

ELK RIDGE
PLANNING COMMISSION
AUGUST 5, 2021

TIME AND PLACE OF MEETING

A meeting of the Elk Ridge Planning Commission was held on Thursday August 5, 2021 at 7:00 p.m.

ROLL CALL

Commissioners: Darren Hinton, Matthew Stewart, Gordon Reynolds, Maureen Bushman, Jared Case
Others: Laura Oliver, *Deputy Recorder*, Jared Peterson, *City Council*, Mayor Ellis
Public: Debbie Currie, Rebecca Davenport, Terry Martens, Dale Hoskisson, Richard Barton, Deanna Leahy, Jaxon Mehlhoff, Rob Warcup, Karla Munson, Chris Butterfield, Tori Black, Terri Ashmead, Mark Davenport

OPENING ITEMS

Darrin Hinton welcomed. Opening remarks were said by Maureen Bushman. Darren Hinton led the Pledge.

MAUREEN BUSHMAN MOTIONED TO APPROVE THE AGENDA JARED CASE SECONDED
VOTE AYE (5) NAY (0) APPROVED

PUBLIC HEARINGS

1. **ZONE CHANGE PROPOSAL OF PARCELS 30:078:0284, 30:078:0290 AND 30:078:0207 AND FROM HILLSIDE RESIDENTIAL TO R1-15,000 (FAIRWAY DR)**

Darren Hinton opened the public hearing

Richard Barton stated that he is the owner or soon to be owner of some of the property. He wants to change the parcels on the cul-de-sac to R1-15,000 and keep the 4 acres as Hillside Residential as 1 lot.

Deanna Leahy asked for clarification that the large lot #4 is just for 1 home and her concern is when existing homeowners who purchased property, they expect the zones to stay the same and hopes the commission will deny the rezone.

Jackson Mehlhoff stated they own they property just east of Richard Barton's property and asks the city to allow them access to their property as it will landlock the property.

Chris Butterfield wants the city to keep considering the infrastructure, traffic etc. through all the developments.

Tori Black wanted to comment on the Highlands Subdivision and wants clarification on why the council sent back the Highland subdivision to planning commission.

Darren Hinton stated that subdivision is on the agenda for the Planning Commission to discuss, but that item is not open for public comment. Please reach out to the city council.

Karla Munson stated she bought property on Fairway when it was 1/3 acre and through a zone change was changed to 1/2 acre making it useless to her.

Mark Davenport stated where the Mehlhoff and Barton's property meet is a drainage area and is concerned as to what the city is going to do with this area.

2. **AMBLEVIEW ESTATES SUBDIVISION PRELIMINARY PLAT**

Terry Martins stated he heard that there are going to be homes that are \$600,000 to \$1 million dollar homes there and is concerned about the small lots. Also is concerned that there is only a C1 zone and what is allowed in this commercial zone. If the city doesn't have anything regarding commercial, then the developer is free to do what they want. How can the city approve commercial property it is not known what is going to go in there.

Darren Hinton closed public hearing and turned the time over to Shay Stark, city planner.

Shay Stark stated as it stands Richard Barton could makes 5 lots on the existing property without any rezone. In looking at the zones surrounding this property on the cul-de-sac are R1-15,000. Having the 4 acres remain Hillside Residential and on the cul-de-sac only makes it possible to have 1 home on lot #4 which protects the environment and hillside.

Ambleview Estates is in the R1-12 zone which is the same zoning surrounding it and has commercial zoning on the corner. The state is planning 11200 to become a main artery in the future putting this property in a unique place. The cul-de-sac next to the commercial property could be shorted or removed depending what the city decides how large or small the commercial area should be. The city had been working on strengthening the commercial code but it has not been finalized.

PLANNING COMMISSION ACTION ITEMS

1. US GEOLOGICAL SURVEY REGARDING AQUIFER; GORDON REYNOLDS

Gordon Reynolds stated his main issues he has with the growth that the city has goes back to capital facilities. The city has redundancy in the wells, but he is concerned in the source of the water for the wells and the storage of water. Public works stated that the city storage tanks are being drained on a nightly basis of 2,000,000 gallons nightly. He reached out to the state and spoke with Michael Newberry who is the Section Manager for the Utah Department of Environmental Quality for the Division of Drinking Water. He asked Michael about the aquifer and capacity to handle the proposed subdivision east of Sage Lane. Michael's response was "The ability for Elk Ridge City water system to absorb a potential increase in residential connections, utilizing the existing active four wells according to the recent 2020 sanitary survey conducted, the systems ability to serve the current number of residential connections is adequate in both source and storage capacity. It appears adding to the existing connections could be an option but that is entirely up to the water systems." Gordon stated he thought the more urgent question is in regard to the aquifer itself. Elk Ridge City Councilmembers say that there is redundancy in wells, but there is 2,000,000 gallons drained on a daily basis, the question is can the aquifer sustain the current and projected growth without being drained faster than can be replenished. This is speaking not of the storage capacity but of the aquifer itself. Gordon stated, in his opinion "recharge" is one of the critical elements in the aquifer question. The formula used to calculate how the recharge for the aquifer is "the applied surface water plus applied ground water plus winter precipitation times filtration coefficient minus consumptive use". Tom Marston the USGS Hydrologist, Studies Supervisor gave Gordon a study from the US Geological Survey "Evaluation of Ground Water flow model for Southern Utah and Goshen Valleys Utah Updated to conditions through 2012 updated and filed in 2013. The study states recharge from participation on undeveloped land was assumed to be 10 % of annual precipitation near the mountains in southern Utah valley; our area specifically. Ground water level is as much as 400 feet below the stream or canal. Tom Marston stated when the Highline Canal, near Elk Ridge is lined, the aquifer will lose a major recharging system to the aquifer and recommended to Gordon to fight the lining of the canal with everything they can. Gordon stated 30% of the canal water that comes out of the Strawberry system that goes through the canal goes back in the ground. This is a major recharging area for the aquifer. Elk Ridge uses 2 aquifers, the canal affects the main well down near 11200 South. The report also stated recharge from canals simulate with the recharge package, was constant during the transient simulation. Canals are steady suppliers to the aquifer. Recharge from West Ditch, Summit Creek, and ephemeral streams varied annually on the basis of the natural flow in the Spanish Fork River near Castillo. The Geological survey form 2013 (mentioned above) states "When it comes to our streams and such it comes from the Spanish Fork River drainage. Projected increase through the year 2050, for the projections with the increased withdrawals; municipal withdrawals are increased a total of 55,000 acre feet a year by 2050. Tom Marston stated the transmissivity values in the 2 Elk Ridge aquifers are quiet low which is a bad thing, the aquifer takes longer to recharge but the water budget and system were in a good position. The state engineer said that Elk Ridge is banking water rights. Gordon asked Tom for a simple synopsis, in layman's terms, of the updated study completed in 2020. Tom Marston stated "The hydrology and simulation of ground water flow in southern Utah and Goshen Valley Utah originally done in 1995 the result of calibrating the model yielded 1 foot a day value for hydraulic conductivity for much of the

area round Elk Ridge. Gordon stated this means that 1 foot of the level of the aquifer could transfer between the aquifers. The report continued stating this reflects relatively lower estimated transmissivity values calculated from driller logs in near by wells. A follow up in effort to update the model produced in 1995 was published in 2013. Most of the pumping recharge scenarios yielded significant ground water drawdown in the Elk Ridge area, with some scenarios yielding drawdowns of more than 100 feet over 40 years. The areas with the greatest predicted drawdown coincide with the areas in the model that have low hydraulic conductivity, (which is Elk Ridge 2 aquifers) and are in proximity to significant ground water pumping. Gordon stated the aquifer has dropped 100 feet in 40 years. It is his understanding the city's wells are quite deep 250 – 500 feet. The report continued “any potential future examination of ground water in Elk Ridge would benefit use of the larger scale model to assist in refining the amount of recharge that is locally transmitted by the mountain block east of Elk Ridge. Gordon stated that mountains are where we get most of our recharge and that includes the canal, streams and the fault line in the city limits, which are major recharging sources for the aquifer. Obviously, growth has become exponential down here, not just Elk Ridge but south county. As Gordon learned through his day job, the estimated population is supposed to double by 2030 which is coming fast and furious. Again, with all this development when the city increases density, his main concern is obviously water, traffic and infrastructure. He hopes that this helps with the understanding of the aquifers which is the water source for Elk Ridge. He is not concerned with the pumping abilities, they are good, but immediate need is to address storage capacity because if the city starts adding 150 homes in a years' time the shower is just going to drip. He would be happy to answer any questions after the meeting. Thank you.

Shay Stark appreciated the research Gordon has done and using valid sources. He is the city planner who works closely with the city engineer. His office has 67 other people who live and breathe water resources of both clean and dirty water. They also work with Geohydrologists who do exactly what is in the report Gordon presented. He went through the different aquifers, wells and tanks the city utilizes on the white board. The first aquifer is the ancient Bonneville lakebed, which extends to the mountains The transmissivity is very high at like 81. Elk Ridge is at 1 which means water at the aquifer flows. It is not water as in an open lake; it full of silt, rock, gravel, sand, bedrock, any number of things. The Cloward well is over 900 feet deep. At the time this was drilled in 1979 and redrilled in 2002, the water level was essentially 280 feet down from where the city drilled. And the city is 600 feet deeper than that and the well is producing at about 400 – 500 feet down. In a given year there is a difference of 30 feet and then it goes back up. The city uses the Loafer Canyon well because it is gravity flow. This well isn't as deep and it takes less energy. In the wintertime the city uses the Loafer Canyon well exclusively. When no one is watering their lawn, this is the only well that is needed. The Loafer well yields 450 gallons a minute and the Cloward and Skyhawk wells yield about 1000 gallons a minute. It takes twice as much water just to water lawns as it does to take care of the inside home use. When you water a third acre lot you use about 6000 gallons in one watering. If 1000 households all water the lawn at the same time, the same day, that's a lot of water leaving storage. Storage is always an issue and a concern. Based on the water rights and the pumping abilities of the Sky Hawk and Cloward well in this aquifer because of the depth of the wells. The question is all the cities here are building, and really it is a statewide issue, that the drawdowns are pretty consistent all along the Wasatch Front. This needs to be a wakeup call that we need to conserve water, the lawns need to go or greatly reduced. Also, all communities need to get behind recharge. The Highline canal is going to get piped which will lose 30% of that water which needs to go into the ground. This recharge does not affect Elk Ridge, but it does affect residential wells that are only 100-200 feet down. All water people recognized there was going to be problems and many years ago to bring water into south Utah county they formed SUVMWA which bring water rights out of the Uintah basin through Strawberry Reservoir for communities to buy the SUVMWA water and those water rights would be used for aquifer recharge. How they would help with recharge is still being worked on and with the last few years of drought everybody has become more cognizant of what is going on. One more point is the Loafer well is in a different aquifer. There

is a zone of bedrock where the water percolates and then goes into the aquifer. It does continue towards Payson, but it does not go straight into the other aquifer. But this is ultimately a guess because no one can see into the ground. With the Loafer well we do see seasonal drawdowns, the drawdown is greater when its used. In a wet year it is higher producing, and the drawdown is less. As the report says the mountains, which have a lot of land area, even when there is not a lot of snow the snow does produce a lot of water and the aquifer does get a lot of water and that's why the Loafer well has never gone dry or close to it. The most important thing the city and all of us can do is to conserve. It is a regional issue, not just an Elk Ridge issue and everyone on the Wasatch Front needs to do their part to conserve.

There is state law and there is administrative code which is also law. Most people don't bother or know to look there. This was created for the operation of different agencies within the state and how they are to operate daily. In that administrative code are the sections on water resources, design of water systems, and design of wastewater systems. Those codes have tables for how much water it takes to water things such as alfalfa, grass, etc. and how much an average household uses. In the Elk Ridge city code, there is a formula on how much water a developer has to bring in which is what the state directed the cities to do. The state, in last 3 years, mandated cities to go to a tier rate in order to promote conservation due to the higher cost of water. Also, the state mandated certification of the water system in order to prove enough capacity to handle growth. If a 100-lot subdivision is approved, it usually comes in phases. It seems like absolutely insane development everywhere and generally it is metered out. Across the state the building permits are 50,000 a year short to handle the growth. Elk Ridge and every city had to turn in the data of for how much water was used in the last 3 years. This data was plugged into a spread sheet which told us how much well capacity the city needed to have, storage capacity the city needed and how much capacity was needed is the water system. Elk Ridge has received certification from the state, which Gordon stated Mike Marston referred to when he said Elk Ridge had adequate capacity. In the certification Elk Ridge actually has extra capacity in pumping storage and distribution. Mayor Ellis has been putting together a computer program he built in order to understand what is going on with the water at a deeper understanding. In the older areas of town where landscaping is established there is 1.5 acre feet of water per household yearly, which is average. The newer subdivisions which are putting in new lots, climb a lot for 2-3 years and then drops off after about 5 years and it goes down and matches the older established area. All the data shows us the city is where it needs to be from an operation perspective. Knowing that the city is in the middle of updating the capital facilities plan. With the information the mayor has pulled together and also being able to look at real time data this will all be taken into account and the city will be looking at additional storage capacity. Ultimately the city will be built out and we need to make sure that the city has everything it needs.

Mayor Ellis stated that last year the city asked everyone to water their lawns according to the house number. During that time there was not a large fluctuation of the tank levels and it became a good pattern. It went down but not near as far as when everyone waters on the same day and time. If you have a 15-20-foot tank and if that tank draws down to 7-8 feet David Jean is panicking and the tank is dry even though there is 7- 8 feet. The city never lets the tanks go dry. That causes all kinds of state grief and auditors. During the time when it was the heaviest watering a sensor was out. David had to turn this sensor on and off manually. He had to do this first thing in the morning instead of it turning on automatically when it was needed which made deeper dives. Since then, the city went to watering according to house number and conservation and it's leveled off. The tanks are not literally going dry, that is not what David meant.

Shay Stark stated David is not going to let the tank go anywhere near dry for 2 major reasons 1) fire flow which is also factored into by the state and 2) the possibility of bacteria growth. It just can't be filled up and proceed as normal. It must be cleaned flushed and tested to makes sure it meets minimum levels to go back online.

Gordon Reynolds, asked if we can summarize by saying the city is fine? For our absolute needs, however, we need a paradigm shift not only as a community but as a state, a western state. We don't need golf course lawns and we need to learn to conserve water.

Shay Stark Yes. Let me pick on the project that is a rezone tonight. Personally, in looking at this the best solution any community can make is to cluster the housing with smaller lots and allow more of the area to remain natural. Up in the foothills there is brush and that would remain natural but down on the flats it's a whole other story, but natural areas use less water.

Gordon Reynolds Why, if there is 60 acres to develop, why do all 60 acres need to be developed. We have to be more conscientious in building in the open space.

Shay Stark it is a challenge, and every situation has to be taken case by case. It is not a one size fits all with development. The lower aquifer is being utilized by everyone around the Utah Lake and any problems there would impact everyone. The population growth has historically been from within, but it has shifted to more growth coming from outside the state. We cannot tell people sorry we are done and not to come, it would kill the economy. The reason our economy made it through 2008-2009, in comparing Utah with most of the states, Utah was relatively unscathed due to the young, educated population and we continued to grow. Other states did not have continuing growth. To stay healthy the state needs to continue to grow. He has worked with Elk Ridge since 2010 and the company had before that. Elk Ridge realized before most cities how much water it takes to water and keep soccer fields green. The city pays for the metered water and is trying to have a responsible take on this and find ways to conserve. This was started before the tiered grades for water came in. Shay has a meter reader at his home and was shocked how much water he used on just his yard.

2. **ZONE CHANGE PROPOSAL OF PARCELS 30:078:0284, 30:078:0290 AND 30:078:0207 FROM HILLSIDE RESIDENTIAL TO R1-15,000 (FAIRWAY DR)**

Jared Case wondered why the lot lines couldn't be redrawn to make the lots bigger and move the circle up so the landlocked area is accessible. Matthew Stewart stated there is a big drop off behind the homes (on Magellan) and they have large retaining walls. And at the bottom of that hill is a 15-foot drainage area, and it is not feasible to move the road over there. Maureen Bushman stated the lots are 1/3 acre, but they are zoned in a HR why are they 1/3 acres. Shay Stark stated these are parcels and have not become a lot because they have not gone through the subdivision process. These parcels were involved in 2 subdivisions that did not occur due to the slopes of the land. If these were lots, then they would have gone through a subdivision process and they would be buildable lots. Shay Stark stated that the presented plan fits well with the topography. Discussion ensued on future development on the 4 acres if they could get access into it. Richard Barton stated the city could put something in the development agreement that the land could not be further subdivided. Darren Hinton reminded everyone that this is a zone change and not a preliminary plat and when that come forward that is when access will be discussed. Gordon Reynolds stated he would like to see when the zone change happened previously, what changes are being made, what precedents is the city making and the impact a decision on a small parcel like this has on larger parcels; if a precedents is set then does the city have to do the same thing for everyone else to be fair and equitable, is it responsible use of zoning laws. Darren Hinton stated he recognizes the need to stick to the General Plan, but the city has people it's dealing with too and the plan has to be flexible. Gordon Reynolds stated that is why the city has to make decisions based on each individual instance. Shay Stark stated any motion should contain the language that the zone would revert if the development did not occur.

GORDON REYNOLDS MOTIONED TO TABLE THE DECISION UNTIL NEXT MEETING TO FIND INFORMATION ON WHEN THE ZONING WAS CHANGED AND WHAT KIND

OF PRECEDENCE WOULD HAVE BEEN SET THEN AND WHAT PRECEDENCE
WOULD BE SET NOW MAUREEN BUSHMAN SECONDED

VOTE AYE(2) NAY (3) MOTION NOT APPROVED
Nay Jared Case, Darren Hinton, Matt Stewart

JARED CASE MOTIONED TO RECOMMEND THE REZONE WITH THE CONDITION
THAT THE 4.11 ACRES NOT BE ABLE TO BE SUBDIVIDED AFTER THE FACT AND IF
THE DEVELOPMETN FAILS THE ZONE CHANGE REVERTS BACK TO THE
CURRENT ZONING MATTEW STEWART SECONDED

VOTE AYE (3) NAY(2) APPROVED
Nay- Gordon Reynolds, Maureen Bushman

3. **AMBLEVIEW ESTATES SUBDIVISION PRELIMINARY PLAT**

Darren Hinton stated this is the preliminary plat. Maureen Bushman asked for confirmation that
the cul-de-sacs and lots were to code. Jared Case stated the annexation was approved for 12,000
sq ft lots and isn't concerned with the smaller lots because it uses less water but would like to
know if there is a height limit on building. It was confirmed that height restriction is 35 feet.
Shay Stark stated the city is waiting on the latest drawing but the lay out has not changed except
for adding a trail from the cul-de-sac to Elk Ridge Dr which will also be a utility easement for
the water pipeline, but the change is slight. He recommended the plat go to Public Hearing
because the plat is valid with but the one small change, it is the commissions choice whether to
recommend it with the contingency. Jared Case does not have a problem with approving the plat
contingency because that item is a convenience to the city. Darren Hinton asked Shay about
storm water. Shay Stark stated the plan calls for sumps. The city sits on a lot of gravel which
works well with sumps.

JARED CASE MOTIONED TO RECOMMEND TO THE COUNCIL THE PRELIMINARY
PLAT WITH THE CONTIGENCY OF THE TRAIL FROM THE CUL-DE-SAC TO ELK
RIDGE DR MAUREEN BUSHMAN SECONDED

VOTE AYE(5) NAY(0) APPROVED

4. **ZONE CHANGE PROPOSAL OF PARCELS 30:074:0014, 30:076:0011 AND 30:074:0040
FROM R&L 20,000 TO R1-15,000 (LOAFER CANYON)**

Gordon Reynolds stated he requested the council send it back to Planning Commission because
he felt that there wasn't enough information to make a decision. Gordon Reynolds stated that the
general plan calls for approximately 91 lots but the early plans had approximately 114 lots. Dan
Ford, the developer, clarified that there were initially more lots, but the plans have since come in
line with the general plan. This is a zone change and not a preliminary plat. The city has a
zoning map that states what the zone is and how many lots are expected based on an assumed
density. What the develop is proposing is to give the city the land along the wash which could
be used to offset the debris flow and flooding issues along long Loafer Canyon. It could be used
for parks but he thinks it needs stay just drainage. The city doesn't own any property along
Loafer Canyon Road. When the city tried to get help through NRCS and the county, the city
couldn't get a consensus from the residents along Loafer Canyon Dr. The more he studies the
plat the more he likes it. He is a river engineer, and he really likes the drainage and he really
likes the ingresses and egress added to the city. It takes all the traffic off Loafer Canyon and
improves the whole transportation plan for the city. The difference in lots between and R1-
20,000 and R1-15,000 is about 6 lots. It seems a fair trade in his opinion. He went through all
the concerns that have been voiced via through email Facebook etc. and they are all valid, but
they are problems that already existed in the city and not one that can be rectified by the
developer. The fervor and frustration is because people don't understand the engineering that

has gone into the city sewer, roads, water transportation and drainage. No one has brought up sewer and that is probably possibly the biggest constraint the city has. There are a lot of things going on behind the scenes that people don't know about. Jared Case stated that it already had a road in the general plan. Matthew Stewart stated the difference is the road originally connected to Goosenest Dr. Shay Stark stated that the transportation plan was modified to include another egress. The city tried to get a grant to put in a road but was unsuccessful. The road will be paid for by the development and not the city and all that is needed is a small section at the top where it would connect to Sunset Dr. A person has a right to come in and ask for a zone change for their property, and it would not be considered an exception, but the general plan would need to be amended and the subdivision will need to do an amendment to the general Plan upon final approval of the subdivision. This subdivision is asking for a zone change that fits with the neighboring developments. Because you approve something for one development does not mean you have to approve it another. Gordon Reynolds stated the general plan was written with the vision for this community in mind quite a long time ago, out of respect for the general plan and the long-term residents; just to go changing things on a whim he struggles with. He is feeling a lot better about the development with the recent discussion since they are not changing the amount of lots from the general plan but is still greatly worried about what's going to happen transportation wise with Loafer Canyon and 11200. Having the road going down through the development as a collector road with no driveways coming off if it is a fantastic idea. There are just so many places traffic goes once it leaves Elk Ridge but those are county roads which is a challenge.

JARED CASE MOTIONED TO RECOMMEND THIS WITH THE SAME CONDITIONS AS LAST TIME, THAT IT REVERT BACK TO R&L-20,000 IF THE SUBDIVISION DOES NOT GO THROUGH TO FINAL APPROVAL TIME MAUREEN BUSHMAN SECONDED.

VOTE AYE (5) NAY(0) APPROVED

5. **LIGHTHOUSE ESTATES SUBDIVISION FINAL PLAT**

Darren Hinton stated this is final plat. Discussion ensued on the landlocked property behind the subdivision which is between landowners plus the area is mostly not buildable due to the gas line and the slopes. Nate Brusik went through the upgrades they are going to do with the storm water retention ponds.

MATTHEW STEWART MOTIONED TO RECOMMEND THE LIGHTHOUSE SUBDIVISION FINAL PLAT MAUREEN BUSHMAND SECONDED.

VOTE AYE (5) NAY(0) APPROVE

ADJOURNMENT – Matthew Stewart motioned to adjourn Gordon Reynolds seconded

VOTE AYE (5) NAY (0) APPROVED

Planning Commission Coordinator