



SCOPE OF SERVICES

DUCK RIVER COMPREHENSIVE REGIONAL WATER SUPPLY PLAN

Section 1. Definitions. These terms are defined as follows:

“Client” means the Tennessee Duck River Development Agency.

“Consultant” means O’Brien & Gere and all agents, employees, and contractors thereof.

“Duck River Region” means the counties of Bedford, Coffee, Hickman, Marshall, and Maury, and that portion of Williamson County that receives potable water supplies from the Duck River.

“Open House Meeting” means an interactive public forum held after working hours organized by Consultant, in consultation with Client and subject to Client’s approval, for the purpose of informing the general public about the Project status and the development of the Plan in an informal manner.

“Plan” means the Duck River Comprehensive Regional Water Supply Plan, which shall project water supply demand in the Duck River Region during the Plan Period and shall recommend specific water supply solutions to be implemented during the Plan Period to meet the projected demand.

“Plan Period” means a planning period with a minimum fifty year projection and a one hundred year horizon, beginning January 1, 2010.

“Project” means the development of the Plan by Consultant in consultation with Client and subject to Client’s approval, pursuant to this Agreement.

“Study Areas” means those areas of study defined in section 4 herein below.

“TDEC” means the Tennessee Department of Environment and Conservation.

“TVA” means the Tennessee Valley Authority.

“Workshop” means an interactive public forum of approximately one day in duration organized by Consultant, in consultation with Client and subject to Client’s approval, which key stakeholders in the Duck River Region (including without limitation regulators and community leaders) and experts attend for the purposes of Project status briefing, discussing findings, documenting relevant policies and procedures, addressing questions and comments on draft work products, screening, conducting sensitivity analyses regarding, refining alternative solutions to water supply deficiencies, seeking consensus on key decisions, developing and revising implementation strategies, and decision making.

Section 2. General Scope of Project. Consultant shall develop the Plan by projecting water supply demand and water supply deficiencies in the Duck River Region during the Plan Period,



assessing feasible solutions to address any such deficiencies, recommending specific solutions to meet such deficiencies, and recommending a plan for implementing such solutions.

Section 3. Project Study Areas. The scope of the Project shall include four Study Areas:

(a) Water Quality and Capacity. Consultant shall project water supply demand and water supply deficiencies in the Duck River Region during the Plan Period for the next fifty years by reviewing and assimilating all available data from all available sources, including without limitation data available from the United States and agencies or instrumentalities thereof (including without limitation the Census Bureau, TVA, and Army Corps of Engineers), the State of Tennessee and agencies and instrumentalities thereof (including without limitation TDEC), county and local governments and agencies thereof (including without limitation school districts), county and local utilities, public and private colleges and universities, and non-governmental organizations, pertinent to the accurate and reliable calculation of existing water supply demands and the projection of future water supply demands.

Consultant shall review existing water supply demand projections for consistency, accuracy, and anomalies, but shall not rely exclusively on existing projections in creating Consultant's projection. Consultant shall review the structure, input and results of Client's existing hydrologic model (developed by Hydrologics, Inc. using the Oasis model) for consistency, accuracy, and anomalies, but shall not rely exclusively on this model in creating Consultant's projection. Consultant shall identify any need for, and shall work with Client to develop appropriate scope and budget for additional modeling runs, including without limitation for the purpose of studying the influence that varying release regimes for Normandy Reservoir have on reliable capacity. Consultant shall identify any need for and shall work with Client to develop appropriate scope and budget for additional demand management studies, conservation programs and other efforts related to water supply demand projections.

Consultant shall assess feasible solutions to address any water supply deficiencies during the Plan Period and shall assess potential obstacles to implementing such solutions. Consultant shall review, but shall not limit its consideration to, such solutions assessed by TVA in the Programmatic Environmental Impact Statement entitled "Future Water Supply Needs in the Upper Duck River Basin, December 2000." By way of example only, and without limitation, Consultant shall assess: changes in operating rules for Normandy Reservoir, changes in National Pollutant Discharge Elimination System (NPDES) discharge limits, transfer of water from Tim's Ford Reservoir to Normandy Reservoir by pipeline, and the use of inactive quarries for raw water storage.

(b) Reliability and Permitting. Consultant shall assess potential reliability and permitting issues raised by potential solutions to projected water supply deficiencies, including safe yield under drought conditions and reliability of water quality, as affected by such factors as streamflow, runoff, reservoir turnover and pool level.



Consultant shall review and assimilate prior studies regarding environmental issues in the Duck River Region, including without limitation studies on threatened and endangered species, ecological diversity, stream hydrology, wasteload assimilation, and dam siting and utilize prior studies, together with cursory assessment of environmental issues in its assessment of potential solutions to projected water supply deficiencies. Consultant shall identify the need for Environmental Assessments, Environmental Impact Statements, and other specific environmental investigations that would be needed to permit one or more of the preferred solutions.

Throughout the Project, Consultant shall collaborate with regulatory and environmental stakeholders to assess and revise its assessment of the required permits, permitting obstacles, and mitigation strategies for potential solutions to projected water supply deficiencies. Consultant shall involve such stakeholders in the Workshops (as defined hereinafter) and shall dedicate a segment of one or more Workshops to input from a panel of experts on environmental protection and permitting matters, including without limitation the protection of threatened and endangered species.

(c) Financial/Funding. Consultant shall prepare a cost model to develop cost comparisons and summary figures for capital, operating, and present worth costs for feasible solutions to projected water supply deficiencies. Consultant shall provide the completed model to Client for Client's use without restrictions. Once the data regarding the water supply needs are established, available financing plans will be identified. Model outputs will identify approximate debt service, operating costs, costs per unit of capacity and per 1,000 gallons delivered, etc. Consultant shall assist and advise Client in exploring opportunities for grant funding and low interest loans to minimize water usage fees.

(d) Community Impacts and Public Policy. Throughout the Project, Consultant shall, in consultation with Client and subject to Client's approval, seek input from TVA, TDEC, water utilities, municipalities and county governments, environmental groups, civic groups, and other stakeholders, as well as the general public, regarding projected water supply demand and deficiencies and feasible solutions, permitting and regulatory issues, support for grant requests and financing plans, water demands to meet growth and reliability goals for specific communities within the Duck River Region, regional economic impacts, and environmental impacts, both short-term construction impacts and long-term impacts. Consultant will seek such input through interviews, Workshops and Open House Meetings, and other communications measures as set forth in Section 5 hereinbelow.

Section 4. Project Phases. As illustrated in Exhibit P to this Agreement, the Project shall consist of three phases, in each of which Consultant shall address each Study Area concurrently and shall integrate data collection and research, demand projections, development of alternatives and cost estimates, and identification of key issues, through independent study and review, preparation of technical memoranda, and Workshops (as hereinafter defined):

(a) Phase I – Workshop 1 (Kickoff Meeting) and Workshop 2 (Preliminary Feasibility). In Phase I, Consultant shall review and assimilate all available data from all



available sources pertinent to the accurate and reliable calculation of existing water supply demands and the projection of future water supply demands. By the conclusion of Phase I, Consultant shall: (1) deliver one or more technical memoranda containing a projection of future water demand (including a prediction of when and to what extent existing water supplies will be deficient) and, if applicable, proposed revisions to the minimum flow requirements and operating rules for Normandy Reservoir releases, provided, that such proposed revisions shall be made in consultation with TDEC and TVA; (2) plan and conduct two Workshops at which Consultant will present and discuss the findings in the technical memoranda; (3) plan and conduct up to three Open House Meetings at which Consultant will present and discuss the findings in the technical memoranda with members of the public; and (4) revise the scope of work in Phase II, in consultation with Client and subject to Client's approval, in light of the findings in Phase I.

(b) Phase II – Workshop 3 (Develop Alternatives) and Workshop 4 (Evaluate Alternatives). In Phase II, Consultant shall develop and assess the costs and benefits, environmental impact, and permitability of all available feasible water supply solutions to meet future water demands. For each alternative, Consultant shall produce cost estimates, identify permitting obstacles, and assess the probability of securing needed permits and approvals from regulatory sources. By the conclusion of Phase II, Consultant shall: (1) deliver one or more technical memoranda identifying the preferred solutions based on cost-effectiveness, estimating the cost of the preferred solutions, reviewing funding sources for each preferred solution, and assessing the need for additional environmental studies needed to evaluate or permit each preferred solution; (2) plan and conduct two Workshops at which Consultant will present and discuss the findings in the technical memoranda; (3) plan and conduct up to three Open House Meetings at which Consultant will present and discuss the findings in the technical memoranda with members of the public; and (4) revise the scope of work in Phase III, in consultation with Client and subject to Client's approval, in light of the findings in Phase II.

(c) Phase III – Workshop 5 (Implementation Planning) and Workshop 6 (Conclusions). In Phase III, Consultant shall refine, if needed, the scope and cost for the preferred water supply solutions and shall develop a plan for implementing the preferred solutions. The implementation plan shall include overall project sequencing and the financing, permitting support, and the conceptual design of the initial component(s) of the preferred solutions. By the conclusion of Phase III, Consultant shall: (1) refine as necessary technical memoranda produced in earlier phases; (2) deliver a Preliminary Basis of Design Report and Draft Implementation Plan; (3) plan and conduct two Workshops at which Consultant will present and discuss the findings in the Preliminary Basis of Design Report and a Draft Implementation Plan; (4) following the second Workshop, meet with permitting agencies to further explore environmental permit requirements and the need for supplemental environmental investigations; (5) plan and conduct up to three Open House Meetings at which Consultant will present and discuss the findings in the technical memoranda with members of the public; (6) review the results and assess the scope and approach required for supplemental investigations or implementation; (7) prepare and submit to Client a Draft Report integrating all technical memoranda, the Preliminary Basis of Design Report and



Draft Implementation Plan and containing an Executive Summary and Recommendations; (8) conduct a pre-scoping meeting to affirm the regulatory requirements for the initial component(s) of the Plan and, based on this effort, develop scopes and budgets for the supplemental investigations; and (9) upon Client's review of the Draft Report and in consultation with Client and subject to Client's approval, revise the Draft Report and issue a Final Report.

Section 5. Communications.

(a) Stakeholders. Throughout the Project, Consultant shall communicate, in consultation with Client and subject to Client's approval, with elected officials, regulatory agencies, key stakeholders, interested public groups, and the public at large, for the purpose of developing the Plan, including but not limited to making reasonable effort to secure the attendance of such parties at Workshops and Open House Meetings.

(b) Web site. Consultant shall develop and maintain a project web site to provide the public with continuous access to key project information. The web-site shall be developed and maintained by Consultant at an appropriate world wide web domain, chosen in consultation with Client and subject to Client's approval. Consultant shall incorporate such content as Client may direct, but shall otherwise provide all web site content (including without limitation work products, graphics, meeting notices, status reports, and links to other web sites as appropriate, plus email and weblog options, etc.). The project web-site shall be linked to other sites, as approved by Client.

(c) Decision support services. Consultant shall use tools and techniques designed to convey information to technical and non-technical decision-makers in order to assess project finances, build consensus and maintain schedule milestones, including without limitation a cost model (as described in Section 3(c) hereinabove) providing "apples to apples" comparison of alternative solutions to water supply deficiencies from a financial standpoint and a decision support model using "pair-wise" comparisons to integrate both economic and non-economic factors in the selection process, including such factors as water supply capacity (adequate water supply through the planning period, including drought conditions, for identified participants); environmental/permitting (the selected alternative must be compatible with permit constraints, including conventional Clean Water Act requirements for wastewater discharges into Duck River, and the impact on rare, threatened and endangered species, such as some freshwater mussels resident in the Duck River); cost (construction and operating costs over the planning period); and implementability (the relative ease of implementing the proposed improvements in time to meet projected demands; this factor would consider the potential that regulatory permitting, public acceptance, agreements with the TVA, property acquisition, agreements with neighboring utilities, or constructability issues could delay implementation).

(d) Other communications. Consultant shall work with Client to use public service announcements and the news media to alert the general public to key activities and shall develop flyers, brochures and similar materials available as "pick-up" materials for public meetings and mailers, in consultation with Client and subject to Client's approval.



Section 6. Other Experts and Consultants. Consultant may contract with other experts and consultants for the purposes of the Project, subject to Client's written approval of such other experts and consultants and of any additional expense to Client, which approval Client may withhold in Client's sole discretion. Consultant shall consult, communicate, and otherwise cooperate with and involve BDY Environmental LLC regarding permitting issues at Client's sole expense, subject to Client's approval of such expense. Client may, at Client's sole expense, contract with other experts and consultants (including without limitation attorneys, accountants, engineers, permitting consultants, and public relations consultants) to advise Client regarding the Project and Consultant (and any of Consultant's agents, employees, or contractors) shall consult, communicate, and otherwise cooperate with and involve such other experts or consultants retained by Client as Client may direct from time to time.

Section 7. Project Schedule. Upon receiving a notice to proceed from Client, Consultant shall complete the Project in accordance with the following schedule:

Schedule Milestone	Weeks after Notice-to-Proceed
Phase I	
Workshop No. 1 - Kick-off	2
Workshop No. 2 - Preliminary Feasibility	12
Open House Meetings	17
Phase II	
Workshop No. 3 - Developing Alternatives	23
Workshop No. 4 - Evaluating Alternatives	33
Open House Meetings	38
Phase III	
Workshop No. 5 - Implementation Planning	42
Draft Report	48
Workshop No. 6 - Conclusions	50
Final Report	54
Open House Meetings	57