TOWN OF RAYMOND

PLANNING BOARD MINUTES WORKSHOP

Thursday, July 11, 2007

7:00 pm.

Jordan Small Middle School Broadcast Studio

Planning Board Attendance: Patrick Clark, Chairman; Ginger Wallace; Patrick Smith; Samuel Gifford;

and Greg Foster.

Absent: Robert O'Neill and Nelson Henry.

Staff Attendance: Karen Strout, Recording Secretary.

Absent: Planner Hugh Coxe.

1.Call to order:

The meeting was called to order at 7:23 pm. Roll was called. Chairman Clark stated that this meeting would be a workshop to discuss proposed changes to ordinances, specifically in the areas where the Board had asked for technical assistance from STY Design Consultants.

2. Presentation by Andrew Johnston of STY Design Consultants:

The following handout was presented to the Board:

Preliminary Ordinance Revision Recommendations

Recommendation 1

Re-write Land Use ordinance Article IX U.5 to reference Maine Subsurface Wastewater Disposal Rules for setback requirements. (Add tables from State Rules).

5. Septic Systems

With the exception of lots approved after the date of this ordinance by the Planning Board under the provisions of the Raymond Subdivision Regulations (Ordinance) and for which a hydrogeologic assessment in conformance with Section VIII-14 of the Subdivision Regulations (Ordinance) has be submitted, septic tanks and disposal field shall meet the setback distances from on-site and off-site features as required in the "State of Maine Subsurface Wastewater Disposal Rules" (Rules).

INCLUSION OF THE FOLLOWING IS OPTIONAL. IT WOULD PROVIDE GREATER CLARITY AND EASE OF REFERENCE, BUT COUL BE SUPERSEDED IF THE STATE RULES ARE UPDATED.

Setback distances shall be in accordance with the latest revision of Chapter 7 of the Rules. The following tables are taken from said Rules and are included for information only as updates to the Rules may modify these requirements at any time.

Table 700.2 applies to "First Time" (new) disposal system. "First Time" variances for sites that do not comply with the minimum soil conditions will be considered per Chapter 19 however no reduction in setbacks will be permitted.

TABLE 700.2

Setback distances for first time systems and/or major expansion systems

Site features vs. disposal system components of various sizes	Disposal Fields (total design flow)			Septic Tanks and Holding Tanks (total design flow)		
	Less than 1000g pd	1000 to 2000g pd	Over 2000g pd	Less than 1000gpd	1000 to 2000 gpd	Over 2000 gpd
Wells with water usage of 2000 or more gpd or public water system wells	300 ft	300 ft	300 ft	150 ft	150 ft	150 ft
Owner's well	100 ft [a]	200 ft	300 ft	100 ft [b]	100 ft	100 ft
Neighbor's wells	100 ft	200 ft	300 ft	100 ft	100 ft	100 ft
Water supply line	10 ft	18 ft	25 ft	10 ft	10 ft	10 ft
Water course, major	100 ft [d]	200 ft [d]	300 ft [d]	100 ft [b]	100 ft	100 ft
Water course, minor	50 ft [e]	100 ft [e]	150 ft [e]	50 ft [e]	50 ft [e]	50 ft [e]
Drainage ditches	25 ft	50 ft	75 ft	25 ft	25 ft	25 ft
Edge of fill extension Coastal wetlands, special freshwater wetlands, great ponds, rivers, streams	25 ft [e]	25 ft [e]	25 ft [e]	25 ft [e]	25 ft [e]	25 ft [e]
Slopes greater than 3:1	10f ft	18 ft [f]	25 ft [f]	N/A	N/A	N/A
No full basement [e.g. slab, frost wall, columns]	15 ft	28 ft	40 ft	8 ft	14 ft	20 ft
Full basement [below grade foundation]	20 ft	30 ft	40 ft	8 ft	14 ft	20 ft
Property lines	10 ft [c]	18 ft [c]	20 ft [c]	10 ft	15 ft	20 ft
Burial sites or graveyards, measured from the toe of the fill extension	25 ft	25 ft	25 ft	25 ft	25 ft	25 ft

- [a.] Single-family well setbacks may be reduced as prescribed in Section 701.0.
- [b.] This distance may be reduced to 50 feet, if the septic or holding tank is tested in the plumbing inspector's presence and shown to be watertight or of monolithic construction.

- [d.] Additional setbacks may be needed to prevent fill material extensions from encroaching onto abutting property.

 [d.] Additional setbacks may be required by local Shoreland zoning.

 [e.] Natural Resource Protection Act requires a 25 feet setback, on slopes of less than 20%, from the edge of soil disturbance and 100 feet on slopes greater than 20%. See Chapter 15.

 [f.] The fill extension shall reach the existing ground before the 3:1 slope or within 100 feet of the disposal field.

Table 700.3 applies to "Replacement of Existing system" and indicates the limit of authority of the Local Plumbing Inspector to grant variances.

TABLE 700.3

Setback distances for replacement systems and/or expansions outside the shoreland zone of major waterbodies/courses with plumbing inspector approval.

[Only if the site evaluator determines

Site features vs. disposal system components of various sizes		Disposal Fields otal design flow	}	the plumbing inspector approves.] Septic Tanks and Holding Tanks (total design flow)			
	Less than 1000 gpd	1000 to 2000 gpd	Over 2000 gpd	Less than 1000 gpd	1000 to 2000 gpd	Over 2000 gpd	
Wells with water usage of 2000 or more gpd or public water system wells	300 ft	300 ft	300 ft	150 ft	150 ft	150 ft	
Owner's well	100 down to 60 ft [a]	200 down to 100 ft	300 down to 150 ft	100 down to 50 ft [b]	100 down to 50 ft	100 down to 50 ft	
Neighbor's wells (f)	100 down to 60 ft [f]	200 down to 120 ft [f]	300 down to 180 ft [f]	100 down to 50 ft [f]	100 down to 75 ft [f]	100 down to 75 ft [f]	
Water supply line	10 ft	20 ft	25 ft [h]	10 ft	10 ft	10 ft [h]	
Water course, major	100 down to 60 ft [d]	200 down to 120 ft [d]	300 down to 180 ft [d]	100 ft down to 50 ft[b]	100 ft down to 50 ft	100 down to 50 ft	
Water course, minor (e)	50 down to 25 ft [e]	100 down to 50 ft [e]	150 down to 75 ft [e]	50 down to 25 ft [e]	50 down to 25 ft [e]	50 down to 25 ft [e]	
Drainage ditches	25 down to 12 ft	50 down to 25 ft	75 down to 35 ft	25 down to 12 ft	25 down to 12 ft	25 down to 12 ft	
Edge of fill extension Coastal wetlands, special freshwater wetlands, great ponds, rivers, streams (e)	25 ft [e]	25 ft [e]	25 ft [e]	25 ft [e]	25 ft [e]	25 ft [e]	
Slopes greater than 3:1	10 ft [g]	18 ft [g]	25 ft [g]	N/A	N/A	N/A	
No full basement [e.g.	15 down to 7	30 down to	40 down to	8 down to 5	14 down to	20 down to 10	
slab, frost wall, columns]	ft	15 ft	20 ft	ft	7 ft	ft	
Full basement [below grade foundation]	20 down to 10 ft	30 down to 15 ft	40 down to 20 ft	8 down to 5 ft	14 down to 7 ft	20 down to 10 ft	
Property lines	10 down to 5 ft [c]	18 down to 9 ft [c]	20 ft down to 10 ft [c]	10 down to 4 ft [c]	15 down to 7 ft [c]	20 ft down to 10 ft [c]	
Burial sites or graveyards, measured from the toe of the fill extension	25 ft	25 ft	25 ft	25 ft	25 ft	25 ft	

Notes:

- [a.] Single-family well setbacks may be reduced as prescribed in Section 701.2.
- [b.] This distance may be reduced to 25 feet, if the septic or holding tank is tested in the plumbing inspector's presence and shown to be watertight or of monolithic construction.
- [c.] Additional setbacks may be needed to prevent fill material extensions from encroaching onto abutting property.
- [d.] Additional setbacks may be required by local Shoreland zoning.

 [e.] Natural Resource Protection Act requires a 25 feet setback, on slopes of less than 20%, from the edge of soil disturbance and 100 feet on slopes greater than 20%. See Chapter 15.
- [f.] May not be any closer to neighbors well than the existing disposal field or septic tank unless written permission is granted by the neighbor. This setback may be reduced for single family houses with Department approval. See Section 702.3
- [g.] The fill extension shall reach the existing ground before the 3:1 slope or within 100 feet of the disposal field.[h.] See Section 1402.10 for special procedures when these minimum setbacks cannot be achieved.

Table 700.4 applies to "Expansions of existing system within Shoreland Zoning" and indicated the limits of authority of the Local Plumbing Inspector to grant variances.

TABLE 700.4

Setback distances for expansions within the shoreland zone of major waterbodies/courses.

[Only if the site evaluator determines there is no practical alternative and the plumbing inspector approves.]

(Substantial compliance setbacks)

(Substantial compliance setbacks)							
Site features vs. disposal system components of various sizes	Disposal Fields (total design flow)			Septic Tanks and Holding Tanks (total design flow)			
	Less than 1000 gpd	1000 to 2000 gpd	Over 2000 gpd	Less than 1000 gpd	1000 to 2000 gpd	Over 2000 gpd	
Wells with water usage of 2000 or more gpd or public water system well	300 ft	300 ft	300 ft	150 ft	150 ft	150 ft	
Owner's well	100 down to 60 ft [a]	200 down to 100 ft	300 down to 150 ft	100 down to 50 ft [b]	100 down to 50 ft	100 down to 50 ft	
Neighbor's wells (f)	100 down to 60 ft [f]	200 down to 120 ft [f]	300 down to 180 ft [f]	100 down to 50 ft [f]	100 down to 75 ft [f]	100 down to 75 ft [f]	
Water supply line	10 ft [h]	20 ft [h]	25 ft [h]	10 ft [h]	10 ft [h]	10 ft [h]	
Water course, major- for replacement see Table 700.3	100 down to 80 ft [d]	200 down to 160 ft [d]	300 down to 240 ft [d]	100 down to 80 ft [b]	100 down to 80 ft	100 down to 80 ft	
Water course, minor (e)	50 down to 35 ft [e]	100 down to 70 ft [e]	150 down to 105 ft [e]	50 down to 35 ft [e]	50 down to 35 ft [e]	50 down to 35 ft [e]	
Drainage ditches	25 down to 12 ft	50 down to 25 ft	75 down to 35 ft	25 down to 12 ft	25 down to 12 ft	25 down to 12 ft	
Edge of fill extension Coastal wetlands, special freshwater wetlands, great ponds, rivers, streams (e)	25 ft [e]	25 ft [e]	25 ft [e]	25 ft [e]	25 ft [e]	25 ft [e]	
Slopes greater than 3:1	10 ft [g]	18 ft [g]	25 ft [g]	N/A	N/A	N/A	
No full basement [e.g. slab, frost wall, columns]	15 down to 7 ft	30 down to 15 ft	40 down to 20 ft	8 down to 5 ft	14 down to 7 ft	20 down to 10 ft	
Full basement [below grade foundation]	20 down to 10 ft	30 down to 15 ft	40 down to 20 ft	8 down to 5 ft	14 down to 7 ft	20 down to 10 ft	
Property lines	10 down to 5 ft [c]	18 down to 9 ft [c]	20 down to 10 ft [c]	10 down to 4 ft [c]	15 down to 7 ft [c]	20 down to 10 ft [c]	
Burial sites or graveyards, measured from the toe of the fill extension	25 ft	25 ft	25 ft	25 ft	25 ft	25 ft	

Notes:

- [a.] Single-family well setbacks may be reduced as prescribed in Section 703.0.
- [b.] This distance may be reduced to 25 feet, if the septic or holding tank is tested in the plumbing inspector's presence and shown to be watertight or of monolithic construction.
- [c.] Additional setbacks may be needed to prevent fill material extensions from encroaching onto abutting property.
- [d.] Additional setbacks may be required by local Shoreland zoning.
- [e.] Natural Resource Protection Act requires a 25 feet setback, on slopes of less than 20%, from the edge of soil disturbance and 100 feet on slopes greater than 20%. See Chapter 15.
- [f.] May not be any closer to neighbors well than the existing disposal field or septic tank unless written permission is granted by the neighbor. This setback may be reduced for single family houses with Department approval. See Section 701.4.
- [g.] The fill extension shall reach the existing ground before the 3:1 slope or within 100 feet of the disposal field.
- [h.] See Section 1402.10 for special procedures when these minimum setbacks cannot be achieved.

A minimum of two test pits shall be dug and recorded on the Subsurface Wastewater Disposal System Application, HHE-200 form completed by a Maine State Site Evaluator or Licensed Soil Scientist for each bed area. The leaching bed design shall be based on the most restrictive of the test pits.

An application for an individual septic system shall be completed by a State Licensed Site Evaluator in full compliance with the requirements of the State of Maine Plumbing Code.

Plans for Engineered Wastewater Disposal Systems, as defined in the Maine State Plumbing Code shall be designed by a professional Civil Engineer and approved by the State of Maine Department of Human Services.

The local Plumbing Inspector may approve variances to well, septic system and property line setbacks, consistent with the State Plumbing Code and based upon documentation provided by a Licensed Site Evaluator, or professional with comparable expertise that adjacent properties will not be adversely affected. However, minimum setback distances from water bodies for all new subsurface wastewater disposal systems shall not be reduced by variance.

For subdivision applications there are two possible approaches that may work better than the existing standard, which could result in creation of lots that are unable to meet the septic system standards.

Level 1

Prepare an HHE-200 form (complete septic design) which includes the staking out the corners of all septic systems for each lot. Subdivision plot plans to show the leaching area, related test pit information and well exclusion zones for all lots to insure adequate separation exists for future well locations (100 ft minimum from leaching areas and septic tanks).

Level 2

Provide one (or perhaps two 50 ft apart) test pit location(s) with acceptable soil conditions for subsurface sewage disposal per the Rules. A circle of 25 ft radius shall be drawn with the test pit at its center. Said circle to be designated "area reserved for septic leaching system. No area shall be placed within 10 ft to any property or within 100 ft of any future well location.

Recommendation 2

Re-write Subdivision Ordinance Section 15 to require phosphorus allocation calculations when required by a State Stormwater Permit. Otherwise stormwater BMPs for all new developed areas shall be designed in accordance with Land Use Ordinance Article IX Section4.

Recommendation 3

Shoreland Zoning Ordinance Section 15 J (3). revise to read will not raise the flood elevation more then one foot at any point in the community, or cause any detrimental impacts to downstream properties or receiving waters. A full analysis of the impact of the proposed development shall be undertaken by a Licensed Professional Engineer. The analysis shall, at a minimum consider the following:

- the impact of the development on downstream channel velocities and potential for erosion.
- the capacity of receiving channels and structures.
- pre-development and post-development flood elevations.
- the impact of any reduction in flood storage capacity.

An engineering study shall be undertaken for all subdivisions proposed on land that falls within a flood zone, where the flood plain elevation has not been determined.

Recommendation 4

Land Use Ordinance Article IX U

Section 7 Erosion Control

Lots subject to Article X Site Plan Review shall conform to the requirements of Article X Sections D.1.27 and F.16. For all other lots that are within **250 feet** of a great pond, or **100 feet** of a perennial stream as identified on a USGS Map, the applicant shall submit a site plan that demonstrates to the satisfaction of the Code Enforcement Officer that the project will comply with this standard.

Erosion of soil and soil particles by water, wind, ice or gravity can occur whenever the surface of the ground is disturbed by a development activity. Erosion control practices are intended to prevent the onset of erosion while sedimentation control practices are necessary to compensate for erosion control practices that are not effective. Erosion can be minimized by:

- 1. Diffusing stormwater where possible rather than concentrating it in ditches and culverts.
- Where water cannot be diffused, directing it into culverts and stabilized ditches of adequate capacity and diverting it around disturbed areas.
- 3. Minimizing the area of exposed soil at any time.
- 4. Minimizing the creation of steep "cut" or "fill" slopes during construction but, where unavoidable, stabilizing slopes as soon as possible after disturbance.
- 5. Preserving natural vegetative buffers between construction areas and water bodies.
- 6. Maintaining minimum setbacks between construction and water bodies.
- 7. Mulching bare soil immediately after disturbance.
- 8. Reseeding as soon as possible.

The applicant shall submit an Erosion and Sedimentation Control Plan prepared in conformance with the requirements of Maine Erosion Control BMPS, Bureau of Land and Water Quality Maine Department of Environmental Protection, March 2003.

THE FOLLOWING IS OPTIONAL – this language is included in State Regulations

(The plan must be prepared by a professional who is registered, licensed, or certified in a related land use field, or by education, training, or experience is knowledgeable in erosion or sedimentation control.)

The text above can also be used to replace Article X Section D.27 (Site Plan Review).

USE SAME LANGUAGE IN SECTION 15 (R) Of Shoreland Zoning Ordinance. This text can be added at the end of R.1 in place of the last sentence.

INSERT APPENDIX A EROSION AND SEDIMENT CONTROL PLAN REQUIREMENTS

Recommendation 5

Re-write land use ordinance Article IX U (6) b. either;

Option 1(more onerus) -to require stormwater runoff from all new developed areas of the site to be treated in accordance with State of Maine Chapter 500 Stormwater Rules (Stormwater Rules) and the latest revision of Stormwater Management for Maine Best Management Practices Volume I (BMP Manual).

Treatment BMPs approved shall include vegetated buffers, infiltration BMPs, filtration BMPs and Wetponds, designed in accordance with the Stormwater Rules and the BMP Manual. This will standardize the ordinance with current State Regulations.

Option 2 (less onerous) - runoff from all new impervious areas shall be directed to one of the following stormwater BMPs (see Appendix for details)

In both cases remove references to Phosphorus calculations and allocations.

1. Option 1 - Article IX Section 4 shall be re-written to include the following;

Stormwater

Lots subject to Article X Site Plan Review shall conform to the requirements of Article X Sections D.14 and E.1.e. For all other lots that are within **250 feet** of a great pond, or **100 feet** of a perennial stream as identified on a USGS Map, the applicant shall submit a site plan that demonstrates to the satisfaction of the Code Enforcement Officer that the project will comply with this standard.

Second paragraph remains.

The applicant shall submit a Stormwater Management plan prepared in conformance with the following requirements.

- a. Stormwater runoff from the following minimum percentages of newly developed areas of the site shall be directed to a Stormwater Best Management Practice BMP) that provides treatment in accordance with the current version of the State of Maine Chapter 500 Stormwater Standards.
 - 95% of all new impervious areas
 - 80% of all new non-impervious developed areas

Except that the following percentages shall apply to linear portions of projects only (access roads, driveways, etc.)

- 75% of all new impervious areas
- 50% of all new non-impervious developed areas
- b. Submissions See Appendix C
- c. Inspection and Maintenance See Appendix C

2. Option 2 - Article IX Section 4

It is possible that this provision could be limited to a selection of BMPs that are easy to install and generally applicable to single lot development. This would make the regulation simpler and easier for non-professionals to digest. Suggested BMPs are attached as follows;

Buffer adjacent to residential, largely pervious, or small impervious areas (5.2.1)

Ditch turnout buffer (5.2.4)

Stone bermed level lip buffer (5.2.2)

Bioretention/Rain Garden

Treatment Swale (Dry Swale)

Infiltration Trench

Drywell

In order to make the requirements less stringent consideration should be given to reducing the sizing requirements in Chapter 500. We would recommend sizing the buffers in accordance with the BMP Manual and other BMPs to detain 0.5 in of runoff from roof areas, 1.0 in of runoff from paved areas only (no allowance for runoff from developed pervious areas).

7.

The ordinance would be re-written as follows:

The applicant shall submit a Stormwater Management plan prepared in conformance with the following requirements.

- a. Runoff from at least 90% of the new impervious areas shall be directed to one of the following stormwater treatment BMPs;
 - 1. Vegetated Buffer
 - 2. Bioretention Cell
 - 3. Treatment Swale
 - 4. Infiltration Trench
 - 5. Drywell
- b. Vegetated Buffers shall be sized in accordance with the fact sheet included in Appendix B
- c. All other BMPs shall be sized to hold 1.0 inch of runoff from contributing paved areas and 0.5 inch of runoff from contributing roof areas.
- d. Test pit information must be provided at location of proposed dry wells and infiltration trenches to demonstrate that the bottom of the structure is three feet or more above the seasonal high groundwater table.

Retain paragraph b

Revise paragraph c to include direct runoff to BMPs, or buffer areas.

Retain paragraph d

Retain paragraph e

6. Article IX Section 6 shall be re-written to include the following.

6. Phosphorus Control

The introduction of excessive amounts of phosphorus into lakes and ponds has been identified as a significant threat to water quality. With the exception of lots approved after the effective date of this ordinance by the Planning board under the provisions of the Raymond Subdivision Regulations and which are in conformance with Section VIII-15 of the subdivision Regulations the following provisions are applicable to all lots that are within 250 feet of a great pond or 100 feet of a perennial stream as identified on a USGS Map.

- a. Expansions of existing single family structures and duplexes, new accessory structures associated with single family structures and duplexes; or extensions of less than 150 feet of existing driveways, so long as the increase in impervious area does not exceed 2,500 square feet.
 - 1. Demonstrate to the satisfaction of the CEO that, by utilizing permanent vegetated buffers, limiting the clearing of vegetation and the size of the development area and directing runoff away from the affected water body, the potential for phosphorus export has been minimized.
- b. New or replacement single family structures and duplexes;
 - 1. Submit a Stormwater Management Plan in conformance with Article IX Section 4 of this ordinance.

Board Comments and Discussion:

Board members were in general agreement with **Recommendation one** concerning the Wastewater disposal rules and setback requirements:

- Clark added that he would like to see denotation of the well exclusion areas on lots required by developers
- Another suggestion was to require hhe200 for each lot in a subdivision with an alternate, and the well area, and get it recorded.

Recommendation two comments on phosphorus included:

- Simplify language
- Require calculations when state requires them
- Trigger for requirement is the State requirement.
- Follow the state standards. State is trying to give you more ways to do this and there is a simplified method
- Clark feels that the allocation method is not the best way and the only way in every situation
- Phosphorus Compensation- \$\$ Ginger Wallace added that we should know where the money is spent
- Clark added that it would not hurt to have some identifying principles
- Board should be able to take away some of the lots, if the developer can't meet standards and asks for waivers.

Recommendation three regarding Shoreland Zoning ordinance Section 15 J (3) comments:

Members were in general agreement with SYTDesigns recommendations

Recommendation four – Land Use Ordinance Article IX U-comments:

- A standard is needed
- Clark commented that the State standard looks like it has been given some thought

8:20 pm

Recommendation five comments relating to stormwater rules Article IX U (6) b.:

- Try to simplify the process
- Standard should be in accordance with State manual
- Have a menu for what you can use for treatment
- Point system for compliance good for individual lots
- One page appendix for compliance could serve as ceo review checklist
- Take a at Poland's unique and well written phosphorous management plan

Consensus of Board was that they were in agreement with the suggestions provide and requested to have Andy work up a draft for their further review.

9:06 pm

3. CPIC Updated:

Sam Gifford volunteered to attend to represent the Planning Board at the next meeting for the discussion on Design Guidelines for the Commercial District.

4. Other Business:

MOTION: moved by Sam Gifford and seconded by Greg Foster to go into executive session for the purpose of discussing Planning Board attendance. Vote: 5/o.

9:21 pm

MOTION: moved by Sam Gifford and seconded by Greg Foster to end the executive session.

Vote: 5/o.

5. Adjournment:

MOTION: moved by Ginger Wallace and seconded by Greg Foster to adjourn at 9:22 pm. Vote: 5/0.

Karen G. Strout

Planning Board Secretary