

PRACTICE REVIEW BOARD

CASE HISTORIES JUNE, 2010 TO DECEMBER, 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 - (June 2010 to December 2010)

CASE #09-29

STATEMENT OF COMPLAINT

That a ROWP made a verbal agreement with a property owner to install an onsite sewage system and carried out such work in a manner allegedly contrary to the contract and with poor workmanship.

BACKGROUND

The complainant purchased a property in a new development. During the negotiations to purchase the property, the complainant was given an emailed estimate for a new system through the realtor from the ROWP with a cost of between \$9,000 and \$14,000. It would be for a Type 1 system but the ROWP had not determined if it would be a gravity system or the more expensive pressure distribution system.

The ROWP was then retained by the complainant to conduct a site assessment to determine more precisely the type of system and distribution required to find out whether the costs are within the complainant's financial ability. This would dictate whether the complainant would remove a subject to the sale. The complainant and the ROWP met at the property to discuss requirements, such as setback to protected trees and the expected placement of a mobile home, and where components of the system would be located.

The ROWP and the complainant again met at the property, at which point \$6,000 was provided to the ROWP in order to purchase the septic tank and other supplies. Placement of the mobile home and related works were also discussed including installation of a drainage system due to the wet conditions of the area.

The ROWP and the complainant discussed the delivery date and what was required to be completed before the mobile arrived, at which point the ROWP advised the complainant of the plan to relocate the position of the septic tank towards the front end of the mobile in a different area than what was originally discussed. Some time later, the ROWP advised the complainant that the septic tank would be positioned to the rear of the mobile even though the complainant pointed out a deck was to be built over that area. Then the ROWP offered to place the septic tank in two particular locations, one that would be by the back door and likely end up under the deck, or a second location off to the side that would not be affected by the deck. The complainant claims to have chosen the second location.

Several days later, the complainant re-attended the property and found the septic tank installed in the location by the back door, where it would conflict with the deck. The ROWP also asked for additional money and the complainant refused until the ROWP provided an invoice itemizing expenditures. Several days later the ROWP presented a hand written invoice that the complainant states was difficult to read and contained a reference to additional costs that would be bring the invoice to nearly double the amount expected.

The ROWP was contacted by ASTTBC and provided a response. The ROWP claims to have offered to do the work either by the hour or by contract and the complainant chose by the hour.

The ROWP also states that the complainant wanted correspondence to be verbal, and the ROWP reportedly did keep the complainant informed of all changes to the original plan.

The ROWP states that additional costs added to the invoice were for extra work for site preparation and not specifically the onsite system. There were “small” changes to the original design and these were done to make the yard more “functional”, including changing the location of the septic tank from the front to the back yard. The hand written invoice was only a listing of expenses to date and that an official invoice was being created soon after.

The ROWP left the site in a rough finished state as some settling was expected to occur, but returned three weeks later to finish it by hand. The ROWP offered to undertake any corrective action to resolve the issue to ensure the complainant was satisfied.

INVESTIGATION

Photographs provided by the complainant show the site in a moderately rough state but not atypical of any recent installation work. The location of the septic tank now under a deck by the backdoor does make for very awkward means of cleaning due to the limited clearance between the tank cleanout lid and the bottom of the deck immediately above it. Such a restrictive access prevents proper monitoring and maintenance work at the septic tank, and the reason for the tank being placed here is not clear.

No plans were apparently provided to the complainant prior to the installation of the onsite system and the degree of planning carried out by the ROWP is unclear at this time. The complainant had arranged for a second ROWP to be involved with correcting apparent deficiencies or problems with either the system or the completion of the landscaping that the complainant claims has occurred, however no proof of actual system problems were provided to ASTTBC by the complainant.

The ROWP’s offer to correct any problems was relayed to the complainant but no response was received to date despite a second request letter from ASTTBC. After more than six weeks without a response from the complainant, ASTTBC staff contacted the ROWP who claims not to have heard any more. ASTTBC staff then contacted the second ROWP, who is a close friend of the complainant, and was advised that the complainant did not want to pursue this matter any further but did not state why. The second ROWP has not carried out any work on the property and confirmed that no one else has carried out additional work on the property.

DISCUSSION:

Regardless of whether a client wishes to proceed verbally, the ROWP should have created a paper trail starting with a contract and including a plan showing what and where this onsite system was to be located. The lack of documentation, and lack of written approval of system details from the property owner has led to misunderstandings and ultimately this dispute.

The septic tank was situated in a poor location but whether this was discussed or not between both parties is not clear and cannot be proven either way. This should have been avoided through an appropriate level of pre-planning and site assessment efforts by the ROWP. As an Environmental Health Officer with Health Canada has inspected the system, there is no evidence that the system was poorly planned or installed. The question that remains is whether the ROWP’s business and professional practices are appropriate to prevent such events in the future, or whether improvements are needed to correct current practices.

The lack of a contract in this matter is concerning, yet the complainant, who is a lawyer and is confirmed to be practicing in the area, did insist on working from a verbal contract for reasons that are unclear. The ROWP acknowledged that contracts are essential to all work and this is an isolated case, not the norm. The ROWP has already implemented improved contracts to prevent this from occurring in the future.

OUTCOME

The Practice Review Board required the ROWP to undertake measures for improving business contracts and other business practices. The ROWP could not submit to a Practice Assessment due to circumstances within the ROWPs business, therefore, the ROWP was cautioned that should another complaint be received and it is found that it could likely have been prevented by a full Practice Assessment, additional censure and penalty would be applied by the Board. No further action is required and this file was closed.

CASE #09-40

STATEMENT OF COMPLAINT

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

BACKGROUND

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

Filing 1

Site information does not list distances to wells or waterlines, does not list total vertical separation, no soil log or other details including texture and structure, no percolation or permeameter test results, and no design rationale for the features of this system. The Filing indicates a pressure distribution system was selected but no calculations for hydraulic loading or dosing rate are provided, suggests a “subsurface discharge” system is planned but provides no details on the type or construction details of it, and the Filing does not state the plans and specifications are consistent with the SSR and/or SPM. The Filing does indicate the system is to use a Type 3 treatment method but no Professional is listed as having carried out the full planning and installation of the system, only the ROWP submitting the Filing. Also, no Operation & Maintenance plan is on file and the drawing of the proposed system is substantially less than expected for inclusion in a Filing.

Filing 2

Site information is limited, facility information states the daily design flow is 2,400 gallons (10,910 liters) per day which exceeds the 2,000 gallons/9,100 liter per day limit of practice for ROWPs under the SSR, lists the system as a Type 1 but mentions using a treatment plant that may be Type 2 or 3. No soil log or other details including texture and structure, no percolation or permeameter test results, and no design rationale to support features of this system.

The Filing indicates a pressure distribution system was selected but there are no calculations for hydraulic loading or dosing rate, suggests a “subsurface discharge” system is planned but provides no details on the type or construction details, and the Filing does not state the plans and specifications are consistent with

the SSR and/or SPM. Also, no Operation & Maintenance plan is on file and the drawing of the proposed system is substantially less than expected for inclusion in a Filing.

In review of these Filings, the amount and quality of information was substantially 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 requesting clarification and details concerning these Filings. The ROWP contacted ASTTBC staff and claimed to have submitted the Filings at that time based on what the ROWP thought was acceptable information to the Health Authority staff and was not informed of any problems with the Filings.

Under the Facility Information field, one Filing states the onsite system is to serve a gas plant while the other states it is for a “pump down lagoon.” Neither Filing indicates that they are for an industrial work camp or give any indication these are temporary operations and not long-term facilities where a more permanent onsite system would be necessary. Based on the expected daily flow rates, neither facility appears small.

Upon review of both Filings, there is no clear and concise information to indicate whether the facilities would fall under the SSR or the Industrial Work Camp Regulations.

DISCUSSION

The amount of missing details in these Filings is concerning, especially as it relates to the lack of soil and site assessment details. More concerning is that the ROWP undertook work outside of what is allowed by the SSR and incorporated aspects within the system plan that were not consistent with the SPM. If either of these facilities do fall under the SSR, the ROWP would be clearly operating beyond his recognized registration. If either of these facilities were covered under the Industrial Work Camp Regulations, there is a concern that the nature of a project is beyond the scope and training of a ROWP in which case the ROWP should have referred this work to a Professional.

Re-attending courses that specifically cover most of the issues found within the Filings would be of significant benefit. The greater concern is whether either of these systems is still operating as a technical review identified various items of concern about the suitability of such a system and quality of planning, especially for long-term use. An independent confirmation should be obtained from either a Professional or an Environmental Health Officer whether the system is still in operation and that it is appropriately designed for long-term operation.

OUTCOME

The ROWP voluntarily resigned all registration categories as a ROWP and is no longer involved with wastewater systems. The Health Authorities were informed of this and a flag was added to the ASTTBC database requiring the issue to be addressed if the individual attempts to re-apply. No further action is required and this file was closed.

CASE #09-41

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 by ASTTBC staff, two Filings by this ROWP were reviewed. These included:

Filing 1

No design rationale was provided that would help explain why the Daily Design Flow was substantially below the SPM requirements for a two bedroom home, unclear what the setback distance is from the well to the septic tank, although the plan on file suggests the distance may be close or less than the minimum setback requirements, no details explaining how the size of the lagoon was determined, and no Operation & Maintenance Plan.

Filing 2

No design rationale was provided that would help explain why the Daily Design Flow was well above the SPM requirements for a two bedroom home, no site plan was provided, no details explaining how the size of the lagoon was determined, and no Operation & Maintenance Plan.

In review of these Filings, the amount of information provided was less than required under the SSR and SPM.

INVESTIGATION

As a result of the incorrect and/or missing information, ASTTBC staff contacted the ROWP 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 of the SPM were.

DISCUSSION

The ROWP admits the Filings were insufficient and missing details in many areas as pointed out during the review process, and stated future Filings will be improved. Examples of good documentation were provided by ASTTBC staff. Some of the confusion within the Filings appears to be related to the means of converting between imperial measurements, which the ROWP is most familiar with, to metric as required for the Filing forms.

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 a course that specifically covers most of the issues found within the Filings would be of benefit.

OUTCOME

The ROWP advised ASTTBC of an intention to retire, and would immediately be sending a letter to that effect. No letter or other communication has been received to date, and so the ROWP's registration was suspended pending a satisfactory response. The Health Authorities were informed of the suspension and the ASTTBC database was flagged for response if the individual requests reinstatement. No further action is required at this time and the file was closed.

CASE #09-45

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. The Filing was for an industrial work camp for a facility with twenty bedrooms. The Daily Design Flow listed is for 4,000 litres per day while the SPM Version 2 suggests that 4,540 litres per day would be appropriate. A Type 2 treatment plant is listed with a Daily Design Flow of 5,000 liters per day and a septic tank is listed with a capacity of 5,000 liters, however it is unclear whether the tank information is actually for a septic tank or a pump chamber. No soils log or other detailed information on the soils is provided but a table stating "Standards of Practice Manual – Work in progress – Draft 1B" which originates from Alberta and is dated 07 July 2004 was used to determine the loading rate based on a particular soil class. Site information provides no details on the setbacks to critical items such as wells, streams, etc and the minimal site plan provides no further information on what and where a water source is located to serve this facility. The system also lists a "discharge to forest w/weeping tile & chip bed" using pressure distribution but no details are provided on the specifications or construction.

In review of this Filing, the amount of information provided was substantially less than required by the SSR and SPM.

INVESTIGATION

As a result of the incorrect and/or missing information, ASTTBC staff contacted the ROWP requesting clarification and details concerning this Filing. The ROWP responded and admits to not using the most current version of the SPM. Both the ROWP and the ROWP's business partner asked for examples of how Filings should be created and these were provided by ASTTBC staff along with directions for obtaining the latest version of the SPM. The method of discharge appears to be a form of an at-grade system used in Alberta that requires a permit variance, but is not a recognized or acceptable method under the SPM in B.C.

DISCUSSION

Prior to the SSR, the amount of information required to be supplied to the Health Authority for the installation of an onsite system serving an industrial work camp was often minimal, and such work was

usually carried out by a Professional. Once the SSR came into effect, HA staff were under the belief that such work could be extended to a ROWP as well, and ROWPs who were involved with the installation of such systems prior to the SSR appeared to continue completing Filings in the same manner as old permits even after the SSR came into effect. With HA staff not familiar with the SSR or the duties and limitations of a ROWP, Filings appeared to be accepted by the HA even when deficiencies or inaccuracies were present.

The amount of missing details in this Filing is concerning, especially as it relates to the lack of soil and site assessment details. More concerning is that the ROWP undertook work outside of what is allowed by the SSR and incorporated aspects within the system plan that were not consistent with the SPM. For this design, a Professional would be required to make the Filing and oversee construction due to the serious departures from the SSR and SPM.

During subsequent communications with ASTTBC staff, the ROWP claimed the only projects undertaken since becoming a ROWP are work camps and a Professional is often used to assist with compiling the documents required by the Health Authority. The ROWP admits to being unfamiliar with current requirements to create a Filing under the Sewerage System Regulation but has attended several workshops by the Western Canada Onsite Wastewater Management Association to ensure the planning skills overall are kept current.

OUTCOME

The Practice Review Board required that the ROWP submit to a Practice Assessment, and provide written confirmation of the status of the system serving the work camp. The ROWP has agreed to this and provided a letter proving that the work camp has long since been removed. No further action is required and this file was closed.

CASE #09-46

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 within the Health Authority, ASTTBC staff reviewed a Filing by this ROWP and found various missing and incorrect information. The Filing was for an industrial work camp and a statement made by the ROWP within the Filing claims it is consistent with the SSR and SPM.

During the review, no information was found within the Filing that indicates how the Daily Design Flow would be calculated but does suggest it would be the same as a three bedroom residence. The plan shows five trailers with no details on the number of workers expected in the camp, whether a commercial kitchen is present that could create high-strength wastewater conditions, or any other details from which a daily flow rate could be determined.

A Type 2 treatment plant is listed with a Daily Design Flow of 5,000 liters per day and a septic tank is listed with a capacity of 10,000 liters. With no design rationale provided for this system, it is unclear why such a large treatment process was specified for what is claimed to be a very low flow rate per day.

No soils log, percolation or permeameter tests are included in this Filing and the Record of Sewerage System form does not have check marks for these items to suggest this was even determined. Without this information, suitable and safe loading rates cannot be calculated.

The system also lists a “temporary at grade” discharge area and includes a Professional’s plan that lists generic details, not site specific design criteria. The type of at-grade dispersal area listed is based on the Alberta At-Grade concept, which is a guideline only and requires a variance, and is not part of the Standards of Practice manual used within Alberta or acceptable in BC. The loading rate listed (136 liters per square meter per day) is also considerably higher than the loading rates listed within the currently used (2008 version) Alberta At-Grade manual.

In review of this Filing, the amount of information provided was substantially less than required by the SSR and SPM.

INVESTIGATION

As a result of the incorrect and missing information, ASTTBC staff contacted the ROWP requesting clarification and details concerning the Filing. The ROWP replied to ASTTBC staff on several occasions, initially stating that the Filing was done under the Industrial Work Camp Health Regulations and not the SSR/SPM as neither of these documents deal with industrial work camps. The ROWP further stated that as a result, ASTTBC did not have the “legal authority to review filings related to industrial camps.”

Once ASTTBC staff advised the ROWP that the practices and conduct of our members can be reviewed at any time and we are not limited to matters strictly related to the SSR and SPM, the ROWP supplied further details about this system including an engineer’s details of the discharge portion of the system. These details are generic in nature and appear to be a concept drawing with no information suggesting it was intended for this specific site.

During a more detailed technical review, different values in the calculations were found compared to those shown in the Filing. Based on the Daily Design Flow in the Filing, the loading rate would be 378 liters per square meter per day, a rate that could be five to ten times the rates listed within the SPM, however the missing soil information does not help determine the appropriate loading rates to be used. The Filing does list that forty centimeters of fill was added to the site but there are no details about type or location shown on the plan or the nature and quality of the fill material in case it was placed within the receiving/dispersal area.

DISCUSSION

Prior to the SSR, the amount of information required to be supplied to the Health Authority for the installation of an onsite system serving an industrial work camp was often minimal and usually the work was carried out by a Professional. Once the SSR came into effect, HA 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 appeared to continue completing Filings in the same manner as old permits.

With HA staff not familiar with the SSR, or the duties and limitations of a ROWP, Filings appear to be accepted by the HA even when serious deficiencies or inaccuracies were present.

During this and similar investigations conducted around the same time, ASTTBC staff began holding many conference calls that included input from BCOSSA and the Ministry of Healthy Living & Sport as part of the efforts to find a solution to the problems associated with industrial work camps. Regulations around the work camp make it clear that the local Health Authority is to determine the accepted practices and issue a permit for onsite systems that serve a work camp. Therefore a Filing is not to be made and no reference should be listed within any forms used in an application for the permit to imply that it is a Record of Sewerage System under the SSR. Health Authority staff are working to develop a permit form specifically for the work camps.

During discussions with ASTTBC staff, it was determined that HA staff will review each application and have an Environmental Health Officer attend the site prior to issuing any permit, although they have stated they will expect applications to be fully detailed, plans accurate, and all other aspects expected under the SPM to be met as if it were a Filing, in order to ensure the best possible information is presented in the permit application. For liability reasons, HA staff will not be accepting a lower quality of documentation simply because it is a permit and not a Filing.

Over the coming months, the Health Authority will be working out new policies and procedures to ensure a smooth application process is in place for work camps and still sees ROWPs as a vital part of that. Therefore, the ability of ROWPs to properly complete applications for permits will still be a subject for review and monitoring jointly by HA and ASTTBC staff. Since the SPM does not provide guidance on work camp systems, any ROWP will need to exercise considerable caution to ensure these systems for work camps are appropriately planned and installed and this will likely require the involvement of Professionals.

It is possible that the past “common practice” could be called “standard practice” in this situation, however, that does not imply it is “best practice” and that is where it will cause problems for ROWPs with ASTTBC. Health Authority staff are aware of more than a few work camps using the Alberta version of the at-grade dispersal method that have resulted in wastewater breaking out to the surface. There are several likely theories to explain this, but the HAs did not provide confirmation.

The high loading rates, as noted in this Filing, may be related to the older version of the Alberta At-Grade Guidelines (2002) but the more current version from 2008 certainly has a much lower rate, which may explain some of the breakouts. What the HA determines to be “best” or “accepted” practice is still being debated and it should be emphasized that while ROWPs are not the ones to determine best practice in this case, they must use their judgment to ensure they do not violate the ASTTBC Code of Ethics or the Onsite Wastewater Registration Policies.

With regards to this particular Filing, the overall quality and quantity of information is highly concerning and it is irrelevant whether it is a Filing under the SSR and SPM or under a permit process through a Health Authority. By virtue of training and experience, this ROWP was registered as a Planner and Installer with a restriction to non-pressurized systems, therefore, the ROWP is expected to work within their limitations and scope of practice. The ROWP did utilize a Professional to assist with the design of the pressure distribution system, but it is highly suspect that the Professional understood how to undertake such work properly based on the simplistic information and calculations. Unless the Professional were to sign off for the entire Filing, the ROWP is still responsible for submitting the documentation to the Health Authority and this documentation contains incorrect and missing information.

As the ROWP does not appear to understand that the Filing is missing significant information and has incorrect details, a recommendation to the PRB would usually include further course(s) be listed specific to the perceived misunderstandings found during an investigation. However, a review of the ROWP's education shows that the courses taken were all recent and with very good grades, so further courses at this time seem unwarranted. Instead, a more detailed assessment of the ROWP's work would help determine the reasons for this substandard quality of documentation as well as the substandard application of knowledge, which should result in a more appropriate corrective action. For this reason, a Practice Assessment should be undertaken.

OUTCOME

The Practice Review Board required that the ROWP submit to a Practice Assessment, and provide written confirmation of the status of the system serving the work camp. The ROWP agreed to this and provided a letter proving that the work camp has long since been removed. The ROWP voluntarily completed several courses and successfully completed a Practice Assessment which demonstrated significant improvement. No further action is required and this file was closed.

CASE #09-60

STATEMENT OF COMPLAINT

That a ROWP submitted a Letter of Certification to the Health Authority for an installation completed more than thirty days prior, for an onsite sewage system designed and filed by a Professional, which had expired, and was therefore no longer valid.

BACKGROUND

An Environmental Health Officer with the Health Authority was reviewing a Letter of Certification submitted by this ROWP. Upon examination of the submission, the EHO noted that the installation was completed more than five months prior to submitting the LoC to the HA.

A check of the Filing shows that it was originally submitted to the HA by a Professional and as more than two years had passed without an LoC attached, the Filing had expired and was stamped accordingly. This same Professional has since been suspended by the Association of Professional Engineers and Geoscientists of B.C. and would not be able to provide an LoC.

The EHO sent the ROWP a letter advising that the LoC could not be accepted for these reasons and also that a copy of the letter and circumstances would be directed to ASTTBC for investigation.

INVESTIGATION

Documents received by ASTTBC staff from the Health Authority confirmed the dates and circumstances as outlined in the EHO's letter. A letter was sent by ASTTBC to the ROWP asking for a response to the allegations and a reply was received.

The ROWP confirms that the design was submitted by a Professional but did not know the Filing had expired or that the Professional was suspended. The ROWP admits to installing the system for free as a

favour for a friend who “was having trouble finding an Installer”, then left the system open so the Professional could inspect the installation and the friend could back-fill it.

There is no mention of attempting to contact the Professional prior to starting the work or upon completion of the work performed. The ROWP assumed the property owner would backfill once the inspection was completed since the property owner had a suitable machine. As for the delay in submitting the LoC, the ROWP had recently experienced the death of a family member and was not concerned about paperwork. The ROWP concludes the letter by promising to pay more attention to the dates in the future.

The EHO advised ASTTBC staff that directions had been provided to the ROWP as to how to proceed in order that a proper Filing and LoC could be completed and submitted to the Health, but the EHO had not heard from the ROWP. A follow-up letter was sent by ASTTBC also asking the ROWP to confirm whether or not the work would be completed as directed by the EHO, and if so, when this would be carried out. If the ROWP did not intend to follow the EHO’s directions, the ROWP was asked for an alternative means to resolve this matter. No response was received by ASTTBC.

DISCUSSION

The delay in submission of the LoC due to the loss of a family member is understandable. However, comments within the response letter suggest a lack of understanding about the seriousness of undertaking the installation without contacting the Planner or Professional to confirm details of the project, advise that the project was to start and enquire at what specific points during the construction the Planner or Professional wished to inspect. The date of the Filing did not appear to be an item of concern to the ROWP nor did the lack of construction details within the Filing. Allowing the required paperwork to lapse, even if the system was installed as a “freebie,” is not an acceptable practice.

A second concern is the lack of response from the ROWP regarding the plans to correct this matter considering the Filing has expired, the quality and accuracy of the design work is highly questionable as proven by the Professional’s suspension, and the property owner is not able to call upon the Professional originally hired.

A third concern is the overall ability of the ROWP to undertake work as a ROWP, either due to the level of knowledge and skill, or due to tragic events. By the ROWP’s own admission, proper care was not taken with work more than a year after the death of the family member. Due to these comments and the lack of response, there is serious concern about the ROWP’s ability to practice safely and in the best interests of the public at this time.

OUTCOME

The Practice Review Board required the ROWP to advise by letter how and when this matter will be resolved to the satisfaction of the Health Authority and to undertake a Practice Assessment. Despite attempts by ASTTBC staff to contact the ROWP after the ROWP agreed to this, no further response was received and the ROWP’s registration was suspended pending a satisfactory response. The Health Authorities were informed of the suspension and the ASTTBC database was flagged. No further action is required at this time and the file was closed.

CASE #09-67

STATEMENT OF COMPLAINT

That a ROWP did not install an onsite system that complies with SPM requirements prior to a new home being occupied.

BACKGROUND

The complainant owns a property next door to the ROWP. The ROWP obtained a building permit from the regional district allowing for the removal of a twin modular home in order for a new home of a larger size but same number of bedrooms to be constructed. The complainant states that the ROWP, who is an 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. Although the initial complaint focused on what the ROWP Planner may have done, ASTTBC staff became aware and concerned about the role played by the property owner/ROWP Installer.

The ROWP had arranged for the ROWP Planner to conduct a site assessment and develop plans for a new onsite sewage system as the current system was determined to be insufficient to meet the requirements under the SPM for a new home the ROWP intended to construct. Although the existing septic tank was replaced in 1996, reportedly due to damage, it was done without a permit and no other permits or documents were found at the local Health Authority office to assist the Planner in this matter.

Upon registering the Filing with the Health Authority, the ROWP/Owner was able to obtain a building permit from the regional district and construction began during the fall until completion between May or June. As the complainant was providing a response to the ROWP Planner's details regarding that PRB matter, the complainant also commented on the ROWP/Owner finishing the landscaping around the new home, which seemed odd considering the new onsite sewage system was not installed yet. The complainant was concerned that the ROWP/Owner was taking advantage of knowledge of the industry to avoid installing a new system and that the ROWP/Owner might not install the new system at all.

INVESTIGATION

During discussions with the ROWP Planner on that complaint, ASTTBC staff confirmed that the ROWP Planner did not believe the ROWP/Owner had installed the new onsite system and described a conversation where the ROWP/Owner made no reference to intending to install the system anytime soon due to the belief that a time limit of two years existed to install it once the Filing was made. The ROWP Planner believed that the system would need to be installed prior to occupying the new home because the existing system was not suitably sized for the new home. The ROWP Planner never conveyed to the ROWP/Owner that it was acceptable to delay the installation.

ASTTBC staff sent a letter to the ROWP/Owner asking for clarification and comment on whether an onsite system was installed, since no Letter of Certification was on file with the Health Authority, and if not, when the installation would be completed. It also requested that the ROWP/Owner confirm whether the home was completed and being occupied or not.

A response was received by ASTTBC staff confirming that the ROWP/Owner received the letter, and that the home is occupied but the proposed onsite system was not installed. No further details were provided.

A second letter from ASTTBC was sent asking for further details such as when the system was expected to be installed. A phone call from the ROWP/Owner to ASTTBC staff confirmed that the ROWP/Owner believed there was a two year time frame before needing to install the system and also pointed out that the current system was reportedly working fine so there was no need to do so any sooner.

ASTTBC staff contacted the ROWP Planner to confirm the condition of the existing system and the Planner advised that no form of inspection was made of the current system but believed it didn't matter since the system needed to be upgraded to the current regulation and standards. The current system was known to be non-compliant with the requirements of the SPM.

DISCUSSION

When an existing onsite system is determined by an Authorized Person to be undersized for proposed changes to a home or building based on requirements under the SPM, then upgrades or replacement of the existing system is necessary. Although the SPM does not specifically state within what time period this would need to be done, the expectation is that it would be completed prior to the occupancy in order to meet the current regulation, otherwise, once the building is occupied with an inadequate system it would violate the SSR and SPM. A Filing may have a time period of two years from the point it is registered, but for a new home or building, completion would be expected prior to any source of wastewater from that home or building entering the system. For an existing system, upgrades or repairs would follow the same line of reasoning, which requires that an appropriate system must be completed before the home could be occupied.

During conversations with the complainant and the ROWP Planner, both conveyed concern over the image to the public this creates. A perception that a ROWP is taking advantage of their knowledge and position to circumvent an expected process is a breach of the ASTTBC Code of Ethics and, therefore, a serious matter. Whether the ROWP/Owner is intentionally taking advantage of the situation, or is doing so under a misguided belief, is not clear. For this reason only, benefit of the doubt should be given along with a strong recommendation that an installation be undertaken immediately. If the ROWP/Owner does not provide evidence that an installation will be undertaken in a timely manner, this matter should return to the Practice Review Board for further action.

OUTCOME

The Practice Review Board required the ROWP/Owner to immediately submit to a Practice Assessment as well as undertake the installation of the onsite sewage system for the ROWP/Owner's private residence as quickly as possible and confirm with the original Planner that no additional changes or modifications to the Filing were necessary.

The ROWP Planner for this site confirmed an intention to re-attend the site to conduct soil and site assessments before planning a second onsite system and voluntarily resigning their ROWP Planner registration due to a separate complaint. ASTTBC staff made numerous attempts to contact the ROWP/Owner with no response. The ASTTBC Investigator attended the ROWP/Owner's residence and observed that a partially installed onsite system was located in the front yard west of the home in the area suggested by the ROWP Planner. A note and business card was left at the front door of the ROWP/Owner's residence requesting immediate contact, but no response was received to date. A check with the Health Authority confirmed the original Filing showing a system to be located in the backyard on the east side of the home was still present and no new or amended Filing for the system on the west side

of the home was registered. An Environmental Health Officer was contacted and promised to investigate the matter as soon as time permits.

Due to the ROWP's uncooperative manner and refusal to meet the previous PRB requirements and keep ASTTBC staff informed, and likely constructing an illegal onsite sewage system on the ROWP/Owner's private property without Filing documents, the ROWP's registration was suspended pending a satisfactory response. The complainant contacted ASTTBC soon after the registration was suspended, and related that the now ex-ROWP had finished the installation of the system starting at approximately three o'clock in the morning after the ASTTBC Investigator had attended the site and left the note. No further action is required at this time and the file was closed.

CASE #09-68

STATEMENT OF COMPLAINT

That a ROWP Installer/property owner installed an onsite sewage system and did not inform the ROWP Planner, nor was an installation Letter of Certification (LoC) provided within thirty days of the installation being completed. Further, that after the onsite system was installed, the ROWP/Owner did not ensure the location of the water well met the requirements of the SPM nor follow the directions of the ROWP Planner to ensure setbacks were achieved.

BACKGROUND

The subject ROWP is the owner of a property which required an onsite system to meet the needs of a three bedroom modular home being placed on it. The ROWP/Owner hired a ROWP Planner to carry out the site assessment and related planning work for a new onsite system and register a Filing with the Health Authority.

The complainant came across this property while searching for a home to purchase. With the aid of a friend, who is also a ROWP, the complainant became aware that a new well, as documented on the Multiple Listings Service, was found to be less than the required thirty meter setback from the new dispersal area. During a further check with the Health Authority, no LoC or as-built drawings were found in the Filing.

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

INVESTIGATION

A letter from ASTTBC was sent to the ROWP/Owner advising of the complaint and asking if the system was installed, when, who did the installation and where the LoC would be for this system. A response letter was received confirming the home is occupied, the system was installed by the ROWP/Owner, and that the "as-built" was submitted. A second letter from ASTTBC was sent asking for details on exactly when the system was installed, whether an installation LoC was provided to the Planner within thirty days of the installation, and when the home became occupied. No response was received to date.

ASTTBC staff contacted the ROWP Planner who admitted to being late in filing the Letter of Certification due to health issues. The ROWP Planner also included both the original plan of the system with the Planner's stamp and signature on it as well as an as-built plan dated over one year later with the stamp and signature of the ROWP/Owner only. The exact date the system was installed was not clear. The ROWP Planner also thought the home was now sold but was not sure when the home became occupied.

DISCUSSION

A Letter of Certification is to be submitted to the Health Authority within thirty days of the system being completed and commissioned. The ROWP Planner is taking responsibility for the delay as health issues have affected work over the last year, but the Planner is getting matters back under control.

It is unclear if the ROWP/Owner was delayed in submitting the LoC to the ROWP Planner as the amount of information provided to ASTTBC is limited. If the "as-built" plan shows the correct date and no other plans or the LoC made by the ROWP/Owner as the Installer were provided to the ROWP Planner, then the ROWP/Owner could be held accountable for the delayed LoC. Insufficient evidence exists at this time.

However, besides the subject ROWP being the owner of this property and the system Installer, the ROWP was also tasked by the Planner to ensure that the new well would be located to meet the setback distances from the onsite system. The ROWP Planner was surprised to become aware of this violation and only learned of it once the as-built plan was provided by the ROWP/Owner. Due to training and experience, the ROWP should have also been aware of what the requirements are for operating an onsite sewage system without the LoC or other final documents being submitted to the Health Authority, especially since the property was for sale and is now owned by another party.

The purchaser of the property may not be aware that the onsite system was not authorized to be used at the time the property was purchased and they are likely not aware that the well is less than the distance required under the SPM. Deviations from critical standards require a Professional to review and determine whether the reduction will not cause or contribute to a health hazard, or take such measures as deemed necessary and prudent to prevent a health hazard from occurring. As the well was drilled after the onsite system was installed and the Planner was unaware the ROWP/Owner caused the reduction in the setback to occur, the ROWP/Owner should be required to immediately have a Professional review the reduction in the well setback with a report produced by the Professional for inclusion into the Filing with the Health Authority, with a copy to the Planner, a copy to ASTTBC and a copy to the current homeowners.

OUTCOME

The Practice Review Board required the ROWP/Owner to immediately arrange for a Professional to review the matter of reduced setbacks and provide a report describing whether this reduction in setbacks may cause or contribute to a health hazard. If such a condition could potentially occur, then a description of the corrective actions to mitigate such a hazard is necessary. A copy of such a report was to be provided to the Health Authority, ASTTBC, the ROWP Planner, and the current owner of the property.

In addition, the ROWP/Owner was to successfully complete the WOWTC course WOWTC101 (classroom session only, not Fast-Track version) as a review of fundamentals concerning the SSR, SPM and duties expected of ROWPs.

The ROWP Planner for this site confirmed the ROWP/Owner had made modifications to the onsite system in order to meet setback distance to the well rather than retain a Professional to review and consider approving reduced setbacks.

As ASTTBC staff were not aware of what and when modifications were made to the system as well as which parties were informed or not of these modifications, attempts were made to contact the ROWP/Owner. When no response was forthcoming, ASTTBC staff attended the ROWP's residence and left a note and business card on the front door requesting immediate contact regarding this and another complaint. No response was received to date and the ROWP/Owner's registration as a ROWP was suspended pending a satisfactory response. The Health Authority was informed of this suspension. No further action is required at this time and the file was closed.

CASE #09-86

STATEMENT OF COMPLAINT

That a ROWP allegedly undertook the planning and installation of an onsite sewage system in a manner contrary to the Standard Practice Manual and the original Filing registered with the Health Authority. Further, the ROWP abandoned the installation before fully completing the work leaving excavations open and sewage accessible to any person or animal that entered or fell into the excavation work.

These allegations would be contrary to Principle 1 of the ASTTBC Code of Ethics.

BACKGROUND

This ROWP was contacted by the owner of a mobile home park to plan and install an onsite sewage system.

Installation of the onsite sewage system began, however problems with the system were reported causing the ROWP to make various modifications to correct the backing up of sewage into the mobile homes. A dispute arose between the ROWP and the property owner that resulted in the ROWP abandoning the project while excavations were open and sewage reportedly present around the exposed works within the holes. Tenants of the property had to travel around these excavations and Canada Post refused to deliver mail to the property due to concerns for the safety of their employees. For some tenants, walking through neighbouring properties was safer.

As tenants were beginning to move out of the mobile home park due to this issue, the property owner was forced to obtain the services of a home inspector and another ROWP to determine the cause of the sewage backing up within the system. Exposing various components led to the discovery of numerous additional problems that caused the entire system to be rebuilt as the work progressed with the second ROWP. To fund this unforeseen additional cost, the property owner required a second loan.

When the health hazards on this property came to the attention of the Health Authority, an Environmental Health Officer became involved and was preparing to issue an Order for the repair of the system. At the time ASTTBC staff became aware of this matter from the EHO and the second ROWP, the Order was not issued since corrective action was immediately being undertaken to eliminate the health hazard. The EHO also assisted the second ROWP with registering a new Filing after discussions with ASTTBC staff to determine options to proceed since it was not likely the first ROWP would be returning to assist as phone calls from the various parties were no longer being returned.

Upon completion of the work by the second ROWP, a list of deficiencies and photographs of the problems found were provided to ASTTBC staff to support the complaint against the first ROWP.

INVESTIGATION

A letter advising of the complaint was sent by ASTTBC staff to the ROWP and, after numerous attempts to make contact by phone, a letter was finally received.

The ROWP claims to have been first contacted by the property owner several years before due to problems with the system but was not contacted again until a request came in for an estimate to install a new sewage system. After providing the property owner with the estimate, the property owner began the process of obtaining a loan that would take a few months to complete. About a month later, the property owner asked the ROWP for a lower price and this was agreed to after some discussions.

Work reportedly spanned over a ten day period with some delays due to weather. According to the ROWP, the property owner was extremely difficult to work with and some of the ROWP's employees took exception to the property owner's manner while the work was being carried out. Rain delayed the landscaping and the electrician's attendance to complete electrical connections and the property owner reportedly advised the ROWP that this can wait until next spring to be completed.

Soon after, a problem with sewage backing up at trailer #7 was reported to the ROWP who excavated the sewer pipe from the trailer to the septic tank and then from trailer #4. According to the ROWP, the quote was for work from the septic tanks to the field and not from the trailers to the septic tank. The ROWP reportedly advised the property owner of this and the property owner brought in a plumber to install a new pipe to the trailer.

After the modifications were completed and the ROWP was finished with this job until the spring, the property owner stated there were further problems with the system and asked for a quote to change the current ten centimeter diameter sewer pipe to a fifteen centimeter diameter pipe. The ROWP agreed to do the work and provided a quote for labour but the property owner would have to buy the pipe. The ROWP put in the order for materials at a local supply store but the property owner reportedly "didn't like the look of the directional Tee's because they would not go straight under the trailers."

The ROWP admitted to the property owner to being unfamiliar with the grade sewer pipes should be set and arranged with the property owner to bring a plumber in to assist with the work. The property owner did this, however the ROWP claims the property owner became very upset about the use of the sweeping Tee's so the ROWP used straight Tee's to keep the property owner happy. Upon completing the work the ROWP was reportedly told by the property owner to leave the trenches open which was done except for several places where tenants would need to walk. There was no apparent concern about this by the property owner and the ROWP and employees were treated to a lunch paid for by the property owner.

Several days later the ROWP was asked to attend a meeting with the lender and the property owner. During this meeting the ROWP was advised the work as carried out was wrong and the friend of the property owner assisting with the plumbing was not a plumber at all. The ROWP then offered to consult with a plumber to determine how to correct the sewer pipe connections and gave a price to the property owner of \$2,500 to repair the line.

With costs for excavating and sand for bedding the pipes, the price became \$5,000, which caused the property owner to become very upset. At this point, the ROWP left the site fearing that the meeting could “become violent”. The ROWP claims to not have been paid for additional work, such as stump removal and fence post installation, and that the property owner “has tampered with the system digging up part of my field. The complainant probably broke the lid on the tank their self that they claimed they had to replace.”

ASTTBC staff held several discussions with the second ROWP who came to the site and provided photographs of various problems found with the system. From the trailers to the septic tanks the fifteen centimeter diameter pipe was noted to have straight Tee’s installed and sewage was becoming restricted at these points rather than flowing down the pipe as should be expected. The grade on various pipes was incorrect and the connection into the septic tank was poorly fitted.

While the ROWP focused on the problems with the pipes between the trailer and the septic tank, the second ROWP found that only two septic tanks were installed, not the three as quoted, and more than thirty meters of dispersal pipe and infiltration chambers were missing from the installation. The distribution box access was not brought to grade, chambers and pipes were off grade, and the pipe used throughout the work was not CSA approved. Little of the system or components installed by the original ROWP could be salvaged.

The property owner advised ASTTBC staff that the original ROWP was chosen over another contractor on the basis that the site would be finished with top soil and hand raked. This was important to the property owner as eight families live on this property. The property owner was concerned and surprised by the ROWP’s request that full payment was required immediately upon acceptance of the contract as this was not stated within the quote. Despite this, and to prevent the ROWP from backing out of the contract, the property owner arranged for full payment.

After not hearing from the ROWP upon completion of the percolation tests, the property owner called the ROWP only to learn that the septic tanks were lost in transit. No exact date for delivery was known at that time. The property owner claims to have requested the system be installed before leaving for vacation in early August and on August 5th the work commenced. Problems were found while hooking up pipes from the mobile homes and an employee of the ROWP was noted connecting ABS and PVC plastic pipes together in a manner that concerned the property owner, which is why the property owner tried to monitor the progress of the installation as much as possible. Repeated problems with blockages in the pipes where connections were made by the ROWP or employees became a source of on-going frustration and the fifteen centimeter diameter pipe, along with the Tee fittings, were the ROWP’s idea, not the property owner’s. The property owner also raised concerns about the lack of safety measures used during construction, stating a single aluminum ladder was used at one point, rather than proper excavation shoring during the entire construction period.

As problems with the system occurred again, and it was apparent that the ROWP was not responding to phone calls, efforts to find others to diagnose the cause of the sewage backups resulted in the property owner hiring another ROWP to correct the problems. This also resulted in approximately \$10,000 of

additional work (even though the second ROWP charged reduced rates in recognition of the situation) as well as lost revenue from tenants moving out as sewage backups continued to occur. A series of letters from tenants was provided to ASTTBC outlining their frustrations with the work affecting the use of the mobile homes and concerns over the safety for the many children that live in the mobile home park.

DISCUSSION

The ROWP provided the client with a quote to install an onsite sewage system. The quote did not contain details of when the work was expected to begin, how long it was expected to take, what was to be included or not included other than vague reference to materials and labour, and nothing about terms of payment. The quote was missing significant information expected of even a basic contract for work. Of particular interest is that the quote was provided before any site and soil assessment was carried out, gives only a brief suggestion that any form of planning would be conducted, yet gives a specific price for materials and labour before a plan is completed, which would be needed to determine the actual materials and labour.

Despite requests from ASTTBC staff for full planning details, the minimal amount provided by the ROWP as well as on file with the Health Authority, was also highly concerning. The Record of Sewerage System form bases the daily design flow on sixteen bedrooms, not the eight - two bedroom mobile homes on the property, resulting in a system approximately one third smaller than the requirements of the SPM. Even the size of the septic tank listed (3000 gallons/13,600 liters) is half the size required based on the SPM, and of the size listed, one of the tanks is used for a pump chamber, further reducing the available capacity. The gravity dispersal method is also suspect, but with no soils log, it is impossible to determine whether gravity could be used or if pressure distribution was required without a full site investigation by ASTTBC. The site plan is a poor quality sketch missing considerable details, the Operating & Maintenance Plan is of a similar quality and doesn't address the pump chamber requirements, there is no rationale for the design, and many other details have not been included

The installation also is substandard ranging from the type of pipe used, incorrect grades, lack of suitable bedding resulting in plastic pipes in direct contact with rocks, and almost one third of the quoted length of dispersal pipe and infiltration chambers were not installed. Even the number of septic tanks is one less than quoted, resulting in 1500 gallons/6800 liters less capacity. Although the ROWP suggests Tee fittings were installed on the sewer collection pipe instead of Wye's at the insistence of the property owner, the property owner claims to have never suggested anything like that and had no reason to do so. The ROWP cannot blame inferior workmanship on the property owner when it is the ROWP's responsibility to ensure the system is properly installed as per training and SPM requirements. It is also questionable as to why the trenches were left open since the property owner denies advising the ROWP to do so, the quote suggests the site will be finished and even hand raked, and there is no apparent reason to leave these trenches open.

The ROWP's ability to carry out planning and installation of onsite sewage systems as per the requirements of the SPM is highly suspect. Removal of the ROWP registration would be prudent until such time as substantial improvement can be proven through successfully re-attending and completing all planning and installation courses as well as successfully completing a Practice Assessment.

A breach of Principle 1 of the Code of Ethics appears to have occurred but was fortunately rectified quickly by another ROWP. It should be noted that the second ROWP undertook the work under poor weather conditions, with long hours, and at a substantially reduced rate in labour and machine charges in an effort to restore the image of ROWPs in the community.

The ROWP's duty to act with integrity, fairness and good faith according to Principles 4 and 7 of the Code of Ethics would appear to have also been disregarded and there is a question as to whether the ROWP has undertaken sufficient continued professional development as expected by Principle 6.

OUTCOME

As the Practice Review Board had already cancelled the ROWP's registration due to another outstanding investigation that ran parallel to this one, no further action can be taken against the individual at this time. The ASTTBC database was flagged to inform staff of an outstanding PRB action. If the individual does seek the reinstatement of the registration, all courses required for Planner and Installer registration must be successfully completed along with a Practice Assessment. No further action is required at this time and the file was closed.

CASE #09-87

STATEMENT OF COMPLAINT

That a ROWP undertook the planning and installation of an onsite sewage treatment system in a manner contrary to local bylaws and within a floodplain where the type of soil and proximity to a lake may result in contamination of the groundwater and the lake itself.

These allegations relate to safety, health and welfare of the public, and the protection of the environment found in Principle 1 of the ASTTBC Code of Ethics.

BACKGROUND

The owner of a lake shore property retained the services of a ROWP to plan and install an onsite sewage system for a home to be constructed there. The ROWP registered a Filing with the Health Authority for a sewage system to serve a four bedroom home and also stated on the form there was more than thirty three meters of setback to the lake and more than ninety centimeters of total depth to the highest water table or restrictive layer.

The purchase of the property, and subsequent installation of a sewage system for it, was noted by residents in the area as previous potential buyers of the lot were advised by another ROWP that no sewage system could be constructed on this site that would meet the requirements for setbacks. As this ROWP began to install a sewage system as per the Filing, trustees of a local environmental society contacted Health Authority staff with concerns about the work undertaken by the ROWP, who directed them to lodge a complaint with ASTTBC.

Legal council representing the environmental society initially contacted HA staff before addressing the concerns to ASTTBC staff, which included that the sewage system installed by the ROWP "may cause a health hazard due to the potential for discharge of domestic sewage or effluent to (...) Lake." "The (...) is an "improvement district" incorporated by Letters Patent under the B.C. *Water Act*, s.53, in 1969. Its objects are "to maintain a good quality of water in (...) Lake." As you know, (...) Lake is a kettle lake, characterized by large seasonal variations in water level coinciding largely with seasonal water conditions in the nearby (...) River.

(...) Lake has been classified as a “1A” aquifer by the Ministry of Environment, indicating that it is vulnerable to ground water contamination due to increased development, soil conditions and high water tables.”

“I have been provided the following background information: The subject property is on the east side of the south end of (...) Lake, in a location known locally to be of relatively low elevation. A small cabin has been on the property for many years. The cabin was observed to be surrounded by water during high seasonal highwater periods. Until recently, there had been no sewerage system on the property. The subject property was for sale during the summer of 2009. It was understood locally that the subject property was not suitable for a sewerage system and that this had been confirmed by an approved professional based on a site inspection.” The identity of the Professional the lawyer is referring to is not clear.

Other concerns were also listed. “The (environmental society) is concerned that the subject sewerage system appears not to conform with the *Sewerage System Standard Practice Manual 2* regarding minimum setbacks. Table 2-6, Horizontal Setback Distances for Critical Setbacks, specifies a setback of 30 m / 100 ft between the dispersal system and fresh water. While the dispersal area associated with the biofilter unit is not shown on the filed plan, it seems unlikely that the dispersal area could be located more than 100 ft from the (...) Lake property boundary.

The *Practice Manual* emphasizes that these horizontal setback standards are *minimum* standards, and that “effort should always be made to accommodate the greatest setback possible from drinking water, fresh water and well water, especially in unconfined aquifers,...,” which would describe the shore of (...) Lake. The *Practice Manual* goes on to state “If in doubt, contact a professional with competence in the field of hydrogeology or geotechnical engineering.” From the filed Record of Sewerage System, it does not appear that the ROWP has relied on a Professional for the installation in question.

The (environmental society) is also concerned that the percolation test results are all very fast – less than 60 seconds – and yet, as noted above, the Record of Sewerage System does not indicate that a designated professional (e.g., an engineer) has approved the design of the system. Last but not least, the (environmental society) is concerned that there may be insufficient vertical separation between the seasonal high water table (SHWT) and the bottom of the infiltration surface. While it is not exactly clear what SHWT figure (...) Health presently uses for (...) Lake regarding sewerage systems, the (...) has (...) Lake annual high water level data for 1996 to 2009. A copy is attached. Over that period, seasonal high water levels of 2525 feet (769.62 m) above sea level occurred in 1996, 1997 and 2007. The Record of Sewerage System states “90+ cm” for vertical separation between bottom of discharge area to highest water table. The Record does not state what figure was used for the highest water table. However, for comparison, the (...) Lake high water level of 769.62 m in 2007 plus 90 cm equals 770.52 m ASL, which is higher than ground level on most of the subject property, as shown on the plan on the sixth page of the Record.

For the preceding reasons, the (environmental society) would respectfully request that the (...) Health exercise the authority under s.11 of the Sewerage System Regulation, B.C. Reg. 231/2009, to inspect the sewerage system at the subject property to determine if it is the cause of, or may be contributing to, a health hazard.”

As a result of the allegations by the lawyer and the trustees of the environmental society, ASTTBC began an investigation into this matter.

INVESTIGATION

A letter advising of the complaint was sent by ASTTBC staff to the ROWP and, after numerous attempts by ASTTBC staff to establish contact over several months, a response was finally received.

The ROWP's response was:

- the assessment roll report records that the property is not subject to restrictions
- flood levels were provided to the ROWP by (...) a trustee of the environmental society
- there was no easement provided for this property, therefore the system could be constructed according to section 2.3.6.3 of the Standard Practice Manual (SPM) which references flood plains and states

“The infiltrative surface of a trench or bed system (bottom of the exfiltration trench) or the basal area of a sand mound should be 2 feet above the 1 in 20 year flood level. Tanks and treatment facilities should also be located outside of the 1 in 20 year flood level. This restriction does not apply where the land is protected from flooding by dykes. Where no part of the lot is available for the discharge area outside of the flood plain, the system could be constructed or repaired in the 1 in 20 year flood plain; however, any vent or electrical connection should be above the 1 in 20 year flood plain and no sand mound should be constructed in the flood plain area.”

- all minimum setbacks required by the SPM were achieved.
- The ROWP consulted with an industry association
- The minimum bed size of 27 cubic meters was required and installed
- Additional volume was added to the septic tank for improved performance
- Minimum vertical separation as listed under Table 2-5 of the SPM was achieved, not the Seasonal High Water Table level.
- System designed with a demand dosing system
- All vents and electrical components are above the flood level
- There was no sign of mottling in the test pit holes
- Although Table 2-12 of the SPM states Type 2 10/10 treatment is required and a Professional is strongly recommended, they are not required.
- The septic tanks on other property's that are not sealed will do more harm than this system would
- The ROWP provided a design from another source in BC that has less setback distance than this design
- The ROWP provided a report on the treatment results for the particular proprietary treatment and dispersal method chosen for this site.

The information from the ROWP was forwarded to the lawyer for comment. As a result, the environmental society retained the services of a Professional to review and provide comment. These comments include:

Floodplain

The 1 in 20 year floodplain elevation is established at 110.23 m, as provided by (...) health. The elevation of the entire onsite system is below this grade, according to the elevation mapping provided. In Section 2.3.6.3 of the SPM, a system can be placed within the 1 in 20 year floodplain provided there is no part of the lot available for construction of the system that is above the 1 in 20 year flood elevation, and all vents and electrical connections are placed above the flood elevation. Based on the information provided, the system meets the requirements of the SPM with regard to the 1 in 20 year floodplain.

Vertical Separation

The SPM specifies a minimum vertical separation of 91 cm for Type I or 2 systems with gravity distribution, and 61 cm for pressure distribution. The documentation provided indicates that there is no restrictive layer or seasonal high water table in the soil profile. However, measured water levels of (...) Lake indicate the seasonal high water levels of the lake reached an elevation of 769.6 m in 1996, 1997, and 2007. As the SPM does allow systems to be placed within the floodplain, the intent of the SPM is to provide vertical separation from the high water tables, not relatively rare flood events such as the 1 in 20 year flood elevation set at 770.23 m. The seasonal high water level of 769.6 m is a reasonable base for measurement of vertical separation.

The system installed is an (...) treatment plant, Model (...). This treatment system is considered to be a combined treatment and dispersal system. The effluent is filtered through the treatment plant and dispersed out the bottom of the system. There is no pressurized or gravity distribution field. Although the effluent is demand dosed to the treatment plant, as there is no pressure distribution network; this system is therefore considered to be a dosed gravity system for the purpose of vertical separation assessment.

The vertical separation should be measured from the point of application or where the defined level of treatment is achieved. In this case the point of application is the bottom of the treatment plant where the effluent exits the plant into the native soil.

It is not clear from the documentation provided where the exact elevation of the point of application is located; however, observations of the pictures provided indicate the point of application to be near the original lot grade of 710.5 m. Provided the system's point of application is at or near the original grade and the measured lake levels are used as the seasonal high water table, the vertical separation appears to be very close to the SPM requirement of 91 cm. If the 1 in 20 year flood elevation is used to determine the vertical separation the system would not meet the SPM requirement of 91 cm.

Horizontal Separation

The SPM requires a horizontal setback of 30 m from the dispersal system to any drinking water wells or fresh water. The SPM also requires a 15 m setback from the septic tanks to any wells and a 10 m setback from the septic tanks to fresh water. The setback distances from the lake were not depicted on the site plan provided, and any wells located on the lot or adjacent lots were not identified. The system design states that all horizontal setback distances have been met. It is possible, given the size and configuration of the lot that the system conforms to the SPM with respect to horizontal setbacks. These setbacks should be confirmed with an as built survey.

Hydraulic Loading Rates

The SPM specifies Hydraulic Loading Rates (HLR) and Linear Loading Rates (LLR), based on effluent quality, soil characteristics and permeability. The HLR determines the minimum area of the infiltrative surface and the LLR determines the minimum length of the infiltrative surface. For the soils described in the design, the SPM specifies an HLR of 68 L/m²/day and an LLR of 128 L/m/day. Using the daily design flow of 1700 liters/day specified in the design, the minimum infiltrative surface area and length should be a minimum of 25 m² and 13.3 m, respectively.

As mentioned above, the system is considered to be a combined treatment and dispersal system. The application of HLR and LLR standards in the SPM is required for all systems, regardless of the method of dispersal and there should be provision to ensure that the effluent is evenly distributed. The infiltrative surface of the system is not clearly shown on the design's site plan. It is assumed that the infiltrative surface is the area of the base of the treatment plant, approximately 4.2 x 2.4 m.

The system's infiltrative surface is approximately 10 m² and the length is approximately 4.2 m. The HLR and LLR of the system are 170 L/m²/day and 404 L/m/day, respectively. The system does not conform to the requirements of the SPM with regard to HLR and LLR standards.

Conclusions and Recommendations

Based on the information provided, (...) concludes that the system meets the requirements of the SPM with regard to standard practices for onsite wastewater systems located within a I in 20 year floodplain. Vertical and horizontal separation setback requirements appear to have been met, however, should be confirmed in the field with an as built survey.

In order to ensure the minimum vertical separation setbacks are respected and ensure adequate treatment prior to reaching groundwater, (...) recommends installing a monitoring well with a water level float installed at 90 cm below the infiltrative surface of the treatment system. This float should be set to shut the pump dosing the treatment plant off when the groundwater reaches the float. This will stop the flow of effluent during periods when the water table is high. The float should also trigger an alarm to indicate to users that the system must not be used until the water table subsides to below the float level.

An effluent quality monitoring plan should be implemented to ensure the system is performing adequately. The effluent should be sampled twice per year, at peak operating times. The effluent should be sampled where it exits the treatment plant. The samples could be collected from the monitoring well described above. The effluent should be tested to ensure the effluent consistently meets the Type 2 - 10/10 quality standards, as the system is designed to achieve. Type 2 10/10 effluent quality is defined in the SPM as containing less than 10 mg/L, biological oxygen demand (BOD₅) and 10 mg/L total suspended solids (TSS). As the quality of treatment may degrade as the system ages; it is important that this monitoring plan be maintained throughout the life of the system.

If it is found that the horizontal setback requirements are not met, (...) recommends upgrading the system to meet Type 3 effluent quality standards, and additional monitoring of the lake water quality and adjacent well water quality. The upgrade could consist of adding a UV light filter to the system at the inlet to the pump chamber. Base line data should be collected prior to the system coming into operation to compare results. The water from the lake adjacent to the property and water collected from adjacent wells should be tested for any changes in the BOD₅, TSS and fecal coliforms against the base line data and drinking water standard.

The system's hydraulic and linear loading rates are much higher than the standards set in the SPM. Although the system does not conform exactly to the standard practice in this regard, the ultimate objective is to ensure the system does not cause or contribute to a health hazard. Provided the system constantly produces the effluent quality it is designed to produce, and the vertical separation is maintained to ensure effluent does not flow directly into the ground water, it is unlikely that the system will cause or contribute to a health hazard.

The results of the Professional's review were provided to the ROWP to allow for comment. The ROWP responded with a drawing showing what the flood plain levels were in relation to the elevation of features within the treatment and dispersal system, including a reference that there is the minimum vertical separation required by the SPM.

A second page attachment included a site survey plan with hand sketching of the approximate positions of the existing old cabin and relationship of the septic tank, pump chamber and the combined

treatment/dispersal field unit on the property. Distances radiate out from various points of the components with measurements to show setbacks.

A review of the information provided by the ROWP was carried out by ASTTBC staff. The faxes the ROWP provided in response to the Professional's report state the nearest point of the lake during the high water levels is sixty-three feet/nineteen meters, but where the typical range of water levels might be is not clearly defined on the survey plan the ROWP used, therefore it is not clear if the one hundred feet/thirty meters is typically met. The survey plan also doesn't state whether this reference is a shoreline or not. The references to the well serving this property, and one on an adjacent property, are shown as meeting the setback requirements under the SPM.

Within the ROWP's paperwork and the Filing documents, there was no as-built plan or construction details and the quality of the plans are substantially less than required under the SPM and WOWTC training. There is also no reference as to where the proposed home is to be located on the plan.

The ROWP's paperwork also did not include any rationale for the design, another requirement of the SPM and very critical in this case as the ROWP departs from the SPM on Hydraulic and Linear Loading Rates. This particular proprietary method of treatment and dispersal was the subject of discussion with the BC Onsite Sewage Association's Technical Review Committee, and more recently, the Ministry of Healthy Living & Sport staff and ASTTBC staff. The purpose was to seek guidance with assessing the use of such combined treatment and dispersal systems including several other products being marketed in BC that are not consistent with the SPM.

The strongest statement on this topic is by the Ministry's staff who do recognize that departures from the SPM may be occurring with the use of such treatment methods but they do not want to set standards that restrict technologies or concepts, or be seen as approving methods of treatment as occurred under the previous provincial regulation process. In the opinion of Ministry staff, testing by accredited bodies, such as CSA, NSF or BNQ, is the preferred method of testing and place all responsibility on such agencies.

The Ministry staff did make comment with regards to the SPM, stating the onus rests with the Authorized Person to exercise due diligence in selecting any technology or concept beyond those listed within the SPM, and this includes the responsibility for a thorough review of all technical literature, testing protocols and results obtained, before making any decision to use that technology within a system design. Reliance upon the standard glossy brochure or general advertising material is not sufficient.

The ROWP did claim to have reviewed material, but what the ROWP provided to ASTTBC staff was a single page that mentions the product was tested under a European testing protocol but with no details on the protocol nor how it compares to North American standards. The ROWP also provided what was apparently a site plan for another system reportedly installed somewhere in BC where the setbacks to a well were almost half that required under the SPM, but no information was listed as to where this system was or whether a Professional was involved with the design.

There is insufficient documentation to support how the ROWP determined the size of this system, for these soil types, and the Daily Design Flow rates expected for the proposed home.

The ROWP's reference to the tax roll assessment as not showing any details regarding restrictions, covenant or similar information suggests the ROWP did not review and possibly does not understand the role of land title information.

The soils information is also lacking and there is some evidence to suggest the ROWP may not be able to accurately describe soils beyond simplistic terms.

ASTTBC reviewed the Professional's report and found it well researched and thorough, giving credit to the ROWP where appropriate and substantiated. The recommendations listed are good but not all can be required of the ROWP. The ROWP states there is a monitoring well installed within the dispersal area from which groundwater samples can be taken, but there is no information in the documents to state that sampling is required, how often and who shall undertake such work as no Operation & Maintenance Plan appears to have been created. There was also no Letter of Certification or accurate as-built plans.

DISCUSSION

The ROWP appears to have found a means to install an onsite sewage system on a very challenging lakeshore property. The ROWP states the SPM allows a ROWP to undertake such sites where a Professional is "strongly recommended", however this ROWP failed to practice the level of diligence expected when making such a deviation, and does not meet the level of quality expected of a ROWP for reviewing and preparing such documents. This includes the minimal researching of a proprietary treatment and dispersal method for suitability on this site.

There is no information on the dosing calculations, no information on the settings for floats in the pump chamber to obtain such doses, no monitoring points shown or monitoring requirements and frequencies specified, and the facility information is confusing. It suggests the system is for a four bedroom home of 2,530 square feet but also lists a "trailer pad" with no further information about this.

The Professional does point out that there is no proof that a health hazard currently exists at this time and it would be difficult to prove if and when such a condition may arise in the future as the amount of use, whether maintenance is carried out on a regular basis and many other factors would need to be considered. The Health Authority have not acted on this matter as of yet because there is no proof of a health hazard, only the suspicion that there might be one based on the minimal information the complainants originally had to work from.

Although most of the concerns by the environmental society were addressed by the review and comments of the Professional, the ROWP's ability to complete at least the documentation required of a Planner is debatable and that has left many questions about this sewage system unanswered at this time.

ASTTBC staff received further information from a trustee of the environmental society including a photograph showing a RV camper with a pipe that resembles a sewer connection to what may be the new onsite sewage system. The onsite sewage system appears to be in use.

OUTCOME

The Practice Review Board required that the ROWP immediately:

- Complete the Letter of Certification, as-built plans, Operating & Maintenance Plan, design rationale, and all other outstanding documents to fully complete the Filing,
- Clearly indicate within the site plan and the design rationale what the setback to the lake is from the treatment and dispersal area, and if found to be less than the requirements of the SPM, obtain the services of a Professional or Hydrogeologist to assess the conditions of the property and provide a letter of assurance that the reduction in setbacks as required by the SPM will not cause or contribute to a health hazard,

- Register these documents with the Health Authority and, if the Letter of Certification is more than thirty days outstanding since the installation was completed, a letter ensuring staff are made aware of this
- Provide a copy of all final Filing documents to the property owners and ASTTBC

Despite phone calls and letters from ASTTBC, no response from the ROWP was received confirming adherence to the PRB decision and no outstanding documentation was provided to ASTTBC or registered with the Health Authority. This would be in excess of the requirement for an ROWP to register the Letter of Certification and all other documents within thirty days following the commissioning of the system. Because of this, the ROWP's registration was suspended pending a satisfactory response. The Health Authority was informed of this suspension and the ASTTBC database was flagged regarding this complaint. No further action is required at this time and the file was closed.

CASE #09-90

STATEMENT OF COMPLAINT

That a ROWP planned an onsite sewage system with an insufficient site assessment that resulted in incorrect or missing details within the design that would significantly increase the cost for installation. In so doing, the complainant believes the ROWP did not carry out appropriate due diligence and was not acting in the complainant's best interests.

BACKGROUND

The complainant purchased a home and 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 if a replacement was necessary.

The contractor was aware of a ROWP Planner/Installer, and contacted this person to assist. The ROWP 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 change in use. Based on the ROWP's comments, the complainant believed there was no choice but to replace the existing onsite system with a new one.

After completing a site investigation, soil analysis and permeability tests, the ROWP determined that a pressure system in an at-grade bed dispersal area was the appropriate choice. This method was chosen because the most suitable location on the property, for a system, had soils defined as a restrictive layer according to the SPM, but the depth to this layer was sufficient if the ROWP used pressure distribution and not a gravity based dispersal method. In the ROWP'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.

The ROWP drew up a plan, 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 and filed with the Health Authority, copies of the plans were provided to the general contractor and the complainant paid the ROWP in full for the planning work. Only after the plans were provided to the complainant did three concerns appear with the

design. The first concern was where the septic tank and pump chamber were to be located, given that a small portion of the dispersal field was directly in the path of an existing natural gas line leading from the street to the meter by the front door.

The complainant distinctly remembers pointing this out to the ROWP but the plans for the onsite sewage system did not show this utility being present. The second concern was that an edge of the dispersal area would be close to a water easement or possibly be within the easement. A third concern was how the sewer pipe from the home was to be redirected from the west side of the home to the east side.

As the complainant had already paid the ROWP for the plans, "...sight unseen, I had no choice but to accept the cost and Filing for the time being rather than hold up my building permit further and obviously delay my construction schedule." With one plan in place from which the building permit was issued, the complainant attempted to obtain an alternate plan "Sadly for some reason virtually no one appeared to be willing to undertake this task locally, when I informed them I was not happy with the design that I had received from (ROWP)."

With six months having passed since the (ROWP) created the plans for an onsite sewage system, the complainant's home addition was nearing completion and was faced with either having the ROWP's plan installed or finding an alternative before the building permit expired. Further review of the plans determined that modifications to the plumbing in the basement, rerouting the gas line, bringing in large quantities of soil, re-landscaping the front yard and other miscellaneous work would likely bring the cost of the entire project to over \$50,000 which is more than double the budget.

The complainant did eventually find another ROWP from outside the immediate area who agreed to create a new plan, which was later installed for less than \$20,000. However, that matter is before the Practice Review Board in other respects related to the suitability of that system for the site.

The complainant was concerned that accepting the ROWP's plan and not searching for a more affordable option would have wasted approximately \$30,000. Due to the cost, inappropriate site assessment and aspects of the design for the property, the complainant filed a complaint with ASTTBC to investigate the ROWP's actions.

INVESTIGATION

ASTTBC staff reviewed the complainant's written statement of complaint before reviewing the ROWP's Filing documents. The ROWP was then informed of the complaint and provided a response.

The general contractor for the addition hired the ROWP and acted as the contact for most of the time. The ROWP had little contact with the complainant. The ROWP states this is something that will not happen again to ensure sufficient time is spent with the homeowner to discuss their needs.

The ROWP also reportedly saw some portions of the original system when exposed as part of the excavation for the addition as well as noting some saturated areas throughout the lot prior to making the statement that a new system would be required. What components the ROWP examined and the performance of the existing system is not mentioned in the response, but the complainant did not recall the ROWP conducting any form of an assessment on the existing system.

The ROWP was aware that a plan was required to be filed before the building permit could be issued, but denies being made aware of any budget consideration by the homeowners. The ROWP did recall being

told the homeowners wanted the most cost effective system possible, a wish that is often expressed by clients and that the ROWP seeks to achieve.

The ROWP states "...was not asked to plan the new system with a view to installing it, as (complainant) states, as although I am registered as an Installer, I DO NOT Install as a business. In fact, I HAVE NOT ever installed a system for money, or as part of my paid services offered since, I believe 2003, when I started my business as a Designer (which is now referred to as a Planner)." For this reason, the ROWP does not provide any quotes for installation but leaves this for the client to obtain quotes from Installers.

The ROWP also mentions being unaware of any concerns by the complainant or the general contractor since neither contacted the ROWP about any portion of the proposed system at any time.

Further, the ROWP doubts the complainant's claim that it was very difficult to find anyone to provide quotes for the installation and provided a copy of a quote by another ROWP with a price of \$20, 530.53 but also states it could be done for less depending on the pumps and amount of top soil required.

As for the alterations in the basement, the ROWP suggests that because the design was done before the renovations were completed, the plumbing could be redirected to the front of the home. The ROWP chose a sloping at-grade bed to minimize the impact and work with existing grades as well, but even factoring in \$1,500 to \$2,000 for electrical work related to the system, the ROWP cannot see how the complainant could claim the costs for the project might reach \$50,000.

Due to soil conditions found on the property, a gravity-based dispersal method would not meet the minimum requirements of the SPM, therefore a pressure distribution system was necessary. The ROWP provides reviews from a ROWP and a Professional that confirm the Filing was consistent with the SPM, especially related to having sufficient vertical separation to a restrictive layer. The other ROWP points out that the use of an at-grade bed was less expensive than using a sand mound or a treatment plant, which is correct.

An ASTTBC investigative team attended the complainant's property to examine the site and circumstances of this matter. The documents for the system that the ROWP planned was examined and compared to a layout of that proposed system using ropes and stakes set to the corners of the dispersal field location while other markers were used for the position of the septic tank and pump chamber. The gas line was tracked with an electronic pipe locator, then marker flags were set along the route of the gas line. From this visual reference, a number of concerns were identified. These include:

- The septic tank and pump chamber would be placed in the middle of where the natural gas pipe leads from the street to the home and cuts under a small portion of the dispersal field area.
- At the downslope edge of the dispersal field receiving area, a covenant for a water line exists yet is not depicted on the site plan showing the location of the system.
- Under site information within the Record of Sewerage System, the form requires details on any covenant, easement or right-of-way, which will affect the design or location of the sewerage system, and the "no" box is checked. No documents related to the easement were included in the Filing.
- The existing sewer pipe exits the foundation on the west side of the home at approximately eighty centimeters above the basement floor elevation. Redirecting all indoor plumbing to the front of the home would require either lowering the plumbing stack and jack hammering the existing concrete floor or redirecting the plumbing to hang off the bottom of floor joists causing a dramatic loss in ceiling height and ease of maneuverability within the basement portion of the

home. Some portions of an office, a storage room, and a family room would have reduced usable space as a result.

- The plan shows a twelve percent slope across the width of the at-grade bed dispersal area, but a slope of six percent with up to eight percent near the house was noted across the length of the bed, which is not depicted on the plan. No construction details are provided to indicate any cut into the slope near the house would be made, nor fill added to the low side of the bed to offset this difference.
- Plan is missing details including north arrow, scale on the plot plan and dispersal area, contours including a rock retaining wall currently within the area of the proposed bed, no details on the plan showing where soil test pits or perc/permeameter tests were conducted in relation to the bed. These administrative items are listed in the SPM.
- No pump calculations were done for sizing so the Installer would not know what pump to spec for quotation.
- No design rationale, as required by the SPM, is provided in the Filing to explain how and why this system was selected over other options.

Following the visit to the site, a request for comment was made to the ROWP Installer who provided a quote to the complainant based on the ROWP's plan, in order to verify aspects of the system.

As the plan did not show any cut or fill for the dispersal bed area, the concern was whether this was missed on the plan but understood by the Installer, or the intention was to set the dispersal pipes (laterals) to the grade of the slope in a manner contrary to normal practice. The ROWP Installer stated that no cut or fill was planned other than removing turf and scarifying the subsurface area prior to constructing the bed. This was also confirmed when the ROWP Installer stated that no retaining wall or slope stabilizing was expected even though a short rock retaining wall of some fifty to sixty centimeters in height was already present.

For utilities, the ROWP Installer states the Planner would have noted such items on the plan if they existed, but does not recollect any being in the way. The Installer does point out that if it was a water line it would be simple enough to move, but ASTTBC staff did not mention it was a gas line specifically and the Installer did not appear to be aware of it.

Regarding the sewer line elevation, the ROWP Installer was under the belief that a plumber would have to move the line from the west side of the home to the east side and "bring it out as high as possible" so the tanks would not have to be buried deeply. Reportedly, the tanks could also "be moved downhill towards the dispersal area if bury depth was a concern." The complainant made it clear that no plumbing changes were mentioned prior to the plans being finalized and no plumber was arranged to undertake such work. The complainant was able to confirm that the general contractor was also unaware of this.

The lack of pump sizing details in the plan was explained by the ROWP Installer as "we almost always check pump sizing after the tanks are placed and the laterals are in. That way the designer knows the static head, force main length, and the number and type of fittings used. That way the pump can be sized on known values rather than on projected ones." Considering that for many small system designs, such as this one, determining an appropriate pump from the measurements and elevations taken during a site assessment is standard, the lack of calculations within the planning is unusual. This is an aspect included within WOWTC training courses and is an expected skill for Planners.

As for the quotation the ROWP Installer provided to the complainant, there is "a hard price and also an option to discuss constructing cost plus if (complainant) was interested. Details could be worked out on a

proposal form before work commenced. Many people like to see exactly how their money was spent. When quoting for a hard price you must allow for what you don't see or expect and allow for greater material volumes. With an unknown pump you allow a budget for a large one. Some of the stripped turf/soil may be suitable for reuse. So how much saving might a homeowner see? Perhaps \$500.00 to \$1000.00 or nothing.”

The complainant reviewed the Installer's quotation and had the impression it was open ended and not actually a quote at all. The lack of details concerning how the cost-plus would be done was troubling since the complainant is also in the construction trade and is very familiar with how detailed quotes normally are. The complainant also was unsure if the ROWP Planner's invoice would cover the inspection visits if the Installer or others installed the system, or if extra costs were to be expected for a maintenance plan, final signing off of the system, etc. After seeing the Installer's quote and the ROWP Planner's invoice, the complainant did not bother to contact either again, especially the ROWP Planner on the basis that the ROWP Planner may charge for the discussion. Instead, the complainant "...wrote it off as a learning experience and sought others to plan and install”.

DISCUSSION

The ROWP's design is technically sound when considered separately from the site as was confirmed by two Authorized Persons retained by the Planner to review the paperwork but as the reviewers also noted, they did not attend the actual site or examine soil conditions. During a visit to the site by an ASTTBC investigating team, concerns noted earlier became readily apparent.

At no point does the ROWP claim to have entered the home to determine the degree of difficulty or likely expense involved with redirecting the indoor plumbing from the west side of the home, where the current septic tank and dispersal field are located, to the east side where the proposed septic tank and pump chamber would be installed.

The complainant is adamant that the ROWP Planner did not enter the home at any time to examine the location of the plumbing to make this determination and subsequently the significant costs to redirect the plumbing were not considered as a factor that could affect the cost of the project overall.

The ROWP also admits to spending only limited time assessing the original onsite system and gives little explanation as to why and how it was determined that the system was in need of replacement with no salvageable components. There appears to be an assumption made that because the system was suspected to be older and that renovations were being made in general, that a new system was necessary and that included redirecting the plumbing.

With no idea of what elevation the new plumbing would be exiting the home, the plan did not indicate what the possible depth of the septic tank and pump chamber were expected to be, which would also affect the price of the installation. Since no discussion was held with the homeowner about the plumbing modifications prior to the plan being made, the homeowner could not anticipate these requirements. If the plumbing was set under the floor joists, the ceiling would require boxing in of the pipes and that would detract from rooms that were intended to be finished off in a normal manner. It would also create reduced head height in two basement rooms where pipes from different points in the home would collect. This reduction in usable space was not acceptable to the complainant due to the intended usage of the space. If the pipes were taken under the concrete floor to avoid loss of headroom, then the pipe would exit the home at approximately 2 meters below the surface making for a very deep burial of the septic tank and

pump chamber. The extra depth would likely require stronger more expensive tanks and/or extra work for the excavation and installation.

There is also little comment in the ROWP's response on the issue of the gas line running through the area where the septic tank and pump chamber were to be located. Identifying utilities on a plan is expected as normal practice and is also required under the SPM. The complainant had very accurate knowledge of where the gas line was, before it was confirmed by the ASTTBC investigative team with electronic tracking. A check with BC One Call also showed they had this information accurately on file, but no reference to this is mentioned within the plan.

The ROWP suggests that moving the tanks a little one way or another is not an issue and often done during installation, yet this is an obvious and predictable issue that does affect how an Installer may approach the job including what extra work and expense they may need to factor in to address this. The Installer was not aware of such a utility as a gas line being present within the proposed work area and the complainant was concerned about being forced to pay for relocating the gas line in the same manner as being expected to redirect the plumbing in the home simply to suit the ROWP's plan. Locating these items before completing the plan is the Planners responsibility as part of a site assessment.

For the dispersal area to be sloped across the width and use a wide receiving area down slope to assist with ensuring fluids seep into the ground sufficiently before reaching the bottom toe of the slope is appropriate. However, also having a slope along the length and setting the dispersal pipes on a grade of six percent to eight percent risks concentrating the fluids at the low and narrow end of the field where a minimal receiving area was proposed. When four independent ROWP Planners were asked if this would be appropriate, all responded that it was not, because it would increase the risk of concentrating flows or pooling at the lower end on the east side of the at-grade bed. The ROWP's plot plan showed a slope in a single direction only, not two directions, and that should have caused the two reviewers hired by the ROWP to have concerns if they were made aware of this.

The complainant was also not clear on what the Planner's fee for services would be as no contract or proposal was given to the complainant or to the general contractor. The complainant claims the amount of time billed is excessive for the services provided, especially considering the complainant apparently paid separately for the neighbour to supply and operate an excavator so the Planner could carry out soil assessments on the property.

As for landscaping, the complainant felt unclear as to how the system would be finished. Although the deck was not constructed yet, the complainant was under the impression the ROWP Planner was aware this was to be completed if only through discussions with the general contractor in charge of this coordination.

The complainant suspects a portion of the rock retaining wall may have to have been removed but did not know if this was to be restored afterwards or what other areas of the property would be disturbed. Again, lack of communication with the client led to uncertainties in expectations as well as potentially high additional costs for the project.

Based on these findings, there is cause for concern that the ROWP did not carry out this project with sufficient care and attention in terms of the site assessment, contracts and communication with the client, and appropriateness of a dispersal system on a two directional slope. Whether this is an isolated case or a typical practice cannot be determined without further assessments of more recent work, therefore a Practice Assessment would be of value.

The example provided to ASTTBC staff of a newer contract form the ROWP is using has improvements in some aspects, but also raised a concern about a clause which limits the ROWP's liability to the planning service fees charged. This implies that no other costs could be recoverable beyond the actual planning fees regardless of whether or not the ROWP's actions resulted in further costs. Other items of concern were noted in the contract clauses and this needs to be explored in more detail.

Options for courses specific to the site assessment and slope errors are very limited, especially as the ROWP is very knowledgeable about the current available courses. The question surrounds the application of this knowledge outside of a classroom and especially as applied to real world sites.

OUTCOME

The Practice Review Board required the ROWP to submit a report, acceptable to the Registrar, explaining the responsibilities of a Planner in relation to communications with clients, identifying concerns during the site assessment, and explaining the potential problems associated with making assumptions about work to be done which is not part of the onsite system but is directly related, such as the location of utilities and plumbing exiting a building.

The ROWP was provided with a report covering the items of concern discovered at the site by the ASTTBC investigation team for personal improvement purposes.

A separate letter was required from the ROWP to explain in detail the clauses within the example contract submitted during this investigation, that state the liability is limited to the cost of the planning service only, as this has been shown as not acceptable by the courts in liability cases.

The ROWP was required to successfully complete a drawing course as a review of fundamentals and requirements for drawing plans of onsite sewage systems to ensure important details are conveyed in all drawings.

Finally, the ROWP was required to submit to a Practice Assessment with particular focus on site assessments and contracts with clients.

The ROWP complied with these requirements, no further action is required at this time and the file was closed.

CASE #09-95

STATEMENT OF COMPLAINT

A ROWP Installer submitted a Filing to the Health Authority for a repair to an existing onsite sewage system without a Planner or Professional involved with the Filing.

BACKGROUND

An Environmental Health Officer with the Health Authority was made aware by staff that a Filing was received from a ROWP, indicating a repair was made to an existing onsite sewage system but no Planner

or Professional was associated to the system. The ROWP is an Installer only, and is therefore unable to submit the Filing. The EHO further points out that the property where the system was repaired happens to belong to the sibling of the ROWP making the Filing.

Attached to the Filing is a survey plan of the lot indicating where a “drain line” was removed and what may be new dispersal lines added but minimal details are included in the plan and no details of construction, where percolation tests or observation holes were dug in relation to the system, existing water lines or other utilities were located, slope of the land or other aspects expected to be on a plan of the site.

A letter was also attached to the Filing explaining it is for “...repair/alteration to the drain field portion of the onsite wastewater system” only after an inspection apparently found a single plastic dispersal pipe leading out from the septic tank. There is no indication that the cause of this work was a system malfunctioning or wastewater breaking out to the surface. Old clay tile laterals were found to be no longer connected to the plastic pipe and the ROWP states these old tiles were removed and new drain rock and PVC pipes installed along with a distribution box. At the bottom of the letter, the ROWP states “work carried out by (the ROWP)”, “work inspected and filed done by (the ROWP)”.

The EHO contacted the ROWP advising a problem with the Filing was noted and the matter would be reported to ASTTBC for investigation. A subsequent letter by the ROWP was received by the EHO showing it was a copy addressed to the property owner/ROWPs sibling, which stated that the Filing was carried out on behalf of the ROWPs sibling and “does not mean the repairs/alterations you did to your septic field were done to standards laid out in the Sewage System Standards Practice Manual” and further advises the property owner/sibling to “contact an Authorized Person (Planner) to design a complete new septic system and have it installed as soon as the dry season arrives by an Authorized Person (Installer)”. The ROWP further states that while the test holes have “...good drainage and no sign of high water table” the property owner should monitor the system through the winter to ensure no breakout occurs.

The EHO is concerned that the ROWP knowingly undertook work outside the scope of Installer registration and was providing assistance for a sibling to undertake such work in a manner contrary to the SSR and SPM. Upon being made aware that the EHO had such concerns, the ROWP attempted to back track by advising the sibling to carry out different actions by involving Authorized Persons in a correct manner.

INVESTIGATION

ASTTBC staff contacted the ROWP, asking for an explanation of the allegations made by the EHO. The ROWP responded shortly after, claiming to have been contacted by another EHO who reportedly advised the ROWP to put in a Filing to support the unauthorized repairs carried out by the sibling and that the sibling brother received a verbal order by the other EHO to have a Filing submitted within one week.

The ROWP further states that when the complainant EHO pointed out that an Installer was not allowed to do planning, the ROWP responds with “...the filing was not planning but documenting unauthorized work”. The ROWP points out that “...could not find anything within the SSR that stated an Installer could not submit this type of Filing as there was no planning inferred”.

DISCUSSION

The ROWP is correct that the SSR does not specifically state that a Planner submits a Filing to a Health Authority, only an Authorized Person, which the ROWP is. However, the ROWP should be fully aware of the roles and responsibilities for each category including that of an Installer. The training the ROWP would have received through the WOWTC courses prior to becoming a ROWP covers the roles and responsibilities for each type of ROWP, including the limitations of work where one is not deemed qualified by training and/or experience according to the Onsite Wastewater Registration Board Policy. Upon being registered by the OWRB, the notice of being accepted would further indicate the category and any particular conditions or limitations to the category of registration.

The ROWP also openly admits to “documenting unauthorized work” as though this is an acceptable role for a ROWP to provide legitimacy to an illegal installation. That it involves a sibling is further cause for concern if only by virtue of the unprofessional and unethical appearance the ROWP’s actions convey to the public.

Although this appears to be a case of unethical behaviour, the ASTTBC Investigator also notes an insufficient understanding of the role and the limitations of it. For this reason, re-attending the introductory course for all ROWPs should ensure this ROWP becomes fully aware of all aspects of the SSR, SPM, and the Installer registration through ASTTBC.

OUTCOME

The Practice Review Board required the ROWP to successfully complete the WOWTC course WOWTC101 for a review of fundamentals on the SSR, SPM, along with the duties, roles and responsibilities of ROWPs. The ROWP was also to immediately return the completed Professionalism in Practice Module for review by the Registrar, and submit a letter of at least 500 words to the satisfaction of the Registrar explaining why the actions of the ROWP were not acceptable and what will be done to prevent this from occurring in the future .

When apprised of these requirements, the ROWP instead chose to resign the ROWP registration. No further action is required at this time and this file was closed. The ASTTBC database was flagged with a note that should the individual wish to reinstate the ROWP registration, the ROWP must first satisfactorily complete the PRB conditions.

CASE #10-01

STATEMENT OF COMPLAINT

That a ROWP undertook the planning and installation of an onsite sewage system without filing sufficient information as required under the SPM. Further, the Letter of Certification was not filed within thirty days after completion, contrary to the SSR.

These allegations would be contrary to Principles 1 and 4 of the ASTTBC Code of Ethics.

BACKGROUND

A ROWP was contacted by the owners of a property to plan and install an onsite sewage system for a new home to be constructed. The ROWP carried out the planning and installation of the system and the owners began using the system soon after the home construction was completed.

The owners were aware that regular maintenance was required and were considering who to hire to do the work. As they were looking under access lids to components of the system, they noticed documents within a plastic bag under one particular lid. On closer examination they noted the documents were for registering the proprietary treatment and dispersal component, however the documents were not completed.

Concerned that the component was not registered and therefore might not be under warranty, the owners contacted the distributor of the component who confirmed that no documentation was registered for this system. A representative of the component distributor attended the site, confirmed the condition of the component, and registered the component to activate the warranty immediately. During this process the distributor informed the owners that other documents related to the Filing of the system should have been provided by the ROWP.

As the ROWP lives immediately next door, attempts to request the documents were made both in person and by phone with the ROWP reportedly promising to supply them. Despite this, nothing was forthcoming in the months prior to the owners contacting ASTTBC for assistance.

INVESTIGATION

When contacted by ASTTBC staff, the ROWP gave several reasons why delays in mail or phone messages may have occurred but promised to provide the documents as quickly as possible. The main reason for the delay was that the ROWP entered into an agreement with the complainant for an exchange of services, and while the ROWP had completed the planning and installation of the system, the complainant had yet to complete their part of the bargain. The failure to complete the agreement caused the ROWP to withhold the Filing documents.

The complainant contacted ASTTBC staff to advise they received documents from the ROWP and faxed a copy of the documents to ASTTBC staff as was requested. The Record of Sewerage System form shows the date the Filing was registered with the Health Authority but no Letter of Certification was included in the Filing, nor any indication of when the system was installed.

A permeameter test form was included in the Filing but shows no date when the tests were conducted or other details on the form to indicate where the tests were conducted in relation to the proposed dispersal area. The soil profile was also lacking the minimum required parameters as set out within the SPM and there is no reference as to where the observations were made on the property, also required by the SPM. Due to the lack of soil assessment details, the method used to determine the appropriate treatment and dispersal type cannot be confirmed and there is no design rationale attached to the Filing to assist with understanding why the ROWP selected this type of system for the site. A vague reference is included about sizing the proprietary treatment and dispersal component eventually used in the system, but there are no supporting specifications to show how this system was sized according to the manufacturer's recommendations.

A sketch of the property with rough positioning of the system components was included, however lack of scale, slope, direction, location of soil permeameter testing or observation holes, and other expected details as listed in the SPM were missing. There are also no construction details or related information on how the system was to be installed.

A property assessment report was included in the filing and shows the date when the report was obtained from BC OnLine services. This date is two days after ASTTBC began attempting to reach the ROWP by phone and shortly after the complainant may have informed the ROWP that they had filed a complaint with ASTTBC.

DISCUSSION

The ROWP's verbal agreement to exchange services with the property owners resulted in the ROWP withholding the Filing for almost two years. The system was installed and the property owners allowed to use it without the system being officially commissioned, a requirement of the SSR.

A major component within this system, critical to its proper operation, was not registered with the distributor. As well, the property owners were not fully aware of the requirements for proper operation of the system as no Operating & Maintenance Plan was provided or on file with the Health Authority to assist them with understanding their legal requirements, another requirement under the SSR.

Only once the ROWP became aware that ASTTBC was investigating the complaint by the property owners did documents related to this system become available, however details with the documents are substantially missing causing concern that the ROWP did not exercise an appropriate level of care for planning the system contrary to principle 3 of the code of ethics.

OUTCOME

The Practice Review Board required the ROWP to immediately:

- complete the Letter of Certification, as-built plans, operation & maintenance plan, design rationale, and all other outstanding documents to fully complete the Filing with the Health Authority,
- register these documents with the Health Authority along with a letter ensuring HA staff are made aware that the system was installed and in operation by the property owner for more than thirty days,
- provide a copy of all final Filing documents to the property owners and ASTTBC,
- complete the WOWTC courses PLAN201/202 and SOIL201, or equivalent as identified by the Manager, OWRP,
- submit to a Practice Assessment

Despite phone calls and letters from ASTTBC staff, no response was received by ASTTBC confirming the ROWP will adhere to the PRB decision and no outstanding documentation was provided to the property owners, ASTTBC, or registered with the Health Authority. Because of this, the ROWP's registration was suspended pending a satisfactory response. The Health Authority was informed of this suspension and the ASTTBC database was flagged regarding this complaint. No further action is required at this time and the file was closed.

CASE #10-02

STATEMENT OF COMPLAINT

A ROWP planned and installed an onsite sewage system on a property where a serious malfunction later occurred. The property owners attempted to contact the ROWP for assistance or direction to correct the malfunction, but no response was received for approximately one month.

The lack of a timely response caused the owners concern that more serious damage may occur to their system or that sewage may back up or escape the system in a manner that could create a health hazard. Concern was raised that the ROWP's delay in responding to ensure the safety, health and welfare of the public and the protection of the environment, appears contrary to Principle 1 of the ASTTBC Code of Ethics.

BACKGROUND

The property owners retained the services of the ROWP to plan and install an onsite sewage system for a property where they intended to construct a home. The system was installed in the late fall and the home was occupied less than a month later. The property owner reportedly made a comment to the ROWP that the system appeared to be very shallowly buried, but the owner was assured the system was planned and installed according to the provincial requirements.

The property owner states a high level alarm sounded during a period that was very cold. After digging the access lids out from under the snow, no reason for the alarm was apparent and an hour later the system returned to normal operation.

A year later, the high level alarm sounded again and the fluid level was noted to be high in the pump chamber with no evidence it was pumping out to the field. This was also during a period of cold temperatures and little snow cover, and the property owners were concerned the dispersal pipes within the field had froze due to the shallow depth of soil covering them.

The owner phoned the ROWP and left a voice message outlining the problem they were having and waited for a call back on what they should do next. By the following day and having had no response, the property owner searched for another ROWP for advice who stated the earliest possible attendance was the following day, and they would bring equipment to thaw the pipes if that was found to be the problem.

The next day, without any prior notice or appointment, a representative of the ROWPs business attended the site to look at the system, but had no equipment to thaw it. The representative's services were declined since the other ROWP would be arriving shortly to correct the problem, however the property owner did ask the representative of the ROWP to pass on a request to discuss this problem further.

Two days later, thawing of the pipes was completed, styrofoam insulation added under access lids to components, and hay was spread over the field to provide further insulation from the cold to prevent another freezing of the pipes. During this work, the property owner made further efforts to contact the ROWP including leaving a message with a person who answered the phone. Many days later, with no further response from the ROWP, the property owner contacted ASTTBC for assistance.

INVESTIGATION

ASTTBC staff sent a letter to the ROWP advising of the complaint and requesting written and signed comments along with the supporting details of plans, construction details, soils log, Operation and Maintenance Plan, and other related documentation. As no written response was received within the time period required, ASTTBC staff made numerous attempts to contact the ROWP by phone, including leaving a message with a person who promised to pass the message to on.

The ROWP was finally contacted by phone and apologized for the delay. The ROWP stated an employee attended the site to check out the property owner's complaint, but the property owner refused to let the employee onto the site. The property owner was advised to provide the written statement as originally requested and to include the additional documents related to the design of the system in order to assist with determining a possible cause of the malfunction. The ROWP mentioned that very cold temperatures with little snow cover was a problem this winter through the entire area, and that while the property owner's system was constructed to the requirements of the Standard Practice Manual, the ROWP was willing to add more soil cover over top the dispersal field.

Following this discussion, ASTTBC staff did not receive the letter and requested documents however, an email was received by ASTTBC staff from the ROWP. In it, the ROWP asks for access to the property in order to find out if any changes to the site were made by the property owners. The ROWP also mentions "(...) is my septic man and I work with (...) on all repairs and installs" but does not provide any details on whether (...) was the person who attended the site previously or if (...) is a ROWP. ASTTBC staff contacted the property owners raising the question from the ROWP, who advised that no modifications to the original system were made other than adding the styrofoam and hay. The property owner then provided photos to show this which also indicated some dispersal pipes were located fifteen to twenty centimeters below the surface as reported and part of the property owner's concerns. This information was forwarded to the ROWP who has not responded.

DISCUSSION

As no Filing details were provided to ASTTBC staff to date, and it appears the ROWP never provided an Operation & Maintenance Plan to the owners at the time the system was completed, a review of the documents surrounding the system could not be undertaken. The second ROWP who attended and thawed the pipes had concerns about whether any draining back to the pump chamber was occurring but also had no other information to use when carrying out the work.

The ROWP's tardiness in responding to the property owners also extends to communication with ASTTBC, preventing staff from completing the investigation in a timely manner and further frustrating the property owners who wish to resolve this problem. The ROWP's behaviour could be viewed as acting without integrity towards the client, contrary to Principle 4 of the Code of Ethics, and is certainly not cooperating with ASTTBC on this investigation.

The turning away of the ROWP's employee was not intended to frustrate the ROWP's efforts to rectify the problem so much as concern that it might lead to frustrations between the employee who reportedly arrived unannounced and without equipment to deal with problems, and the second ROWP attending shortly who was bringing equipment to deal with several possible problems. The property owner did not want to see this turn into a dispute between the two parties.

For this reason, a Practice Assessment should be undertaken before any further recommendations are made, especially on all documents surrounding this system.

OUTCOME

The Practice Review Board required the ROWP to immediately:

- provide ASTTBC all requested documentation to complete the investigation, and
- submit to a Practice Assessment.

The Manager, Onsite Wastewater Registration Program visited the property and inspected the onsite sewage system. A number of concerns were identified and brought to the ROWPs attention during a Practice Assessment held the following day, and the ROWP agreed repairs to the system were in order. The ROWP voluntarily made these repairs and the property owners sent a letter to ASTTBC stating they were pleased with the repairs and had no other concerns.

The ROWP has also successfully completed a Practice Assessment and is continuing to make numerous improvements to practice as was identified through this process. No further action is warranted, the ROWPs membership was reinstated and the file was closed.

CASE #10-30

STATEMENT OF COMPLAINT

A ROWP is alleged to have filed a Letter of Certification for an onsite sewage system where the Filing was issued more than two years previously (which is the date of Filing expiry) and the Letter of Certification was filed more than thirty days after the installation was completed. These two concerns are violations under the Sewerage System Regulation (SSR).

The ROWPs tardy submission of the documents appear to be evidence of acting without integrity to clients and Health Authority staff, contrary to Principle 4 of the Code of Ethics.

BACKGROUND

The ROWP was retained by a property owner to plan and install an onsite sewage system. Health Authority staff received a LOC from the ROWP dated February 23, 2010 that indicated the system was installed on March 8, 2008. A Filing is only kept open by a Health Authority for a period of two years and closed when no LOC is received within that time period. Further, an LOC must be submitted to the Health Authority for inclusion in the Filing within thirty days. As the LOC was submitted almost two years after the installation was completed and two months after the Filing expired, HA staff informed the ROWP of this as well as ASTTBC.

INVESTIGATION

ASTTBC staff contacted the ROWP by letter advising of the HA's concerns and requesting a response to these allegations. A response was received by ASTTBC staff from the ROWP who sincerely apologized, stating the file was misplaced and due to being very busy, the matter was overlooked.

The ROWP points out ROWP status is an important part of the business and understands “the value of it. I can assure you I will not let this happen again.”

DISCUSSION

The ROWP readily admits an oversight was made that caused documents to be delayed from being submitted in the required time period and the apology appears very sincere. The ROWP states this will not happen again and this is reportedly a single event, asking the PRB to take this into consideration.

Based on the circumstances, a Practice Assessment may be of value to ensure the ROWP has put measures in place to prevent such problems in the future, as well as provide recommendations for any other measures to help overall.

OUTCOME

The Practice Review Board required the ROWP to submit to a Practice Assessment, which was successfully completed. No further action is necessary and the file was closed.

CASE #10-32

STATEMENT OF COMPLAINT

That a ROWP planned an onsite sewage system that deviated from the Standard Practice Manual’s critical standards and did so without Professional oversight or consultation.

BACKGROUND

ASTTBC staff was contacted by several ROWPs who observed the installation of an onsite sewage system in the front yard of a residence. As this system is located next to a busy municipal road, the ROWPs were able to clearly observe features of the system that appeared to be less than the required setback distances listed within the SPM. Photos were also provided as further demonstration of their concerns.

INVESTIGATION

Based on this information, ASTTBC staff attended the site and from the roadway confirmed that the concerns appeared legitimate. An excavator on the site gave a clue as to a particular ROWP involved and when contacted, the individual admitted to being the Installer, but that another individual was the ROWP Planner.

During the conversation with the Installer, ASTTBC staff was advised that several setbacks were reduced but that the site was very challenging to begin with and the Installer understood the Planner to be a Professional which was why the Installer didn’t challenge the plan. A repair was necessary due to the breakout of wastewater that caused the Health Authority to issue an Order for repair, however the small lot had a well situated in manner that limited the front yard as the only area for the dispersal area. Normally a seven and a half meter setback is required to a break-out point or downslope drainage system, but the Installer indicated it was around six to six and a half meters between the foundation of the home to

the edge of the dispersal area and approximately the same distance again to the drainage ditch running along the front of the property. The Installer also mentioned the soils were clay, common for the area.

ASTTBC staff sent a letter to the ROWP Planner advising of the concerns and asking for clarification on various aspects of the planning. The ROWP Planner responded and admitted to planning the repair as a Type 2 system using a package treatment plant with a pressure distribution system, then provided details of the site conditions, soil evaluations, permeameter tests, calculations of the distribution dosing requirements, and similar information.

During a review of the information provided, several items of concern were identified. Under section 2.1.2 of the SPM, the critical setback reduction would require a Professional, or be done under the supervision of a Professional, be supported by reference to authoritative, peer-reviewed sources relevant to the climate and soils to where this system was being installed, and with the Authorized Person's assurance that the system will function within the environment equal to or better than would be achieved under the SPM. The Filing states the system was planned according to the SPM standards, there were no letters or reports by a Professional to confirm the reduction in setback was appropriate, nor any rationale explaining the reasons for this particular design.

The orifice spacings were four feet apart, double that recommended by the SPM, the squirt height should be at least five feet although the ROWP Planner indicates both three feet and elsewhere in the documents eleven feet, dosing volumes appeared much lower than they should be, no float setting or run time details are specified for dosing, and other similar items are missing as well.

The ROWP Planner was sent a letter regarding the concerns raised during the initial review. The ROWP Planner responded. Due to the clay based soils, vertical separation was limited. The wider orifice spacing was made possible using the particular package treatment plant the ROWP Planner specified and cited "thereby creating Air Return North to South between the sand particles." Further comments that "the field situated on the North side of the house which minimizes air movement from the Southeast prevailing winds. Ultra violet sunlight is also affected due to the required receiving area position." For more information, the ROWP Planner refers to a book and provides some photocopied pages for reference.

For the repair "we recommended a light tank/time dosed robust system scenario versus a heavier type 3 concrete tank or docile system based on urgency, weather and time of year."

"Regarding Vertical Separation-We have never believed in covering topsoil to meet the SPM or to develop property. As per Design Specification Note 4 and grading note below Bed Section up to 45 cm topsoil and soil were removed to provide a positive grade."

The "Residual 3 Feet" information on the squirt height was an oversight and admits this error as was volume per dose, however the ROWP Planner points out that the actual dose volume size "is set by the Treatment Plant Manufacturer" and is not a volume that the ROWP Planner can or does adjust specific to the SPM requirements. The addition of a trash tank, not shown on the original plan, was also an oversight but would be added to the as-built drawings.

Upon further review of these new comments by the ROWP Planner, several concerns surfaced. The rationale behind the wider orifice spacing is highly unusual and contrary to planning course content and concepts being taught. The comments about Vertical Separation ignore the definition and purpose of this concept, suggesting a lack of understanding. Suggesting the appropriate dosing of the dispersal system needs to be set around what the treatment plant's manufacturer product produces rather than what the

dispersal system requires is also contrary to the SPM and training provided to ROWPs. Even suggesting that the historical use of the treatment plant and no past history of problems with the ROWP's design of seepage bed dispersal areas as sufficient for ignoring the SPM is concerning. Further, the ROWP Planner provided no further comments on the issues regarding critical setbacks not being met.

ASTTBC staff contacted the Installer to arrange for a visit to the site with the homeowner's consent. During the visit, the Installer explained, in detail, aspects behind the design that were still unclear after reviewing the ROWP Planner's most recent response. The Installer confirmed that the dispersal area is a cross between a mound and a seepage bed with the bottom (basal) area having topsoil removed as per the ROWP Planner's description. Underlying soils were very much a silt/clay type with poor drainage qualities based on what the Installer has seen elsewhere through the area after installing other systems in the past.

Sand used to create the bed tapers towards the home on the south and the drainage ditch to the north. From the nearest edge of the trench walls, the distance to either breakout point is almost exactly six meters, not the seven and a half meter minimum requirement. The amount of sand was at least two feet deep but there was little "soil" before reaching a limiting or restrictive layer.

One particular item of concern noted during the visit was a drainage pipe crossing underneath a portion of the dispersal area and discharging to the drainage ditch along the road. New drain rock was noted in a trench running south of the dispersal area, parallel to the west side of the home. When the Installer was asked about this drainage system, it was confirmed that a perforated pipe surrounded by drain rock was present to pick up surface water from the rear and west side of the property. The section traveling under the dispersal area is also a perforated pipe with new drain rock surrounding it. This pipe was checked and cleaned, then re-bedded in fresh drain rock with the reported knowledge and consent of the ROWP Planner.

The ROWP Planner claims to not be aware that perforated pipe and drain rock was used under the dispersal area and did not direct the Installer to do so. The ROWP Planner then attended the site with the Installer and was directing corrective action to abandon the existing drainage pipe and have a new non-perforated pipe system installed around one side of the dispersal area along with other measures to prevent the capture of water within the dispersal area.

DISCUSSION

The ROWP Planner's Filing contains a variety of errors in calculations and admits to those when they are pointed out. More concerning are aspects of planning related to duties, limitations and some fundamental understanding of the SPM and the role of a Planner. The explanation that the ROWP Planner could deviate on critical standards without the involvement of a Professional was based on the belief that this was permitted because of what was said during a seminar on using version 2 of the SPM.

The ROWP Planner describes the planning of dosing for dispersal systems by the volume per dose from the treatment plant. This suggests a misunderstanding regarding dosing. Flow rates, orifice spacing and even sizing of the dispersal area are in question with this system. There is also no design rationale to help understand why a particular system type and size was selected even though it is expected as described under the administrative section of the SPM. There are also a number of terms used throughout the ROWP Planner's correspondence that are not common to the SPM or training programs within BC and make most of the documentation confusing and difficult to understand.

Re-attending courses would appear the most appropriate step to ensure a solid foundation of planning skills is in place as well as describing soils in more accurate detail. As for the existing system with reduced critical setbacks, a Professional should be retained by the ROWP Planner to review all details of the system design and a signed report advising that the system will not cause or contribute to a health hazard should be attached to the Filing held by the Health Authority as well as a copy provided to ASTTBC for review.

OUTCOME

The Practice Review Board required the ROWP to:

- successfully complete the WOWTC courses PLAN201 and PLAN 204 (or equivalent acceptable to the Manager, OWRP) as a review of fundamental duties and responsibilities expected of all planners, and
- arrange at the ROWPs expense for a qualified Professional to review the entire design of the onsite sewage system and provide verification by letter that the system will not cause, or contribute to, a health hazard.

The ROWP agreed to this, no further action was necessary and the file was closed.

CASE #10-38

STATEMENT OF COMPLAINT

A ROWP planned and installed an onsite sewage system that had numerous deficiencies, which may be causing water or wastewater to escape onto another property.

If these allegations are true, the actions by the ROWP may be contrary to Principle 1, 2 & 3 of the ASTTBC Code of Ethics.

BACKGROUND

A ROWP planned and installed a new onsite sewage system for a property owner who was constructing a substantial addition to a home. The sloped property was identified as having seasonal water table concerns and other factors that resulted in a raised sand mound system being installed.

The complainant resides on a neighbouring property and claims seepage of water down the slope from the area on or around the mound is entering his property, especially after periods of rainfall. The complainant is concerned that this seepage may contain wastewater and therefore could pose a health risk, but also raises concerns over numerous aspects of the installation based on the complainant's knowledge of installing wastewater systems in Ontario some years ago.

INVESTIGATION

ASTTBC staff contacted the Health Authority who confirmed they had been aware of the complainant's concerns for more than a year and had attended the site on multiple occasions to conduct dye and other

tests to determine if wastewater is escaping the newly installed wastewater system. No evidence was found that any breakout, diversion or escape of wastewater is occurring and they are satisfied no health hazard is or has occurred.

In the opinion of the Environmental Health Officer, drainage from areas upslope of the property is not related to the new system and was occurring long before the new system was installed. The EHOs reviewed all documents associated to the new system and examined aspects of the installation with no concerns found. They also indicated this may be part of a larger ongoing neighbour dispute.

ASTTBC staff contacted the ROWP who stated there appears to be a neighbour dispute that had started in soon after the owner purchased the property. Reportedly the property owner found the complainant had cleared trees and shrubs beyond the property line and installed a shed onto the owner's property. This continued with complaints by the complainant towards the local building department and eventually to the Health Authority, as soon as the new onsite sewage system was being constructed. The property owner provided ASTTBC with a list of events since the purchase that details the dispute further, confirming the onsite system is but one of many matters raised.

ASTTBC staff attended the site and did not observe any flows of water or other items of concern. The complainant was provided an opportunity to respond to the ROWPs rebuttal and, with more than a month passing, no further challenge of the ROWP's response was forthcoming.

DISCUSSION

The ROWP describes a continual attempt to improve all aspects of the business and sought any assistance from ASTTBC that was available. After such assistance was provided, the ROWP admitted some additional improvements to documentation and business practices would be made, however ASTTBC staff found nothing within the original documentation that was seriously concerning or missing.

The complainant's list of concerns in part appears to stem from an understanding of planning and installation methods used previously in Ontario. However, a review by ASTTBC staff of a training manual used by onsite system installers in Ontario found areas where misunderstandings can occur and may be in part responsible for the complainant's concerns. Of greater concern is the possibility that the complaint was frivolous and malicious in nature against the property owner through the ROWP, but insufficient evidence of intent by the complainant prevents raising this beyond a suspicion.

Based on the information to date, there is no evidence to show the ROWP breached any part of the Code of Ethics and no further investigation or disciplinary action is warranted.

OUTCOME

The Practice Review Board determined that since there is no substantiated evidence, no further action is required and this file was closed.

CASE #10-46

STATEMENT OF COMPLAINT

A ROWP planned and installed a lagoon that is substantially larger than necessary resulting in unnecessary costs.

As this matter may relate to business practices and duty to client, this may be contrary to Principle 4 & 5 of the ASTTBC Code of Ethics.

BACKGROUND

The complainant retained a ROWP to construct a lagoon “as small as possible” and “take into consideration the amount of rainfall and the evaporation rate” when designing a system for a proposed four bedroom home. Upon completion, the complainant states to ASTTBC that “some of your employees from the (Health Authority) Health inspected it. They commented that they had never seen such a large lagoon and took pictures.”

The complainant was further led to believe by Health Authority staff “that the contractor could apply for a variance, and I personally told (the ROWP) this information prior to the installation. I am very angry and upset that (the ROWP) did not downsize this lagoon when (the ROWP) had absolutely no reason to make it so large.” When presented with an invoice the complainant stated “this in itself was extreme and unreasonable. Now we are stuck with a huge eyesore that was very expensive and unnecessary!”

INVESTIGATION

ASTTBC staff contacted the ROWP who provided both a written statement as well as verbal information in a subsequent phone call. The ROWP demonstrated diligence through thorough site and soil assessment and in reviewing the owner’s declaration of usage. The plan clearly shows the size of the system followed the Standard Practice Manual for lagoon design and that this particular lagoon is similar in all respects to other lagoons constructed in the area for other residences. The ROWP confirms that not only the location of the lagoon prior to construction but also the proposed costs were discussed, so is unclear why the complainant appears surprised about the invoice for the work.

This response was forwarded to the complainant who then admitted to not having a complaint with the ROWP, but with ASTTBC over “our guidelines” with other references to suggest legislation around sewerage systems is under the control of ASTTBC. The complainant further states “I was under the misrepresented impression from your office that (the ROWP) could have downsized the lagoon. You have stated this was not the case, and for that I apologize to (the ROWP).”

Further in the complainant’s letter is the concern that minimal water in the lagoon due to the dry summer may result in a freezing condition to the inlet pipe of the lagoon come the winter months. “What I am requesting is a solution from you that will correct the problem.”

DISCUSSION

During a discussion with ASTTBC staff, the complainant was informed that provincial regulations are set by a Provincial Ministry, not ASTTBC. ASTTBC also does not have staff or an office in (...). Health Authority staff are not part of ASTTBC, and some of the information the complainant received from a party possibly connected with the Health Authority regarding a variance was incorrect or misunderstood.

The ROWP had volunteered to immediately re-attend, determine if any problem with the lagoon was affecting wastewater retention, and undertake any corrective action to resolve the complainant's concerns. The ROWP also stated that while it is normal practice to use estimates and other means to inform clients of the proposed work and costs, the ROWP will review this and discuss any additional improvements with ASTTBC staff.

In review of the documentation and action by the ROWP, no evidence of a contravention of the Code of Ethics was found.

OUTCOME

The Practice Review Board determined that since there is no substantiated evidence, no further action is required and this file was closed.

CASE #10-60

STATEMENT OF COMPLAINT

That a ROWP misrepresented themselves as a ROWP Maintenance Provider when the registration is for Planner and Installer only.

Undertaking work outside of one's training and experience would be contrary to Principle 2 & 3 of the ASTTBC Code of Ethics.

BACKGROUND

An Environmental Health Officer received a Letter of Certification from a Professional for an onsite system. Within the Final Filing documents created by the Professional was an Operation & Maintenance Plan listing an ROWP Maintenance Provider.

Upon examining the ROWPs registration categories, the EHO determined that the ROWP was not a Maintenance Provider listed on the ASTTBC website, and confirmed this with ASTTBC staff. The EHO then provided a letter of complaint to ASTTBC advising of these circumstances.

INVESTIGATION

ASTTBC staff contacted the ROWP who was aware of the complaint. The ROWP described that this was evidence of an attempt to gain experience in conducting maintenance of onsite systems and was going to do so under the supervision of the Professional who wrote the Operation & Maintenance Plan. The ROWP also stated that while completing a maintenance course during the past year, the instructor for the course stated to students in the class that if a ROWP was already registered as a Planner and Installer, they don't need to be a ROWP Maintenance Provider to carry out maintenance. Reportedly, when the ROWP pressed the instructor for clarification on this, the information was reconfirmed.

ASTTBC staff contacted another ROWP who was in the same class to verify the ROWPs statement. This second ROWP described a similar statement from the instructor that conveyed an impression it was

unnecessary for a ROWP Planner and Installer to also obtain Maintenance Provider registration. ASTTBC staff attempted to obtain further information from a representative of the BC Onsite Sewage Association who provided the course, but the call was not returned.

DISCUSSION

During discussions with ASTTBC staff, the ROWP did not convey any intent to contravene the registration category but was under the impression through a BCOSSA instructor that the ROWP was able to undertake such work. The ROWP was further led to believe that the Professional could add the ROWP's name as the Maintenance Provider within the Operation & Maintenance Plan for a system, and agreed to this as a means of gaining experience.

During a discussion with the Professional, ASTTBC staff noticed misunderstandings about roles and limitations of ROWPs that may have contributed to the actions of the Professional in this matter.

The ROWP discussed this issue with ASTTBC staff and has confirmed that all future maintenance work will be done under the supervision of the Professional and the ROWP has now applied for Maintenance Provider status in the correct way.

There is reason to believe that an instructor provided incorrect information to this ROWP and others during a maintenance course that has directly contributed to this complaint, and there is no proof of intent to deceptively obtain or undertake such work. Due to these mitigating circumstances, no further disciplinary action should be taken, however, a letter should be issued cautioning that if the ROWP wishes to pursue the maintenance of onsite systems other than those designed by a Professional, the ROWP should arrange to become registered as a ROWP Maintenance Provider.

OUTCOME

A letter was sent to the ROWP clarifying that if the ROWP wishes to pursue the maintenance of onsite systems other than those designed by a Professional, the ROWP should arrange to become registered as a ROWP Maintenance Provider. The Practice Review Board accepted this matter as resolved, no further action is required and this file was closed.

CASE #10-63

STATEMENT OF COMPLAINT

That a ROWP did not provide a sufficient contract to a client, and did not respond in a timely manner to the client's phone calls, resulting in miscommunication and misunderstandings between both parties over the installation of an onsite sewage system.

These allegations, if true, would be contrary to Principle 4 & 7 of the ASTTBC Code of Ethics.

BACKGROUND

The property owner hired a ROWP to plan and install an onsite wastewater system. The agreement was reached verbally including the monies to be paid to the ROWP for starting the planning work.

As the work involved coordinating with other contractors, the property owner attempted to contact the ROWP by phone on various occasions, however delays in responses reportedly occurred.

To complete the project before weather conditions created further delays or costs, the property owner resorted to using another ROWP for the installation of the system. In so doing, the property owner believed a portion of the money paid to the ROWP was a deposit towards the installation of the system, which would then be an overpayment.

INVESTIGATION

ASTTBC staff contacted the ROWP who stated that while it was normal business practice to have a signed contract with all clients, this was one instance where the ROWP did not take the time to do so. The ROWP refutes the suggestion that the money was a deposit towards the installation and that the property owner was advised it was for planning services only. It was noted by ASTTBC staff that the amount both parties agree was paid is well within the typical fees charged for planning services only, in the majority of the province.

The ROWP admits that clients often have difficulty making contact, however this is due to the limited access to cell phone reception while working in remote areas on long days out in the field. The ROWP indicates that the delays in responding to the property owner's phone calls were minor and they were only a few in the first place, none of which conveyed any urgency in the messages. The ROWP was in contact with the other contractor involved with work on the site and they were coordinating schedules since the ROWP had several other projects underway at that time.

The ROWP's response was provided to the property owner, who disagreed with what fees or charges were to be paid at what point in the work.

DISCUSSION

This dispute appears to begin when the ROWP asked the property owner for monies related to purchasing the materials needed to install the system. The property owner begins to mistrust the ROWP, which escalates to a point the ROWP cannot regain the confidence of the client, and another Installer is hired by to complete the project. Any difficulties in contacting the ROWP while out of communication during the day compounded matters further.

The ROWP is now aware of why it is important to insist on a written contract for both the planning work, as well as a separate one for the installation, to avoid misunderstandings between parties.

During a Practice Assessment with ASTTBC staff undertaken at the time of this investigation, the ROWP produced examples of contracts along with various other documents to show significant improvements to business practices in many areas. Filing documents were thorough and detailed, CAD is used for drawings, soil logging is thorough and photographing the site as part of documentation for planning, demonstrated care and attention beyond what many ROWPs are found to be doing.

The ROWP has also recently completed additional courses to update knowledge and skills to undertake work as a ROWP. There appears to be no value in applying additional requirements for training and the Practice Assessment, completed this Fall, found no other concerns to be addressed. The ROWP admits to making a mistake, takes full responsibility, and has made efforts to prevent such actions in the future. The

ROWP also is aware that the property owner may seek to take legal action due to the dispute over monies paid. Under these circumstances, no further action is warranted.

OUTCOME

The Practice Review Board issued a letter to the ROWP pointing out the value of proper contracts as a means to reduce liability to both the ROWP and the client, and to encourage the ROWP's efforts to improve business practices. Since a Practice Assessment has shown that practice improvements have already been made, no further action is required and the file was closed.

CASE #10-68

STATEMENT OF COMPLAINT

That a Onsite Wastewater Trainee (OWT) arranged for and used a fraudulent stamp made in the likeness of that issued to Registered Onsite Wastewater Practitioners (ROWPs) and submitted Filing documents with this stamp to a Health Authority.

If true, this would be in violation of principle #3 of the ASTTBC Code of Ethics.

BACKGROUND:

ASTTBC staff were contacted by an Environmental Health Officer when a suspicious Filing was submitted by the OWT. The Filing documents contained both a stamp from a Professional as well as one bearing the likeness of those issued by ASTTBC to ROWPs except the reference to "Practitioner" was replaced with "Trainee".

Having not seen such a stamp before, the EHO enquired with ASTTBC staff and was advised that Trainees are not issued stamps as they are not Authorized Persons. Only once they meet the registration requirements to become an ROWP are they issued stamps acknowledging their categories of registration.

INVESTIGATION:

ASTTBC staff attended the residence of the OWT to discuss this matter. The OWT claimed to have not registered the Filing, but dropped it off on behalf of the Professional that had been hired to mentor the OWT for this site and several others.

The OWT became an Onsite Wastewater Trainee approximately three years ago and had a number of clients wishing to engage the OWTs services for the planning and installation of onsite sewage systems throughout the area. However, the OWT was unable to find any ROWPs willing to provide mentoring and was beginning to loose clients as a result. The OWT retained the services of several Professionals but it was the OWT who did the planning work in order to gain the experience, then had the Professionals review and submit the Filings under their stamp.

Through this process the OWT was concerned about not being able to demonstrate proof of the planning work done and, therefore, was at risk of not being able to demonstrate experience to the Onsite Wastewater Registration Board.

The OWT went to a stamp shop and asked that a stamp be made up in the likeness of that issued by ASTTBC for ROWPs but that the wording should be altered to state Trainee rather than Practitioner. The stamp was used by the OWT only a few times before it caught the attention of the Environmental Health Officer and it was only used as a “co-sign” on documents where the Professional was involved. The OWT carefully did not claim to be a ROWP at any time but wanted to show an affiliation with ASTTBC for the purpose of obtaining recognition and becoming a ROWP.

The OWT immediately surrendered the stamp to the ASTTBC Investigator and apologized profusely.

DISCUSSION:

The OWT’s creation and use of the stamp is in violation of the Onsite Wastewater Registration Board (OWRB) Policy governing the issuance and use of the stamp, but only a ROWP is made aware of this at the time they become registered. As Trainees are not issued a stamp, they also are not provided information on the policy surrounding its use.

The OWT’s intent was only to ensure that proof of experience existed for use toward becoming a ROWP. The examples of the OWT’s planning and installation work were subsequently given to OWRB Reviewers for comment and the Reviewers found sufficient proof of experience that they would recommend to the OWR Board that the OWT be granted full ROWP registration as a Planner and Installer of Type 1 and 2 systems. Several minor misunderstandings were identified within the Filings, however the Reviewers have stated that they are more than willing to provide mentoring and assistance to the OWT to correct these issues. None were serious or concerning in nature that should prevent the OWT from obtaining ROWP status.

The OWT has arranged with the Professional to correct all documents submitted to the Health Authority to show only the Professional responsible for the system, not the fraudulent stamp, and the costs to do so are fully covered by the OWT.

OUTCOME:

The Practice Review Board issued a letter to the Onsite Wastewater Trainee warning against creating, possessing or using any stamp other than one issued by ASTTBC for ROWPs and only under the Onsite Wastewater Registration Board Policies governing the issuance, possession and use of such a stamp.

No further action is required and this file was closed in order that the Onsite Wastewater Registration Board may continue to hear the OWT’s application for ROWP status at the next OWRB meeting.