NOTICE

Notice is hereby given that the Mayor and City Council will hold a Work Session on May 18, 2011, in the Council Chambers, 45 West 100 South, beginning at 6:00 pm.

DISCUSSION ITEMS

1. Review of the Council Agenda
2. Alternative Sewer options
3. Creation of 1-acre Zone
4. General Discussion

If you are planning to attend this Public Meeting and, due to a disability, need assistance in understanding or participating in the meeting, please notify the City Office ten or more hours in advance and we will, within reason, provide what assistance may be required.

CERTIFICATE OF MAILING

The undersigned duly appointed City Recorder for the municipality of Santaquin City hereby certifies that a copy of the foregoing Notice and Agenda was e-mailed to the Payson Chronicle, Payson, UT, 84651.

SBFarnsworth

By: Susan B. Farnsworth, City Recorder

Posted:
City Offices
Post Office
Zions Bank

MINUTES OF A COUNCIL WORK SESSION
HELD IN THE COUNCIL CHAMBERS
MAY 18, 2001

The meeting was called to order by Mayor James E. DeGraffenried at 6:05 pm. Council Members attending: Filip Askerlund, Martin Green, James Linford, Rick Steele and Brent Vincent.

Others attending: City Manager Ben Reeves, Community Development Director Dennis Marker, Director of Public Safety Dennis Howard, Public Works Director Wade Eva and Lance Wollenbaek.

DISCUSSION ITEMS

Review of the Council Agenda

There was one change to a vote on the draft minutes.

Alternative Sewer options

See attachment "A" for the presentation.

Creation of 1-acre Zone

Not enough time to hold discussion.

General Discussion

Not enough time to hold discussion.

At 6:58 pm the Work Session adjourned.

Santaquin City Sewer System
Exploring the Alternatives:

The Payson City Option

Prepared by:
Benjamin A. Reeves, Santaquin City Manager – May 18, 2011

Introduction

- On April 27, 2011, the Santaquin City Council voted to place the two referendums, pursuant to the funding of the Water Reclamation Facility (WRF), on the November ballot.
- Recognizing that there will be a delay to the project, as well as a possibility that the WRF may not pass in November, staff began to explore interim sewer treatment options. (Currently in-process).
- In the meantime, Councilman Vincent visited with me requesting that I set up a meeting with officials from Payson City to re-explore the Payson option.
- Prior to negotiating with Payson City, it would be well advised to review the history of this option to formulate and focus the questions and direction to solidify Santaquin City's position.

Evaluation of Six Alternatives

1.) Do Nothing

2.) Expansion of Existing Lagoons With Expanded Land Application

3.) Expansion of Existing Lagoons Discharge to Utah Lake

4.) Connect to Payson City Sewer System

5a.) Membrane Bioreactor (MBR) At Proposed North Site

5b.) Membrane Bioreactor (MBR) At Lagoon Site

The costs and benefits of all alternatives were evaluated. With the recommendation of the Citizens Action Committee, the City Council Approved Option 5a in December of 2008

Financial Consideration:

There are two ways to approach the financial aspects of the Payson Option.

- The first is to compare it to the established rate of the proposed option which has a user rate of $42/mo
- The second is to create a total costs of this option independent of any other option

Financial Consideration:

- Comparing the Payson Option to the proposed option establishes a beginning user rate of $42/month
- Our prior average user rate of $22/month covers our current debt service and operations and maintenance costs.
- The difference being $20/month.
- Therefore, the combined cost of:
  - construction to flow to Payson,
  - "buying-in" to their current system,
  - as well as their monthly user rate

  can not exceed $20/month for this to be a viable alternative.

$42 current rate

-$22 prior rate

$20 = The amount available to fund expanded capacity

Financial Consideration:

- Currently, Payson City charges Elk Ridge a rate of $24/mo
- County residents are charged $33/mo plus usage
- Conservatively, the amount we would need to negotiate with Payson can not exceed $20/mo minus construction costs

$42 current rate

-$22 prior rate

$20 = The amount available to fund expanded capacity

-$24 Elk Ridge Rate

($4) = The amount available for construction

Prior Studies

PRIOR STUDIES ON THE PAYSON OPTION

Year	1991	2001	2002	2007	2009
Engineering Firm	Sunrise Engineers	Sunrise/Aqua Engineers	Epic Engineers	Aqua Engineers	JUB Engineers
Customer	Santaquin City	SUVMWA I	Santaquin City	SUVMWA II	Santaquin City
Pipe Size	15"	42"	30"	24"	30"
Estimated Construction Cost:					
Connection Costs (Pipe, etc.)	$ 1,170,250	$ 6,965,376	$ 1,826,000	$ 5,664,163	$ 2,400,000
Contingency	$ 84,626	$ 2,786,150	$ 365,200	$ 849,624	$ 480,000
Engineering Design & Survey	$ 86,020		$ 146,080	$ 325,689	$ 360,000
Construction Mgt	$ 76,160		$ 127,820	$ 455,965	Not Addressed
Easements/Legal/Fiscal	$ 34,170		$ 534,200	$ 100,000	Not Addressed
Sub-Total Construction Costs:	$ 1,451,226	$ 9,751,526	$ 2,999,300	$ 7,395,441	$ 3,240,000
Sub-Total Construction Costs in 2011 Dollars	**$ 2,407,584**	**$ 12,345,432**	**$ 3,752,124**	**$ 8,001,867**	**$ 3,408,480**
Additional Construction Costs					
Cost of Changes Required to Payson System	Not Addressed		Not Addressed		$ 862,500
Cost of Changes Required to Santaquin System	Not Addressed		Not Addressed		$ 5,345,200
Sub-Total Additional Construction Costs	$ -	$ -	$ -	$ -	$ 6,207,700
Sub-Total Additional Construction Costs in 2011 Dollars	**$ -**	**$ -**	**$ -**	**$ -**	**$ 6,530,500**
Estimated Buy-In Costs:					
Payson Buy-In Costs	$ 902,700	Not Addressed	Not Addressed	$ 2,000,000	$ 1,291,000
Sub-Total Buy-In Costs in 2011 Dollars	**$ 1,497,579**	**$ -**	**$ -**	**$ 2,164,000**	**$ 1,358,132**
Total Estimated Connection Costs in 2011 Dollars:	**$ 3,905,163**	**$ 12,345,432**	**$ 3,752,124**	**$ 10,165,867**	**$ 11,297,112**
Operations and Maintenance Costs:					
Payson's Charge for Annualized O&M and Debt	$ 102,000.00		$ 379,200.00		$ 794,618.00
Payson O&M cost per Santaquin connection per month	**$ 13.89**		**$ 20.60**		**$ 25.65**
Rent Costs Option			**$ 12.00**		

Cost of Buy-In Option

Buy-in Option	Low Estimate	High Estimate
Construction Costs	$3,408,480	$9,938,980
"Buy-In" Costs	$1,358,132	$2,000,000
Total Construction:	**$4,766,612**	**$11,938,980**
Monthly Cost per User	$12.30/mo	$30.81/mo

	Low Estimate	High Estimate
Amount Available	$20.00/mo	$20.00/mo
Construction Cost	$12.30/mo	$30.81/mo
Amount Available for Payson's User Rate:	**$7.70/mo**	**($10.81/mo)**
Elk Ridge Rate	$24.00/mo	$24.00/mo

Cost of Rental Option

Rental Option	Low Estimate	High Estimate
Rental Fee	$12.00/mo	(?) $15.01/mo

	Low Estimate	High Estimate
Amount Available	$20.00/mo	$20.00/mo
Construction Cost	$12.00/mo	$15.01/mo
Amount Available for Payson's User Rate:	**$8.00/mo**	**$4.99/mo**
Elk Ridge Rate	$24.00/mo	$24.00/mo

Total Cost of Payson Options

	Buy-In Low Estimate	Buy-In High Estimate	Rental Low Estimate	Rental High Estimate
Prior Rate	$22.00/mo	$22.00/mo	$22.00/mo	$22.00/mo
Payson User Rate	$24.00/mo	$24.00/mo	$12.00/mo	$15.01/mo
Construction & "Buy-In" Costs	$12.30/mo	$30.81/mo	$9.68/mo	$25.64
Total Costs:	$58.30/mo	$76.81/mo	$43.68/mo	$62.65

- Note: If the rental option is chosen, Payson has established that this will be a temporary option for Santaquin City to access unutilized capacity of their current system. When Payson needs to access this capacity, they will notify Santaquin City that they will need to suspend flows to Payson

Evaluation of Six Alternatives

1.) Do Nothing

2.) Expansion of Existing Lagoons With Expanded Land Application

3.) Expansion of Existing Lagoons Discharge to Utah Lake

4.) Connect to Payson City Sewer System

5a.) Membrane Bioreactor (MBR) At Proposed North Site

5b.) Membrane Bioreactor (MBR) At Lagoon Site

The costs and benefits of all alternatives were evaluated. With the recommendation of the Citizens Action Committee, the City Council Approved Option 5a in December of 2008

Final Considerations

- During three of the prior evaluations, the Payson option was eliminated from consideration not only for financial reasons, but also because prior council's did not want to be "beholding" to Payson

Waste Water Collection and Treatment Facilities Plan for Santaquin, Utah

Prepared by Sunrise Engineering, July 1991.

Plan Recommendation: Aerated Lagoons with Land Application

Mayor: D. Lynn Crook
Council Members: Keith Broadhead, Marilynn Clayson, Gerald Fowkes, Max Holman, Dennis Lamb

The following information pertains to considerations within the subject planning document which pertain to sending Santaquin's waste water to the Payson sewer treatment plant. Information in quotes is directly from the subject plan document. Other information provided is a summary of statements or figures also provided in the document. Where sections are "missing" or not referenced it is due to no specific information about the Payson option being considered within that section or no considerable differentiation between the other options and the Payson option being provided. This is not intended to be a complete synopsis of the planning document nor information applicable to all the alternatives considered in the planning document.

Section 6: Development and Screening of Alternatives

1. Initial Options considered:

Option Type	Further Analysis Determination
Optimum Operation of Existing Facilities.	Not an option for consideration
Regionalization – Gravity flow to Payson	Possible Alternative #1
Mechanical Treatment	Possible Alternative #2
Total Containment Lagoons (Evaporation of Effluent, no discharge)	Possible Alternative #3
Facultative Lagoons with Land Disposal (process like containment with winter storage)	Possible Alternative #4
Aerated Lagoons with Land Disposal (Current Lagoon system)	Possible Alternative #5
Mound Systems (hybrid on-site system involving pumps, tanks, and earth mounds)	Not an option for consideration
Cluster Systems (communal septic tanks)	Not an option for consideration

2. Notable findings from Section pertaining to waste water treatment in general.

   a. "Soils conditions in Santaquin are <u>not</u> favorable for on-site systems because rapid percolation through course-grained soil can result in short retention times in the aerated potion of the soil profile and rapid transfer of contaminants to ground water."

   b. "The entire extent of Santaquin City, and all of the area around the City, is a ground-water recharge zone."

Section 7: Evaluation of Principal Alternatives

1. 7-4 Financial Capability.

   "The cost per connection is anticipated to be about $280 per year ($23.22 per month). . . The commonly accepted guideline for sewer rates is 1.5% of Median Household Income (MHI)" The 1980 census showed Santaquin MHI was $14,184 which would allow for $24 per month.

(NOTE: 2011 MHI in Santaquin is Census estimated at $61,395 resulting in $76.74 per month)

2. 7-5.8 NOISE, ODOR, AESTHETICS.

There could be some noise associated with the operation of the mechanical plant in Alternative #2 and Alternatives #'s 1,2,3,4,5 may produce some odor at times, which would be dissipated north or west of the City by prevailing winds.

3. 7-5.9 LAND USE.

Alternative 1 will have essentially no impact on land use, since the gravity interceptor can be placed almost entirely along road rights-of-way. The other alternatives all require crossing private properties. However, these impacts will be minimized by following fences, roads, and the railroad right-of-way whenever possible.

4. 7-6 EVALUATION OF RELIABILITY

"Alternatives 1 and 2 are the least reliable alternatives, since there is more machinery to break down. Alternatives 3 and 4 are the most reliable. Even so, the need for sewage lift stations, with attendant backup power supplies, makes even these impoundment treatment alternatives subject to mechanical and/or electrical interruptions." The recommended alternative can be designed without the need for pump stations.

5. 7-7 EVALUATION OF ENERGY REQUIREMENTS

"Alternative #s 1 and 2 require the most energy as compared to other alternatives."

6. 7-8 EVALUATION OF IMPLENTATBILITY

"Implementability refers to the acceptability of the plan with all jurisdictions involved. This also refers to the equitable features of the plan and financial constraints."

"Alternative #1 has the great advantages of a) not requiring the acquisition of land, b) no need for pump stations, and c) no need to hire skilled plant operators; however, Alternative #1 does require a great deal of cooperation between Payson City and Santaquin City in creating a Service District for operation of the treatment facility, and a commitment of resources by Payson City which may be politically insurmountable."

7. 7-9 EXPANDABILITY

Alternative #s 3, 4, and 5 are easily expandable. Larger logons can be built at any time on land; however, with the propensity for people in the area to build homes and plant orchards in nearly every conceivable location, the land needed for expansion may not always be available without excessive cost. Alternative #s 1 and 2 are relatively expensive to expand, but can probably be expanded within the established sites.

8. 7-15 ALTERNATIVE #1 – REGIONALIZATION (CONNECTING TO PAYSON)
Engineers March 6, 1991 estimate of total project cost **$5,297,500**

Proposed alternative Included

- Conventional Gravity Sewer Collection System within City limits.

- Gravity Flow Interceptor to Payson Mechanical Treatment Plant site.
- Buy-in or other arrangement for capacity in Payson Facility.

"The majority of Payson City officials feel that they will need all of their capacity for their own growth, and have therefore informed Santaquin that Payson would not be able to cooperate in a Regional Plan."

Exhibit K: Excerpt from Payson City letter to Santaquin City, dated February 1991.

"Although Payson's sewer treatment plant was designed to serve a population of approximately 20,000 people, actual flow rates through the plant (probably due to ground water infiltration) indicate that the plant will actually serve less than 15,000 people. If Santaquin were to enter our system and then grow to its projected population of 5,000, Payson would be unable to grow beyond its present population of 9,500."

"Our accounting records attach a value of $5,310,00 to our sewer treatment facility. Based on Santaquin's projected flow rate, Santaquin would need to "buy" approximately 17% of Payson's facility as its fair share, which would be approximately $885,000. Additionally, Santaquin would be required to pay a proportionate share of Payson's operating and debt service budget of nearly $600,000 per year. At 17%, Santaquin's annual share would be over $100,000 per year. We estimate that it would cost Santaquin about $2,000,000 to construct approximately 7 miles of trunk line in order to reach our plant. Considering the substantially lower cost of constructing a lagoon system nearer to Santaquin, joining Payson's system seems cost prohibitive to us."

"Given the need that Payson will have for its remaining capacity and the high cost of having Santaquin enter Payson's system, the Payson City Council has instructed me to notify you that Payson City does not feel regionalization with Santaquin is an acceptable alternative. We certainly support the City of Santaquin in its effort to develop a sewer treatment facility, but we would resist the notion of having Payson's facility serve both communities."

City Council Meeting Minutes and points of discussion about Payson treatment option between 1992 and 1993.

Meeting Date	Pertinence of Discussion to Payson Option
January 7, 1992	Council voted unanimously to accept interim financing for design, property acquisition and construction of sewer lagoons
February 4, 1992	City Council approved resolution No. 1992-BR-1 authorizing the issuance and sale of $2,816,200 in Sewer Revenue Bonds for financing of new water treatment system. Farmers submitted letter of protest and asked City to "negotiate, again, with Payson for use of their sewer treatment facility" Mayor Crook read letter from Payson, stating "they did not favor sharing their sewer treatment facility with Santaquin." Bill Fergusen questioned the letter stating he had spoken with some Payson Council-members who were in favor of Santaquin being part of Payson. Consideration of a Resolution No. 1992-1, which would allow Santaquin to acquire property for a lagoon site and easements. Much discussion took place about property acquisition and delays due to uncooperative property owners. "Keith ask the engineer the difference in cost to join Payson's facility. Val [Kofoed, with Sunrise Engineers] replied it would cost Santaquin $720,000 more to use Payson's facility and it would not gravity feed. Keith said two good points – will Payson take us and how do we come up with the extra money. Keith moved to adopt this resolution." Motion failed 2-3.
February 11, 1992	Consideration of a Resolution which would allow Santaquin to acquire property for a lagoon site and easements. "Mayor Crook stated no action would be taken on this issue at this time. He explained he and Mayor Harmer of Payson met with the County Commissioners and agreed to postpone this decision until the February 18th meeting. At this time Mayor Harmer would present an update of the cost for Santaquin to connect with the Payson sewer treatment plant.
February 18, 1992	"Councilmen indicated they did not support the resolution [to acquire property for a lagoon site and easements] at this time as question were raised due to options – connect with Payson or change the lagoon site, also two Councilmen had not toured the Heber Facility. They wanted to once again look at all the options before making such a serious decision." "Mayor Harmer stated Payson had never said, "no" to Santaquin joining their facility. They did question if it was economically feasible to either city. He said a report had been prepared by Perkins-Thurgood Consulting Engineers, Inc. with cooperation from Sunrise Engineers. Mayor Harmer reviewed the report which indicated it would cost Santaquin an additional $1,557,741 to connect with Payson's facility. Bill Thurman, Attorney [representing the lagoon protestors] ask why Mr. Harmer was giving this study instead of Sunrise's study and challenged the report. Mayor Harmer replied this study was prepared by Payson's engineers. Val Kofoed, Sunrise Engineer, stated Sunrise's figures were less but they did coincide. He further stated both studies showed it would not be economically sound for either city to combine their sewer plant."

	"Larry Davis made comments regarding the difficulty projecting growth as a sewer system would impact this. He ask how long before Payson's system would be capacity and how long before the Health Department would stop growth in Santaquin. Mayor Harmer answered that was why they were trying to alow for growth in each city. He predicted growth in the south end of Utah County and stated lack of a sewer system in Santaquin would eliminate their growth." "Mr. Thurman commended Mayor Harmer for taking a long view approach. He stated they wanted Payson, Santaquin and the State of Utah to grow. But not at the expense of fruit growers in Prime agriculture property outside of Santaquin" "Keith ask Mayor Harmer his feelings towards a sewer district. Would Payson Council approve this now? Mayor Harmer answered this would have to be approved by vote of the Payson residents and would also require approval of the Bonding Company. He also stated the plant would have to be moved west as it is in the wrong location for Payson and definitely in the wrong location for Santaquin. Keith stated he would be hesitant to join Payson's Plant and be at the mercy of future Payson Councils. Mayor Harmer stated rates would have to be approved by both cities." After further discussion about proposed lagoons sites west and north of town the City Council unanimously approved Resolution No. C-1992-2 authorizing the acquisition of property for a lagoon site and easements.
May 19, 1992	"Keith reported Sunrise Engineers had designed the sewer system to go to Payson. They reviewed options of Santaquin using this sewer treatment facility and secondary impacts."
May 27, 1992 Public Hearing	Mayor Crook reviewed the entire sewer project including lagoon site options including connecting to Payson's treatment facility.
June 2, 1992	"Keith reported a lagoon site condemnation court hearing was held May 21st. A trial date was set for October 13th. David ask if there was more information on proposal Santaquin connect with Payson's treatment facility. Mayor Crook reported Payson's minutes of April 27th stated Payson would open their books and allow a study, at no expense to Payson, to see if it was feasible for Santaquin to connect with Payson's sewer treatment facility.
July 7, 1992	"Kim West asked the status of the sewer system. Keith replied the courts would hear the issue in October. Kim voiced concerns about the money being spent on litigations and ask if it would cost the tax payers. Keith answered they hope to stay within the budget. Keith asked Kim if the City was out of line. Kim said he wished both parties could be happy and he was confused over the issue. The sewer project was reviewed. Mayor Crook said Keith invited [several farmers] to bring solid evidence the sewer lagoons would do damage to the fruit growers and it would be considered. Mayor Crook further stated all the fruit growers consider is suppositions, concerns and what-ifs. Mayor Crook said the state agencies, funding the sewer project, were behind the project 100%. Mayor Crook reviewed the incurred costs which would have to be paid if the project is dropped. He reviewed Council's efforts and concerns for true

	answers to the project. He said if the court decides against Santaquin, a public meeting will be held for input."
August 18, 1992	Council approved letter presented by Keith to be mailed to City residents. Letter includes the following: "We have carefully considered every option, and feel we only have two options. Option #1 is to place the lagoons north of town on the property of Reed & Ricki Rowley and Dale & Richard Saunders. Option #2 is to tie into Payson's sewer plant." "If the alternative to go to Payson is attractive enough to consider, we will place the decision before the people and allow you to vote on it. As of this date, Payson is really not an option because we have not been given any official information that could be relied upon. We think it would be irresponsible to join something that has no guarantees and where the costs would be beyond our control."
October 6, 1992	Keith presented an update of the sewer project. "Mayor Crook stated on September 22nd he had sent engineering information to Payson and requested a meeting with their Council but no official response had been received. After discussion, Keith moved the Council resolve to encourage a joint meeting with Payson City Officials regarding the potential of connecting to Payson's sewer system. The purpose of the meeting would be to discuss the areas that require agreement for the Project to be feasible. It should be stressed that the matter should be decided on the merits." Motion passed unanimously.
October 20, 1992	Val Kofoed reported that Payson would "act on Santaquin's request, to connect to their sewer system, tomorrow night. A workshop with attorneys, engineers and council was set for October 29, 1992." *(NOTE: No minutes from the referenced workshop could be found in Santaquin records.)*
November 3, 1992	"Council agreed Sunrise proceed on surveying alternatives. Hortt moved to pay Sunrise an hourly rate on the sewer project for the extra work investigating lagoon options. This is over and above contract price. Max seconded, Keith abstained, passed 4-0"
March 17, 1993 Public Hearing	"Mayor Crook reviewed the history of the sewer project stating the original lagoon site was west of town. This was changed to north of town as it would allow a gravity flow system. On December 17, 1991 a protest on the north site location was received from the fruit growers. **A third option, join Payson's facility was pursued for about a year before being ruled out."**

Wastewater Regionalization Feasibility Study for South Utah Valley Municipal Water Association

Prepared by Brown and Caldwell, Sunrise Engineering, Inc. and AQUA Engineering, Inc.
October 2001.

Plan Recommendation: Alternative R-4, Three Regional Treatment Facilities be Constructed. Santaquin would connect into a facility located west of Payson along with Salem, Elk Ridge, Payson, Woodland Hills, and unincorporated Utah County near the area.

I. Projections from study summary:

Year	Population (Actual)	Wastewater Flow (Actual Avg.)
2010	6,328 (9,128)	0.6 MGD (0.5 MGD)
2030	11,430	1.2 MGD
2050	20,643	2.2 MGD

II. Options Considered

1. One Regional Facility for Goshen Valley combined with south Utah County Cities between Santaquin and Springville.
2. Two Regional Facilities: One for Goshen Valley and cities south of Salem, One for Salem and cities northward to Springville.
3. Three Regional Facilities: One for Springville, Spanish Fork, Mapleton and Salem, One for Elk Ridge, Payson, Santaquin and Woodland Hills, One for Goshen Valley.
4. Three Regional Facilities: One for Spanish Fork, Mapleton. One for Salem, Elk Ridge, Payson, Santaquin and Woodland Hills. One for Goshen Valley.
5. Existing systems are upgraded for 2050 projections. (Santaquin needing a mechanical plant for 6.3 mgd flow).

III. Chapter 6: Evaluation of the Existing Treatment Facilities.

Payson – The treatment facility has an average daily design capacity of 3.0 mgd and a peak daily flow capacity of 5.75 mgd. The Payson Wastewater Treatment Facility is projected to be at maximum capacity in approximately the year 2015.

Santaquin – The treatment facility has an average daily design capacity of 0.5 mgd. The Santaquin Wastewater Treatment Facility is projected to reach capacity in approximately the year 2008.

IV. Chapter 8: EVALUATION OF COLLECTOIN AND TREATMENT SYSTEM ALTERNATIVES

Table 8-10. Alternative R-4 Construction Cost Summary, shows construction costs for the regional treatment facility, to which Santaquin would connect, being $60,500,000. This cost is not broken out in a proportionate City amount of responsibility. However, Santaquin would be responsible for 14.5% of the projected flows in 2050, which would logically correspond to the same amount of proportionate cost responsibility. Using anticipated flow

rates for the cities connecting into the system, Santaquin's proportionate amount of the facility construction costs would be $8,772,500.

IV. Table 9-2. Alternative Capital and Annual O&M Cost Comparison

This table shows total regional system cost comparisons between the five options studied. Wastewater treatment costs have been addressed above. Collection system costs are addressed below. Additional costs for consideration include "Contingency, Engineering, Legal, and Admin" estimates. The study is listing a 40% contingency on their estimates and additional $73,800,000 for Engineering, Legal, and Admin. This is the amount for the entire region of which Santaquin would be contributing 4.5% of the overall flow in 2050. This would amount to $3,333,880 of Santaquin responsibility, assuming the amount of regionally proportionate flow would be applied to Santaquin of these professional costs.

IV. Appendix I: ALTERNATIVE R-4 COLLECTION SYSTEM AND ANNUAL O&M COST ESTIMATE DATA

Estimated costs of connecting Santaquin to the treatment plant (i.e. Regional facility) include:

1) Gravity line from Santaquin to pump station near plant.	$6,965,376
2) Pump station north of Santaquin to plant	$2,731,821
3) Force main from pump station north of Santaquin to plant.	$1,902,384
Total collection system delivering Santaquin water to regional facility	$11,599,581

The total anticipated collection system construction cost for the region is $45,300,000

V. TOTAL COLLECTION AND CONSTRUCTION COSTS

Combining the plant construction costs, collection system construction costs, and the estimated professional services, Santaquin would be responsible for **approximately $23,705,961 toward the recommended regional alternative.** The study is clear that cost estimates provided are based on prices and values if the project were constructed in 2000. This does not include the cost of any city system modifications needed for collection or interim treatment.

Santaquin City: Interim Wastewater Treatment Study

Prepared by Epic Engineering
April 2002.

Plan Recommendation: Expand lagoon system to 1.0 mgd to cover growth for 10 years while studying alignments for gravity line to Payson, acquiring land for a 4.0 mgd Santaquin WWTP, and negotiating with Payson for rental or purchase of sewer capacity until Santaquin WWTP is operational.

I. Projections from study summary: Growth rate of 7.5% will continue for next 10 years. The City will need 1.0 mgd facility by 2012.

II. Options Considered for 30 year time frame.

1. Construct a 24" outfall sewer to connect with the Payson sewer system
   Purchase 1.0 mgd capacity in Payson WWTP
   Fund three 1.0 mgd capacity expansions in the Payson or a Regional WWTP
   Total Capital Expenses: $24.2 million + O&M, Debt service, yearly Payson bill.

2. Construct a 24" outfall sewer to connect with the Payson sewer system
   Rent WWTP capacity from Payson for the next 10 years.
   Use existing 0.5 mgd Santaquin lagoon WWTP for the next 15 years
   Fund initial plus three 1.0 mgd capacity expansions to new Santaquin WWTP
   Total Capital Expenses: $29.3 million + O&M, Debt service, yearly Payson bill (10 yrs).

3. Expand existing Santaquin Lagoon WWTP to 0.75 mgd and use for next 5 years.
   Construct a 24" outfall sewer to connect with the Payson sewer system
   Rent WWTP capacity from Payson for the next 10 years.
   Fund initial plus three 1.0 mgd capacity expansions to new Santaquin WWTP.
   Total Capital Expenses: $30.6 million + O&M, Debt service, yearly Payson bill (10 yrs).

4. Expand existing Santaquin Lagoon WWTP to 0.75 mgd and use for next 15 years.
   Construct a 24" outfall sewer to discharge to Spring Creek.
   Fund initial plus three 1.0 mgd capacity expansions to new Santaquin WWTP.
   Total Capital Expenses: $31.1 million + O&M, Debt service.

III. Cost of Outfall lines to Payson.

Tables 10, 11, and 12 of the study show that depending on the course taken for the outfall lines, the cost would range between $2,531,375 and $2,999,300 to get Santaquin water to Payson.

IV. Cost of Buy-in to Payson

The report states that "a delegation of Santaquin City ofricials has met several times with Payson City staff t opursue options for Santaquin to either purchase or rent WWTP capacity

at the Payson WWTP. The discussions have been positive with Payson City indicating a willingness to either sell or rent capacity."

"If Santaquin City wishes to purchase permanent capacity at the Payson WWTP, a "buy-in" cost of $1.60/gallon/day will be assessed to recover sunk costs for existing debt-free treatment infrastructure and facilities at the plant . . . This would amount to $1,600,000."

"In addition, a $20.60/mth/ERU charge would be assessed to pay for plant operation and Maintenance and to pay-off existing debt for the WWTP plant expansion project. Discussions to date have not solidified the basis for the monthly charge. . . in 2002, the monthly fee would be approximately : (5,900 people x 78 gal/person/day divided by 300 gal/ERU/day x $20.60/mth/ERU) $31,600/mth or $379,200 per year. Also the unit cost to treat will likely increase each year to account for O&M inflation trends."

V. Cost of Renting Portion of Payson Facility

"Payson City also offered a rental cost of $12.00/mth/ERU. Renting treatment capacity could have advantages for both communities. Payson City would receive revenue to help pay for temporarily unused capacity. When the capacity is needed for Payson City customer, it would be reclaimed after giving proper notice. For Santaquin City, capacity rental would provide a short term solution (5-10 years) to the current Santaquin WWTP capacity problem and allow the accumulation of more impact fees to support the construction of a new WWTP."

City Council Meeting Minutes and points of discussion about Payson treatment option after short term plan prepared by Epic Engineering.

Meeting Date	Pertinence of Discussion to Payson Option
March 20, 2002	Presentation made by Epic Engineering regarding short term plan. Four alternatives discussed.
May 15, 2002	"Council member Staheli indicated that at the time Epic Engineering made the initial short term sewer presentation, a 2 year time frame was established. At the time the study was completed the time frame of needing additional winter storage was established to be approximately February 2003." Council awarded the contract for the Wastewater Treatment Master Plan to Epic Engineering. Vote was unanimous in favor. "Councilmember Callaway moved to begin expanding the existing sewer lagoons and winter storage ponds to accommodate the projected system capacity of 1.0 mgd. Council member Clayson seconded the motion. Council member Morgan reviewed the sewer options once again. Councilmember Callaway amended the motion to refer to alternative #4 [expand lagoons and construct Santaquin Waste water treatment plant in the future] of the waste water short term study. The vote was unanimous in favor.

Wastewater Treatment Master Plan: Prepared for Santaquin City

Prepared by Epic Engineering P.C.
August 2005.

This plan was requested to address the long term treatment options of the City and in accordance with the Council's decision on May 15, 2002 to expand the lagoons and winter storage as well as begin evaluating mechanical waste water treatment options. No references are made to Payson. The following are recommended implementation elements from this plan.

"Upgrade the lagoons to 0.9 mgd by increasing aeration capacity of the lagoons to match their hydraulic capacity." *(NOTE: The intent of this being to handle capacity needs for 5-7 years while additional impact fees are collected to help pay for the cost of a mechanical plant needed by 2013)*

"The City needs to continue expanding their land application process until such time that land application reuse is no longer required. That time will occur when a new mechanical WWTP goes online that produces a high quality effluent that can be discharged to the Utah Lake drainage. Because of the option to procure farmland for alfalfa crops appears to be difficult and expensive to accomplish, we recommend the City pursue agreements with local farmers of the use of treated effluent from the existing ponds. This modification to reuse should be incorporated int the City's reuse plan on file with the Division of Water Quality."

"The second large phase of planning the City should begin is the design and construction of a new mechanical WWTP that will ultimately replace the existing lagoon system. The mechanical plant should be located on the northern boundary of the City. . . It is estimated that by the time the plant is needed in 2013, TMDLs on Utah Lake will be in effect. During the design and approval process of the new WWTP, the City should conform to those requirements. . . We recommend 30 months as reviews, approvals, easements, and funding processes can easily take longer than anticipated. This means that a new WWTP should be preliminary design by 2011."

"Prior to designing the WWTP the City should acquire land for the WWTP and easement as required for the new influent sewer line to the plant and the discharge line from the plant to Spring Creek."

Wastewater Regionalization Feasibility Study Phase II
(for South Utah Valley Municipal Water Association)

Prepared by AQUA Engineering, Inc.
January 2007.

Plan Recommendation: Aqua Engineers were directed to only evaluate a one regional treatment facility option, but provide information as to how current treatment operations should be handled until the new facility is constructed.

I. Assumptions by AQUA relative to Santaquin Treatment operation costs until regional facility is constructed:

The State will allow use of winter storage ponds as treatment cells.
Santaquin will not continue land application but instead discharge its water to Utah Lake:
Utah Lake will not have TMDLs within 20 years (though their report states that it will occur)

III. Options considered for Santaquin

1. Santaquin constructing a mechanical plant by 2030 instead of participating in a regional plant. (Estimated Cost: $43 million over 25 years for 2.27mgd capacity)
2. Santaquin constructing an interceptor line to Payson WWTP and buying into their treatment plant in 2030. (Estimated Cost: $39.01 million over 25 years for 2.27 mgd capacity)
3. Santaquin upgrading lagoons and sending water to regional treatment plant in 2030. (Estimated Cost: $35.5 million over 25 years for 2.27 mgd capacity)

IV. Cost of Interceptor line from Santaquin to Payson WWTP

Appendix 2A provides a cost estimate of $7,395,441 to run a 24-inch pipe to Payson.

V. Cost of Upgrading Payson to Handle Santaquin Water

The capacity of the Payson WWTP is 3.0 MGD. Santaquin is averaging over 0.5 mgd now with some days exceeding 0.6 mgd in recent months. Adding another 0.6 mgd to the facility would require an "increase to the primary pump station capacity, adding a new primary clarifier plus adding a new final clarifier and increasing final filtering capacity. The estimated cost is $2,100,000"pg. 28

The plan also uses a value of $4 per gallon buy-in cost to Payson in 2030. This would currently be $2,000,000.

Impact fees are not addressed in this study.

VI. Cost of Upgrading Payson to Handle Utah Lake TMDLs

"It would cost approximately $6.0 million to upgrade Payson's treatment process to comply with the possible phosphorus TMDL limit."pg. 45. Santaquin would be contributing around

24% of the flow to the facility, which would like result in 24% of the cost to upgrade being passed onto Santaquin residents. This would roughly add $1.44 million to Santaquin.

VII. TOTAL COLLECTION AND CONSTRUCTION COSTS

Combining the above costs for results in an estimated cost of $9.935 million without paying for Utah Lake TMDL upgrades or additional plant capacity. If those two items are included the amount would be **approximately $13.5 million.** This figure also does not include any upgrades or modifications to the Santaquin system needed to direct flows to Payson (e.g. the planned interceptor line is drawn from the 420 west lift station, which only receives 60% of Santaquin's waste water. Additional connections and piping will be necessary to send all water to Payson).

City Council Meeting Minutes and points of discussion about Regional Treatment plan treatment option between 2006 and 2007.

Meeting Date	Pertinence of Discussion to Payson Option
January 18, 2006	"Council member Adcock indicated he had attended a SUVMWA Meeting. He indicated there were a variety of issues discussed therefore he drafted an information sheet. He reported that Goshen and Genola are not participating in the Regional Sewer Plan."
July 19, 2006	"Council member Adcock requested direction as to the Regional Wastewater Facility issue. He was told that Mayor DeGraffenried will be meeting with the South County Mayors group next month to discuss this issue.
October 18, 2006	"Arthur Adcock said he had attended a recent SUMWA conference. Of the 10 cities in the organization, representatives from only 3 cities showed up. Five are needed for any official actions. A resolution for a mutually funded regional waste water treatment facility was discussed, and Mr. Adcock was asked to submit the idea to the Mayor and City Manager. Mayor DeGraffenried said it would cost about $22 million to connect to a regional facility, and he would prefer to use the funds to build a Santaquin facility."
November 15, 2006	"Council member Adcock reported he attended the SUVMWA meeting and questioned if the Mayor and Council would like him to disclose that the City isn't in favor of supporting the Regional Sewer Project. He was told that the Council Members were not in favor of participating."
December 6, 2006	"Council Member Adcock indicated it was his understanding that when he attended the SUVMWA Meeting he was to report that the City would not be participating in the Regional Sewer Project."
December 20, 2006	"Council Member Adcock reported SUVMWA is going forward with the research and development of a Regional Sewer System. He reported they had asked for volunteers to work on a land issue committee.
March 7, 2007	"Council member Adcock reported he would be attending the SUVMWA meeting on Thursday evening. He will once again let SUVMWA know the city is not interested in the Central Waste Water Proposal. He will report any pertinent information at the next Council meeting.

Santaquin City Preliminary Engineering Report
per USDA-Rural Development Requirements

Prepared by JUB Engineers, Inc.
November 2009

Plan Recommendation: Maintain 0.5 mgd capacity of lagoons and construct new MBR - WWTP near north boundary of City to reuse water.

I. Assumptions by JUB relative to Connecting to Payson.

- A 3.9% inflation rate was applied to costs more than 10 years out.
- Payson will have to upgrade their plant to meet TMDLs at least 10 years from present.
- Santaquin will have to pay $500 per ERU to "buy-in" to the system and each connection afterwards will pay about $2,590 in impact fees to Payson.
- O&M Costs to be paid to Payson will be around $24/month/ERU

II. Options considered within study.

2. Expand lagoons and land application at current site.
3. Expand lagoons and land application in Genola
4. Expand lagoons and discharge to Utah Lake
5. Connect to Payson Wastewater Treatment Plant
6. Build new MBR-WWTP near north boundary of City
7. Build new MBR-WWTP on current lagoon site.
8. Connect to regional facility after discharging to Utah Lake
9. Connect to regional facility after connecting to Payson

III. Total Cost of Construction and non-construction related items to Payson

This is estimated at $12,260,000 and includes connection of sewer lagoon influent down to 420 west lift station, interceptor line to Payson, other required flow connections within Santaquin system, and buy-in costs to Payson. Future impact fees and system upgrades needed to Payson are estimated to equal an additional $7.97 million through 2030.