Report covers from Sept. 25 to Oct. 8, 2014
Items requiring Board vote are noted with an asterisk (*)

A. Inspection Report Reviews

(1) 8 Sumac Dr., Erhard, Map 19, Lot 17 *

I reviewed the submitted septic system plan for this property. The inspector, Dan Johnson, classified the system as "needs further evaluation" due to the location of the leach trench of 44' from an abutter's private well. The report also noted –

- Estimated high groundwater on an adjoining lot estimated seasonal high groundwater as between 15" 30" (a TP on the adjoining property, ~ 60' from this system estimated groundwater at 15" below grade). The depth of the leach trenches on the inspected property are estimated at ~3' below grade.
- The distribution box filled with sludge up to outlet laterals.

In 1998, the then homeowner signed an "Agreement to Upgrade" the system, in effect conceding that the system was in failure. Later that year, a Title 5 inspection (performed by the same inspector as this inspection) classified the system as "failed" due to the well location, "backup of sewage into facility or system component due to clogged s.a.s. or cesspool", and "Static level in the d-box above outlet invert due to an overloaded or clogged sas or cesspool". A 2010 emergency pump slip notes "tank was full to cover. Leaching field failing or saturated due to heavy rain for 3 days."

Recommendation: For any (especially all) of the reasons listed above, I recommend that the Board deem this system as "failed" the 8-29-14 inspection by Dan Johnson and a letter stating so be sent to the homeowner.

(2) 86 Conomo Point Rd., Simpson, Map 19, Lot 33*

I reviewed the inspection report for this property and am in agreement with the inspector that it passed the Title 5 inspection.

Recommendation: I recommend that a letter be sent to the property owner stating that the Board is in agreement with the determination of the inspector, Josh Roberts, that this system passed the 9-22-14 Title 5 inspection.

B. Soil Evaluations / Waiver Explorations

(1) 162 So. Ave., Henderson, Map 6, Lot 5A

I witnessed soil testing for a replacement system on this property.

Recommendation: None. Informatinal only.

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(2) 90 Conomo Point Rd., Map 19, Lot 34

I witnessed a test pit on this property to determine groundwater elevation for the design of a tight tank.

Recommendation: None. Informatinal only.

C. Septic System Design Plan Reviews

(1 & 2) 8 Lufkin Point Rd., Lawler, Map 19, Lot 121*

I reviewed the plan for this property for a replacement system and noted the following required changes –

- 1. The soil log for Test Pit 2 doesn't match my field notes.
- 2. A note is needed pertaining to the abandonment of the existing system.
- 3. One section of the s.a.s. doesn't meet the required breakout grading.
- 4. Buoyancy calcs are required for the septic tank.
- 5. The septic tank must have a minimum of 9" of cover.

Recommendation: I recommend that this plan, dated 9-25-14 be disapproved for the above reasons.

I reviewed the revised submitted design plan for this property. The required corrections have been made.

Recommendation: I recommend approval of this plan, dated 9-25-14, with a 10-7-14 revision date.

(3) 130 Blueberry Lane., Flynn, Map 8, Lot 5D*

I reviewed the submitted septic system replacement design plan for this property and noted the following required changes –

- 1. The center septic cover must be permanently sealed watertight if not brought to grade.
- 2. All manhole covers must be brought slightly above finished grade.
- 3. Confirm finished grade above septic tank.
- 4. Detail should clarify horizons to be removed prior to construction.
- 5. The D-box inlet must have a Tee or baffle.

Recommendation: I recommend that this plan, dated 9-30-14 be disapproved for the above reasons.

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(4) 2 Rocky Hill Road, Ramsey, Map 5, Lot 10*

I reviewed the submitted plan for this property . Because of the extremely high number of needed corrections, I stopped the review, until another, more accurate plan is submitted. I feel it is my duty to review the plan; not to design it. At the point of stopping the review, I noted the following needed corrections —

- (1) Clarify the location and dimensions of the utility easement.
- (2) Clarify the location and dimensions of the reserve area.
- (3) logs of deep holes and perc tests must be included.
- (4) Existing grade elevation of each deep hole needed.
- (5) Name of approving authority representative & sol evaluator are needed.
- (6) Locations of waterlines, drains, and subsurface utilities needed
- (7) S. tank inverts must be a minimum of 12" above estimated seasonal high groundwater.
- (8) Depending on the location of the reserve area, it is unknown if appropriate soil testing was performed in that area.
- (9) Watertight joints must be specified
- (10) Pipe must be laid on compact, firm base
- (11) Invert elevation at septic tank is unknown, so the sewer line slope cannot be calculated.
- (12) All non-leach lines tested for watertightness if w/in 6" ESHGWT
- (13) Approved s. tank model or must be equal specified
- (14) Difference between inlet & outlet drop cannot be calculated, due to lack of elevation notations.
- (15) S. tank minimum of 4' liquid depth not noted.
- (16) S. tank 3" air space above tees/baffles (minimum) not noted
- (17) S. tank 9" air space above flow line (minimum) not noted
- (18) S. tank tees extend 6" above flow line not noted
- (19) No s. tank inlet tee noted
- (20) Outlet tee extends 14" below flow line (more for deeper tanks) not noted
- (21) All wall sleeves/gaskets must be cast in place or inserted at factory
- (22) No gas baffle installed on s. tank outlet
- (23) S. tank must have 3-20" manholes
- (24) Center manhole must be permanently sealed watertight if not to grade
- (25) S. Tank & p. chamber covers to grade set slightly higher than surrounding grade
- (26) 6" of $\leq 1 \frac{1}{2}$ " stone beneath s. tank & p. chamber must be specified
- (27) Proper constants used in buoyancy calculations. Calcs state tank is 2.5 ft in g.w. I calculate it as much higher.
- (28) Watertightness testing must be specified
- (29) S. tank loading strength is not specified.

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- (30) S. tank inlet & outlet invert are not >12" above estimated seasonal high groundwater
- (31) Buoyancy calcs states s. tank length as 8.5. System detail states 11'8". These are inconsistent.
- (32) Due to lack of noted elevations, the d box inlet & outlet elevations are unknown.
- (33) Depth of pea stone and fill cover over s.a.s are to be clarified.
- (34) "native fill" is not allowed under the s.a.s.
- (35) The pump chamber must have a min of 24 hr emergency storage above the alarm.
- (36) component details are needed.
- (37) S.a.s. leach pipe must be 4" diameter if not pressure distribution.
- (38) The separation between trenches must be a min. of 4'; 6' if uses for reserve area.
- (39) invert elevations must be shown for all components.
- (40) ground water elevation must be shown. Pump & alarm specifications must be given.
- (41) an observation port is required in the s.a.s.
- (42) magnetic marking tape is required over all components.
- (43) Is use of a garbage grinder allowed not specified?

Recommendation: I recommend the above plan, designed 10-3-14, be disapproved minimally for the above reasons.

D. Septic System Installations

(1) <u>130 Rocky Hill Ave.</u>

I inspected the tank & pump chamber and the final field for this system.

Recommendation: None. Informatinal only.

E. Building Permit Applications & Occupancy Permits

(1) 36R2 Story St., Kompskie, Map 35, Lot 30C*

I reviewed the building permit application for this property to "erect a 28' X 28' garage with two 1 bedroom apartments". This property has a recently installed 4 bedroom septic system.

Recommendation: I recommend endorsement of this undated application.

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(2) 4 Deer Hill Farms, Carroll, Map 17, Lot 31*

I reviewed this application for "kitchen, Laundry/mudroom and two (2) half bath remodels". The proposed work doesn't add design sewer flow to the property or expand the house footprint.

Recommendation: I recommend endorsement of this application, dated 10-2-14.

(3) <u>52 Grove St., Burns, Map 34, Lot 75</u>*

I reviewed this application to "replace existing deck and footing". This property is on town sewer.

Recommendation: I recommend approval of this undated & unsigned application.

F. Well Water Supply Certificates

None

G. Meetings Attended (for information only)

I attended the Department head meeting. Attending dept. heads gave updates and Brendhan updated us on town hall repairs.

H. Complaints

(1) Conomo Point Demolition

We received 2 complaints on regarding the demolition of the building at 138 Conomo Point Rd., stating that large amounts of debris was flying in the area. The day of the complaints was after a day & night of heavy rain. I inspected 2 times the day of the complaints. The first time, no work was going on, but I saw no dust or debris off the property of the demo & spoke to one resident in the area who was observing & stated that she did not note any problems. The second time I went by, demolition was occurring, but there was no dust/debris visible in the air. When I received the second call, the complainant was not satisfied with what I noted & said she would call the state. I inspected again the next morning; The house was down & 1 section of the garage was partially demolished. A worker was in the garage hosing down the interior walls. I received a call from DEP the following day. They had received a call from a male, making the same statement, using the term "Mt. Vesuvius" to describe the demo. I again inspected and spoke to the contractor. He stated that when they started the garage demo, blown in insulation

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did fly into the air. They were not expecting insulation in the garage & he immediately stopped the demo until everything was wetted down (which explains the person I noted earlier in the garage). The following Monday, DEP came to the site; watched for approx. 15 minutes; told them to keep it wetted & left.

Recommendation: Informational only.

(2) 43 Wood Dr.,

We received a walk in anonymous complaint that this property's septic system had failed and may be flowing toward the lake. I spoke to the owner, who has an approved replacement plan & has recently been in contact with us regarding it. He confirmed that he plans to install the system as soon as possible; defiantly this construction season. Trees on the lot have just been removed for construction & Mr. Rollins has been in the office to pull a well drilling permit for the private well that has to be relocated before construction of the septic system.

Recommendation: Informational only.

I. Hazards Abated Via Enforcement Orders

None

J. Other Issues

(1) Drug Take Back Day

We held a Drug Take back day in conjunction with the Police Dept. Turn out was lower than we expected. I'm not sure if it's because people have cleared out their medicine cabinets in the past or because it was a beautiful & warm Saturday.

Recommendation: None. Informational only.

(2) Emerging Infectious Diseases

Dr. DeMaria presented at the Lahey Grand Rounds on this topic. Timing on this was perfect related to the recent occurrences of ebola in Texas & the Entro Virus 68 throughout the country. These two diseases controlled most of his presentation and questions, but he did also discuss Hep C and mosquito borne diseases.

He wiil repeat this presentation on an expanded scale on November 5 for us at Manchester HS.