

VPID 2021 metering survey report

The metering committee organized a survey of the homeowners to collect opinions and ideas about individual metering in the VPID. The survey was open from January 9 to 20. We received 136 complete responses. One third of the respondents are permanent residents, and the majority (43%) are non-resident, staying on Mayne between 40 and 100 days a year. Some 15% seem opposed to having meters. There is no obvious strong correlation between answers.

This report summarizes the results. We were agreeably surprised that about half of respondents (64/136) made good use of the open ended question at the end to provide us their opinions, and these constitute the bulk of this report.

Although the survey was anonymous, 52 homeowners opted to “sign” their responses, and 34 left an email address for follow up. A handful of homeowners responded twice, which does not significantly affect our results.

What would be the benefit of an individual water meter, for you? (multiple answers)

1. Paying just for what we consume (97 resp. = 71%)
2. Helping us conserve better (87 - 64%)
3. Understand our consumption pattern (76 - 56%)
4. Comparing your consumption with others (40 - 29%)
5. None (15 - 11%)

Other homeowner benefits (from the dialog box):

- *A flat rate of use should be established. If your usage is above then a higher rate applies (similar to the hydro usage).*
- *Participating in a system that is fairly invoiced across its users.*
- *Making my rainwater collection pay for itself, i.e. diverting district water usage for flushing toilets, etc.*
- *Quick leak detection*
- *Understand our own monthly and annual consumption amounts.*
- *Possible to identify leaks*
- *Identifying and addressing heavy consumers.*
- *In a just world, those who use less should pay less*
- *We already have a meter because we were singled out for having a seasonal B&B*

What would be the benefit for the community? (multiple answers)

1. Detect leaks (108 resp. = 79%)
2. Helping us conserve better (107 - 79%)
2. Understand the district consumption patterns (91 - 67%)
4. Spot the people not following rules and bylaws (78 - 57%)
5. Plan more water supply (67 - 49%)
6. Comparing our consumption with other districts (46 - 34%)
7. None (8 - 6%)

Other community benefits:

- *working as a community toward a sustainable water supply*

- *The comparisons from year to year would also be helpful, to help us better understand variance of use across time; and hopefully demonstrate that water consumption doesn't necessarily have to go up each year when we are cognizant of our individual use, and also receive reports of community usage as compared to prior periods.*
- *Lower costs for the district, i.e. no trucked-in water*
- *Identify high consumption users to provide targeted conservation education.*
- *Able to charge more for water during high consumption times.*

How much would you be willing to pay for the installation of a meter?

1. From \$200 to \$500 (24%)
2. Less than \$200 (22%)
3. I do not know (21%)
4. Nothing (we do not want meters) (15%)
5. From \$500 to \$800 (9%)
6. No more than \$1500 (9%)

Should this payment be:

1. Spread over 2 years (31%)
2. A one time payment (22%)
3. Spread over 5 years (22%)
4. No opinion (25%)

If we have individual meters on all properties, should the VPID use the collected data to charge

1. A fixed fee to all households, to a certain basic level of usage, then a tiered schedule with sharply increasing cost per gallon (45%)
2. Per gallon at a flat rate (34%)
3. Keep billing at a fixed amount per household like today (10%)
4. No opinion (5%)

Other suggestions from homeowners:

- *I do not necessarily mind the idea of having a fixed fee for a certain amount of water and then having an increased fee once past a certain threshold (similar to the two tiers that BC Hydro has), but my concern would be how this would impact households with more people that live full time in the district. At 4 people in our household and being full time we will have a higher usage than a single person or two people, or people that are part-timers. As such, if the amount of water usage in the first tier was set for an average of 2 people we would likely be constantly penalized, which likely wouldn't be affordable. I don't know how one would calculate a fair amount. Maybe this is why having a set fee across the board is easier to do.*
- *I generally agree with the 2nd option (Note: the tiered schedule) because there is fixed overhead, so even if someone has a vacation home (like us) and we don't use it for a month, the water shouldn't be free. I think that's unfair to others. But I'm not sure what you mean by sharply increasing cost per gallon. The difficulty with an exponential curve is that it isn't predictable. So some extra water gets used for something and all of a sudden your bill doubles or triples? That seems unnecessarily punitive or an attempt to*

put a disproportionately large amount of the costs onto a few of the largest water users. I think ideally you would divide your VPID water costs into 2 categories: 1) costs that don't vary by gallon, and 2) costs that vary by gallon. So for instance, fixing leaks, upgrades etc do not cost you more per gallon of water used. So those costs should be split equally to households. Things like bringing in more water at the end of summer are a cost per gallon, and those should be divided by the gallons used and charged per gallon used. Probably not as simple as I suggest but would be more fair I think.

- *Education on water conservation to reduce, or maintain existing fees per household History of usage provided to each household to encourage individual changes. Do not agree with shaming publically*
- *No fixed fee. Cost per gallon. More expensive during high use time.*
- *A fixed fee to all households to a certain basic (low) level of usage [to account for fixed costs of running the system], then a fixed price per gallon. But not tiered because that discriminates against households with more people.*
- *Perhaps the same as hydro - a rate per gallon up to a certain amount, then increasing in increments after that.*
- *Please do not install individual meters*

If we have individual meters on all properties, should we disclose (ie, publish) individual household consumption? (as a neighbouring district does)

- No (65%)
- Yes (21%)
- I do not know (14%)

Demographics:

Do you consider yourself:

- A Mayne island resident (31%)
- A Mayne island non resident, on Mayne more than 100 days a year (20%)
- A Mayne island non resident, less than 100 days a year but more than 40 days (43%)
- Less than 40 days a year (6%)

In general, how many persons are in the household (not counting occasional guests)

- 1 (12%)
- 2 (61%)
- 3 (7%)
- 4 (13%)
- More than 4 (1%)
- No answer (5%)

What is your age group?

- Less than 40 year old (5%)
- 40 to 60 (32%)
- More than 60 (56%)

- No answer (7%)

Do you collect and use rainwater?

- Yes (60%)
- No (16%)
- No, but plan to (24%)

Open-ended question:

Notes:

- (r) indicates a response from a Mayne island resident;
- Personal identifying info like names, addresses and email addresses have been redacted and marked with XXXXX.

Do you have any comment or suggestion to help the VPID board move forward on the issue of metering and billing?

- *Please do not name and shame households publicly. If this is what Bennett Bay do now, it sets a bad precedent.
This island (some islanders) already shames those who are not here full time and this would add another element for shaming.*
- *I think meters are critical to conservation. Right now there's no accountability. I know for a fact that many people waste a lot of water because they can.*
- *Have supported the idea of meters for a long time. So many municipalities have them. They just make sense when conservation is becoming even more important.*
- *Making people's consumption public gives others information about how often that location is frequented which is a risk to casing unused properties. Others consumption is no ones business! Thank you!*
- *Shouldn't we convert to litres in our discussions?*
- *A minimum base fee could be considered for a small amount of base expenses.*
- *The last time this idea was floated it was presented in strictly technical terms. It got voted down because people were worried they wouldn't have enough water; wealthy people could buy what they wanted; etc. Please deal with these concerns so people's emotions don't get charged up like they did last time.*
- *Wondering if a few selected locations will help in locating leaks, rather than install meters at every residence.*

- *We already have an installed meter at **XXX address redacted XXX**. We will not be willing to pay for a meter retroactively. We were singled out for a meter because of our seasonal B&B. That was the districts choice therefore we will not pay for it. We do however feel meters should be installed on all properties to find over usage and to detect leaks more efficiently. (r)*
- *Great idea (r)*
- *I have heard that metering reduces overall consumption which is wonderful. And perhaps it would solve the summer water shortages somehow. Also it would help immensely detecting leaks and saving not only water but also the labour and frustration of the folks out there trying to find the leaks. But I know there are certain drawbacks too, and trust the VPID to make the best decisions based on our neighbourhood's specific needs.*
- *Melbourne, Australia had a campaign where they provided hourglass timers that can be hung in the shower so that users could see how long they actually spent in the shower. This could encourage shorter showers. (r)*
- *I don't think that 'shaming' is appropriate and that is always a risk when publishing data. Also, it is apples to oranges when some people are full-time residents and others are part-time.*
- *Depending on what the cost is to install water meters how would that cost compare to the cost of increasing water supply (example more wells)*
- *Absolutely opposed to the added cost and oversight needed for individual meters. We are all adults and do not need yet another form of governance in our lives. Educate people, create a water catchment program for anyone not already using rain water and encourage all to be positive, respectful neighbours. Choosing a punitive, shaming action such as disclosing a public list of how much water each household uses, fosters competition and ,better than, foolishness. Time and money can be better spent on supporting rain catchment and education. When I moved to this island I read about the best water practices on the VPID website and elsewhere, and I happily comply. Others may need more support, but I really enjoy our little pocket of the island and feel protective against anything that could cause discord or pettiness within our neighborhood. We can do better. Thank you for reaching out to everyone for feedback. :-) (r)*
- *I am a fan of metering as I believe there are those who conserve, and those who have multiple users in their properties and pay no more than a couple who use little water.*

- *I think that the last initiative to implement individual meters (in 2017?) failed partly due to the fact that the price of the water service was proposed to INCREASE rather than decrease for all home-owners.*
- *Swimming pools should not be allowed. Refilled at least twice this summer.*
- *Paying per gallon will depend, maybe different rates can be provided when known?*
- *we have been cottage owners on mayne for over 40 years. i recall a previous discussion on this subject, i went to the meeting thinking yes to meters and left thinking no. the main reason is that a significant number of people would use more water as they think i'm paying for it so go ahead and use what you want. the non meter idea is to use moral suasion, i'm not sure but maybe that is as good. i would agree with area meters for leak detection and maybe directed usage discussions with folks in an area if there were unusual usage. our usage is minimal.*
- *Our primary residence is in Richmond and we have had a water meter for years. The system is great and easy. There was controversy when it was put in and, like many things, people adjusted quickly and moved on. There was no fee that I remember - if there was it was added to our city utilities and absorbed as part of the general utility cost. The water meter has been a great system for us to monitor our own usage, and makes sense in the Richmond community where there are many empty homes (as there may be on Mayne for chunks of time during the year. Thank you for raising this issue - it is an important one.*
- *I would only like meters if its a flat rate per litre used. Meaning the part time resident's water bill decreases and the full timers (in theory) increases. Thank you for the survey. I really appreciate your time. **XXX name & email address redacted XXXXXX***
- *I already installed a water meter so I could detect leaks and remotely shut the system off if there was an issue. <https://www.moen.ca/flo> I have already paid \$700 for this system and would be a little frustrated to have to pay again because I was proactive and wanted to be a responsible community member. I understand the need for this and we are going to be installing a 2500 gallon rain tank in the spring to try and help things out. I am really not a big fan of the need to police people on this kind of thing but also understand there are people that do not follow the rules. I am sure there are suspicions why the water supply has not been enough but I would be cautious with implementing a enforcement/shaming system like other districts do. This is not the type of community I want to live in. Although we are not full time on the island yet we do plan to be in the next 5-10 years and look forward to getting involved on the teams that manage and decide these things. Thanks for all of your work on this!!*

- *When it comes to billing, if a standard rate is considered and additional charges apply and the resident goes over a set amount, the rate should not increase sharply. The rate should increase but not as a penalty only to cover increased usage.*
- *I understand water meters are expensive to install. I still think we need them. And I hesitate in the matter of tiered charges , increasing rates as usage goes up. Perhaps the word , steeply, could come out, and a modest tiering of rates could be used. (r)*
- *Congratulations to those responsible for getting this subject back on the table! It's interesting that the survey is NOT a vote... yes, I remember the last vote...ugh... I believe that an organisation such as VPID ought to have a ,management which would have tHe right to make ,business decisions,! For example, when consumption exceeds supply, management has trucks to deliver more water... Management also monitors expenses, and makes appropriate decisions. Water meters are an appropriate decision!! . Water leaks have at times been major issues!! Individual meters will help with this, and there IS such an item in the survey, but I think that the benefit could be more substantial than , one tick mark, represents... No? (r)*
- *Only methods that associate cost with consumption, at least to a certain level, will have an impact on water consumption. Human nature. Then we can get rid of all the conserve water signs.*
- *It appears to be the only viable answer to managing water consumption in a water resource limited region. Thank you for your efforts.*
- *As with most utilities, there is a cost for delivery which we all should pay, and a cost for consumption which each household should pay. The same applies to hydro, internet, heating fuel etc. Maybe there should be a 2 season rate, one for winter months and another for high season usage times to encourage conservation.*
- *I don't believe the cost of installing metres at today's cost is worth doing for the reasons people seem to want metering To fine others or disclose who is using more than the supposed amount of water. It would be a huge financial burden and we already have a huge debt. I would encourage this committee to let people know about clamp on water meters if they want to have a safety notification. (r)*
- *I think finding leaks and cheats would be the best outcome. Do that in the most inexpensive way. I would like info on leaks and cheats to be posted for all to see. Cheats do not deserve to be anonymous and protected. (r)*
- *Years ago, I spoke with someone in the Bennett Bay district who was a high volume water user and whose name was posted publicly. I asked how that affected them, and they told me, "You just get used to seeing your name there." I think posting names is counterproductive and that our district would be wiser to avoid pointing fingers and*

creating animosity in the neighbourhood, and to use a sliding scale of charges. That said, the board still must hold some kind of big stick to deal with excessive users and wasters of water. The estimate for meters will be lower than the installation reality and there will be no payback only costs (r)

- *Does it make sense to charge by the gallon but only during dry months? Say May thru October? (r)*
- *We bought our log cabin on Spinnaker because it is very rustic and natural. Therefore the fewer signs of civilization around our cabin or yard the better (read: pipes/ wires/ meters). Thanks.*
- *We are strongly in favour of metering. We feel that water should be considered in the same way as electricity (or piped gas) where you generally pay for what you use, with a relatively small standing charge. However, we also consider it reasonable to share the basic infrastructure costs, perhaps with some scaling according to the size of property? For instance, if drilling a new well is required because of high usage (or reduction in existing output), rather than an increase in the number (or perhaps size) of properties, then that cost should mainly be covered by those generating the increase in demand rather than shared across all properties. (We would add that this approach is not driven by us not being full-time residents. We have metering where we live and would do so even if it cost us more than not being metered. This is much better than, for instance, simply using the value of the property as the metric.) Metering is generally found to be a strong encouragement to manage usage, but would appear to work best when the consumer can be kept informed of usage in near real-time in a manner that they don't have to seek out. Analogies are found in the fuel gauge in a car supplemented now by real-time consumption. If the additional cost of providing remote monitoring was sufficiently low, we can see real benefits to both residents and the VPID. We do also recognise that metering implies a lack of trust and loss of individual freedom. This has to be balanced by the shared and environmental cost of the provision of clean water and the need to provide tools to assist in conservation. It is also to be anticipated that there will be, rightly, an increasing sensitivity to this in future generations. Finally, on the question of publishing information about usage, there is evidence that being able to compare with similar properties can help reduce consumption, but perhaps if this could be done in a more granular way which would not allow for the identification of individual property, it might have the desired effect without the risk of naming and shaming?*
- *The time has come. Meters will provide us with data to manage our system. (r)*
- *Charging on a per gallon basis will not drive conservation - to a certain extent it allows over consumption if you can afford it. A fixed fee to escalating charge or other similar costing is the only way drive conservation economically.*

- *Mayne island part time resident. We live in Surrey and have had a water meter for years. Behaviour of water consumption is front and centre while using the resource. Water consumption should be charged for use. It's upsetting to see some people saving while others use way more than they should.*
- *I could not answer the question on the cost of matters as there was no information as to what the different prices provided, (more labour costs to read, reliability of meter, longevity of meter, accuracy of meter, etc) think the time period of 10 days is too short, depending on the number of responses your receive you could send it our again at the end of the deadline'
would like to have seen the number of gallons per household average on a month to month basis.*
- *Make use the rules apply to everyone equally please. Either everyone has a metre or no one needs to get one please. *****BIGGER ISSUE***** as far as I know they system isn't efficient (leaks and the like). I imagine there would be enough water to go around without meters if the system was properly maintained, but I understand that is easier said than done.*
- *Have the metering wifi capable so that that the owner can monitor. This will allow active conservation.*
- *We already use less than the national average. I think that increased conservation can happen with continuous education, and encouraging rainwater collection for all outside usage. The VPID focus should be on eliminating our debt and reducing monthly fees. If meters are installed, they should only be used for data, not for billing. (r)*
- *Please explain the water volume and price amount of base level of usage. Beyond the base amount what is the price increase ? double the price? Will the steps keep increasing by up to 5 levels. with price levels increasing every time. For part timers , how about a different price structure compared to full time. "*
- *Thanks for undertaking this survey among VPID members! I wanted to elaborate on my response to the question on how to use metering for payment - As there is a considerable fixed cost for building and maintaining the system, a flat connection charge per household is reasonable and fair and, as I believe that conservation is our goal to minimize infrastructure costs and environmental impacts, a tiered per-gallon scale should be applied, which should significantly increase as overall household consumption increases. Ideally, consumption data should be provided in real-time by the meters, not only to assist with leak detection within properties, but also to facilitate seasonal variations in consumption charges - the per gallon rate can be reduced in the off-season when we're drenched with rain and escalate quickly in the dry months when supplies are getting low. If this technology is implemented, there is no need to report excessive consumers, as a rapidly accelerating tiered cost scale for usage would discourage heavy*

use by households and keep overall consumption within system capacity. Otherwise, I would support some form of semi-annual and annual reporting of consumption by household to encourage conservation through education and awareness.

- *Would rather not publish names and usage but only if there is a flat rate that escalates after a certain basic usage. Also, basic usage allowance should be for every 3 months period. Not monthly.*
- *Installing meters is an expense that doesn't stop with the initial capital outlay. Continuing expenses include the cost to read meters, maintain meters, additional accounting expenses to calculate applicable tolls as well as mortgage costs for borrowed funds.*
- *It would be helpful to have an estimate of cost per household for water meter. Also what have we learned from the meter system in Bennett Bay? How is that working? (r)*
- *a) It makes sense to meter water to provide info to the household and to the system operators for best operation and water conservation.
b) The water meter installation costs can be spread out over multiple years on VPID bills so that those who may be thinking about selling their homes in the next few years are more inclined to agree to the installations.
c) A base fee with escalating charges based on consumption on top of that is the best option. All connected homes benefit from the system, so everyone should pay something to connect. Homes use varying amounts of water, so escalating fees for usage is the fairest arrangement, and incentivizes conservation. (r)*
- *Thank you for considering this important step to install water meters, and for inviting our community to provide input via this survey process! This has been a long time on the wish list for our household, since we don't use much water given our part-time status on the island, and also because we want to be part of the solution to help efficiently manage our limited water supply as a community all year long, to help us all become better stewards of this precious resource.*
- *Metering needs to consider how many people live in a house permanently. A family of four will naturally use more than a household of 2. As for publishing usage, that is an invasion of privacy. I suggest using a system of warnings and then fines for those who routinely do not comply. Consumption will fluctuate but if someone has say 3 months of excessive usage then a written warning; 4th month is a fine; 5th month the fine increases, etc. The money can be used to pay for additional water to be brought in. (r)*
- *I had rented out my place all of 2020 to help out a local family, also I had 2 big surgeries and COVID made me not wanting to travel from Vancouver to Mayne island often. My typically water usage would be maybe 2 weekends a month, most weekends in the summer and maybe a 2 week stretch in the summer.
I tried to answer based on my consumption pre renter. I am all for water meters"*

- *My background is Engineering and have always subscribed to ""You can't control what you can't measure"*
- *I'm all for collecting the data and paying for what I consume.*
- *In my view, this is all about driving conservation, not making people pay. Whatever can be done to keep this affordable for everybody (grants, extended payment scheme) should be done.*
- *I hope this is the last time we have to visit this suggestion. (r)*
- *Prefer getting regular updates on water usage trends and importance of conservation. Not clear how water meters would solve the problem of water shortages. Some residents would not be deterred by higher payments for water. Water meters could promote further division within the community based on affordability.*
- *I do not want water meters installed on our system. I believe that if the many leaks could be repaired and the lines upgraded, we would have much less problems with shortages. Naturally, the weekenders would use much less water than the full time residents so charges based on use would be prohibitive for us full timers. (r)*
- *I think with more people coming to the island we need to have a better handle on who uses what and when. Meters do this.*
- *The benefits are small considering the cost. It is not clear that metering does affect consumption. Wealthy owners will just feel that charging more is an OK to consume more.*
- *All properties should be metered, everyone should get the same amount of water, weekenders, full timers. it shouldn't matter as we pay the same taxes. we should also be able to use our water for whatever we want. if I choose not to shower when I'm there and want to wash my car instead, that should be my right. not have a bunch of letters written by full timers who use water 365 days a year, and are choked when I'm rinsing the sand off my daughters' feet before we go into the house. Everyone should have an allotted amount of water and use it how they want. please get this sorted out ASAP*
- *We agree in principle with metering and a basic cost for water, however we are very concerned at the word "sharply" increasing rates above a certain level. We already see this effect in our Hydro bill on Mayne with the Tier system when we only have the choice of electric for heating. We are also concerned about the costs of maintaining metering to the district. How do we compare to other water districts on Mayne for usage and existing costs. We feel the existing fees are acceptable and worry that metering will penalize us when we do have the occasional guests stay even though we may not even use any*

water for half the year. Maybe an annual adjustment based on annual usage rather than a monthly Tier system. It obviously has to be fair for full and part time residents and promote conservation. We have a meter at our main residence and pay around \$350 a year for 2 people. We hope rates will not increase on Mayne and realize water is a precious resource.

- *It's not right that some folks are here all year around and complain about the weekenders using water for their cleaning/ washing needs. We should be allowed to use a set amount of water on a monthly or annual basis for WHATEVER WE WOULD LIKE and if we pass this mark, there should be a cost.*
- *1) I don't think it's necessary to disclose the water usage IF there are water meters because everyone knows that the higher consumers will be paying for it. But I don't mind having the usage disclosed because if we are using more water than we should I want to bring it down.
2) **XXX name and address redacted XXX** We have extended family and sometimes friends staying at our house (for free) when we aren't using it. (we aren't there 100 days but all-together it gets used more than 100 days) We tell everyone who uses our house to conserve water, but it would be great to have a meter to know when someone has been out of line. I would like to see reports that can break down by day the usage so I can pinpoint a weekend that someone was there and the water they used. Real-time with alert thresholds would be amazing.
3) We already have low-flush toilets and limited GPM shower heads, but it would be nice to have resources who can help us reduce water even more. Like is there someone on the island who can figure out how to filter the ingress rain water going into my rain water tank? Is there a way to use it as grey water for toilet flushing, with pump, etc? Can I do this myself? Does the hardware store sell something to do this? How reasonable is it to filter rain water for purposes like showering and bathing? Is that costly/realistic? Some of this is dependent on having water metering so we know what we use and can plan rain tank size accordingly for summer months when rain is reduced.
Thanks for taking my input.*
- *I like the idea of publishing the water meter usage of households so that one can compare to other households; however, I dislike when a household can be recognized (as with the Bennett Bay Water District). If it could be done without any identifying features I would agree with doing this. If not, I would not because I do not like the shaming aspect of identifying features. (r)*
- *Encourage the purchase of low flush toilets and front loading washing machines, perhaps. As population increases and new builds are added to the island, what other sources of water is the VPID looking at?*