

**PLANNING AND ZONING COMMISSION
PUBLIC WORKSHOP ON GROUNDWATER & SURFACE
WATER/DISCHARGE IMPACTS FROM MINING**

There was a meeting of the Indian River County (IRC) Planning and Zoning Commission (P&Z) on Wednesday, April 9, 2008 at 1:30 p.m. in the Commission Chambers of the County Administration Building, 1801 27th Street, Vero Beach, Florida. You may hear an audio of the meeting; review the meeting agenda, backup material and the minutes on Indian River County website www.ircgov.com/Boards/PZC/2008.

Present were members: Chairman George Hamner, Member-at-Large; Donna Keys, District 1 Appointee; Craig Fletcher, District 3 Appointee; Greg Smith, District 4 Appointee; George Lawrence, District 5 Appointee; and Dr. Richard Baker, Member-at-Large.

Absent were Gerard Weick, District 2 Appointee and Ann Reuter, non-voting School Board Liaison (both excused).

Also present was IRC staff: George Glenn, Assistant County Attorney; Bob Keating, Community Development Director; Stan Boling, Planning Director; Roland DeBlois, Chief, Environmental and Code Enforcement; Jim Davis, Public Works Director; and Reta Smith, Recording Secretary.

Call to Order and Pledge of Allegiance (12:58:01)

Chairman Hamner called the meeting to order and led all in the Pledge of Allegiance.

Staff Remarks (12:58:56)

Mr. Stan Boling, IRC Planning Director, explained today's workshop would focus solely on water related issues for mining operations, and future workshops would be addressing traffic and nuisances, compatibility and notice and the type of process for mining applications and compliance and enforcement. He briefly discussed information contained in the staff report in the backup on file in the Commission Office.

Presentation by Dr. Sydney Bacchus (1:03:52)

Dr. Sydney Bacchus, Applied Environmental Services, LLC, gave a PowerPoint presentation on Adverse Environmental Impacts of Mining in Indian River County, a copy of which is on file in the Commission Office.

Mr. Smith noted there was an appreciable loss of pine trees after the 2004 hurricane season, and wondered how Dr. Bacchus specifically determined the effect of mining on pine trees in the County.

Dr. Bacchus responded it was fairly easy to evaluate areas subjected to hurricane damage as there had been extensive studies on the resilience of pine trees to hurricane wind forces, and they had mechanisms to withstand those types of impacts. She maintained damage occurred because the roots were rotting below ground, which placed stress on the tree and it started dying from the top down and if a wind came through when it was in that state it would snap the tops off the trees. Dr. Bacchus opined everyone thought the damage was from wind, but in fact it was because the trees had been under chronic stress for years before the hurricanes came through.

Presentation by Dr. Les Bromwell (1:34:26)

Dr. Les Bromwell, BCI Engineers, gave a PowerPoint presentation, a copy of which is on file in the Commission Office.

Discussion followed about monitoring and measuring the environmental impacts of mining (2:03:45).

Dr. Bacchus urged the County to request backup documentation from the other agencies involved with the technical aspects of mining.

Discussion ensued regarding permitting (2:25:03).

Dr. Bacchus recommended the County step back from the piecemeal mine-by-mine approach and have an agency such as the U.S. Geological Survey (USGS) do an assessment of present conditions in order to have a baseline to work from. She added the Army Corps of Engineers was required by federal law to do cumulative impacts analysis any time they were going to issue a permit.

Sink holes were discussed (2:36:26).

Chairman Hamner opened the public hearing at 3:25 p.m.

Dr. Bob Adair, Chairman of the IRC Agricultural Advisory Committee (AAC) (2:49:55), thought the idea of the County doing a hydrological study was in order. He mentioned Dr. Lewis Murray of the USGS had attended an AAC meeting in February, 2008 and said they would be interested in doing the study. He related the AAC made a recommendation for such a study to the Board of County Commissioners (BCC), and suggested it would help if the P&Z reinforced this recommendation. He discussed findings of a report the County had done in 1988.

Dr. Adair agreed there was a problem with lack of monitoring as outlined in Dr. Bacchus' presentation, and felt the use of infra red analysis might be used to look at spectral changes that could be occurring. He added besides the environmental impact, it was important not to have an agricultural impact from mining and urged caution of how the County treated its water supply as far as the Floridan aquifer was concerned.

Mr. Peter O'Bryan, IRC Commissioner (2:56:21), referred to a copy of a permit issued on October 9, 2007 to the St. Johns River Water Management District (SJRWMD) for the North Cypress Reserve, contained in the backup on file in the Commission Office, and noted water level monitoring was not initiated until April 9, 2008 after excavation had begun. He related when Dr. Murray spoke at the AAC meeting he had recommended one full year of water level monitoring prior to excavation.

Discussion ensued about pre-monitoring before excavation began in a potential mining area.

Mr. Harvey Wheeler, 1464 Seahouse Street, Sebastian (3:03:25), was concerned about benzene residual created by blasting.

Mr. Boling stated staff's research indicated no blasting would be needed for any materials mined in this area, and he anticipated a regulation of no blasting.

Mr. Russell Herman, 586 Redwood Court, Sebastian, representing the Indian River Neighborhood Association (3:09:24), spoke about the necessity of keeping discharge out of the canals and the St. Sebastian River.

Mr. David Gunter, Chairman of the Soil and Water Conservation District (S&WCD) and Superintendent of the Indian River Farms Water

Control District (IRFWCD) (3:13:39), stated the S&WCD had pushed for zero-discharge mines and recommended if mining was done outside the IRFWCD the County should look at making sure any isolated wetlands near the site remained hydrated through the mining operation.

Dr. Bacchus outlined why, in her professional opinion, there would be adverse environmental impacts if you prevented all discharges from a mine site (3:19:55).

Mr. Chuck Kramer, 10729 U.S. 1, Sebastian (3:21:14), felt if there was to be no offsite discharge the mining operations would have to be expanded to a large degree in order to get storage. He observed even when excavating a 20-acre pit over a period of time you would not be able to contain the water on site unless you had a large amount of real estate. He wondered what would be the ramifications of creating an artificial or man-made wetland by retaining the water on a parcel of property.

Lengthy discussion followed.

Mr. Jim Davis, IRC Public Works Director (3:40:15), related over the 30 years he had worked for the County there had been excavations for sand mines or public works projects in areas adjacent to isolated wetlands, and in all those types of projects most of the material was used on County projects. He observed any mining operation had a different quality of material coming out of the operation initially and that material was sold at a very cheap price, usually to the County, to be used on its projects. Mr. Davis gave an example of the Vero Lake Estates subdivision where they were working adjacent to a wetland and were told to build a vertical curtail wall of clay material to isolate the wetland from the excavation, and that somewhat vertical layer of clay reduced the drawdown around the perimeter of the area. He felt some of the material coming from the mines could be segregated and used to prohibit and reduce the lateral influence of the drawdown of the water in those areas.

Chairman Hamner closed the public hearing at 4:20 p.m.

Mr. Jim Gallagher, 766 Holden Avenue, Sebastian (3:47:04) urged the members to include in its recommendations more continuous monitoring and share this information with SJRWMD and other permitting groups.

Discussion followed about the types of data the County might require an applicant to provide on the area around the immediate vicinity of a potential mining site, and what would be the parameters (3:54:53).

Mr. Lawrence felt the P&Z might recommend the BCC look at getting the USGS involved as a start. Mr. Smith thought given the environmental issues and the current times there was a reason the County should obtain extensive baseline data, even though he acknowledged it would cost quite a bit of money.

Mr. Boling summarized he was hearing recommendations for a countywide baseline study, looking at specific requirements for a hydrological report and analysis with recommendations, and how far it could go within a reasonable cost. Chairman Hamner added perhaps staff could look at no discharge and work backwards to include Dr. Bacchus' concerns, and also look at the hydrological impacts on wetlands on a site.

Ms. Keys wondered if a seismic profile would be something the applicant could supply. Dr. Bromwell stated there were relatively inexpensive techniques, including ground penetrating radar, electromagnetic imaging and cross hole seismic profiles, that could be done if it was felt the site required it. He thought the County could tell an applicant what information was necessary in order to feel comfortable the impacts would not extend beyond their boundary, and might even suggest methods that could be used to obtain this information.

Discussion followed (4:03:03).

There being no further business, the meeting was adjourned at 4:50 p.m.

George Hamner, Chairman

Date

Reta Smith, Recording Secretary

Date