



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

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Scott Hassett, Secretary
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FILE REF: 3550/8600

May 14, 2007

Mr. Jim Henke, Director of Community Development
Village of Mt. Pleasant
6126 Durand Avenue
Racine, WI 53406

Subject: HSPF Study Submittal for the Pike River Watershed

Dear Mr. Henke:

Thank you for the Village's participation in the meeting on April 23, 2007 along with representatives from Southeastern Wisconsin Regional Planning Commission (SEWRPC) and the Department of Natural Resources to discuss the HSPF study submittal for the Pike River Watershed. Below is a meeting summary, and next steps in the approval process for floodplain considerations associated with the Pike River Restoration Project.

In the meeting, Mr. Sasse reiterated that 2.3 miles of the Pike River Restoration Project (Phases I – III) have been completed and Phase IV is under contract this year. The Village intends to apply for a Letter of Map Revision (LOMR) to the Federal Emergency Management Agency (FEMA) for Phases I – III. The study limit for Phases I – III is the Village/Kenosha County boundary at County Highway KR. Initial modeling demonstrates that all changes made upstream of County Highway KR have no downstream impact due to a change in stream gradient at the end of Phase III.

As part of Map Modernization efforts, FEMA has been requiring communities to submit a LOMR for new construction, in addition to new floodplain studies. This will also apply to the Pike River Restoration Project. The Village may want to contact FEMA to determine whether they can submit Phases I-III as a "unique project" since the three phases will not be affected by future construction in Phases IV-IX.

FEMA mapping standards require that the project tie into the "existing" FEMA profile within 0.5 foot, vertically. The SEWRPC Amendment to the Pike River Watershed Comprehensive Plan (1996) will be submitted as part of Racine and Kenosha Counties' Preliminary Digital Flood Insurance Rate Maps (DFIRMs). Based upon prior modeling, the new flood profiles (based on Phases I – III) should match the 1996 Amendment at the Village/Kenosha County boundary. There may be a slight difference in flows with the newest HSPF analysis, and this information will need to be submitted as part of the hydraulic analysis. The Village may want to contact FEMA to determine if this option will meet FEMA mapping standards.

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There are several reaches in the HSPF study where floodplain storage has been accounted for and will be in the mapped floodplain. Therefore, Chapter NR116 of the Wisconsin Administrative Code requires affected communities to incorporate flood storage language and a map of the flood storage district into their ordinance, ensuring predicted peak flood discharge remains valid. Flood storage modifications only need to address the Pike River mainstem and the following tributaries: Bartlett Creek, Waxdale Tributary, Sorenson Creek, and Nelson Creek.

Only two communities, Village of Mt Pleasant and City of Racine, are impacted by Phases I – III. Mt. Pleasant has already incorporated storage language into their draft floodplain ordinance and fully intends to prepare flood storage maps. The City of Racine would also need to make flood storage modifications to their ordinance. At the meeting, it was agreed that the Village will approach the City of Racine for a letter of intent stating that the City will make the necessary modifications to their ordinance. A document providing sample flood storage language is enclosed. After receiving Racine’s letter of intent, the Department can issue the technical approval letter for the HSPF study submittal. The Department would approve ordinance amendments after FEMA issues the LOMR for Phases I – III.

Other communities affected by the HSPF model - Sturtevant, Kenosha, and Kenosha County - have already adopted the SEWRPC Comprehensive Plan for Pike River Watershed (1983) and its amendment (1996) which account for flood storage. As mentioned earlier, the 1996 amendment will be submitted as part of Racine and Kenosha Counties’ Preliminary DFIRMs. Therefore, these communities will already be required to adopt flood storage language and maps once the final DFIRMs are released. The Department will assume responsibility for notifying these communities about ordinance requirements - and future amendments related to the Pike River Watershed - shortly after the Map Modernization 90-day Appeal Period ends.

It is has not yet been determined how the communities will prepare their flood storage district maps. This still needs to be resolved, and perhaps there could be cooperative efforts between communities.

After receiving approval for the hydrologic study, the Village will prepare flood profiles for Phases I – III. The hydraulic analysis also needs to be submitted for Department review and approval, and it will be important to include the following items as part of the submittal:

- “Existing” pre-construction profiles;
- Phases I – III as-constructed profiles;
- Comparison of results to the initial SEWRPC Phases I – III floodflow model, including relevant tributaries;
- Present the “difference” in feet vertically – at the Village limits - between flows from the SEWRPC Pike River Watershed Amendment (1996) and flows from the newest HSPF run.

The following list summarizes some critical steps in the approval process for floodplain considerations associated with the Pike River Restoration Project:

Summary of Approval Process

1. Racine signs letter of intent for flood storage modifications
2. Department issues technical approval on HSPF study submittal
3. Mt Pleasant becomes member of National Flood Insurance Program
4. Mt Pleasant completes adoption of Floodplain Ordinance, dated 02/26/07
5. Mt Pleasant prepares hydraulic analysis and submits for Department review/approval
6. After receiving Department approval, Mt Pleasant submits LOMR application to FEMA
7. Mt Pleasant and Racine prepare flood storage district maps
8. After issuance of LOMR, Mt Pleasant and Racine begin ordinance amendment process
9. Department notifies Sturtevant, Kenosha, and Kenosha County of ordinance requirements pertaining to flood storage (after Map Mod 90-day appeal process)

If you have any comments or questions, please feel free to contact me at (414) 263-8641 or Tanya.Meyer@wisconsin.gov. Thank you again for your efforts.

Sincerely,

Tanya L. Meyer
Water Regulation and Zoning Engineer
Milwaukee Service Center

Enclosure

cc: Bill Sasse – Village of Mt Pleasant
Sonny Havn – Village of Mt Pleasant
Rich Wirtz – Crispell-Snyder
Mike Hahn – Southeastern Wisconsin Regional Planning Commission
Ron Printz – Southeastern Wisconsin Regional Planning Commission
Meg Galloway - DNR (by email)
Bob Watson – DNR (by email)
Gary Heinrichs - DNR (by email)
Mike Luba – DNR (by email)

Flood Storage Modifications

Because the Pike River Watershed HSPF model accounts for flood storage, the City of Racine would need to add flood storage language to their Ordinance to be in compliance with Chapter NR 116 of the Wisconsin Administrative Code. Listed below are the modifications that would need to be made. Applicable language is included in the “Department Model Floodplain Ordinance with Flood Storage Modifications (Revised April 2006)”, and can be found at the following website:

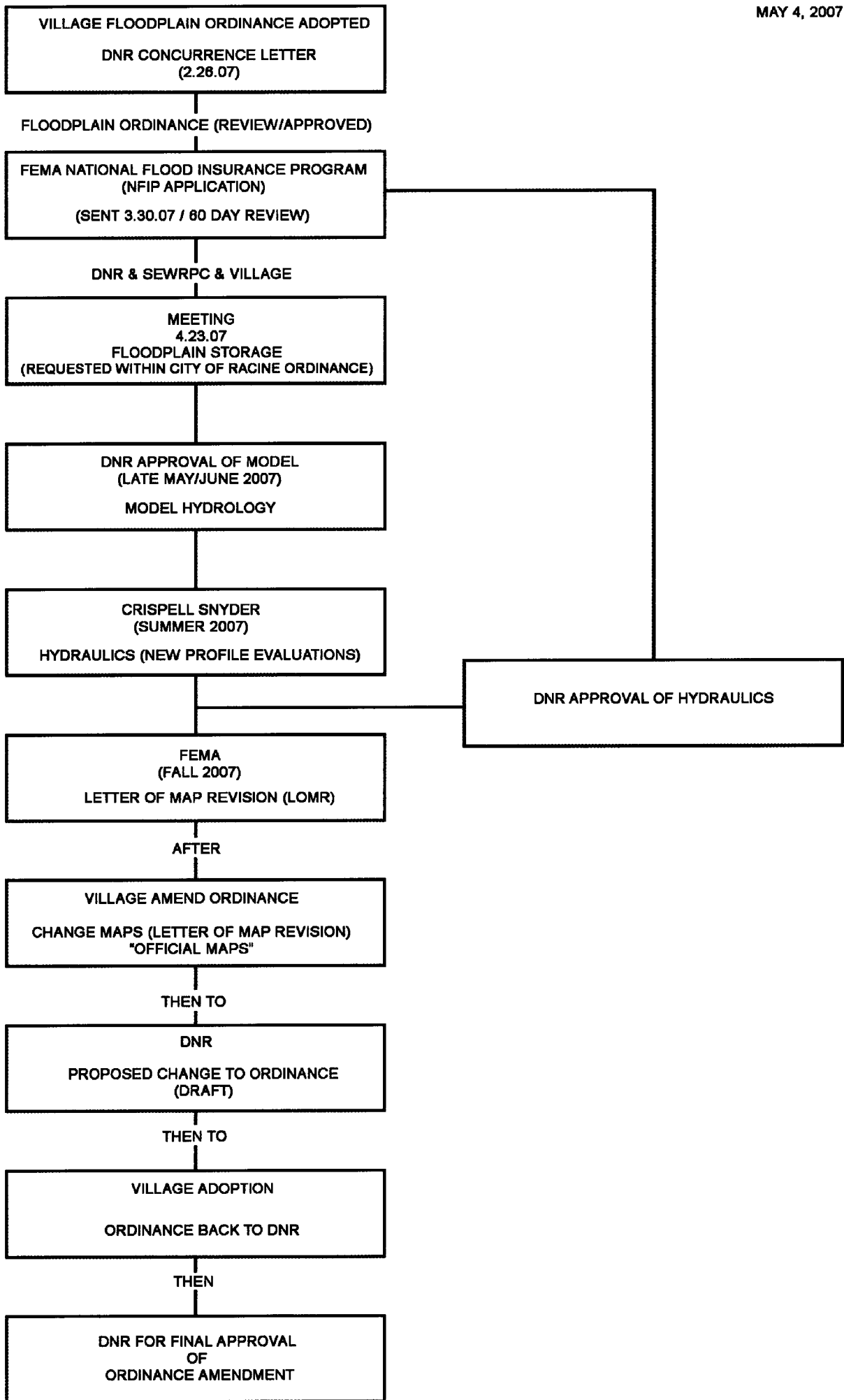
<http://dnr.wi.gov/org/water/wm/dsfm/flood/documents/FPMODstorage.pdf>

The section numbers relate to the City of Racine Draft Floodplain Ordinance, which was submitted to the Department in August 2006. In the sections specifically addressing flood storage, you may want to reiterate that the flood storage district is limited to the Pike River and Sorenson Creek, as listed in Official Maps and Revisions (Section 1.5(2)).

- 1.5(2) Official Maps and Revisions (see language listed below)
- 1.5(3) Establishment of Districts – add Flood Storage District language
- 3.1 Applicability – change reference to s. 5.1(4)
- 4.1 Applicability – change reference to s. 5.1(4)
- 5.0 Change title to Other Floodplain Districts and add relevant paragraph
- 5.1 Change title to General Floodplain District and change subsections to 5.1(1) – 5.1(4)
- 5.1(2) Permitted Uses – change reference to 5.1(4)
- 5.2 Change title to Flood Storage District and add applicability and standards
- 6.4 Add Flood Storage Areas language to the Nonconforming Uses section
- 7.4(1)(b) To Review Appeals of Permit Denials – change reference to 5.1(4)
- 8.2 Procedures – change reference to 5.1(4)

1.5(2) OFFICIAL MAPS AND REVISIONS

c) The boundaries of the flood storage district for the Pike River and Sorenson Creek, at xxxx location are shown on the flood storage map prepared by xxxx and dated xxxx, and are based off SEWRPC and Crispell-Snyder hydrologic and hydraulic engineering studies, dated xxxx.



DRAFT LETTER

May 29, 2007

Mr. Michael Andreasen – Village Administrator
Village of Mt. Pleasant
6216 Durand Ave.
Racine, WI 53406

**Re: City of Racine – Floodplain Ordinance Amendment
(To incorporate Floodplain Storage)**

Dear Mr. Andreasen:

Following our discussion over the last several weeks relating to the above item, the City of Racine is in a position to move forward on amending our Floodplain Ordinance to incorporate flood storage standards within the confines of the Pike River watershed, namely the mainstream of the Pike River and Sorenson Creek. The ordinance amendment will include language pertaining to flood storage as well as an official map delineating the flood storage district.

We understand that amending our Floodplain Ordinance would not commence until the Federal Emergency Management Agency (FEMA) issues a Letter of Map Revision (LOMR) for the Mt. Pleasant Pike River Restoration Project (Phases I – III). We further understand the proposed ordinance amendment should be sent to the Department of Natural Resources (DNR). Following DNR review, we would adopt the floodplain ordinance using Racine's official adoption process which includes a Class 2 public hearing notice. We would then submit the ordinance to the DNR for final approval. As in the past, the working relationship between our communities has improved greatly within the adoption of the Intergovernmental Agreements pertaining to wastewater and water services for our surrounding areas.

Sincerely,

Gary Becker, Mayor
City of Racine

Michael Andreasen

From: "Jeff Seitz" [seitzj@crispell-snyder.com]
Sent: Tuesday, May 29, 2007 12:20 PM
To: "Michael Andreasen" <MAndreasen@mtpleasantwi.gov>
Subject: Flood fringe vs. Flood storage

Mike

In an effort to explain what the DNR is looking for from Racine I offer the following:

- Currently the DNR classifies floodplain in two different categories. Flood-way and flood-fringe. Flood-way is the area where water is actively flowing and flood-fringe is where the water is ponding and moves very slowly if at all.
- No development is permitted in a flood-way.
- In a flood-fringe, development may occur if buildings are flood proofed and if the development will not change the flood elevation by more than .01 feet.
- The DNR would like to see flood-fringe reclassified as flood-storage. The impact of this is that you will no longer be able to develop within a flood-fringe with proof that the floodplain is not impacted by more than .01 feet. With the flood-fringe reclassified as a flood-storage, in order to fill or develop you will now have to create storage equivalent to what is removed from filling or developing. Essentially instead of proving insignificant changes in floodplain elevation, you will have to mitigate with equal volume thereby removing any impact to flood elevation.
- The DNR is asking Racine to make these changes only to lands within the Pike Creek basin and the Sorenson Creek basin. Not City wide.

Hope this helps explain the issue at hand.

Jeffrey A. Seitz, P.E.
Crispell - Snyder, Inc.
Chief Operations Officer
700 Geneva Parkway
P.O. Box 550
Lake Geneva, WI 53147
(262) 348-5600

Upon opening this file you hereby agree to the Crispell-Snyder, Inc. ELECTRONIC DATA DISCLAIMER. If you would like a copy of the ELECTRONIC DATA DISCLAIMER, please send an e-mail request to Engineering@crispell-snyder.com.

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JUN 05 2007

Dept of Public Works