

Meeting Summary
DEQ Water Resource Impact Work Group
Tuesday, July 16, 2002
DEQ – Piedmont Regional Office

Frank Dukes of the Institute for Environmental Negotiation (IEN) facilitated the meeting. He explained IEN's roles as (1) helping develop the agenda, (2) facilitating the meeting discussions and (3) preparing the final report, as well as his opinion of what would constitute a successful work group (see below).

After brief introductions of the work group and audience, the charge of the workgroup as outlined by DEQ Director Mr. Burnley during the 6/18/02 meeting and the meeting summary from the 6/18/02 meeting were reviewed. Comments on the minutes should be provided to Allan Brockenbrough by the end of 7/17/02. Final minutes will then be posted at www.townhall.state.va.us . Minutes will also be posted on the DEQ website.

There was considerable discussion of the charge given to the group and how alternatives will be listed in the final report. Mr. Burnley has requested a list of alternatives as opposed to specific recommendations and some concern was expressed that this approach would prevent the group from presenting a recommendation should a consensus be reached. It was reiterated that this is not a consensus forming group nor a legislative study. The group is developing information to be provided to the DEQ in response to concerns from a specific legislator (i.e. Sen. Whipple).

The group's understanding of the combined impacts to be addressed in the report was also discussed. Air and water impacts are being addressed by two different advisory groups. The water group is evaluating impacts of numerous facilities (e.g. power plants) on a single resource (e.g. surface water flow). One member expressed concern that the water advisory group is not looking at multimedia impacts in its definition of "cumulative" or "combined" impacts and suggested that the air and water groups should meet together.

The selection of representatives for the group was also discussed. Patty Jackson of the James River Association expressed her concern that there was not equal representation between environmental organizations and industry and questioned why there are individuals on the advisory group with non-technical backgrounds. DEQ staff responded that professional expertise may be a more accurate characterization of DEQ's selection criteria for the group. One additional member, Jeffrey Scott of the National Committee for the New River, has been added to the water advisory group since the first meeting. One member pointed out that the industrial representatives bring a lot in the way of information resources to the group.

Part of the commitment made to Sen. Whipple by DEQ Director Bob Burnley was to look at evaluation methods being used in other states. A survey of other states has not been initiated and there was some discussion of how that could be done. Frank Dukes indicated that IEN staff will look for information on cumulative impact evaluations being conducted by other states.

VWP Permitting

Joe Hassell of DEQ gave a presentation on impacts considered in the VWP permitting process. Water supply VWP permits are issued from DEQ's central office. There are approximately 5 new proposals and 5 reissuances per year. Unlike the VWP permits for wetlands impacts, the VWP permits for water intakes are still linked to the 401 Certification process. The wetland VWP permitting process was de-linked from the 401 certification process in order to address isolated wetlands and Tulloch ditching.

The primary considerations in the water withdrawal VWP permits are jurisdiction and water withdrawal impacts. Secondary considerations include wetlands impacts, stream loss, water quality impacts and impingement and entrainment. Water withdrawal considerations include purpose and need, point of withdrawal, point of return (defines critical reach), consumptive use (once through cooling may return 99% of flow, combined cycle power plants may return 25%), source size, conservation (not significant with power plants), risk (of source running out of water), maximum withdrawal limits (instantaneous), peak day withdrawal, average withdrawal, other existing withdrawals (in the same proximity) and reasonably foreseeable future withdrawals.

In response to a question about DEQ staffing levels Joe indicated that DEQ has hired one additional permit writer to help him with the water withdrawal permits. The actual number of power plants being permitted by DEQ versus the number being built was discussed. Roughly half of the proposals are for combustion turbine plants and half are for combined cycle plants. The combustion turbine plants use relatively little water and typically hook up to wells or municipal water supplies. The combined cycle plants use a lot of water and a few are hooking up to water sources over which DEQ has no regulatory authority – wastewater reuse, grandfathered intakes, etc. DEQ currently has jurisdiction over new intake structures for just 4 of the approximately 30 proposed power plants in Virginia. Marc Tufaro agreed to provide the group a list of the status of all the power plant proposals before the SCC (subsequently provided on 7/17/02).

Instream beneficial uses considered in the VWP permitting process (listed in order of decreasing flow requirements) include navigation, recreation (usually canoeing), aesthetic values, cultural values, fish and wildlife resources and habitat, and waste assimilative capacity (7Q10 flow). There was discussion as to whether motor boat use was adequately being protected in considering canoeing to be the limiting recreational factor. DGIF reviews the VWP applications and comments on use of bass boats where appropriate. There was a suggestion to utilize DCR's Virginia Outdoors Plan in this process. VWP applications are reviewed by DGIF, DCR, VDH, VMRC and VDACS.

Joe reviewed three case studies which represented varying levels of regulatory control. In order of decreasing regulatory control, the projects include (1) Hunting Run Reservoir in Spotsylvania County, (2) the proposed Tenaska (aka East Coast Transport) power plants in Buckingham and Fluvanna Counties and (3) the proposed Cogentrix power plant in Henry County.

Case 1 - The Hunting Run Reservoir will hold 2 billion gallons. It provides a 250 day reserve and includes a 20 MGD pump station on the Rapidan River. The applicant demonstrated an undeniable need for water with the area being under repeated water restrictions in recent years. The project looked at reasonably foreseeable developments in the area including other water supply projects and the planned demolition of the Embry

Dam in Fredericksburg. The permit includes tiered flowby requirements, a risk approach which triggers storage needs as a function of time of year and a mandatory conservation plan. The project is now a joint venture between Spotsylvania County and the City of Fredericksburg.

Case 2 - The Tenaska power plant is an 18.1 MGD withdrawal from the James River with 10 days of storage. The permitting was very piecemeal with 3 or 4 types of 404 permits being issued. It is largely a consumptive use. The permit includes a sunset provision which removes the right to the water if the facility is not built within 5 years. As recommended by the commenting agencies, the permit requires a reduction of withdrawals when the City of Richmond and Henrico County enact voluntary conservation measures and elimination of the withdrawals when Richmond and Henrico enact mandatory conservation measures. The permit does not include specific flowby requirements and does not consider reasonably foreseeable future developments in that the conservation measures do not directly address the shad habitat requirements in the Richmond/Henrico area.

Case 3 – The Cogentrix plant in Henry County is a 7.5 MGD withdrawal from the Smith River. Because the proposal makes use of an existing grandfathered intake, DEQ has no regulatory authority over the withdrawal. River flow in this segment is heavily regulated due to peak power generation at the Philpott Dam. The Corps of Engineers releases 60 – 70 cfs when not producing power. For about an hour every weekday afternoon 700 cfs is released to produce power during peak demand. The river has an impaired benthic community likely due to hydrologic conditions created by the power production as well as industrial discharges. Cogentrix is a largely consumptive use and the proposal includes no storage (because the intake is grandfathered). There are also multiple foreseeable uses. Marc Tufaro of the Staff of the SCC noted that Cogentrix has pulled this proposal.

In followup discussion, there was a suggestion that the State Water Control Board has broader authorities than the VWP regulation which could be invoked to address some of these grandfathered situations (e.g. Water Resources Policy, Antidegradation Policy, use of special orders, Surface Water Management Areas, etc.).

Environmental Impact Reviews

Mike Murphy of DEQ gave a presentation on DEQ's environmental review responsibilities. Other agencies frequently involved include the DMME, VIMS, VMRC, Dept. of Forestry, VDOT, DACS, DGIF, CBLAD, VDH, DCR, Dept. of Historic Resources, and recently, the Dept. of Fire Services. DEQ coordinates Environmental Impact Reviews for:

- Major state facilities (defined as state funded and >\$100,000)
- Airport construction and expansion
- Oil and gas drilling proposals in Tidewater Virginia
- Farmland and forest preservation during project planning for major state projects
- Mineral activities on state-owned land
- Hydropower projects

DEQ had no statutory responsibility for review of SCC power plant environmental impact reviews prior to 7/1/02. Previous reviews were done under a Memorandum of Agreement between the State Air Pollution Control Board and the SCC.

Federal projects for which DEQ has Environmental Impact Reviews include:

- Federal environmental assessments and environmental impact statements
- Consistency of federal actions with Virginia's Coastal Resources Management Program

With the legislation which went into effect on 7/1/02, the SCC is limited in their powers to act on environmental issues that are addressed by an environmental permit. Approvals/permits typically include USACOE permits, VWP permits, VPDES and VPA permits, VMRC permits, DCR approval of Erosion and Sediment Control Plans, Air Pollution Control Board permits for New Source Review and Prevention of Significant Deterioration, DEQ hazardous and solid waste permits and CBLAD approval of Chesapeake Bay Preservation Act requirements for facilities east of I-95. DEQ also solicits EIR reviews from the local government. Between all of the above permits and reviews, many agencies are involved.

Mike reviewed the proposed Memorandum of Agreement (MOA) between DEQ and the SCC developed as a result of SB554. The MOA requires DEQ review of EIRs for electrical power generating facilities. The MOA spells out a 60-day timeframe for the review at which point a summary report is prepared. Often, applications for VWP permits, air permits, etc. have not been submitted prior to DEQ review of the EIR. The EIR review is therefore based only upon the information provided via the SCC application. Reviewers will list every permit which is required, what was not considered in a review, and identify any missing information which is necessary to perform a complete review. The MOA also specifies that DEQ can request that the SCC stay its decision on a certificate pending resolution of an environmental permit. SB554 clearly states that the State Pollution Control Board has the responsibility for cumulative impact air analysis.

The SCC took initial comments on the proposed MOA until 7/10/02. There is now a period until 7/24/02 during which anyone can comment on the initial comments received. Ten comment letters were initially received. Mike can fax the initial comments to anyone interested. Marc Tufaro can provide the same information in a .pdf file.

Review of Impacts

Frank Dukes then led a discussion of the homework assignment from the first meeting, which was to provide lists of (1) impacts of water withdrawals which DEQ should be considering in the water permitting and environmental review processes, (2) tools to evaluate those impacts and (3) potential uses of the information if it was available. Tanya Denckla compiled the work provided to her and it was subsequently emailed to all the members prior to the meeting

In trying to identify items which were not included on the list under item (1), two issues were mentioned – (1) the complete lack of ground water information outside of the ground water management areas (including connectivity to surface water) and (2) DEQ not

commenting during the EIR review process on important environmental issues if the issues are not subject to DEQ permitting authority.

There was considerable discussion of how to approach the given tasks. One proposed approach recognizes that the limited amount of time available to the group may mean that it only addresses the primary impacts on (1) stream flows and (2) ground water levels. All subsequent impacts on beneficial uses (e.g. aquatic habitat, recreation, municipal water supplies, agricultural irrigation, navigation, etc.) are dependent on the first two and too numerous and complicated to address in detail in the given timeframe. It is most important that we identify the primary impacts and tools that could be used to predict changes due to a proposed use. In the case of ground water in the western half of the state, we may be so far from being able to predict impacts that we will have to only focus in the near term on what we can measure. Another proposed approach would identify all beneficial uses recognized by state law as primary impacts.

DEQ staff agreed to prepare a matrix showing what impacted beneficial uses are addressed through the various permit and EIR review processes. From that matrix, the group will begin to think about gaps in the current system as well as tools (measurement tools, predictive/modeling tools, policy/guidance tools, etc.) to evaluate the impacts. Mike Scanlan of DEQ will give a presentation on the Reg. 11 database at the next meeting. It was decided that DGIF's review of intake structure designs is not a cumulative impact that needs to be presented to the group as previously planned.

A few states such as Washington and Oregon have done some cumulative impact analysis work. Georgia, Alabama and Florida were mentioned as states that are currently struggling with the same issues. Some national organizations such as AWWA and ASWPCA are also becoming involved in the same issues. Frank Dukes indicated that IEN could contact some of the national associations and request information on additional sources. Consultation with regional EPA and USACOE offices was also suggested.

The floor was opened other interested parties and no comments were made. Lastly, the time of the September 12th meeting was moved back to 1:00 p.m. to eliminate a conflict with the joint VWEA/AWWA meeting. The next meeting will be Aug. 6 from 10 a.m. to 3 p.m. again at the DEQ – Piedmont Regional Office.

Elements of a Successful Group (from the Institute for Environmental Negotiation)

1. The group understands its purpose.
2. Participants are open to questions and challenges.
3. The group has access to and uses high quality information.
4. Members are – and feel – encouraged to explain views and concerns.
5. All views are given serious consideration.
6. Relevant learning occurs.
7. The final report captures the key points and options.