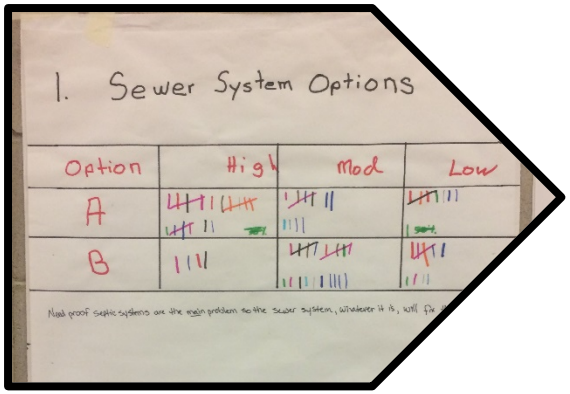


Silver Lake

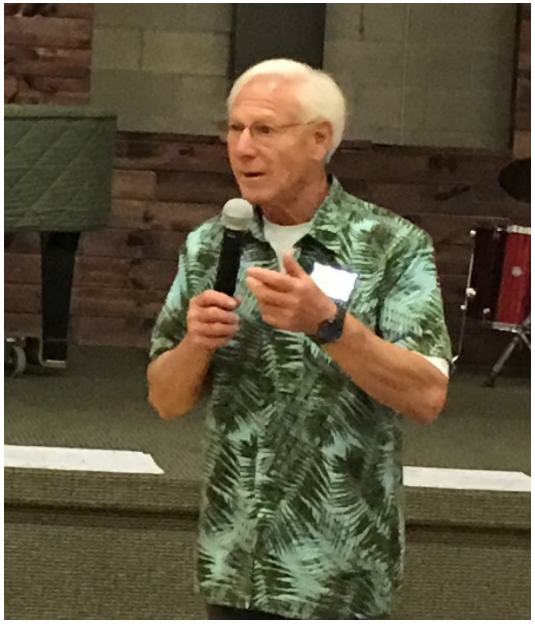
Golden Township

Sewer Options

Community Dialogue Results

August 26, 2017

INTRODUCTION



On August 26, 2017, Golden Township conducted a Community Dialogue to discuss sewer options for Silver Lake. The dialogue was held at Grace Adventures. Approximately 130 persons attended the Community Dialogue.

The dialogue started with a welcome from Carl Fuehring, Golden Township Supervisor.

Sewer collection and treatment options were provided by Prein & Newhof Engineers and Stephen's Consulting. These options included a traditional gravity system and a STEP system. Also presented were two treatment alternatives, utilizing the City of Hart treatment facilities and constructing a Golden Township treatment facility.

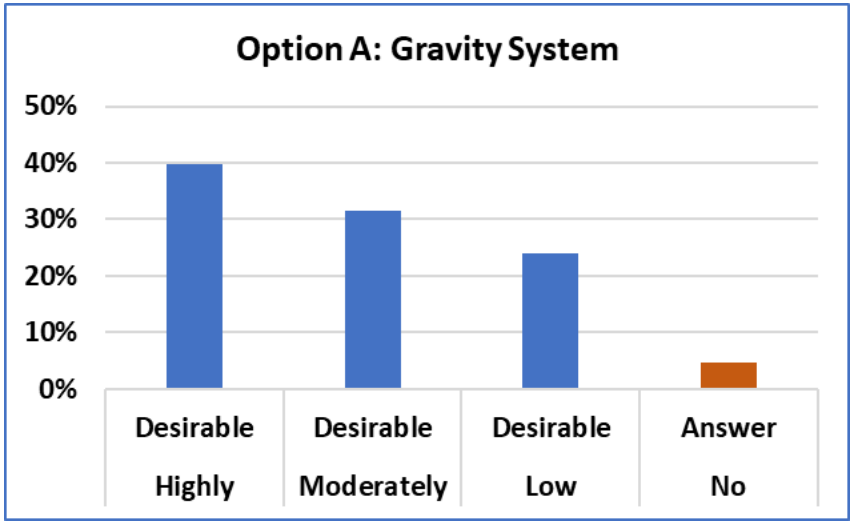
Following the presentations, persons attending the dialogue completed individual questionnaires and engaged in group discussions. Following the discussions, group responses were posted on wall charts. At the conclusion of the meeting all of the individual and group questionnaires were collected. There were 115 individual questionnaires and 27 group questionnaires turned in. On the following pages are the results of the individual questionnaires along with the comments from both the individual and group questionnaires.

Question #1 Sewer Collection System Options

Option A: Gravity System

How would you rate Option A?

	Highly Desirable	Moderately Desirable	Low Desirable	No Answer
Option A	40%	31%	24%	5%



Comments:

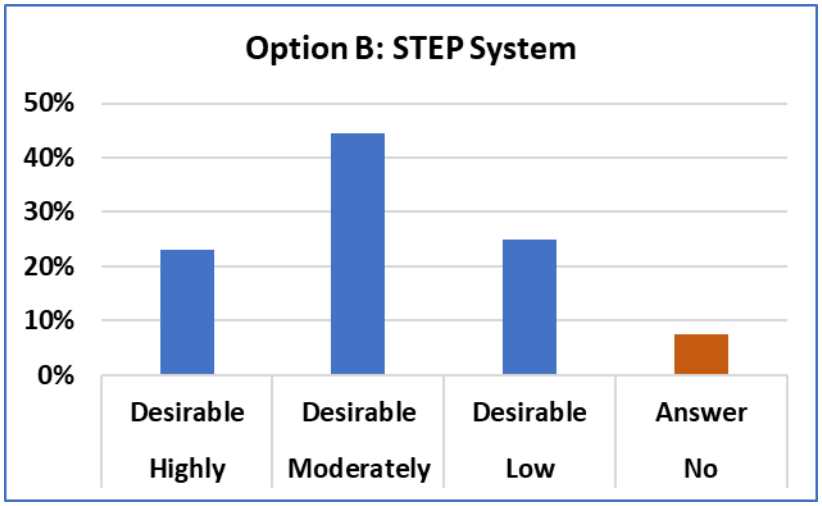
- More expensive
- Road tear up
- Long-term maintenance
- Still have nitrogen in the system
- Long term solution
- No comment, not enough information
- Potentially more reliable system
- Gravity is better than automation & highly electronic dependent pumping systems.
- Concern about high water table
- Unknown long-term cost
- Get solids off the properties and properly treated
- Greater upfront costs, more economical over time
- Short-term more disruptive, long term less for owners to maintain/think about
- Sewers needed to be installed 30 years ago after the first study
- Cons-tearing up the infrastructure
- Pros-get it done and over with and deal with a long-term problem. Gravity system gets sewer out & gone, not needed inspection of homes
- Solves all problems and handles treatment properly and centrally, no reliance on homeowners to manage solids
- This is the only system without burden management of each owner to do something. This also enable use of land on each property that is presently dedicated to septic systems
- Less maintenance cost over time
- Concern of costs for treatment
- Existing system locations on property can be repurposed and used by owners.
- Most robust solution
- Lowest owner maintenance
- I just installed a new pump system, 1500' away from the lake on 3 acres of land.
- Nice to have sewage gone and not have a tank
- No need to replace existing individual systems

- Who will pay for roads (included in cost estimate)? Who will get to vote on it?
- I don't like the idea of having to replace an entire road. Why can't easements be used? Why not install under bike path? I like the lower operating costs.
- Sooner or later we have to do this.
- Less management problems, if need repairs it isn't up to the homeowner
- No mounds for drain fields will be better.
- I think we need to do something so whichever is found to be most cost effective should be used.
- Flow during winter
- Huge short-term hassle, huge long-term solution
- I like having as few moving parts as possible. I also like the idea of not having a septic tank on site that has to be pumped out. New roads might mean new and adequate bike paths?
- Takes away individual responsibility…to a point of a real solution
- Lots of experience already, lower long-term costs, and expandable (easier) in future if necessary
- Economy of scale-Good. Cost is a huge consideration.
- More centralized
- Very expensive. Maintenance costs are high.
- Best for association, road disruption not so good
- Most familiar with this system, seems to have been the system of choice for many municipalities
- Very disruptive but most efficient
- Prefer removing solids and lower M/O
- Better longevity, more failsafe
- Pro-I like the idea of pumping everything off site and processed. Con-very expensive
- Additional water from groundwater will add to system load. Very high cost and disruptions with roads
- What are the effects of removing that much water out of the watershed if we use the City of Hart as option?
- One and done, long life - Avoid individual tanks & pumps that fail. Avoid legal inspections on property.
- Better long-term, long life option and treatment is done off site
- Most expensive but no need for local inspections, still would like to understand individual costs, sewer fees unknown
- Too costly - Phosphorus in fertilizer has been banned and has given favorable results.
- How can new system have an effect when farms contribute to the watershed?
- I like the idea that this system requires less moving parts and removes all waste off site. However, it is a very expensive option and would be very disruptive to implement.
- Not sure homeowners are the main issue. The entire watershed contributes to the lakes.
- Concern about continuing costs. How much will Hart charge every year? Installation is high.
- Final complete solution - Why make future generations pay for our mistakes?
- Complete solution without equipment on each property
- Eliminate as much property owner responsibility as possible for future simplicity of property maintenance.
- Just do it all now.

Option B: STEP System

How would you rate Option B?

	Highly Desirable	Moderately Desirable	Low Desirable	No Answer
Option B	23%	44%	25%	7%



Comments:

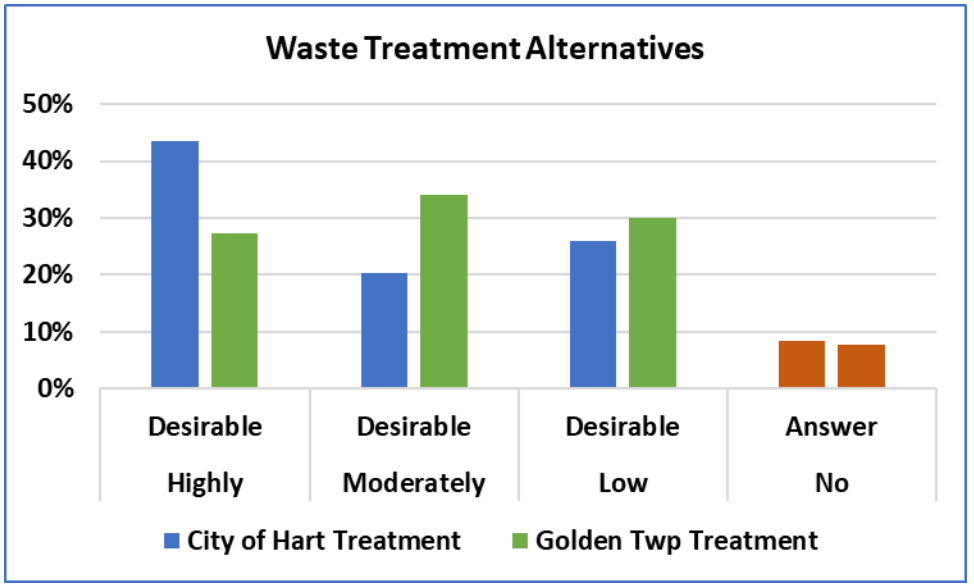
- Walkerville and New Era have this system.
- Not tearing up streets
- Better for environment
- Concerned about management of individual tanks
- Great system for quick start-up, less expensive
- No comment, not enough information
- Less work, more maintenance
- Too much ongoing maintenance & upkeep, don't like the idea of still collecting solids on the property - Does this need to be winterized? Too many parts, too much to maintain.
- Does not remove periodic pumping of septic tanks
- Less damage to current infrastructure, township has more control
- Solids still on individual property
- What assurances do we have that homeowners will comply?
- Do not always look for cheapest option.
- From cost standpoint-STEP system more effective
- Maintenance costs higher with STEP system
- Maintenance would be difficult.
- Less infrastructure interference
- Cons-maintenance ongoing - If during high holiday usage & there is a problem, how quickly is it fixed?
- Pros-less disruptive to infrastructure
- Solves some problems for similar costs to gravity system. Don't like home owner reliance on management of solids. Don't like treatment so close to downtown Silver Lake
- More reliance on individual owners and potential ongoing cost of repairs
- Less costly and don't have to tear up road
- Uses existing septic system to separate waste
- I have pumping systems on two of my 4 properties which are used June thru August. Would I be able to keep this instead of replacing these systems? I don't like the idea of having to replace 2 newer tanks that already have pumping stations. Lower installation costs is appealing.
- Cheapest isn't always the best - Which is best?
- Does the homeowner have more cost with having your own pumping station? Can they enforce everyone has to do this?

Does the township do the repairs? Home owner would still have to have tanks pumped.

- Has less disruption in the installation
- I think we need to do something so whichever is found to be most cost effective should be used.
- 900 small pumping systems - ~~this~~ This is more points of potential failure.
- Like less road disruption, Negative-no road improvements
- Less disruption to the road is desirable but the disruption to the home owner's lot is not diminished (i.e. septic tank installation).
- Short-term easier, but continually requires individual responsibility to work - Address larger facilities (like campgrounds).
- Less centralized
- Only treats effluent, still have tank, truck solids. Use aeration to treat solids on-site in the presence of unique bacteria.
- Open to this system as well, wondering what kind of track record it has
- How about Sludgehammer system? Is it still an option?
- Less disruptive but like concept
- Not good enough to justify almost same cost
- Lots of maintenance required providing more opportunity for problems & failure in the system
- Con-Every site would still have to have tanks/equipment on it. Pro-less expensive
- Still high cost, tank and maintenance at each site
- Too costly
- If this is what everyone agrees on, I will support it, but I think there are better alternatives that what are being looked at.
- Still have maintaining septic tank and a new pump
- Lower initial cost and less disruptive, but still has equipment that needs to be maintained
- Still needs to be maintained and managed/replaced periodically
- How long before tanks/pumps would need to be replaced?
- Affordability and much sooner
- I am an active/working wastewater operator for the Village of Walkerville. Have been for 10 years. I would like to be resource for this group.

Question #2 Waste Treatment Alternatives

	Highly Desirable	Moderately Desirable	Low Desirable	No Answer
City of Hart Treatment	44%	20%	26%	8%
Golden Twp Treatment	27%	34%	30%	8%



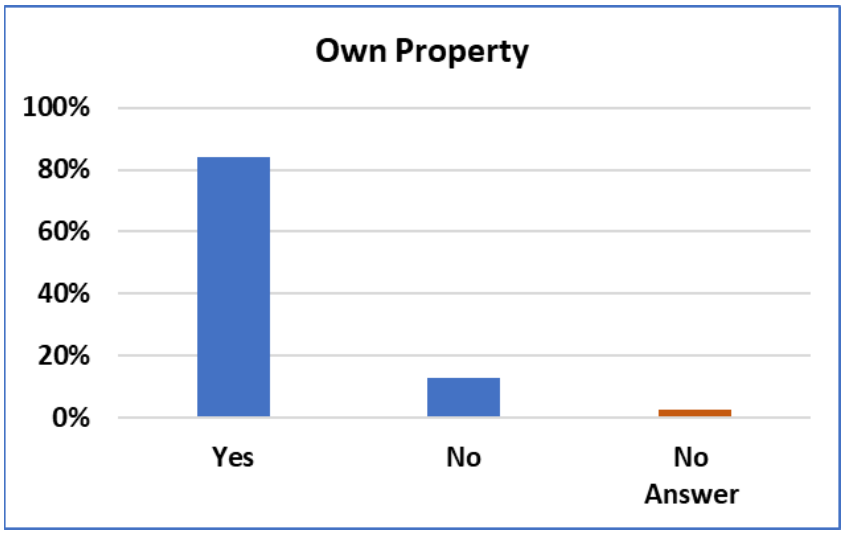
Comments:

- With Golden Twp alternative-concern about proximity to Hunters Creek
- City of Hart is our best option. Hart will do the best for us and never sold privately.
- Golden Twp system does not remove effluent from the Silver Lake watershed. Use Hart's already created system & save the Silver Lake property for development or nature.
- With Golden Twp we control our own destiny.
- Golden Twp treatment options visible and too close.
- Hart-lower operating costs, would avoid odor issues
- Use the cheapest that does the job.
- Golden-perhaps less expensive, would have one entity as opposed to two, property already available
- Concerned about when it goes down how quickly will it be addressed - Do the one that is cheapest and best.
- Pros-Hart is already established.
- Hart treatment is most robust and deals with solids. Golden Twp treatment is local and doesn't handle solids. Costs are similar.
- Hart already has an established system. Can expand if necessary. Golden Twp does not have a public works department.
- Golden Twp cost will increase with option A.
- Hart is only option to get all waste (including solids) away from Silver Lake.
- If we ~~choses~~ choose Option A and Golden Twp for treatment, the Golden Twp treatment alternative might include significantly and still keep waste treatment local.
- Don't like additional cost on top of Option A & B
- More information needed on rate and cost of operation
- No fees provided for treatment, hard to make a decision without knowing the rates
- Too far away (-), proven system with capacity (+), no strong opinions, just get it done
- I would like township to be in control of future operations/maintenance cost.
- I think a more centralized system is better.

- Prefer using existing capacity
- Get the nutrients into another watershed (Silver Lake vs Pentwater shed)
- Get effluent out of watershed. They are experts in Hart.
- City of Hart, overall long range better solution
- Hart has established professional infrastructure already in place. Golden Twp has a long way to go.
- I question whether Hart is affordable and working with the City of Hart could be difficult.

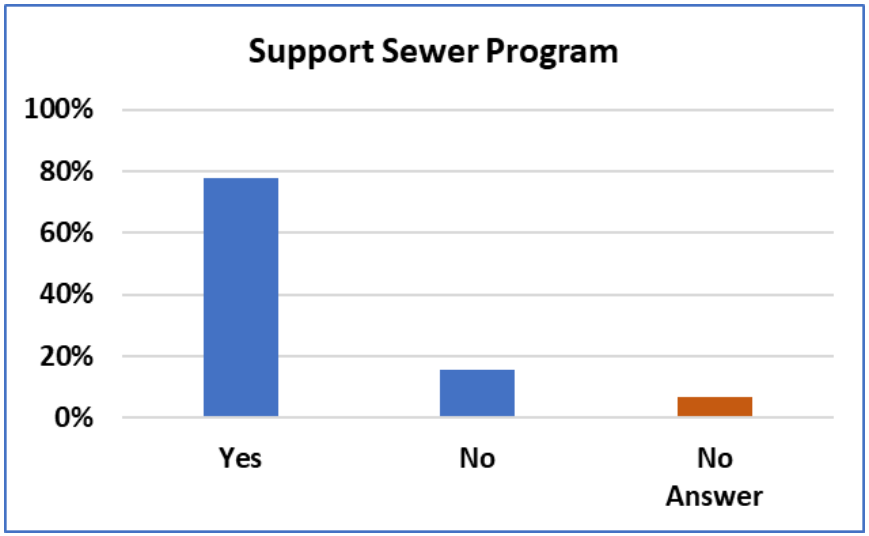
Question #3
Do you or your family own property in the Silver Lake area proposed for sewers?

	Yes	No	No Answer
Own Property	84%	13%	3%



Question #4
Are you willing to support a sewer program for Silver Lake?

	Yes	No	No Answer
Support Sewer Program	78%	16%	7%



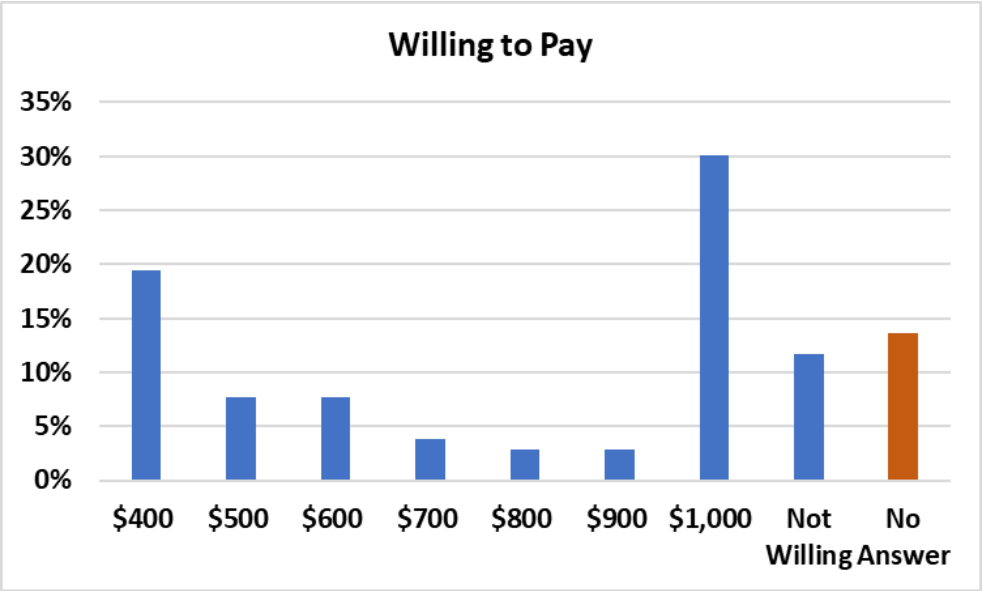
Comments:

- There are pros and cons, but for Silver Lake, it is necessary.
- The sooner the better
- I want to see the major producers of phosphorus and nitrogen are in included first (campgrounds, dune area, Upper Silver and their horse area).
- Not sure. What is the individual cost?
- Maybe if all other options are fixed: Hunters Creek
- This is very much needed and the right thing to do
- I am concerned about the future of the lake for my children.
- Has to be done
- Upper Silver Lake should be included at the same time.
- Each home should be evaluated for their current systems to see if they can be included in the solution.
- Each home should be rated on use: # of occupants, # of days of use.
- Sewers long overdue, need robust treatment to fix lake, don't want a half xss fix
- It has to be done.
- Action must be taken and it needs to be robust.
- OK as last resort
- Definitely need to remove nutrients from the lake. Concerned that local residents will vote no and non-residents owners won't get to vote
- Yes, if it is mandatory. The 2001 Fusilier study determined that sewers would not work to solve the problem because major nutrients were coming from farms. I would like to see environmental remediation tried first. 1-mandatory three year of all tanks pumped, 2-work with farmers installing green space between farms and streams, 3-Dig restoration doles in streams that affect property locally capture phosphorus & nitrogen.
- Effects property values
- We need to protect this for the next generation.
- What about people not here? How do we get their support?
- Lots of previous talk-please, let's move forward.
- It must be done to save the lake.
- We've needed this for a long time.
- We agree we will do what is necessary to improve H2O. No point in visiting or owning without good H2O quality.

- Eliminate the leaching problems (polluting), want better lake quality
- Those not willing for sewer are willing for alternative option.
- It has been said at the last big meeting that the problem is because of three situations: animal, farms and house fertilizers, and bad septic systems. How is a big septic system going to help Silver Lake?
- Upper Silver Lake is clean and better than last year than the year before, according to data presented September 2016. If we are clean and not contributing to lower Silver problems, do we need a system at all in Upper Silver? What I am trying to say is, if we are not involved with the problem, why should we pay for fixing it?
- Have people with old systems replaced them? Not penalize those of us with newer ones. Also, have the businesses pay to take care of theirs.
- Need to know if both option set-up costs are reflected in the initial system cost, concern on partnering with different municipalities
- Depends on financial responsibility
- All needed now. Why drag it out? Upper Silver should be included they are part of the problem why should they not be included in the solution?

Question #5
How much are you willing to pay on an annual basis to help pay for a sewer collection & treatment system?

Willing to Pay	
$400	19%
$500	8%
$600	8%
$700	4%
$800	3%
$900	3%
$1,000	30%
Not Willing	12%
No Answer	14%

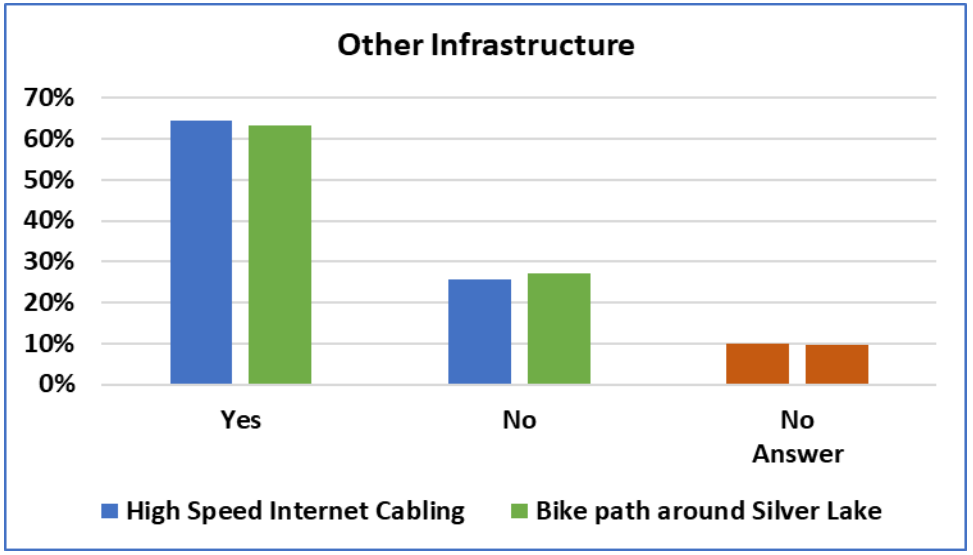


Comments:

- Willing to pay what is needed, with the understanding that any outside grants/assistance that can be obtained would be pursued
- Least amount as possible
- Only here for the summer so as little as possible
- Our system is fairly new, what a waste of our money
- Want lowest cost possible but can't put a price on having a good lake, critical to have clean lake
- Want option A, at best cost. Something needs to be done.
- If there is grant $ available do it now. Also interest rates are low.
- Don't want to pay $1000 but if necessary would do so.
- Let's get this done, but this will be the most challenging component.
- Cost is a big factor for me. I own two properties next door to each other, so I have to double the cost. Upper Silver Lake should have to connect now, same as lower Silver.
- Already invested an on-site system that has all the biological & chemical processing steps that a municipal WTP has.
- Whatever it takes
- Want system with most reasonable cost & greatest efficiency & reliability
- Not able to answer this as not enough information was given as to what each householder would incur. Is there a difference in seasonal or permanent?
- How do you handle empty lots in subdivisions for cost?
- For how long would we need to pay this? 40 year loan?
- We want to pay as little as we have to but will pay what we must to clean it up.
- I want actual figure not an estimate.
- Owning a cottage is becoming expensive. We cannot make costs force families to have to sell. That said, I want to save the lake.
- I'm a business and that should be estimated and see what is feasible.

Question #6
If sewers are implemented, should we consider other infrastructure improvements at the same time?

	Yes	No	No Answer
High Speed Internet Cabling	64%	26%	10%
Bike path around Silver Lake	63%	27%	10%



Comments:

- We should do it all at once.
- One thing at a time
- Yes, but do not want this to interfere with timing for the sewers
- Internet service in this area is poor. Keep separate from sewer discussion
- No lines for bike path-wider for vehicles-less room for bikes - bike area not properly maintained now
- Bike paths enhance quality of life.
- Internet quality is less than adequate.
- Will support bike path from a safety standpoint
- Would like both high speed internet cabling and bike path - bike/walk trail with trucks and trailers is critical
- Internet coverage is poor. Walking and bike traffic on N. Shore Dr. with amount of vehicle traffic is a major safety concern.
- Don't want internet or bike path cost to get in the way of getting sewer implemented (Option A)
- Already have bike/walk path that needs maintenance
- Already have a bike path around the lake that has never been maintained. Info: when bike path was originally put in it was to be 5' wide on each side. 4' would be new paving. The additional 1' was to come from the existing road. When the road was originally paved it was paved too wide, 12' on each side instead of 10'. Then the striping was done to delineate the bike path, it was to include an additional 1' on each side to make it 5'. This was never done. The striping was done along the paving seam.
- If the road is being tore up for sewers, it would be more cost effective.
- Where there is room to do it
- Make the most of the opportunity.
- Sure, really change it up…be futuristic. Why not add water, phone.
- Consider having electric underground.
- If things are torn up anyway it would make sense to do as much as possible.
- City water?
- Where is the bike path beyond Silver Lake Rd? Don't want bike path everywhere where road is torn up
- Take advantage now to eliminate future costs later-need now as well.

Other Overall Comments:

- Why isn't Upper Silver Lake included at this time? They should be included now before we do our sewer system, and is important. Wouldn't this system be less expensive with Upper Silver included?
- Can Upper Silver in phase 2 participate in the cost of phase one through assessment fees?
- Try an aeration system within the lake for a two-year period. The cost would be substantially less.
- Concern about property that would require lift pumps that are below the grade of the road
- How do we mandate to make sure everyone is hooked up?
- Do not add issues.
- Need to address run offs
- It seems to be that sewers are being pushed on us without discussing other options.
- As a business owner, I need more information on the REU conversion to make an educated decision.
- I am not totally clear on my responsibility as a campground. Financial equation is confusing.
- More law enforcement, lower speeds, proper enforcement
- Not trusting local government to be fair without representation from non-residents - prefer meetings on the weekends to contribute in conversation
- Being a non-resident, we have no vote on township issues. The township already takes advantage of seasonal property owners. 80% of revenue come from non-residents with no vote