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RE: BC On Site Sewage Association (BCOSSA) Survey of Registered Onsite Wastewater Practitioners (ROWP)

In June of 2020, BCOSSA engaged the independent services of Discovery Research based in BC to carry out a survey of the currently active ROWPs that are registered under the Applied Science Technologists & Technicians of BC (ASTTBC). The survey contacted 455 current ROWPs and is available for review below.

In summary, the survey reveals that the majority of the active ROWPs accept the onsite wastewater industry administration as set down in the Public Health Act's Sewerage System Regulation. But they have significant concerns as expressed in the comment section of the survey.

The survey also reveals that the survey respondents have concerns over the following key items:

1. Enhanced education and training is needed.
2. Education and training prior to registration / certification to include a formal hands-on, in-the-field training.
3. Almost 30% state that the training is too short.
4. More than 52% suggest a different approach of performance audits to enhance practice rather than an approach of disciplining as they felt attacked by ASTTBC rather than supported by them. The investigation motivation and approach was more disciplinary than instructive.
5. 84% see themselves as tradespersons similar to plumbers or electricians.
6. 56% are over the age of 55

Other overarching observations are:

- (a) 73% successfully completed course delivered by BCOSSA of which 58% were courses taken prior to 2010.
- (b) 74% of respondents were from outside Vancouver Coastal and Fraser Health Authorities.
- (c) 9% of respondents were Northern Health
- (d) 41% of respondents are registered as Maintenance Providers

We recommend that there be consideration given to removing from under the jurisdiction of the Professional Governance Act the technical specialists, ROWPs.

ROWPs receive up to only 2 weeks in-class education and should not be considered Professionals who currently have 3 to 7 years of education and experiential training. ROWPs recognize themselves as tradespersons and should be under a trade's group for registration and monitoring such as *TechBC* for example.

Registered Onsite Wastewater Practitioners 2020 BC Industry Survey

Detailed Report on Findings

Prepared For: *BCOSSA*

Prepared By: *Discovery Research*

Date: *June 2020*

Introduction

In June 2020, BCOSSA conducted a comprehensive survey with British Columbian Registered Onsite Wastewater Practitioners (ROWP's). ROWP's were asked to provide their opinions on the current state of the BC Wastewater Industry. The survey is an important step in the process to include input from ROWP's when government and industry officials make decisions for the upcoming years.

Discovery Research, an independent consulting firm, was retained to conduct the 2020 Industry Survey. The survey was designed so that ROWP's opinions could be easily summarized and prioritized. This report provides detailed results from this year's research.

Methodology

ROWP's were emailed a survey link inviting them to participate. The email invitation and survey can be seen in Appendix 1. In an effort to keep the sponsor of the survey anonymous, the email was addressed from Cale Lewis at Discovery Research on behalf of the BC Wastewater Consortium. BCOSSA did not want to bias responses by disclosing who was sponsoring the research.

		Total	Source	
			Online	Telephone
Are you currently designated as a Registered Onsite Wastewater Practitioner?	Yes	125	109	16
	No	35	30	5
Total		160	139	21

Online:

In total, 456 survey invitation emails were sent to ROWP's around BC. 139 Respondents started the survey but 30 indicated that they were not designated as a ROWP. These 30 did not proceed with the survey.

Telephone:

Potential respondents that did not complete the online survey were phoned and 21 respondents proceeded with the Telephone version of the survey. Five of these 21 were disqualified because they were not designated as ROWP's.

Some Respondents did not complete the entire survey. 4 respondents were disqualified because they did not complete any training courses on Sewerage System Regulations. In the end, we had 100 completed surveys from ROWP's, giving a total response rate of **22%**.

Appendix 2 – Tabular Results

		T total	Age		Region				Training			
			18-54 yrs	55+ yrs	Vancouver Island	Coastal, Fraser	Interior	Northern	BCOSSA Only	WCOWMA Only	Both BCOSSA and WCOWMA	Some Other
Are you currently designated as a Registered Onsite Wastewater Practitioner?	Yes	78%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	No	22%										
T total	Base	160	42	56	31	15	43	9	55	17	15	17

		T total	Age		Region				Training			
			18-54 yrs	55+ yrs	Vancouver Island	Coastal, Fraser	Interior	Northern	BCOSSA Only	WCOWMA Only	Both BCOSSA and WCOWMA	Some Other
The Sewerage System Regulation, under the Public Health Act describes the rules governing holding tanks and on-site sewage systems in BC. Have you heard of the Sewerage System Regulation?	Yes	95%	100%	93%	100%	93%	95%	89%	95%	100%	100%	100%
	No	3%		4%			2%	11%	4%			
	Not sure	2%		4%		7%	2%		2%			
T total	Base	121	42	56	31	15	43	9	55	17	15	17

Base: ROWP's

Please rate your level of agreement with the following statements:

		Total	Age		Region				Training			
			18-54 yrs	55+ yrs	Vancouver Island	Coastal, Fraser	Interior	Northern	BCOSSA Only	WCOWMA Only	Both BCOSSA and WCOWMA	Some Other
I am familiar with the Sewerage System Regulation	Disagree	2%	2%			7%			2%			
	Neutral	6%	2%	7%	6%		7%		4%	6%		
	Agree	44%	40%	50%	32%	47%	51%	67%	58%	41%	20%	24%
	Strongly agree	49%	55%	43%	61%	47%	42%	33%	36%	53%	80%	76%
Total	Base	117	42	56	31	15	43	9	55	17	15	17
The current Sewerage System Regulations allows an Authorized Person to install septic systems without inspection from Health Authorities. This current arrangement works well	Strongly disagree	7%	14%	2%	13%	13%		11%	5%	6%		18%
	Disagree	9%	7%	7%	3%	7%	12%		9%		13%	12%
	Neutral	14%	14%	13%	13%	27%	12%		11%	6%	27%	12%
	Agree	46%	40%	55%	52%	33%	51%	56%	47%	53%	33%	47%
	Strongly agree	25%	24%	23%	19%	20%	26%	33%	27%	35%	27%	12%
Total	Base	117	42	56	31	15	43	9	55	17	15	17
BC Health Authorities do a good job of administering the Sewerage System Regulation.	Strongly disagree	7%	10%	7%	10%		7%	22%	5%	12%	7%	12%
	Disagree	14%	14%	13%	10%	27%	14%		11%	6%	27%	29%
	Neutral	34%	26%	34%	39%	40%	21%	33%	33%	18%	33%	29%
	Agree	39%	45%	41%	35%	27%	53%	44%	45%	59%	27%	24%
	Strongly agree	6%	5%	5%	6%	7%	5%		5%	6%	7%	6%
Total	Base	117	42	56	31	15	43	9	55	17	15	17

Base: ROWPs

		Total	Age		Region				Training			
			18-54 yrs	55+ yrs	Vancouver Island	Coastal, Fraser	Interior	Northern	BCOSSA Only	WCOWMA Only	Both BCOSSA and WCOWMA	Some Other
Have you successfully completed training programs related to Sewerage System Regulations?	Yes	94%	100%	96%	100%	100%	95%	100%	98%	100%	100%	100%
	No	4%		2%			2%		2%			
	Not sure	2%		2%			2%					
Total	Base	116	42	56	31	15	43	9	55	17	15	17

Base: ROWPs

		T total	Age		Region				Training			
			18-54 yrs	55+ yrs	Vancouver Island	Coastal, Fraser	Interior	Northern	BCOSSA Only	WCOWMA Only	Both BCOSSA and WCOWMA	Some Other
Where did you obtain your training?	BCOSSA	73%	69%	77%	84%	67%	70%	67%	100%		100%	47%
	WCOWMA	32%	38%	25%	19%	20%	37%	56%		100%	100%	12%
	Other	16%	17%	16%	32%	27%	5%					100%
	Not sure	3%		5%	3%		5%					
T total	Responses	132	52	69	43	17	50	11	55	17	30	27
	Base	107	42	56	31	15	43	9	55	17	15	17

Column percentages may exceed 100% because multiple responses given

Did you receive enough education on...

		T total	Age		Region				Training			
			18-54 yrs	55+ yrs	Vancouver Island	Coastal, Fraser	Interior	Northern	BCOSSA Only	WCOWMA Only	Both BCOSSA and WCOWMA	Some Other
Sewerage System Regulations	Yes	90%	88%	91%	100%	87%	81%	100%	93%	88%	93%	82%
	No	10%	12%	9%		13%	19%		7%	12%	7%	18%
T total	Base	107	42	56	31	15	43	9	55	17	15	17
Standard Practice Manual	Yes	91%	88%	91%	97%	87%	84%	100%	95%	88%	93%	82%
	No	9%	12%	9%	3%	13%	16%		5%	12%	7%	18%
T total	Base	107	42	56	31	15	43	9	55	17	15	17
ASTTBC Policy Statement	Yes	85%	90%	86%	94%	87%	84%	89%	85%	88%	80%	88%
	No	15%	10%	14%	6%	13%	16%	11%	15%	12%	20%	12%
T total	Base	106	42	56	31	15	43	9	54	17	15	17
Code of Ethics	Yes	89%	93%	88%	94%	87%	86%	100%	91%	88%	87%	88%
	No	11%	7%	13%	6%	13%	14%		9%	12%	13%	12%
T total	Base	107	42	56	31	15	43	9	55	17	15	17
Commercial Law	Yes	43%	38%	50%	58%	33%	40%	44%	56%	35%		41%
	No	57%	62%	50%	42%	67%	60%	56%	44%	65%	100%	59%
T total	Base	107	42	56	31	15	43	9	55	17	15	17
Contract Law	Yes	49%	52%	52%	58%	47%	47%	67%	62%	41%	7%	47%
	No	51%	48%	48%	42%	53%	53%	33%	38%	59%	93%	53%
T total	Base	107	42	56	31	15	43	9	55	17	15	17
Report writing	Yes	70%	69%	77%	90%	60%	65%	78%	80%	53%	60%	71%
	No	30%	31%	23%	10%	40%	35%	22%	20%	47%	40%	29%
T total	Base	107	42	56	31	15	43	9	55	17	15	17
Your Education Overall	Yes	86%	86%	88%	97%	80%	79%	100%	91%	88%	80%	76%
	No	14%	14%	13%	3%	20%	21%		9%	12%	20%	24%
T total	Base	107	42	56	31	15	43	9	55	17	15	17

		Total	Age		Region				Training			
			18-54 yrs	55+ yrs	Vancouver Island	Coastal, Fraser	Interior	Northern	BCOSSA Only	WCOWMA Only	Both BCOSSA and WCOWMA	Some Other
Was the overall education that you received...	Too short	28%	29%	27%	35%	53%	19%		25%	19%	33%	50%
	Just right	66%	67%	66%	61%	40%	77%	78%	68%	69%	67%	50%
	Too long	6%	5%	7%	3%	7%	5%	22%	8%	13%		
Total	Base	103	42	56	31	15	43	9	53	16	15	16

		T total	Age		Region				Training			
			18-54 yrs	55+ yrs	Vancouver Island	Coastal, Fraser	Interior	Northern	BCOSSA Only	WCOWMA Only	Both BCOSSA and WCOWMA	Some Other
Would you classify your employment as a 'skilled trade' similar to a plumber or electrician?	Yes	84%	83%	88%	87%	73%	88%	89%	87%	94%	73%	75%
	No	11%	10%	11%	13%	20%	7%		9%	6%	7%	25%
	Not sure	5%	7%	2%		7%	5%	11%	4%		20%	
T total	Base	103	42	56	31	15	43	9	53	16	15	16

		T total	Age		Region				Training			
			18-54 yrs	55+ yrs	Vancouver Island	Coastal, Fraser	Interior	Northern	BCOSSA Only	WCOWMA Only	Both BCOSSA and WCOWMA	Some Other
Which of the following 3 categories of Registered Onsite Wastewater Practitioner (ROWP) did you originally make an application for?	Installer	85%	83%	89%	77%	87%	91%	100%	89%	100%	73%	75%
	Planner	81%	71%	88%	81%	67%	86%	78%	75%	100%	93%	69%
	Maintenance	41%	40%	39%	55%	33%	33%	33%	49%	19%	33%	38%
	None	2%		2%		7%					7%	6%
T total	Responses	215	82	122	66	29	90	19	113	35	31	30
	Base	103	42	56	31	15	43	9	53	16	15	16

Column percentages may exceed 100% because multiple responses given

		Total	Age		Region				Training			
			18-54 yrs	55+ yrs	Vancouver Island	Coastal, Fraser	Interior	Northern	BCOSSA Only	WCOWMA Only	Both BCOSSA and WCOWMA	Some Other
What year did you receive your ROWP status?	2005 or before	33%	12%	52%	42%	20%	40%	11%	45%		27%	38%
	2006	6%	5%	7%	3%	13%	5%	11%	8%	6%	7%	
	2007	8%	7%	7%	6%	7%	5%	22%	9%	6%	13%	
	2008	1%	2%			7%						6%
	2009	4%	2%	5%	3%	7%	5%		6%		7%	
	2010	6%	10%	4%	6%		7%	11%	2%	13%	7%	6%
	2011	5%	7%	4%	10%		5%		6%			13%
	2012	4%	5%	4%	6%	13%			4%			13%
	2013	4%	5%	4%	6%	7%		11%	6%			6%
	2014	5%	5%	4%	3%	7%	2%	11%		19%	7%	6%
	2015	3%	2%	4%			2%	22%		13%	7%	
	2016	6%	10%				9%		6%	13%	7%	
	2017	4%	7%	2%		13%	5%		2%	13%	7%	
	2018	2%	5%		3%		2%		2%	6%		
	2019	3%	7%		3%	7%	2%		4%	6%		
	2020	1%	2%		3%							6%
	Not sure	7%	7%	5%	3%		12%		2%	6%	13%	6%
Total	Base	103	42	56	31	15	43	9	53	16	15	16

		Total	Age		Region				Training			
			18-54 yrs	55+ yrs	Vancouver Island	Coastal, Fraser	Interior	Northern	BCOSSA Only	WCOWMA Only	Both BCOSSA and WCOWMA	Some Other
Approximately how long was it between your original ROWP application and when you received your actual certification?	Less than 2 weeks	4%		7%	3%		7%		8%			
	3-4 weeks	10%	7%	11%	13%	7%	7%	11%	8%	6%	20%	6%
	1-2 months	14%	14%	13%	13%	13%	12%	22%	13%	19%	7%	19%
	3-4 months	8%	7%	9%	6%	20%	7%		6%	13%	7%	13%
	5-6 months	9%	12%	7%	6%	20%	5%	22%	8%	6%	7%	19%
	7-12 months	12%	14%	9%	13%	7%	14%		15%	19%	7%	
	1 year or more	10%	7%	13%	19%	7%	5%	11%	11%		13%	13%
	Not sure	35%	38%	32%	26%	27%	44%	33%	32%	38%	40%	31%
Total	Base	103	42	56	31	15	43	9	53	16	15	16

		Total	Age		Region				Training				
			18-54 yrs	55+ yrs	Vancouver Island	Coastal, Fraser	Interior	Northern	BCOSSA Only	WCOOWMA Only	Both BCOSSA and WCOOWMA	Some Other	
Did you receive your ROWP status through transferring from outside of BC?	Yes	22%	33%	13%	16%	33%	21%	22%	2%	88%	20%	25%	
	No	78%	67%	88%	84%	67%	79%	78%	98%	13%	80%	75%	
Total		Base	103	42	56	31	15	43	9	53	16	15	16

		T total	Age		Region				Training				
			18-54 yrs	55+ yrs	Vancouver Island	Coastal, Fraser	Interior	Northern	BCOSSA Only	WCOWMA Only	Both BCOSSA and WCOWMA	Some Other	
Which province did you transfer from?	AB	87%	93%	71%	40%	100%	100%	100%		100%	100%	75%	
	ON	9%	7%	14%	40%				100%			25%	
	NFLD	4%		14%	20%								
T total		Base	23	14	7	5	5	9	2	1	14	3	4

Base : Received ROWP from transferring from outside of BC

Please rate your level of agreement with the following statements:

		T total	Age		Region				Training			
			18-54 yrs	55+ yrs	Vancouver Island	Coastal, Fraser	Interior	Northern	BCOSSA Only	WCOWMA Only	Both BCOSSA and WCOWMA	Some Other
Certification requirements were explained clearly	Strongly disagree	4%		6%	4%		3%	14%			18%	8%
	Disagree	5%		8%	4%	20%	3%		6%			8%
	Neutral	20%	18%	20%	19%	50%	15%		21%		18%	17%
	Agree	66%	75%	61%	62%	20%	79%	86%	69%	100%	64%	50%
	Strongly agree	5%	7%	4%	12%	10%			4%			17%
T total	Base	79	28	49	26	10	34	7	52	2	11	12
Certification requirements remained consistent and did not change	Strongly disagree	8%	4%	10%	12%		6%	14%	6%		18%	8%
	Disagree	14%	7%	18%	12%	40%	9%	14%	17%		18%	
	Neutral	34%	21%	41%	27%	40%	41%	14%	37%		18%	33%
	Agree	39%	61%	27%	42%	10%	44%	43%	37%	100%	45%	42%
	Strongly agree	5%	7%	4%	8%	10%		14%	4%			17%
T total	Base	79	28	49	26	10	34	7	52	2	11	12
I was treated fairly for certification	Strongly disagree	1%		2%			3%				9%	
	Disagree	8%	11%	6%		20%	9%	14%	8%		9%	8%
	Neutral	15%	11%	16%	12%	30%	12%	14%	13%		9%	25%
	Agree	62%	64%	61%	65%	40%	68%	57%	65%	100%	73%	33%
	Strongly agree	14%	14%	14%	23%	10%	9%	14%	13%			33%
T total	Base	79	28	49	26	10	34	7	52	2	11	12
The overall certification process was reasonable	Strongly disagree	5%		8%	4%		6%	14%	4%		18%	
	Disagree	10%	11%	8%	4%	20%	9%	14%	12%			17%
	Neutral	18%	18%	18%	23%	20%	18%		17%		18%	17%
	Agree	61%	61%	61%	58%	50%	65%	71%	63%	100%	64%	42%
	Strongly agree	6%	11%	4%	12%	10%	3%		4%			25%
T total	Base	79	28	49	26	10	34	7	52	2	11	12

Base: Received ROWP status in BC

		T total	Age		Region				Training			
			18-54 yrs	55+ yrs	Vancouver Island	Coastal, Fraser	Interior	Northern	BCOSSA Only	WCOOWMA Only	Both BCOSSA and WCOOWMA	Some Other
Did you have any experience working with septic systems prior to receiving your certification?	Yes	92%	86%	96%	94%	93%	91%	89%	96%	75%	92%	94%
	No	8%	14%	4%	6%	7%	9%	11%	4%	25%	8%	6%
T total	Base	101	42	56	31	15	43	9	53	16	13	16

Prior to receiving certification, approximately how many septic systems did you help with...

		T total	Age		Region				Training			
			18-54 yrs	55+ yrs	Vancouver Island	Coastal, Fraser	Interior	Northern	BCOSSA Only	WCOWMA Only	Both BCOSSA and WCOWMA	Some Other
Planning	None	16%	24%	11%	6%	33%	21%		19%	25%		13%
	1-4	13%	24%	5%	13%	13%	7%	44%	6%	31%	23%	13%
	5-10	21%	21%	20%	16%	20%	26%	11%	27%	19%	15%	6%
	11-20	13%	10%	16%	16%	7%	12%	22%	10%	13%	8%	25%
	21+	32%	19%	43%	48%	27%	26%	22%	33%	13%	46%	44%
	Not sure	5%	2%	5%			9%		6%		8%	
T total	Base	100	42	56	31	15	43	9	52	16	13	16
Installing	None	9%	12%	7%	6%	20%	9%		4%	19%	8%	19%
	1-4	11%	17%	7%	13%	20%	5%	22%	4%	19%	23%	13%
	5-10	17%	19%	14%	19%	13%	9%	44%	17%	25%	23%	6%
	11-20	19%	17%	21%	10%	27%	26%	11%	23%	13%	8%	25%
	21+	39%	33%	45%	52%	20%	42%	22%	48%	25%	31%	38%
	Not sure	5%	2%	5%			9%		4%		8%	
T total	Base	100	42	56	31	15	43	9	52	16	13	16
Maintenance	None	36%	36%	38%	26%	33%	47%	33%	33%	56%	31%	38%
	1-4	11%	14%	9%	10%	7%	9%	33%	4%	31%	31%	
	5-10	9%	10%	7%	6%	13%	7%	11%	8%	13%	8%	13%
	11-20	6%	7%	5%	3%	7%	7%	11%	8%		8%	6%
	21+	27%	26%	29%	48%	27%	19%		33%		15%	38%
	Not sure	11%	7%	13%	6%	13%	12%	11%	15%		8%	6%
T total	Base	100	42	56	31	15	43	9	52	16	13	16

Base: Worked with septic systems prior to receiving a ROWP status

		T total	Age		Region				Training			
			18-54 yrs	55+ yrs	Vancouver Island	Coastal, Fraser	Interior	Northern	BCOSSA Only	WCOWMA Only	Both BCOSSA and WCOWMA	Some Other
Prior to receiving certification, were you mentored by an ROWP and/or a Professional engineer?	No	48%	26%	64%	42%	60%	49%	44%	52%	25%	54%	56%
	Professional Engineer	36%	43%	30%	48%	20%	33%	33%	37%	38%	31%	31%
	ROWP	32%	52%	16%	32%	33%	30%	33%	29%	44%	31%	31%
T total	Responses	116	51	62	38	17	48	10	61	17	15	19
	Base	100	42	56	31	15	43	9	52	16	13	16

Column percentages may exceed 100% because multiple responses given

Approximately how many septic systems did you receive mentoring for...

		T total	Age		Region				Training			
			18-54 yrs	55+ yrs	Vancouver Island	Coastal, Fraser	Interior	Northern	BCOSSA Only	WCOWMA Only	Both BCOSSA and WCOWMA	Some Other
Planning	None	15%	19%	10%	6%	33%	23%		24%	8%		14%
	1-4	17%	23%	10%	22%	17%	14%	20%	12%	33%	17%	14%
	5-10	37%	39%	30%	44%	33%	27%	40%	36%	42%	50%	29%
	11-20	19%	16%	25%	17%	17%	18%	40%	20%	17%	17%	29%
	21+	8%	3%	15%	11%		9%		8%			14%
	Not sure	4%		10%			9%				17%	
T total	Base	52	31	20	18	6	22	5	25	12	6	7
Installing	None	10%	10%	10%	11%	33%	5%		4%	17%		29%
	1-4	15%	23%	5%	17%		18%	20%	16%	8%	33%	14%
	5-10	37%	35%	35%	39%	33%	27%	60%	40%	42%	50%	14%
	11-20	15%	13%	20%	17%		18%	20%	20%	8%		29%
	21+	17%	19%	15%	17%	17%	23%		16%	25%		14%
	Not sure	6%		15%		17%	9%		4%		17%	
T total	Base	52	31	20	18	6	22	5	25	12	6	7
Maintenance	None	38%	45%	30%	17%	17%	64%	40%	44%	58%	33%	
	1-4	12%	10%	15%	17%		9%	20%	8%	17%	33%	
	5-10	15%	13%	15%	17%	33%	5%	20%	12%	17%	17%	29%
	11-20	10%	13%	5%	11%		9%	20%	16%			14%
	21+	15%	19%	10%	28%	33%	5%		12%	8%		43%
	Not sure	10%		25%	11%	17%	9%		8%		17%	14%
T total	Base	52	31	20	18	6	22	5	25	12	6	7

Base: Received mentoring prior to receiving ROWP status

		T total	Age		Region				Training			
			18-54 yrs	55+ yrs	Vancouver Island	Coastal, Fraser	Interior	Northern	BCOSSA Only	WCOWMA Only	Both BCOSSA and WCOWMA	Some Other
Are you currently a ROWP-Maintenance Provider?	Yes	44%	38%	50%	61%	33%	37%	44%	60%	6%	31%	38%
	No	56%	62%	50%	39%	67%	63%	56%	40%	94%	69%	63%
T total	Base	100	42	56	31	15	43	9	52	16	13	16

Approximately how many systems do you service or maintain that were installed...

		Total	Age		Region				Training			
			18-54 yrs	55+ yrs	Vancouver Island	Coastal, Fraser	Interior	Northern	BCOSSA Only	WCOWMA Only	Both BCOSSA and WCOWMA	Some Other
Before 2005	None	27%	44%	18%	11%		50%	50%	32%	100%		17%
	1-4	7%		11%	11%		6%		10%			
	5-10	11%	13%	11%	5%	20%	13%	25%	13%		25%	
	11-20	5%		7%	5%		6%		6%			
	21+	41%	44%	39%	63%	80%	13%		35%		25%	83%
	Not sure	9%		14%	5%		13%	25%	3%		50%	
Total	Base	44	16	28	19	5	16	4	31	1	4	6
2005 or after	None	7%	6%	7%			19%		10%			
	1-4	11%	6%	14%	5%		13%	50%	13%	100%		
	5-10	11%	19%	7%	5%		19%	25%	10%		50%	
	11-20	11%	13%	11%	11%		13%	25%	13%			17%
	21+	55%	56%	54%	79%	80%	31%		52%		50%	83%
	Not sure	5%		7%		20%	6%		3%			
Total	Base	44	16	28	19	5	16	4	31	1	4	6

Base : ROWP maintenance providers

		Total	Age		Region				Training			
			18-54 yrs	55+ yrs	Vancouver Island	Coastal, Fraser	Interior	Northern	BCOSSA Only	WCOWMA Only	Both BCOSSA and WCOWMA	Some Other
Have you ever been under investigation by ASTTBC as a result of a complaint?	Yes	27%	26%	29%	26%	27%	30%	22%	23%	25%	31%	38%
	No	73%	74%	71%	74%	73%	70%	78%	77%	75%	69%	63%
Total	Base	100	42	56	31	15	43	9	52	16	13	16

Please rate your level of agreement related to how ASTTBC handled your most recent complaint...

		T total	Age		Region				Training			
			18-54 yrs	55+ yrs	Vancouver Island	Coastal, Fraser	Interior	Northern	BCOSSA Only	WCOWMA Only	Both BCOSSA and WCOWMA	Some Other
ASTTBC treated you fairly	Strongly disagree	11%	9%	13%		25%	15%		8%		50%	
	Di sagree	15%	9%	19%	25%		15%		17%		25%	17%
	Neutral	26%	36%	19%	13%	50%	23%	50%	33%	50%		17%
	Agree	33%	27%	38%	25%	25%	38%	50%	33%	50%	25%	33%
	Strongly agree	15%	18%	13%	38%		8%		8%			33%
T total	Base	27	11	16	8	4	13	2	12	4	4	6
It felt like the ASTTBC was attacking you	Strongly disagree	15%	27%	6%	25%	25%	8%		17%			33%
	Di sagree	22%	27%	19%	25%		31%		42%	25%		
	Neutral	19%	18%	19%	13%		23%	50%	8%	50%	25%	17%
	Agree	30%	27%	31%	13%	75%	23%	50%	33%	25%	25%	33%
	Strongly agree	15%		25%	25%		15%				50%	17%
T total	Base	27	11	16	8	4	13	2	12	4	4	6
ASTTBC supported you	Strongly disagree	22%	18%	25%			46%		8%	50%	50%	17%
	Di sagree	22%	18%	25%	25%	50%	8%	50%	33%	25%	25%	
	Neutral	22%	45%	6%	25%	25%	23%		17%	25%	25%	33%
	Agree	22%	9%	31%	25%	25%	15%	50%	33%			33%
	Strongly agree	11%	9%	13%	25%		8%		8%			17%
T total	Base	27	11	16	8	4	13	2	12	4	4	6
ASTTBC adjudicated the complaint fairly	Strongly disagree	7%		13%			15%				50%	
	Di sagree	22%	27%	19%	25%	50%	15%		42%		25%	
	Neutral	26%	36%	19%	13%	25%	31%	50%	8%	75%	25%	33%
	Agree	30%	18%	38%	25%	25%	31%	50%	42%	25%		33%
	Strongly agree	15%	18%	13%	38%		8%		8%			33%
T total	Base	27	11	16	8	4	13	2	12	4	4	6
ASTTBC took the position that you were in the wrong	Strongly disagree	7%	9%	6%		25%	8%		17%			
	Di sagree	22%	9%	31%			46%		25%	50%	25%	
	Neutral	19%	36%	6%	38%	25%	8%		8%	25%		50%
	Agree	33%	36%	31%	38%	50%	23%	50%	33%	25%	25%	50%
	Strongly agree	19%	9%	25%	25%		15%	50%	17%		50%	
T total	Base	27	11	16	8	4	13	2	12	4	4	6
Overall, ASTTBC Practice Review Board ruling are fair and balanced	Strongly disagree	7%		13%			15%				50%	
	Di sagree	26%	18%	31%	38%	25%	15%	50%	33%		25%	33%
	Neutral	26%	36%	19%		50%	31%	50%	17%	75%	25%	17%
	Agree	22%	18%	25%	13%	25%	31%		33%	25%		17%
	Strongly agree	19%	27%	13%	50%		8%		17%			33%
T total	Base	27	11	16	8	4	13	2	12	4	4	6

Base: people who have been investigated by ASTTBC

		T total	Age		Region				Training			
			18-54 yrs	55+ yrs	Vancouver Island	Coastal, Fraser	Interior	Northern	BCOSSA Only	WCOWMA Only	Both BCOSSA and WCOWMA	Some Other
Have you been subjected to a Practice Assessment Review (PAR) by ASTTBC?	Yes	30%	26%	32%	35%	13%	28%	44%	25%	44%	31%	25%
	No	70%	74%	68%	65%	87%	72%	56%	75%	56%	69%	75%
T total	Base	100	42	56	31	15	43	9	52	16	13	16

		T total	Age		Region				Training			
			18-54 yrs	55+ yrs	Vancouver Island	Coastal, Fraser	Interior	Northern	BCOSSA Only	WCOWMA Only	Both BCOSSA and WCOWMA	Some Other
Did you feel that the PAR benefited and supported your business?	Yes	73%	82%	67%	73%	50%	75%	75%	62%	86%	75%	75%
	No	27%	18%	33%	27%	50%	25%	25%	38%	14%	25%	25%
T total	Base	30	11	18	11	2	12	4	13	7	4	4

Base: people that have had a PAR

		T total	Age		Region				Training			
			18-54 yrs	55+ yrs	Vancouver Island	Coastal, Fraser	Interior	Northern	BCOSSA Only	WCOWMA Only	Both BCOSSA and WCOWMA	Some Other
Which of the following age groups do you fall into?	25-34	5%	12%		3%	13%	5%		4%	13%	8%	
	35-44	10%	24%		16%	7%	9%		8%	13%		25%
	45-54	27%	64%		23%	27%	30%	33%	27%	44%	23%	19%
	55-64	31%		55%	39%	20%	30%	33%	31%	19%	46%	38%
	65 years or older	25%		45%	19%	33%	26%	33%	29%	6%	23%	19%
	No response	2%							2%	6%		
T total	Base	100	42	56	31	15	43	9	52	16	13	16

		T total	Age		Region				Training			
			18-54 yrs	55+ yrs	Vancouver Island	Coastal, Fraser	Interior	Northern	BCOSSA Only	WCOWMA Only	Both BCOSSA and WCOWMA	Some Other
In which BC Health Authority do you mainly practice in?	Vancouver Island	31%	31%	32%	100%				31%		31%	63%
	Vancouver Coastal	5%	5%	5%		33%			8%			6%
	Fraser	10%	12%	9%		67%			8%	13%	8%	19%
	Interior	43%	45%	43%			100%		44%	63%	46%	13%
	Northern	9%	7%	11%				100%	8%	19%	15%	
	No response	2%							2%	6%		
T total	Base	100	42	56	31	15	43	9	52	16	13	16

Appendix 3 – Open Ended Responses

Q8a. Where is more training needed related to Sewerage System Regulations?

- Certification
- Hands on training and mentoring
- More formal training is required. Oversight from a qualified person, experienced designer should be required for a minimum training period. Interpretation of the regulations can be difficult without understanding of rationale behind them. The training does not offer any theory on wastewater treatment but provides a stepwise process for untrained persons to take a 3 day training class and then consider themselves to be trained. At minimum designers should be civil technologists or Engineers.
- None
- None
- None
- Type 2&3 systems
- Understanding the SPM

Q8b. Where is more training needed related to the Standard Practice Manual?

- How to use it
- Interpretation
- Navigation & what it all means
- None
- Old systems, Repairs, Wells and old systems
- There are too many jokers and 'grandfathered' or 'grandmothered' old boys that simply do not follow the rules. It's ridiculous. Tank sizing and required pumping configurations (time dose with alarm reserve and working volume) are never achieved by a large percentage of these idiots out there.
- When version 3 came out, we had a mandatory training session that was absolute nonsense.
- We are a professional reliance based industry that quite frankly sucks.
- Type 2&3 systems

Q8c. Where is more training needed related to the ASTTBC Policy Statement?

- A Detailed pressure distribution, dosing, micro dosing, and lineal loading applications
- don't care
- Health Authority filing procedures
- Need printed copies
- None
- Technical and administrative
- They read it and that's it.
- Training is required as there is none

- What it is and how do new practitioners become certified. How is the interprovincial certification managed

Q8d. Where is more training needed related to the Code of Ethics?

- Don't know
- It is read and you are told to follow and abide. Most persons never get their work reviewed or checked.
- Keep it simple instead of 50 pages for 2 facts thanks
- None
- Simplified
- Training required as there is none
- Whatever is needed to make people follow the Standard Practice Manual (V3) and simply design accordingly. Rationalize departures and quit being old school idiots ripping off clients and their own business from profits of installing properly sized onsite sewerage treatment systems.

Q8e. Where is more training needed related to Commercial Law?

- All
- An introduction and overall review
- basic overview how to ensure clients and providers are protected
- BCOSSA doesn't cover it well, took additional training elsewhere
- Contracts; liability after work is complete; types of insurance needed
- Contracts, agreements, forms
- Did not cover commercial systems in much detail
- didn't do much before 2005
- don't care
- Don't really think this matters to me.
- We have contracts with work proposals and budgets along with all the disclaimers and other stuff wrapped up tightly before anything happens.
- Don't remember talking about Commercial Law.
- Everywhere, i am not sure of any commercial law training available for ROWP's.
- How does the law relate to what I do
- how it pertains to sewage
- I don't want more law training. It's for lawyers
- Laws change yearly brief notices would be great
- Liabilities
- liability
- Liability and contracts
- More from ASTTBC
- More specific examples
- more training is needed
- My training took place in 2005, there was limited information on the legal component of wastewater contracting. I prepared a document style contract for the septic systems that I installed, as a result I never had any legal problems. I'm pretty sure the teaching establishments cover the legal aspect better now.

- need better understanding of regulations
- need to more about contract responsibility of contractor, client, how to create contract
- No information was given
- None
- Not sure
- Not sure
- not sure
- not sure
- not sure but quite sure I haven't got any training on it.
- Not sure much at all was covered on this
- Not sure to understand the question here...
- not sure, not sure what it is
- Planning courses
- probably a seminar at a conference would suffice
- protection
- separate course, mandatory, by a regulatory body
- Short Course would be good
- there is no training
- This isn't really a wastewater training topic, more a business studies thing
- This was not discussed that I recall
- Unknown
- Unsure
- Unsure
- We do commercial stuff
- What does commercial law have to do with Wastewater Design and installation? Poor question.

Q8f. Where is more training needed related to Contract Law?

- A form, contract example is provided but many people don't understand the importance of having the contract. It is not emphasized. The contract does not include terms of length for liability insurance coverage.
- All
- All, More in depth training
- An introduction and training on relevant factors relating to being an ROWP
- Be good to have some for contracts I give residential clients
- Better examples in relation to contracts between installers, designers and clients. Less legalese and more easy to understand contracts.
- Contract help
- don't care
- general guidelines
- How does contract law protect me from my customers being unreasonable. What is unreasonable?
- How to right proper contracts that relate to the type of work done
- How to write a good clear simple contract that the people will read and understand.
- Installer and planners
- Liability
- More details around creating meaningful contracts and the reason for it
- More from ASTTBC

- More Training is n needed
- Need more training
- none
- not much in training before 2005
- not sure
- Not sure
- not sure
- nothing much was covered on this topic
- overall contract law training
- protection
- same
- same
- Same as above
- Same as as commercial law
- Same as commercial law, i do not know of any training available to ROWP's for contract law.
- separate course, mandatory by a regulatory body
- setting out contract specifics and templates
- Short course would be good
- short lesson on contract writing
- some people who have not done any estimating or starting there first business
- there is no training
- Unknown
- Where it is applicable to contractors

Q8g. Where is more training needed related to Report Writing?

- A sample of reports that make the paper pushers happy would be helpful as long as the paper-pushers are administrating the recording. You could get an old ROWP with some experience going through the records.
- Admin
- All, Provide examples etc
- An example is given. It is poor.
- Better samples to follow
- everybody does it different
- Formats
- More education on how to report write, tools to use and use of proper language etc. Having someone available to mentor you through this process
- More time should be spent in class on related issues an ROWP would come across
- More training is needed
- no where
- none
- none
- not sure
- Received no training on report writing.
- same
- The examples were helpful
- the structure of what a report should be in built form; existing systems

- There is a competency guideline that lists terminology and phrases to be used.
- If 'reports' is being used to encompass the paperwork that will accompany a filing of a new system, an inspection for a real estate transaction or routine maintenance and monitoring, then I think there is a definite need of training.
- This will take me back to my point above that we all just need to read the SPM better and get this shit done properly.
- There is currently nothing
- Unsure
- Would like to have gone into more detail and examples to walk through situation from start to end

Q29. Do you have any suggestions how to improve the certification process or ways to improve ASTTBC? Or any other comments.

- **54% did not have a suggestion**
- Although I have mentored some who have chosen this path, I do not think any have made it through based on ASTTBC not contacting me regarding any of the applicants.
- Through the course of my career of which I have attended many annual conferences throughout the years, there has always been a general feeling that more MP's are needed. I would expect that rural area municipalities may soon move to mandating septic maintenance, if this happens there will most certainly be a shortage of MP's. I am currently mentoring an individual who has lots of experience in city wastewater and wants to be involved with on-site wastewater. Based on his comments it sounds like a very arduous process. In my opinion it would be beneficial if more MP's could get through! Just saying :)
- ASTTBC accesses us and possibly removes one of your abilities and then do nothing to help you get it back. I have my planner removed because they did not like my paperwork and have done nothing to help me get it back. And when I ask them for help or what they want from me. I have got NO answers. Still waiting on them for over 2 Years. They want us to be PROFESSIONALS. We are very hard working people. They really do not have anyone to help with ROWPs
- Can be challenging to find a mentor in rural areas, because once certified, practitioner will be competition, unless planning to take over business, work for established company
- Eliminate ASTTBC
- Get rid of it
- Have 2 employees trying to get certification, mentored by myself (certified ROWP) and a geo-technician, but were denied certification because they did not submit pictures of them doing the install, they passed exam.
- Regulations are too rigid, don't work for every site, but impossible to meet regulation requirements as they are now. Do not allow for new technology.
- Have a designated person that we can call if we have questions about design, installation, and or maintenance.
- Having mentors who will become your competition is a hard thing to come by in smaller areas.
- Home owner installation should not be allowed because they have no training. Killing the industry
- I believe that there is a lot of redundancy in the certification process - there was a lot of redundancy in the web application process when writing down all educational and in-field experiences. The EOCP certification process is much much easier and streamlined as oppose to the ASTTBC process. The ASTTBC website is clunky and some of the online exam instructions are not specific. Also, the ASTTBC should also examine a person's education with regards to

whether it is transferable or not i.e. a person with a diploma/degree should be assessed differently from a person with a high school diploma. This would be course dependent i.e. a person with a diploma in Social Work or B.A. may not have courses applicable as compared to a person with a diploma in C.Tech. or a B.Sc. Enforcement of improperly planned and installed onsite wastewater systems in BC is very lackadaisical. As much as ethics is promoted within the ASTTBC, I am sorry to say for some, the almighty dollar overrules any ethics or social responsibility that is implied with one's ASTTBC certification. Thank you.

- I don't believe that self-inspection is a reliable way to get quality work and consistent standards. There is no arm's length objectivity. An inspector (who has experience in the field) who inspects the first several systems that an installer, planner does, would be helpful.
- I don't feel like ASTTBC has a vested interest in ROWP's. I basically ignore everything that comes in from ASTTBC now via email or print because none of it is relevant to me and I don't feel that ASTTBC is acting in my best interest. In the area that I live, (the West Kootenay's) the septic plans done by actual Engineers mostly do not meet current SPM standards and from my perspective are usually substandard. At best, many of the septic systems designed by 'Professionals' in my area will not last as long as those done by ROWP's. At worst, these rubber-stamped 'plans' are creating health hazards. From what I have seen, ROWP's in my geographical area do much better work and are following the latest SPM standards.
- I feel that EOCP wastewater certification is over looked. Also First Nations people take the training and can't get the required 3 installations so they don't get certified and just do the maintenance portion anyway. The three installation rule needs to be revisited otherwise with a lot of certified people will retire and there will be no one to follow them.
- I felt the education was rushed we should had way more education training to properly learn the trade
- I have been working in the onsite area for approx. 15 years before the SSR and the fifteen years since it's introduction. Our industry needs good young people with a passion for onsite in it, the same criteria should be used to evaluate all applicants.
- Formal training related directly to British Columbia is invaluable.
- I suggest finding a budget to allow for a full-time manager + team of subject matter experts. This industry is very nuanced, requiring an abundance of skills and has significant liability attached to mistakes.
- I would like to see an easier way to receive you CPD points. In my location I have to travel 5-8 hours to get additional education within my province, when I could travel 2-3 hours to be in Alberta to receive additional training. I think it should be inter provincial for this.
- In my opinion the public was better protected prior to the new regs in 2005. Access to different technologies and people that can get a system installed are more plentiful. However some of these technologies may not work properly. Some designers and installers are great and do a very good job, however some either don't know what the rules and regs are OR are so intent on putting money in their pockets that they are not that concerned as to the quality of products used, nor the manner of the installation.... and they seem to get away with it!! I believe this practice is entirely the Governments fault due to their actions initially when they backed out of what I thought was the enforcement end of the Agreement. As to maintenance. Back in 2005 thru our training/introduction etc. I was lead to believe that ALL systems installed from here on forward would have a maintenance plan attached and that EACH system would HAVE TO have that plan carried out. I believed that the maintenance of systems would be a major part of the Wastewater Industry and that was to be my major focus. i really got that wrong! During my years before 2005 I ran across individuals who did excellent work, they took pride in a job well done. There were also those whom just met the rules. Those whom did not meet the rules were dealt with by Health. I do not see where the quality of systems and the people involved are

being held to meet the standards as layed out in the new regs. or as one might expect as a consumer here in BC. in 2020. Residents of BC are not well served by the current system. The term ' Wild West ' has been used unfortunately. I hope this survey might have a positive outcome that will address these issues as well as many others that others may have identified. Thank you for this opportunity.

- It is an impossible position for rural new practitioners to be put in to ask their potential business competitors to help train them. Anyone wishing to become certified should be able to hire a private inspector to get them through the practical training portion. Also what is the practical training criteria. My understanding is that in the past it has been impossible for new practitioners to achieve certification.
- Keep getting your points, keep upgrading, education is good.
- Longer courses, experience requirements, returning to education after experience, better PAR process, more transparent complaint process, random inspection of systems.
- Lower the certification cost. I can't afford to have other employees certified!
- Make it easier for older ROWPs' to get their Maintenance Certification. Get answers to questions in a more timely manner.
- Make it harder for Albertans transferring over. I've seen too many who don't know how to design a system vs how hard it was for me to get my planning certification being a BC resident
- Make maintenance on onsite systems mandatory, to many people are getting away with lack of maintenance which inevitably leads to health hazards. Too many customers seem to get away with doing things themselves and that also leads to issues. The problem is there is no one to enforce our regulations or our industry standard of practice for 'do it yourself customers'
- Certification process is ok now, however I am aware of some grandfathered ROWP's who don't seem to know as much about new regulations or standards of practice and frankly don't seem to care to learn.
- Need more mentors in the Kootenays, had to go to Kamloops, too far
- Need to make the certification through ASTTBC and BC certification from outside the province fair and equitable.
- Need to make ROWPs not just members of ASTTBC but make them technologists or make the equal to a journey(wo)men designation, with applicable training and responsibilities.
- New ROWP's need more experience in assessing sites
- Offer courses that include a mentoring process to gain the practical experience. I have found it very difficult to find mentors for maintenance and inspections, for which I would like to get registered for.
- Possibly have some type of school that offers practical work for installation of systems as new people find it difficult to get mentored for installations to get certified ; all installers should have to do practical work to certify, not just classroom
- Required feedback on complaints * more support from ASTTBC during a complaint process...the homeowner is not always correct. Create a certification process that has more hands-on involvement and not just theorized applications. More workshops during the off-season.
- Stabilize it
- Tasks assessments in each discipline ,criteria based learning outcomes that relate to the practical tasks 1 (practical safety) & tasks 2 (demonstrate appropriate procedures))in the field, self-check exercises of each task either theory or in the field

- The adjudication process is flawed and does not consider the complete background or experience level of an individual especially extending classifications
- The certification process online is ridiculously long it should be like a trade certification.
- The industry is very hard to get into. Mentors are hard to find if you don't purchase an existing business. More mentors are needed.
- The process should be difficult and take a few years to work through dependent on the experience. These are onsite wastewater treatment systems that take our SHIT and make it so we do not pollute the environment. PERIOD.
- ASTTBC group of people that review and help with the applications is all volunteers and I understand why there are periods of times between meetings and calls that simply take time. Pay those people that are putting in the time to review and work through these applications.
- It is really God damn hard. It is so hard to keep doing the right thing when we have imbeciles running around all over installing subpar undersized systems all over the place. In my area here on the Island, we have ROWPs that have actually lost their status as planner and even installer but are still plying their shitty (haha... no pun) trade under the cover of old ass engineers that are just signing off on their systems!
- These people coming in from Alberta - - - Don't even get me started! I have just started a remote project where the local islander is an 'ROWP' that took his course in AB and holy SMOKES!!!! I will stop right there.
- Thanks.
- I am not perfect but my systems are never minimum requirements and total disregard to standard p
- The TILMA agreement allows for a much too easy certification process for the 'quick route'. Many incompetent ROWPS are currently practicing as a result. We see all over the lack of in depth knowledge and failing systems as a result. Our status should reflect the amount of work that goes into becoming a ROWP. We need more back up from ASTTBC
- There are still many systems being installed by unqualified persons and systems being installed without a filing
- There needs to be more PAR's and also filings should be checked by the stamping health authority for the minimum filing requirements in the SPM. Up until now little has been done to ROWP's who constantly design and install sub-standard systems, several ROWPs don't bother with LLR and install gravity systems in shallow soils, report them to ASTTBC and nothing seems to happen and they keep doing it. I know ASTTBC become a regulatory body layer this year so hopefully things change
- Things are reasonable now.
- Experience is the best teacher and Mentoring could be useful.
- Try to help in finding mentors
- We have sent our papers to ASTTBC to become a planner. It has been since April 17. We have had no response back. Lack of communication
- Well it should be consistent. People coming from Alberta seem to get their stamp very quickly. My son spent two years getting his planning stamp whereas at least 2 fellows I know from AB got theirs too quickly. They have very poor planning skills and come to me for advice. I just took over one plan that was so poorly designed it could work. My son and I refilled a plan that would work.
- When assessing a site, having done perk test you should be able to go ahead with install. not wait for additional testing
- Why is there no recognized education or training programs for BC

- With the geographical location I live the cross border influx from Alberta becomes a concern. I don't agree with the certification of Alberta installers in B.C. without having to go through upgrading to bring them up to speed on our provincial requirements.
- Ya it's not proper according to experience