources: upstream watershed runoff (fertilizer and soil), wastewater effluent
  - Result: Feeds algae growth
  - Indirect Result: Algae creates oxygen in daytime, consumes oxygen at night

How This Differs from Integrated Model

- Charts and graphs depicted:
  - Integrated Model: Flows and Loads Into River
  - Water Quality Model: Pollutant Concentrations Within River

Water Quality Model Selection

Criteria	TMDL: (CE-QUAL/WASP)	TVA/TDEC: RMS
Hydrologic/Hydraulic Performance		•
Dissolved Oxygen Performance		•
Peer Reviews	•	•
Hydraulic Parameterization		•
Water Quality Parameterization		•
Functionality		•

- Graphs:
  - Hydrology/Hydraulics – RM 88.1 Boundary Condition(USGS Gage @ Franklin) 4/1 through 4/29/01
  - TVA/TDEC Model – River Mile 62.4 8/15 through 9/01/00
  - TMDL Model – River Mile 62.4

Our Understanding of the River

- Impaired by the time it reaches Franklin
- River in Franklin and Downstream Dominated by Streambed Dynamics
- Streambed Dynamics
  - Sediment Oxygen Demand
  - Fixed Algae (periphyton)
- Changes to WWTP

- May help augment low flows
- Not likely to have significant impact on dissolved oxygen

Collaboration on Model Development

- Met with TDEC modelers to discuss parameterization
- Met with HRWA to discuss river dynamics and obtain additional monitoring data
- Regular meetings with Steering Committee to discuss tool selection and progress
- Technical Review by:
  - Dr. Gene LeBoeuf (Vanderbilt, Steering Committee)
  - Gary Mercer (CDM, reviewed original TMDL model)

Data Inputs

- Hydrology and Hydraulics
  - USGS stream gages on Harpeth mainstem
  - River channel geometry from TDEC/FEMA
- Historic Water Quality (calibration and boundary conditions)
  - TDEC
  - Franklin
  - HRWA
- Unmeasured water quality dynamics
  - Literature values for similar rivers
- Sediment and river bed effects
  - TDEC observations of fixed algae on river bottom
  - Literature values for similar rivers

Understanding Upstream Conditions

- Graph:
  - Dissolved Oxygen Upstream of Franklin Graph - RM 99.6, DO (mg/l) July 2006 – December 2010

Understanding Upstream Conditions

- Graph:
  - Dissolved Oxygen Upstream and Downstream of Franklin Graph – RM 99.6, RM 78.7:D/S of WWTP, RM 86.5: in Franklin, DO (mg/l), July 2006 – December 2010

Calibration Goals

- What we ARE NOT trying to :
  - Determine compliance with water quality standards
  - Match observed data at every river mile
- What we ARE trying to do:
  - Reproduce general observations of diurnal DO amplitude
  - Represent seasonal trends in average DO
  - Demonstrate reasonable sensitivity to:
    - Nutrients and floating algae growth
    - Sediment effects
    - Fixed algae
    - Biochemical oxygen demand

Hydrologic Model Performance

- Graphs 1/1/02 – 12/2/02:
  - Harpeth River @ RM 88.1 (USGS Gage 2350): Model - RM 88.1
  - Harpeth River @ RM 62.1 (USGS Gage 3500): Model - RM 62.05

DO Performance at RM 78.7 (downstream of Franklin)

- Graph:
  - Observed Data (Franklin), Model V15, Standard, mg/l, January 2007 – December 2009

DO Performance at RM 84.4 (just downstream of WWTP)

- Graphs:
  - Continuous DO Readings, Model V15, mg/l, 3/18/03 – 3/25/03
  - Continuous DO Readings, Model V15, mg/l, 7/23/03 – 8/9/03

DO Performance (2006 HRWA data)

- Graphs:
  - RM 82.2 (just downstream of Franklin), Model Data, RM 82.2 (Site 5), mg/l, 9/5/06 – 9/25/06
  - RM 66.0 (well downstream of Franklin), Model Data, RM 66.0 (Site 7), mg/l, 9/5/06 – 9/19/06

Sensitivity to WWTP Loads: Actual Average versus Permitted WWTP Effluent Concentrations

- Graphs:
  - 12MGD, Permitted WWTP Effluent Concentrations, 12MGD, Average WWTP Effluent Concentrations, mg/l, 1/07 – 12/07

- August 2007 – 8/1/07 – 8/11/07 – significant change to effluent coming out of treatment plant

Sensitivity to Sediment Effects

- Graphs:
  - Fixed Algae (Periphyton), Observed Data (Franklin), Calibration v15 – 2007, No Periphyton, 1/1/07 – 12/27/07
  - Sediment Oxygen Demand, Observed Data (Franklin), Calibration v15 – 2007, No SOD, Standard, 1/1/07 – 12/27/07

Model Considerations

- Things to Keep in Mind
  - Upstream of Franklin, the Harpeth River already falls below state standards for oxygen
  - TDEC acknowledges that gages for oxygen monitoring were unreliable during extremely low flow conditions
- Model Limitations
  - Extreme low flow conditions cannot be simulated hydraulically
  - No linkage between upstream loads and sediment effects
  - Some river segments may be more susceptible to algae blooms
  - Sufficient water quality data not available for the tributaries

Next Steps

- Begin studying the alternatives:
  - How sensitive is the river to IWRP alternatives?
  - Which alternative is likely to yield the best water quality in the Harpeth River in Franklin and downstream?
  - How will the IWRP alternatives affect the river:
    - If water quality upstream meets DO standards?
    - If water quality upstream *does not* meet DO standards?

OVERVIEW OF STELLA MODELING AND CDP

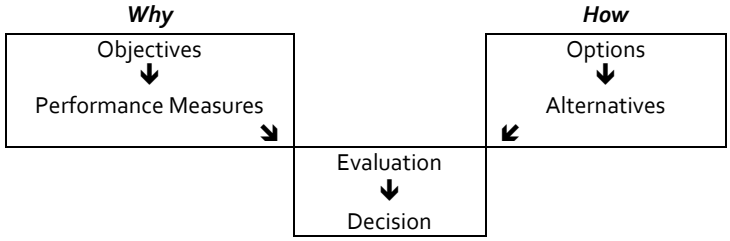
There were questions about removal of the dam. Harpeth River Watershed Association representatives advised the dam would be removed during a low flow period and that the water quality would be better without the dam.

Purpose of Integrated Model

- High level representation of all systems
- Integrate information from:
  - Other Studies
  - All Phase II Technical Analysis
- Compare tradeoffs between alternatives
- Evaluate alternative management strategies
- Generate performance measures for each alternative
- Guide refinement of alternatives (e.g.: Balance between WW discharge and reuse)

Fundamental IWRP Concept

- *The Most Important Thing to Remember!*



- Blending the two tracks of water resource planning enables us to move from technical needs to "interest-based" solutions

The WHY: IWRP Objectives

1. Meet current and future demands for water and wastewater reliably
2. Maximize efficiency of water use and value of water resources
3. Improve water quality and ecological health of Harpeth River and watershed
4. Provide excellent level of water/wastewater utility services at reasonable cost
5. Provide safety and security of water resources systems
6. Achieve regional acceptance
7. Achieve sustainable biosolids management
8. Provide improved access and aesthetics of Harpeth River
9. Minimize carbon footprint of water resources operations

The HOW: Recommended Alternatives

1. Efficiency plus Safety & Security (New WWTP; expand WTP)
2. Water Quality Plus (No new WWTP and no WTP)

3. Low cost (No new WWTP, minimal extra options)
4. Reliability Alternative (New WWTP), upgrades to existing WWTP and new raw water line from Cumberland River so City can supply all of Franklin's water)

Phase I Alternatives Comparison

- Graph comparisons:

Alternatives:

- Do Nothing
- Revised Reliability
- Revised Low Cost
- Water Quality Plus
- Efficiency + Safety & Security

Objectives:

1. Reliability
2. Efficiency
3. Water Quality & Ecological Health
4. Service at Reasonable Cost
5. Safety & Security
6. Regional Acceptance
7. Sustainable Biosolids Management
8. Improved Access & Aesthetics
9. Carbon Footprint

Updates to Integrated Model based on Phase II Technical Analysis

(Two graphs were shown)

- Update inputs:
  - Unit costs ($ per gallon treated, etc.)
  - Capital and maintenance costs
  - Unit energy requirements (kWh/gal treated or pumped)
  - Treatment capacities
  - Inflow/Infiltration estimates
  - Stormwater BMP performance
  - Phasing of capital projects
  - WWTP effluent concentrations

Other Updates to Integrated Model

- Added another WWTP at Goose Creek
  - Impacts on water supply availability
  - Opportunities for reclaimed water
- Revised reclaimed demands
  - Accounting for existing customers and locations near reuse lines
  - Demand = 3.4 mgd average day, 11.4 mgd peak day
- Distribution system improvements
- Nutrient trading between Stormwater and WWTP loads

Next Steps With Integrated Model

- Finalize input from Phase II Technical Analysis
- Revisit current formulation of alternatives
- Adjust alternatives based on Phase II findings
- Use STELLA to refine the alternatives
  - Different blend of options
  - Different balances between WW effluent and reclaimed uses
- Reproduce performance measures and rank the alternatives
- Workshop with Stakeholders to present results
- Workshop with Stakeholders to recommend final IWRP
- (Next Stakeholders meeting October 26, 2011)

Harpeth River Watershed and Key Locations

- Map presented:
  - RM 32.4 USGS Gage
  - RM 62.1 USGS Gage
  - RM 84.3 USGS Gage
  - RM 85.3 Franklin STP
  - RM 88.1 USGS Gage
  - RM 89.2 Franklin WTP Intake
  - RM 114.6

Table 5-2 Recommended Alternatives distributed

7.* Consideration of RESOLUTION 2011-40, A Resolution to Adopt Fire Service Automatic Aid Agreement Between The City of Franklin and Williamson County Rescue Squad

Rocky Garzarek, Fire Chief

Mike Culbertson, Deputy Chief, and Todd Horton, Assistant Chief, presented this agreement with the Williamson County Rescue Squad for the provision of fire services in specific areas within portions of each other's response area. The agreement is for an initial period of six months with an option to extend an additional six months, and is for fire suppression only. The area is within the City's Urban Growth Area (UGB). WCRS has a station located on West Main Street. Among a much larger area they protect a smaller area of approximately 6.5 square miles that border Franklin city limits and much of this area is farther than five miles from their station, and soon all of it will be, which results in extremely high homeowner insurance premiums for those living in the area. The automatic agreement with the City would result in much lower insurance premiums for these homeowners. Two areas of benefit to the City would be the Westhaven subdivision (high density development without residential sprinkler systems), and in the Goose Creek response area (mixed development with low water pressure). The six-month period will allow the City to explore long-term benefits associated with annexation of all or some portions of the areas.

8.* Consideration of the Agreement Between The City and The Harpeth River Watershed Association (HRWA) for the Restoration of a Portion of the Harpeth River in the General Area of River Mile 88.9 (COF Contract No. 2010-0069)

David Parker, City Engineer/CIP Executive

Eric Stuckey pointed out a revision in #7 in the agreement. The City's ARAP requires the City to investigate the feasibility of removing the low-head dam associated with the City's Water Treatment Plant intake facilities. A feasibility study conducted in 2008 determined that under certain conditions, the low-head dam can feasibly be removed.

The HRWA developed a design concept of dam removal with Beaver Creek Hydrology, funded through a US Department of the Interior Fish and Wildlife Service in the amount of $350,000. The design includes the removal of the low-head dam while maintaining a pool sufficient for the City's water treatment plant to withdraw water from the Harpeth River as permitted by its ARAP. Additionally, the design provides for restoration of the Harpeth River in the vicinity of the low-head dam and raw water pump station with the goal of improving water quality and removing river flow obstructions. The program dovetails with the Integrated Water Resources Plan. Financial impact to the City is approximately $482,000. There is potential opportunity to acquire in-kind services from the State that have an estimated value of $189,000, reducing the financial impact to $293,000. Staff recommends moving forward with this agreement with the understanding that the City will work to develop a similar agreement with TDEC for the dam removal.

9. Review of Capital Improvement Projects (CIP Review)

Eric Stuckey, City Administrator

David Parker, City Engineer/CIP Executive

Staff updated costs and mixes of projects with phasing options and ways to look at basic components of how to proceed with roadways:

1. Prioritization list with updated costs
2. Eight scenarios with funding information

Scenarios:

① Top 3 Prioritized Projects from FY 2011-2015 CIP Plus Design for McEwen Drive East of Wilson Pike
② Top 3 Prioritized Projects from FY 2011-2015 CIP Plus Design for McEwen Drive East of Wilson Pike with Phasing of Some Projects
③ Top 3 Prioritized Projects from FY 2011-2015 CIP Plus Design for McEwen Drive East of Wilson Pike with Phasing of Some Projects
④ Top 5 Prioritized Projects from FY 2011-2015 CIP Plus Design for McEwen Drive East of Wilson Pike
⑤ Top 5 Prioritized Projects from FY 2011-2015 CIP Plus Design for McEwen Drive East of Wilson Pike with Phasing of Some Projects
⑥ Top 5 Prioritized Projects from FY 2011-2015 CIP Plus Design for McEwen Drive East of Wilson Pike with Phasing of Some Projects
⑦ Staff Recommended Prioritization for FY 2011-2015 CIP in April 2011
⑧ Staff Recommended Prioritization for FY 2011-2015 CIP in April 2011 Plus Carlisle Lane/Boyd Mill Avenue Intersection/Signalization

Points:

- Top priority Eastern Flank road already funded
- South Carothers laid out as two lanes
- McEwen laid out as two lanes
- Awaiting financing model from PFM

10. Consideration of ORDINANCE 2010-48, To be Entitled: "An Ordinance to Add Section 5.8.5 to Chapter 5, Section 5.8 of the City of Franklin Zoning Ordinance to Regulate Development Within the Corporate Limits of Franklin, Tennessee, to Minimize Danger to Live and Property Due to Flooding, and to Maintain Eligibility for Participation in the National Flood Insurance Program."

Alderman Ann Petersen, FMPC Representative

11. Consideration of ORDINANCE 2010-50, to Be Entitled: "An Ordinance to Add or Revise Certain Definitions in Section 8.3 of The Franklin Zoning Ordinance."

Alderman Ann Petersen, FMPC Representative

12. Consideration of ORDINANCE 2011-27, To Be Entitled: "An Ordinance to Amend Chapter 3, Section 3.4.5, and Chapter 4, Section 4.3.2 of The City of Franklin Zoning Ordinance Regulating Development Within the Floodway Fringe Overlay District."

Alderman Ann Petersen, FMPC Representative

Items 10-12 are amendments for stringent flood regulations

13. Discussion of a Contract with ECOtality (COF Contract #2011-0092) to Place Up to 2 Charging Stations Each in the Second and Fourth Avenue Street Garages and Pursue Another 2 Charging Stations for Jim Warren Park

Catherine Powers, Planning & Sustainability Director

Andrew Orr, Sustainability/Grant Coordinator joined Ms. Powers for this proposal:

- 2 chargers in each downtown parking garage
- Check feasibility for 2 in Jim Warren Park
- No outlay of City funds for installations in parking garages
- Likely no outlay of funds for chargers in Jim Warren Park

Location	# Chargers	Installation Cost (paid by ECOtality)	Estimated User Fee	Estimated Revenue to City	Cost of Electricity Paid by City	Total Revenue Earned by City
2nd Avenue Garage	2	$4,170	$1.50/hour	$.75/hour	$.33/hour	$.42/hour
4th Avenue Garage	2	$3,624	$1.50/hour	$.75/hour	$.33/hour	$.42/hour
Jim Warren Park	2	$4,100 (est.)	$1.50/hour	$.75/hour	$.33/hour	$.42/hour
Total	6	**$11,894**				

- Finalize Contract with ECOtality with BOMA approval

Discussion:

- Other cities in Tennessee already participating
- Seven states participating
- Alderman Burger asked why government should do this instead of the private sector. She reported some businesses in California are removing chargers due to lack of use and said the chargers are inefficient. She asked for hard facts for responsibility.
- Mr. Orr responded the intent of the EV project is to determine how/if they are being used. Approximately 10% of EV's are installed by governments.
- Eric Stuckey said this is an opportunity to provide capital for the City at no cost for installation, and the opportunity to provide more options to citizens and visitors in heavily traveled downtown.
- Ms. Powers related that Brad Wilson, Project Manager, does not believe the chargers would be a big maintenance problem.
- Alderman Skinner pointed out ECOtality is giving these to the City. Furthermore, Nissan national headquarters is in Franklin.

14. Consideration of Emergency Shelter Grant Sub-Recipient Agreement With My Friends House for the 2011-12 Program Year (COF Contract #2011-0120) in the Amount of $5,000

Vernon Gerth, ACA Community & Economic Development
Kathleen Sauseda, Interim Housing Development Coordinator

15. Consideration of Emergency Shelter Grant Sub-Recipient Agreement with BRIDES for the 2011-12 Program Year (COF Contract #2011-0121) in the Amount of $27,643

Vernon Gerth, ACA Community & Economic Development
Kathleen Sauseda, Interim Housing Development Coordinator

16. Consideration of a Contract Between The City of Franklin and Community Housing Partnership of Williamson County (CHP) for Administration Services Related to the CDBG Emergency Repair Program for the 2011-12 Program Year in an Amount of $126,432 (COF Contract 2011-0134)

Vernon Gerth, ACA Community & Economic Development
Kathleen Sauseda, Interim Housing Development Coordinator

No questions or comments on items 14, 15, and 16.

ADJOURN

Work Session adjourned 7:00 PM

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Mayor Ken Moore

Minutes prepared by: Linda Fulwider, Board Recording Secretary, City Administrator's Office - 11/22/2011 3:26 PM