CITY OF HIDEAWAY

TEXAS

FINAL REPORT OF

THE WASTEWATER PLANNING TEAM

AUGUST, 2019

Presented to the City of Hideaway Board of Aldermen

Table of Contents

- **Summary of Data and Findings**
  Other Data Collected

- **Recommendations From The Team**

- **Options Reviewed and Considered**

- **Financial Impact/Economics**

- **Recommended Viable Options to the City**

- **Team Recommendations**

- **References/Appendices**

  (A) Amenities Plan Part J

  (B) House Engineering Report

  (C) TCEQ Regulations/Rules/Responsibilities

    - Title 30 Environmental Quality
    - Part 1 Texas Commission on Environmental Quality
    - Chapter 285 On-Site Sewage Facilities

  (D) Most Common Septic Systems In Texas - FAQ Questions

  (E) Water Analysis Report

  (F) Newspaper Articles

  (G) Information From The 2011 Report

  (H) Texas Town & City Article June 2019 - Fee Summary

(I) Smith County Rules For Onsite Sewage Facilities

(J) How to Maintain Your Septic System

(K) City of Hideaway Ordinances

(L) Survey Questions

(M) Focus Group Questions

(N) Team Meeting Sign In Sheets

(O) Flood Plain Map

Introduction

The Hideaway Lake community was established in 1967 and features more than 1700 homes, over 3,000 members surrounding 235 acres of lakes and encompassing almost 10 square miles. Today, Hideaway Lake community members enjoy:

- Manned access control gates with 24 hours a day roaming security patrols
- Three lakes with boat ramps, docks, fishing piers, a beach and walking trails
- A 27 hole golf course, a driving range and a pro shop headed by a PGA professional
- Four parks, including tennis and basketball courts, playgrounds, pavilions, picnic facilities, and a junior Olympic swimming pool with life guards
- On site dining facilities
- A variety of community buildings
- Dozens of community organizations
- On site emergency medical service base

The city of Hideaway was formed in 2001. The city is unique in the fact that it does not levy any property or ad valorem tax. The city relies solely on franchise fees by the utility companies to support its budget. Currently, almost every home in Hideaway has their own septic system. With over 200 home sites yet to be built, this number of homes added to the existing ones in such a small square mile area makes the need for wastewater management very important.

Background

In 2011, Hideaway had considered the possibility of implementing a sewer system jointly with Fair Corporation, who has the long-term rights to various utility systems in Hideaway. The installation of a sewer system to replace the existing individual septic systems was analyzed, but it was decided not to proceed at that time.

In 2017, a long range strategic plan was written and presented to the HAWL Board of Directors. This plan was written to help the Board of Directors maintain and enhance member benefits not only for the short term but for the next ten years and beyond. Following the completion of the 2017 Hideaway Strategic Plan and its acceptance by the Hideaway Board of directors, the City of Hideaway and the Board discussed various approaches to evaluate the recommendation in the Strategic Plan to evaluate the overall wastewater management status and long-term implications. This information is contained in the Amenities Plans Part J Sewer Team (Attached in Appendices A).

The HAWL Board of Directors determined that it was not interested in providing oversight of the sewer plan. In May of 2018, the City of Hideaway authorized through resolution the formation of a special wastewater planning team to evaluate the current status, all ongoing alternatives and possible future approaches. The Board of Aldermen passed an ordinance appointing a committee to spend one year of study. The committee will be known as the HAWL Wastewater Planning Team. The goal of this committee will be to determine the best long-term wastewater solution for the residents of Hideaway. It is also charged with the responsibility, authority and means to explore all aspects of wastewater needs with guidelines submitted by Alderman Jerry Godfrey and Alderman Bernie Demers.

This team was appointed by Mayor Pat Bonds and named from the HAWL Long Range strategic plan with support of the Board of Aldermen and the City of Hideaway.

Team members include:

Richard Peacock - Team Lead

Beverly Guthrie

Phil Guthrie

Doug Hoffman

Greg Newton

Ron Strickland

Pat Bonds

Jim Carras, Advisor

Others who served on the Team at various times were Anita Anderson and Bernie Demers

The City considered the issues involved and developed the Charter for the planning team and the direction of the evaluation, as outlined.

The Charter:

- Assign a team lead and volunteers
- Conduct research and development of needed issues to examine the need for a sewer system to include paid consultants as required.
- Continue through 2O18 SPC and present their conclusion as part of the 2018 Strategic Planning Committee {SPC } final report.
- Give an interim report June 3O, 2019.

- Disband December 2018 unless approved by the Board and City of Hideaway to continue.
- Engage Hideaway members as part of our overall SPC Communication plan to build awareness and collect wants and needs.
- Team Lead should understand the infrastructure and rules of operation of the Board and the City. Address other utilities which may impact a sewer system, {i.e. roads, rights of way}
- Engage the Fair Company, Crystal Water, North Star and any other organizations with potential involvement.
- Hold planning meetings as needed to research and discuss options and other planning discussions.
- A report will be presented at the monthly SPC public meeting,

The mission of the team is to jointly coordinate with the city, Fair Company, Crystal Systems and other companies having legal involvement, a long-range plan, regarding a potential sewer system integrated with other community-wide strategic planning. *Subsequently this charter was modified to include evaluation of the maintenance requirements of the current septic systems and wastewater treatment in general.*

Hideaway currently has individual septic systems for each residence, maintained and funded by each resident. Community-wide efficacy of this approach is difficult to determine, particularly as Hideaway continues to grow and many systems are now approaching the end of their estimated effective lives. State law and Smith County specify that individuals are personally responsible for maintenance of their septic systems after the initial 2-year contract for new and remodeled septic systems. Neither the State, County, or Hideaway currently have minimum standards for septic maintenance.

Approach of The Team

- The Team has pursued the objectives outlined in its original charter from the City and in the Hideaway Strategic Plan.

- The prior consideration of a sewer system by Hideaway almost 10 years ago has been reviewed.

- Meetings have been held with Fair Corporation and its affiliates, who as the original developer of Hideaway, hold the long-term rights to all utility services within Hideaway.

- Input has been, and will continue to be sought, from all interested parties, including the City, Hideaway Board of Directors, and Hideaway members.

- Alternative approaches under consideration include continued usage of the current approach, upgrades or revisions to the current wastewater program, and the evaluation of the construction of a sewer system for the long term.

- The relevant governmental and regulatory agencies at the local, state and federal level have been interviewed and continue to provide input.

- Industry experts, consulting engineers, system maintenance providers and equipment vendors are providing background material on all alternative approaches.

- Alternative means of assessing and monitoring systems operation, efficacy, compliance and possible environmental concerns are all being considered.

The Team Work Plan

- The team objective is to develop a recommendation for the City to consider the best long-term alternative for Hideaway wastewater treatment, including all possible alternatives.

- Systems and monitoring approaches for all types of systems were considered.

- Systems and conclusions will be shared with all interested parties and will be included in future strategic plans, as appropriate.

- Economic impacts, both currently and in the long term, are a significant element of the Team's evaluation.

- Input from technical experts and regulatory agencies is also a meaningful part of the evaluation.

- Homeowner costs and expenses of each alternative under consideration are being seriously considered.

- Financing feasibility of the recommended approach and the impact to the community and the individual homeowner are key elements of the project.

- The Team has already devoted significant time to the project and believes it is on track to reach a recommendation in 2019.

- Research to identify all feasible alternatives.

- A technical and consulting engineer was hired by the City of Hideaway to assist the Team with its work.

- Operating details and feasibility of the alternatives were reviewed

- The relevant regulatory, legal and environmental considerations were studied.

- Hideaway member focus groups we reorganized to gain insight on the current system's operations and issues.

- A communications plan was put into place to provide more information to the community. A survey to all interested members was done as part of the communications plan.

- Issues and feasibility of construction of alternative systems were evaluated.

- Alternative means of measuring current and ongoing effectiveness of the current system were discussed.

- Potential timing and phases of implementation of the recommended alternative were outlined.

- Economic analysis of the various alternatives will include:
    - Operating costs and expenses of the various systems alternatives
    - Initial costs of construction for the system and to the individual Member
    - Means of minimizing economic impact to the Member
      Relative cost comparisons, both short and long term, for all the alternatives under consideration

Ongoing discussions continue with potential system operators and/or utility providers for alternative systems.

Throughout its evaluation, the team consulted with a range of technical, legal, regulatory and environmental resources and experts. Included to date in the group are the following:

Mike Pledger, Smith County designated Representative for septic certification

Bob Holsombach, TCEQ regional director

Barry Kerns, TCEQ inspector

Bob Garrett, Fair Corporation

Paul Wilkins, Smith County septic system inspector

The University of Texas Health Science Center, School of Public Health

Dr. Paul McGaha and staff members

Randy House, Professional Engineer

Septic system inspection and maintenance companies

Various research papers, documents and publications

Septic and sewer system equipment vendor's materials, including materials from similar cities

Hideaway Lake Club members of the Board of Directors

Legal counsel to the City of Hideaway

The City of Hideaway Board of Aldermen

The City of Lindale

Smith County

Texas Commission on Environmental Quality

Hideaway Wastewater Current Status

Hideaway currently has over 1700 residences, each of which is served by its own individual septic system for treatment of wastewater. The individual homeowners are responsible for the operation, maintenance, environmental impact and regulatory compliance of their systems. More than half of these systems are nearing their theoretical useful life. Many of the current systems have tanks, spray areas or underground drainage fields that intrude into the defined flood plain, raising environmental issues and concerns.

Various Club facilities and buildings also have individual septic system arrangements. One of the first recommendations the Team sent to the City was a suggestion that the City ask the Club to take steps to connect the Club House and adjacent buildings to the Lindale sewer line that runs nearby. To date, no action has been taken by the Club to connect to Lindale's sewer line.

There is currently no effective system or means of determining the efficacy of each of these individual systems. Governmental or Club oversight of the current septic arrangements is minimal or non-existent.

Although Smith County is statutorily broadly responsible for oversight of all such systems in the County, this oversight is largely limited to certification of new or modified systems. Although the current septic systems are considered"grandfathered" from the time of their installation, many of these systems do not meet current building code and environmental standards. However, no known properties in Hideaway are presently under active enforcement of septic regulations.

Various parties have raised concerns regarding odor, leakage and underground seepage from the current residential and Club septic systems, including in the areas surrounding the Clubhouse, driving range and adjacent areas. The Club has spent over $34,000 in recent years to maintain these systems near the front gate.

From the homeowner's perspective:

- Many homeowners incur frequent or substantial current expenses for the ongoing drainage, maintenance, inspection and upgrades of these systems.
- As current septic systems age and fail, the cost of replacing the systems can range from a minimum of approximately $10,000 to over $20,000.
- There have been recent instances of homeowner sales being adversely affected by aging or obsolete septic systems.

It is unusual in the State of Texas for a community the size, population density, and geographic concentration of Hideaway to continue to sustain a septic system approach for the volumes of wastewater now being generated. The population of Hideaway has steadily increased over time and the amount of water withdrawn from the aquifer has nearly doubled in recent years. As these statistics continue to rise, the need for more wastewater disposal capacity will also increase. UT Tyler public health experts have expressed surprise that Hideaway continues with septic systems and expressed an opinion that the wisest course of action would be to move to a sewer system in the future.

Scheduled Team Meetings

The HAWL Wastewater Planning Team has met twenty times since May 2018. The meetings allowed the Team to discuss our purpose, issues for consideration, designation of tasks to each member and follow up on each issue and task. The Team has put in countless hours of work both collectively and individually. Our goal from the outset was to study and make recommendations in what is in the best interest of Hideaway both for the short term and long term. Meeting data and sign in sheets are attached in the report.

Meetings With Health, County and City Officials

The City of Hideaway is responsible for the health and welfare of its residents. Recognizing the potential health issues that could arise in future years with 1940 individual septic systems (1740 existing systems and another 200 homes to be built). Mayor Pat Bonds and Alderman Richard Peacock visited the offices of the Center for Rural Community Health at the University of Texas Science Center to ask for their guidance.

Dr. Paul MaGaha arranged a meeting with his staff. It was a very informative meeting that set out the responsibilities the City shoulders to protect the health of Hideaway residents.

One outcome of the meeting was the unexpected response of the group when they heard that Hideaway has a cluster of 1740 on-site septic systems on small residential lots. The consensus was that Hideaway could be the only City in Texas of our size that is predominately serviced by individual septic systems. Because of this special circumstance, monitoring the systems in Hideaway is of great importance. Currently, it is the responsibility of each homeowner to maintain his own septic system, but City oversight may become more important as systems age.

In another meeting, Mayor Pat Bonds met with Jeff Daugherty, Mayor of Lindale, who verbally offered Hideaway the opportunity to join Lindale's new server south plant. Our community would need to make a commitment by November 2020 to take advantage of this opportunity.

Relevant information was also gleaned from a meeting with Mike Pledger, the Smith County Septic Inspector. Mr. Pledger told Mayor Bonds that no regulatory action was taken when septic system violations are brought before the Justice of the Peace, because judges are not well versed about laws relating to septic system regulation. Consequently, violations usually go uncorrected

CITY OF HIDEAWAY

MEMORANDUM TO THE FILES

In October of 2017 I met with Jeff Daughtery Mayor of Lindale regarding their new sewer plant that will be constructed south of Interstate 20. Our meeting lasted 3 hours with Jeff driving around Lindale showing areas of development. We later went back to his office.

It was in his office he made the offer that Hideaway connect to the projected new south plant. He explained that it would be three years before the Hideaway commitment would need to be made. He went into detail the process Lindale must go through to determine the size of plant needed to service Lindale and Hideaway.

I explained the Hideaway decision process. So assuming nothing has changed, we must make our decision by October 2020. However, I would recommend the next elected Mayor of Hideaway cultivate a relationship with the mayor of Lindale.

Pat Bonds, Mayor

November 28, 2018

Memo to File:

I spoke to a number of consultants regarding our septic issues in Hideaway. They include but not limited to:

Mike Pledger of Smith County

David Wilkins of Wilkins and Company

TCEQ consulting

House Engineering

Pat Bonds

Mayor

Lake Front Analysis and Flood Plain Map

Researched information on Lake front lots and septic systems are found in the House Engineering Report located in Appendices (B) of this report. Many of the homes and septic systems around the lakes are located in the flood plain. A flood plain map is located in Appendices (O) of this report. Members of the Team and Randy House spent many hours researching the types of septic systems and dates of permits issued on these homes. This information may be reviewed upon request.

TCEQ Rules and Regulations

The Texas Commission on Environmental Quality (TCEQ) is the state agency with jurisdiction over wastewater management in Texas. Cities are one of three entities the TCEQ gives legal authority to manage wastewater. The other entities are counties and water districts. Currently Hideaway falls under the authority of Smith County.

Smith County along with 21 other counties make up TCEQ Region 5 in Texas. There are also 7 water districts and 6 cities within Region 5. The TCEQ Region 5 contact is Barry Kerner**.**

Meetings with Fair Corporation

Over the past year, representatives of the City and the wastewater team have met with Fair to discuss wastewater alternatives. The Fair Corporation, who developed Hideaway, holds the utility rights and would be the owner and operator of any sewer utility system.

Various engineering, construction and operational studies related to a Hideaway sewer system have been completed. They indicate that the conversion to a sewer system is preferred. Multiple types of systems have been considered and it has been concluded that a pressurized system is necessary for Hideaway due to the significant elevation changes and that it would minimize disruption during installation.

Additionally, the City of Lindale has asked Hideaway to consider whether it would consider linking any future sewer system to the City of Lindale's planned expansion of its wastewater treatment facility.

Thus, two alternatives exist for the operation of the wastewater treatment plant that would take the output of a sewer system. The City of Lindale has indicated that it could provide Hideaway with an alternative treatment plant it plans to build if Hideaway would commit to Lindale within the next two years. Fair has indicated that it would consider building a treatment plant exclusively for Hideaway and that it expects such an alternative would likely be below the costs of becoming a part of any Lindale system. Additionally, a system dedicated to Hideaway alone would likely yield a better operational result.

Fair would consider building and financing the installation of a sewer system if it could be confident that enough Hideaway residents would join the planned system. Ongoing operation of the system would be assumed

by Northstar, a Fair sister utility to Crystal Systems, the current Hideaway water utility.

Various studies of transition phasing options have been undertaken. These indicate that as many as 10 zones would be defined with the construction and installation phased by zones based on priorities. Likely, the first zones to be considered would be those on both sides of the streets along the lakefronts. Soil composition, elevations and overall ease of installation would also be evaluated.

The basic type of system under consideration has been widely and successfully used elsewhere for many years.

Engineer Analysis and Report

In November 2018, the Wastewater Planning Team (WPT) presented to the City Aldermen (City), an Interim Status Report . The Report recommended hiring a professional engineer - House Engineering, to assess the current regulatory and inspection systems as they pertain to Hideaway. House Engineering compiled the available septic information from Smith County records. The scope of the analysis and report provided background information relating to septic and sewer systems, their operations, advantages and disadvantages in East Texas. After reviewing the interim report, the City passed Ordinance number 2018-2, authorizing the expenditure of funds not to exceed $4800. House Engineering worked with the Team to produce this report. The following is a summary of the attached report.

In January of 2019 House Engineering produced a Preliminary report showing the permit status for Lake Front Properties in Hideaway. There were 183 permitted systems out of a total of 291 systems around the lakes. 120 of these systems were of the drip irrigation type,13 were of the spray irrigation type and 50 were of the subsurface type. Of the permitted sites, results were further broken down by address and included square footage of spray, drip or subsurface field, and the installer, where known.

The final report was written on May 02, 2019. It included data from the preliminary report mentioned above as well as the following:

Maintenance Requirements:

This section outlines the Texas Commission on Environmental Quality (TCEQ) requirement that a homeowner must maintain systems with secondary (aerobic) treatment, or have a contract with a licensed provider. Cost of this type of maintenance and education of homeowners regarding this matter is also discussed. Applicable regulations are cited.

Recommended Additional Inspection Requirements for Lakefront properties:

1. Require secondary (aerobic) systems.
2. Require smart alarms to be installed.
3. Require septic tank inspections if tanks are not pumped on a regular basis (Rule 285.39 cited)
4. Require maintenance and inspection records be forwarded to the City and implement periodic inspection and/or tests to assure proper operation of the systems.

Engineer Cited Options:

1) Continue under Smith County as the Authorized Agent/Order for OSSF program.
The Smith County OSSF Order provides for many of the necessary tools to keep OSSF systems operating in compliance with regulations and to provide protections for lake water quality.

2) Seek changes to the Smith County order and supplement DR's staff with a contracted DR for Hideaway. Smith County's DR doesn't have the resources to follow up on operating systems in Hideaway. A special DR could be provided by the City of Hideaway to inspect OSSF systems on the lake front properties or on all of Hideaway's properties.

3) The City of Hideaway would seek Authorized Agent Status. The City would create and enforce an order unique to the community. It would provide a direct communication between the homeowners and the City. The process to obtain Authorized Agent Status is included in the Appendix of this report.

4) Construct a sanitary sewer collection system to transport wastewater to a treatment facility off site.

A sewage collection system requires tanks and pumps on lake front properties to convey wastewater to sewer lines. This requirement would continue the need for maintenance of a sewage or grinder pump. Steps would need to be taken to insure pump failure or long-term power outage would not result in direct discharge of wastewater into the lakes.

Construction cost of a sewer collection system or connection from individual properties is outside the scope of the House Engineering report.

Engineer's Recommendation:

At Hideaway's inception in the sixties, residents were mostly part time and this "weekender" trend continued through the eighties. Part-timers spent more time in residence during the warmer parts of the year. The 1990's saw an increase in new home construction with more full time residents, larger families and the need for bigger homes. These changes increased both water consumption and wastewater generation significantly. Wastewater at Hideaway has been treated and disposed of on the same area for more than 30 years. Maintaining water quality and protecting property value relative to the On-Site Sewage program requires diligent enforcement of the existing regulations and possibly, initiation of more stringent requirements. One way of insuring the On-Site program is providing the necessary protection, is for the City of Hideaway Lake to obtain status as Authorized Agent. TCEQ guidance for initiating this process is included in the Appendix.

Residents Survey

A survey was posted on the City of Hideaway's website and over 250 households responded.

The results of the survey are as follows:

Are you located on a Lake Front?	20%	Yes
	80%	No
What Type of Septic System do you have?	52%	Aerobic
	10%	Drip
	13%	Pump Out
	14%	Gravity Flow
	11%	Don't Know
What year was your Septic System installed?	26%	Before 1986
	21%	1987-1997
	33%	1998-2010
	21%	2011 - Present
Is this the original system installed with the home?	51%	Yes
	31%	No
	17%	Don't Know
Does your system show "stress if overused? (Odor, Backup, or Overflow)	18%	Yes
	76%	No
	6%	Don't Know
Do you have a working aerator?	53%	Yes
	33%	No
	15%	Don't know
When was the last time your system was pumped out?	64%	New System or Within the last 3 years
	19%	3-6 years
	4%	7-11 years
	3%	More than 11 years
	10%	Don't know
When was the last time your system was inspected?	71%	Within the last 3 years
	10%	3-6 years
	4%	7-11 years
	3%	More than 11 years
	12%	Don't know
Do you have a current contract with a Septic Company?	40%	Yes
	60%	No

Survey Summary

The specific survey results are in the Chart above, but there were several key points of interest that emerged:

- Since half the systems are over 20 years old, many are reaching the end of their expected life.
- Only 53% have working aerators.
- Over a thousand homes have no professional inspection beyond what each homeowner provides.
- One of four systems was installed before 1986 under old, weak laws.
- Over half of the systems are the original system installed when the home was built.

Overall, the survey showed that Hideaway has an aging septic system complex with perhaps insufficient inspection regimens. These facts underscore the need for a long-term decision on what comes next, to be made sooner, rather than later.

Focus Group Summary

There were common themes across all three focus groups. Most participants recognized the need for increased management of septic systems but were not sure whether that meant external controls or simply better homeowner maintenance supported by helpful educational materials.

Few had a good understanding of present water quality and the possible connection to septic failure, but all were eager to address environmental issues if needed. Everyone acknowledged that present water quality is acceptable.

The most surprising outcome of the focus groups was the fact that so many of the participants were wholeheartedly, enthusiastically in favor of the City pursuing a path toward the Sewer Option.

Hideaway Lake Wastewater Planning Team

Focus Group # 1

May 28th, 2019, at 2pm at

The Community Building

Focus group #1 was called to order by moderator, Richard Peacock, with the following in attendance:

Jim Smith, Jerry Mullins, Joan White, Carl Moss, Bob Ellis, Don Peters, Terry Waters, and George Reid

Also in attendance were facilitator, Jim Carras, scribes Ron Strickland and Beverly Guthrie, Team member, Phil Guthrie and guest, Anita Anderson.

Richard began the discussion by making introductions, thanking everyone for participating and explaining the rules governing the focus group.

A few baseline questions were asked such as how long the members had lived in Hideaway, whether or not the participants lived on the lakes or golf course, and how much each member had known about our present septic systems before he or she had moved to Hideaway.

The next part of the discussion was divided into three groups of questions covering septic systems, lakes and sewer options.

SEPTIC SYSTEMS:

- Most of the participants experienced few difficulties with their septic systems and pumped the tanks at least every other year with some pumping more frequently.
- The group recognized that with the influx of new homes being built, larger families occupying existing homes and more full time residents rather than weekenders, there will continue to be more wastewater to deal with and more stress on older systems.
- Most expressed a need for some level of ongoing inspection for septic systems, but wondered how the inspection and enforcement would be handled and by whom.

LAKES:

There was agreement that protecting our lakes and preserving good water quality is of utmost importance to all citizens of Hideaway, no matter where they live.

- Some expressed concern over the number of people who were releasing gray water into the lakes.
- There was a discussion about current and past water testing and the need for closer attention to be paid to future testing and gathering of data.

SEWER:

- Installing a sewer system would be desirable, but the major concern in this group was cost.
- Soil conditions may be a point to be considered in the decision to install a sewer system.
- Advantages of a move to a sewer system would include greater environmental protection as well as a perceived increase in property values.
- Connecting the Clubhouse to a sewer system was championed by this group as a good first step and as a solution to the odor issues presently experienced.

Hideaway Lake Wastewater Planning Team

Focus Group # 2

May 28th, 2019, at 6pm at

The Community Building

Focus group #2 was called to order by moderator, Richard Peacock, with the following in attendance:

Vicki David, Mike Miles, Bobby Watkins, Jeffery Vinson, Bob Evans, Patti Murr, Genia Mezzenga, Kevin Jones, Michelle Jones, Dale Earnest, and Linda Avant

Also in attendance were facilitator, Jim Carras, scribes Ron Strickland and Beverly Guthrie, and Team member, Phil Guthrie.

Richard began the discussion by making introductions, thanking everyone for participating and explaining the rules governing the focus group.

A few baseline questions were asked such as how long the members had lived in Hideaway, whether or not the participants lived on the lakes (6) or golf course, and how much each member had known about our present septic systems before he or she had moved to Hideaway. Richard explained that the goal of the survey and focus group was to gather input from the community. That input would be analyzed and put together with other facts and data in a report to the City containing Team recommendations for future action by the City.

The next part of the discussion was divided into three groups of questions covering septic systems, lakes and sewer options.

SEPTIC SYSTEMS:

- Four of 11 participants had needed to replace their septic systems since they moved into Hideaway.

In response to Richard's inquiry about whether or not wastewater disposal should remain status quo or be changed with the changing times, the group said:

- Residents recognized that the influx of new, larger families occupying existing homes, more full time residents rather than weekenders and larger homes being built on small lots, creates a situation where there will continue to be more wastewater to deal with and more stress on older septic systems.

Richard asked if there should be septic maintenance rules made and penalties enforced. He stated that the current system for enforcement of today's rules did not work well.

- Approximately 50% of attendees pump out their septic tanks at least annually.
- Most expressed a need for some level of ongoing inspection for septic systems, but wondered how the inspection and enforcement would be handled and by whom.

LAKES:

There was agreement that protecting our lakes and preserving good water quality is of utmost importance to all citizens of Hideaway.

- There was a discussion about current and past water testing and the need for closer attention to be paid to future lake water testing and gathering of data.
- Some were concerned about the presence of leeches and midge bugs being an indicator of poor water quality.
- It was agreed that there were many sources of pollution and poor water quality other than just Fecal Coliform bacteria. Those should be considered separately from septic issues.
- Present testing for Fecal Coliform indicates that Hideaway lakes are safe for swimming and recreational activities.

SEWER:

Richard stated that connecting to a sewer system would be timed at least 5-7 years into the future even if all parties decided to proceed with the change.

There was a discussion about costs of infrastructure and possible cost savings of connecting to a Fair Company processing plant versus using Lindale for service.

Here are some points this group brought up about possible sewer systems:

- Installing a sewer system would be desirable, but the major concern in this group was cost.
- Advantages of a move to a sewer system would include greater environmental protection as well as a perceived increase in property values.
- One disadvantage of current septic systems is the potential inability to install a new system that meets current codes on small lots.
- Sooner or later, septic systems need to be replaced at great expense.
- Approximately 60% of the participants were strongly in favor of connecting to a sewer in the foreseeable future although two were strongly opposed. One stated that Hideaway should not switch from septic systems to a sewer until “forced to do so by the government”.

In conclusion, the large majority of those present agreed strongly that connecting to a sewer system should continue to be investigated, especially for the long term.

Hideaway Lake Wastewater Planning Team

Focus Group # 3

May 30thth, 2019, at 2pm at

The Community Building

Focus group #3 was called to order by moderator, Richard Peacock, with the following in attendance:

Sandy McRoberts, Anita Anderson, David Roberts, Bill Ferrar, Kyle Preston, Diann Preston, Carla Clay, Dane Brucker, & Ruth Raef

Also in attendance were Scribes, Ron Strickland and Beverly Guthrie, and Team member, Phil Guthrie.

Richard began the discussion by making introductions, thanking everyone for participating and explaining the rules governing the focus group.

A few baseline questions were asked such as how long the members had lived in Hideaway, whether or not the participants lived on the lakes (3), golf course (3), or neither (3), and how much each member had known about our present septic systems before he or she had moved to Hideaway. The following discussion revolved around three topics—septic systems, lake issues and sewer systems.

SEPTIC:

Richard asked if the use of septic systems had influenced the participant's decision whether or not to buy in Hideaway. Several said septic systems made them think twice about living on the lakes.

Richard brought up the topic of oversight and asked whether or not participants thought present rules were adequate or new regulations needed to be implemented.

Some of the issues with increased oversight are:

- Who will be responsible for keeping records?
- Should the actions taken involve inspections, pumping frequency, education on maintenance or all the above?
- Who will perform the inspections and enforce the new rules?
- Do we have the manpower to put in place increased inspections and enforcement?

Points of discussion:

- Septic systems wear out and need to be replaced at great cost.
- Residents recognize that the influx of new, larger family units, more full time residents and larger homes being built on small lots, creates more wastewater to manage and more system stress.
- Current septic regulations make it nearly impossible to build a new house on an existing small lot that is compliant with current codes.

LAKES:

There was agreement that protecting our lakes and preserving good water quality is of utmost importance to all citizens of Hideaway.

- Participants use the lakes for swimming, boating and fishing.
- There was a discussion about current and past water testing and the need for closer attention to be paid to future lake water testing and gathering of data.

- Present lake water testing shows that the lakes are safe for recreational activities despite some participants' concerns about water quality being negatively affected by poorly functioning septic systems.

SEWER:

There was a discussion about costs of infrastructure and possible cost savings of connecting to a Fair Company processing plant versus using Lindale for service.

- It is expected that if HAWL does elect to connect to a sewer system, there would be a phase-in of service over time.
- Installing a sewer system would be desirable, but the major concern in this group was cost.
- Advantages of a move to a sewer system would include greater environmental protection as well as a perceived increase in property values.
- There would be less ongoing maintenance cost with a sewer system than with a septic system.
- The monthly cost of ongoing sewer service versus combined maintenance costs plus expensive, but infrequent, costs of replacing a septic system were compared.

Board Member Anita Anderson told the group that Bob Garrett of Fair Corp. is presently preparing a cost estimate, plan and recommendation for connecting the Clubhouse and adjacent buildings to the nearby Lindale sewer line. All agreed that this plan would be a good first step to solve some current septic issues.

In conclusion, the large majority of those present agreed strongly that connecting to a sewer system should continue to be investigated, especially for the long term.

WATER ANALYSIS REPORT

For many years, fecal coliform tests have been performed professionally on all three lakes once or twice a year. For the most part, tests have been satisfactory, however, when there have been test results exceeding permitted bacteria levels, necessary follow-up testing has not been done. One very positive outcome of the Team wastewater study has been a renewed commitment to test the water more frequently and to do follow-up testing at any site where bacteria counts are higher than permitted for safe swimming and recreational use.

As septic systems age and malfunction, there is an increased risk of spillage. To date, a detrimental environmental impact of septic failure has not been detectible in lake water samples, but close attention needs to be paid to testing performed more frequently to assure that healthy water quality standards continue to be maintained in the future. As of the writing of this Report, the water quality in the lakes falls within safe levels for all activities.

Summary of Data and Findings

As the HAWL Wastewater Planning Team met throughout the past year, the discussion centered around research of septic systems, sewer system and other viable options of wastewater management. The Team looked at other similar communities, met with Fair Corporation officials, septic inspectors, a professional engineer, professional health and rural health officials and many others in an attempt to gather as much data as possible.

The Team has proposed options for the City to discuss and take under consideration. The Team has also recommended that the City consider a short term solution and a long term solution to deal with wastewater in Hideaway. The Team believes that it is crucial for the City to develop a 10 year plan to manage wastewater.

A "no- action" plan, is included as an option in this report. The Team believes this is not a viable option for the future. The Team recommends the City needs to be actively involved and develop a plan for managing and providing oversight to wastewater. The following pages are detailed options for the City to consider. As stated above, the Team recommends the City review all options and develop a long term step by step strategy.

The Team recommends the City appoint a task force to study the options contained in this report, educate the public on the need for a plan, and take ownership of this issue. This report should serve as a first step going forward. The Team recognizes this process is going to be controversial and politically charged and meet with some opposition. The City needs to move slowly and methodically forward.

Other Data Collected

The Team collected many other pieces of information and has recorded minutes of all meetings. Some of this data is not included in this report, but can be reviewed on request.

Recommendations From the Team

Retention of Technical Expert

The team recommended that the City retain House Engineering to assess the current regulatory and inspection systems and available information in Smith County, particularly as these relate to Hideaway and also guide the Team in its work (Ordinance 2018-2 attached in Appendices K). Additionally, House Engineering will provide background information relating to septic and sewer systems, their operations, advantages and disadvantages in East Texas. Potential upgrades in inspections and compliance for the current Hideaway systems will also be considered. The final report was presented the Team in the summer of 2019.

Evaluation of Hideaway Clubhouse Septic System

For several years, members have observed and commented on recurring odors and seepage from the septic system for the Clubhouse and adjacent buildings. The Club is incurring incremental expenses for maintenance and pumping of the septic tanks.

Fair corporation is currently constructing townhomes at the front gate and these units will be linked to the Lindale sewer system.

The Team has considered whether the linkage to the adjacent sewer system should be considered as a solution to the recurring problem at the Clubhouse.

The Team has recommended that the City retain an expert to study the feasibility of such a solution. Although the estimated cost of the study is less than $300, the Board has not approved this evaluation to date. (Ordinance 2018-3 attached in Appendices K).

Given the continuing issue and minimal cost to study the possible solution, the Team has recommended that the City retain the expert for the evaluation, in light of the impact on City residents, surrounding properties and possible public health implications, however the City cannot legally pay for services rendered to the Club.

The following pages of the report outline viable options The Team has researched and discussed. The report contains recommendations for the City to consider. This report is not the final outcome, but the beginning framework for the City to build upon. The Team believes there needs to be a methodical process to ultimately achieve a sewer system for Hideaway.

NO CHANGES IMPLEMENTED

Although most septic systems in HAWL are functioning adequately, data collected indicates that both now and into the future, septic systems will fail and septic failures will negatively affect our environment. For that reason, taking no action is not a viable option in the Team's view.

Negative Results of No Action:

- Septic systems will continue to fail without better understanding of maintenance needs
- Some residents will not understand the environmental impact possible with failing septic systems
- Residents may move ahead with replacing their failing systems without realizing that a move to a sewer system is being considered, making them less likely to agree to a sewer

Positive Results of No Action:

- Time, money and goodwill not spent on other options leaves the Team and the City free to move ahead sooner with more planning for a sewer system

MEMBERSHIP EDUCATION OPTION

Data gathered during the Team's work showed the need for a widespread and comprehensive program of septic maintenance education. The goal would be to help residents understand their septic systems better and to help them maintain systems more frequently and more efficiently. This option could include any of the following:

- A booklet compiled by the Team that would define a maintenance plan for the residents. The booklet could contain a simple explanation of what the different types of septic systems are and how to maintain them for optimal efficiency. This booklet should be given to every homeowner when he/she is at orientation and should be mailed to every present resident. Printing and mail costs possibly could be covered by sponsorship ads placed by septic maintenance companies who serve HAWL. The booklet should be sponsored by and distributed by the City.
- Periodic articles in both the newsletter and the newspaper (perhaps on social media, too). The articles could be a series of tips for maintaining septic systems and could be something like, "Septic Tip of the Month" or a similar catchy, short, readable tip.
- Agents from Texas A&M Agrilife Extension Service are available to come free of charge to a membership meeting to discuss septic maintenance.

Negatives of this option

- There would be no way to assure that the information provided was either read or followed**.**
- Who would manage the program?

Positive aspects of this approach

- Fairly quick and easy to implement
- Not costly if underwritten by septic maintenance companies' ads

- Every resident would receive a booklet.
- A relatively quick, easy way to improve maintenance without having to mandate compliance or impose fines, etc.
- Maintains membership goodwill
- Makes moving ahead with a sewer option possible sooner rather than later
- Saves time, effort, money and community goodwill to use toward a sewer option, if desired
- Provides a way to achieve better septic upkeep until sewer options come forward

The following is a good example of what material could be included in an educational booklet:

** **IMPORTANT!**

TCEQ reminds us that an **OSSF** (**O**n **S**ite **S**ewage **F**acility)/septic system is not a city sewer. Treat it right, feed it properly, and it will provide efficient service.

OSSF, *do*s and *don't*s:

DO:

- Have your tank pumped and cleaned by a TCEQ **registered sludge hauler**. Use this table to determine how often you should have your tank pumped and cleaned (figures with a **green background** represent average situations):

	Household size (number of people)								
	1	2	3	4	5	6	7	8	9+
Tank Size (gallons)	**Duration (in years) Between Pumpings or Inspections**								
750	9.1	4.2	**2.6**	1.8	1.3	1.0	0.7	0.6	0.4
1,000	12.4	5.9	**3.7**	**2.6**	**2.0**	1.5	1.2	1.0	0.8
1,250	15.6	7.5	4.8	**3.4**	**2.6**	**2.0**	1.7	1.4	1.2
1,500	18.9	9.1	5.9	4.2	**3.3**	**2.6**	**2.1**	1.8	1.5
1,750	22.1	10.7	6.9	5.0	**3.9**	**3.1**	**2.6**	**2.2**	1.9
2,000	25.4	12.4	8.1	5.9	4.5	**3.7**	**3.1**	**2.6**	**2.2**
2,250	28.6	14.0	9.1	6.7	5.2	4.2	**3.5**	**3.0**	**2.6**
2,500	31.9	15.6	10.2	7.5	5.9	4.8	4.0	**3.5**	**3.0**

- Obtain information on conserving water from your water supplier.
- Check your toilet for leaks periodically. Add a water-based dye to the flush tank and see if the dye appears in your toilet within 10 minutes (without flushing the toilet).

DON'T:

- Build over any part of your on-site sewage disposal system. Examples of items **not to** construct over your system: driveways, barns, storage buildings, sidewalks, and patios.
- Add chemical additives or so-called enzymes into your OSSF. Some of these additives may even be harmful to the tank's operation.
- Use the toilet to dispose of cleaning tissues, cigarette butts, or other trash. This disposal practice will waste water and burden the treatment system with an undesirable load of solids.
- Drive or park vehicles over the OSSF.

Additionally, the website below contains many pre-prepared pages of information that are offered for use free of charge:

Hideaway needs to make some changes:

A simple (free) start would be to promote - programs like this - https://www.epa.gov/septic/septicsmart-week

Sept 16-20, 2019

(Maybe this should be our grand release date in 2020.)

Or have a representative attend the Texas Onsite Wastewater Association 2019 (or 2020) Annual Conference - http://txowa.org/conferences/

If the Education Option is chosen, there are many already prepared documents that could be a good nucleus of information for the informational booklet. The EPA website is a helpful guide.https://www.epa.gov/septic/septicsmart-week

BENEFICIAL REUSE OPTION

One option proposed but not explored fully is to pump usable water from the third tanks of residents' septic systems, particularly those who live on the lakes, to an existing septic treatment tank belonging to HAWL. This water, treated a second time, could be reused to water the golf course.

There is information on using this option available from many Audubon

Nature Centers and "green" facilities whose access to clean, potable water

is limited. Although this approach has been used successfully, in most

instances, these facilities' water plans were designed into the construction

of the Center, not installed as an after-thought, which would be the case with Hideaway.

Here are some benefits of reusing water:

- This approach takes a resource that is presently not utilized and turns it into a valuable asset-- water for the golf course.
- Reuse of water would greatly reduce or eliminate the need to pump golf course water from the middle lake.
- With less or no water being pumped out of the lakes, there would be more water remaining to keep the water levels higher during drought periods.
- With more and more homes being built in Hideaway, all with septic systems, there would be an increasing supply of water for irrigation.
- Using water not treated with chloramines and other chemicals used to make water potable, would have a beneficial effect on the plants and grass on the golf course. (Yes, occasionally, in emergency situations, HAWL uses treated drinking water for irrigation.)

Some possible negative impacts to consider:

- This approach has not been fully explored to determine whether or not reusing water is economically or physically feasible.
- Although reusing water for flushing toilets and other uses has been successful elsewhere, additional environmental testing and study would need to be done to determine if there are any detrimental effects to using this water on golf courses.
- The logistics of actually pumping water from existing 3rd tanks of homeowners to the tanks owned by Hideaway could be daunting.
- Cost of the infrastructure could be prohibitive.
- The City would need to determine who would bear the expense, and make rules about which, if not all, homeowners would be required to participate in the collection and reuse program.

Implementing and Enforcing Septic Regulations

One fact that has emerged from the Team's look into the world of septic system regulation is that current rules are often confusing and conflicting and enforcement is almost non-existent. One option the Team has considered would require the City to take charge, pass ordinances, mandate inspection schedules, set up a reporting system and designate staff to keep track of required inspections (see TCEQ rules and regulations in the reference section of this report Appendices C). If the City sets rules and they are not followed, then this option would require the appointment of a Judge who could decide on fines and punishment. Failure to comply with a civil citation is a misdemeanor offense.

Advantages of this option:

- Rules could be made more clear and less confusing
- Compliance would be almost universal, thus keeping the environmental impact of septic failure to a minimum
- Everyone would be treated equally under the law

Disadvantages of this option:

- Individual responsibility would be replaced by mandated actions
- The City Aldermen would necessarily have to take on the role of "mandators-in-chief" and enforcers, appointing a special judge
- The goodwill of the community would be diminished

ANNEXATION OPTION

The City of Hideaway could elect to disband and negotiate with the City of Lindale to annex Hideaway. The City of Lindale and Northstar would then form an agreement to provide sewer service to Hideaway. The City of Lindale and Northstar would bear the cost of infrastructure for the sewer system and the City of Lindale would use City tax revenues and fees for implementing the sewer system in Hideaway.

It could be possible to use the same approach with the City of Tyler, as well.

Benefits to members from annexation:

- Annexation would give Hideaway easier access to a greater source of long-term funding.
- Hideaway would gain access to the expertise and infrastructure already existing within the City of Lindale.
- There would be no extra property tax to Lindale
- Fire protection, building department, City services and utilities could all be managed and funded by the City of Lindale.
- Annexation should provide opportunities to improve the infrastructure of Hideaway.
- Hideaway could continue to maintain gated status.

Negatives of the annexation option:

- Residents would lose much of the independence they now enjoy.
- Residents would be subject to the decisions made by a Lindale City Council over which they would have little control.
- Sales from the Club would be subject to a 1.5% city sales tax on the $6.2 MM HAWL brings in as income ($93,000/year)
- Residents of Hideaway would be governed by the rules, regulations and laws of the City of Lindale and be subject to the City taxes levied.

Some things would not change if Hideaway were annexed. The Homeowners' Association would still exist and the Board of Directors and a General Manager would still run the golf course, pool, Clubhouse, facilities and lakes. Dues would still be in effect but, hopefully, with the reduction in services dues presently cover, the dues would be reduced. Hideaway residents would prefer to retain the Hideaway USPS Postal Address.

Option of Phased Sewer System and Economics

Summary

There are some desirable features of a sewer system versus the current aging septic system. Preliminary studies indicate a conversion is technically feasible. Long term and short-term economics need to be further analyzed, although it appears that long term costs of the two alternatives may be comparable. This option outlines a path the City could pursue to develop a specific analysis, plan and economics to present detailed alternatives to the homeowners.

Sewer System Overview

- Sewer systems in general provide environmental and public health advantages over septic systems, particularly in densely populated areas with limited lot sizes.
- Once in place, sewer systems usually require less maintenance and inspection than septic systems. Maintenance of a sanitary sewer system is performed by the operator at its expense and is included in the overall monthly sewer rate.
- Sewer system construction methods and costs to the homeowner are the primary concerns of most homeowners.

Construction considerations:

- **SYSTEM**
  - For the overall system, Fair would provide linkage from the homeowner to the treatment plant.
  - Construction would likely be by zones to minimize disruption and would be in a multi-year transition program.
  - The required underground lines would be installed through drilling methods similar to those currently used elsewhere

for underground utility lines such as electrical and cable/phone lines. In a few instances of major gathering lines, some trenching may be necessary.

- There should be minimal impact on Hideaway's roads using this construction technique.

- **HOMEOWNER**
  - Individual homes would be linked to the central lines by a small gathering tank and a pump that would feed the central lines.
  - In some cases, one of the existing septic tanks could possibly be used as the gathering tank, requiring only the installation of the pump, the single holding tank and lines to tie to the system.
  - Fair has indicated that it would be responsible for ongoing maintenance of the individual pumps linking to the central system.

Fair has conducted various studies of construction and system phasing. These indicate that as many as 10 zones would be defined with the construction and installation phased by zones based on priorities. Likely, the first zones to be considered would be those on both sides of the streets along the lakefronts. Soil composition, elevations and overall ease of installation would also be evaluated.

The basic type of system under consideration has been widely and successfully used for many years.

FEASIBILITY AND ECONOMICS

Although conversion to a sewer system is feasible and desirable in many respects, the understandably overriding concern of residents is economics.

Septic system economics

Many homeowners currently incur frequent or substantial expenses for the ongoing drainage, maintenance, inspection and upgrades of septic systems.

As current septic systems age and fail, the cost of replacing the systems can range from a minimum of $10,000 to over $20,000.

Hideaway septic systems require pumping of sludge or overflow on a widely varying schedule, ranging from multiple times annually, to most on an annual or 2-year basis to a few on an even longer schedule. The costs of each pumping service range between $100-$225 on average, depending on the number of tanks pumped. Maintenance of pumps, lines, filter or chlorination elements is another cost. If an inspection service is used, these additional costs range around $250-$300 annually.

From a public health standpoint, one of the greatest challenges is the lack of regulation on effluent quality particularly when spray disposal is utilized. Questions arise concerning whether the aerators are working properly, whether the system is hydraulically overloaded reducing contact time and whether there is proper chlorination.

Sewer System Economics

- The Team has concluded from various sources, including local realtors, that septic systems are generally less desirable than a sewer system when a home is being sold, and thus a negative impact of the fair market value of the home.
- Fair has indicated that installation and operation of the sewer system would be conducted through its NorthStar utility subsidiary and would thus be subject to State of Texas regulatory and rate-setting regulations.
- Fair has also indicated that the monthly sewer charge, similar to that in other cities, would be billed to the homeowner along with the current monthly water bill.
- Preliminarily, Fair has indicated that it could possibly assist in the initial construction and conversion costs to the homeowner, through some sort of extended financing, likely through a local bank.
- Ultimate costs to the homeowner would depend on many factors including the timing and phasing of construction zones, the amount of revision and conversion at each home, future construction costs, and the number of individual homes converting to the sewer system at any one time. The greater the number of sewer system homeowners participating, the lower the monthly cost for each homeowner.
- To achieve reasonable construction and operating costs, a majority of homes would need to convert in order to spread the initial and operating costs over as many units as possible.
- It is currently estimated that the monthly sewer billing to the homeowner would be in the $50-$70 range, comparable to that of most cities. If all Hideaway homeowners would participate, the rate perhaps may be even lower.
- The initial conversion costs to the homeowner are estimated to be approximately $4,000 to $5,000 on average, although this could obviously vary depending on each specific home.
- The installation of a sewer system would eliminate the current need for maintenance, repairs, supplies, inspections or service companies.

- The major consideration and risk that faces each homeowner is the failure of the current system, leading to the substantial costs of rebuilding or replacing the system. This exposure well exceeds any costs related to sewer conversion.
- In evaluating the long-term cost comparison of sewer conversion versus current septic usage, the system life cost of the sewer likely becomes meaningfully less than that of a septic system that will eventually need replacement,
- Although difficult to quantify, various sources have indicated that a septic system could have up to a negative 5% impact on the selling price of a home.

Thus, the long-term economic impact of conversion to a sewer system, in terms of monthly expense and long-term costs, may be more favorable than many expect.

POTENTIAL NEXT STEPS

1. The City of Hideaway may decide to determine whether more detailed economic analysis and detailed negotiations with Fair should be undertaken to refine further the logistics, planning and economics of a sewer conversion.

2. The City of Hideaway may elect to evaluate the relative desirability of whether the City of Lindale or Fair would be the best wastewater treatment plant operator for Hideaway.

3. Homeowner input, similar to that of the focus groups already conducted, should continue if the sewer option is pursued, but no overall decision should be made until conclusion of the two steps above and further homeowner involvement are completed.

Hideaway Lake Wastewater Planning Team

Team Recommendations

Recognizing that the mandate of the HAWLWPT was to look at all options for wastewater management in Hideaway and to present the Mayor and Aldermen with a considered and suggested plan of action, the Team recommends the following:

The survey and focus group data point to a need for more education and training of our members on septic systems and maintenance. Consequently, the Team recommends that the City consider adopting the **Education Option**, which can be implemented immediately without the need for ordinances, mandates or judges. It is hoped that education highlighting the need for more regular maintenance and voluntary inspection will increase compliance and serve to allow residents to exercise individual responsibility for keeping Hideaway clean and safe.

An advantage of taking action on providing information and education is that it will enable the City to proceed more quickly to begin the process of planning for implementation of a Beneficial Reuse system **or** the **Sewer Option,** if desired. It came as a surprise to Team members when focus group attendees were almost unanimous in their strong support of continuing down the path toward a sewer system for Hideaway. It is the Team's hope that the City consider the path toward converting the current septic system to a sewer system in the near future.

It is the Team's belief that many viable options are presented in this report. Perhaps by combining the best parts of several options, the City can provide the most attractive and useful plan for wastewater disposal in Hideaway. We recognize that there are benefits to almost all the options presented and that the City may elect to combine parts of several options to achieve the best outcome.