

LMRLAC – February 23, 2012

LOWER MERRIMACK RIVER LOCAL ADVISORY COMMITTEE

MINUTES

February 23, 2012

Members:

- ✓ = present

Current:

- ✓ Kathryn Nelson (Chair) -- Nashua
- ✓ Michael Redding (Vice Chair) – Merrimack
- ✓ Karen Archambault (Secretary) – Nashua
- ✓ Michael Croteau - Litchfield
- ✓ Nelson Disco - Merrimack
- George May – Merrimack
- Bob Robbins – Hudson
- ✓ David Scaer – Hudson

Pending Renewal:

- ✓ Jim Barnes (Treasurer) – Hudson
- Glenn McKibben – Litchfield

Associate Members:

Mildred Mugica – Nashua

Also in attendance:

- Jill Longval, Environmental Planner, Nashua Regional Planning Commission
- Tracie Sales, Water Resources Manager, Merrimack River Watershed Council
- William Smagula, Director of Generation, Public Service Company of New Hampshire

The meeting was called to order at 7:01pm in the Music/Art/Media room of the Nashua Public Library by Chair Kath Nelson.

Minutes

The minutes of the January 26 meeting were accepted with an edit as distributed prior to the meeting.

604(b) Grant for River Continuity Assessment

Jill brought out a map with culvert locations marked on it and described the project's status. She had contacted the towns to see whether they had culverts as a GIS layer. None did, so Jill reviewed a map and marked each place where a road and stream intersected, skipping intermittent streams and known drainage. Using this method, the map has 11 marked culverts within the quarter-mile corridor, 13 more beyond the quarter-mile but within a half-mile of the river, and 138 marked culverts beyond a half-mile. Jill stated an estimate of 25-30 culverts would be within the scope of the study based on the grant funding. Jill explained that the grant runs until the end of the calendar year.

Nelson commented that additional culverts will turn up. For example, he pointed out that the railroad was not shown on the map and thus there are several more culverts within the quarter-mile. Kath pointed out that there are parking lot culverts as well, and that there may be some subdivision streets which do not show up on the map. Ms. Sales commented that including the railroad may as much as double the number of culverts within the corridor. Kath mentioned that access to railroad culverts could be difficult and cited the Salmon Brook culvert as an example.

Jill stated she had a meeting at DES earlier in the month at which DES made it a requirement that Jill attend each culvert assessment in person. At the meeting it was estimated that

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assessing a culvert would take about an hour, including drive time. DES will be offering a training session that Jill must attend; LAC members are welcome to attend as well. Jill explained that the training consists of a presentation and a practice culvert. Jill will provide a copy of the presentation to LAC members.

David asked if any pre-assessment work would help to save Jill some time by identifying where culverts were. Kath suggested members could collect preliminary data to further expedite the process, and suggested Jill could provide training for interested volunteers.

David asked if LAC members attended the DES training if they would then be qualified to perform culvert assessments. Jill replied that the question had been asked and DES maintained that Jill had to be present for each assessment. Kath suggested that Jill could field check data gathered by others, if that was acceptable to DES. Jill replied that she would ask.

David said he would look into whether there might be culvert data available for Jill in one of Nashua's GIS layers. Kath and Michael R. suggested Jill check with DES and with GRANIT to see whether any GIS data would be available that way.

The discussion turned to how to decide what to survey. Kath stated the intent is to get to a point to determine what further stretches of tributaries would be a priority for the next round. Kath asked for ideas on how to assess a stream to determine if it's a priority. Michael R. suggested stream order. Kath suggested water temperature. Kath also suggested a GIS analysis of where the stream goes and land use. Jill replied that she could do that now for the identified culverts.

Kath suggested she may be able to borrow submersible thermometers to take single readings of water temperature at the culverts. Nelson commented that it would be a seasonal reading. Kath also suggested many pictures could be taken at each culvert. Jill stated she will collect GPS data during the field assessment.

Kath asked if Jill could provide two color copies of smaller maps, by town, for members to use.

Kath gave Michael C. a copy of the Ashuelot River Continuity Assessment and asked him to take a look at it for some possible ideas.

Members next discussed the assessment form. Jill said DES put it together and said she will send a copy around. Kath stated she would like to compare the form with the Massachusetts culvert assessment form.

Kath asked members to let her know their preferences on an LAC training session, for members interested in volunteering but who cannot attend the DES training. Kath suggested the possibility of combining a meeting, perhaps the April meeting, with training.

Jill will inform members of the DES training date and will check whether volunteers could be more independent if they attend the DES training. Jill will also update the map based on the discussion and keep members updated on status. Jill asked for members to let her know if they have any additional thoughts or suggestions.

Members thanked Jill for coming in and updating them on the grant.

Presentation by PSNH on NPDES Permit

William Smagula, Director of Generation for PSNH, introduced himself and explained that he would be talking about the National Pollutant Discharge Elimination System (NPDES) and the Merrimack Station power plant in Bow.

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Mr. Smagula explained that the Bow plant takes in water primarily for cooling, but also to operate and to wash equipment. The water taken from the river gets returned to the river, except what's lost to evaporation. He explained that the plant is currently operating under a NPDES permit which was originally issued in 1992. PSNH applied to renew the permit in 1997. He explained that the existing permit remains in effect during the renewal process.

Mr. Smagula explained that PSNH monitors the water being returned to the river for temperature, oil and grease, pH, metals, and chlorine, in accordance with the permit. He explained that most of the water goes through the cooling process, which uses sprayers to air cool the water before releasing it to the river. There is also a waste water treatment facility, which includes a precipitation process and an oil/water separator to clean the water. He stated the process meets both State and NPDES requirements. Mr. Smagula explained that there is a continuous recording of data and water sampling, and monthly reports are submitted in accordance with the permit.

Mr Smagula described the region of the river where the Bow plant is located. He stated it's referred to as the Hooksett Pool, located between two dams. He explained that Unit 1 was built in 1960, and Unit 2 was built in 1968. He indicated the cooling spray modules were installed when Unit 2 was built.

Mr. Smagula explained that PSNH has conducted many studies over the years, documenting temperature, pH, and dissolved oxygen. He indicated that both habitat and vegetation are looked at. He stated that there are currently 20-22 fish species in the area of the river near the power plant, compared to 14 species in the 1960s. He indicated that some fish previously in the tributaries are now in the main stem. He commented that rivers in general, and the Merrimack in particular, have gotten cleaner since the 1960s as a result of the Clean Water Act.

Kath asked whether there was any further detail about fish trends. Mr. Smagula replied that the general trend is that there are additional fish species present. Kath asked whether any of the species were invasive or predatory. Mr. Smagula replied that he was unaware whether any new species were considered predatory, but he stated that some new species such as small mouth bass are now present. He stated that small mouth bass are not indigenous, but it's unknown how they were introduced. Kath asked whether tributaries were monitored, and Mr. Smagula replied that the focus is on the main stem of the river.

Mr. Smagula discussed the thermal plume in the pool. He mentioned that there are cold water fish species in the river, and that there are continuous channels of cooler water that the cold water species can occupy. He stated that the temperature increase is pretty much dissipated by the time the water gets to the Hooksett Dam downstream of the plant.

Mr. Smagula commented that there is much recreational use in the area. He mentioned fishermen, kayakers, jet skiers, and crew teams all use that part of the river.

Mr. Smagula briefly discussed adding the scrubber to the plant to remove mercury from air emissions. He stated the objective was to reduce mercury emissions by 80 percent, and explained that an added benefit was the scrubber also reduced sulfur by 90 percent. He briefly described how the scrubber works: boiler gases enter through the side, proceed through a lime and water mixture, and go out the top. The water recirculates and some of it evaporates. The dewatered limestone is used to create synthetic gypsum and that is sold for use in making sheetrock. The liquid waste gets treated.

Mr. Smagula explained that PSNH worked with DES to meet the ambient water quality standards, and PSNH then took that to the EPA. He stated that the EPA asked PSNH in

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November 2010 to wait for the new draft permit. Mr. Smagula mentioned that the new draft permit is in the review phase and that the comment period ends on February 28.

Kath asked what the EPA was looking for in the draft permit. Mr. Smagula replied that the EPA requested the closed loop system. With a closed loop system, the water intake from the river would be less; water would recirculate in the cooling system. Mr. Smagula stated that PSNH feels a closed loop system is unnecessary, and stated that the fish population is healthy. He also stated that, acting on behalf of customers, PSNH does not feel the expense of a closed loop system is warranted.

Kath asked if there was a time frame for having the permit issued. Mr. Smagula replied that the EPA reviews the submitted comments, produces a response, and eventually issues a final permit. He stated he believes the time frame depends primarily on the number of comments received.

Jim asked Mr. Smagula about the flow in the river, and Mr. Smagula responded that the Federal Energy Regulatory Commission (FERC) license under which PSNH operates the dams is run of river.

When Michael C. asked about anadromous fish like shad, Mr. Smagula explained that the Amoskeag Dam in Manchester has a fish ladder. He stated PSNH monitors fish species and if a certain number of species occur over a time period that would trigger another ladder. Mr. Smagula commented that eels are doing well and that an eel ladder is going in at Amoskeag which will be in use next year. Kath suggested that eels have more trouble traveling downstream, getting drawn into the turbines. Mr. Smagula commented that, with the run of river flow, enough water flows over the dam. He also stated that the minimum flow requirement was increased with the last license.

Kath asked for data on fish population and habitat to see if it compares favorably with upstream. She also asked if the river temperature has increased and that suggested that aquatic life is being stressed. Mr. Smagula replied that he disagreed with that and stated his view that the data show the fish population is growing and healthy.

Nelson asked how the fish numbers are collected. Mr. Smagula described that PSNH hires a firm which uses netting or electrofishing, using industry acceptable standard techniques. Mr. Smagula commented that the same company has been collecting the data for many years, maintaining a consistent approach.

Kath asked if the removal of the thermal plume would be beneficial to the fish in the area. Mr. Smagula responded by pointing out that the standards in the permit are that there is no harm done.

Mr. Smagula explained that the waste stream standards in the EPA draft permit are stricter than what DES requested. He commented that the requested mercury emissions, in parts per trillion, challenges the capabilities of current technology.

Jim asked where the mercury goes which is removed by the scrubbers. Mr. Smagula explained that the mercury precipitates as a solid and is taken to a lined landfill.

Ms. Sales asked about the life expectancy of the current power plant. Mr. Smagula replied it is one of the cleanest coal plants currently in the country, and commented that plant life expectancy includes many other issues beyond those discussed so far at the meeting. Jim pointed out that PSNH had made an investment in the plant recently by installing the scrubbers.

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Members thanked Mr. Smagula for coming in and speaking with them.

Rivers Management Protection Program (RMPP) LAC Workshop

Kath reminded the LAC that the workshop at DES will be Saturday, March 10, from 7:30am-3pm. Kath stated she would forward registration information when she receives it. She encouraged members to attend if possible, even for just part of the workshop. Kath also mentioned that the new Standard Operating Procedure will be discussed.

Permit Notification- 70 Farmington Road, Nashua (File Number 2012-00038)

Kath received the shoreland permit application package a few days ago; it had been sent to Bob Robbins initially. Kath also found out that the Nashua ZBA granted the subdivision variance.

Kath read from the application that the request is for a temporary disturbance of 13,216 square feet for grading, and the removal of 4,253 square feet of impervious surface which was the tennis court.

David mentioned that he had been at the site earlier in the day. He had been concerned that the disturbance would be near the brook, but the brook is on the opposite side of the lot from the disturbance.

Kath pointed out the large stippled area on the plan, which was labeled “area to be re-graded to offset fill of flood storage”. Members discussed that the re-grading would involve tree removal. The re-grading falls within the protected shoreland.

Members briefly discussed what comments to submit. The first comment recommended was to maintain vegetation along the tributary as much as possible. Jim suggested a comment requesting use of Best Management Practices to control erosion on the site. Michael R. commented that it's a plus that the impervious tennis court is being removed. Kath countered that it's essentially a trade-off for the house being built on the site. After a brief discussion, members agreed to a comment acknowledging that there is a reduction of impervious surface in the buffer. Kath will submit the comments to DES.

DES and LAC Standard Operating Process

Kath informed the LAC that DES is starting to see an increase in applications. She mentioned that there is an effort to elevate the LAC notification process. Among the changes is that DES will use GIS to check applications to see whether they fall within the corridor of a Designated River. Kath mentioned that DES has no budget for site walks and thus will have to rely on local comments when reviewing applications.

LMRLAC Bank Account

Jim explained that he had gone to NRPC to review the bank statements that had been mailed there. Among them was a letter explaining that, since the account had been inactive for five years, the funds were turned over to the State as abandoned property. Jim has obtained information on how to reclaim the funds and will keep everyone informed as to its status.

Meeting adjourned at 9:00 pm.

Upcoming Meetings

Next meeting is currently scheduled for Thursday, March 22, 2012, at 7:00 pm at the Nashua Public Library.

Respectfully submitted,
Karen Archambault
secretary