

MINUTES OF THE NORTH BARRINGTON PLAN COMMISSION MEETING WHICH WAS HELD APRIL 9, 2007 AT THE NORTH BARRINGTON VILLAGE HALL, 111 OLD BARRINGTON ROAD, IN SAID VILLAGE

1. Call to Order and Roll Call

At 7:30 P.M. Vice Chairman Dan Nass called the meeting to order and the Deputy Clerk called the roll:

Present: Vice Chairman Daniel Nass, Camille Koertner, Mark Kolar, Denis Taillon

Absent: Chairman Martin Pais, Bill Bishop, David Wilford

Also Present: Trustee Al Pino

Scott Meyer, P.G., Associate Hydrologist, Champaign, IL

Jackie Andrew, 610 Signal Hill Road

Pat Ryan, 404 Concord Lane

Kim Block, 128 Cherry Hill Lane

Carolyn Boyle, 425 Kimberly Road

Barbara Cragan, 458 Pine Woods Drive

Susan Allman, 425 Mockingbird Lane

Gery Herrmann, 257 Kimberly Road

Sue Murdy, Deputy Village Clerk

2. Approve Minutes: Plan Commission Meeting – March 12, 2007

The Minutes of the Plan Commission Meeting were made available to the Commission.

Motion: Mark Kolar moved that the Minutes of the March 12, 2007 Plan Commission Meeting be approved; seconded by Vice Chairman Dan Nass.

Discussion: There was no discussion.

Vote on Motion:

The voice vote was unanimous in favor.

Vice Chairman Dan Nass declared the Minutes of the March 12, 2007 Plan Commission Meeting approved and put on file.

3. Presentation by Scott C. Meyer, P.G., Associate Hydrologist from the Illinois State Water Survey on Groundwater Resources of Northeastern Illinois; Occurrence and Movement of Groundwater; Aquifers of Northeastern Illinois; Use of Groundwater In Northeastern Illinois; Computer Modeling of Groundwater Flow in Northeastern

## Illinois

Scott C. Meyer, P.G., Associate Hydrologist, introduced himself to the Commission and directed their attention to the overhead projector screen.

A graph illustrated the saturation level and water flow of natural groundwater in the section of Northeastern Illinois, which includes North Barrington. Mr. Meyer stated he wanted to point out that the groundwater in North Barrington wells originates as precipitation, within a mile or two of the location of the wells, and is the same as the water found in perennial streams, wetlands, etc. Most of the water is low level, approximately 150-250 feet deep. All water flows from areas of high pressure (high head) areas to low pressure areas, this being primarily from high land levels to low land levels.

Mr. Meyer discussed the difference between an aquifer and an aquitard. An aquifer is a saturated bed formation or group of formations which yields water considered to be sufficient quantity to be a consequence of a source of supply. An aquitard is exactly the opposite; in essence being appreciable quantities of water going towards wells through a permeable formation which allows for some leakage.

Mr. Meyer explained a Geologic Cross Section diagram of Northeastern Illinois, showing unconsolidated quaternary materials, sedimentary bedrock and crystalline Precambrian material, illustrating the aquifers currently in North Barrington. North Barrington is made up of approximately 160 feet of bedrock material.

Mr. Meyer then explained peak groundwater withdrawal trends in 1979, then traced the withdrawal trends to their drop in 1993. This dramatic change was due to the implementation of Lake Michigan permits which allocated water to various parts of the State of Illinois. Mr. Meyer stressed that groundwater management is very important and its future trends are uncertain; however, the groundwater withdrawals within five miles of North Barrington appear to be leveling off. There are two methods used to determine groundwater availability: single value estimates and modeling analysis. Mr. Meyer noted that predicting future groundwater availability remains difficult even using advanced methods of analysis.

In summary, Mr. Meyer explained that:

Groundwater in Northeastern Illinois comes mainly from shallow aquifers (sand and gravel from the uppermost bedrock) and deep bedrock aquifers.

Groundwater withdrawals in Northeastern Illinois decreased dramatically from a peak in 1979 of 320 MGD ( million gallons per day) to 154 MGD ( millions gallons per day) in 1993 due to substitution of Lake Michigan water for ground water in Central Lake County, Northwest Cook

County and DuPage County.

Present modeling seeks to quantify the impacts of present and projected groundwater withdrawals in the region as a tool for future analysis.

Informative website to visit is <http://www.sws.uiuc.edu/wsp/>

There were questions from the Commission and the audience pertaining to water quality in North Barrington. Trustee Pino inquired if the underground water tunnels installed in Chicago ever impacted the well water quality in North Barrington. Mr. Meyer did not feel that was the case due to the direction and destination of water in the Chicago tunnel system.

Storm water detention basins are now considered part of the groundwater management issue. Mr. Meyer also explained that lower water levels (shallow aquifers) can affect quality and that oxygen imbalances in individual wells can cause the formation of arsenic concentrations in the well water. Arsenic has also been found in the deep bedrock water aquifers.

There are currently no studies scheduled for Lake County. Groundwater resources are not as large of an issue for Lake County as Lake Michigan is a large supplier of the water.

The Commission thanked Mr. Meyer for his insightful presentation.

4. Old/New Business

There was no old or new business to discuss.

5. Adjournment

Motion: Camille Koertner moved the meeting be adjourned; seconded by Mark Kolar.

Discussion: There was no discussion.

Vote on Motion:

The voice vote was unanimous in favor.

8:55 P.M. Vice Chairman Dan Nass declared the meeting adjourned.

These Minutes were approved at the Plan Commission Meeting held May 14, 2007.

ATTEST:

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Sue Murdy, Deputy Village Clerk

