

DRAFT - Selection of Draft Management Practices for Altamaha - Discussion Points

Council Meeting 8 – October 28, 2010

The following list was developed based on work sessions and collaboration among the members of the Altamaha Regional Water Planning Council and the Council’s Management Practices Subcommittee. The major steps used in developing this list are summarized below.

1. The Planning Contractor developed an initial “universe” of management practices. This list was developed from a number of sources including but not limited to: guidance documents for the water plan, literature, existing rules and regulations, water resources studies and plans, local comprehensive plans, Total Maximum Daily Load Implementation Plans. This list was initially distributed to Council prior to Council Meeting 6.
2. This initial “universe” of management practices was vetted with the Management Practices Subcommittee and comments were solicited. The “universe” was then presented at Council Meeting 7 and comments were solicited from full Council. The Subcommittee and Council were requested to add to, modify, and delete from the list; justification for supporting or eliminating practices was requested based the effectiveness, technical feasibility and expected stakeholder support (implementability) of the practice.
3. A revised “universe” of practices was developed and a short list of potential practices was developed concurrently at Council Meeting 7 and a subsequent meeting with the Management Practices Subcommittee. Council comments were solicited between Council Meeting 7 and 8, and the information presented below is the product that emerged from the process.
4. The following list is proposed for adoption by full Council at Council Meeting 8.

Preliminary Selected Management Practices – Altamaha Regional Water Planning Council			
Affected Resource/Preliminary Management Practices	Gap	Need Vision and Goals	Implementation Considerations/Outreach Recommendations
Groundwater	No	Yes	Municipal, Industrial (M&I), Agricultural, Energy Water Users
<ul style="list-style-type: none"> • Continue to develop Upper Floridan • Encourage implementation and adherence to Water Conservation Implementation Plan by local governments/utilities; Tiers 1 and 2 for M&I; Tiers 3 and 4 for Ag Groundwater use in gap areas 			

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Affected Resource/Preliminary Management Practices	Gap	Need Vision and Goals	Implementation Considerations/Outreach Recommendations
<p>Groundwater Continued</p> <ul style="list-style-type: none"> • Encourage land use practices that protect recharge areas of Upper Floridan • Research and incorporate Florida demands and issues for future modeling and refine modeling if warranted • Continue to monitor and improve our understanding of historic, current and future trends in groundwater levels 	No	Yes	
Surface Water	Yes	Yes	Agricultural Water Users in Regions with Gaps
<ul style="list-style-type: none"> • Data Collection/Additional Research to confirm frequency, duration, and severity of Agriculturally-driven surface water gaps <ul style="list-style-type: none"> ○ Additional data/information on agricultural consumptive use; consider “sensitivity analysis” with Resource Assessment Models with “new” information on consumptive use ○ Refine forecasts and Resource Assessment Models to improve data on source of supply and timing/operation of farm ponds ○ Continue to improve metering data regarding Ag water use 			

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<p>Surface Water Data Collection/Research Cont.</p> <ul style="list-style-type: none"> ○ Collaborate/support research (University, State and Corporate) on improved irrigation efficiency measures and development of lower water use crops ○ Promote practices and educate stakeholders to minimize impacts to surface water associated with excessive pumping/use of shallow/surficial aquifers that may impact surface water flows 	Yes	Yes	
<ul style="list-style-type: none"> ● Water Conservation - Selected from Tiers 3 & 4 for Ag conservation portfolio <p>Tier 3 Conservation Practices</p> <ul style="list-style-type: none"> ○ Conduct irrigation Audits ○ Meter Irrigation Systems ○ Inspect Pipes and Plumbing ○ Minimize or eliminate the use of High-pressure spray guns on fixed and traveler systems ○ Cropping and crop rotation that promote efficiency ○ Practice conservation tillage <p>Tier 4 Conservation Practices</p> <ul style="list-style-type: none"> ○ Control water loss ○ Install end-gun shutoff with pivots <ul style="list-style-type: none"> ● Install low pressure irrigation systems where feasible soil specific 			

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<p>Surface Water Continued Water - Conservation</p> <ul style="list-style-type: none"> ○ Encourage use of soil moisture sensors, ET sensors or crop water use model (s) to time cycles 	Yes	Yes	
<ul style="list-style-type: none"> ● Additional/Alternate Water Supply Sources <ul style="list-style-type: none"> ○ Future Uses - encourage additional Ground Water development as preferred practice for future demand ○ Future Users - if surface water is sought for future withdrawals (new permits), applicant should demonstrate that future surface water development will not make gaps worse ○ Existing Uses - conservation and data improvement will not fully close gaps possible options: <ul style="list-style-type: none"> ▪ Replace surface water with groundwater in critical periods ▪ Direct pumping of groundwater to surface water during critical dry periods ▪ Modify Pond Operation minimum release in dry/gap years 			

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<p>Surface Water Continued - Additional/Alternate Water Supply Sources</p> <ul style="list-style-type: none"> ○ Without a replacement source for surface water gap from groundwater - More complex longer-term concepts <ul style="list-style-type: none"> ▪ Incentives to restore wetlands and historically drained hardwood and other areas ▪ Incentive based land use practices to help promote infiltration and aquifer recharge ▪ Identify incentive based programs to increase wastewater returns/decrease LAS and Septic ▪ Inter-basin transfer?? ▪ Aquifer storage and recovery and/or recharge of surficial and maybe other aquifers to help retime flows to critical lower flow period in summer ▪ Possible joint reservoir with Savannah-Upper Ogeechee, Oconee?? ○ Stormwater Practices - to address water quality (see Water Quality Practices) 	Yes	Yes	<p>Counties, Municipalities, Industries in Cannochee Watershed</p>

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<p>Water Quality Non-Point Source – dissolved oxygen, fecal coliform, nutrients, and other impairments - Cont.</p> <ul style="list-style-type: none"> ○ Forestry Best Management Practices <ul style="list-style-type: none"> ▪ Support GSWCC and GFC BMPs and Education Programs ▪ Proper design and maintenance of Forestry roads and stream crossings ▪ Erosion and sedimentation controls during harvesting ▪ Perform soil sampling to determine nutrient needs for silviculture and prevent over-application of fertilizer ▪ Prevent conversion of wetlands for silviculture through provision of incentives ○ Agricultural Best Management Practices (crop and pasture lands) <ul style="list-style-type: none"> ▪ Conservation tillage and cover crop ▪ Field buffers, riparian forested buffers, and strip cropping to control run-off and reduce erosion 	No	Yes	

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<p>Water Quality Non-Point Source Continued</p> <ul style="list-style-type: none"> <ul style="list-style-type: none"> ▪ Livestock stock exclusions from surface water features and vegetation buffers ▪ Responsible manure storage and handling ○ Incentives to restore wetlands and historically drained hardwood and other areas • Existing Impairments – Total Maximum Daily Load Listed Streams <ul style="list-style-type: none"> ○ Data collection and confirmation of sources to remove streams listed due to “natural sources” ○ Stormwater Management <ul style="list-style-type: none"> ▪ Urban Best Management Practices ▪ Forestry Best Management Practices ▪ Agricultural Best Management Practices <p>See Above Non-Point Source for Details</p> <ul style="list-style-type: none"> • Nutrients – Satilla River Watershed Model <ul style="list-style-type: none"> ○ Align current land use with phosphorous and nutrient loading data and optimize management practice with predominant land uses 	NA	Yes	

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<ul style="list-style-type: none"> ▪ Urban Best Management Practices ▪ Forestry Best Management Practices ▪ Agricultural Best Management Practices <p>See Above Non-Point Source for Details</p>	NA	Yes	
Educational Practices	NA	Yes	
<ul style="list-style-type: none"> • Support Water Conservation Programs • Support Stormwater Educational Programs • Support Septic System Maintenance Programs 			
Ordinance and Code Policy Practices	NA	Yes	
<ul style="list-style-type: none"> • Encourage local government to develop ordinances and standards – update stormwater regulations in conjunction with Georgia Stormwater Management Manual, Coastal Stormwater Supplement and Metro North Georgia Water Planning District Model Ordinances • Identify opportunities for green space on incentive and voluntary basis • Encourage coordinated environmental planning, landuse, stormwater, wastewater 			
Shared Resources	Yes	Yes	
To Be Determined			

Additional Points of Discussion

- Need to consider Role of State and Implementing Entities (GEFA, EPD, local municipalities, etc.)
- Need to verify Councils' decision on closing Demand Gaps versus Flow Regime Gaps.