

## **PRACTICE REVIEW BOARD**

### **CASE HISTORIES DECEMBER 2009 TO JUNE 2010.**

#### **PRACTICE REVIEW BOARD DISCIPLINE REPORTS PREAMBLE.**

The Applied Science Technologists and Technicians of British Columbia (ASTTBC) is incorporated under the Applied Science Technologists and Technicians (ASTT) Act RSBC 1979 c.16.1 in 1985; since revised as RSBC 1996 c.15 on April 21, 1997.

The ASTTBC provides professional certification to technologists and technicians in the applied science technologies related to Biological Sciences, Biomedical Engineering, Building, Chemical, Civil Engineering, Electrical, Electronics, Environmental, Forest Engineering, Gas & Petroleum, Geomatics, Industrial, Information, Mechanical, Metallurgical and Mining disciplines. The ASTTBC also grants technical specialist certification in technical areas such as building design, construction safety, fire protection, house and property inspection, onsite wastewater, public works inspection, site improvements surveys, steel detailing and timber cruising.

Our ‘purpose’, as generally stated in the ASTT Act is, “To maintain, improve and increase the knowledge, ability and competence of technologists and technicians; to regulate standards of training and practice of and for its members, and to protect the interests of the public.” The ASTT Act and Regulations, in the provision of professional certification of technologists, technicians and technical specialists, requires that members adhere to a Code of Ethics, provides a disciplinary mechanism to deal with breaches of the Code and protects ASTTBC’s titles and designations.

The ASTTBC Council has charged the Practice Review Board (PRB) of ASTTBC with the responsibility for enforcement of the ‘Code of Ethics’ for member’s professional practice and conduct, as well as with protecting ASTTBC’s titles and designations. The following report reflects the activities and resolved case files of the PRB.

It is the policy of ASTTBC to only report on the specific details of cases (names, places and dates etc.) when the case has resulted in censure as a result of a Disciplinary Hearing or the PRB has determined it is in the public interest to have such information provided.

## **Report from Practice Review Board For Complaint Cases Resolved In ONSITE WASTEWATER - (Between December 2009 and June 2010)**

### **CASE #09-05**

#### **STATEMENT OF COMPLAINT**

That a ROWP incorrectly planned and installed an onsite sewage system which has resulted in sewage odours in and around the home. The degree and frequency of these odours is both a serious annoyance and a cause for health concerns for the complainant.

#### **BACKGROUND**

The property owner retained a ROWP to plan and install an onsite system for their new home. Work began in February 2006 and was completed in March 2006. Approximately five months after the system was completed, the sewer pipe between the home and the septic tank had broken due to settlement of the ground around the pipe, causing sewage to spill into the area of a window well and strong sewage odours to be noted from this area.

The property owner contacted the ROWP who attended and made repairs to the pipe, at which time the property owner raised other concerns about the installation practice including why no 'fiber gum' or similar sealant was used around the pipes as it left the home foundation wall or entered the septic tank. The concern was over the potential for sewage to seep out of the septic tank and possibly into the home through the foundation; the property owner reportedly raised this concern with the ROWP over the next ten months. The frequency of contact caused the ROWP to ignore the property owner's phone calls.

By December 2008, the property owner stated sewage odours were becoming stronger and more frequent and were noticed both in the basement area of the home as well as outside by the sundeck near where the septic tank and pump chamber are located. The property owner contacted another ROWP who attended and inspected the system to find the source of the odours.

This second ROWP found that the septic tank was backed up and in need of being pumped out and the effluent filter needed cleaning. The pipe between the home and the septic tank was checked with a pipe camera and found to have a bow causing fluids to pond in it, but there was no sign of an actual break in the pipe. There was also a lack of sealant in the electrical conduit between the pump chamber and its entry point into the home.

Based on the findings of the second ROWP, the property owner decided to contact ASTTBC for assistance to resolve this complaint.

#### **INVESTIGATION**

ASTTBC staff contacted the first ROWP who advised that the initial break in the sewer pipe between the home and the septic tank was corrected when contacted by the property owner and even offered to add 'fiber gum' around the pipe as it enters the septic tank. However, the first ROWP pointed out that it was not necessary as a rubber boot within the tank structure is present to act as a seal. The lack of sealant on the electrical conduit from the pump chamber to the home was an oversight of the electrician hired to carry out that portion of work but has since been corrected.

The ROWP suspected the backing up of the septic tank was probably due to the septic tank not being pumped out on a regular basis nor the effluent filter cleaned as per the Operation & Maintenance Plan that was given to the property owner. The property owners stated they did not clean the filter as the ROWP did it while attending the property to check on problems raised by the property owner; further the property owner was not aware of an O&M Plan for this system. The ROWP provided a copy of the O&M plan signed by the property owners, confirming they were presented with and gave signed acceptance for this plan when the system was completed. The second ROWP found that a water softener was also backwashing into the sewer pipe contrary to the O&M Plan, which the property owner also did not understand was harmful to the system and prohibited within the O&M Plan.

ASTTBC staff attempted by phone to determine the possible causes of the sewage odours being noted both in the basement area of the home as well as the outside by the sundeck. Over the next four months, the property owner cooperated in monitoring when and where these odours were being noted, how strong, weather conditions, what was happening in the home at that time and in the hours preceding the odours and similar details. The property owners were also advised to redirect their water softener backwash to a separate storm drain pipe so that it would no longer have a negative impact on the sewage system.

Over these months the degree of odours did drop and certain patterns were noted but there were no means to more accurately assess the possible causes remotely. On May 14, 2009, ASTTBC staff attended the site to conduct an inspection of all aspects of the onsite system. All lids over the septic tank and pump chamber were securely attached and no odours were noted from any of them. The septic tank was confirmed to be partially backed up even though there were minimal solids in the tank since the tank was pumped out in December when the second ROWP attended the site. The effluent filter had a caking white residue causing a restriction to outgoing flows and the float ball on the bottom of the filter holder was found to be stuck in a semi-closed position further restricting flows out. A slight white residue was found on the float ball that appeared to be causing the ball to stick.

A pipe camera was sent up the inlet and outlet pipes of the septic tank and confirmed that a bow in the pipe one meter from the septic tank back towards the home results in the pipe being  $\frac{3}{4}$  full of fluids when the septic tank is at the normal operating level, and fully submerged when the outlet pipe is partially backed up due to clogging of the effluent filter. On the bottom of the outlet pipe is a slight white residue but the pipe is in good condition and no bows are present.

The pump chamber was found in good condition with no points of potential odour or wastewater escape.

A check of the lagoon was made but no odours were noted and the distance from the home would make it unlikely as the source.

Inside the home, checks were made of all accessible plumbing fixture connections, the sewage basin, and similar points with no odours noted and all fittings well glued or sealed. The furnace was checked to confirm the source of air intake as was the downstairs bathroom fan exhaust pipe. The water softener was confirmed to no longer be connected to the sewer and the clothes washer connection was properly sealed.

In review of the cleaning products used, Borax powder was noted as the only item of interest and discussions with the property owners did not identify any other items or behaviour that could impact the onsite system.

A sample of the well water serving this home was taken, along with an effluent sample from the septic tank and submitted to an accredited lab for testing metals, minerals, pH, and related water quality properties of interest. The results of the water samples confirmed pH levels in the well water are very high while that within the septic tank is closer to neutral suggesting a strong acid is impacting the system. High sodium and even boron were noted, the latter from the Borax cleaning product.

From the water test results it would appear that conditions inside the tank would be less than ideal for microorganisms to exist and that a poor physical environment may have contributed to strong odours produced in the tank. When the water softener was still connected to the sewer pipe, these conditions would likely have been made much worse.

The bow in the sewer pipe was noted to be more severe than when previously checked with a pipe camera last December by the second ROWP suggesting further settlement has occurred. Normal venting of the septic tank, and even the pump chamber, is not occurring when the septic tank is backed up, and a violent venting occurs when the sewage basin is activated and a surge of fluids enter the tank. An extension was added to the main sewer vent pipe on the roof at the request of the ROWP several years ago in an effort to deal with the odours, it is also near where the furnace fresh air intake and bathroom exhaust pipe is located. The potential for odours to enter the home by these two routes is real.

### **DISCUSSION:**

Based on the information gained from visiting the site, it would appear that the use of certain cleaning products, combined with the characteristics of the well water and impact from backwash of water treatment equipment, may have caused conditions in the septic tank to develop strong odours. These odours did not have an effective means of escape as venting was hindered by the water ponding in the bowed pipe between the house and the septic tank. When surges of wastewater entered the septic tank, as occurs when the sewage basin in the basement is activated, an opportunity exists for the gases in the septic tank to move back up the vent pipe. During periods of lower barometric pressure these odours were likely forced back toward the ground and, based on where winds are more predominant, would be directed towards an air intake to the home.

The ROWP was contacted with regards to these findings and is fully prepared to return to the property and correct both the bowed pipe as well as remove or modify the effluent filter to ensure no clogging and full venting is achieved. This work would be conducted towards the end of June when weather conditions are more favourable.

The property owners were contacted with regards to these findings and they are fully prepared to allow the ROWP to carry out these corrective actions. The end of June is quite satisfactory to them. Further, they will implement changes to their cleaning products and will follow the Operation & Maintenance Plan as well.

As both parties are agreeable to this facilitated resolution, ASTTBC staff will monitor to ensure the agreed upon action is carried out.

Since this installation was first completed, the ROWP has taken continuing professional development courses, which would address concerns about backing filling techniques, so these issues are not likely to occur in the future.

## **OUTCOME**

The Practice Review Board found that since the ROWP has already completed more current courses, and confirmed that the ROWP will undertake a Practice Assessment, no further action is required and this file was closed. Staff will monitor to ensure that the assessment condition is met.

## **CASE #09-20**

### **STATEMENT OF COMPLAINT**

That a ROWP planned an onsite system incorrectly. The system does not meet required setbacks and could contaminate the complainant's well.

### **BACKGROUND**

The complainant owns a property next door to a ROWP Installer. The ROWP Installer obtained a building permit from the regional district allowing for the removal of a twin modular home in order that a new home of a larger size, but same number of bedrooms, could be constructed on the ROWP's property. The complainant states that the ROWP Installer, hired a ROWP Planner to carry out the site assessment and related planning work for a new onsite system as a requirement for the building permit.

The ROWP Planner submitted a Filing to the Interior Health Authority and the complainant believes the details within the Filing were incorrect. These include:

1. Contamination of the complainant's well would occur due to close proximity of the septic tank;
2. Proximity of an existing rock pit for a shop used for commercial purposes and the potential of antifreeze and oil to enter the rock pit;
3. That no apparent percolation tests were conducted by the ROWP Planner from which plans could be made;
4. That when the original subdivision of the property was carried out in the past, percolation test results were found to be very slow;
5. No apparent provision for a secondary dispersal area is shown on the Filing;
6. A question of whether a new dispersal area will be constructed over the existing field;

7. A question of whether another tank, if installed in the new system, would meet setbacks to the northern property line;
8. Close proximity of the system to a flood line for a nearby river;
9. That the current system installed in 1996 by the ROWP Installer did not have a permit, therefore a question was raised as to how the current septic tank could be considered suitable for re-use without examination and confirmation.

Based on these concerns, the complainant contacted ASTTBC to lodge a complaint.

## **INVESTIGATION**

A letter advising the ROWP Planner of the complaint was sent on March 12, 2009 and a response was received by ASTTBC on April 16, 2009. The ROWP Planner admits to planning a new onsite system to serve the ROWP Installer's proposed new home and was advised by the ROWP Installer about the history of the property, how a different mobile home was brought onto the property in 1996 to replace an older mobile, and at that time the septic tank was replaced due to damage found. No permit was taken out for this repair work. The ROWP Installer reportedly advised the ROWP Planner where the current dispersal area was located and where the ROWP Installer would prefer to have the new system placed. The ROWP Planner then began to carry out a site assessment and determined that a new system could meet setback requirements

The ROWP Planner also states that the distance from the current septic tank to the complainant's well is two and one half times the distance required under the SPM and the new tanks would be located even further away. The shop and the apparent rock pit was not part of the design intended to handle sewage, so it was not addressed in this project. The ROWP Planner also points out that the required number of permeameter tests as noted in the SPM were carried out and a log of the results was made to prove this. As for the original subdivision application and approval process, this was not relevant to the matter as tests must be carried out independently by the AP for this project. On the matter of where the reserve area would be located, no reference was provided. The dispersal bed layout reportedly was able to fit within the required area that the ROWP Installer preferred and the setback to the river was confirmed to be well beyond the highest seasonal distances.

The ROWP Planner's responses were provided to the complainant for comment and a response from the complainant was provided dated May 26, 2009. The complainant states that the scale used on the ROWP Planner's drawing suggests an incorrect distance and the surveyed flood easement is not accurate. The complainant also suggests that since the septic tank comes in two sections and these joints could leak that the setback distance should be thirty meters and not fifteen meters as per the SPM.

The complainant also challenges how the ROWP Planner could have completed the percolation tests within the two and one half hours and questions why the results would be substantially different from those conducted in 1995, implying the complainant was present at the time it was carried out for the subdivision application. The complainant also questioned how anyone could rely upon information from a homeowner without verifying conditions or components for themselves.

In subsequent phone conversations between ASTTBC staff and the ROWP Planner, the Planner confirmed that a dispute between the two neighbours has progressed on various issues including the proposed new onsite sewage system. It was also confirmed that the ROWP Planner did not carry out any form of inspection on the existing system as the Planner does not have sufficient skills or equipment to do so, but was clearly of the belief that the current system was not sufficient to meet the requirements under today's regulations. As a result, a Filing was made with the expectation that the system would be installed prior to the home being occupied. The ROWP Planner does believe that sufficient care and attention during the planning work was undertaken to address all the concerns raised by the complainant, and the proposed system is appropriate for the new home.

A technical review of the Filing was carried out by ASTTBC staff, which found several items of concern. The pump selection would require a much larger pump be installed than was listed unless an indexing valve is used. An indexing valve is not listed in the details provided. The spacing of the orifices on the laterals are shown as three foot centers while the review found something around sixteen inch centers being more appropriate. There is also the question about how this design using an 'L' shaped dispersal area could be installed where some fill material was reportedly placed. The ROWP Planner suggests that discussions with the ROWP Installer led to an agreement for doing such work carefully, but there is no information on whether this would affect the vertical separation once excavation is completed.

## **DISCUSSION**

Concerns raised by the complainant over a proposed onsite system for a neighbouring property were addressed by the ROWP Planner within the responses to ASTTBC, but several others arose during a technical review. Without confirming the size of the existing septic tank or conditions within the tank itself, the second tank proposed for the system may not provide sufficient capacity under the SPM. Since the existing tank was replaced and no permit taken out for that work in 1996, the ROWP Planner is relying upon the word and memory of another ROWP who also owns the property. Verification of tank capacity and condition should have been done.

The distance from the septic tank or the dispersal area to the two wells shown do match the approximate distance the ROWP Planner is suggesting, but the plan does not show a reference to a workshop, no slope degree or direction, no reference to any flood easement or setback, and no north arrow. Plan shows a single access lid over the two compartment second tank intended to be an extension of the septic tank on the inlet side and a built-in pump chamber on the outlet side. It is unclear if a second access lid was to be added.

Based on the information provided and conversations with the ROWP Planner, there is no suggestion that the Planner intended to submit a Filing with inaccurate information or that the position of the new system would be less than the setback requirements to the wells on this property. Improvements to the drawing including position and distance to neighbouring properties are required to meet SPM requirements along with other missing details as noted earlier. As for errors in the calculation for pressure distribution systems, re-attending the WOWTC course PLAN204 may be of value.

Although the new home was constructed during the past year and is now being occupied by the ROWP Installer for the past several months, the ROWP Planner is not aware of the new system having been installed, and the ROWP Installer claims not to have constructed the onsite system at this time and has no plans to do so for up to another year which is part of the complaint against the ROWP Installer. Therefore any concerns with the proposed system can be still addressed before installation is carried out.

## **OUTCOME**

The Practice Review Board required that the ROWP Planner successfully complete the WOWTC course PLAN204 as a review of fundamentals for planning pressure distribution systems. The ROWP was further required to immediately arrange through the Manager, Onsite Wastewater Registration Program to undertake a Practice Assessment.

## **UPDATE REPORT**

After receiving the PRB decision, the ROWP Planner contacted ASTTBC staff, requested a leave of absence for health reasons and agreed to voluntarily surrender the ROWP registration for at least a year, and upon renewal of the registration, has agreed to complete the requirements as listed in the PRB decision.

## **CASE #09-33**

### **STATEMENT OF COMPLAINT**

That a ROWP was involved in the planning and installation of an onsite sewage system but did not submit the Letter of Certification to the Health Authority for this system within the required 30 day time period following completion.

### **BACKGROUND**

The client contracted the ROWP in 2005 to replace a malfunctioning onsite system on their property. The system was planned and installed with work completed by July of 2006 at which time the client paid the ROWP for the work. The ROWP reportedly promised to provide the appropriate Filing documents soon after but none were provided and attempts to contact the ROWP were unsuccessful. After 3 years of no further contact with the ROWP and not wanting to wait any longer, the client contacted ASTTBC for assistance.

### **INVESTIGATION**

ASTTBC notified the ROWP of the complaint by letter on May 19, 2009 and a response was received by ASTTBC staff on June 3, 2009. In response, the ROWP stated that immediately upon receipt of the complaint letter by ASTTBC the ROWP ensured the Filing documents were registered with the Health Authority and that the client personally received the Letter of Certification. The ROWP's explanation for the delay was that the ROWP's spouse experienced a serious medical condition, which required many weeks of attendance at a hospital in Vancouver. In a phone conversation with ASTTBC staff, the ROWP readily admits some aspects of the business were neglected while tending to the sick spouse. It would appear that the attempts by the client to contact the ROWP occurred during the time period that the ROWP had shut down the business and was out of town to deal with the medical emergency.

The ROWP has stated that all paperwork was in fact completed with the exception of the LoC, pending the advice from an EHO due to irregularities in the original permit on record. The ROWP was originally contacted by the client to only pump out the septic tank on their rural property but in the process of attempting to do so the ROWP found that a significant portion of the system was not present and sewage was escaping in a manner that required immediate corrective action. During this process, the ROWP's check with the Health Authority found records for a system permitted and signed by an EHO but the system did not match these records.

While waiting for a response from Health Authority staff, the medical emergency occurred and the LoC "fell through the cracks".

In a phone conversation between ASTTBC staff and the client, they confirmed that the ROWP contacted them soon after the complaint was made and all paperwork, including the LoC, is now in their possession. They are satisfied the matter is resolved and stated they have no further issues with the ROWP.

## **DISCUSSION**

Timely submission of such paperwork is a requirement of the Sewerage System Regulations, especially the completion of the LoC. The ROWP fully understood the need for ensuring such documents are submitted within the required time period after a project was completed and stated that a review of all files and Health Authority records has been undertaken to ensure no other similar cases have occurred. None were found.

The delay appears to be due to an exceptional and unfortunate event affecting a family member that led the ROWP to forget to check on the status of the Filing and ensure this LoC was completed. This appears to be an isolated case, not indicative of general business practice or lack of knowledge or training, and this matter was resolved immediately upon learning of the complaint.

## **OUTCOME**

The Practice Review Board required that the ROWP be advised by letter to ensure all future Letters of Certification are completed in a timely manner. No further action is required and this file was closed.

## **CASE #09-38**

## **STATEMENT OF COMPLAINT**

That a ROWP registered a Filing with the Health Authority, which contained insufficient and/or incorrect information.

## **BACKGROUND**

During a random check of Filings with a Health Authority by ASTTBC staff, a Filing by the ROWP in question was reviewed and found to contain various missing or incorrect information. No design rationale was provided that would help explain how and why this particular system was determined to be best suited for the site and the client, a Daily Design Flow that did not appear to match the size or may have undersized the specified components within the system, the soil log was missing details on texture, consistency, redoximorphic features, included a very rough sketch of the site with no details on slope degrees or direction, where test pits or percolation tests were carried out in relation to the system, no calculations provided to show how the hydraulic loading rate was determined, no construction details sufficient for an Installer to carry out the installation of the system were provided and there was no O&M Plan.

In review of this Filing, the amount of information contained in all cases was less than set out under the SSR and SPM.

## **INVESTIGATION**

As a result of the incorrect and/or missing information, ASTTBC staff contacted the ROWP by letter requesting clarification and details concerning this Filing. The ROWP responded and acknowledged that details were missing and would be improved in future Filings, but also stated that this Filing did meet the SPM requirements. The ROWP did acknowledge that an incorrect tank size was listed and pointed out that the system was not installed due to the estimated construction costs.

A response letter was sent to the ROWP pointing out the items that were not consistent with the SPM and examples of proper Filings were provided to aid the ROWP with seeing where improvements were needed.

## **DISCUSSION**

The ROWP stated that all points identified as missing were addressed during the planning stages and would be included in more detail in future Filings. Examples of good documentation were provided by ASTTBC staff as further guidance to that end. The main items of concern appear to be drawing skills as well as the ability to observe and note soil types.

As the ROWP is not familiar with some aspects of the current requirements of the SPM or with the current information provided within the training; re-attending courses that specifically covers most of the issues found within the Filing would be of benefit.

## **OUTCOME**

The Practice Review Board required the ROWP to successfully complete the WOWTC course PLAN201 (or equivalent acceptable to the Manager, OWRP) as a review of fundamental duties and responsibilities expected of all planners as well as WOWTC course SOIL201 (or equivalent acceptable to the Manager, OWRP) as a review of soil and site assessment requirements. The ROWP was further required to immediately arrange through the Manager, Onsite Wastewater Registration Program, to undertake a Practice Assessment.

## **UPDATE REPORT**

A letter was submitted to the Registrar advising that the ROWP has given serious consideration to the matter and decided that due to the cost of taking courses, income lost during the time taking the courses and time remaining until retirement, the ROWP felt it is not economically feasible to meet the conditions of the Practice Review Board. The ROWP is therefore willing to voluntarily give up Planner status as long as Installer status remains.

The Practice Review Board determined that since the ROWP wishes to voluntarily give up Planner status, the courses and Practice Assessment are no longer required at this time. The ASTTBC database will be flagged to indicate that should the ROWP wish to reinstate the Planner status the ROWP must first complete the PRB conditions.

## **CASE #09-43**

### **STATEMENT OF COMPLAINT**

That a ROWP registered Filings with the Health Authority, which contained insufficient and/or incorrect information and may have practiced outside of the limitations of registration as a ROWP.

### **BACKGROUND**

During a random check of Filings within the Health Authority by ASTTBC staff, two Filings by this ROWP were reviewed and found to contain various missing or incorrect information. These included:

#### **Filing A**

The Record of Sewerage System (RSS) form states this system is for a four bedroom home with a floor space requiring a five bedroom sizing, yet the Daily Design Flow listed is for less than a three bedroom home. A note that the discharge area will be less than thirty metres to any drinking water source is also listed but no details could be seen on the site plan provided to determine where the water source in question is located. Minimal site and soils information provided but does suggest the soil type is “fractured shale” and the loading rate for the Type 1 system is given as seventy five litres per square metre per day. A rough hand-sketch for the site plan is provided but scale, slope, location of test pits and similar details are missing. The RSS also lists that pressure distribution is being used but there are no

details on dosing, pump cycles, or how the loading rate was determined for this site. There is a reference to one hundred centimeters of fill material over the discharge area but no further information is provided.

### **Filing B**

RSS form states this system is a work camp with one hundred bedrooms and a Daily Design Flow of thirteen thousand six hundred litres per day using a Type 2 treatment plant although an equipment list within the documentation describes a hypochlorite dosing pump that would be used in a Type 3 system. Dispersal is to an “at-grade” using a pump, but no dosing, pump chamber sizing, construction details for the dispersal area or even a location for the dispersal within the property was found on the site plan within the Filing. Loading rate listed is thirteen thousand six hundred litres per day with no other supporting documentation.

No soil log or other details including texture and structure, no percolation or permeameter test results, and the RSS form does not have these items checked off, but does state the discharge area will be less than the required setback distance to a source of drinking water although no details were found on the site plan to show where the water source is located. There is a reference to one hundred centimeters of fill material over the discharge area but no further information is provided.

In review of these Filings, the amount of information contained in all cases was substantially less than set out under the SSR and SPM, and all contain details that raise significant concerns.

### **INVESTIGATION**

As a result of the incorrect and/or missing information, ASTTBC staff contacted the ROWP by letter requesting clarification and details concerning these Filings. The ROWP contacted ASTTBC staff by email on June 11, 2009 pointed out frustrations experienced in obtaining information on Filings and drawing plans due to the lack of content within what the ROWP described as “crash courses” in 2005 and prior to the release of the SPM. The ROWP did attempt to obtain assistance from the Health Authority staff in the area who reportedly stated what was provided was “good enough” and did not supply the further information requested. With no information to suggest Filings were substandard, the ROWP did not have a reason to suspect otherwise.

The ROWP expressed a desire to improve Filings to at least an acceptable level “or even exceeding the requirements, but I need some help.” The ROWP openly accepts responsibility and outcomes from the PRB, then asks for suggestions on courses or seminars that could be of benefit, pointing out and enrollment in the PLAN206 drawing course.

### **DISCUSSION**

The details in both Filings caused concerns over the ability of the ROWP to carry out planning work. These included the ability to conduct site and soil assessments, the ability to determine appropriate Daily Design Flow rates, loading rates, or identify that fractured shale is not a suitable soil in which treatment will occur.

In the case of the work camp, the number of workers should have caused concern because the Daily Design Flow rate is well above the nine thousand one hundred litres per day rating that an ROWP can undertake before the work is to be undertaken by a Professional. High-strength wastewater and high-flow rates make this a challenging site for an ROWP to undertake since their training through WOWTC courses does not cover this work. For both Filings, inaccurate information was apparent and this was not contested by the ROWP.

Under the Sewerage System Regulation, the ROWP would not be permitted to carry out such work; however there is a question of whether this work was performed under the Industrial Work Camp Regulation, as it appears it might have been. The ROWP did not provide further information on this but based on the site plan, showing the layout of the trailers and the types of trailers involved, this is likely the case.

As noted in other PRB actions related to ROWPs undertaking the planning and installation of onsite system for industrial work camps, the matter ultimately falls upon the local Health Authority to review the application and issue a permit. The use of a Filing is an incorrect application of a document intended for systems under the SSR that has occurred for some time. Regardless of whether the system was planned under either regulation, the ROWP has a duty to ensure they undertake such work only when capable and qualified to do so. The details within the Filings suggest this is not the case and the ROWP is unable to apply fundamental planning concepts.

Re-attending courses that specifically cover most of the issues found within the Filings would be of significant benefit and is what the ROWP has already willingly offered to do. The greater concern is whether either of these systems were constructed and are still operating, as a technical review identified concerns about the design and suitability of both systems, especially for long-term use. An independent confirmation by either a Professional or an Environmental Health Officer of whether the system is still in operation and if it is appropriately designed for long-term operation is recommended.

## **OUTCOME**

The Practice Review Board required the ROWP to successfully complete the WOWTC course PLAN201 (or equivalent acceptable to the Manager, OWRP) as a review of fundamental duties and responsibilities expected of all planners as well as WOWTC course SOIL201 (or equivalent acceptable to the Manager, OWRP) as a review of soil and site assessment requirements.

With regards to the residence and the industrial work camp noted in the Filings reviewed, the ROWP is to verify in writing whether these systems were installed and operating. If either are operating, the ROWP is to arrange at the ROWPs expense for a Professional or an Environmental Health Officer to review the onsite sewage systems and provide verification by letter that the systems will not cause, or contribute to, a health hazard.

The ROWP is further required to immediately arrange through the Manager, Onsite Wastewater Registration Program to undertake a Practice Assessment.

The ROWP has advised ASTTBC of the completion of all the courses and will send in marks as soon as they are received as well, the ROWP will arrange for a Practice Assessment. As the ROWP has confirmed adherence to all PRB conditions, no further action is required and this file be closed. Staff will continue to monitor to ensure all conditions are successfully completed.

#### **CASE #09-44**

#### **STATEMENT OF COMPLAINT**

That a ROWP submitted Filings to the Health Authority, which contained insufficient and incorrect information.

#### **BACKGROUND**

During a random check of Filings within a Health Authority by ASTTBC staff, two Filings by a ROWP were found to have various missing and incorrect information. The Filings were for industrial work camps being installed in the northeast region of B.C.

Missing details included the size or number of occupants within each facility. Both show what appear to be trailers to be set within the proposed work site but no details to indicate if these are individual residence units, common bunkhouse, a commercial kitchen or for storage. Daily Design Flow values provided would be similar to a two bedroom residence which seems low for the size of the camp shown on the sketched site plan.

Both Filings list Type 2 treatment plants and pressure distribution to “temporary at-grade” dispersal areas, however no soils log or other detailed information on the soils is provided to help determine what the loading rate should be for the dispersal area and whether the two different loading rates are in response to soil assessments that had actually been carried out.

Site information does not include the setback to critical items such as wells, streams, etc. and there is no information on what or where a water source or storage point would be located to serve this facility. No construction details for the dispersal area are included.

In review of these Filings, the amount of information contained in both cases was substantially less than set out under the SSR and the SPM.

#### **INVESTIGATION**

As a result of the incorrect and missing information, ASTTBC staff contacted the ROWP by letter requesting clarification and details concerning these Filings. The ROWP replied to ASTTBC staff on several occasions and pointed out at length directions given by an Environmental Health Officer (EHO) in that area at that time, who stated it was not necessary to follow the SPM in such circumstances. Direction from the management of the BC Onsite Sewage Association to the ROWP was to follow the guidance of the EHO in that area.

The ROWP no longer works for the company who installed these systems and would not have access to the Filings in question. The ROWP does point out involvement in more than one hundred systems during the four years of working for that particular company and that they all had an operating life of between two and eight weeks before being removed.

## **DISCUSSION**

Under the Industrial Work Camp Regulation, a permit from the local Health Authority is necessary and the ROWP reportedly did follow the directions of the EHO for this area at that time. In discussions with Northern Health Authority staff, senior management appear to have been unaware that the local EHO in question was applying considerable discretion in judgment and suggested they felt more concise guidelines and internal office policy should have restricted such practices. The EHO in question no longer works with onsite systems in this area. Currently, NHA senior management are working to create and implement such policies, and while these appear to be several months away from taking effect, their intent is to ensure that all applications for permits under the Industrial Work Camp Regulation will contain no less than the amount expected of a ROWP under the SPM. Site and soil assessments, critical setbacks, detailed site and construction drawings, proper dosing calculations and size of dispersal area, etc., would be the same in order to reduce the liability placed onto the EHO in granting a permit.

Prior to the SSR, the amount of information required to be supplied to NHA for the installation of an onsite system serving an industrial work camp was often minimal and usually carried out by a Professional Engineer. Once the SSR came into effect, NHA staff were under the belief that such work could be extended to an ROWP as well, and ROWPs who were involved with the installation of such systems prior to the SSR and appeared to continue completing Filings in the same manner as old permits even after the SSR came into effect. With NHA staff not familiar with the SSR or the duties and limitations of a ROWP, Filings appeared to be accepted by NHA even when significant deficiencies or inaccuracies were present.

The ROWP made efforts to obtain guidance to ensure creation of appropriate Filings, however the ROWPs contacts at BCOSSA and NHA appeared to have a fundamental lack of understanding regarding the responsibilities and limitations of ROWPs, especially as it relates to deviating from the SSR and SPM. The ROWP admits that aspects of the Filings were substandard and is quite willing to ensure these are dealt with effectively. A cooperation and desire to improve was noted throughout the investigation and the current level of involvement with Filings warrants the use of a Practice Assessment rather than further re-training or more serious action.

## **OUTCOME**

The Practice Review Board required the ROWP to arrange through the Manager, Onsite Wastewater Registration Program, to undertake a Practice Assessment.

The ROWP has not contacted the Manager, OWRP to arrange for a Practice Assessment as required by the Practice Review Board. On January 7, 2010, the ROWP's registration was cancelled for non-payment of annual dues thus ASTTBC can no longer censure the individual as a non member.

As the ROWP has not completed the Practice Assessment and since registration has now been cancelled for non-payment of annual dues, no further action is required and this file was closed. A flag was placed in the ASTTBC database indicating that the individual must first complete the PRB requirement before registration will be reinstated. The Health Authorities were notified of the cancelled registration.

**CASE #09-48**

**STATEMENT OF COMPLAINT**

That a ROWP registered Filings with the Health Authority which contained insufficient and/or incorrect information.

**BACKGROUND**

During a random check of Filings with a Health Authority by ASTTBC staff, two Filings by this ROWP were reviewed and found to contain various missing or incorrect information. These included:

**Filing A**

No design rationale provided that would help explain why the Daily Design Flow (DDF) was substantially less than the SPM requirements for the size of the home, insufficient details on the site plan, no construction details, no soils log and very minimal soils detail, minimal details that may be related to a percolation test but no indication where these tests were conducted in relation to the discharge area, and no O&M Plan was included.

**Filing B**

No design rationale provided that would help explain why the DDF was less than the SPM requirements for this size of home, insufficient details on the site plan, no construction details, no soils log or other soils details, minimal details that may be related to a percolation test but no indication where these tests were conducted in relation to the discharge area, and no O & M Plan was included.

In review of these Filings, the amount of information contained in all cases was less than set out under the SSR and SPM.

**INVESTIGATION**

As a result of the incorrect and/or missing information, ASTTBC staff contacted the ROWP by letter requesting clarification and details concerning these Filings. The ROWP responded and acknowledged that details were missing and could be improved but was not clear on what the current requirements under the SPM were. The ROWP was also most cooperative to begin correcting information in the Filings where problems were noted.

**DISCUSSION**

The ROWP admits Filings were insufficient and missing details in many areas as pointed out during the review process. The ROWP expressed an intention to improve future Filings as a result. To that end and as further guidance, examples of good documentation were provided to the ROWP by ASTTBC staff.

As the ROWP is not familiar with some aspects of the current requirements of the SPM or with the current information provided within the training, re-attending courses that specifically cover most of the issues found within the Filings would be of benefit.

## **OUTCOME**

At the October 8, 2009 PRB meeting, it was recommended that the ROWP successfully complete PLAN201 and SOIL201 by April 1, 2010. A letter was sent to the ROWP on October 14, 2009 with a response due October 30, 2009, confirming future adherence to the PRB conditions, or alternatively proceed to a Disciplinary Hearing. The ROWP did not reply, thus a reminder letter was sent November 5<sup>th</sup>, 2009 with a further reminder being sent February 8, 2010. This letter advised that a recommendation that ROWP registration be temporarily suspended, until such time as the courses are successfully completed, would be taken to the PRB should there be no response by the given date. Again, the ROWP did not respond and to-date has not submitted marks to indicate successful completion of the two courses, which were due April 2, 2010.

The Practice Review Board temporarily suspended the registration of this ROWP until such time a suitable response is received by ASTTBC. The Health Authority will be advised of the temporary suspension.

## **CASE #09-58**

### **STATEMENT OF COMPLAINT**

A ROWP undertook the planning and installation of several onsite systems for a client but failed to provide as-built drawings and Letters of Certification upon completion nor rectified installation deficiencies that arose during operation.

### **BACKGROUND**

The owner of a development company involved with a subdivision hired a ROWP to undertake a variety of site development work that included the planning and installation of several onsite sewage systems. These included a system for the owner's private residence, undertaken around April 2006, and for the community centre within the subdivision approximately September 2007.

The owner alleges that during the first year of operation, odours became a common problem with the system for their personal residence along with trouble alarms sounding. The owner made repeated attempts to contact the ROWP and delays of up to eight months occurred before either the ROWP or an employee of the company came out to check on the matter. Although various repairs were made by the ROWP over time, the owner claimed not to have all documentation, such as the Letter of Certification or an 'as-built' plan despite several years passing since the installation.

The owner also alleges that the ROWP had installed both a main onsite sewage system for the community centre and another system within the reserve area for the centre, but the locations of the systems and components within them are not as per the original plans, nor was an as-built or Letter of Certification issued. Reportedly, attempts to obtain these documents from the ROWP were not successful and reasons for the delays are unclear.

As a result of the frustration over delays and problems with these onsite systems, the owner contacted ASTTBC to register a complaint.

## **INVESTIGATION**

ASTTBC staff spent the first several weeks arranging with the owner to obtain and supply various details behind this matter including supporting documents, before notification of the complaint was made to the ROWP.

With limited documentation from the owner, efforts by ASTTBC staff focused on trying to obtain documents from the ROWP. Over several months, details began to emerge that helped create a limited picture of the events but many documents expected for projects of this size appear to be missing or were not provided by either party.

For the owner's residence, the ROWP claims that a Letter of Certification, Operation & Maintenance Plan were provided and the system reviewed with the owner in person. The ROWP points out his role is not the Maintenance Provider who is under contract for this system and was only attending to deal with the complaints as part of ensuring customer satisfaction.

Reportedly, the first response to a complaint was when the ROWP found the alarm was sounding as the air compressor for the package treatment plant had been unplugged causing the low-air alarm to sound. Once plugged back in, a check of the system found it operating properly.

The next call was for another alarm and a complaint of sewage odours. Upon arrival, the breaker in the electrical panel that serves the pump chamber was found to be tripped for reasons that are not clear, and the ROWP requested the owner arrange for an electrician to attend and find the cause. The high-level alarm was sounding as the fluids within the pump chamber rose above the normal operating level causing the alarm to activate.

A third call occurred while the ROWP was out of town, so an employee attended and apparently noted some sort of ground disturbance around the treatment plant and pump chamber, including aspects of the access lids, suggesting they were disturbed or removed. Upon return, the ROWP attended and found sewage flowing out the air vent of the package treatment plant due to a problem within the pump chamber. The same breaker was found tripped at the electrical panel and it appears that the owner had not organized an electrician to investigate the previously identified problem.

At this point, the ROWP noted several fittings on the header pipe were leaking so the ROWP brought an excavator in to help expose the points of leakage so repairs could be made, the lines flushed, and the

system brought back into proper operation. The lids on the components were also re-secured including one lid that had only 2 screws securing a different type of lid than was originally used on the system. Immediately following the repairs, the ROWP was called to return and clean up a small amount of soil left in the area of work, and this was tended to by employees immediately.

For the community centre, the ROWP states that upon completing the installation, the owner asked that the reserve system be installed apparently so “the disturbed land could be reclaimed and if the first field failed (it) would only need to hook into the reserve without excavating for a new field”. The ROWP agreed to this and was just completing the installation of the reserve system when the owner asked if the reserve field could instead be used to serve nearby lots that were yet to have residences built upon them. The ROWP was unsure if this could be done as that was not the intent of the reserve system and would need to look into that further, including what covenants were in place on these properties and the community centre property itself.

The ROWP claims that despite asking the owner numerous times for the documents concerning these sites, nothing was provided and the owner was becoming more verbally challenging, even abusive. The ROWP then proceeded to obtain information from the Health Authority who reportedly “seized” the paperwork and began looking into why there are no covenants for lots 32 and 33. The last information the ROWP had was that HA staff were planning to contact the Ministry of Transportation to ascertain details surrounding this subdivision.

ASTTBC staff contacted HA staff and confirmed that issues around covenants within this subdivision are being investigated and no decisions are likely to be made for a while due to possible inconsistencies found so far. Information faxed to ASTTBC staff confirmed the owner found an LoC and an Operation & Maintenance Plan for the system serving the owners property, but the focus of the owners concern now remains with the systems for the community centre. The owner attached a copy of a cheque stub dated October 3, 2006 showing payment for three onsite systems at the community centre while the ROWP counters that the payments were “by the hour or progress” and the list of deficiencies in the owner’s letter of November 7, 2008 were completed by May of 2009.

In review of the most recent documents provided, the owner’s documents for the onsite system at the residence were examined and found to be concerning. A Health Authority document labeled “Sewage Disposal System Installation Declaration” states that “this system has been installed in accordance with the permit issued July 16, 2004, then shows the ROWP’s name and signature but no ROWP stamp, and is dated “02/04/06” which matches the April 2006 timeframe that the owner states this system was installed. A very simplistic maintenance plan is listed below on the same page. The bottom of this document shows that it is a HA form dated September 24, 2004, about 8 months prior to the Sewerage System Regulation coming into effect. However, the form suggests the ROWP completed the installation almost a year after the SSR came into effect, in which case this system should have complied with the requirements of the SSR and not the previous regulation.

The second page is a document from the Ministry of Health titled “Maintenance and Operation of Sewage Disposal Systems” and is dated March 2006, confirming that the signing off by the ROWP was done after the Ministry of Health document was released and clearly in the time period of the SSR.

The third page of the document is a rough sketch showing the layout of the onsite system for the owner's residence. There is no date confirming when the drawing was made but does show the date of application being July 16, 2004. The ROWP has signed two points of the sketch but no ROWP stamp. The drawing has minimal details including no north arrow, direction or degree of slope across the property, states the scale is "1 box = 10" but doesn't indicate if this is feet, metres or other distance. Looking over the sketch, ASTTBC staff noted eight laterals of twenty feet each are shown in a layout that is not typical and without a clear reason obvious for doing so. No soils information, including where observation holes and percolation tests were conducted, no details on dosing volumes, construction details, or sizing of components were found.

In review of the details provided by the ROWP and the owner for the community centre, only a general location of where the proposed onsite system was found and no technical details provided or noted in any correspondence.

## **DISCUSSION**

A contractual dispute between the owner and the ROWP is at hand and covers a multitude of issues, only a small portion of which concerns the onsite sewage systems for two particular properties. A common theme appears to be the lack of suitable documentation resulting in misinterpretations and miscommunication between both parties which is especially concerning given the scale of the project in question. It is unclear if either or both parties are providing selected portions of available documents or simply do not have expected documentation, but it is unlikely that further information can be obtained.

There is no dispute that the ROWP installed some sort of onsite system at the two properties in question and the owner's request to know what and where the components are, primarily for the community centre, is fair and valid. Even the sketch of the system for the owner's residence, while provided by the ROWP, should not be considered suitable or sufficient due to the poor quality and lack of supporting documents that should have been provided to the owner upon completion of the installation. What was provided was not a Letter of Certification and does not meet the expectations of a ROWP based on the training a registrant would have received. The other concern is whether the onsite system at the owner's residence was planned and installed as per SSR and SPM requirements or undertaken as part of the original Sewage Disposal Regulation plan from 2004.

The means by which the pressure distribution system was installed is extremely concerning and when this was brought up by ASTTBC staff, the ROWP's comment was that it best suited the site. No other explanation was provided.

As for the question of what was installed, the ROWP should immediately provide a proper Letter of Certification to the owner that bears the HA stamp and date of receipt for both the system serving the residence as well as the system(s) installed for the community centre. Regardless of whether covenants or other issues are being reviewed by the HA or other agencies, ministries or authorities, or whether any

outstanding payments for such services may be in dispute, the ROWP has completed an installation and the property owner is entitled to know what was carried out.

This includes full and accurate details on where the system components are located, their size, make, model and all other information the property owner needs to know. Such documents must also show that a proper Filing and registration is in place along with proper Operating & Maintenance Plans. Not only should the owner be provided this information, but also the HA and ASTTBC without delay.

With regards to allegations that the ROWP did not respond to the problems with the onsite system at the owner's private residence, the owner was apparently made aware of the components and that maintenance is needed, and was directed to seek an electrician to deal with electrical problems that arose after the installation was completed. The degree of information that the owner was given concerning Operating & Maintenance appears to be minimal and generic in nature, not specific to the system and how the system may be used. As the ROWP is to provide an improved Final Filing Document to the owner, and this should contain a properly detailed O&M plan, the owner should be then sufficiently and more appropriately informed.

Based on these findings, there is cause for concern that the ROWP may not have carried out these projects with sufficient care and attention both in terms of site and soil assessment capabilities as well as planning skills. Whether this is an isolated case or a common practice cannot be determined without further assessments of more recent work, therefore a Practice Assessment would be of value to obtain a better determination of this, which has already been ordered due to a previous complaint against the ROWP. Regardless, the quality of the plan itself does suggest that re-attending courses that specifically cover most of the issues found within the Filing would be of significant benefit.

## **OUTCOME**

The Practice Review Board required the ROWP to successfully complete the WOWTC course PLAN204 as a review of fundamentals for planning pressure distribution systems. Further, the ROWP is to immediately arrange through the Manager, Onsite Wastewater Registration Program to complete a Practice Assessment. The ROWP is to obtain the full Filing documents, including Letters of Certification, for the onsite sewage systems serving both the owner's residence as well as the community centre within this subdivision project.

As the ROWP has confirmed adherence to all conditions of the PRB, no further action is required at this time and this file was closed. Staff will monitor to ensure all conditions are successfully completed.

## **CASE #09-59**

### **STATEMENT OF COMPLAINT**

That a ROWP Planner failed to submit a Letter of Certification for an onsite sewage system within thirty days of the ROWP Installer having completed the project and notifying the ROWP Planner that such work was completed. Allegedly, the onsite system installed does not meet the required setbacks to a water well.

## **BACKGROUND**

During a search for a property to purchase, the complainant attended the subject property. With the aid of a friend, who is also a ROWP, the complainant became aware that a new onsite sewage system and a new well, as documented on the MLS listing, was found to be less than the required thirty metre setback in relation to the dispersal area. During a further check with the Health Authority, no Letter of Certification or as-built drawings were found in the Filing.

Based on this information, the complainant contacted Interior Health as well as ASTTBC since two ROWPs were involved with this system and the home was found to be sold soon after the complainant's attendance at this property. The complainant's concern was that the new occupants may not be aware of these circumstances.

## **INVESTIGATION**

The ROWP Installer is the owner of the property and is also the one who installed the onsite system in question. The ROWP Installer hired the ROWP Planner to carry out the site assessment and related planning work for the onsite system and register the Filing with the Health Authority.

A letter advising the ROWP Planner of the complaint was sent on June 30, 2009 and a response was received by ASTTBC on July 21, 2009. The ROWP Planner did plan the system for the ROWP Installer's property and admitted filing the Letter of Certification late due to health issues during the past year. The ROWP Planner also included both the original plan of the system dated April 6, 2008 as well as an as-built plan dated July 18, 2009 with the stamp and signature of the ROWP Installer only.

In review of the difference in distances listed between these two plans, the as-built does show the drilled well as being twenty nine and a half metres from the well to the nearest dispersal pipe which the ROWP Planner confirms in the letter. Since the trenches are 600 centimeters wide, the distance is slightly less again.

In phone conversations with ASTTBC staff, the ROWP Planner stated that while attending the site to inspect the installation at the completion of the job, the distances were not confirmed and neither were grades checked, depth of drain rock or other aspects of the installation. Rather it is left it to the Installer to be responsible for this since they are to stamp the as-built plans. The well was drilled after the onsite system was installed but the ROWP Planner reportedly made it clear to the owner/Installer that when the well was to be drilled it was to be ensured the position was accurate so setbacks would be maintained.

## **DISCUSSION**

Concerns raised by the complainant over the reduction in setback distance to the well on this property as well as the late LoC were confirmed by the ROWP Planner. While health issues played a part in the delay of the LoC, communications between the Planner and the Installer seem lacking and did not appear to convey the urgency in ensuring all paperwork was complete since the property was listed for sale.

Since the well was installed after the onsite system was installed, the ROWP Planner cannot be held responsible for the reduced setback. However, improvements to document management, including content within Filings, and minimal confirmation of the quality and consistency when plans are completed by others raises concerns. For this reason, re-attending a course that covers the documentation expected of Planners is recommended.

## **OUTCOME**

The Practice Review Board required the ROWP Planner to successfully complete the WOWTC course PLAN201 as a review of fundamentals for planning systems. After receiving this and a previous PRB decision, the ROWP Planner contacted ASTTBC staff and requested a leave of absence for health reasons and agreed to voluntarily surrender ROWP registration for at least a year, and upon renewal of registration has agreed to complete the requirements as listed in the PRB decision.

## **CASE #09-62**

### **STATEMENT OF COMPLAINT**

That a ROWP refused to provide a reference letter as requested by a former employee unless a fee of \$1500.00 was paid.

### **BACKGROUND**

The complainant was employed by a ROWP who owns a company that manufactures wastewater package treatment plants, from March 5, 2007 to March 14, 2008. After leaving this company, the complainant became employed by a local government Water Department where references were requested by Human Resources staff to determine suitability for further training and advancement. The complainant was also attempting to continue efforts to become a Registered Onsite Wastewater Practitioner and work with another ROWP who is also a former employee of the ROWP in question.

The complainant reportedly contacted the ROWP asking for a reference that would provide details of work experience to assist with efforts for advancement. According to the complainant, the ROWP would be required to pay “an Administrative Fee of over \$1500.00 in order for me to get my credits from (this person)”.

Due to the requirement for payment of a fee to obtain a reference, the complainant contacted ASTTBC for assistance.

### **INVESTIGATION**

The complainant states that during the year of working for the ROWP, the complainant was involved with “the installation of over twenty systems, some of which I completed on my own, unsupervised”. The reference was intended to demonstrate proof of experience as part of the complainant’s efforts to become registered as a ROWP. The complainant had already completed various courses required to become a ROWP and was intending to demonstrate proof of education. The complainant does admit to having

signed an agreement with the ROWP to repay the costs for these courses, but this was under duress as the complainant believed that if the agreement was not made, he would be fired.

A letter was sent to the ROWP on July 9, 2009 advising of the complaint. The ROWP responded on July 20, 2009, denied being in contravention of any of the Code of Ethics and Practice Guidelines including Principle 7 and explained circumstances from the ROWPs point of view.

The ROWP confirms the complainant was an employee during the time period in question and was hired despite having no previous experience in the wastewater industry, that internal and external training was provided to the complainant but only courses that were not required to retain employment were under a contract for repayment. The ROWP denies that the complainant had signed under duress.

The ROWP denies that the complainant was ever put in the position of being responsible for the installation of any treatment plants, only their construction and delivery with limited assistance to the Installer or Engineer involved with the project. The letter requested by the complainant from the ROWP was for identifying the work completed during the complainant's tenure with the company, which the ROWP estimated would take three days of work, by administrative staff to determine. An estimate of \$1,500.00 plus tax for the service was given to the complainant.

## **DISCUSSION**

The dispute appears to be over the degree of information to be provided by the ROWP to a former employee in need of proof of experience and/or training for both the complainant's new employment as well as an application to become a Registered Onsite Wastewater Practitioner. A letter of reference outlining general experience, duties, skills and training should be expected to be produced by anyone in the ROWP's position or a designate within Human Resources or similar functions of a business.

Principle 7 of the Code of Ethics conveys this in various ways but under (a) "not maliciously injure the character or the prospects of business of another member or individual, being as careful with a colleagues' reputation as with their own". Refusing to provide a reference, or giving one that has a negative 'spirit' rather than an honest evaluation, should be considered a violation of Principle 7 as it can harm the prospects of the former employee.

If the complainant was seeking a far more detailed reference requiring dates, addresses, descriptions of work at each site, or other aspects beyond a general reference, then a requirement to impose an administrative fee for cost recovery of staff resources is not in contravention of Principle 7. As it is not clear from either party the degree of information expected within the reference or how the use of the term 'credit' by the complainant should be construed, an actual breach of the code of ethics is difficult to confirm.

To resolve this uncertainty, the ROWP should arrange to supply the complainant with a general letter of reference as would be expected from any employer, that conveys the complainant's duties, skills and other qualities in a fair and positive manner. The letter of reference is not expected to detail the exact number of systems, addresses, dates, or similar information unless the complainant wishes to provide compensation for the time spent to coordinate this information.

## **OUTCOME**

The Practice Review Board required that the ROWP provide the complainant with a general letter of reference immediately as would be expected from any employer conveying the complainant's duties, skills and other qualities in a fair manner. The letter of reference is not expected to detail the exact number of systems, addresses, dates, or similar information, unless the complainant wishes to provide compensation.

As the ROWP confirmed that a reference letter has been sent to the complainant as required by the PRB, no further action is required and this file was closed.

## **CASE #09-70**

### **STATEMENT OF COMPLAINT**

That a ROWP carried out the planning and installation of an onsite sewage system for a property owner, that was later found to be contrary to the Standard Practice Manual (SPM) when maintenance was being attempted by a ROWP Maintenance Provider. The problems found by the MP caused concerns that a hazardous and unethical practice by a fellow ROWP had occurred.

### **BACKGROUND**

The property owners had arranged for another ROWP to plan and install an onsite sewage system to serve this new home but the general contractor retained this ROWP instead. The onsite system was installed during May/June of 2008 and the owners began occupancy in May 2009.

In July 2009, the owner hired a contractor to do landscaping work around the property during which point the contractor, also an ROWP, noted access lids were well below the surface. Upon opening the lids, the ROWP found the second compartment of the septic tank appeared to be intended to be used as a pump chamber, however no pump was installed and wastewater was merely seeping into the ground around the tank.

Learning of this, the owner went to the local Health Authority office to obtain a copy of the Filing but none was on file. The owner then went to the building inspector's office at the local regional district and found that a copy of the Filing was present but it was not stamped or signed.

When the ROWP became aware of this, stating this was a mix up by employees while the ROWP was away on vacation, then returned to the site on July 29 & 30<sup>th</sup> and installed a pump chamber. Due to odour problems, the owner contacted a ROWP Maintenance Provider who, upon attendance, found the fluid level in the tanks well above the normal operating levels and about to cause a backing up of sewage into the home. The owner contacted the ROWP advising of the problem but the ROWP was out of town and not available immediately. The ROWP Maintenance Provider then checked the system further and found that a float switch for the pump was not working properly.

Further examination found the plastic tank buried very deeply, the outlet Tee was installed on such an angle that the effluent filter could not be removed for routine cleaning, and there was no extension handle on the filter to allow for safe removal. The means of disconnecting and removing the pump required a person to enter the confined space. Wiring connections were also a concern and did not appear to be professionally installed.

Due to the problems the owner was experiencing, several ROWPs became involved including the MP who asked if the owner would be willing to file a complaint with ASTTBC on this matter. The owner reluctant to complain on the basis this might cause the ROWP to delay providing the documents needed to get a final occupancy permit.

As a result, the MP decided to submit a complaint to ASTTBC because of concerns about the professionalism and ethics of the ROWP.

## **INVESTIGATION**

The MP's complaint letter was forwarded to the ROWP to respond to the allegations. The ROWP claims to have responded to the problems found as soon as possible and that the owner was very pleased with the work. To work around the home construction schedule, the ROWP reportedly put the system together in phases and was yet to complete the last portions of the work until the general contractor had finished with delivery vehicles craning building materials into the home; one of the unloading points was also where the pump chamber was to be located. The ROWP's concern was that damage to the onsite system would result if the system was completed prior to the home construction, as there is minimal space on the lot and it is taken up with the onsite system.

The ROWP claims to have submitted paperwork to the building department only so the building permit could be issued, but did not stamp and sign the document as the work was not completed. The lack of paperwork submitted to the Health Authority was reportedly an oversight by the ROWP or a miscommunication with the ROWP's staff. As for the deficiencies, the ROWP claims to have addressed those noted by the other ROWPs.

Responses from the ROWPs who made the complaint state they are concerned that this ROWP is not familiar with the requirements of the SPM, especially version 2, which was evident in how the system installation was carried out. They have also become aware that the ROWP has done similar work at several other sites and provided the addresses and names within their response letter. They also were not sure if, and to what degree, corrective action was taken by the ROWP at the owner's property.

ASTTBC staff attended the property and examined the system. Some corrective action was taken since the original complaint was made but several outstanding items were also found. ASTTBC staff visited the local Health Authority office and confirmed with staff that the Filing had not ever been registered with them. ASTTBC staff then visited the ROWP unannounced and discussed the outstanding deficiencies.

During this discussion it became clear that the ROWP was not sufficiently familiar with the current SPM as the group of ROWPs who filed the complaint suspected. The ROWP offered to immediately re-attend and complete all corrective action needed for not only the subject property, but the other systems

identified by the MP in the response letter. Further, the ROWP would review all paperwork and ensure it is completed and submitted to the Health Authority immediately, and send a copy of such paperwork to ASTTBC staff as soon as these were completed.

## **DISCUSSION**

ASTTBC staff confirmed the allegations by the group of ROWPs against the ROWP were valid, but it did not appear to be the result of the ROWP intentionally circumventing the SPM as much as failing to keep informed of basic industry requirements to maintain proficiency and competence as required by Principle 6 of the Code of Ethics. The ROWP was somewhat familiar with version 1 of the SPM, but was unfamiliar with version 2, the requirements of which this system should have met.

The ROWP was most cooperative with ASTTBC staff and has already arranged to take a variety of courses specified during other recent PRB actions, which involve what appears to be similar circumstances. Also, the ROWP has asked for assistance from the Manager, OWRB to review practices and recommend improvements. The only additional course that would appear helpful to the ROWP is the WOWTC course PLAN206, which would assist with improving drawings and plans as they were found to be considerably substandard in this case. As the ROWP is also required to undertake a Practice Assessment for other PRB cases, a further request this be included is not necessary.

## **OUTCOME**

The Practice Review Board required the ROWP to successfully complete the WOWTC course PLAN206 as a review of fundamentals for creating drawings and plans for onsite wastewater systems. As the ROWP has agreed to the conditions of the PRB, no further action is required at this time and this file is closed. Staff will continue to monitor to ensure that all conditions are successfully completed.

## **CASE #09-71**

### **STATEMENT OF COMPLAINT**

The complainant, an ROWP, alleges that another ROWP planned and installed an onsite sewage system, and that the system as designed was inappropriate and/or based on inaccurate information according to the Standard Practice Manual.

Further, that when the ROWP reviewed the planning work previously carried out by the complainant for this property, the ROWP made unflattering or disrespectful comments to the homeowner and others about the complainant's planning work in a manner contrary to the Code of Ethics.

### **BACKGROUND**

The owner hired a general contractor to undertake construction of an addition to the older home. In the process of obtaining a building permit, the contractor was made aware that an assessment of the existing

onsite sewage system would be required by an Authorized Person to determine if the existing system was sufficient or a replacement necessary.

The contractor was aware of the complainant, an ROWP Planner. The complainant determined that a new system would be required since the system was suspected of being over twenty years old and, therefore, “would not meet requirements for a change in use.” After completing a site investigation, soil analysis and permeability tests, the complainant determined that a pressure system in an at-grade bed dispersal area was the appropriate choice. This technology was chosen because the most suitable location on the property for a system had soils defined as a restrictive layer according to the Standard Practice Manual (SPM), but the depth to this layer was sufficient if pressure distribution was used and not a gravity based dispersal method. In the complainant’s opinion, the at-grade would be sufficient instead of a sand mound and this also meant the least amount of imported material would be required, helping keep the costs of construction to a minimum.

A plan was drawn up which showed the septic tank, pump chamber and the dispersal area to be located in a lawn area east of the home. A Filing was made with the Health Authority and copies of the plans provided to the contractor and homeowner.

The property owner began seeking quotes for the installation of the sewage system and several ROWPs responded. The first provided a quote for the system as planned by the complainant while the second ROWP suggested that changing aspects of the plan could save the owner money. The third ROWP to attend the site was asked by the property owner to design a system but reportedly was not aware of the details of the complainant’s plan, instead focusing on individually assessing what might be suitable.

This third ROWP, considered a different layout than the complainant. The septic tank would be located on the west side of the home since the house plumbing already led to a septic tank on this side of the house, not the east side where the complainant’s septic tank was proposed to be located. As the ROWP believed a suitable dispersal field using gravity was possible at the northeast corner of the property, no pump chamber would be needed which the complainant’s plan required, therefore saving significant money. The ROWP provided a price for the system that the owner noted was significantly less than what another ROWP quoted for the complainant’s version, and as a result the owner directed the ROWP to construct this version instead of the complainant’s.

When the ROWP submitted the Filing with the Health Authority, the Health Officer became aware that the owner’s property had not only the complainant’s Filing registered but also another Filing registered by a Professional Engineer associated to the second ROWP who attended to provide a quote but never responded later to the owner’s request. As the ROWP was seeking direction from the Health Officer on how to handle the unusual situation of three Filings by three different Authorized Persons for the same property, some discussion between the ROWP and the Health Officer occurred as to why the Filings were so different in design.

At some point following the ROWP’s meeting with the Health Officer, the complainant and the Health Officer had a conversation that includes this unusual situation, at which time according to the complainant, the Health Officer states that comments were made by the ROWP about the complainant that may be non-flattering. After becoming aware of this situation, the complainant obtained the other two

Filings for the owner's property and notes details which suggests the ROWP inaccurately assessed the site and soil conditions leading to incorrect conclusions for the type of system allowed under the SPM.

Due to the inappropriate system selected as well as the inappropriate comments made by the ROWP, the complainant filed a complaint with ASTTBC.

## **INVESTIGATION**

ASTTBC staff reviewed the written complaint and provided a copy to the ROWP for a response. The ROWP responded stating all allegations by the complainant are unfounded and that such accusations are damaging to the ROWP's reputation.

The ROWP first undertook an inspection of the owner's system to determine if any portion was usable or not, in the event it was sufficient to meet the size required by the SPM when the addition to the home is factored in. Although the system was reportedly in good working order, the ROWP determined that it was undersized but could be added on to rather than fully replaced as a cost-savings option. After reflecting on the value of adding onto the existing older system verses entirely replacing it, the owner made the decision that a replacement was of better overall value for the long-term.

During the installation, the ROWP reports to have clipped a small diameter water line causing a considerable volume of water to fill the trench. The ROWP states it rapidly seeped away once the water was shut off. This flooding of the trench was seen by the ROWP to refute the complainant's claim that the soils had a restrictive layer and therefore the choice of a gravity system instead of pressure distribution was appropriate. In the ROWP's opinion, the soil type and depth were ideal for the system selected.

On the suitability of the soils, the ROWP points out that a Professional Engineer from a geotechnical consulting firm involved with submitting the second Filing for this property apparently found soil conditions even better than what the ROWP found, including that no limiting layer was present. The ROWP sent the soil samples to a laboratory to verify the type of soils present and the results also prove the suitability of the soils for a gravity system.

As for the conversation with the Health Officer, the ROWP denies making any statements of a defamatory nature and was concerned that the Health Officer would discuss what was thought to be a private conversation with a third party. The ROWP claims to have been confused as to how to submit the Filing since two others were already registered with the Health Authority and was seeking guidance from the Health Officer who was reportedly also not clear on how to handle this. Comments on the differing types of systems proposed were made between both parties but the ROWP denies making unprofessional comments about the complainant during the discussion.

Attached to the ROWP's response was a letter from a Professional Engineer retained by the ROWP because of the complaint, who conducted a plan and installation review for this matter. The Engineer reviewed the initial site assessment notes for completeness, soil profile notes, and percolation test results confirming all were complete and correct. Soil results from the lab were compared to that found on the site and this reportedly supported the design of the dispersal field. Calculations for the design were also reported to be correct and appropriate for the data collected at this site.

The Engineer conducted a site inspection of the installed system and found it in compliance with the SPM version 2, and that if the system would need to be replaced there was more than sufficient reserve space available to do so.

The ROWP also provides lab results of soil samples from two test holes taken at a depth of 1.2 metres below the surface. These samples indicate a silt loam soil consisting of 24% sand, 60.8% silt and 15.4% clay for one hole and 19.6% sand, 70% silt and 10.4% clay for the other. Both of these test holes were located within the dispersal field area upon which the system was later installed.

Another report included with the ROWPs response is from a second Professional Engineer who completed a geotechnical assessment of the soils within the area of the ROWP's dispersal field stating it is "underlain by loose to compact deposits of sand and silt to an average depth of 2.5 feet (76 centimeters) below the ground surface. The test pit was terminated within deposits of layered silts of lacustrine origin to a depth greater than 6 feet (1.8 metres). These soils contain some clay and thin zones of very fine sand which indicate that water will percolate through these sandy and silty deposits without a limiting layer being found in the area of the proposed fields". This report appears to have been made at the request of the second ROWP who attended the site to provide a quote for the installation and suggested to the owner that a different system layout should be considered for cost-saving reasons but failed to respond back to the owner with further details.

The complainant's claim to have chosen the most economical system for the site is disputed by the ROWP on the basis that it would require the septic tank and pump chamber located in the front yard immediately east of the home, even though the current interior plumbing exits the foundation wall on the west side where the original septic tank was located. The redirecting of the interior plumbing was not practical and would substantially add to the costs of the project and is entirely unnecessary if the new septic tank was located near the old one.

The ROWP does not believe the complainant's claim of being unaware of the installation by the ROWP based on the owner reportedly seeing the complainant drive by while the ROWP was installing the system. The other ROWP further challenges the complainant's statement that the ROWP made unflattering comments to the owner, claiming the complainant had no verbal contact with the owner since the ROWP became involved.

The response letter to ASTTBC from the ROWP was sent to the complainant for final comment. According to the complainant, no further attention was paid to this property until sometime in May 2009 after being contacted by a ROWP who was later found to have been involved with the second Filing registered on the property. The complainant expressed concern over what this ROWP was suggesting for the property but claims to have been too busy to get involved until learning through a Health Officer that three Filings were registered on the property. It was at that time that the Health Officer reportedly told the complainant of the ROWP's unflattering comments, which caused the complainant to investigate this matter further.

The complainant also provides reports, one from a ROWP and the other from a Professional Engineer, both stating that the complainant's proposed system was the more appropriate due to the soil conditions

apparently found by the complainant and both point out that the soil type, as listed under the SPM, states pressure distribution is the appropriate dispersal method, not gravity.

ASTTBC staff contacted the Environmental Health Officer, who the complainant states informed the ROWP of the unflattering comments. The EHO voluntarily agreed to comment on this matter with ASTTBC staff and offered insight into the conversation. The ROWP reportedly was very concerned and frustrated at attempting to register the Filing after learning two other Filings were already registered, both different. The EHO did not believe the ROWP's comments were derogatory or malicious in nature, but the ROWP did question why the complainant chose to plan this more complex and expensive system. The ROWP questioned the appropriateness of the system which the EHO felt stepped slightly beyond being professional, but the EHO was reluctant to call it anything more serious.

ASTTBC staff then contacted the property owner and requested comment as to whether the ROWP made any defamatory or malicious statements against the complainant at any time. The owner claims to have never heard any such comments and noted the ROWP was most cautious on this topic to the point of avoiding any negative comment when the owner began to question the complainant's ability to carry out such work in a professional manner.

ASTTBC staff along with a ROWP Planner/Installer assisting on PRB matters, attended the property to examine the site and circumstances. The system that the ROWP installed was examined and compared to the Filing and found to be substantially as represented according to the plans. However, a number of concerns were also identified. These include:

- The fluid level within the septic tank was backed up almost 10 cm higher than the normal operating level should be. This appears to be due to the outlet pipe, or a section of pipe leading out of the septic tank to the dispersal field, having a higher elevation. This elevated fluid level is causing solids to clog the inlet baffle potentially leading to a backing up of sewage within the inlet pipe. If a full restriction were to occur, sewage could back up into the home itself.
- The effluent filter on the outlet baffle is also missing an extension handle to allow access by hand within 15 cm of the access cover lid, as required by the SPM. Both access lids to the tank were secured by only 2 screws when there are typically 8 per lid.
- The gravity pipe between the house and the distribution box is very long and cleanout access points are required to be installed along the way. Two such access points are installed, but the last section of pipe from a cleanout to the distribution box does not have an access point where it should have been installed.
- The distribution box was found to have uneven flows causing 2 of the 5 dispersal pipes to not receive any incoming flows while the other 3 pipes having varying degrees of flows. This is causing an over loading to one portion of the dispersal field.
- Within the area of the dispersal field receiving flows, fluids are ponding within the trenches to a point within several cm below the dispersal pipe themselves. With the low volumes of wastewater entering the system, and the system being as new as it is, this degree of ponding is highly concerning. Insufficient treatment would be taking place due to the saturated conditions within the actively used portion of the dispersal field as well as immediately down slope in the receiving area of the field as noted by test holes dug during the inspection.

- Within the area of the field, soils with high silt/clay content were found at the depths noted in the soil profile of both the ROWP's and the Engineer's documents and are consistent with the SPM's description of this as a limiting layer. Samples of soils from five points on the property, including two points within the dispersal field area, were taken and provided to a soils scientist assisting ASTTBC with PRB matters. Results of the examination of the soils found at the depth described by the complainant as being a restrictive layer are also consistent with the results found by the ASTTBC investigating members as being a restrictive layer.

## **DISCUSSION**

A substantial amount of time was taken over repeated visits to the property to ensure the ROWP fully knew the owner's needs, determined the condition of the existing onsite sewage system to see if and to what degree any portions could be used to meet the requirements of the SPM due to change in size or usage of the home, carried out site and soil assessments, and provided the owner with a choice of options to consider against the budget.

The owners stated to ASTTBC staff that they felt well informed by the ROWP prior to making any decision and decided to install a new system based on the perceived value of a new system as they intended to reside in this home for many more years. The owner also stated that the ROWP was highly professional and easy to deal with, taking the time to answer any questions, and at no time did the ROWP make any unflattering, derogatory or malicious comments towards the complainant during any discussions with the owner. The owner was most pleased with the manner of installation and care taken during as well as after installation by the ROWP and pointed out that the ROWP charged approximately \$500.00 less than estimated for the job. "Fair" and "honest" were words used by the owner to describe the ROWP's behaviour.

The EHO's comments to ASTTBC staff, while cautious and guarded, did suggest some comments were made by the ROWP that bordered on being inappropriate, but were also made in the context of being uncertain why the complainant's Filing would be so substantially complex and expensive for this site when the ROWP could not find a reason for this. The comments were reportedly not outright criticism and did not have an appearance of malicious intent to defame the complainant's character or planning abilities. The choice to raise this question with the Health Officer, within a private discussion in an office where other parties were not present, could be considered a private discussion with a peer and under circumstances that were concerning as well as highly unusual. The ROWP appears to have taken steps to avoid any discussion with the owner on matters of the complainant's professionalism or abilities to carry out work.

Under these circumstances, a confirmed breach of Principle 7 of the Code of Ethics has probably not occurred but the ROWP should be cautioned to exercise care in such situations. A warning letter to that effect would appear to be sufficient as a reminder. If the EHO has indeed conveyed such statements to other parties beyond the complainant, then this should be addressed through the EHO's professional association, Health Authority Management, or through a more formal legal process.

With regards to the complaint that the ROWP planned and installed an onsite sewage system that was inappropriate and/or based on inaccurate information according to the SPM, this was substantiated. The

ROWP's Filing lacks a design rationale, which is required to be included, and provides justification for the design choices made by the ROWP. The septic tank is undersized in relation to the estimated daily design flow as listed by the ROWP. The soil description by the ROWP lacks details expected within a soils profile yet contained sufficient detail to describe what the SPM states is a limiting or restrictive layer. This layer was misinterpreted by the ROWP who then planned a gravity dispersal system despite the SPM tables warning this should not be done. The soil type identified by the ROWP is documented in several places within the Filing but these are contradictory. Based on the test pit log soil type, it would appear that the hydraulic and linear loading rates are incorrect and would result in an undersized dispersal area.

The ROWP relied upon a Professional Engineer to verify the suitability of soils for this gravity system, however it is unclear whether the Engineer misunderstood the soils profile, was not present during the soils evaluation, or other reason to explain why this soil type was not correctly identified and related back to the SPM. The complainant not only identified this within the original soil profile work but also with both the ROWP and Professional Engineer retained to review this matter when the complaint was lodged with ASTTBC and an investigation began.

The soils report by the Engineer that supports the ROWP is also in question. An ROWP Maintenance Provider approached the ROWP asking to accompany the ROWP to several sites and learn from the ROWP with the intent of applying to ASTTBC for these additional registration categories. The ROWP allowed this other ROWP to do so and one of the first projects they both went to was for this client. The ROWP showed the other ROWP how to conduct the soil and site evaluations including taking details on the soil descriptions. Soon after, unrelated differences of opinion caused these two ROWPs to part ways but the second ROWP approached the owner offering to arrange for a more simple and less expensive system than the complainant proposed by using a particular Professional Engineer to assist with drawing up the plans. The owner agreed to this but did not pay the second ROWP for such services. When this second ROWP did not return calls, the owner continued to deal with the ROWP who eventually planned and installed the system. The Professional Engineer's soil details were substantially similar to that of the ROWP yet the owner states the Engineer did not attend the property, dig any test holes, or otherwise assess the property since the owner was at home during the entire time period.

In review of the report, there is no evidence that the Engineer ever attended the site, but it does imply a field assessment was done by someone, and that is suspected to be the ROWP that was assisting the subject ROWP. ASTTBC staff cannot interview this other ROWP to confirm this directly as the ROWP died in a motor vehicle accident during the time period in question.

During a visit to the site by the ASTTBC investigating team, the limiting layer was quite evident and at the approximate depths described by the ROWP, the Engineer, and the complainant. Of further note was the ponding of wastewater within the dispersal trenches and saturated conditions in the receiving area immediately next and down slope of the dispersal field. These conditions are not typical of a new system nor of a system operating according to its design. Additional items of concern were found with portions of the system installation as well.

Based on circumstances and conditions found within the onsite sewage system, allowing the existing system to continue operating creates a risk that fluid levels may further rise within the system above the

already high and unsuitable levels found during the inspection. Higher levels increase the potential for wastewater to breakout to the surface at which point it would create a health hazard as defined under the provincial Sewerage System Regulation and the Health Act. A replacement of the current onsite sewage system is necessary to prevent this condition from occurring and the future system needs to address this by elevating the dispersal method above the limiting layer. Pressure distribution through a sand mound would be necessary unless another portion of the property can be found that avoids the need for the sand mound, but pressure distribution should be expected as a minimum.

The owner has already stated to ASTTBC staff that if the investigation finds a need to replace the system the ROWP installed, the owner is most accommodating to have the ROWP re-attend to do such work and would prefer this instead of having to deal with any further ROWPs in the area. The owner's concern is that due to the complaint having become well-known by ROWPs throughout the area, attempting to find another one to undertake the new planning and installation of a system will become more challenging, even unlikely.

Based on these findings, there is cause for concern that the ROWP may not have carried out this project with sufficient care and attention both in terms of site and soil assessment capabilities as well as planning skills. Whether this is an isolated case or a common practice cannot be determined without further assessments of more recent work, therefore a Practice Assessment would be of value to obtain a better determination of this. Re-attending courses that specifically cover the issues found within the Filing would be of significant benefit.

## **OUTCOME**

The Practice Review Board required a letter be sent to the ROWP with a reminder to be mindful of Principle 7 of the code of ethics and to voluntarily take corrective action with the existing onsite sewage system on the property that addresses the limiting or restrictive soil layers as per the requirements of the Standard Practice Manual. Monitoring of the existing onsite sewage system should be conducted to ensure that a health hazard does not occur before the corrective action can be completed since weather conditions and other factors may delay the necessary work. The ROWP is to successfully complete the WOWTC course PLAN201 & PLAN202 as a review of fundamentals for planning systems, and SOILS201 for a review of fundamentals for soil and site assessments. Further, the ROWP is to immediately arrange through the Manager, Onsite Wastewater Registration Program to undertake a Practice Assessment.

As the ROWP has agreed to the PRB conditions, no further action is required and this file was closed. Staff will continue to monitor this file to ensure that all conditions are successfully completed.

## **CASE #09-78**

### **STATEMENT OF COMPLAINT**

The complainant, a ROWP, alleges another ROWP submitted a Filing that contained incorrect information based on an inaccurate and/or insufficient assessment of the site prior to submitting the Filing to the Health Authority.

## **BACKGROUND**

The complainant provided details indicating the ROWP is undertaking substandard planning, both in the quality of the Filing details as well as the site assessment. The complainant makes a generalization that the ROWP does this routinely but only provided information on a single site. The complainant wished to bring this to ASTTBC's attention for the purpose of having the ROWP made accountable but wished to stay anonymous in the hope that ASTTBC could generate a staff complaint.

While this complaint was being reviewed, a complaint to ASTTBC was made by the property owner after talking to neighbours who were already involved in a complaint to ASTTBC against the complainant in this case. According to the owner, the complainant may have suggested that the onsite system the ROWP was installing was inappropriate due to the soil conditions and high water table issues. The ROWP then became aware through the property owner about a possible allegation by the complainant. ASTTBC then provided the ROWP with the details of the allegations by the complainant so a defence could be made.

## **INVESTIGATION**

ASTTBC staff contacted the ROWP and a response letter was received. The ROWP confirms that an 'engineered' system exists on this property in an area much closer to the creek, but this was constructed prior to the SSR when only Professional Engineers could design a sand mound system.

The ROWP also confirms that fill was brought onto the property in the areas where RV pads would be installed and this would provide sufficient grade to the sewage collection system for transporting the wastes to the onsite treatment system. The system itself was to be placed in an area where no fill was allowed, specifically, to ensure only native soils were available upon which the new system would be built.

The assessment of the site confirmed that a sand mound with pressure distribution was required as per the SPM requirements based on soil type and water table found. Since the ROWP was just starting the installation, an as-built plan was not available at the time of the investigation, however numerous photos of the project were provided to ASTTBC staff. These photos matched the ROWP's description of the system proposed for the property. Regarding the allegation of plagiarizing the complainant's work, the ROWP pointed out that such documents were compiled based on the SPM and courses the ROWP attended. The ROWP denied plagiarizing any documents.

The ROWP also points out in a concern that the complainant is not following Principle 3 of the ASTTBC Code of Ethics and Practice Guidelines observing the complainant's comments to be "malicious and slanderous", possibly requiring legal counsel.

The complainant responded to ASTTBC staff by stating in no way was it intended for the complaint submission to be slanderous or malicious, agreed to some of the comments in the ROWP's response, and held to concerns about the water table through this particular area and provided some photos to show where seasonal water tables might be.

## **DISCUSSION**

Although ASTTBC encourages anyone to come forward with concerns so that they can be assessed for appropriate action, the ability to keep anonymity is not always possible or in the best interests of those involved, when various parties to the matter question sources and repeat hearsay as fact. In this matter, the property owner who hired the ROWP appears to have made comments to the neighbours who were experiencing problems with the complainant over charges for planning services, as well as delays in obtaining a quote by an Installer/contractor associated to the complainant. This quote was key to the neighbours determining if they should venture into creating RV pads for attracting tourism in the same manner as this property owner.

It is not clear from either the property owner or the neighbour whether the complainant made malicious or slanderous remarks; the accuracy is questionable when it is repeated amongst all parties involved. From the complainant's written comments concerning the ROWP, there are comments of a generalized nature that are not supported by evidence and the one example given was found to be based on incorrect information or assumptions. Since this original comment was intended to be only between ASTTBC staff originally, it was not intended to be malicious and screening by staff would have treated it for the purposes it was apparently intended for.

The complainant's response that the comments were not intended to be malicious, and reiterated this again to ASTTBC staff in following conversations, appears sincere. This was also conveyed to the ROWP during subsequent conversations with ASTTBC staff where the ROWP stated a preference to drop the matter entirely including a possible legal action against the complainant. When the complainant was advised of this through ASTTBC staff there was relief and appreciation of the ROWP's position and that the complainant would now drop any allegation that the other ROWP plagiarized the design work. Both ROWPs wish this matter to cease and no further action be taken against the other.

## **OUTCOME**

The Practice Review Board finds that since this matter has been voluntarily resolved between both ROWPs, no further action is required and this file was closed.

## **CASE #09-83**

### **STATEMENT OF COMPLAINT**

That a ROWP undertook the planning and installation of an onsite sewage system without filing a sufficient amount of accurate information concerning the system with the local health authority, as expected under the SPM. Further, the Letter of Certification expected upon completion of the project was filed more than 30 days after completion, contrary to the SSR.

## **BACKGROUND**

A ROWP reportedly carried out the planning and installation of the system in 2008, then provided the owner with some documents following completion of the work.

By mid-2009, the owner began searching for a ROWP Maintenance Provider (MP) to carry out monitoring and maintenance of this system, and contacted a particular ROWP MP who claims to be able undertake such work. The MP requested full documentation for this system including the full Filing information and the Operation & Maintenance Plan as required to be completed by the Planner of the system. The owner complied with the MP's request at which point the MP identified substantial missing documentation preventing the MP from carrying out required duties. During a visit to the site, the MP also is concerned that features of the system are substantially different than the original plan indicates and no as-built drawings are provided.

Upon being informed by the MP of the lack of information provided, the owner contacted ASTTBC staff for assistance in an attempt to settle with the general contractor for the new home, under whom the ROWP carried out the work related to the onsite sewage system; this so final payments for the project can be released. The MP also contacts ASTTBC staff to provide further details in support of the owner's complaint including being unable to obtain any further documentation from the ROWP when requested.

## **INVESTIGATION**

As ASTTBC staff were operating in the region investigating other matters, staff met with the MP to examine the documents provided by the owner with explanations of where differences in the drawings or details of the filing were noted by the MP during a visit to the property. The Filing contained confusing details regarding the type of components used, suggesting it was a Type 1 system but had a Type 2 treatment plant, and the rough sketch of the dispersal area had minimal details as well. The MP who is also a ROWP Planner, further expressed concern over the percolation rate the ROWP suggested since the area has a significant gravel deposit. The ROWP designed the system with a package treatment plant using a gravity-based dispersal area, with no details on how the dispersal area was constructed and the number of dispersal runs appeared to be less than depicted on the plan. No design rationale was provided to justify or explain this.

ASTTBC staff then dropped by unannounced to see the ROWP at the office to enquire about this matter. The ROWP claims to have supplied all the documents to both the local Health Authority office in as well as to the owner directly. This reportedly included a Letter of Certification following completion of the installation.

ASTTBC staff attended the Health Authority office where staff located the Filing. The information on file was the same as what the MP received from the owner and no Letter of Certification or as-built drawings were included.

ASTTBC staff contacted the ROWP explaining that minimal and confusing documentation was found at the Health office such as no details on the in-ground venting layout for the treatment plant, that five dispersal runs were on this plan yet the MP only found three, measurements on the plan are missing, the O&M plan has minimal relevant details, there is no design rationale, and the LoC was not in the file.

The ROWP responded with only some explanation to these questions but did provide a LoC dated September 20, 2009 with a stamp showing it was received by Health on September 22, 2009. The date on the LoC shows the system installation was completed on September 20, 2008, exactly one year earlier.

ASTTBC staff requested additional information from the ROWP which was provided in a response dated December 4, 2009 at which time it was stated that “ (I will) be going on vacation for 2 months so further communication will not be possible until the first of March”. The information provided by the ROWP only answered a portion of the questions and still did not provide an as-built, design rationale, or a proper O&M plan for the system.

During January 2010, ASTTBC staff became aware that the ROWP had not paid registration dues to ASTTBC and therefore registration was immediately cancelled.

## **DISCUSSION**

The onsite wastewater system has incomplete and likely inaccurate information which prevents the owner comfortably providing the general contractor for the home with a release of final payment for this portion of work. The ROWP MP is not able to fully undertake maintenance for this new system as the details on file, including the O&M plan, are insufficient and potentially incorrect. The Health Authority is now in receipt of the LoC but no confirmation was received on whether they will act on the delay for submitting the LoC.

As the ROWP is no longer a registrant of ASTTBC due to failing to pay registration dues, no further action can be taken unless and until the individual contacts ASTTBC and re-instates registration.

## **OUTCOME**

The Practice Review Board determined that since the ROWP’s registration has been cancelled due to unpaid annual dues, the ASTTBC database be flagged to inform staff that an outstanding PRB action must be satisfactorily completed before the membership of the ROWP may be reinstated. All inquiries are to be referred to the Registrar. Since no further action can be taken at this time, this file was closed. The Health Authorities will be advised of the cancellation.

## **CASE #09-89**

### **STATEMENT OF COMPLAINT**

A ROWP is alleged to have provided incomplete or inaccurate information on site assessments for a proposed subdivision of a property. Health Authority (HA) staff attempted to obtain more information but the ROWP did not respond.

The lack of accurate and sufficient information provided by the ROWP puts HA staff at risk of making a decision that does not ensure the safety, health and welfare of the public and the protection of the

environment, contrary to Principle 1 of the ASTTBC Code of Ethics. Delays or rejection of the subdivision application by HA staff due to the lack of supporting information would result in the ROWP acting without integrity towards the client and HA staff, contrary to Principle 4 of the Code of Ethics.

## **BACKGROUND**

The ROWP was retained by a property owner to assist with the subdivision of a property by providing site assessment details including soil descriptions and percolation results for each of the lots to the Health Authority.

An EHO with the Health Authority was the staff member assigned to review the subdivision application and to whom the ROWP provided information. The EHO reportedly received a general survey plan with no topographical details, a second page giving descriptions of soils at observation holes and a note suggesting only one percolation test was done on one of the lots, and a third page that listed vague information on sizing a system for a four bedroom home. The EHO was not able to clearly find references as to where these observation holes were located for any of the lots within the proposed subdivision nor how the ROWP came to the conclusion that a particular size of system could be installed, whether for one particular lot or for all lots.

The EHO attempted to obtain further information from the ROWP, pointing out that the information was insufficient to work from, but further information was not forthcoming after repeated efforts. The EHO attended the property and had concerns about the accuracy of the soil descriptions as well the proximity to steep slopes and points where excavation for roadways might cause a breakout if a system were to be located in the areas of the test pits on the lots. This called into question the relevance of the soil logs if the immediate area may be disturbed for construction of the homes or roadways.

The ROWP was not cooperative in providing the information requested by the EHO, so contact was made by ASTTBC staff.

## **INVESTIGATION**

ASTTBC staff contacted the ROWP by letter advising of the EHO's concerns. The ROWP stated the matter was resolved after the client, complaining of delays by the EHO, took the matter to the EHO's supervisor soon after the complaint to ASTTBC was made by the EHO. ASTTBC staff confirmed with the EHO that an overruling by management occurred, but the same concerns existed about the accuracy of the information and the behaviour of the ROWP supplying such information.

ASTTBC staff contacted the ROWP advising that regardless of whether the subdivision was approved by other HA staff, the investigation was continuing based on the initial concerns raised by the EHO. A request for the supporting documents related to this site, in particular the missing details as raised by the EHO, was made and the ROWP stated such information would be provided as soon as possible.

Over the following months, further efforts we made to contact the ROWP who finally responded again in February 2010. The ROWP claims to be unable to find the documents as they appeared to have been accidentally thrown out by the spouse. It was thought a copy might be with the client, however they are

out of town on vacation and it would have to wait until they returned in a few weeks. However, such documents would be provided to ASTTBC staff by the end of March 2010 at the latest. As of April 16, 2010, no information was provided to ASTTBC staff and there has been no further communication from the ROWP.

## **DISCUSSION**

The suitability of onsite wastewater systems for properties being subdivided fall outside the Sewerage System Regulation and, for this region, require the Health Authority to become part of the subdivision application approval process. Many Health Authorities are encouraging ROWP Planners to be used to assist with the process due to their training and skills to conduct site assessments, carry out soil testing, and document the many aspects behind determining the suitability of properties to support onsite sewage systems. This includes site constraints or other items of potential concern.

The ROWP is not intended to design a system for these properties but rather provide an accurate assessment and reporting of the information to the Health Authority in the manner required by the Health Authority. The determination of the subdivision approval rests with the Health Authority, often in conjunction with other agencies and authorities.

The EHO was relying upon the ROWP to provide sufficient and accurate information to make a determination as to how this subdivision application was to be handled. The ROWP's delay in providing such information, despite repeated requests, leads to questions about professionalism and the results of the EHO's visit to the property further justifies the reasons to have ASTTBC investigate. The approval of the subdivision by HA management in response to complaints by the property owner do not negate the ethical and practice issues associated to the ROWP's actions.

The ROWP's uncooperative behaviour with HA staff was also noted by ASTTBC staff, who developed concerns about the ROWP's business practices due to the delays and excuses provided by the ROWP.

The initial complaint about the ROWP's ability to carry out site assessments, or at very least an ability to document such information, is still a serious concern for ASTTBC staff. A Practice Assessment would assist with determining whether the ROWP's practices in this matter are an isolated event or an indication of general behaviour.

## **OUTCOME**

The Practice Review Board required that the ROWP immediately arrange through the Manager, Onsite Wastewater Registration Program, to undertake a Practice Assessment.

As the ROWP has agreed to a Practice Assessment and has been in contact with the Manager, Onsite Wastewater Registration Program to make arrangements to do so, no further action is required and this file was closed. Staff will monitor to ensure that the PRB condition is successfully completed.

## **CASE #09-91**

## **STATEMENT OF COMPLAINT**

That a ROWP expressed a professional opinion that a property had site conditions or constraints that were challenging and potentially very expensive to address and that the ROWP exaggerated these conditions to justify the expense of this system.

## **BACKGROUND**

The property owner bought a bare lot within a subdivision and was making plans to build a home on the lot. As a requirement to construct the home, the Regional District advised the owner that an Authorized Person was required to be hired for registering a Filing for an onsite sewage system.

The owner noticed someone in the landscaping business installing an onsite system just down the road from their current residence and asked for advice on how onsite systems are now installed. This acquaintance was a ROWP Installer who provided insight to some of the questions but referred the owner to a ROWP Planner for further assistance.

The owner contacted the ROWP Planner by phone and arranged a meeting near the lot. When the Planner arrived, the Planner immediately stated to the owner that the Planner hoped the property was not already purchased and if it was, to see if the owner could get the money back because a septic field would never comply with the land. At this point the owner states the ROWP was advised that if they were looking at Lot 5 this was not theirs, Lot 6 was; at which point the ROWP reportedly said the same comments applied.

The owner states the ROWP said that the “systems now have to be long and narrow, almost 120 feet in length” however this lot is only 90 feet wide. When the owner advised the ROWP that there was a covenant on the lot that defined an area for a system at the time the subdivision was established years ago, the ROWP stated “that as of 2005 all the systems have changed and the subdivision no longer complies with the new rules.” According to the owner, “what the ROWP had said to me and what the ROWP continued to tell me did not make any sense.”

The owner describes being told that all the soil on top of the field area would have to be removed and a “free drainable sand” brought in but the ROWP knew of a person that could supply the sand. Reportedly, the system would cost upwards of \$60,000 but the ROWP’s work to create a plan “would be \$2500 or more and there was a \$1000 cost at the end to verify the work.” The owner further states that “if I did not go with the ROWP’s advice it was stated that upon the request of a potential buyer, the ROWP would do a home inspection of the septic field and fail my system and have it registered against the title of my home. Forcing me to have the entire system redone.”

After this meeting, the owner began to phone around and through this process and learned that system designs were site specific but typical costs for construction often are between \$24,000 and \$30,000. This extra work to phone around caused a delay for the building permit and upset the developer when they heard about the ROWP’s comments through the owner.

In the owner's opinion, the ROWP "was trying to sell me an over priced system that I did not need nor required. To say the least this experience does not encourage me to build nor would I ever upgrade an existing system by choice."

Based on the details within the written complaint by the owner, ASTTBC began an investigation into possible violations of the Code of Ethics by the ROWP.

## **INVESTIGATION**

ASTTBC staff reviewed the complainant's written complaint and provided a copy to the ROWP for a response.

The ROWP gives a very different explanation of the events of that day. Since the ROWP was working in the area at that time, it was agreed to meet the owner and follow on foot to the lot. The ROWP states while they have not carried out any work within this particular subdivision, they had done work on twelve to fifteen properties directly below this subdivision over the past twenty years and had a familiarity with the area in general.

Upon exiting the truck, the ROWP did ask if the complainant had already purchased the lot or was in the process of doing so. The complainant apparently claimed to have already purchased the lot and was given some form of a deal to get a home constructed as most of the lots were not sold and little activity has occurred in this particular subdivision for a long time. In order to get the permit for construction moving forward, it would need a Filing to be made as quickly as possible.

According to the ROWP, the complainant also stated "this whole thing is ridiculous", mentioned how they had built two previous homes and undertook the planning and installation of the onsite systems for both. The complainant was "pissed right off" that they were now no longer able to undertake this work and had to hire anyone to do this work.

The ROWP observed sections of exposed bedrock and silt soils along the road cuts on the drive up to the lot in question consistent with what the ROWP knew of the area in general. The ROWP commented on the amount of soil that appeared excavated and repositioned elsewhere on the property including what appeared to be six to eight feet moved from upper areas to lower portions of the lot. Excavating equipment was still on site and parked on the upper area of the lot.

The ROWP enquired if the complainant owned the property or was only considering whether to purchase it, the ROWP states an attempt was made to point out that fitting a larger home onto a smaller lot can be more difficult than a smaller home requiring a smaller system. Depending on how large the home would be and the features associated to the home, this could drive up the cost but to what extent would require a full assessment of the property and more information on just what the owner was intending to do. However, when asked how large a home the complainant was intending to build, the complainant apparently became very agitated and stated what was required was a design for a gravity system. The complainant was apparently under the impression that the covenant allowed a gravity system and did not restrict the size of the home the complainant was intending to construct.

The ROWP states they did go into some detail to help explain some of the problems that would be faced. In order to determine soil conditions, it would be necessary to dig observation holes at least five feet into the native soil, however with six to eight feet of fill placed over top, that would require a hole of thirteen to fourteen feet deep unless the fill was removed. If not, the size of the hole in order to safely enter for examining the soils would be massive and potentially damaging to the soils within the covenant for the dispersal field.

The complainant mentioned systems built upon fill material above the native soils and asked the ROWP to just design a gravity system in the materials the complainant had moved there. The ROWP had to explain the limitations of raised systems and sand mounds as these required specific sand material to construct it, not just any soil fill material.

When asked how much the system may cost, the ROWP states it was explained that it ranges from “as little as \$8,000 and as much as almost \$60,000 and that on average it seems systems run between \$15,000 and \$30,000. I pointed out that the high cost system was very rare, had major site constraints, poor soils with little depth of the soil and also included a road that needed to be built into the dispersal area, but the low cost system was for a small house with a gravity distribution system easy access, great soils and soil depth, etc.” To more accurately determine costs, a site assessment would need to be done.

The ROWP denies saying or indicating that the complainant should not have purchased the lot or should seek a refund and also denies stating the complainant would “never get a septic field to comply with the land.” The ROWP also denies stating the subdivision no longer complies with the new rules but did suggest the complainant read the documents to fully understand the terms and conditions within the covenant as it would have a significant impact on what was proposed. The ROWP also denies offering that a particular person could supply the sand as it is readily available through three pits in the area and any installer can obtain it, but the sand is expensive. The ROWP also denies stating anything to the effect that if the complainant did not hire the ROWP to plan the system, various repercussions could result including “failing” the system if the ROWP ever performed a ‘home inspection’, pointing out that a ROWP does not do home inspections.

Since the complainant was unhappy with the information the ROWP provided the ROWP therefore tried to point out that perhaps the complainant should consult an engineering firm to design a system for the property; perhaps even the one involved with the subdivision itself. Setbacks to property lines might be able to be relaxed within certain circumstances, but doing so may not be suitable in all cases and this should be considered carefully. The ROWP also pointed out that since the complainant wanted to undertake the installation they should be careful to ensure everything was done to current standards so as not to encounter problems later; such as could happen if the complainant sought to sell the property and an inspection of the system was performed.

The ROWP describes being “shocked” at having to respond to the allegations since the ROWP was not hired by the complainant nor paid any money for attending the property. The meeting was thirty to forty five minutes in length at most, and it was a conversation that became unpleasant when the property owner became angry upon learning of the difficulties of this project. There is also a suggestion that the complainant appeared to have had a conversation with another person who had filed a complaint against this ROWP and the ROWP was concerned that this complaint was made with a malicious intent.

The complainant was sent a copy of the ROWP's response in order to provide a final opportunity to clarify or refute any portion of the statement. When ASTTBC staff contacted the complainant to ensure receipt of the response letter, the complainant expressed concerns about what the ROWP stated and disagreed with several points. When the complainant was advised that ASTTBC staff would be in the area over the next few days and could meet with the complainant at this property to discuss further, the complainant at first agreed before calling back an hour later stating that they no longer wished to pursue this complaint. According to the complainant, they fear that if they make any further efforts to investigate this matter, it may be impossible to get another ROWP to agree to plan/install a system for them and that the one now retained to install a system is becoming very anxious, even fearing repercussions by this ROWP or other ROWPs they usually work with. Therefore the complainant wishes to drop this matter and has changed their mind about allowing ASTTBC staff to visit their property.

## **DISCUSSION**

In review of the statements made by the complainant and the ROWP, what began as an attempt at a consultation appears to have devolved into a series of misunderstandings with an unpleasant outcome. The complainant appears frustrated about the changes to the Regulations that caused a potentially higher cost for a system to be constructed and an inability to undertake the work in a manner they were familiar with having done in the past. Their anger increased as the ROWP attempted to explain the reasons for this and it is possible that the complainant simply could not accept what was conveyed.

As the ROWP also points out, the coincidence that a previous complainant and this complainant know each other, raises the question of whether a bias was created or not. The complainant was provided a copy of the ROWP's response, was given an opportunity to respond and suggested they did not agree with the ROWP's statements, and subsequent decision to no longer pursue this complaint leaves numerous questions unanswered.

Under these circumstances, there is insufficient evidence to prove that a breach of Principle 3 of the Code of Ethics & Practice Guidelines has occurred.

## **OUTCOME**

The Practice Review Board determined that since there is insufficient evidence at this time to prove that the ROWP breached the Code of Ethics, no further action is required and this file was closed.

## **CASE #10-04**

### **STATEMENT OF COMPLAINT**

A ROWP alleges that a site assessment conducted on behalf of a property owner for three properties found the site required a 'Type 3' onsite sewage system, which would require a Professional Engineer to complete. Later, the ROWP complainant learned that another ROWP planned and installed three systems on the property which were believed to be 'Type 2' and that also there was insufficient vertical separation to support such systems due to high seasonal water tables.

The actions of the second ROWP may create a potential for an inappropriate wastewater system to be installed that may not ensure the safety, health and welfare of the public and the protection of the environment, contrary to Principle 1 of the ASTTBC Code of Ethics.

## **BACKGROUND**

An engineering company was retained by the owner of three properties on one street, to assess the condition of each onsite sewage systems individually serving the three homes. This inspection was in preparation for subdividing a property within the Agricultural Land Reserve into two separate lots, allowing the smaller lot for the homes while the larger lot remains a dairy operation. A very limited form of an inspection was undertaken but the conclusion was that all three systems had “failed” and replacements were necessary. The engineering company requested several quotes from ROWPs on behalf of the property owner.

The complainant was one of the ROWPs who attended the properties and conducted site and soil assessments from which it was believed a minimal depth to high seasonal water table over deep loam soils was present. Based on these observations of the conditions found it was believed that the site would require ‘Type 3’ systems which would require a Professional Engineer. A quote for such work using the proprietary ‘Type 3’ treatment product the ROWP manufactures and installs was submitted to the engineering company.

Later, the complainant discovered the systems planned and installed by another ROWP, and was under the belief that the systems were a ‘Type 2’ style using a sand mound for distribution. As the complainant drove by the site, standing water was noted in the fields near the sand mound, which lead the complainant to believe that there was insufficient vertical separation between the sand layer within the mound and the native soils below where the water table was believed to be.

Photos of this were provided by the complainant and were included in the complaint lodged with ASTTBC as further support to their concerns.

## **INVESTIGATION**

ASTTBC staff contacted the ROWP advising of the complainant’s concerns. Subsequent letters from the ROWP were provided to ASTTBC staff along with a report by a Professional Engineer retained by the ROWP to review the planning work along with the site itself.

The Professional Engineer reviewed all three Filings made by the ROWP and registered with the Health Authority for these properties. The Professional Engineer noted that the complainant’s reference to “improper planning practices” lacked specific details other than a general reference to vertical separation and that, in the Professional Engineer’s opinion, *‘the complainant’ seems to fail to distinguish between on-site sewage system permit requirements and normal winter surface drainage conditions that are of no real concern. Moreover, the three photos taken by the complainant (just before Christmas?) indicate*

*probably the very worst site conditions possible, after very cold weather followed by very mild weather and some heavy rains.*” The Engineer then provides several pages of historical weather data recorded at an Environment Canada weather station nearby to further support this opinion.

The response to ASTTBC staff from the ROWP and consultant was forwarded to the complainant for an opportunity to review and reply. A subsequent letter from the complainant stated at the time of lodging the complaint a copy of the plans at the time were not available, so consequently was less prepared on some of the points raised by the ROWP and the Engineer.

The complainant did include a report by another Professional Engineer, who reviewed the previous Professional Engineer’s report. The second Professional Engineer states that the complainant’s photos showing extensive pools of water on the surface in very close proximity to the sand mounds was taken on November 30, 2009, not December as the first Professional Engineer suggests. This Professional Engineer states site surface drainage was not considered when the designs of the systems were prepared or there would be no standing water adjacent to the dispersal areas and that designs need to include both surface and subsurface water control at all times of the year.

The second Professional Engineer also questions whether the weather data is a bonafide or from a recognized data collection site, and provided within this report, data from Environment Canada Data Sheets for November 2009. This information suggests minimal precipitation, except for November 25, which was four days before the photos were taken, and no freezing the week before the photos showing the surface ponding were taken. The data also shows only one day in all of November during which temperatures dropped below freezing.

The second Professional Engineer mentions that while the sixty-five centimeter hole was a test hole dug “by the contractor in the middle of the low point”, no detailed information was provided by the first Professional Engineer about the test hole. The second Professional Engineer points out that, “when surface water is trapped like it is on this site, it has to infiltrate into the ground which contributes to a high water table. In this Professional Engineer’s opinion, the ROWP did not take this into account, which is imperative for these “low land locations such as this site.” The second Professional Engineer also states that under the previous sewage regulation, the Health Authorities would require water table monitoring be undertaken as a further level of diligence.

The responses from the complainant and the second Professional Engineer were provided to the ROWP for a final comment. The reply indicated that the ROWP used a ‘Type 1’ system, not a ‘Type 2’ as the complainant suggested, and that the ROWP did so following the requirements of the SPM. As the complainant did not indicate the exact dates on the photos provided at the time of the original complaint, the ROWP’s comments would also be quite different.

As for the use of weather data from the point chosen rather than that chosen by the second Professional Engineer, the former would be more accurate in part because it is closer but also because “we all know that rainfall increase from south to north and west to east”.

Regarding the surface ponding, the ROWP states “I and my consultant firmly believe to be ‘seasonal puddles’ of water that exist all over the agricultural areas at various times after rains”. The area north of

the homes have no catch areas and the area south has little catchment area, so the means for surface water to drain away are challenged by the site conditions, but points out this is typical of this area. Further, comments suggest the second Professional Engineer is not using correct descriptions of the land form and that the “seasonal high water table” or “questionable ground conditions” are vague terms to apply but would be more clear if the second Professional Engineer had attended the site as the first Professional Engineer had.

The ROWP also questioned whether the complainant’s loss of work was the reason for lodging the complaint.

ASTTBC staff undertook a review of the documents provided. The site plans and cross sectional views are very neatly drawn and list various notes for construction. Items that were not included:

- where the soil observation hole and percolation tests were conducted in relation to the dispersal area,
- a soil profile log that would include where the seasonal high water table was estimated to be
- a rationale for the design that would include reference to the location for the proposed system where it would be impacted by seasonal high water table issues and if any components may need to have anti-floatation measures installed or not based on the water table findings
- a cross sectional view of the septic tank is provided but no details on where the finished grade around the single access lid to the tank is depicted, whether an access lid was to be installed over the inlet access lid as well, or whether any extension handle may be necessary to the effluent filter installed
- no cross sectional view was provided for the pump chamber, including measurements on where the float settings should be positioned in relation to the bottom of the tank in order to achieve the required dosing to the field, where the reserve volume would be, or at what position the high level alarm would activate.
- the orifice spacing listed also appears longer than expected for the design as does the number of orifices per lateral.

ASTTBC staff also noted that the Filings for all three systems were submitted to the Health Authority (HA) on October 5, 2009 and registered on October 6, 2009. The Letters of Certification for all three systems were provided to the HA on November 12, 2009 separately registered on November 16, 2009 with dates showing the work was completed on October 6, 2009 for all three systems. Considering the amount of work involved for these three systems, it is not clear how the work could be completed the day after the Filings were submitted to the HA.

## **DISCUSSION**

There is insufficient evidence to prove that a health hazard is occurring at this time and there are conflicting views, supported by differing professional opinions, as to whether the amount of site assessment was sufficient to create a plan. ASTTBC staff identified the lack of supporting documents within the Filing, and this may be an oversight by the ROWP. If the ROWP has this information then it should be forthcoming. If the ROWP does not have it, the required level of diligence as described under the administrative requirements of the SPM has not been met.

There is also concern that the installation of all three systems may have commenced prior to the Filings being registered which would be contrary to the Sewerage System Regulation. It seems highly improbable that this amount of work would be completed in a single day, which calls into question either the accuracy of the information on the Letter of Certification or the possibility work began without a Filing being registered.

Although the ROWP's Filing on this matter appears to be missing various supporting documents, other portions of the paperwork are as expected. For this reason, it is difficult to determine if and where additional training may have a value or other measures to prevent such an event from occurring in the future. For this reason, a Practice Assessment should be undertaken before any further recommendations are made.

## **OUTCOME**

The Practice Review Board required the ROWP to immediately arrange through the Manager, Onsite Wastewater Registration Program, to undertake a Practice Assessment. The ROWP submitted a letter to the Registrar advising that the ROWP will voluntarily relinquish the Planner status, maintaining only Installer registration. The ROWP also returned the ROWP stamp and will be issued a new one showing Installer status only. As the ROWP has voluntarily relinquished the Planner status, there is no need for them to complete a Practice Assessment as recommended by the PRB, therefore no further action is required and this file was closed. The Health Authority was advised of this change in status.

## **CASE #10-05**

### **STATEMENT OF COMPLAINT**

A ROWP alleges that a site assessment conducted on behalf of a property owner found substantially different results than reported by another ROWP when asked by a previous property owner to conduct a similar site assessment and submit a Filing based on those findings. The complainant contends the site constraints found required a 'Type 3' onsite sewage system to be designed by a Professional Engineer while the ROWP reportedly found conditions that allowed an ROWP, to install a 'Type 1' system instead.

The incomplete or inaccurate information provided by the ROWP to a Health Authority creates a potential for an inappropriate wastewater system to be installed that may not ensure the safety, health and welfare of the public and the protection of the environment, contrary to Principle 1 of the ASTTBC Code of Ethics.

### **BACKGROUND**

The complainant was asked by a former employee, to look at a bare property that the previous employee was considering to purchase and build a home upon. One subject to the sale involved determining an appropriate onsite sewage system and an estimate for costs to construct such a system.

The previous employee was aware from the vendor of the property that a design for a 'Type 1' system had already been created and filed by another ROWP. This Filing was then shown to the complainant who began a preliminary site assessment for comparison to the plan in the Filing of the proposed system.

The complainant noted site constraints ranging from a limited available space on the property to construct a system, a drainage ditch nearby, as well as a shallow depth to the water table in the two observation holes that were dug. Based on these factors, the complainant advised their previous employee that the site constraints would require a Professional Engineer be involved and a 'Type 3' system would be necessary.

In their opinion, the complainant noted items that were incomplete or inaccurate information including:

- No covenants or easements were noted even though a covenant was apparently registered within the area of the sewage system.
- The Filing states the depth of natural soil to a restrictive layer or water table as one hundred and thirty centimeters when the complainant's test hole found water at approximately twenty centimeters.
- The setback to a property line is shown as two hundred and seventy-six centimeters instead of the three hundred centimeters required of new systems under the Standard Practice Manual.
- Distance to a breakout is listed as thirty metres despite the ditch along the east side of the property being only three metres away.

Based on the discrepancies in the Filing, the complainant decided to lodge a complaint with ASTTBC on the basis that both a Health Authority and any potential purchasers of this property may be led to believe a simpler sewage system may be sufficient when site constraints would dictate a higher level of treatment is required. An insufficient level of treatment would have the potential to create a health hazard or risk contamination of the groundwater passing through the property. As drainage ditches in the area lead to a recreational lake very close by, the risk to the public is concerning.

## **INVESTIGATION**

ASTTBC staff contacted the ROWP by letter advising of the complainant's concerns. Subsequent letters from the ROWP confirmed re-attending the site on January 28, 2010 with a Professional Engineer who undertook a separate site assessment. The ROWP learned from the complainant's previous employee, now the property owner, that a building permit for the home was issued by the regional district based on the Filing the ROWP registered with the Health Authority. After explaining the purpose of the ROWP's re-attendance with a Professional Engineer, the reassessment was permitted.

The ROWP denies that a restrictive covenant remains on this property as it relates to the initial requirements for building homes dating back to the late 1960's when the subdivision was constructed. The ROWP does admit that the water levels in the test pits dug during the January 28<sup>th</sup> site visit were at eighty centimeters below the surface and not the one hundred and thirty centimeters observed during the original site assessment conducted in August of 2008, but it was not the twenty centimeters as the complainant claims and photographs show.

The ROWP believes the drainage ditch carried seasonal water flows but would not be a factor since there is at least eighty centimeters of vertical separation in the soils to the water table before the flows would

travel horizontally. Since pressure distribution was to be used, and the depth of the drainage ditch was approximately sixty centimeters, the ROWP felt the risk of effluent “causing a breakout and/or a health hazard was very slim.”

After discussions with the Professional Engineer, the ROWP conceded that the site constraints the complainant found were substantially correct and arranged for the Professional Engineer to undertake a new design “better suited to the constraints that we now know exist on the lot.” This work was carried out at the ROWP’s expense.

The ROWP states “it was never my intent to falsify the information that was provided in this Filing and I don’t believe that I did, however I do believe that the Filing did need some more attention and would have been more than happy to have given it except that I was unaware that a problem with the Filing even existed.”

During a review of the limited Filing documents provided, several items were noted. The soil profile in the report is very neatly presented but does list “coarse sand & gravel” with no reference to the amount of coarse fragments, any presence of mottles, roots, or other details. The soils are also shown as being essentially the same for both holes with no change in type of soil from twenty centimeters down to two hundred centimeters. This should have created some concern that the percolation may be too fast for a ‘Type 1’ system using a bed instead of using a sand mound or a package treatment plant.

The drawings for the system, including construction details, are very thorough and of excellent quality. Percolation tests were fully presented. However, there was no design rationale, Operation & Maintenance Plan, or details on what the float settings within the pump chamber should be set at to achieve proper dosing rates, and the distance between orifices would suggest a dosing of greater than six square feet would occur.

The site plan does not show the location of drainage ditches near the dispersal bed nor direction of slope across the surface of the property. The error in some dimensions listed and noted by the complainant were acknowledged by the ROWP.

## **DISCUSSION**

ASTTBC staff are personally aware of the conditions at many of the properties within the subdivision in question including properties in the immediate vicinity of the property in question. Drainage ditches through the area can run very high and groundwater levels in general do fluctuate considerably through the year and residents are very much aware of this.

As the ROWP conducted a site assessment in August, this would be the most favourable time of the year explaining why the depth to a water table was substantially more than was found by the complainant during the wetter periods of the year. Determining such conditions accurately is challenging, however it is also expected of a Planner and a critical step before an appropriate design can be made.

Some details are missing on plans, some are acknowledged as being inaccurate, but there is no evidence that the ROWP intentionally attempted to deceive anyone, including the Health Authority. Oversights

during the site assessment led to incorrect assumptions but the ROWP readily admitted errors and takes full responsibility for them.

Although the entire Filing on this matter does not appear to be present, much of this ROWPs work is quite good. For this reason, it is difficult at this time to determine if and where additional training may have a value or other measures to prevent such an event from occurring in the future. For this reason, a Practice Assessment should be undertaken before any further recommendations are made.

## **OUTCOME**

The Practice Review Board determined that the ROWP must immediately arrange through the Manager, Onsite Wastewater Registration Program, to undertake a Practice Assessment. As the ROWP has agreed to complete a Practice Assessment and has contacted the Manager, Onsite Wastewater Registration Program to make arrangements to do so, no further action is required and this file was closed. Staff will continue to monitor this file to ensure the ROWP does complete a PAP in an appropriate time frame.

## **CASE #10-06**

### **STATEMENT OF COMPLAINT**

That a ROWP attended a site where an onsite sewage system was seriously malfunctioning and undertook corrective action without notifying the Health Authority that a potential health hazard is or may have existed.

The failure of the ROWP to notify the Health Authority raised concerns for the Environmental Health Officer (EHO) as to whether the ROWP ensured the safety, health and welfare of the public and the protection of the environment. Such allegations would be contrary to Principle 1 of the ASTTBC Code of Ethics.

### **BACKGROUND**

An EHO received a complaint from a building tenant that the onsite sewage system serving the home they rented was malfunctioning with sewage flowing to the surface. Additional details indicated various work was being carried out by a drainage contractor, but the manner in which it was being carried out caused additional concern as the septic tank was floating to the surface and a new dispersal site was being installed while the trenches were still full of water.

Upon checking records in the office, the EHO noted a Filing was registered for this property by a ROWP, however no information within the Filing made any reference to the seriousness of the malfunction and no Health Authority (HA) staff were reportedly made aware that a potential health hazard had or may still exist at this property. The Filing was dated January 8, 2010 and registered on January 12, although the tenant reported the work began on January 6 and was completed on January 12.

### **INVESTIGATION**

ASTTBC staff contacted the ROWP advising of the EHO's concerns and ASTTBC received a response from the ROWP on March 30, 2010.

According to the ROWP, a call was received on January 6, 2010 to attend the property at which point it was noticed the septic tank was overflowing. The ROWP immediately arranged for a tank cleaning service to attend and both the tank along with the surrounding area was cleaned. The ROWP also claims to have informed the tenants to use the water carefully until repairs can be made, then contacted the property owners to discuss means of correcting the problem after which the ROWP was advised to commence a site assessment to create a design for a new system.

On January 7, the ROWP and an employee attended the site with a machine, dug test holes, conducted percolation tests, and due to the tenant having children, moved soil around to cover areas that previously became saturated with sewage. Upon completion of the work that day, a quote for the repairs was submitted to the owners and a 'permit' drawn up for the Health Authority.

On January 8, the ROWP submitted the 'permit' to the HA office. While doing so, the ROWP arranged for an employee, another ROWP, to install a large septic tank immediately to act as a temporary holding tank since a weekend was about to start and the tenants would be home. This was intended to reduce the risk of sewage overflowing again during the weekend.

On January 9, the ROWP received a phone call from the tenant saying the septic tank had floated out of the ground. The ROWP was on site within an hour and determined the cause of the tank becoming buoyant was in part due to the heavy rains overnight. The area around the tank where sewage entered overnight was pumped out again and an interceptor trench was dug to reduce the effects of water infiltration as work to re-install the septic tank was carried out. During this work, the ROWP states there was no reason to believe there was "a public concern on my hands".

On January 11, a muddy spoil pile from the excavation was removed despite heavy rains, and on January 12 the sand lined trenches of the new dispersal field were installed. The ROWP further states "In closing, I feel that I acted in a responsible and professional manner during this situation. Ninety percent of the septic systems I have dealt with have malfunctioned and my goal through my code of ethics is to stop a public health concern. With regard to the above situation, I would be more than happy to submit any invoices for the pumping and hauling for your perusal. My goal is to work with the system, not against it and I take my affiliation and credentials with ASTTBC very seriously. I feel that I followed all procedures correctly, but I look forward to your comments on this situation."

During a review by ASTTBC staff of the limited documents within the Filing, and without additional documents provided by the ROWP despite a specific request in the letter of complaint sent to the ROWP, several items were noted. The Record of Sewerage System form indicates the soils have sixty-one centimeters of total vertical separation and a separate "soils investigation & classification" form shows depth of soil greater than one hundred and twenty centimeters. There is no information to indicate any soil horizons exist, any change in soil type, no soil texture, structure, mottles, roots or other details including if a seasonal high water table was found. This is significant since the system reportedly malfunctioned during a period of heavy rainfall, the septic tank became buoyant due to water in the excavation, and the tenant reported seeing water pooling in the trenches at the time sand was being placed. As no details on

the water table are noted and the soil classification is without supporting details necessary to make that determination, the suitability of the system cannot be determined from this review.

A site plan shows the layout of the system in relation to the home, and what may be property lines but no details are provided, there is no scale, no distances to property lines for components or from the dispersal field to a bluff down slope that could be a potential breakout point. There are no construction details to show how the dispersal field was to be constructed or features to be finished off or references to where soil percolation tests or observation holes were carried out in relation to the dispersal field.

There are no details on the pump chamber, the dosing expected from it, and no rationale behind the design to indicate how the ROWP determined this as the best choice of system for the property and how the new system would be located in relation to the existing system. The rationale should have given reasons for the malfunction of the previous system in order to provide justifications for system design to overcome any site or usage limitations.

## **DISCUSSION**

The ROWP's efforts to deal with a system during a serious malfunction is commendable and especially challenging when weather events complicate the work to plan and install under such circumstances. The ROWP appears to have taken action to mitigate the continuing malfunction of an existing system and recognized time was of the essence to deal with the problem. This includes informing the tenants to minimize their use of the system and making efforts to prevent contact with soils that may have been contaminated with sewage.

Under the Code of Ethics, Principle 1 states a member "shall take appropriate action and notify proper authorities if in their professional opinion, unacceptable hazards to the public, human welfare or the environment do exist". The ROWP did take what appears to be appropriate action but should have conveyed the nature of the event to the Health Authority as soon as practical, as it is within the abilities of an Environmental or Medical Health Officer to determine if a health hazard exists, not a ROWP. An EHO or MHO may require additional measures be taken due to their expertise and training that may not be readily apparent to a ROWP, and doing so reduces the liability upon a ROWP for making such assumptions if hazards do arise. Referring the matter to experts when outside the scope of training and experience is an important part of professional practice.

Within the Filing form are also details that are unclear and may be incorrect, and the lack of information available within the Filing prevents further assessment. For this reason, a Practice Assessment should be undertaken before any further recommendations are made.

## **OUTCOME**

The Practice Review Board required the ROWP to immediately:

- provide the Health Authority revised information including a rationale for the design of this system, an as-built plan with measurements and/or a scale, references to where soil assessments and testing were carried out, and all other items required under the administrative section of the SPM, and

- be sent a warning letter that in the future, to inform the Health Authority of any potential health hazard in a timely manner and request any additional measures be taken out of professional courtesy, and
- arrange through the Manager, Onsite Wastewater Registration Program, to undertake a Practice Assessment.

As the ROWP has agreed to the PRB conditions, no further action is required and this file was closed. Staff will continue to monitor this file to ensure that all conditions are successfully completed.

### **CASE #10-31**

#### **STATEMENT OF COMPLAINT**

A ROWP, planned and installed an onsite sewage system on a property, then registered the Filing with the Health Authority (HA) stating the distance from the dispersal area to the well met the requirements for setback distances. Upon an inspection of the onsite sewage system by a ROWP Private Inspector, the distance to the well was found to be less than the Filing documents indicated.

The incomplete or inaccurate information provided by the ROWP to a Health Authority creates a potential for an inappropriate wastewater system to be installed that may not ensure the safety, health and welfare of the public and the protection of the environment, contrary to Principle 1 of the ASTTBC Code of Ethics.

#### **BACKGROUND**

The complainant was negotiating the purchase of a home. After obtaining the Filing and seeing the Letter of Certification, the complainant identified some wording within the documents that was not clear. The complainant contacted the ROWP to find out the capacity of the onsite system since the Filing indicated it was designed for a single family residence and a 'studio', however the 'studio' consists of a suite with a kitchen and bathroom. The ROWP assured the complainant the system was designed for a suite and that 'studio' was the name used in the Filing at that time.

As a subject to the purchase, the system was to be inspected and the complainant arranged for a ROWP Private Inspector to carry this out. Although the Record of Sewerage System form states the well on this property as well as on the neighbouring property are over thirty metres from the dispersal field, and the site plan included in the Filing shows the setback as being over thirty metres to both the well on this property as well as the neighbour's property, the complainant learned that the distance to the well on this property was only twenty-six metres.

The ROWP PI then attempted to contact the ROWP on behalf of the complainant, however the ROWP did not respond to the message left by the ROWP PI. The complainant then contacted the ROWP and provided a copy of the report by the PI. Several attempts by the complainant to contact the ROWP for further discussions on how to resolve this issue were not successful and the ROWP did not return any telephone calls. Due to the time limitations within the contract to fulfill the requirements for the purchase,

the complainant contacted ASTTBC for assistance as they did not wish to purchase if there may be problems with re-selling in the future due to this matter.

## **INVESTIGATION**

ASTTBC staff contacted the ROWP, advising of the complainant's concerns. The ROWP arranged for a site review by a Professional Geoscientist who undertook laboratory testing of water samples from the well, site topography, groundwater flow direction and velocity, and the distance to the well itself. Based on calculations, the P.Geo determined there was a very low risk of impact to the well from the onsite sewage system and provided a report stating this.

The ROWP provided a copy of the report to the complainant who continued with the purchase as result. In discussions with ASTTBC staff, the complainant was satisfied this matter was resolved by means of this report.

During a review of the limited documents within the Filing by ASTTBC staff, several items were noted. The Record of Sewerage System form indicates the system was sized for a single family residence with two bedrooms and does not convey that the 'studio' is in fact a potential suite. This would result in an under-sizing of the system based on the Daily Design Flow rating shown on the form.

There is no soils log, percolation tests, and no details on the drawings to show where the soils were examined or percolation tests conducted. Drawings of the system have minimal details on the construction of the dispersal system and are insufficient for an Installer to follow and construct the system appropriately. No information on the dosing, determination of HLR or LLR and similar details were included.

## **DISCUSSION**

Despite the sewage system being very new, the complainant was fortunate to have had the system inspected and documents reviewed as this helped to identify at least one error. The setback distance to a well is a critical requirement under the SPM to ensure protection of drinking water supplies and the groundwater itself. The ROWP appears to have been under the belief that deviations from the setbacks are permissible at the discretion of the ROWP, yet the SPM clearly states that Professionals with expertise in hydrology or geology are the only ones who can make deviations from critical setbacks, such as wells. It is not within a ROWP's ability to make that determination. The report by the P. Geo at least confirms no health hazard appears to be present based on the testing carried out.

Within the Filing form are also details that are unclear and may be incorrect, and the lack of information available within the Filing does not assist with further assessment. As the Filing in question is from 2006, it is unclear whether more current work by the ROWP has improved in the amount of detail being provided in Filings or not. For this reason, it is difficult to determine if and where additional training or other measures have value to prevent such an event from occurring in the future. For this reason, a Practice Assessment should be undertaken before any further recommendations are made.

Of further concern was the ROWP's failure to respond to both the ROWP PI's phone messages as well as the complainant's phone messages when clarification was being sought and the complainant had very limited time requirements to complete due diligence with the property purchase. The ROWP's behaviour could be viewed as acting without integrity, contrary to Principle 4 of the Code of Ethics.

## **OUTCOME**

The Practice Review Board determined that the ROWP be required to immediately:

- provide the Health Authority revised information to show on the site plan as well as the RSS form, the true and exact distances between both the well on the property as well as the neighbour's property, and
- ensure a copy of the report by the P. Geo is included within the Filing, and
- arrange through the Manager, Onsite Wastewater Registration Program, to immediately undertake a Practice Assessment.

As the ROWP has agreed to all conditions, has submitted the information required by the PRB, and will arrange to complete a Practice Assessment, no further action is required and this file was closed. Staff will monitor to ensure all conditions are successfully completed.