City of Newport
Planning Commission Minutes
July 11, 2013

1. CALL TO ORDER
Chairperson Lund called the meeting to order at 6:00 P.M.

2. ROLL CALL -
Commissioners present – Dan Lund, Matt Prestegaard Janice Anderson, Anthony Mahmood (arrived at 6:05 p.m.)

Commissioners absent – Susan Lindoo

Also present – Deb Hill, City Administrator; Renee Helm, Executive Analyst; Tom Ingemann, Council Liaison; John Stewart, City Engineer

3. APPROVAL OF PLANNING COMMISSION MINUTES
A. Planning Commission Minutes of June 13, 2013

Motion by Anderson, seconded by Prestegaard, to approve the June 13, 2013 minutes as presented. With 3 Ayes, 0 Nays, 2 Absent, the motion carried.

Anthony Mahmood arrived at 6:05 p.m.

4. APPOINTMENTS WITH COMMISSION
A. Presentation from City Engineer Regarding Stormwater

John Stewart, City Engineer, presented on this item as attached.

Chairperson Lund – I've heard that the Watershed District does not provide input on additions, why is that?

Engineer Stewart – That's because they're typically less than a one acre disruption to the site. They're concerned about the disturbance area on the site, not the entire site.

Vice-Chairperson Prestegaard – Can you describe how the flow increases? We were told that the impervious area isn't increasing and we were lead to believe that the run-off wouldn't either.

Engineer Stewart – The Newport St. Paul Cold Storage has driving areas that are blacktopped. The blacktopped areas aren't changing. They have an area on the river-side of the building that is gravel and they were arguing that the gravel has the same run-off characteristics that blacktop does. Since they were proposing to blacktop the gravel area we required them to provide a storage plan for the run-off. It's my understanding that the rock is not too far down so it would be expensive for them to put in the in-ground storage that they were proposing.

Chairperson Lund – So in regards to the Cold Storage site, you're saying that with the porous rock there, you would expect any water that ended up in in-ground storage to flow directly into the water?

Engineer Stewart – You will get some benefit from the baffling in the actual barrels but I don't think we'll get as much infiltration as they had originally anticipated. Additionally, if the rock is higher than they had originally thought, it doesn't get a chance to disperse before hitting the rock soil.

Chairperson Lund – So does that also contrast with a surface pond where you can let the sediment fall out and then you can remove it at some periodic interval?

Engineer Stewart – Exactly. There's some maintenance with that system where eventually you'll need to get down there and remove the sediment that accumulates in the barrels down there.

Chairperson Lund – How does their elevation relate to the flood plain?

Engineer Stewart – If you look at a 100-year flood and the parking lot on the river-side of the dyke, which is 16 feet high, we'll never get anything coming over but we get the reverse effect through the rock of river water seeping in and underneath. The issue then is that if you put in a system that involves building 36" diameter vaults below the ground you also need to provide at least 36" underneath of sand so there is some chance of that water infiltrating out. They did some analysis that went back eight years and they had nine days in which that system would have been impacted. If we were to go back to 1993, I think we would pick up a couple other occasions.

Chairperson Lund – What happens if the river goes to a level to where the system is infiltrated, does all the sediment wash out into the river?

Engineer Stewart - If you get the river coming up, you're going to lose the infiltration out the bottom of the pipes. They haven't really come back to us with a plan about what they propose to do. Most recently, they decided that they only want to do about 20% of the proposed building because of a new tax law. When we get through all of that I think this sub-surface issue will go away.

Chairperson Lund – So it sounds like there are maybe two separate issues. First, when the river goes up, you can't assume that the system can handle the water that it was designed for.

Engineer Stewart - It precludes any infiltration.

Chairperson Lund – Secondly, in regards to the filtration effects of the system, is that harmed when the river comes up? What I mean is does their run-off and pollution contribution increase due to the reduction in the effectiveness of the system because of the river?

Engineer Stewart – You basically end up with a system that is 80% efficient so you'll get some more sediment washing through the system if there's no infiltration at the bottom. I don't think you would be in a situation where you get so much river water in the system that it'll back up into the pipes or wash out the last three years of sediment.

Anthony Mahmood – What would be the solution to their problem?

Engineer Stewart – It's tough because the property owner wants to increase their capacity to store goods and to do that they'll increase the run-off which requires some storage. He either has to build a bigger pond or do something as he proposes with the sub-surface system. We talked a little bit about using some of the area in the northeast corner for a pond.

Chairperson Lund – Is the standard related to an addition or any kind of change in construction just that you're not any worse than you are or do we take that opportunity to say that we're going to be stuck with stricter and stricter standards?

Engineer Stewart – The EPA's goal is to get swimmable, fishable rivers and they don't think that they have accomplished that. As such, they need to tighten down on the standards for cities on stormwater discharges. So if we're kicking out 1,000 lbs of phosphorous into the river every year, they'll come back and say that we can only do 600 or 700 lbs and it'll keep going like that.

Chairperson Lund – Is the issue now that they can't get any worse with their discharge?

Engineer Stewart – It's the issue now but in five years or so it'll be nutrients and whether or not nutrients are being washed off into the river from this property that need to be treated beforehand. Right now, we're more concerned with storage and rate reduction.

Janice Anderson – How would the nutrients increase in five years?

Engineer Stewart – The nutrients won't increase but the limits for how many pounds we can discharge into the river will reduce.

Chairperson Lund – If they convince you that they're stormwater runoff is no worse after their project than it is now, is that good enough no matter what their run-off is now?

Engineer Stewart – I would have to go back to see what they're last proposal was. They built out in 2005 and I don't remember if that was accommodated for in storage or if it was delayed to the next project.

Chairperson Lund – With a new project, is that also an opportunity to make them adhere to current standards?

Engineer Stewart – Yes. Right now, the Watershed District handles that.

Janice Anderson – It seems simpler to me to put in ponds.

Engineer Stewart – Yes. Typically, you wouldn't approve a project like this leaving the stormwater design up in the air.

Janice Anderson – We spoke to that.

Chairperson Lund – It was the recommendation of the City staff to leave it up to you.

Engineer Stewart – I appreciate that but it could be that by the time he gets the stormwater figured out the building will already be up.

Executive Analyst Helm – He won't get the building permit until everyone signs off on it.

Anthony Mahmood – That's what the contingency was. Us, not having any clue of what this system did until now, we trusted your judgment.

Engineer Stewart – They give it to me and I write a report with conditions for the stormwater that should be rolled into the resolution. What can happen is the engineers for the City and developer can end up arguing for years and years before a final stormwater plan is decided upon.

Anthony Mahmood – So why was this brought to us if we didn't have your recommendations already?

Engineer Stewart – Because he submitted plans and wanted to get the project started this year.

Janice Anderson – I thought the Planning Commission stipulated that the approval won't be finalized until the stormwater plan is approved by you.

Executive Analyst Helm – The resolution stipulates that the building permit will not be issued until John, Sherri and the building inspector sign off on the plans.

Engineer Stewart – It's easier to discuss the plans with the developers before you approve the project.

Chairperson Lund – Thank you for coming and presenting on this.

Engineer Stewart – You're welcome. I'm happy to come to meetings to discuss items or projects.

5. COMMISSION AND STAFF REPORTS

6. NEW BUSINESS

7. ANNOUNCEMENTS

A. Upcoming Meetings and Events:

1. 60th Annual Booya – Lions Park	July 14, 2013	11:00 a.m.
2. City Council Meeting	July 18, 2013	5:30 p.m.
3. Park Board Meeting	July 25, 2013	7:00 p.m.

8. ADJOURNMENT

Motion by Anderson, seconded by Mahmood, to adjourn the Planning Commission Meeting at 7:06 P.M. With 4 Ayes, 0 Nays, 1 Absent, the motion carried.

Signed: _____
Dan Lund, Chairperson

Respectfully submitted,

Renee Helm
Executive Analyst

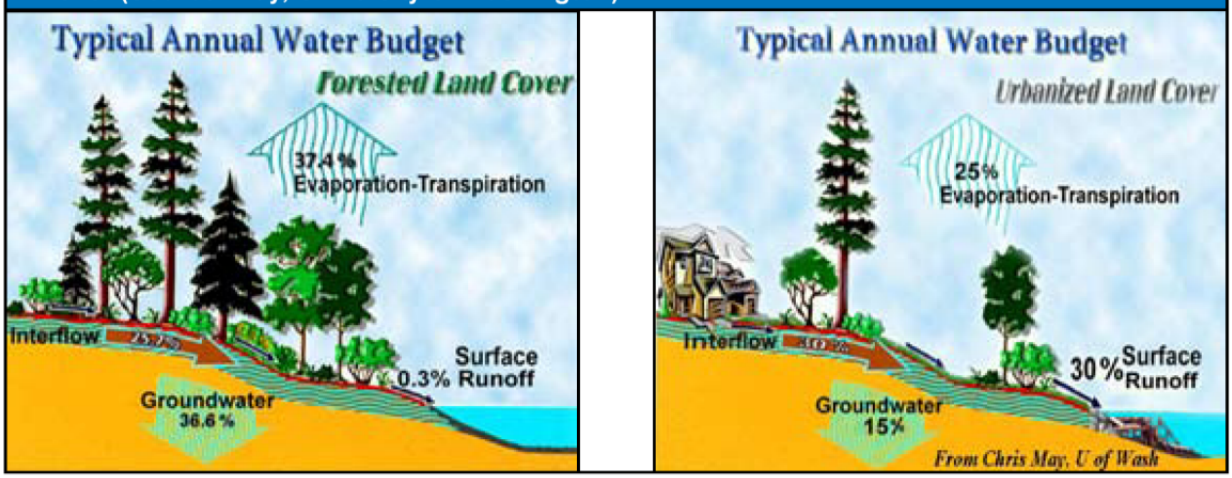
City of Newport; Storm Water Management /Planning Commission

Why is it necessary?

1. Basic premise is that an upstream property cannot “damage” a downstream property.

2. **Clean Water Act, Section 404.** Some waters in the nation still do not meet the Clean Water Act national goal of "fishable, swimmable" despite the fact that nationally required levels of pollution control technology have been implemented by many pollution sources. Clean Water Act Section 1313 addresses these waters that are not "fishable, swimmable" by requiring states to identify the waters and to develop total maximum daily loads (TMDLs) for them. TMDLs can play a key role in watershed management.

Figure 2.1 Differences in Annual Water Budget from Natural Land Cover to Urbanized Land Cover (Source: May, University of Washington)



What is required?

1. Controlling runoff (rate control) to match predevelopment conditions.

2. Storing volume by adding storage pond to hold up to 100 year runoff event.

3. Treatment to remove nutrients, preserving downstream water quality.

Figure 2.3 Uncontrolled Construction Erosion

There are three layers of oversight in Newport; the City and the South Washington Watershed District (SWWD). The Watershed Managers do not become involved until the affected area is larger than 1 acre. This gives Newport more flexibility in controlling “small” residential and commercial developments. At this point the City allows the Watershed to manage the amount of nutrient load removed from the stormwater runoff.

This will change by December 2014 cities with a population over 10,000 will begin negotiating TMDL Permits with MPCA. The State is further mandated to permit smaller Cities after that date.
The City is also charged with controlling runoff and sediment from construction projects. Each year Public Works has to submit a report on what measures were taken and how successful they had been MS-4 program.

How does Newport accomplish these goals?

The City's requirements can be more restrictive than SWWD's.
This will become more critical when Newport is issued a "Non-Point Source" Permit that puts annual limits on the Total Mass Discharge Loading of nutrient and solids that can be discharged to the Mississippi River (a somewhat arbitrary evaluation since nutrient runoff in Minnesota is, for all intents dependent on the frequency, timing and amount of rain and snowfall).
What the TMDL permit does is force Cities to first meet a minimum standard, and as time progresses permit TMDLs will become tighter, forcing Cities to more strictly manage runoff and treatment.
In Wisconsin, Cities pay farmers not to till arable land reducing nutrient runoff thereby allowing the City to spend less money operating its wastewater plant.

Presently the City allows the SWWD to permit nutrient removal and we are solely concerned with rate control. The City requires developers and contractors to obtain an Erosion Control Permit from the MPCA and monitors and inspects the contractors' adherence to these requirements.

Our development requirements as contained in our design manual are directed at controlling the rate of runoff and soil loss;

GRADING STANDARDS

I. **NPDES Permit.** Prior to start of construction, the Developer shall obtain all regulatory agency permits and approvals including those from the Minnesota Pollution Control Agency for "General Storm Water Permit for Construction Activity", and the signature of the company responsible for erosion and sediment control plan preparation, implementation and maintenance.

II. **Minimum Grades.** Minimum grade for drainage swales and lot grading shall be 2% or greater.

III. **Maximum Grades**. Maximum 4:1 slopes are allowed in "maintained" areas except as approved by the City . Maximum slopes in ponding basins are 5:1. Approved slopes greater than 4:1 shall have erosion control blanket installed immediately after finished grading.

IV. **Drainage Swales**. Maximum length for drainage swales shall be 300 feet or a total of eight lots draining to a point, or as approved by the Public Works Superintendent. All drainage plans shall contain a detail of a typical drainage "Swale", with a minimum depth of 18", a minimum 18-inch wide bottom; 5:1 side slopes, and minimum 2% grade. All swales must be contained within easements of sufficient size and width. All potential cross- lot drainage must be captured and contained in such swales, which shall be located in defined easements.

V. **Emergency Overflow Swales.** Show emergency overflow routes from all low points and show elevation of high point along emergency overflow route. Submit design calculations verifying the adequacy of the overland drainage route capacity. The following emergency overflow construction and design requirements shall apply:

a. Emergency overflows, which drain over vegetated areas, shall be lined with Geotextile Erosion Control Matting such as: Enkamat, Tensar, LAN lock or approved equal.
b. After the overflow area is fine graded, the area shall be sodded to match the specified overflow elevation and is to be protected with a temporary fence, which shall delineate the easement limits and protect the finished overflow swale from disturbance by adjacent home construction and lot grading.
c. Emergency over flows will have a minimum 3' flat bottom with 4 to 1 slopes (please refer to your drainage calculations for flow path widths in excess of 3-feet). Please check that all necessary flow paths are included within easements of sufficient size and widths.
d. Abutting structure openings shall be at least 24-inches above the 100-year overflow profile (HWL) of the emergency swale.
e. There shall be at least a 15-foot horizontal separation from the overflow swale drainage easement to any livable structure.

6. **Ponding and Sedimentation Basins.** If suitable soil conditions are available for use, infiltration of runoff on-site shall be required for site development storm water management. Water quality treatment measures to promote sedimentation of suspended particles in stormwater runoff are required for all developments. Dual-purpose ponds that provide both water quality treatment and stormwater detention without creating a permanent pool are encouraged. If a permanent pool is to be construed as part of the sedimentation basin (rather than a dual purpose pond), the following minimum design criteria shall govern:
    a. An average permanent pool depth of four to ten feet;
    b. A permanent pool length-to-width ratio shall be 3:1 or greater;
    c. Pool side slopes shall not exceed 5:1;
    d. A protective buffer strip of vegetation surrounding the permanent pool shall be constructed at a minimum width of 16.5 feet and a maximum slope of 10:1.

7. **Stormwater Design Review**. Provide detailed hydrologic/hydraulic design calculations that include:
    a. Drawings showing the existing and proposed drainage boundaries.
    b. 2-year design, 10-year design, and 100-year design drainage boundaries.
    c. Existing and proposed hydrologic/hydraulic calculations for 2, 10, and 100-year storms.

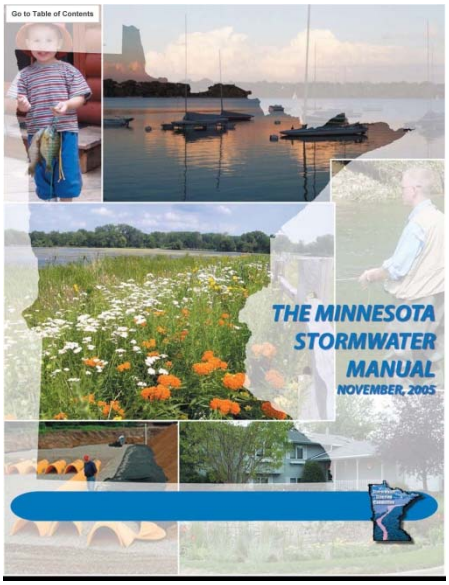
8. **Retaining Walls**. Retaining walls will not be allowed within the City's right of way or easements, unless approved with the overall subdivision grading plan. Approved subdivision retaining walls within the right of way or easement areas shall meet current MnDOT standards and specifications. Detailed plans and specifications for retaining walls shall be submitted for review. Drainage overtopping the walls shall not be allowed. The structural goals of Newport's Storm Water Management System can be summarized by the following selection matrix. Additional resources can be accessed at;

Table 6.1 Primary and Secondary Pollutant Removal Mechanisms

BMP Group	Pollutant Removal Mechanisms									
	Water Quality						Water Quantity			
	Screening/ Filtration	Infiltration/ Recharge	Settling	Biological Uptake	Temperature Control	Soil Adsorption	Volume Control	Rate Control	Velocity Control	Evapotranspiration
Pollution Prevention	Not applicable – pollutants not exposed to stormwater									
Better Site Design / Low Impact Development	●	◐	◐	◐	◐	◐	●	◐	◐	◐
Runoff Volume Minimization		◐			◐		●	◐		
Temporary Construction Sediment Control			●					●	◐	
Bioretention	●	◐	◐	◐	◐	◐	◐	◐		◐
Filtration	●	◐		◐		◐		◐		◐
Infiltration	◐	●		◐	●	◐	◐	◐		
Stormwater Ponds		◐	●	◐				●	●	◐
Stormwater Wetlands	◐	◐	●	●		◐		●	●	◐
Supplemental Treatment	Each supplemental and proprietary device should be carefully studied to learn the primary and secondary pollutant removal functions.									

● = Primary Pollutant Removal Mechanism
◐ = Secondary Pollutant Removal Mechanism

http://www.pca.state.mn.us/index.php/view-document.html?gid=8937



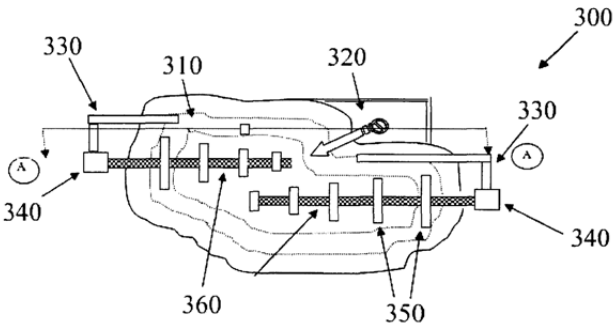
Storm Water Management Options:

Reduce sediment erosion: Channel Stabilization

Nutrient Removal and Rate Control ; 2 Stage Ponds

Rain Garden/Buffer Strips

Subsurface Storage & Infiltration



Porous Street and Parking Area:

Erosion Control